MiCONTACT CENTER BUSINESS ONLINE HELP (MiVB)

Release 9.3.2

Online Help

Mitel®

Notice

The information contained in this document is believed to be accurate in all respects but is not warranted by **Mitel Networks™ Corporation (MITEL®)**. The information is subject to change without notice and should not be construed in any way as a commitment by Mitel or any of its affiliates or subsidiaries. Mitel and its affiliates and subsidiaries assume no responsibility for any errors or omissions in this document. Revisions of this document or new editions of it may be issued to incorporate such changes.No part of this document can be reproduced or transmitted in any form or by any means - electronic or mechanical - for any purpose without written permission from Mitel Networks Corporation.

Trademarks

The trademarks, service marks, logos and graphics (collectively “Trademarks”) appearing on Mitel's Internet sites or in its publications are registered and unregistered trademarks of Mitel Networks Corporation (MNC) or its subsidiaries (collectively "Mitel") or others. Use of the Trademarks is prohibited without the express consent from Mitel. Please contact our legal department at legal@mitel.com for additional information. For a list of the worldwide Mitel Networks Corporation registered trademarks, please refer to the website: http://www.mitel.com/trademarks.

MiContact Center Business - Online Help
Release 9.3.2
April 2021
Document version 9.3.2

,™ Trademark of Mitel Networks Corporation
© Copyright 2021, Mitel Networks Corporation
All rights reserved

Contents

Chapter: 1 **Welcome 1**

Chapter: 2 **Getting Started 2**

Setting up user preferences 2
- Specifying your language preference 2
- Changing your password 2
- Viewing security role properties 3
- Configuring email contacts 3
  - Adding email contacts 3
  - Adding contact groups 3
  - Adding email contacts to contact groups 4

Chapter: 3 **MiContact Center Business 5**

Contact Center and Workgroup 5
Licensing 6
Troubleshooting assistance 6

Chapter: 4 **Contact Center Call Accounting Concepts 7**

Automatic Call Distribution (ACD) 8
- Understanding ACD call flow 8
  - Monitoring the call flow process 9
  - Ensuring traffic-carrying efficiency 9
  - Scheduling to optimize call flow 9
  - Routing calls 9
  - Dialing an agent's extension 10
  - Dialing a queue 10
  - Overflowing calls 10
  - Interflowing calls 11

Ring Groups 11
The inbound call environment 12

Chapter: 5 **Contact Center Planning and Management 13**

Step #1 Establish a corporate service objective 15
Understanding the Service Level 15
Understanding why the Service Level is the most meaningful statistic 16
Choosing a Service Level goal 17
Understanding Quality of Service 17
Monitoring call handling techniques 17
Monitoring systems and tools 18
Automating help desk workflow 20
Step #2 Collect data 20
Collecting data on call handling 20
Step #3 Forecast the Call Load 21
Forecasting accurately 21
Conducting forecasts 21
Step #4 Calculate the resources required 22
Predicting agent requirements 22
Understanding Erlang C 22
Considerations when predicting resource requirements 23
Performing 'what-if' scenarios 23
Understanding the relationship between agents and trunks . . .24
Understanding Erlang B 24
Predicting trunk requirements 25
Step #5 Schedule agents 26
Understanding the Shrinkage Factor 26
Calculating the Shrinkage Factor 27
Optimizing schedules 27
Routing calls to optimize coverage 28
Scheduling considerations 29
Step #6 Determine contact center costs 29
Breaking down expenses 30
Anticipating growth 30

Chapter: 6 **Enterprise Server installation and upgrades 31**

Handling Enterprise Server installation 31
Preparing the server before installation 32
Installing the Server components 35
Installing the Server components 36
MiContact Center Business product registration 40
Registering your software 40
Migrating, activating, or updating to current version license files 41
Installing MiContact Center Business Version 9.3 42
Offline Installation 42
Online Installation 43
Installing MiContact Center Business using the MiCC Setup wizard 43
Modifying Enterprise Server installed components and features 45

Changing the default administrator password 46
Enterprise Server upgrades 46
Before upgrading to the latest Version of MiContact Center Business 46
Backing up the YourSite database and phone data 48
Turning off automatic updates to client computers and remote servers 48
Upgrading to MiContact Center Business current version 49
Restoring telephone system and configuration data 50
Turning on automatic updates to client computers and remote servers 50
Uninstalling Enterprise Server software 51

Chapter: 7 Configuration 52

YourSite Explorer 52
Starting YourSite Explorer 53
YourSite Explorer Start Page 53
Configuring the YourSite Explorer Start Page 53
Searching 54
Paging 54
Filtering 54
Customizing the user interface 55
Minimizing aspects of the user interface 55
Changing the order of the columns 55
Changing column options 55
Duplicating devices in YourSite Explorer 56
Making multiple changes 57
Changing the YourSite Explorer view 57
Posting feedback and viewing our forums 57
Setting up your Enterprise 58
Configuring enterprise settings 59
Configuring the Enterprise Server settings 59
Changing the global system language 59
Configuring enterprise maintenance functions 60
Configuring email settings 61
Adding sites 61
Adding mail servers 62
Configuring SMTP connections to MiContact Center Business . 62
Adding media servers 64
Adding 3300 ICP media servers 65
Managing historical media servers 73
Deleting media servers 74
Configuring the YourSite database 75
Determining which devices to configure 75
Choosing the employee configuration method 76
Recommended configuration scenario 76
Multiple voice agents for individual employees configuration scenario

(not recommended) 76
YourSite database configuration methods 77
Configuring the YourSite database using synchronization 77
Preparing for Synchronization 78
Specifying synchronization settings 79
Performing Synchronization 80
Ring Group synchronization 82
Scheduling synchronization during the nightly maintenance routine 82
Editing telephone system assignment forms in YourSite Explorer 82
Editing System Options 83
Editing SMDR Options 83
Editing Class of Service options 84
Editing Class of Restriction options 84
Adding resilient and/or Network ACD hot desking agents 84
Invalid ACD cluster programming 85
Running Active Directory synchronization 85
Configuring devices and device groups using Quick Setup 86
Extension Quick Setup 86
Trunk Quick Setup 87
Trunk group Quick Setup 87
DNIS Quick Setup 88
Account Code Quick Setup 88
Make Busy Reason Codes Quick Setup 88
Team Quick Setup 89
Device group Quick Setup 89
Configuring devices using .csv files 89
Importing a range of devices using a .csv file 90
Fields required for successful .csv imports 91
Configuring devices manually 94
Adding employees 95
Adding employee groups 105
Adding employee divisions 105
Adding agents 106
Enabling external hot desk agents 107
Adding agent groups 108
Adding teams 112
Adding queues 112
Adding queue groups 126
Adding extensions 129
Adding extension groups 132
Adding trunks 132
Adding trunk groups 132
Adding DNIS 133
Adding DNIS groups 134
Adding Account Codes 134
Adding Account Code groups 135

Adding Account Code categories 136
Defining ANI data 136
Adding Make Busy Reason Codes 137
Adding Do Not Disturb (DND) Reason Codes 138
Adding phone numbers 139
Adding phone number groups 140
Configuring business hour schedules 140
Creating and modifying schedules 141
Managing schedule exclusion lists 142
Applying schedules 143
Monitoring and alarming subsystem 144
Validating configuration and clearing alarms 146
Configuring security settings 147
Creating and applying security roles 148
Creating security lists 148
Configuring security roles 149
Viewing your security role properties 152
Assigning security roles to employees 152
Interactive Visual Queue 153
Configuring Interactive Visual Queue 153
Configuring Workforce Scheduling 154
Before configuring Workforce Scheduling 154
Enabling remote SQL Server connections 154
Granting SQL Server permissions 155
Configuring employee scheduling preferences 155
Configuring schedule options 159
Configuring Work Timer 162
Preparing media server agent timeout options for MiVoice Business 163
Configuring Contact Center Screen Pop 163
Enabling and disabling Contact Center Screen Pop 164
Configuring Contact Center Screen Pop options 164
Configuring Contact Center Screen Pop display variables . . . 165
Enabling MiTAI event logging 167
Ignoring MiTAI events on UPiQ and callback capture ports . . 168
Testing Contact Center Screen Pop search functions 168
Configuring Lifecycle reports 169
Configuring Workforce Management integration 169
Configuring Verint Impact 360 for Workforce Management integration 176
Setting up MiVoice Border Gateway on the Mitel Application Server . 177
Configuring Microsoft Dynamics CRM Connector 177
Configuring Microsoft Dynamics CRM Connector 177
Specifying CRM server settings 178
Creating and editing search masks 178
Specifying search fields 179
Specifying Custom URLs 180

CRM screen pops 180
Installing the Microsoft Dynamics CRM Connector plugin . . . 183
Converting MiCC Office data 184
Configuring WallBoarder 185
WallBoarder parameters 185
Site 185
Connecting Spectrum wall signs 192
Configuring wall signs and wall sign messages 193
Selecting the computer on which the MiContact Center WallBoard Service is installed 194
Creating sign groups 195
Adding signs to sign groups 196
Configuring sign variables 197
Configuring sign messages 198
Creating sign plans 199
Creating sign plans for daisy-chained signs 201
Activating priority messages 202
Scheduling messages 203

Chapter: 8 Services and Database Administration 205

Backing up data 205
Backing up .xml files 205
Backing up raw telephone system data files 206
Backing up Enterprise Server configuration data 206
Backing up SQL Server data files 206
Understanding SQL Server recovery models 206
Management Console 208
Updating server IP addresses 208
Running the maintenance routine immediately 208
Summarizing data 209
Creating an Enterprise Server support package 209
Controlling services 209
Converting data files 210
Diagnostics monitor 210

Chapter: 9 IVR Routing 212

IVR Routing enhancements 212
Workflow navigation in IVR Routing 213
Viewing workflows at a glance: The Outline pane 213
Viewing specific portions of a workflow: Focusing and the Breadcrumb view 213
Navigating the Workflows Canvas: The MiniMap window and the Pan mode 214
Resizing workflows: The Zoom feature 214
Manipulating all activities in a workflow: The Expand All, Collapse All, and

Restore buttons 215
Customizing your IVR Routing workspace 215
Configuring IVR Routing 215
Viewing IVR Routing 215
Using the Import Wizard 216
Changing multiple IVR Routing items at a time 216
Viewing IVR Routing devices by category or type 216
Configuring media servers for IVR Routing 217
Configuring extensions 217
Configuring extension port options for IVR Routing 217
Deleting extensions 218
Using Extension Quick Setup 218
Configuring hunt groups 220
Adding hunt groups 220
Adding extensions to hunt groups 221
Configuring hunt group IVR settings 221
Deleting hunt groups 222
Configuring queues 222
Configuring Inqueue routing 222
Configuring UPiQ options 223
Configuring RAD messages for queues 223
Configuring queue groups 224
Building workflows 225
Workflow types 225
Workflow examples 226
Adding new workflows 227
Naming workflows 228
Copying workflows 228
Cutting, pasting, and copying workflow items 228
Deleting workflows 229
Importing and exporting subroutines and workflows 229
Saving and copying workflows as images 229
Validating workflows 230
Locating workflow items with the Search field 230
Associating workflows to devices 231
Dynamic RAD messages 232
Building resilient workflows 233
Configuring prompts 233
Adding prompts 234
Adding files, queue statistics, or variables to prompts 235
Deleting prompts 236
Playing prompts 236
Using Prompts Quick Setup 236
Building subroutines 236
Adding subroutines to workflows 237
Deleting workflows 237

Configuring callbacks 237
Enabling callbacks 238
Enabling abandon callbacks 238
Enabling web callbacks 241
Configuring the web callback template 241
Configuring rules 248
Adding rules 248
Adding routing conditions to rules 249
Adding variables to rules 251
Deleting rules 251
Configuring holidays 252
Configuring data providers 252
Adding a Microsoft SQL server as a data provider 253
Adding a Microsoft Excel worksheet as a data provider 253
Adding a LDAP as a data provider 254
Adding a generic data provider 254
Adding an ODBC as a data provider 255
Deleting data providers 255
Configuring variables 255
Adding variables 256
Deleting variables 257
Configuring security 257
Configuring Automatic Speech Recognition 257
Configuring an Automatic Speech Recognition server 258
Configuring Text-to-Speech 258
Configuring a Text-to-Speech server 258
Activities 259
Activities available in IVR Routing 259
Configuring common activity options 267
Configuring the ANI activity 275
Configuring the Answer activity 276
Configuring the Callback Request activity 276
Configuring the Collect Digits activity 278
Configuring the Conference activity 282
Configuring the Connect to Caller activity 284
Configuring the Date Time Validation activity 285
Configuring the Delay activity 285
Configuring the DNIS activity 285
Configuring the Email activity 287
Configuring the Employee Control activity 289
Configuring the Execute activity 290
Configuring the Go To activity 294
Configuring the Hang Up activity 295
Configuring the Hold State activity 295
Configuring the Hunt Group activity 296
Configuring the Language Activity 297

Configuring the Make Call activity 298
Configuring the Management activity 300
Configuring the Menu activity 301
Configuring the Mode of Operation activity 304
Configuring the Play activity 304
Configuring the Query activity 308
Configuring the Queue activity 311
Configuring the Queue Control activity 315
Configuring the Record activity 315
Configuring the Redirect activity 318
Configuring the Retrieve Callback activity 319
Configuring the Rules activity 320
Configuring the Save Agent Greeting activity 321
Configuring the Save Callback activity 321
Configuring the Schedule activity 321
Configuring the Set Device Mode of Operation activity 325
Configuring the Set System Mode of Operation activity 326
Configuring the Set Variables activity 326
Configuring the SMS activity 327
Configuring the Subroutine activity 327
Configuring the Swap Prompt activity 328
Configuring the Transfer activity 329
Configuring the Variable Compare activity 331
Passing agents call information in screen pops 332
Populating screen pops with workflow variables 333
IVR Routing default workflows and subroutines 334
Changes to callbacks and UPiQ 334
Customizing the default workflows and subroutines 335
Default Inqueue UPiQ workflow and subroutine 335
Default Management subroutine 337
Default Callback workflow and subroutines 338
Default Outbound Callback workflow 338
Default Inbound Voice Callback subroutine 343
IVR Routing workflow samples 345
Importing IVR Routing sample workflows 346
Associating sample workflows to extensions or hunt groups . 346
Sample Schedule with Mode of Operation and Menu 347
Sample ANI and DNIS Condition with unique Menus and a Callback option 348
Sample Schedule Condition followed by DNIS and Language with Menus 351
Sample Outbound with Excel 352
Workflow for PCI Compliant systems 354
IVR Routing complex workflow configuration 357
Outbound workflow configuration 357
Configuring a database provider 358

Creating outbound ports 360
Defining variables 360
Creating an outbound workflow 361
Configuring the outbound workflow for abandoned interactions 361
Configuring the branches of the Make Call activity 362
Dial Active Directory workflow configuration 365
Preliminary configuration 366
Creating the main Dial Active Directory workflow 367
Configuring the DialByAD subroutine 369
Configuring the LDAP data provider 371
Configuring the Active Directory LDAP query 371
Configuring the Success branch of the query 373
Synchronizing IVR Routing Servers 374
Configuring IVR Routing for hot fixes 375
Applying a hot fix in a single server configuration 375
Applying a hot fix in a single Remote Server configuration . . . 376
Applying a Hotfix to a MiContact Center Business in High Availability or Upgrading to a Later Release 376
Upgrading applications and Reclone Secondary or Tertiary server in Neverfail 379

Chapter: 10 Remote Server installation 419

Overview of Remote Server installation 420
Installing the Remote Server software 420
Modifying Remote Server installed components and features . 421
Uninstalling Remote Server MiContact Center Business software 422
Verifying name changes of remote servers 422
Configuring IVR Routing on Remote Servers 422
Assigning IVR Routing Remote Server ports to the Enterprise Server 424
Configuring remote IVR Routing communication with the Enterprise Server 424

Chapter: 11 CTI Developer Toolkit 426

Installing the CTI Developer Toolkit 431
Upgrading the CTI Developer Toolkit 433
CTI Developer Toolkit sample applications 433
Best practices for custom development 436
Common user scenarios and source code examples 437
Click to dial 437
Call received notification 438
Add call detail (using a third-party IVR) 439
Troubleshooting CTI Developer Toolkit issues 440
Troubleshooting specific issues 440
Retrieve All commands does not display any devices 441
GetDevice method fails or returns null unexpectedly 441

Agent control actions succeed while call control actions fail . 442
Unable to set monitor on agent device 442
Web service errors occurring in log files 442

Chapter: 12 Client installation 443

Client roles 443
Before running the client installation 444
Client installation process 445
Installing the Client Component Pack and client applications . 445
Modifying available client applications and client roles 447
Uninstalling the Client Component Pack 448

Chapter: 13 Client configuration 449

Configuring agent and agent group presence settings 449
Configuring Ring Group presence settings 450
Setting up soft phones 451
Configuring Whisper Coach settings 451
Configuring the MiCollab Client and Ignite integration (DESKTOP) . . . 452
Providing MiVoice Border Gateway support to remote agents and employees 453
Setting up phones for remote agents and employees 453
Running the MiVoice Border Gateway Connector 454

Chapter: 14 Data Mining 456

ACD Inspector 456
Running searches in ACD Inspector 457
Agent events criteria for searches 457
Queue events criteria for searches 463
Option events criteria for searches 465
Running agent events searches 465
Agent events search results 466
Narrowing an Agent events search 467
Running queue events searches 468
Queue events search results 469
Narrowing a Queue events search 471
Running wild card queue events searches 473
Wild card queue events search results 474
Running searches for error and information records 474
Exception events search results 475
SMDR Inspector 475
Running searches in SMDR Inspector 475
Call parties criteria for searches 476
Call types criteria for searches 477
Options criteria for searches 479
SMDR search results information 480

SMDR record boxes 486
Running call parties searches 489
Call parties search results 489
Running call types searches 490
Call types search results 491
Running option searches 491
Options search results 492
Running searches for error and information records 492
Exception search results 493
Wild card searches 494
Exporting search results 494

Chapter: 15 Installing MiContact Center Business on VMware 496

OVA file specifications 496
Installation overview 496
Virtual machine download 497
Enterprise Server deployment and installation on VMware 498
Before running the deployment 498
Deploying MiContact Center Business virtual machines 498
Post-deployment installation and configuration 499
Installing and configuring MiContact Center Business 499

Chapter: 16 Real-time Monitors 501

Contact Center Client 502
Starting Contact Center Client 504
Configuring Contact Center Client options 505
Adjusting the Contact Center Client view 506
Employee and Agent states 507
Extension states 511
Understanding Contact Center Client features 513
Contact Center Client options 513
Diagnostics monitor 515
Viewing agent availability 516
Extension, Agent, and Employee State by Position 517
Agent State and Employee State by Time 519
Agent State by Time for Queue 520
Agent Shift 521
Viewing Agent and Extension Availability and Resiliency 524
Viewing extensions availability 525
Extension Now 528
Viewing queue statistics 530
Queue by Period 530
Queue Now and Queue Group Now 533
Viewing queue chart statistics 546
Queue Now and Queue Group Now 547

Queue Performance by Period and Queue Group Performance by Period 548
Navigating charts 549
Viewing callback lists with the Global callback monitor 550
Managing callbacks in the Global Callback monitor 551
Viewing ports 552
Port status monitor 552
Viewing webpages 553
Viewing historical real-time events with Auditor 553
Auditor icons 554
Starting and using Auditor 556
Viewing and customizing real-time monitors 556
Opening monitors 557
Docking monitors 557
Adding and removing devices 558
Sorting monitor devices 559
Rearranging cells 560
Setting monitor dimensions 560
Hiding monitor columns 560
Filtering device variables 561
Configuring chart characteristics 561
Setting alarms 565
Adding performance thresholds 565
Specifying performance threshold colors 565
Specifying threshold notification 566
Customizing the information displayed on position and time monitors 567
Selecting and customizing card designs 568
Defining monitor styles 569
Adding text to card designs 569
Grouping data 570
Building marquee monitors 570
Configuring marquee monitor styles 571
Configuring marquee text and variables 571
Using Contact Center Chat 572
Sending a Contact Center Chat message 573
Adding someone to an interaction 574
Responding to a Contact Center Chat message 574
Using Contact Center Chat with Skype for Business 574
Sending an instant message 576
Hot desking profile settings 577
Posting feedback and viewing our forums 577
Accessing real-time information with Ignite (WEB) 578
Monitoring employee state in Ignite (WEB) 578
Monitoring agent state in Ignite (WEB) 578
Monitoring queues in Ignite (WEB) 579
Viewing and managing callbacks in Ignite (WEB) 581

Chapter: 17 **Forecasting 583**

Forecasting terms 583
Forecasting tool 584
Loading historical data 585
Modifying historical data 586
Modifying Average Handle Time 587
Modifying Contacts Offered 588
Modifying the weekly total for Contacts Offered 589
Performing forecasts 590
Exporting forecasts 590
Saving forecasts as Excel files 590
Exporting forecasts to Workforce Scheduling 591

Chapter: 18 **Interactive Contact Center 592**

Supervisors and Interactive Contact Center 592
Agents and Interactive Contact Center 592
Employee and Agent control 593
Agents and Agent Group Presence 594
Hiding the Monitor control option 594
Logging on an agent - Contact Center Client 595
Logging off an agent - Contact Center Client 596
Logging on an agent - Ignite (WEB) 596
Logging off an agent - Ignite (WEB) 596
Joining and leaving agent groups - Contact Center Client . . . 597
Joining and leaving agent groups - Ignite (WEB) 597
Placing employees in Make Busy - Contact Center Client 598
Removing employees from Make Busy - Contact Center Client 599
Placing employees in Busy - Ignite (WEB) 599
Removing employees from Busy - Ignite (WEB) 600
Placing employees in Do Not Disturb - Contact Center Client . 600
Removing employees from Do Not Disturb - Contact Center Client 601
Placing employees in Do Not Disturb - Ignite (WEB) 601
Removing employees from Do Not Disturb - Ignite (WEB) . . . 602
Canceling Work Timer for employees - Contact Center Client . 602
Canceling Work Timer for employees - Ignite (WEB) 602
Canceling the Reseize Timer for external hot desk agents . . . 603
Extension Control 603
Ring Group presence 604
Joining and leaving Ring Groups 604
Placing an extension in Do Not Disturb 605
Removing an extension from Do Not Disturb 605
Queue Control 605
Manually controlling queues 605
Placing queues in Do Not Disturb 606
Removing queues from Do Not Disturb 607

Chapter: 19 **Interactive Visual Queue 608**

Accessing Interactive Visual Queue 608
Interactive Visual Queue monitor grids 609
Sorting contacts by columns 612
Redirecting calls 612
Redirecting calls between queues 613
Redirecting voice interactions to specific agents 613
Redirecting calls to specific numbers 614
Removing calls 615
Calling back abandoned callers 615
Configuring alarms 615
Understanding call priority 616
Viewing callback information in Interactive Visual Queue 616
Managing callbacks in Interactive Visual Queue callback monitors 617

Chapter: 20 **Contact Center Client 619**

Using Contact Center PhoneSet Manager and Contact Center Softphone 619
Starting Contact Center Client 619
Setting up the soft phone 619
Configuring sound and audio device properties 620
Opening the soft phone 620
Changing soft phone IP addresses 622
Thumbnail soft phone toolbar 622
Logging on to the ACD 623
Phone and Functions toolbars 623
Phone functions 624
Customizing the soft phone 626
Selecting audio devices 626
Specifying the address book source for contacts 626
Resizing toolbar buttons 626
Displaying, hiding, and retiring toolbar buttons 627
Repositioning toolbar buttons 627
Configuring sounds and notifications 627
Enabling and disabling Contact Center Screen Pop 628
Making calls ring through your computer speakers 628
Adjusting the volume of your speakers and microphone 629
Configuring call forward destinations 629
Configuring speed dial numbers 630
Configuring shortcut keys 630
Configuring pre-announcement messages 630
Making and terminating calls using Contact Center PhoneSet Manager 632
Making calls 632
Making calls to your contacts 633
Making calls using speed dial 633

Terminating calls 633
Forwarding and answering calls using Contact Center PhoneSet Manager 633
Forwarding calls 633
Answering calls 634
Handling calls using Contact Center PhoneSet Manager 634
Placing calls on hold 635
Retrieving calls 635
Adding call notes to a call 635
Transferring calls 636
Conferencing calls 636
Consulting with people while on calls 637
Requesting help while on calls 637
Using Camp on 637
Leaving and retrieving messages 637
Using Call me back 638
Tagging calls with Account Codes 638
Making and terminating calls using Contact Center PhoneSet Manager 639
Making calls 639
Making calls to your contacts 639
Making calls to contacts who have called you recently 639
Making calls using speed dial 640
Redialing numbers 640
Terminating calls 640
Forwarding and answering calls using Contact Center Softphone 640
Forwarding calls 640
Answering calls 640
Handling calls using Contact Center Softphone 641
Placing calls on hold 641
Retrieving calls 641
Using Mute 642
Transferring calls 642
Conferencing calls 642
Consulting with people while on calls 643
Requesting help while on calls 643
Using Camp on 643
Leaving and retrieving messages 644
Using Call me back 644
Tagging calls with Account Codes 644
Controlling your availability 645
Making and handling calls using Contact Center Client 645
Making calls 646
Forwarding calls 646
Answering calls 646
Adding call notes 646

Recording calls 647
Silent monitoring calls 647
Transferring calls 649
Consulting with employees while on calls 650
Requesting help while on calls 650

Chapter: 21 MiCollab and Ignite integration (DESKTOP) 651

MiCollab and Ignite integration (WEB) 651
MiCollab Basic and Ignite integration (DESKTOP) 652
MiCollab Client and Ignite user interface (DESKTOP) 652
Handling voice Interactions with the MiCollab Client and Ignite integration 653
Agent state indicators 655
MiCollab Client 656
Logging into MiCollab Client 656

Chapter: 22 Flexible Reporting 657

Using Flexible Reporting 657
Starting Flexible Reporting 657
Viewing the Flexible Reporting user interface 658
Report Designer wizard 659
Layout designer window 659
The File tab 659
Ribbon 659
Toolbox window 660
Creating new reports 660
Modifying standard MiContact Center Business report templates 661
Modifying existing Flexible Reporting report templates 662
Designing reports 662
Adding images to report headers 662
Deleting images on report headers 663
Editing report header titles 663
Moving report header titles and values 663
Removing report header titles and values 663
Adding report header titles and values 663
Adding existing columns 664
Adding custom columns 664
Moving columns 665
Deleting columns 665
Editing column heading names 666
Specifying column width 666
Specifying row height 666
Specifying row colors 666
Freezing columns 667
Unfreezing columns 667

Managing your Flexible Reporting reports 667
Changing access properties 667
Renaming reports 667
Deleting reports 668
Running Flexible Reports 668
Running reports in CCMWeb 668
Running reports in Flexible Reporting 669
Saving templates and reports 669
Printing reports 670
Posting feedback and viewing our forums 670

Chapter: 23 Workforce Scheduling 671

Understanding Workforce Scheduling 671
Viewing the Workforce Scheduling user interface 671
People pane 672
Time bar pane 673
Totals pane 673
Schedule details pane 674
Understanding forecasting concepts 675
Understanding the Workforce Scheduling process 675
Workforce Scheduling and your contact center 676
Assigned shift-based scheduling configuration scenario 676
Availability-based scheduling configuration scenario 677
Rotational-based scheduling configuration scenario 677
Forecast-based scheduling configuration scenario 678
Selecting a scheduling method 678
Scheduling using forecast data 678
Scheduling manually 679
Schedule setup and customization 679
Starting Workforce Scheduling on a client computer 679
Configuring schedule options 679
Configuring scheduling options using the Schedule wizard . . 680
Creating schedules 680
Adding employees to schedules 681
Configuring business hours for schedules 681
Renaming schedules 681
Deleting schedules 682
Activating / De-activating schedules 682
Configuring shifts 682
Adding fixed shifts 683
Adding variable shifts 683
Renaming shifts 684
Deleting shifts 684
Configuring breaks 684
Adding fixed breaks 685
Adding variable breaks 685

Renaming breaks 686
Deleting breaks 686
Configuring jobs 686
Adding fixed jobs 687
Adding variable jobs 687
Renaming jobs 687
Deleting jobs 688
Adding breaks or jobs to shifts 688
Removing breaks and jobs from shifts 688
Assigning shifts to schedules 689
Assigning shifts to employees 689
Configuring event display preferences 690
Configuring the time bar display 690
Configuring the smallest scheduling time interval 690
Preventing users from manually making changes that trigger warnings 691
Configuring the default colors on the time bar 691
Configuring the time format 691
Configuring tool tip display 692
Configuring warnings 692
Forecasting data for schedules 694
Schedule creation 694
Building schedules with Schedule Builder 695
Configuring the date and time range 696
Scheduling shifts 696
Scheduling jobs 696
Generating schedules with forecast data 697
Generating schedules without forecast data 697
Generating schedules for your entire workforce 697
Selecting employees 697
Configuring scheduling options 698
Creating and adjusting schedules manually 698
Loading schedules 699
Populating schedules with events 699
Drop inserting events 700
Drag inserting events 700
Recurring events 700
Mass recurring events 700
Mass deleting events 701
Mass applying time off 701
Modifying forecast totals in the event totals pane 701
Modifying event times and notes in the schedule details pane 702
Schedule distribution 703
Viewing schedules 703
Viewing scheduled events 703
Changing the time interval of the time bar pane 703

Viewing event totals 704
Viewing schedule details 705
Synchronizing views 705
Running Workforce Scheduling reports 705
Schedule Adherence 705
Configuring adherence preference 706
Configuring adherence parameters 706
Configuring state groups 706
Viewing adherence monitors in Contact Center Client 707
Adherence Detail Grid monitor 707
Adherence Timebars monitor 709
Employee State by Position/Time monitors 710
Alarming on schedule adherence 711
Running Schedule Adherence reports 712
Employee Portal 712
Employee Portal and employees 712
Starting Employee Portal 713
Creating a desktop shortcut to Employee Portal 713
Viewing currently scheduled shifts 713
Viewing the shifts of other employees in your schedule 713
Offering shifts for other employees to take or trade 713
Removing shifts from the bulletin board 714
Proposing to take shifts 714
Proposing to trade shifts 714
Accept or reject an employee proposal to take or trade your shift 715
Requesting time off 715
Requesting availability changes 715
Employee Portal and Supervisors 716
Handling employee scheduling requests 716
Running Employee Portal reports 717
Posting feedback and viewing our forums 717

Chapter: 24 Managing a Multimedia Contact Center 718

System Administrators - Installing, configuring, and maintaining a multimedia contact center 718
Fax and Historical SMS limitations 718
Upgrading your multimedia contact center to MiContact Center Business version 9.2 719
Upgrading - A simplified process 719
Upgrade scenarios 719
Upgrade methods 719
Direct upgrades 720
Side by side Migration 720
Multimedia Contact Center backup and restore recommendations 721
Pre-upgrade notes and planning 722
Hardware and software server and client specifications 723

Upgrading a voice-only system 723
Migrating SQL databases 724
Backing up telephone system and configuration data 724
Enterprise Server installation 725
Restoring telephone system and configuration data 725
Configuring a multimedia system 725
Installing client applications 729
Upgrading a system that currently includes voice and multimedia 730
Installation options 730
Addition of default workflows 730
Maintaining historical data 731
Migrating the email repository 731
Upgrade process recommendations 732
CPU utilization when migrating multimedia messages to Elasticsearch 732
Migrating SQL databases 733
Backing up telephone system and configuration data 733
Enterprise Server installation 734
Restoring telephone system and configuration data 734
Migrating existing emails from SearchStorage to Elasticsearch 734
Configuring devices 735
Installing client applications 738
Bringing the system online 738
Exchange Server migration recommendations 739
Configuring your multimedia contact center 741
YourSite Explorer configuration notes and tips 741
Applying changes to multiple devices at a time 741
Viewing devices by category or type 741
Organizing devices by shared criteria 742
Required information 742
Configuring multimedia enterprise settings 743
Configuring email settings 743
Adding sites 743
Configuring the Multimedia storage path 744
Enabling a new multimedia contact center 745
Multimedia Contact Center device configuration 747
Integrating Multimedia Contact Center with mail servers . . . 747
Adding mail servers 749
Configuring SMTP connections to Multimedia Contact Center 749
Configuring IMAP connections to Multimedia Contact Center 751
Deleting mail servers 752
Specifying Send As permissions in Active Directory 752
Specifying Send As permission using PowerShell 753
Mail server requirements 753
Integrating Multimedia Contact Center with an SMS Gateway Provider 754

Adding media types to Multimedia Contact Center 754
Deleting multimedia media servers 755
Applying inbound routing rules to interactions 755
Applying response routing rules to interactions 756
Configuring Advanced options for media servers 756
Extending reporting and agent shifts over midnight 757
Specifying when Make Busy and Do Not Disturb timers begin 757
Configuring Reply templates for email, chat, SMS, and open media 758
Enabling Conversation Detail reporting 759
Adding email to Multimedia Contact Center 760
Configuring Advanced options for email media servers 761
Disassociating mail servers from email media servers 761
Adding chat to Multimedia Contact Center 762
Configuring Advanced options for chat media servers 763
Configuring Contact Center Messenger in YourSite Explorer . . 764
Connecting CloudLink 764
Configuring Contact Center Messenger Media Server 766
Configuring Chat Queue 768
Disconnecting Cloudlink 768
Adding SMS to Multimedia Contact Center 769
Configuring Advanced options for SMS media servers 771
Configuring Workload 772
Adding multimedia capabilities to employees 773
Licensing requirements for employee multimedia capabilities 774
Managing the media types an employee can handle 774
Managing Employee Workload 777
Setting permissions for supervisors to view queues 778
Adding employee groups 779
Adding voice agent IDs 779
Adding agent groups 781
Managing agent group membership, presence, and skill level 783
Specifying 3300 ICP options for agent groups 784
Adding multimedia queues 785
Configuring general settings for multimedia queues 785
Configuring multimedia queue membership and routing 787
Configuring multimedia queue performance settings 788
Configuring queue spectrum settings for queues 790
Configuring email options for multimedia queues 790
Configuring chat options for multimedia queues 792
Configuring SMS options for multimedia queues 793
Setting a multimedia queue as historical 793
Deleting a multimedia queue 793
Adding queue groups 794
Adding Reporting queue groups 794
Adding Virtual queue groups 795
Adding Unified queue groups 796

Configuring Holidays 800
Configuring business hour schedules 801
Configuring security roles 803
Multimedia Contact Center security settings 804
Configuring Multimedia Contact Center web features 804
Multimedia Contact Center proficiency requirements 805
Publishing Chat and Contact Us to the Internet using reverse proxies 806
Publishing Chat and Contact Us to the Internet with SSL 806
Enabling chat 806
Determining how to offer chat 807
Customizing chat 811
Offering chat through your corporate website 836
Offering chat in different languages 837
Enabling Contact Us 837
Determining how to offer Contact Us 845
Implementing Contact Us 846
Troubleshooting Multimedia Contact Center web features . . 861
Multimedia routing using visual workflows 862
Workflow types 862
Workflow layouts in Multimedia Contact Center 862
Customizing the multimedia workspace 863
Viewing workflows at a glance: The Outline pane 863
Locating workflow items: The Search field 863
Viewing specific portions of a workflow: Focusing and the Breadcrumb view 863
Navigating the Workflow Canvas: The MiniMap window and the Pan mode 864
Resizing workflows: The Zoom feature 865
Manipulating all activities in a workflow: The Expand All, Collapse All, and Restore buttons 865
Designing and managing workflows: Common procedures . . 865
Creating workflows in Multimedia Contact Center 865
Copying workflows 866
Deleting workflows 866
Importing and exporting workflows 866
Naming workflows 866
Validating workflows 867
Saving and copying workflows as images 868
Associating workflows to media servers 868
Associating workflows to queues 868
Building subroutines 869
Implementing subroutines in workflows 869
Editing and deleting subroutines 869
Importing and exporting subroutines 870
Viewing subroutines by type 870
Configuring data providers 870

Adding a Microsoft Excel worksheet as a data provider 871
Adding a Microsoft SQL Server as a data provider 871
Adding a LDAP as a data provider 872
Adding a generic data provider 872
Adding an ODBC as a data provider 873
Deleting data providers 873
Working with variables in Multimedia Contact Center 873
Creating Custom Variables 873
Editing and deleting variables 874
Viewing variables by category 875
Building visual workflows in Multimedia Contact Center: Activities 875
Common configuration procedures 875
Activity list 880
Enabling mixed model routing 911
Populating screen pops with workflow variables 912
Multimedia Contact Center default workflows 913
Customizing the default workflows 914
Default Email Inbound workflow 914
Default Email Inqueue workflow 915
Default Chat Inbound workflow 917
Default Chat Inqueue workflow 918
Default Chat Response workflow 919
Default SMS Inbound workflow 920
Default SMS Inqueue workflow 921
Managing Ignite 922
Adding items to Ignite's global spell checking dictionary 922
Configuring bounced email detection settings 922
Configuring maximum email message size 923
Accessing diagnostics reports sent from Ignite (WEB) 923
Supervisors - Managing a multimedia contact center 923
Setting alarms to monitor agent performance and customer service 924
Accessing real-time information with Contact Center Client . . 924
Starting Contact Center Client 925
Employee and Agent state indicators 925
Overriding states in real-time monitors 929
Monitoring agents and queues 930
Interacting with agent presence to improve service levels . . . 959
Controlling the availability of voice queues 972
Interacting with customer interactions to improve service levels 972
Forecasting multimedia contact center staffing requirements . 982
Accessing historical real-time information with Contact Center Client 982
Auditor icons 983
Viewing historical real-time events 985
Starting and using Auditor 985
Accessing real-time information with Ignite (WEB) 986
Monitoring employee state in Ignite (WEB) 986

Monitoring agent state in Ignite (WEB) 986
Monitoring queues in Ignite (WEB) 987
Viewing and managing callbacks in Ignite (WEB) 989
Managing a multimedia contact center with Ignite 990
Handling multimedia interactions 990
Searching email, chat, and SMS history 990
Accessing real-time monitors in Ignite (WEB) 990
Agents - Handling customer interactions in a multimedia contact center 990
Managing agent preferences 991
Ignite 991
Getting started with Ignite (DESKTOP) 992
Accessing Ignite (DESKTOP) 1007
Viewing and organizing interactions in Ignite (DESKTOP) . . . 1010
Ignite's Realtime Monitor (DESKTOP) 1015
Your Ignite profile (DESKTOP) 1019
Getting started with Ignite (WEB) 1024
Viewing and organizing Interactions in Ignite (WEB) 1043
Logging into Ignite (WEB) 1045
Your Ignite profile (WEB) 1047
Configuring Ignite (WEB) dashboards 1049
Searching Ignite 1053
Managing agent group presence and agent states 1059
Work Timer 1064
Handling multimedia interactions in Ignite 1065
Routing models in Multimedia Contact Center 1066
Receiving notifications of new interactions 1067
Receiving information in screen pops 1068
Reviewing interaction history 1068
Tagging interactions with Account Codes 1069
Sending interactions back to the queue 1070
Transitioning from one conversation type to another (WEB) 1070
Update contact information during a conversation 1071
Working with cases in Ignite(WEB) 1071
Handling emails in Ignite 1080
Handling chats in Ignite 1097
Handling Contact Center Messenger in Ignite 1105
Handling Smart Suggestions 1109
Handling SMS in Ignite 1118
Handling calls in Ignite 1127
Handling open media interactions 1140

Chapter: 25 Appendix A 1144

Installation and upgrade checklists 1144
PROGRAMMING TRAFFIC DATA COLLECTION FOR THE 3300 ICP . . . 1144
Traffic Options Assignment form 1144
Assigning a port 1146

Testing traffic output 1147
Configuring traffic options in MiContact Center Business . . 1147

Chapter: 26 **Appendix B 1148**
IVR Routing Architecture 1148
Scalability 1148
Resilient Configuration 1148
Redundant Configuration 1149
High Availability Configuration 1150

Chapter: 27 **Terms and definitions 1152**

Chapter: 28 **Workflows 1162**

Chapter: 29 **Subroutines 1163**

Chapter: 30 **Variables 1164**

Chapter: 31 **Adding a Microsoft SQL data provider 1165**

Chapter: 32 **Adding a Microsoft Excel worksheet data provider 1166**

Chapter: 33 **Adding a LDAP data provider 1167**

Welcome

This Help file provides detailed information on application functionality and use. To quickly locate information on a specific command/option, such as Enable enterprise presence and chat integration, click the Search button, type the command name, and click Search.

Getting Started

After MiContact Center Business has been installed on the Enterprise Server and clients, you can launch CCMWeb and configure user preferences and email contacts. All other client configuration is done at the administrative level and described in the *MiContact Center Business Installation and Administration Guide*.

Setting up user preferences

You can change your preferences at any time. They are found in CCMWeb under My options. From this menu, you can:

- Specify your language preference
- Change your password
- View your security role properties
- Configure email contacts

Specifying your language preference

NOTE: MiContact Center Business applications, such as YourSite Explorer and Contact Center Client, all leverage the language settings of the operating system in addition to the language preference set for MiContact Center Business. Ensure that if you adjust the language settings of MiContact Center Business, you also adjust the language settings of your operating system to match.

To specify your language preference

1. Hover over **My options** and select **My preferences**.
2. After **Display this language**, select a language.
3. Click **Save**.

Changing your password

To change the password for your login

1. Hover over **My options** and select **My password**.
2. After **Old password**, type your old password.
3. After **New password**, type your new password.
4. After **Confirm new password**, type your new password.
5. Click **Save**.

Viewing security role properties

You can view your security role properties. They describe the application areas which you can access. Only employees with access to YourSite Explorer and whose security role permits managing security can change the security role properties of employees.

To view the security role properties associated with your login ID

- Hover over **My options** and select **My security role**.

Configuring email contacts

You can create a list of email contacts and email contact groups to whom you email reports. Contact groups can contain both user-configured contacts from MiVoice Analytics as well as all existing employees from YourSite Explorer.

To create a contact group

1. Add email contacts
2. Add contact groups
3. Add email contacts to the groups

Adding email contacts

To add an email contact

1. Hover over **My options** and select **Contacts > My email contacts**.
2. Click **Add**.
3. After **First name**, type the first name of your contact.
4. After **Last name**, type the last name of your contact.
5. After **Email address**, type the email address of your contact.
6. To save this contact, click **Save**.
7. To save this contact and add another contact, click **Save & Add**.

Adding contact groups

To add a contact group

1. Hover over **My options** and select **Contacts > My email contacts group**.
2. Click **Add**.
3. After **Name**, type the name of the contact group.
4. After **Description**, type the description of the contact group.
5. To share this contact group with other CCMWeb users, select **Shared Contact Group**.

   A shared contact group can be viewed, used, and edited by other users.
6. To save this contact group, click **Save**.
7. To save this contact group and add another contact group, click **Save & Add**.

Adding email contacts to contact groups

To add an email contact to a contact group

1. Hover over My options and select **Contacts > My email contacts group**.
2. Click **Members** for the contact group with which you want to associate agents.
3. If you want to add members from your contacts configured in CCMWeb, click **Contacts**.

   If you want to add members from the employees configured in YourSite Explorer, click **Employees**. Both contacts and employees can be added to the same contact group.
4. Under **Available contacts**, select the check boxes of the members you want to add to the group and click **Add >>**.

MiContact Center Business

Mitel MiContact Center Business integrates with MiVoice Business platform to provide contact centers with the tools they need to efficiently and effectively measure and manage contact center operations. Interactions are routed intelligently across all media types (voice, email, chat, SMS, and open media), increasing customer satisfaction and streamlining agent calls. Contact center efficiency and agent performance can be monitored both historically and in real time and can be measured using a wide variety of reports. Flexible licensing packages provide access to specific features and applications and enable you to build a contact center package that best suits your business needs.

Contact Center and Workgroup

There are two licensing bundles available for MiContact Center Business: Contact Center and Workgroup.

Contact Center is the licensing level of choice for businesses with more than 100 concurrent agents, who want resiliency, and requiremore than 10 IVR ports.

Workgroup is geared toward contact centers with fewer than 100 concurrent agents, requiring a maximum of 10 IVR ports, with no need for resiliency. Workgroup supports single-node ACD environments only.

Both licensing bundles offer general business and contact center reporting and real-time monitoring, client desktops, and IVR Routing capabilities, and support voice, email, chat, SMS, and open media communication. They include feature-rich, web-based applications for streamlining contact center management and enabling agent productivity. There are several options available to further customize your contact center solution.

For detailed licensing information, see the *MiContact Center Business and MiVoice Analytics System Engineering Guide*.

MiContact Center Business includes the following applications, depending on your licensing bundle:

- CCMWeb
- Contact Center Client
- Interactive Contact Center
- Interactive Visual Queue
- Contact Center PhoneSet Manager
- Contact Center Softphone
- Multimedia Contact Center
- Contact Center Screen Pop
- Flexible Reporting
- IVR Routing
- Workforce Scheduling
- Employee Portal
- Schedule Adherence
- Traffic Analysis
- Ignite
- MiCollab Client

- MiVoice Border Gateway
- CTI Developer Toolkit

Licensing

An employee is a physical person you track in your contact center. In the YourSite database, you must create an employee ID for each employee who works in your contact center. Employees can have multiple agent IDs, but only one employee ID. You can run reports on licensed employees only. The number of employees you license in YourSite Configuration must be consistent with your software license.

To view details on your software license

- Hover over **Help** and select **About your Mitel applications**.

Troubleshooting assistance

For the latest frequently asked questions and troubleshooting information, see the Mitel Knowledge Base at Knowledge Management System available on MiAccessmitel.com.

Contact Center Call Accounting Concepts

Contact centers process a high volume of contacts to meet marketing, sales, customer service, technical support, and other business objectives. A fine-tuned contact center distributes contacts efficiently and optimizes the use of agents and other resources. This section describes the inbound contact center environment and how resources interact to process voice contacts.

Call Accounting ensures businesses have a true picture of how and where their telecommunication budgets are spent. This chapter discusses how Call Accounting can be used to track phone use, reconcile carrier bills, and bill back departments, and how it costs calls and detects toll fraud.

- **Tracking phone use**
  You can use Call Accounting to track phone use and to determine
  The average duration of calls.
  Generate the Employee Group Accounting Summary report. This report provides the average duration and cost of calls made by each employee of an employee group.
  Where most of your long-distance budget is spent, and which employees make the most and longest calls.
  Generate the Employee Accounting by Phone number/Location report. If you have added these phone numbers and names to your database (YourSite ExplorerPhone numbers), they will also appear in the report. This report also provides you with a list of the 100 most often dialed phone numbers by employee, and the 100 longest calls by employee.
  If your telephone system is being abused, in real time
  Monitor call costs and other call statistics by extension in real time. You can set alarms, for any or all extensions, for all call statistics, including caller ID information (such as caller name and number). You can also set alarms based on call cost thresholds and toll fraud parameters. Alarm notifications alert you when event thresholds are reached. You can choose to be notified by visual changes in the monitor, sound prompts, pop ups, or email. By setting alarms based on the thresholds you define, you can monitor telephone system abuse and stop it as it occurs.
- **Reconciling carrier bills**
  You can set up Call Accounting to detect billing errors. When you configure Call Accounting to mimic your phone carrier charges, you might notice discrepancies between your amounts and your carrier amounts.
- **Billing back departments**
  To bill back departments, your call costing information must be accurate. If your call costing information is inaccurate, and you charge your subscribers less than you yourself are charged by the phone company, then you are losing money. Of course, you do not have to assign the same rates to subscriber calls that the phone company charges you for your calls. You can modify the rate to include a markup or intentionally provide a discount.
- **Monitor telephone system use in real time**
  You can set alarms, for any or all extensions, for all call statistics, including caller ID information (such as caller name and number). You can also set alarms based on call cost thresholds and toll fraud parameters. Alarm notifications alert you when event thresholds are reached. You can choose to be notified by visual changes in the monitor, sound prompts, pop ups, or email. By setting alarms based on the thresholds you define, you can monitor telephone system abuse and stop it as it occurs.

Automatic Call Distribution (ACD)

Automatic Call Distribution (ACD) is a specialized mechanism for distributing incoming calls. The primary goal of ACD is to ration calls to agents in a cost-effective manner that provides acceptable service to callers.

To optimize the use of agents, you cross-train them so they can handle a variety of inquiries. Rather than distributing calls to a number of small, specialized agent or extension groups, ACD distributes them efficiently among the entire pool of available agents. When you consolidate resources (use the Pooling Principle), the same number of contact center agents handle more calls while maintaining Service Levels.

Typically, you program ACD to ensure the first call to arrive reaches the first available agent or the agent who has been idle the longest. However, you can vary the order of calls and agents to provide superior service to preferred customers, and skills-based routing.

Understanding ACD call flow

The path of an incoming call is as follows. A caller telephones your contact center via the Public Switched Telephone Network (PSTN). (The PSTN is a global collection of Central Offices (COs) interconnected by long-distance telephone switching systems.) The local CO directs the call to one of your trunk groups. An available trunk picks up the call. Typically, calls from the PSTN arrive to the contact center over incoming trunks and calls from the contact center to the PSTN travel over outgoing trunks. If no trunks are available the call does not get through to the system (it is blocked) and the caller receives a busy signal.

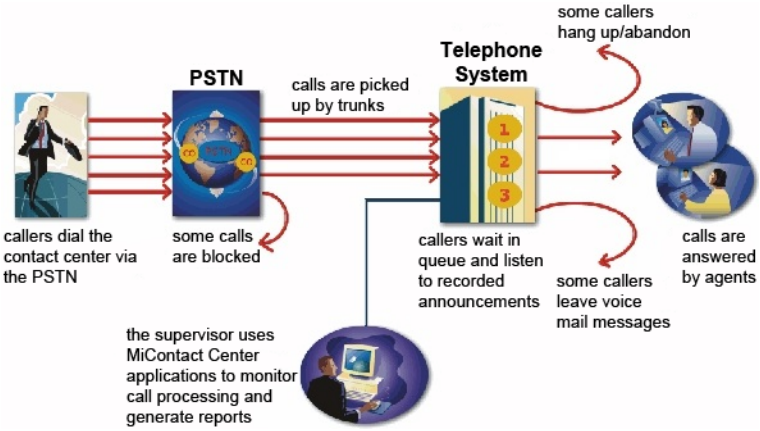
When a trunk picks up a call, it forwards it through to a group of agents handling calls, or to some other answering point. The call arrives at the ACD queue of an agent group. The queue delays the call rather than blocking the call from entering the system. The length of time the caller waits in queue is the queue time. While waiting in queue, the caller listens to product features, announcements, or other messages provided by a Recorded Announcement Device (RAD). The caller can wait patiently in queue for an available agent, leave a voice mail message, or hang up (abandon) the call. (See the following figure.)

An agent handles the call. The time the caller spends talking to the agent is the ACD Handling Time (including the hold time). If the agent calls the supervisor in search of more information (while the caller is on hold) and/or transfers or conferences the call, these times are added to the ACD Handling Time value.

For example, an agent speaks to a caller for two minutes and then puts the caller on hold for three minutes and tries to solve the problem. This may include a call to the supervisor. The agent then initiates a conference call with the caller and a third party and they speak for three minutes and resolve the issue. Therefore, the ACD Handling Time for the agent is 2 + 3 + 3 = 8 minutes.

When the call is completed, the agent might need to perform additional work associated with the call. The time taken to perform this work is the Wrap Up Time.

Figure 4.1: Call flow



Monitoring the call flow process

Second-by-second (real-time) statistics presented on wall signs and desktop monitors enable you to monitor the service provided to callers. You can monitor the number of incoming calls, the time it takes to process them, the queue load, and the availability of agents using a Management Information System (MIS). The MIS refers processes data produced by the telephone system. The MIS uses telephone system records to provide forecasting, real-time monitoring, and reporting functions.

Ensuring traffic-carrying efficiency

To optimize traffic-carrying efficiency ensure

- Sufficient trunks are available to carry incoming calls.
- Callers experience a delay in queue.
- There is a random distribution of calls among available agents.

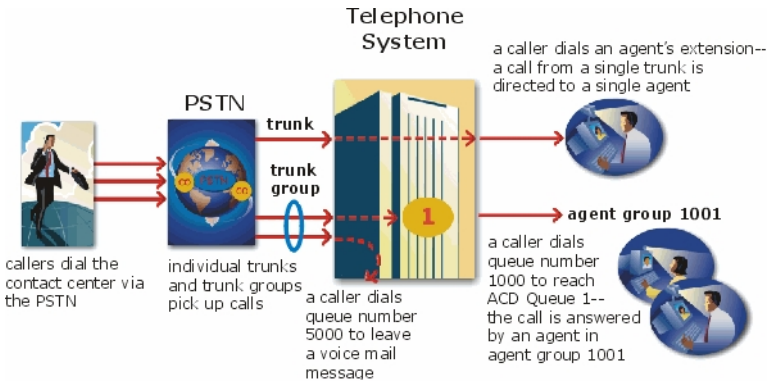
Scheduling to optimize call flow

You schedule agents so the number of incoming calls at any given time typically exceeds the number of agents currently available. The intent is that callers experience a slight delay before agents answer their calls. The expected number of incoming calls forecasted for the time of day, and day of the week influence scheduling decisions.

Routing calls

Call routing options you program in the telephone system provide a set of instructions that automate the movement of calls to their intended answering points. You can define options—for example, if the caller dials 1, the system forwards the caller to customer service. You can specify re-routing for calls not answered after a set period of time and parse incoming Automatic Number Identification (ANI) and Dialed Number Identification Service (DNIS) data to direct call routing. (See the follwoing figure.)

Figure 4.2: Call routing



Dialing an agent's extension

In the simplest call scenario, a single trunk picks up an incoming call to your contact center. The telephone system presents the caller with options to dial various answering points. The caller dials an individual agent at an extension through a queue number. A queue number is an address mechanism for a queue or other answering point. The programming associated with the queue number defines the routing and timing features of the call. The telephone system collects data on the agent and trunk involved in the call. The ACD management reporting application produces reports on agent and trunk activity.

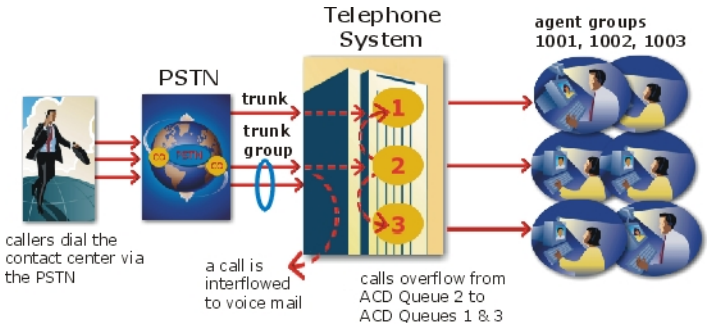
Dialing a queue

In the next call scenario a trunk group picks up an incoming call to your contact center. The system presents the caller with options to dial various answering points. The caller dials queue number 1 to reach queue 1 (Customer Service). The system forwards the call to the first available agent in the agent or extension group associated with queue 1. The call is an ACD call because one dialable number represents all of the agents in the group. The telephone system collects data records for the call. The ACD management software produces Queue Reports on queue 1.

Overflowing calls

An ACD call that is not answered immediately is placed in a queue. If an agent does not pick up the call after a set amount of time (the overflow time) the system places the call in the queue of another agent group, in addition to keeping it in the first queue. The first available agent in either group handles the call. The overflow feature limits the delay faced by callers by queuing calls against two or more agent groups. (See the following figure.)

Figure 4.3: Multiple queue routing



Interflowing calls

You can program the ACD routing system to direct a queue delayed call to voice mail or to another answering point. The interflow timer runs independently of the overflow timer. If the interflow timer expires, the system removes the call from the queue and re-directs it to another answering point, such as a trunk or voice mail.

Ring Groups

MiContact Center Business and MiVoice Analytics support Ring Groups. Ring Groups are a call distribution mechanism that offers an alternative to ACD for distributing calls in your business. While ACD is focused on rationing calls to pools of available agents, Ring Groups are configured to distribute calls to a pool of specific extensions. Users can configure Ring Groups within YourSite Explorer, monitor them in Contact Center Client, and report on them.

When an incoming call rings the Ring Group, the member extensions configured in the Ring Group are rung until one extension answers. Ring Groups can be programmed to offer calls to extensions using five different algorithms:

- **Ring All:** Rings all available extensions in the Ring Group simultaneously.
- **Terminal:** Starting from the first extension in the member list, rings the first available extension.
- **Terminal Cascade:** Starting from the first extension in the member list, rings the first available extension for the duration of the Cascade Ring Timer before calling the next available extension in the member list.
- **Circular:** Starting from the last member to handle a call, rings the next available extension in the members list
- **Circular Cascade:** Starting from the last member to handle a call, rings the next available extension in the member list for the duration of the Cascade Ring Time before calling the next available extension in the member list.

Ring Groups enable a business to ensure that in settings where employees may not have a set physical location or mobile device, such as a warehouse or back office, calls can be effectively distributed to an answering extension. Calls to Ring Groups can be ACD or Non ACD in Mi Contact Center Business real-time and reporting.

Incoming calls are handled differently than ACD path queues as well. If a call comes in, it will be queued if any one of the Ring Group's extensions are available. Available extensions are those that are:

- Idle
- Busy (ACD, Non ACD, or Out)

If the Ring Group's extensions are not available, the call is overflowed immediately (if an overflow point has been configured) or receives no answer. Extensions in the following states are not available:

- Do Not Disturb
- Out of Service
- Not Present
- Reseize Timer

For more information about extension states, see *"Extension states"*.

The inbound call environment

The inbound contact center environment has unique characteristics that must be considered in effective planning and management.

Predicting call arrivals

Calls arrive randomly to contact centers. You cannot predict the minute-to-minute arrival of calls. This results in unanticipated increases in workload, and impacts staffing calculations and the load carried by system and network resources.

You can predict the pattern of call arrivals for 15-minute or longer intervals. For example, you can predict that next Monday between 1:00 P.M. and 1:30 P.M. you will receive 60 phone calls. However, you cannot predict how many calls will arrive in the first five minutes, the second five minutes, and so on.

Understanding caller tolerance

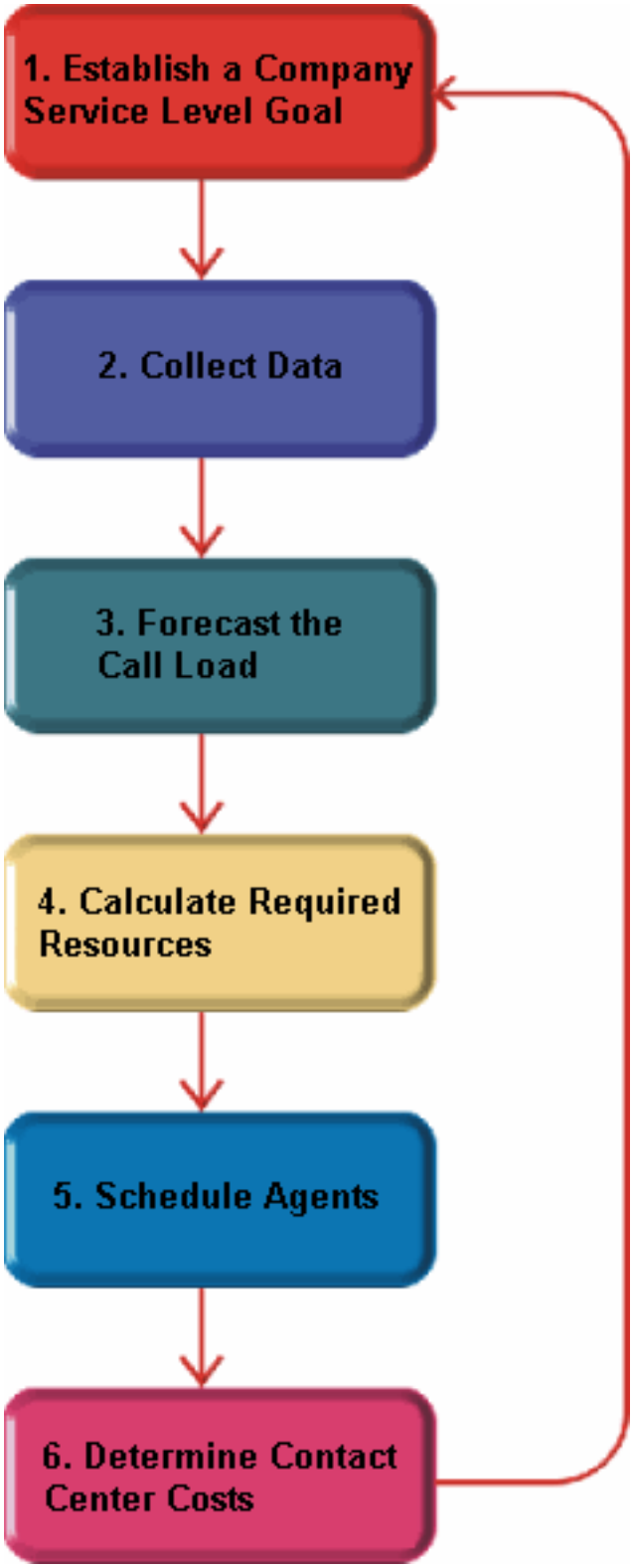
Several factors influence a caller's tolerance to queue delays:

- The immediacy of the caller's requirement
- The availability of similar products or services
- The caller's expectations for service
- The time available to make the call
- Whether or not the caller is paying for the call

Contact Center Planning and Management

Effective contact center management involves having the right resources in place at the right times to handle an accurately fore casted workload at the desired level of service. Commitment to a systematic planning and management strategy is essential. The strategy is based on corporate objectives that you continually assess and refine. Whether you are managing a start-up contact center or refining the performance of an existing operation, the process illustrated in the following figure applies. It is the basic framework for achieving and maintaining your service objectives.

Figure 5.1: Planning cycle



The objective of contact center management is to find the right balance between the agents scheduled and the service provided to customers. This involves assessing and re-assessing trade-offs between the Service Level, agents scheduled, and average call duration for a known Call Load for each 15-minute or

half-hour interval of the day. Collecting, properly interpreting, and applying ACD and other information allows you to accurately forecast the workload and schedule sufficient agents to meet your service objectives.

Step #1 Establish a corporate service objective

The Service Level % is a performance metric contact center managers use to determine what proportion of customers, who contact you by voice/email/chat, receive 'good' service. Using the Service Level %, you can gauge the level of service customer's experience, from a historical and a real-time perspective.

Defining and adequately funding a service objective should be closely tied to your corporate mission. The service objective identifies the average length of time a caller who has obtained a trunk waits for an available agent. It is the basis for planning and budgeting and links the resources you require to your service objectives. Choosing a service objective is the first step in a comprehensive planning and management solution. Once you set a service objective, you should routinely access it to see how consistently you are meeting it, on a 15-minute or half-hour basis.

Contact centers in different industries use different criteria for measuring service. Your service objective should reflect the type of service being provided and the expectations of callers seeking the service. For example, a company that sells magazine subscriptions has less to lose in the outcome of any one call than a car dealership does. A caller to a credit card 'lost or stolen' line might expect different service than a caller to a customer service department at a bank. Contact center metrics across industries are designed to reflect this.

Performance targets must suit the primary function of a contact center. In revenue-based contact centers where agents sell products or services, the net revenue per call is considered when defining a service objective. Revenue-based contact centers strive to provide a high level of service with minimal blocking and delays.

Understanding the Service Level

The Service Level applies to all of the media types (voice, email, chat, SMS, and open media).

The *Service Level* is expressed as *X percent of calls handled in Y seconds or less*, such as 80 percent of calls handled in less than 20 seconds. Why is Service Level the standard measurement of service? Service Level provides the most accurate representation of the callers' experience. It is ultimately the caller who decides what constitutes good service, and whether or not to end a call. It applies to inbound transactions that must be addressed as they arrive.

When a caller enters a queue, the call is processed in one of three ways:

- An agent answers the contact (handled contact).
- The client disconnects before an agent answers (abandoned contact).
- The contact is removed from the queue, and sent to another handling point (for example, to voice mail, an automated attendant, or another queue), (Interflowed contact).

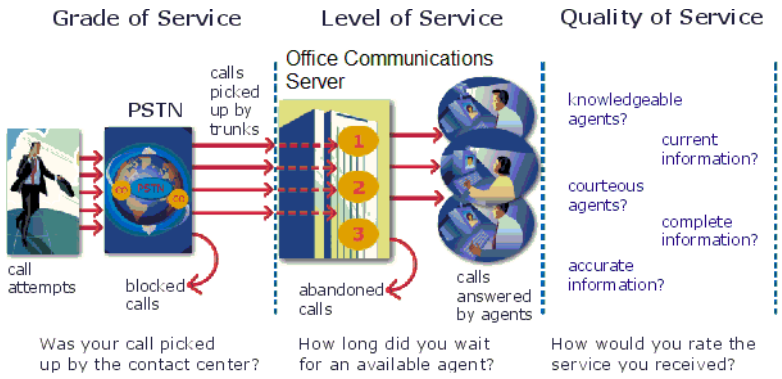
For detailed information on Calls Offered, Calls Handled, Calls Abandoned, Calls Interflowed, and other Service Level parameters see *"Choosing a Service level goal"*.

Understanding why the Service Level is the most meaningful statistic

The Service Level is one of many ACD statistics used to measure performance. Each statistic has its purpose. For example, the *Grade of Service* (GOS) statistic relates trunk use to the level of traffic and indicates the likelihood an attempted call will receive a busy signal. It is expressed as a decimal fraction. For example, a GOS of P.02 means a caller will have a two percent chance of receiving a busy signal. Since trunk costs are insignificant compared to agent costs contact centers are well advised to schedule sufficient trunks, abandons should be minimal.

A *delayed call* is a call placed in the ACD queue because it cannot be answered immediately by an agent. The *probability of delay* statistic relates the number of agents or extensions to the level of traffic carried by the trunks and indicates the likelihood and amount of delay experienced. The GOS, probability of delay, and Quality of Service rendered by agents provide vital information about the callers' experience. (See the following figure.)

Figure 5.2: Service criteria



The GOS and probability of delay contribute to our understanding of what happens to the calls not answered in Y seconds, and give meaning to Service Level. Service Level is the primary statistic used in planning and budgeting because it is the most stable measurement of queue activity.

The following statistics are also meaningful contact center indicators:

ASA

The *Average Speed of Answer* (ASA) is an ACD statistic that measures how long the average caller waits on hold before the call is picked up by an agent. ASA is a valuable measure of service quality, but is often misinterpreted. The average does not represent what is typically experienced by individual callers. Most calls are answered by agents more quickly than the average, but a small percentage of callers wait several minutes in queue. ASA is a useful parameter, but Service Level is a more reliable indicator of what callers experience.

Abandonment

ACDs collect statistics on how long callers wait before abandoning calls, and what percentage of calls are abandoned. Unfortunately, *abandonment* is difficult to forecast because it is impossible to predict caller behavior with any reliability. Sometimes when the Service Level is high more callers abandon than expected. There are no industry standards for abandonment. It is a somewhat unreliable measure of contact center performance. However, abandonment statistics assist in planning Service Levels, and provide valuable information used to create in-queue and message-on-hold announcements.

Choosing a Service Level goal

Contrary to popular belief, there is no industry standard Service Level. Some contact centers base their Service Level goal on the targets of similar companies in the same industry. In doing so, they assume these companies are actually meeting their intended targets. Companies are setting increasingly rigorous Service Level targets in sectors where outstanding customer service is the norm. In a survey of over 100 UK contact centers, Opta Consulting was surprised to find an average performance target of 90 percent of calls answered in 15 seconds. They found that companies setting extremely rigorous targets did not necessarily meet them, and the investment required to achieve 'best in class' targets was difficult to justify.

Setting an appropriate Service Level goal for your contact center is not easy. The motivation and expectations of your customers, the availability of similar goods or services, the Service Level targets of same-industry companies, and the value of calls are things to consider. It may be useful to run some calculations to determine the trade-offs in Service Level associated with adding or removing an agent, and implement customer satisfaction surveys. When defining your corporate Service Level, consider several factors and rate their relative importance.

An appropriate Service Level is one that

- Satisfies callers' expectations for service
- Minimizes the number of abandoned calls (ideally under five percent)
- Minimizes expenses and maximizes revenue
- Satisfies the expectations of support staff, supervisors, and senior management

Consider this modest objective. For a Service Level of 80 percent of calls answered in less than 20 seconds, callers receive the following service:

- Approximately 30 percent of callers experience a delay in queue.
- The longest wait time is approximately three minutes.
- The average speed of answer is approximately 12 seconds.

Is this acceptable service for you and for your callers?

Understanding Quality of Service

Agent statistics reflect the time agents spend in various states and are used to assess agent performance. The average time an agent spends handling interactions, and in the Make Busy, Do Not Disturb, Unavailable, and Wrap Up states directly affects the agent's availability and the Service Level provided to callers.

Service Level alone does not ensure customer satisfaction. The quality of the interaction between the caller and agent leaves a lasting impression. *Quality of Service* reflects an agent's ability to provide excellent service to each customer. The knowledge of the agent, the accuracy and completeness of the information provided, and the courtesy extended to the caller contribute to the caller's experience.

Monitoring call handling techniques

Silent monitoring systems complement ACD statistics by providing a snapshot of quality and productivity in your contact center. You can track call handling techniques and determine where improvements can be made in individual performance. Advanced systems capture the voice interactions between agents and callers and record agent data tables for a complete picture of call handling. They provide online evaluation forms so you can annotate recordings with feedback.

Silent monitoring takes the bias out of performance evaluation. Silent monitoring provides a systematic process for monitoring and grading agent calls. You can schedule sessions across different times of the day, days of the week, and evaluators promoting fairness and consistency. Showing agents where improvement is needed is more effective than just telling them. Silent monitoring can contribute to a reduction in call time, a reduction in monitoring time and personnel, and increased training efficiency.

You can use pre-recorded interactions between agents and customers to train agents and for ongoing evaluation.

You can use the information to

- Provide recorded examples of exceptional service and unacceptable service to agents in training.
- Record, review, annotate with feedback, and forward call records to agents who then review your comments within the context of the actual call.
- Calibrate and routinely access the scoring consistency of call monitors.
- Assess the effectiveness of current training programs.
- Assess the efficiency of the monitoring and assessment process.

Defining scoring parameters

The parameters used to evaluate how well agents handle calls are based on the purpose of the calls. Goals vary across calls for inbound and outbound services. For example, in an outbound sales environment quality may be based on whether or not the agent made the sale, took advantage of cross-sell opportunities, and adhered to a pre-defined script. In an inbound environment quality may be based on the completeness and accuracy of the information and whether or not the caller's questions were answered satisfactorily. Agents are also evaluated on 'soft skills', such as voice quality, pausing at regular intervals, rate of speech, use of positive language, and other listening and communication skills.

Setting performance standards and goals

Once you determine appropriate scoring parameters, you define standards for exceptional and acceptable levels of performance. Assessment standards are based on consensus and must be clearly defined and communicated to monitors and agents. Collaborate with agents in setting performance goals and clearly define exceptional service and interim performance steps. Determine a baseline of current performance and set performance steps for an agent group. Provide agents in the group who meet or exceed the interim target with rewards and recognition commensurate with their performance. When systematically used in training and coaching recorded sessions positively impact productivity. Fair assessment is good for moral and motivation, and contributes to an environment in which agents can learn and grow.

Monitoring frequency

The frequency of monitoring sessions is determined by individual companies and ranges from once a month to 15 or 20 sessions a month. Implementing five to 10 monitoring sessions per month is common practice. Trainees and agents with consistently low scores are monitored more frequently than other agents. Resource limitations typically influence the frequency of monitoring.

Monitoring systems and tools

The following monitoring systems and tools help you evaluate the performance and manage the quality of service of your contact center.

Silent monitoring systems

*Silent monitoring systems*range from tape recorders to client/server based recording systems. Advanced systems schedule, record, and store voice files in a compressed digital format using a real-time link to

your telephone system. They capture any data tables accessed by the agent in addition to voice data. Silences are eliminated to optimize monitoring efficiency. Recording sessions can be played back from any telephone, anywhere, at any time. You can customize agent evaluation forms and define parameters for quality with advanced systems. They provide activity, status, and management reports for evaluating agents and observation practices.

IT support systems

Information Technology(IT) support systems are commonplace in contact centers. Contact center agents divide their time between listening to customer requests, entering and updating customer information and other entries, searching for required information, and providing feedback to customers. In order to provide prompt and complete information, agents must have immediate online access to information including customer records and case histories, products and services, and company policies and procedures.

The push to increase agent efficiency and customer service has placed new demands on computer information systems and information technology. Information products that enhance agent productivity are continually being developed. Contact center systems are designed to incorporate some, or all of the following specialized support functions.

CTI

Computer telephony integration (CTI) is the merging of computers and telephone systems. Today's computer-based telephone systems deliver synchronized voice and data, voice and data conferencing, automatic information retrieval for calls, caller-based messaging and routing, and desktop productivity tools. You can use customer databases in call handling to enhance customer service and agent productivity. When databases are shared between contact center departments each agent can access a caller's contact information, purchasing records, call history, and preferences by a caller ID number.

ANI

Automatic Number Identification (ANI) identifies the telephone numbers of callers to your contact center, so agents can receive screen pops with calls. You can connect a database to your telephone system to simultaneously send calls and caller information. The telephone system forwards the caller's telephone number to a software application that relays database records on the caller to the agent. Alternately, the caller enters an ID number that the database associates with a set of records for the caller and the agent is sent the information.

ANI saves agents time since they do not have to ask for and enter a name for a caller, and wait for the database to respond. This time savings significantly impacts staffing requirements and telephone service charges. ANI also identifies telephone numbers of callers who abandon calls so they can be contacted later for potential business.

Reports can identify the volume of usage and costs of internal line numbers, and help you track the long distance distribution per line number and maximize long distance efficiency.

DNIS

Dialed Number Identification Service (DNIS) is a feature of toll-free lines that identifies the telephone number the caller dials. This assists agents who handle calls for more than one business or product line. Each business or product line has its own toll-free number. When a caller dials a toll-free number, the telephone system forwards information to the agent so the agent can identify who the caller dialed. For example, a caller dials a toll-free number for a cruise line. The telephone system sends a script to the agent along with the call. The agent then knows to answer 'Good morning. Thank you for calling Southern Cruises', instead of the name of another cruise line serviced by the center.

Automating help desk workflow

Agents at IT help desks require quick access to customer information and call history, and the ability to rapidly log all of the support calls and incidents. Advanced help desk packages offer automated desk help workflow systems. They assist agents in logging service requests (tickets), dispatching them to prioritized queues or agents, tracking them, and documenting activities.

External applications, help desk operators, or end users (in web-based applications) generate tickets. The system generates them manually, or in some cases automatically, in response to system events. It can correlate multiple incidents with single tickets, and multiple problems with a single call.

Automated help desk workflow systems track each step taken in answering a call, with automatic time stamping of all of the referrals, escalations, reminders, alerts, and email notifications. Calls are prioritized and referred to other departments without reassignment, reassigned (escalated) to other technicians or specialized staff, and placed in an alert condition when they are not resolved promptly. Activities are date and time stamped automatically. Most help desks offer outgoing email notification and paging. Some help desks offer automated logging of incoming emails, and automated call acknowledgment emails to clients.

Step #2 Collect data

Telephone systems generate an enormous amount of real-time and historical data used in planning and management of your contact center. You use real-time data to monitor the current Call Load and agent availability so minute-to-minute adjustments can be made. You use historical information in forecasting, staffing, and scheduling. Other critical management information comes from customer surveys, market studies, employees, external departments, telephone networks, workforce management systems, competitors, and the media. Data collection is a continuous process you implement as soon as your telephone system is up and running.;

Telephone systems provide detailed report data on every aspect of call transactions. You can program computer-based telephone systems connected to a Local Area Network (LAN). Users on the LAN can view or print real-time and historical reports. Using web-enabled telephone systems, you can view and generate reports in a Web browser. You can monitor contact center activities remotely, and distribute reports to people on different networks.

Collecting data on call handling

Contact center reporting software displays real-time telephone system data on desktop monitors and wall signs. Using real-time data, you can manage current conditions and ensure agents respond to changing contact center events. The telephone system provides information on call activity, agent activity, and queue activity.

You can use historical data in forecasting and in assessing the performance of your resources. Historical reports provide vital information on load activity, resource activity, and queue activity.

CTI provides in-depth information on call transactions. Detailed information on keystroke sequences, databases searched on, and on-screen assistance provides a clear picture of agent activities. Using ANI data, you can identify callers by area code and collate information on demographic trends in caller behavior.

Workforce management systems use telephone system data to forecast and schedule agents. Some packages monitor the real-time adherence of agents to scheduled activities, so you know the number of

agents currently logged on and available to handle calls. Workforce management systems collect and store real-time adherence data. This data provides a historical account of adherence used in agent assessment.

Customer surveys provide valuable supporting information on callers' tolerance to delay, and expectations for service. They address some of the following questions: Was the agent accessible? Was the caller put on hold for too long? Was the agent courteous and responsive to my request? Was the agent well informed? Did the agent provide the correct information and keep commitments? Contact centers use this information to estimate the repercussions of poor service: escalated costs, duplication of work, lost customers.

As the economy moves towards individual, personalized services, new ways of handing calls continue to emerge. These new features add to the complexity of collecting and measuring information. It is vital you establish an integrated, reliable system for measuring the key indicators of performance: the efficiency of call handling, the service that callers experience, and their perceptions of that service.

Step #3 Forecast the Call Load

Finding the right balance between resources and traffic volumes is a critical step in effective contact center management. Estimating resource requirements is particularly challenging as the number of calls and the total duration of calls expected for a given time interval is difficult to predict.

Forecasting impacts contact center operations and performance in the following ways:

- The number of blocked and abandoned calls
- The level of service provided to callers and callers' perception of service
- Agent workload, call behavior, and retention
- The accuracy and usefulness of schedules
- The success of periodic sales campaigns

Forecasting accurately

Forecasting is an imprecise science. The accuracy of your forecast increases markedly with the size of your data sample. You take a year (or preferably two or three years) of ACD queue traffic data, examine trends in Call Load patterns, break down the information, and determine the ACD Handling Times of the calls. You then modify the forecast based on current contact center activities and other considerations, such as absenteeism, agent breaks, holidays, and training.

The range of forecast dates you specify depends on the purpose of the forecast. Using long-term forecasts, you can estimate future budgets and expansion opportunities, and establish corporate objectives. Using short-term forecasts (of one to three months) you can determine seasonal staffing requirements, plan for short-term sales campaigns, and assess upcoming hiring needs. You can use weekly, daily, hourly and half-hour forecasts to tweak agent schedules and adjust for absenteeism.

Conducting forecasts

Conducting a forecast involves accurately estimating the three components of Call Load: the ACD Handling Time, Wrap Up Time, and Calls Offered. After you run a forecast, it is useful to examine the data and make adjustments based on present contact center conditions. You tweak the forecast by adding or reducing calls based on your intuition and on information gathered by yourself and others.

To forecast the agent requirement, you

1. Examine trends in Call Load patterns.
2. Break the information down in to monthly, weekly, daily, half-hour, and 15-minute intervals that reflect Call Load patterns.
3. Determine the handling times of calls.
4. Modify the forecast based on current contact center activities and other considerations, such as absenteeism, agent breaks, holidays, and training.

You may need to consider the following issues: hardware or software system changes, expected callers, advertising and media, changes to your products, services, or pricing, new products, product performance, competitors' actions, and international, national, and corporate events. It is vital to have a systematic forecasting process in place that all of the departments support. For detailed information on Call Load, ACD Handling time, Wrap Up Time parameters, see *"Forecasting terms"*.

Step #4 Calculate the resources required

You calculate the agent requirement in conjunction with the trunking requirement. The number of available agents affects the likelihood and length of delay experienced by callers. The delay affects the load trunks must carry. Because the number of available agents impacts the number of trunks required, you calculate the agent requirement first.

The Erlang C formula uses your historical Call Load and Average Talk Time data to predict the agent requirement for the time interval and date range in the forecast. The resultant spreadsheet displays the Call Load and agents required across time intervals.

Predicting agent requirements

Agent costs account for over 60 percent of all of the contact center costs. Accurately predicting the agent requirement, making the most effective use of agents, and standardizing and monitoring agent activities are paramount to achieving your service objectives. Agents are your most valuable resource: make team building and team management a high priority.

You can predict the agent requirement for your Service Level Percentage and Service Level Time targets by applying the Erlang C equation to the estimated Call Load and Average Talk Time.

Understanding Erlang C

Staffing models consider important factors unique to the inbound contact center environment:

- Call arrival is random.
- Consolidating resources allows the same number of contact center agents to handle more calls while maintaining Service Levels.
- Maintaining high Service Level targets requires staffing a large number of agents that will be idle a significant portion of the day.

The industry standard Erlang C equation operates on these principals. Most contact center reporting packages use Erlang C. An Erlang measures telephone traffic, or the flow of calls and call attempts to your contact center during a given period. One Erlang equals one hour or 60 x 60 = 3,600 seconds of

telephone interaction. This could be one call lasting one hour, six calls lasting 10 minutes, or any combination of calls and call durations that equal 60 minutes. The Erlang formulas provide a mathematical basis for making predictions about randomly arriving workloads.

Agent and delay calculations use the Erlang C equation. It predicts the resources required to keep delay times within your Service Level objective. Three variables influence the delay time: the number of agents, the number of waiting callers, and the average time it takes to handle each call.

Limitations of Erlang C

Erlang C has fundamental principles that do not reflect real-world circumstances. It assumes all of the calls reach the contact center and all of the callers wait indefinitely to reach agents. Because Erlang C assumes no blocking or abandons, it may overestimate the agents you need. Erlang C requires accurate information on call flow where voice messaging and call overflow are employed, assumes your Call Load prediction is extremely accurate, and assumes you have the same number of agents handling calls the entire half hour.

Although Erlang C has its limitations, it is the preferred planning tool as it provides reasonable traffic estimates for contact centers that maintain good service-and few abandons.

Considerations when predicting resource requirements

Erlang C provides theoretical numbers for staffing that you need to assess in light of the following contact center realities:

- The contact center blocks a certain proportion of calls and some callers abandon their calls.
- Talk time is unpredictable, and although most calls may last two to three minutes, a few calls can last upwards of an hour.
- Agents in training may require more time to process calls.
- Agents may use wrap up (after-call paperwork) time inconsistently during busy periods.
- Not all of the agents within an agent group are available at all times to handle calls offered to the agent group.

Erlang C predicts staffing needs fairly accurately. However, contact centers that use skills-based routing, overflow, interflow, and advanced routing options need to use intuition and experience in adjusting the final numbers.

The Erlang C formula uses your historical Call Load and Average Talk Time data to predict the agent requirement for the time interval and date range in the forecast. The resultant spreadsheet displays the Call Load and agents required across time intervals.

Performing 'what-if' scenarios

After you run a forecast, you can perform 'what-if' scenarios on the resultant data by changing the value of forecast parameters and recalculating the results. You can enter values for the ACD Calls Offered, average ACD Handling Time, Wrap Up Time, and Service Level Percent and Time and recalculate the number of agents required. For example, you can reduce the average handling time and recalculate the agents required and the calls handled across 15-minute time intervals for the shift.

Understanding the relationship between agents and trunks

You are already familiar with the terms GOS (probability of blockage) and Service Level (average wait time).

The following definitions are essential to understanding the relationship between agents and trunks.

Delay

Trunk calculations assume no queueing. For trunk calculations, the *delay* includes the time from when a trunk picks up a call until an agent answers it.

Agent Load

The *Agent Load* includes the ACD Handling Time and Wrap Up Time.

Trunk Load

The *Trunk Load* includes the time from when a trunk picks up a call until the agent finishes speaking to the caller and disconnects. The Trunk Load does not include Wrap Up Time.

Callers expect to have a 95 percent or better chance of obtaining a free trunk in to your contact center, and expect to connect to an agent within a reasonable amount of time. There must be sufficient trunks available to pick up calls, and sufficient agents available to handle the level of traffic carried by the trunks. The more agents handling a given Call Load, the less delay callers' experience. Callers experience a delay if there are insufficient agents available. If the delay is considerable, calls back up and some calls do not reach the contact center.

Traffic engineering involves estimating the number of trunks and amount of communications equipment needed to service an anticipated number of callers. It revolves around basic questions concerning the relationships between service parameters and trunk and agent resources. How much traffic can a particular number of trunks handle for a particular GOS? What is the GOS for a particular number of trunks and traffic level? How many trunks are required to handle a particular traffic level and GOS? What is the probability of delay and length of delay experienced for a particular traffic level and number of agents? How many agents are required to handle a particular traffic level for a given set of delay characteristics?

Understanding Erlang B

Contact centers use the Erlang B equation to estimate the number of trunks required. Erlang B assumes calls are not queued and that callers who receive a busy signal do not attempt to call again. It can underestimate the trunks required. One Erlang equals one hour or 60 x 60 = 3,600 seconds of telephone interaction.

Predicting your trunk requirement involves

- Determining your Busy Hour Traffic (BHT)
- Deciding how many blocked calls you can tolerate, or Grade of Service (GOS)

BHT

The *Busy Hour Traffic* (BHT) statistic, measured in Erlangs, is the number of hours of call traffic (or trunk traffic) you experience during the busiest hour of operation. It is important that your busy hour figure represent the busiest Call Load your trunks will ever receive, and not just today's peak traffic. BHT is the *(average call duration+ average delay) x calls per hour ÷ 3600*. This value represents the highest Trunk Load (occupancy) in hours.

The *call center traffic* is the average number of trunks busy during the hour in question. One Erlang equals one hour, or 60 x 60 = 3,600 seconds of telephone interaction. If a contact center experiences 6.12 erlangs (or 6.12 hours of telephone interaction) during an hour, an average of six trunks were busy.

GOS

The *Grade of Service* (GOS) value is a decimal fraction. A GOS of P.02 means a caller has a two percent chance of receiving a busy signal. Contact centers use GOS in calculating the number of trunks required. It is important to specify a GOS that is right for you in order for the trunk calculation to be realistic.

Predicting trunk requirements

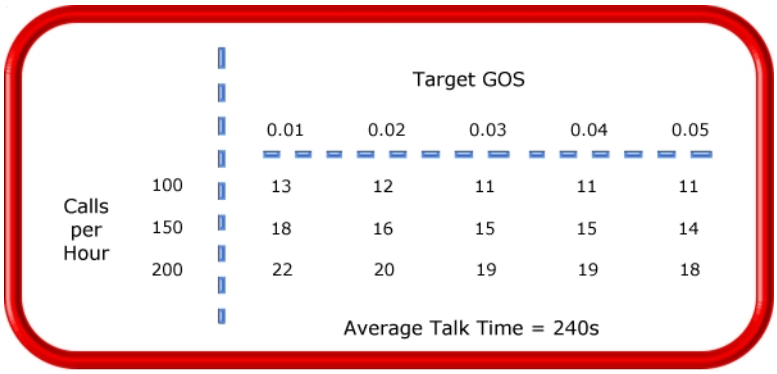
The number of trunks you require reflects the level of traffic expected during your busiest hour of operation. The busy hour is the hour during the workday in which a trunk group carries the most traffic. You calculate the Trunk Load after you forecast the Call Load for the busiest hour and determine the number of agents required to handle the Call Load for your Service Level objective.

Traffic calculators used to predict contact center resource requirements are available on the Web from companies such as erlang.com. You can obtain basic calculators at no cost. Calculators that display and print results or calculations made during the previous week are available at a modest cost.

To calculate the trunks required you simply input two of the figures and calculate the third. For example, if you know that your Busy Hour Traffic is 10 erlangs and you want to determine how many trunks are required when two calls are blocked in every 100 call attempts, you input the busy hour time (10) and your target rate of blocking (0.02). The calculator displays a value for the trunks required (17).

The following figure illustrates the trunks required across a spectrum of GOS values. Whether you chose a GOS of 0.01, 0.05, or somewhere in between these values reflects how may calls per 100 call attempts you can afford to lose. In revenue-based contact centers minimal blocking and delay is a priority.

Figure 5.3: Estimating the trunk requirement



Although some contact centers base the trunk requirement on a staff-to-trunk ratio, such as 1.5 trunks per agent, many use the Erlang B equation. Whatever ratio results will be the right one for you.

It is better to slightly overestimate than slightly underestimate the number of trunks required: trunks are inexpensive, compared to agent costs. You can always cancel a trunk if periodic Trunk Load calculations show low occupancy on the trunk.

No staffing approach is absolute. You need to acknowledge the assumptions implicit in your calculations and use common sense when estimating your resource requirements. When you schedule resources, they must be closely monitored to ensure you are making full use of them.

Step #5 Schedule agents

Scheduling involves accurately forecasting the workload and determining which agents should work which shifts. This has traditionally been a labor-intensive manual process for contact center supervisors. You can schedule agents for breaks, split shifts, ACD and Non ACD work periods, repeating work patterns, holidays, and on call work. You can categorize agents by pay level, overtime eligibility, skill level, employment status (part time or full time), and scheduling preferences. Matching these shift and agent variables to the anticipated workload, and re-allocating agents in response to employee absenteeism can be a daunting task.

Scheduling is becoming increasingly challenging, as contact centers support a wider range of products and services, and agents require more frequent and specialized training. Advances in technology have automated many agent tasks and have resulted in more varied and challenging calls and responsibilities.

Accurately forecasting and building schedules that reflect the workload as it changes across intervals for days of the week, weeks of the month, and seasons of the year is essential in meeting your service objectives. You need a schedule that accurately matches agents to the anticipated workload and agents who aspire to adhere to the activities scheduled.

You can track the availability and activities of agents throughout the day and verify agents are performing the duties for which they are scheduled. Not adhering to the schedule, such as forgetting to log out for a break, or performing Non ACD work when scheduled to perform ACD work adversely affects your Service Level and the moral of other agents who must compensate for the unavailable agent.

Understanding the Shrinkage Factor

Accurately forecasting the workload and scheduling agents to satisfy your Service Level objective is a good start, but does not account for the activities that prevent agents from sitting at their desks and handling telephones.

Agents scheduled for ACD work can be involved in some of the following activities:

- On a bathroom break
- Making or receiving personal calls
- Conferring with the supervisor or another agent
- On the phone with other departments
- Sending emails
- Involved in a lengthy, difficult call
- Prolonged in after-call work
- Absent due to illness or compassionate leave

To account for short-term or daily unscheduled absences, you can calculate the rostered staff factor (Shrinkage Factor). The *Shrinkage Factor* is a numerical value that defines the percentage of time agents are scheduled to work but are unavailable to handle calls. It tells you the number of agents you must schedule in addition to the base number of agents required to meet your Service Level.

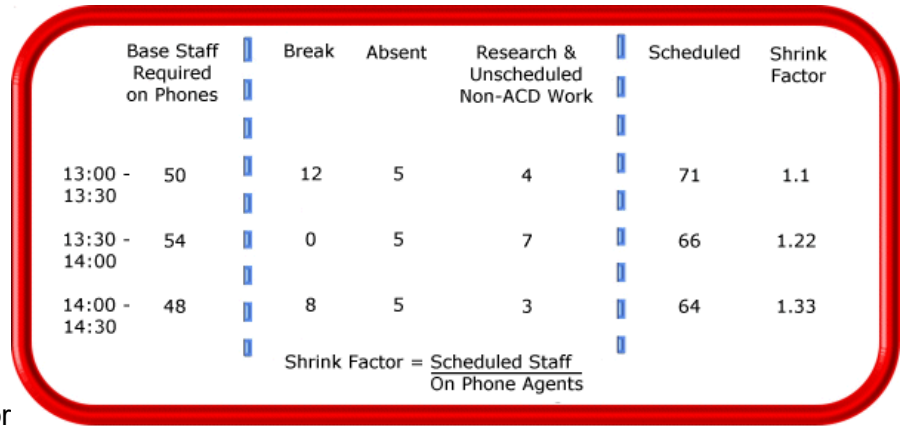
Calculating the Shrinkage Factor

You calculate the Shrinkage Factor for one or more agent groups as follows:

1. Determine the base staff forecasted by hour or half hour for the day.
2. Make a list of activities that prevent ACD agents from handling calls.
3. Add the base staff to the number of agents who are unavailable to handle calls because they are absent, on break, at an unanticipated meeting, etcetera.
4. Calculate the Shrinkage Factor for each time interval by dividing the scheduled staff by the base staff required to handle telephones.

   The result is a set of Shrinkage Factors that represent the expected shrinkage by half hour. See the following figure.

Figure 5.4: Calculating the Shrinkage Factor



You multiply shrinkage values against the base staff required on telephones when setting future schedules. If your agent requirements vary considerably on certain days of the week, you can calculate a separate set of Shrinkage Factors for these days. You must use your good judgment in identifying absences that are relevant to include in your Shrinkage Factor calculations. Anticipating higher absenteeism on Fridays and Mondays is a safe bet while factoring in daily compassionate leave is not. As with all of the steps in contact center planning, routinely assess the accuracy of your shrinkage predictions and adjust them as required.

Optimizing schedules

Now that you have adjusted your agent requirement to account for unanticipated absences, the next step is to design a schedule that makes the most of your resources.

The following examples illustrate ways to adequately staff a contact center without having agents sit idle during slower periods.

Scheduling split shifts

Although not everyone likes to take a long break in the middle of a shift, for some agents split shifts fit well with priorities outside of work. For contact centers that experience heavy call traffic in the morning and evening, split shifts prevent overstaffing during these periods.

Staggering shifts

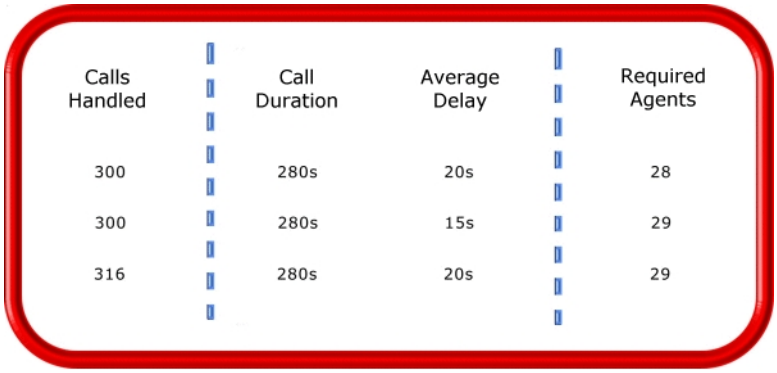
Staggering shifts allows you to maintain staffing levels over busy periods or periods when agents are on breaks. For example, one set of agents could start at 8:00 A.M., a second group at 9:00 A.M., and a third group at 10:00 A.M. so the contact center is fully staffed when it starts getting busy mid-morning. Alternately, you could schedule morning and afternoon shifts that overlap from noon until 1:00 P.M. to enable the morning shift to break for lunch while the afternoon shift handles calls.

Staggering breaks

Making slight adjustments to the timing of morning, lunch, and afternoon breaks has a tremendous effect on call handling. The Erlang C equation predicts 28 agents can handle 300 calls, each lasting 280 seconds and delayed 20 seconds. (See the following figure.)

The following figure illustrates that changing the availability by one agent decreases the average delay time by five seconds, and allows the contact center to handle 16 additional calls.

Figure 5.5: Staggering breaks to optimize call handling



Forecasting Non ACD work

Not all of the Non ACD work must be performed immediately. For example, call-backs to clients, emails, and discussions with staff and supervisors can sometimes wait until less busy periods. Forecast and schedule Non ACD work for slow times to ensure sufficient agents are available during peak periods. Set availability priorities and regularly communicate them to agents.

Scheduling part-time agents and agents on call

When practical, scheduling part-time agents and agents on call can be an effective strategy for topping up your pool of available agents. Scheduling agents on call is particularly useful for days of the week and seasons when absenteeism is noticeably higher.

Routing calls to optimize coverage

To optimize service, you can use the following routing strategies that involve resources outside of the target agent group.

Overflowing calls to less busy agent groups

You can overflow calls from busy agent groups to less busy agent groups during peak periods. You can route calls to agents who primarily perform Non ACD work but act as reinforcements during busy periods, and to supervisors.

Employing call-back messaging

You can program the ACD to forward calls to voice mail so callers can leave messages instead of waiting for live agents. Call-back messaging helps to balance agent workloads between peak call periods and slow periods.

Contracting calls to customer care bureaus

Contracting calls is a growing industry. During peak periods, you can route simple, routine calls externally to customer care bureaus. Service bureaus collaborate with contact centers to set up scheduling and monitoring practices, and train agents to handle calls that vary in complexity.

Employing ACD enterprise call routing

Contact centers that provide extended, or around-the-clock service, can interflow calls to other sites. For example, you can interflow mid-day calls received by a busy center in San Francisco to agents working the late-afternoon shift at a center in Philadelphia. This optimizes call handling without scheduling additional agents.

Scheduling considerations

Scheduling should be a collaborative effort. Agents have schedule preferences, and want to know when they are working well in advance. Agents are more likely to adhere to schedules if they are involved in defining the conditions of schedule adherence and non-adherence, and in other areas of the planning process.

Producing long-term schedules is less efficient than producing monthly schedules, as contact center conditions and agent availability are continually changing. Short-term scheduling is more accurate, but less popular with agents. It is important to find a good balance.

Measuring scheduling accuracy

You can measure the effectiveness of your scheduling process. Create a line graph of the Service Level for each half-hour interval for each day over the past week. Draw a horizontal line across the graph to indicate your service objective. Look for inconsistencies in the service provided for different time intervals across days, and how far you stray from your service objective.

If the Service Level is erratic, you may have enough resources in place, but they may not be consistently available to handle calls. If the Service Level is inconsistent at certain time intervals across the week, or you are not meeting your Service Level objective, investigate to see if you are adequately staffed at these times and are making the best use of resources. Try to assess how consistently the agents are responding to real-time information displays. Determine if they are restricting Non ACD activities to slow periods and adhering to the schedule.

Scheduling agents with workforce management tools

Workforce management tools assist you in scheduling agents for work and holiday periods. Many packages offer an integrated forecasting component that uses historical data to partially automate the scheduling process for established agents. Scheduling is not entirely automated: you must tweak agent schedules and enter shift and agent variables for agents manually.

Step #6 Determine contact center costs

An effective budget conveys what is currently happening in the contact center, projections for the upcoming year, and business objectives. It is important to highlight the trade-offs between the service

provided to callers and costs to the organization by developing at least two budgets that reflect different scenarios.

You need to provide a clear indication of how the money is being spent, what you are doing to reduce or curb spending, and what equipment is required to meet service objectives and expected growth over the next year. Budgeting is on-going process that needs continuous refinement.

Breaking down expenses

The costs associated with contact center operations include

- **Loaded labor costs**
  Loaded labor costs include wages, fringe benefits, and facilities, and account for over 60 percent of contact center costs. This is a significant cost and underlines the importance of accurate forecasting and scheduling.
- **Equipment and automation costs**
  Equipment and automation costs include the cost of the telephone system, computer systems, and furniture, and account for about five percent of total expenses.
- **Transmission costs**
  Transmission costs include costs incurred for voice (telephone lines) and data transmission, and account for 25 to 30 percent of contact center costs. Transmission costs have decreased considerably in the past few years and are continuing to drop. In revenue-based contact centers, toll-free lines cost approximately 15 cents per minute, or nine dollars per hour, per line.

The following statistics help you breakdown and analyze your contact center costs:

- **Cost of Delay**
  When insufficient agents are available to handle a given Call Load, the delay increases as does the Trunk Load. Calls are queued. For toll-free services each call delayed in queue is a cost to the organization. You are charged for the toll-free service from the time a trunk picks up a call until an agent completes the call and hangs up. The expense of queueing callers is known as the *Cost of Delay*. Staffing affects toll-free service costs: if insufficient agents are available and the Service Level is continually low, network costs will be high. You need to consider the Cost of Delay when estimating the agent requirement, and closely monitor it.
- **Cost per Call**
  You use a cost-per-call analysis to measure contact center profitability and performance. The *cost per call* measures labor, communication, and equipment costs against the revenue generated. You calculate it by dividing the total cost by the total calls for a particular period of time.
- **Average Call Value**
  You use the *Average Call Value* in revenue-based contact centers. You calculate it by dividing the total revenue by the number of calls received for a given period. Sales and reservations environments use the Average Call Value. The value of each call is balanced against the service provided to customers.

Anticipating growth

Predicting company growth is a challenging and essential aspect of contact center costing. Growth predictions impact budgeting considerations and must be clearly communicated to senior management. It is useful to map out your projected costs and time frames for the upcoming year and substantiate them with statistics and graphs. Determine when and how many resources you require, and lead-time issues.

Enterprise Server installation and upgrades

This section describes how to install MiContact Center Business software on the Enterprise Server, either as a new installation or as an upgrade, including requirements and recommendations for before and after installing or upgrading.

When you install MiContact Center Business, the applications for which you are licensed are installed and activated. The installation wizard guides you through the installation of the Enterprise Server, Remote Server, and client software.

The Enterprise Server installation includes all applicable services, help files and user documentation, and the following applications:

- CCMWeb
- MiCC Setup
- YourSite Explorer
- Contact Center Client
- Workforce Scheduling, Schedule Adherence, and Employee Portal
- Flexible Reporting
- MiCC Office Data Import Tool
- MiVoice Border Gateway Connector
- MiVoice Integration for Salesforce
- Ignite

NOTE: The applications that are accessible depend on your licensing.

NOTE: Before you start the MiCC Server Installation, you must complete the process of golden rules programming for each PBX. For more information for this setup, refer to http://micc.mitel.com/kb/KnowledgebaseArticle52448.aspx.

NOTE: MiVoice Integration for Salesforce (via Mitel OIG) is a licensable feature, no installation procedure is required for this integration. For documentation on Mitel's other CRM connector options, such as, Professional Services CRM Connector or InGenious Connector Enterprise, consult the product-specific documentation.

For information on remote server installations, see *"Remote Server installation"*.

For information on client installations, see *"Client installation"*.

Handling Enterprise Server installation

This section recommends and explains the steps to follow for a new installation.

Step 1: Prepare your server before installation. See *"Preparing the server before installation"*.

Step 2: RegisterMiContact Center Business product. See *"MiContact Center Business product registration"*.

Step 3: InstallMiContact Center Business software on the server.

NOTE: You can run a silent install for new installations or during repair installations.

For detailed information, refer to the following Mitel Knowledge Base article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1000648/loc/en_US.

Preparing the server before installation

Before running the server installation, read and adhere to the following notes:

Table 6.1: Pre-Installation Procedures (Sheet 1 of 4)

Pre-installation procedures		
Item	Tasks	Reference / Recommendation
Hardware, Software and Disk Space Requirements	Refer the *MiContact Center Business and MiVoice Analytics System Engineering Guide* before you start installation to understand requirements.	Ensure you have sufficient space on your C drive before you begin the installation. If you installMiContact Center Business software on the Enterprise Server on a drive other than the C drive, you must ensure you have sufficient space on the C drive to allow for file decompression before installing the software to the final location.
Licensing	Procure licenses from AMC.	See *"Registering the software"*
Windows Updates	Complete all Windows updates.	
Antivirus Software	Configure your anti virus software to exclude the <installation_drive>:\Program Files(x86)\Mitel\MiContact Center folder (or whichever folder you chose for your installation files).	This is to ensure your MiContact Center Business applications are able to write files without error.
Ports	There are specific ports that must be unblocked during the installation. The installer takes care of unblocking the ports for Windows, but for others, see the following Knowledge Base article: https://mitel.custhelp.com/app/answers /answer_view/a_id/1002573/loc/en_US.	

Table 6.1: Pre-Installation Procedures (Continued) (Sheet 2 of 4)

Pre-installation procedures		
Non-English language operating system	If you are installing MiContact Center Business on a supported non-English language operating system, you must uninstall the following: • .NET components before installing our software. Language Pack for Microsoft .NET Framework 4 Client Profile. • Language Pack for Micro-soft.NET Framework 4 Extended	Failure to uninstall these components before installing MiContact Center Business may impact IVR Routing and Multimedia Contact Center workflow and subroutine functionality
Remote SQL Server	If you will use MiContact Center Business in conjunction with a remote SQL Server, you must have an instance of SQL Server 2014, or 2016 Express (or a full version of SQL Server 2014, or 2016) installed on the Enterprise Server.	
Server components	Before you install the server software you must install the server components.	See *"Installing Enterprise Server components"*.
Disable DEP	TheMiContact Center Business installer requires Data Execution Prevention to be disabled during installation. It is recommended that if your Group Policy requires Data Execution Prevention to be on, that you manually turn them off before installation.	See *"Disabling Data Execution Prevention"*.
Install SQL Server	Install SQL Server 2014 or 2016 Express Edition or Enterprise Edition.	See *"Installing SQL Server"*.
SSL Requirements	If the Enterprise Server is configured to use SSL, you must configure SSL in IIS.	See *"SSL Requirements"*.

Table 6.1: Pre-Installation Procedures (Continued) (Sheet 3 of 4)

Pre-installation procedures		
Server Administrative Account	During the installation you will be required to log on to the Enterprise Server using an administrative account. • If applicable, add the Enterprise Server to the domain before beginning the installation. We recommend using a domain account, which must have local administrator privileges on the server. For example, you can call this account as CCMSETUP. • During installation, the MCCWa application pool and the MiContact Center Reporter, MiContact Center Configuration Manager, MiContact Center Synchronization, and MiContact Center Storage services are set to run under this administrative account. • All other services run under LOCAL SYSTEM. If you will use email distribution, ensure the account is an allowed sender from your SMTP server. • If you are using Windows Authentication to connect to SQL, the Authorization Server application pool and MiContact Center SQL Writer service will also run under this administrative account.	
Server Administrative account's password	Set this account's password to never expire.	If the password is changed, the installer will need to be rerun to reconfigure all services.

Table 6.1: Pre-Installation Procedures (Continued) (Sheet 4 of 4)

Pre-installation procedures		
Federal Information Processing Standards (FIPS) environment	If you are installingMiContact Center Business in a FIPS environment, the Enterprise Server requires a configuration change be made to the Windows .NET Framework files on the Enterprise server following installation.	Refer to the following Knowledge Base Article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1000611/loc/en_US.
Telephone systems	Program the telephone systems before you begin installation.	See *"Programming telephone systems"*.
Software Package	Download the MiContact Center Business software package. See *"Downloading the MiContact Center Business software package"*	MiContact Center Business software is packaged inside a self-extracting executable file. When the file is extracted, it will save to a default location. It is highly recommended that you do not change the default extraction location.

NOTE:

- For MiContact Center Business/MiVoice Analytics, the enterprise server should not be installed on a publicly accessible network.

Installing the Server components

The Enterprise Server has a number of components that must be installed before MiContact Center Business can be installed.

When you install MiContact Center Business software on your Windows server, it becomes the Enterprise Server.

NOTE: Prior to Version 7.0, users had to manually enable IIS and MSMQ before the installation. In Version 7.0 and greater, the installer automatically enables IIS and MSMQ on the Enterprise Server.

Before you install the server software you *must*

1. Verify the hard drive is formatted and ensure partitioning leaves sufficient space for required applications.
2. Verify the Windows operating system is installed.

   When installing Windows Server, ensure the name you assign to the computer does not exceed the 15 character NetBIOS limitation.
3. Install a network card and verify it works.
4. Configure TCP/IP networking and verify it is enabled.

   We recommend you use a static IP address.
5. Install Microsoft Excel (Optional).

Microsoft Excel 2010 or greater is required to both view reports and automatically distribute reports for printing. If you intend to use the Enterprise Server as both a server and a client, you require Excel 2010, 2013, or 2016 on the server. Optionally, Microsoft Excel Viewer may be installed as an alternative to Microsoft Excel to view reports, but it cannot be used to automatically distribute reports for printing.

NOTE: Protected View is a Microsoft Office security feature that can impact the ability to view Excel reports in CCMWeb. If you use Excel on the server to view reports, configure the following Excel options:

- Ensure the following Protected View options are not enabled:
  - Enable Protected View for files originating from the Internet
  - Enable Protected View for files located in potentially unsafe locations
  - Enable Protected View for Outlook attachments
  - Enable Data Execution Prevention mode
- Ensure that the following Trusted Location option is selected:
  - Allow Trusted Locations on my network (not recommended)

6. Disable Data Execution Prevention.

   Data Execution Prevention must be disabled during installation. It is recommended that if your Group Policy has Data Execution Prevention enabled, you manually disable Data Execution Prevention before installation.
   See *"Disabling Data Execution Prevention"*.
7. Install SQL 2014, or 2016 Express (or a full version of SQL Server 2014, or 2016).

   See *"Installing SQL Server"*.
8. Run Windows Update and install the most recent service pack.

Installing the Server components

The Enterprise Server has a number of components that must be installed before MiContact Center Business can be installed.

When you install MiContact Center Business software on your Windows server, it becomes the Enterprise Server.

NOTE: Prior to Version 7.0, users had to manually enable IIS and MSMQ before the installation. In Version 7.0 and greater, the installer automatically enables IIS and MSMQ on the Enterprise Server.

Before you install the server software you *must*

1. Verify the hard drive is formatted and ensure partitioning leaves sufficient space for required applications.
2. Verify the Windows operating system is installed.

   When installing Windows Server, ensure the name you assign to the computer does not exceed the 15 character NetBIOS limitation.
3. Install a network card and verify it works.
4. Configure TCP/IP networking and verify it is enabled.

   We recommend you use a static IP address.
5. Install Microsoft Excel (Optional).

   Microsoft Excel 2010 or greater is required to both view reports and automatically distribute reports for printing. If you intend to use the Enterprise Server as both a server and a client, you require Excel

2010, 2013, or 2016 on the server. Optionally, Microsoft Excel Viewer may be installed as an alternative to Microsoft Excel to view reports, but it cannot be used to automatically distribute reports for printing.

NOTE: Protected View is a Microsoft Office security feature that can impact the ability to view Excel reports in CCMWeb. If you use Excel on the server to view reports, configure the following Excel options:

- Ensure the following Protected View options are not enabled:
  - Enable Protected View for files originating from the Internet
  - Enable Protected View for files located in potentially unsafe locations
  - Enable Protected View for Outlook attachments
  - Enable Data Execution Prevention mode
- Ensure that the following Trusted Location option is selected:
  - Allow Trusted Locations on my network (not recommended)

6. Disable Data Execution Prevention.

   Data Execution Prevention must be disabled during installation. It is recommended that if your Group Policy has Data Execution Prevention enabled, you manually disable Data Execution Prevention before installation.
   See *"Disabling Data Execution Prevention"*.
7. Install SQL 2014, or 2016 Express (or a full version of SQL Server 2014, or 2016).

   See *"Installing SQL Server"*.
8. Run Windows Update and install the most recent service pack.

Disabling Data Execution Prevention

To disable Data Execution Prevention on Windows Server 2008 R2, 2012, 2012 R2, or 2016.

1. In Windows, open the **command prompt** window.
2. After the command prompt, type **bcdedit.exe /set {current} nx AlwaysOff** and press **Enter**.
3. Restart the computer.

Verifying the status of Data Execution Prevention

To verify the status of Data Execution Prevention on Windows Server 2008 R2, 2012, 2012 R2, or 2016.

1. In Windows, open the command prompt window.
2. After the command prompt, type **wmic OS Get DataExecutionPrevention_SupportPolicy** and press **Enter**.

   The command prompt will return a number that maps to the status of Data Execution Prevention, as defined by the following table.

Table 6.2: Data Execution Prevention status (Sheet 1 of 2)

0	AlwaysOff	DEP is disabled for all processes.
1	AlwaysOn	DEP is enabled for all processes.
2	OptIn	DEP is enabled only for Windows system components and services that have DEP applied.

Table 6.2: Data Execution Prevention status (Continued) (Sheet 2 of 2)

3	OptOut	DEP is enabled for all processes. Administrators can manually create a list of specific applications that do not have DEP applied.

Installing SQL Server

Before you install MiContact Center Business, you must install SQL Server 2014, or 2016 Express. If you need full version of SQL to be installed onto a remote server, see the *System Engineering Guide*. Your SQL Server version must include Management Tools (available as a separate download for SQL Server 2016 Express Edition).

Before installing SQL Server, you must configure the appropriate default collation settings. See the following Mitel Knowledge Base article for details:
https://mitel.custhelp.com/app/answers/answer_view/a_id/1000779/loc/en_US.

NOTE:

- You must disable SQL Replication on the SQL Server.
- Ensure you use the SQL Server edition that will support your required data storage needs. SQL Server 2014, or 2016 Express. If you need full version of SQL to be installed onto a remote server, see the *System Engineering Guide*. This can store up to 10 GB of data per database. If you require more than 10 GB of data per database, you must purchase a licensed copy of SQL Server. For data storage examples and SQL Server guidelines, see the *MiContact Center Business and MiVoice Analytics System Engineering Guide*.

You can download SQL Server Express Editions free from the Microsoft website.

NOTE: You must install BluStar server for Line State monitoring.

- For MiVoice Connect, install BluStar on the DVS server.
- For MiVoice Office 400 and MiVoice 5000, install BluStar on the MiCC Server or any remote machine.

Adding SQL Server security roles to the administrative account

In order to properly create and configure databases, the administrative account being used to install MiContact Center Business must have the dbcreator role on the SQL server.

If you have installed SQL Server 2014, or 2016 Express (or a full version of SQL Server 2014, or 2016), you must also verify that the NT AUTHORITY\SYSTEM server role also has these permissions. For more information, see the following KB article:
https://mitel.custhelp.com/app/answers/answer_view/a_id/1002628/loc/en_US.

NOTE: If you do not want the administrative account being used to install MiContact Center Business to be configured with those SQL permissions, there are two alternatives:

- Add the local system account as dbcreator.
- Set the following services, application pools, and local databases to run under the identity account:
  - Services:
    - MiContact Center Media Router
    - MiContact Center Mass Transit Runtime
  - Application Pool:
    - CCMWa
  - Local databases:

- CCMRouting
- CCMRuntimeServices
- Ccmwa

SQL Server best practices

If you are installing SQL Server 2014, or 2016 Express (or a full version of SQL Server 2014, or 2016), ensure you follow these best practices:

- On the **Server Configuration** window, ensure you provide a local server administrator account name in the **Account Name** fields and have the service **Startup Type** fields set to **Automatic**.
- On the **Database Engine Configuration** window, on the **Account Provisioning** tab, ensure you specify a local server administrator in the **Specify SQL Server administrators** pane. If the current user has local administrator privileges on the server, click **Add Current User**.

SSL Requirements

The Enterprise Server enabled for SSL requires a valid certificate assigned to port 443. If the Enterprise Server is configured to use SSL and there is no valid certificate assigned to this port, the server fails to connect to this port. If there are valid certificates in the Enterprise Server's local certificate store, you can assign a valid certificate to this port during the installation process; if not, you can configure the port before installation. For more information about configuring your Enterprise Server and SSL, see the whitepaper Securing Connections in MiContact Center: https://mitel.custhelp.com/app/answers/answer_view/a_id/1010137/loc/en_US.

NOTE:

- In the SSL-enabled MiContact Center Business setup, ensure that the speech-grammar URI path(https://<<FQDN>>/MiccConfig/api/v1/SpeechGrammars/<<grXML file>>) is accessible to the Nuance Speech Server (NSS), because, the grXML files (speech-grammar files) are hosted on the config service.
- The FileSyncServer web application is no longer hosted by the config service on port 7004. It is now hosted by the MiCCConfig web application in IIS, under the default website, and is covered by the certificate assigned to port 443.

To assign the certificate to port 443:

1. Open Internet Information Service (IIS) Manager.
2. Expand the list across your PC name.
3. Expand the list at **Sites**. This displays **Default Web Site**.
4. Right-click **Default Web Site** and from the drop-down list, select **Edit Bindings…**.
5. In the **Site Bindings** window, click **Add…**.
6. From the **Type:** drop-down list, select **https**.

   The **IP address** field displays **All Unassigned**.
7. In the **Port:** field, enter 443.
8. From the **SSL certificate:** drop-down list, select your preferred certificate. This certificate must be valid one and issued by a trusted certificate authority.
9. Click **OK**. The **Site Bindings** window now lists the new binding.
10. Click **Close**.

11. From the **File** menu exit **IIS Manager**.
12. Restart the **IIS**.

Programming telephone systems

Refer to the Golden Rules when configuring your telephone system. See the relevant KB article at https://mitel.custhelp.com/app/answers/answer_view/a_id/1002335/loc/en_US..

NOTE: The SX-200, Axxess, and 5000 media servers are not supported with Version 7.x, Version 8.x, and Version 9.x, except as historical media servers. When upgrading to Version 7.x, 8.x, and 9.x SX-200 media servers, along with their associated extensions, agents, agent groups, queues, trunks, and trunk groups, are set to historical. Axxess and 5000 media servers must be marked as historical before upgrading to Version 7.x, 8.x, and 9.x to retain historical data.

Downloading the MiContact Center Business software package

You can download MiContact Center Business software and optional components from the Mitel website.

To download the software package from Mitel website

1. Using a web browser, browse to http://www.mitel.com/.
2. Click **Login**.
3. Click **Sign In** button under Mitel Connect.
4. Type your **Username** and **Password** and click **Login**.
5. Click **Software Download Center** in the left menu.
6. Expand **MiContact Center Business**.
7. Expand the sub-headers for the version you need.
8. Select the version to view the available downloads.
9. Download the software and the components you need.

MiContact Center Business product registration

When you install MiContact Center Business software, you have the option of implementing a demo with temporary license files in order to activate the software. You must register the software with Mitel within seven days of installing a demo or you will no longer be able to log on to the system.

NOTE:

- Licensing packages and components were significantly modified in Version 8.0. When you upgrade from a pre-Version 8.0, you will be migrated to the new licensing model.
- For information on how to apply AMC licensing, refer to the following Knowledge Base Article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1000797/loc/en_US.

Registering your software

The Mitel Applications Management Center (AMC) is a web-based service that provides licensing, monitoring, management, and a variety of other services for installations of software applications. An Applica-

tion Record is the license profile of a specific Mitel product. To register the MiContact Center Business software, follow the steps:

1. Log in to AMC.
2. Create an ARID for the MiContact Center server.
3. Associate the appropriate licenses.
4. Make a note of the application record ID (ARID) and License Key provided in AMC.

Migrating, activating, or updating to current version license files

If an active Internet connection is available and you can access the license server, you must activate or update your license online. If you are upgrading your MiContact Center server from a previous major release, the license migration will be done automatically.

If you do not have access to the Internet or if you cannot access our license server, you can migrate, activate, or update your license offline. To migrate the license to current version, activate and sign an offline license (CCMv5.dlsc). If you have any licensing questions, please choose the appropriate contact option. See *" If you need Help"*.

Note that you can manually sign your DLSC file in AMC in preparation for an offline installation.

NOTE: If you plan to perform an offline installation, you can manually sign the offline license (CCMv5.dlsc) in the AMC.

NOTE: To ensure you are able to activate your license files online, any firewalls and proxies must be configured to allow traffic over port 80 to IP address 216.191.234.231.

If you have a valid license key you can update your license files and activate your software online using the MiCC Setup wizard.

To update the license files online

1. In Windows, open the Mitel program folder and launch **MiCC Setup**.
2. Click **Update License**.
3. Read the license agreement and click the check box to agree with its contents.

   To continue with the update, you must accept the license agreement.
4. Click **Next**.
5. Enter your license key and click **Next**.

   Your license has been updated.
   If your license components have changed since the last upgrade, run the MiCC Setup wizard, choose the **Repair Enterprise Server** option, and select the check boxes to choose which license components will be installed.
6. Click **Finish**.

   Your software is now activated and licensed.

If you are unable to access the licensing server, you can update your license files offline. You must have a valid license key and current license file to do so. See *"Registering the software"* for options.

To update the license files offline

1. In Windows, open the Mitel program folder and launch **MiCC Setup**.
2. Click **Update License**.

3. Read the license agreement and click the check box to agree with its contents.
4. Enter your license key and click **Next**.
5. If you have a registered license file, skip to step 10. Otherwise, go to step 6.
6. If you do not have a registered license file, click **Create license package for registration**.
7. Select the directory where the license files will be saved and click **OK**.
8. Email the license files to Mitel to obtain a product key.

   Email miccrenewal@mitel.com(North American customers) or your approved Mitel vendor (for customers residing outside of North America).
9. After receiving the product key from Mitel, relaunch the MiCC Setup wizard and follow the steps to proceed to step 10.
10. Click **Apply registered license file**.
11. Select the directory where the license files are located and click **OK**.

    A message displays advising that your software is now registered and licensed.
    If, after completing the activation process, you need to change your license key, you can do so by running the MiCC Setup wizard and, when prompted, click the **Change key** check box.

Installing MiContact Center Business Version 9.3

This section describes the installation procedure using the install wizard. Before you begin the installation procedure, we recommend that you read and complete the instructions listed in *"Preparing the server before installation"* and *"MiContact center Business product registration"*.

Based on the type of installation you plan – Online or Offline, you can follow the instructions to transfer the software package on to the server. MiCC Setup wizard guides you through the installation process.

Offline Installation

To install the MiContact Center Business software (offline installation)

1. On a PC that is connected to the Internet, ensure all the Windows programs are closed.
2. Follow the instructions to download the software, either using Software Download Manager or HTTP, onto a USB key or network share. For detailed download instructions, see *"Downloading the MiContact Center Business software package"*.
3. You are now ready to transfer the downloaded software onto your Enterprise Server.
4. Log on to the Enterprise Server with a Windows administrator account. The account must have full administrative privileges.
5. Copy the previously downloaded file to the Enterprise Server's hard drive. We do not recommend installing MiContact Center Business from a removable drive or network share.
6. Run the executable file and browse to select the location to which the install files will be extracted. By default, this is <installation drive>:\MiCC_8XXX.
7. Complete the MiContact Center Business installation by following the instructions described in the following section, under *"Installing MiContact Center Business using the MiCC Setup Wizard"* .

Online Installation

To download MiContact Center Business software (online installation)

1. Select the location to which the install files will be extracted.
   We recommend you do not alter the default path to which the files are extracted.
2. Log on to the Enterprise Server with a Windows administrator account.
3. The account must have full administrative privileges.
4. Ensure all the Windows programs are closed.
5. Follow the instructions to download the software. For download instructions, see *"Downloading the MiContact Center Business software package"*.
6. Complete the MiContact Center Business installation by following the instructions described in the following section, under *"Installing MiContact Center Business using the MiCC Setup Wizard"*.

Installing MiContact Center Business using the MiCC Setup wizard

To install MiContact Center Business using the MiCC Setup wizard

After downloading the software package on the Enterprise server, the MiCC Setup wizard guides you through the installation process.

1. Run the Setup wizard as an administrator.
2. When the MiCC Setup Installer Workflow page displays, click **Deploy Enterprise Server**.

   The Product Announcements page displays.
3. We strongly recommend you read the notices on the **Product Announcements** page as they pertain to the software version you are about to install.
4. Click **Next**.

   The Installation Paths page displays.
5. Select the **I want to customize what features are enabled on this deployment** check box to choose the features you want to install on the Enterprise Server.

   NOTE: If you select this check box, the Enable Features page will display after the Licensing and Registration page has been processed and completed.
6. If you want to install the Enterprise Server software in a location other than the default, click **Browse** and select the alternate destination.
7. Select the **I want to specify shared folders for logs and data** check box to designate where you want to store log files, data directory files, backup files, persisted report files, and search storage files.

   NOTE:
   - The storage path can be either a local drive or a network drive (UNC path). The Local administrator account set during installation must have read/write permission to that path.
   - MiContact Center does not support UNC path for Backup folders.
8. If you want to choose alternate destinations for logs and data files, click **Browse**, otherwise click **Next** to accept the default locations.

   The License and Registration page displays.
9. Read the license agreement and click the check box to agree with its contents.

To continue with the installation, you must accept the license agreement.

10. Enter your license key or choose to register later.

    If you choose to register later, you will be granted a temporary seven-day demo license. See *"Registering the software"*.

11. Click **Next**.

    If, on the Installations Path page, you selected the option to customize which features are enabled on the Enterprise Server during the installation, the Enable Features page displays.

12. Toggle the switches to **On** or **Off** to select the features you want to install on the Enterprise Server.

    – Selectable options depend on your licensing.

13. Click **Next**.

    The pre-requisite software is now installed. You may receive warnings if pre-installation steps were not completed prior to initiating this installation or if the hardware and software requirements, as noted in the Mi Contact Center Business and MiVoice Analytics System Engineering Guide were not met. In some cases, the installation will be aborted and you will be advised to update your server hardware and software and rerun the installation.
    You can view the installation log files to view the warnings and errors.

14. Click **Next**.

    The Enterprise Server settings page displays.

15. On the Enterprise Server settings page, specify the following settings:

    – After **What is the IP address or Host Name of this server**, verify the IP address of the Enterprise Server. If it is not correct, type the correct IP address or DNS name. Note that if you are using the high availability environment, you have to type the host name and not the IP address.
    – If you use Secure Sockets Layer, select the check box beside **I would like to use SSL**.

CAUTION: If you select this check box, ensure you enter the Fully Qualified Domain Name(FQDN) that is used when applying the SSL certificate. For more information on planning, deploying, and securing communications with MiContact Center Business, please refer to the *"SSL Requirements"*.

    – After **What is the desired language for the Enterprise**, select the language in which you want MiContact Center Business applications to display.

      NOTE: MiContact Center Business applications, such as YourSite Explorer and Contact Center Client, use the language settings of the operating system in addition to the language preference set for MiContact Center Business. Ensure that the language selected matches the language settings of the operating system.

    – After **In what country is this server situated**, select the country in which your Enterprise Server is located.
    – After **In what time zone is this server situated**, select the time zone for the area in which your Enterprise Server is located.

16. Click **Next**. If you have not chosen the SSL option, the SQL Server page is displayed.

    If you have chosen **I would like to use SSL** option, the SSL Validation page is displayed. Allow the SSL validation page to verify the SSL configured. If the SSL is not verified, select a preferred certificate from the drop down list, add a valid certificate to the enterprise server's local store and click **Retry** to resume the processing. If there is no valid certificate in the drop down list, add a valid certificate to the enterprise server's local store and click **Retry** to resume the processing. After the SSL validation is complete, the SQL Server page is displayed.

17. From the drop-down list, select the SQL Server instance that will be used to store the MiContact Center Business databases.

    If you are using a remote version of SQL Server, ensure you enter the computer name of the remote SQL Server.
18. Select the method that SQL Server will use to authenticate user credentials: **Windows Authentication** or **SQL Authentication** (recommended if you are using a remote version of SQL Server).
19. If you choose Windows Authentication, the Windows credentials of the currently logged in user will be applied. If you choose SQL Authentication, enter the username and password that are used to connect to SQL.
20. Click **Next**.
21. Enter the username and password that will be used for MiContact Center BusinessMiVoice Analytics services.
22. From the drop-down list, select the authentication method that will be used when employees log in to MiContact Center Business applications.

    NOTE: In Basic Authentication models, the system administrator manages the login accounts of each employee from YourSite Explorer. Windows Authentication leverages Windows Active Directory for user logins. You can synchronize with Active Directory post-installation using Active Directory synchronization within YourSite Explorer. Windows Authentication is available as an option only if you use Active Directory.
23. Click **Next**.

    The MiContact Center Business software is installed.
24. Select the **Launch the YourSite Explorer now** check box if you want YourSite Explorer to open when the installation is complete.

    If you choose this setting, when YourSite Explorer opens, log in with the default administrator credentials if you choose to use basic authentication:
    - Username: _admin
    - Password: _password

    If you choose to use Windows authentication, you need not enter any credentials.
    We recommend you change the default password after the install process has completed. See *"Changing the default administrator password"*.
25. If you want to review the release notes for this software version, select the **I would like to review the release notes** check box.

    NOTE: You require Adobe Acrobat Reader on your server to be able to read the release notes.
26. Click **Finish**.

    After you have completed the installation, you can rerun the MiCC Setup wizard at any time to modify the Enterprise Server installed components and features and to update license files.

Modifying Enterprise Server installed components and features

The MiCC Setup wizard can be rerun at any time to modify the components and feature choices you selected during the installation of MiContact Center Business.

CAUTION: If the MiCC Setup wizard has already been run successfully, re-running it will undo the Enterprise Server configuration settings you previously specified. You must complete the MiCC Setup wizard each time you run it or the Enterprise Server will not function properly.

To modify Enterprise Server installed components and features

1. In Windows, open the Mitel program folder and launch **MiCC Setup**.
2. Click **Repair Enterprise Server**.
3. Follow the steps as described in "Installing MiContact Center Business Version 9.3", ignoring the download instructions and modifying components and features as needed during the installation process.

Changing the default administrator password

We recommend you change the default password for the administrator account to prevent unauthorized users from gaining access.

The default user name and password are

- Username: _admin
- Password: _password
- Security Role: Enterprise Administrator

NOTE: The default user name and password apply to installations using Basic Authentication, and not those using Windows Authentication.

For more information on security roles, see *"Configuring security settings"*.

To change the password

1. In the **YourSite Explorer > Devices > Employee**, select the default **Administrator**.
2. Under **General**, in the **Password** field, type the new password.
3. Click **Save**.

   NOTE: You can also change the password from CCMWeb interface.

Enterprise Server upgrades

When you upgrade MiContact Center Business to latest Version, you run the MiCC Setup wizard to upgrade the Enterprise Server.

Before upgrading to the latest Version of MiContact Center Business

Before upgrading the server installation, read and adhere to the following recommendations:

When upgrading to this latest Version, you may choose to stage your deployment and provision a second Enterprise Server with MiContact Center Business, move clients over in stages, and retain a server that is running the previous release until you are confident that this Version is providing the stability you require. Ensure client software has been updated to the appropriate version. We do not support an older version of a client connecting to a newer release on a server. Certain reports and real-time data may not line up in a co-existence scenario.

For more information, see *https://mitel.custhelp.com/app/answers/answer_view/a_id/1011100/loc/en_US*.

If your existing deployment includes Multimedia Contact Center, consult the *Mitel Multimedia Contact Center Installation and Deployment Guide* for additional considerations for upgrades.

Before upgrading, read the following notes as well as reviewing the notes under *"Preparing the server before installation"*.

CAUTION: Deleting the hidden .msi install files will result in the failure of upgrades to later versions of MiContact Center Business.

NOTE:

- The installer alerts you if the available space falls below 60 GB.
- If you have MiContact Center Business clients that are connected from a remote site, you can program these clients to update from a Remote Server rather than the Enterprise Server. This will reduce traffic across the network. Remote Servers will be prompted with an update by the MiContact Center Updater following the upgrade of the Enterprise Server. The MiContact Center Updater will download the files located in CCM\Websites\CCMWeb\Applications on the Enterprise Server and place them in a virtual directory on the Remote Server with the same name (CCMWeb\Applications). Clients will then update using these files from the Remote Server.
- Repackaging the Client Component Pack with the MiContact Center Business Redistributable Repackager uses a large amount of processor and memory as the files are zipped into the package. While this will not destabilize the server and interrupt contact center operations, on systems with limited performance overhead it may cause slow performance in Remote Desktop Sessions and for applications being run directly on the server. We recommend you avoid performing additional tasks on the MiContact Center Server until repackaging has completed.
- We strongly recommend you close Computer Management Console before upgrading, otherwise some files may not update correctly.
- To view Lifecycle report data from before the upgrade, it is recommended that you re-summarize the data.
- Microsoft CRM 2007 is not supported with MiContact Center Business. If your IVR Routing workflows contain Execute activities that point to CRM 2007, the preinstall checker will stop the upgrade. Microsoft CRM 2011 and 2013 are supported for use with MiContact Center Business.
- If you are installing MiContact Center Businesson a supported non-English language operating system, you must uninstall the following .NET components:
  - Language Pack for Microsoft .NET Framework 4 Client Profile
  - Language Pack for Microsoft .NET Framework 4 Extended

  Failure to uninstall these components before installing MiContact Center Businessmay impact IVR Routing and Multimedia Contact Center workflow and subroutine functionality.
- With Windows Server 2012, .NET 3.5 is a Windows feature, not a redistributable package, and can be installed from the Windows Features management panel.
- If you configured chat request forms in Version 7.0, your customizations will not be retained after upgrading to current version. For information on customizing the chat request forms, see the *Multimedia Contact Center Installation and Deployment Guide*.

To upgrade to current Version:

1. Back up the YourSite database and phone data
   See *"Backing up the YourSite database and phone data"*.
2. Turn off automatic updates to client computers and remote servers

See *"Turning off automatic updates to client computers and remote servers"*.

3. Upgrade MiContact Center Business

   See *"Upgrading to MiContact Center Business current Version"*.

4. Restore telephone system and configuration data

   This step is only required if you are performing a side by side migration.
   See *"Restoring telephone system and configuration data"*.

5. Turn on automatic updates to client computers and remote servers

   See *"Turning on automatic updates to client computers and remote servers"*.

6.

Backing up the YourSite database and phone data

Backing up Enterprise Server configuration and telephone system data offers protection in case there are unexpected issues while upgrading from one version of MiContact Center Business to the next. The Enterprise Server configuration backup includes configuration items such as employees, agents, agent groups, queues, and security roles. This backup can be used to restore the configuration on the same MiContact Center Business version or on an upgraded version.

NOTE:

- You must be licensed as a System Administrator to back up telephone system and configuration data.
- As a security measure, if backed up data is restored on an Enterprise Server with a different IP address than the Enterprise Server it was backed up on, all mail server incoming and outgoing usernames and passwords will be blank in YourSite Explorer. Ensure that any relevant mail server information is recorded for manual re-entry in YourSite Explorer.

To back up the YourSite database

1. Start Contact Center Client.
2. Click **Tools > Management**.
3. Click **Configuration**.
4. Click **Back up/Restore configuration data**.
5. Select **Back up** and click **Next**.
6. Click **Save** and select a location to save the file.

   NOTE: A .zip file is created. Inside the .zip file is an XML file that contains the entire configuration.

7. Click **Finish**.

To back up raw telephone system data files

1. On the Enterprise Server, right-click **Start > Explore**.
2. Copy the **<drive>:\program files (x86)\Mitel\MiContact Center\DataDirectory** folder to the desktop, a network share, or, optionally, store it on a CD.

Turning off automatic updates to client computers and remote servers

By default,remote servers and client computers are configured to automatically apply upgrades from the Enterprise Server. This can be turned off to allow for the upgrade to be completed and verified as successful before the new version is taken and applied by client computersand remote servers. We recommend when upgrading between versions of the software that you turn off the automatic update.

To turn off automatic update

1. Open **YourSite Explorer**.
2. Click **Enterprise**.
3. In the **Enterprise** tab, clear **Auto update client applications**.
4. Click **Save**.

Upgrading to MiContact Center Business current version

The following versions can be upgraded to Version 9.3:

- Version 7.1.3.3
- Version 8.0.1.0 9.2
- Version 8.1.x
- Version 9.1 x
- Version 9.2 x

If you do not have one of the supported versions, you must install a supported version before upgrading to Version 9.3.

NOTE: If your existing deployment includes Multimedia Contact Center, consult the *Multimedia Contact Center Installation and Deployment Guide* for additional considerations for upgrades.

To upgrade to MiContact Center Business Current Version

1. Ensure all Windows programs and Mitel applications are closed.
2. Run the MiContact Center Business installation on the Enterprise Server.

   See *"Installing MiContact Center Business Version 9.3"*.
   When installing MiContact Center Business on the Enterprise Server, you log on to the Enterprise Server with a Windows administrator account. Ensure this account has full administrative privileges. After you install MiContact Center Business on the Enterprise Server, the MiContact Center Updater Service updates all applications and services for client computers and Remote Servers.

NOTE: Deployment changes, such as additional services and firewall rules, cannot be made by the Updater Service. For these, you must open the setup wizard on the Remote Server and run the **Repair Remote Server** option.

   The length of time it takes for all client computersand Remote Servers to update varies depending on the number of machines being upgraded. The MiContact Center Updater uses a throttling mechanism to streamline the process and avoid Enterprise Server congestion. The number of concurrent down-load connections is set to a default of 50 but is configurable. See the following Mitel Knowledge Base article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1000654/loc/en_US for details.

3. When the MiCC Setup wizard opens, follow the steps to configure your system.
4. Navigate to the downloads (Mitel Connect > Downloads > MiContact Center) and install the latest fix pack.
5. Perform full synchronization in YourSite Explorer.

   See *"Performing Synchronization"*.
6. If you want to restore your configuration from a backup file, see *"Restoring telephone system and configuration data"*.

Restoring telephone system and configuration data

After installing the latest version on the designated Enterprise Server, add the data from your old server by restoring the previously backed-up data from the old server to the new server.

NOTE:

- Remote restores are not supported.
- As a security measure, if backed up data is restored on an Enterprise Server with a different IP address than the Enterprise Server it was backed up on, all mail server incoming and outgoing usernames and passwords will be blank in YourSite Explorer. Administrators must manually re-enter mail server incoming and outgoing usernames and passwords.

To restore telephone system and configuration data

1. In **Contact Center Client**, click **Tools > Management**.
2. In **Management Console**, click **Configuration > Back up/Restore configuration data**.
3. Select **Restore**.
4. Under **Type**, click the radio button beside the relevant restore method.

   'Lab Restore' pacifies aspects of the configuration to avoid interfering with a live environment. 'Live Restore' assumes a live environment and restores exactly as is. If you click on the 'Lab Restore' or 'Live Restore' text, you will be directed to a Knowledge Base article with further details.
5. To restore a file saved to another location, select from this **file > Browse**, open the backup file, and click **Next**.
6. To restore a file from the server backup directory, select **from the server backup directory**, select a file, and click **Next**.
7. When prompted to restart Contact Center Client, click **Yes**.
8. Optionally, you can synchronize the Enterprise Server's IP address and computer name after restoring data. Do so by selecting the appropriate check box and entering the Enterprise Server's IP address in the field provided.

After restoring a backup, check the IP addresses configured in YourSite Explorer and the computer names associated to all media servers to ensure the local media servers are set to the local server name and remote collectors are also set correctly.

Turning on automatic updates to client computers and remote servers

After upgrading and verifying the success of the upgrade, ensure that you enable the automatic update option once more to ensure that client computersand remove servers are running the current version of the upgrade.

NOTE:

- By default the MiContact Center Updater Service checks the Enterprise Server every 10 minutes to see if any updates are available and, if so, downloads and applies the updates to client computersand remote servers.
- The remote server and client computers will not update any applications that are currently in use. You must shut down all MiContact Center Business applications on client computersand remote servers in order for upgrades to occur.

To turn on automatic updates

1. Open **YourSite Explorer**.
2. Click **Enterprise**.
3. In the **Enterprise** tab, select **Auto update client applications**.
4. Click **Save**.

Uninstalling Enterprise Server software

To uninstall Enterprise Server software

1. In Windows, open the Mitel program folder and launch **MiCC Setup**.
2. Click **Uninstall Enterprise Server**.
3. When the warning displays, if you want to continue, click **Yes** to uninstall the product.
4. Select the check box beside **I want to remove MiContact Center data**.

   You are given options to remove various MiContact Center Business data files. You may choose to retain any or all of these file types in order to reduce configuration time for your next deployment.
5. Click **Next**.

   The MiCC Setup wizard uninstalls Enterprise Server applications.

   NOTE: If SSL is configured as a part of the MiCC installation process, note that the port binding that is created will not be removed during the uninstall process.
6. Click **Finish**.

Configuration

The following section focuses on configuration for Voice contact centers. For detailed information on configuring Multimedia Contact Center devices, see *"Multimedia Contact Center Installation and Deployment Guide."*.

You configure MiContact Center Business in the following order:

Basic Configurations

- In YourSite Explorer, under **Enterprise**, set up your Enterprise structure by specifying Enterprise settings, adding sites, and media servers to the sites.
  See *"Configuring enterprise settings"*, *"Adding sites"*, and *"Adding media servers"*.
- In YourSite Explorer, under Devices, configure the YourSite database to mirror the information on your telephone system. Add devices in the following order:
  - Add employees. Configure their general settings and licensing attributes and select the media types they will handle. When you select a media type, an agent of that media type is automatically created and associated to the employee.
  - Add agent groups and associate employees to those groups.
  - Add queues and associate agent groups to those queues.

Advanced Configurations

YourSite Explorer

YourSite database configuration takes place in YourSite Explorer.

YourSite Explorer streamlines configuration by providing a single interface for all device configuration in your contact center. You can multi-select devices and change their attributes in one step, view group membership in the same window as the selected device, and view multiple device windows simultaneously and tab between them.

NOTE:

- Only one set of pending configuration changes can be saved at any time. If another user saves changes to the same element of YourSite Explorer that you are updating, you receive an error message when attempting to save your changes. In these instances you must refresh YourSite Explorer after the other user's changes have been saved. You may then re-enter and save your changes. We recommend you save your configuration changes frequently, in order to avoid losing work.
- YourSite Explorer enables you to have multiple device tabs open simultaneously. However, as a best practice, we recommend you only have the device tabs open that you are currently using.
- We recommend you avoid modifying large data sets from within YourSite Explorer as performance levels will be negatively affected. As a best practice, all large dataset modifications should be made on the telephone switch directly and synchronized back to MiContact Center Business. If you prefer to perform modifications inside YourSite Explorer, we recommend you partition the changes into smaller chunks of data.

Starting YourSite Explorer

NOTE: Launching client-side desktop applications from the task bar causes them to bypass the MiContact Center Updater Service process. To ensure successful updates from the Enterprise Server, after an upgrade close all client-side applications for 15 minutes or reopen them from the Start menu/Start screen.

To start YourSite Explorer

1. Open **YourSite Explorer**.
2. If prompted, type your **Username** and **Password** and verify the **Enterprise Server** IP address.
3. If you use Secure Socket Layer, select **SSL**.
4. Optionally, select **Remember my credentials**.
5. Click **Login**.

YourSite Explorer Start Page

The YourSite Explorer Start Page is a startup resource that provides links to both information resources for getting started as well as system information for MiContact Center Business. By default, if enabled, the Start Page opens automatically with each new session of YourSite Explorer.

The Start Page has two tabs: Getting Started and System Information.

- **Getting Started**—provides configuration overviews for MiContact Center Business and includes the following tabs:
  - **Welcome**—details the contents of both the Getting Started tab and the System Information tab
  - **MiContact Center Business**—overview of MiContact Center Business configuration
  - **MiVoice Analytics**—overview of MiVoice Analytics and MiVoice Analytics configuration
  - **Workforce Scheduling**—overview of Workforce Scheduling configuration for employees and schedules

    NOTE: You must be licensed for Workforce Scheduling to view this tab.
  - **IVR Routing**—overview of IVR Routing configuration

    NOTE: You must be licensed for IVR Routing to view this tab.
- **System Information**—provides documentation as well as system and license information and includes the following tabs:
  - **Documentation**—provides links to MiContact Center Businessand MiVoice Analytics documentation
  - **About**—provides system information, custom reports, and contact information for Mitel
  - **Alarms**—provides information on currently active MiContact Center Business alarms, with links to corresponding Mitel Knowledge Base articles

Configuring the YourSite Explorer Start Page

You can configure the Start Page to open automatically when you start YourSite Explorer. You can also configure whether or not the Start Page automatically loads in the View tab of YourSite Explorer.

To prevent the Start Page from opening automatically

1. Start **YourSite > Explorer**.
2. On the **Start Page**, clear the **Show page on startup** check box.

To configure whether the Start Page opens in the View tab

1. Click **YourSite > View**.
2. To load the Start Page automatically on startup, select the **Show start page** check box.

Searching

When you perform searches in YourSite Explorer, you can filter on specific criteria to narrow the search. YourSite Explorer searches on criteria you type into the Search box. The search result will consist of all instances of the search item. For example, if you ran a search for *ma*, your you search result could contain: mail, email, and manager.

After you perform an initial search, you can type additional criteria in the box to narrow the search. If no words or numbers match your search request, the resultant list will be blank.

YourSite Explorer can search several variables for devices. For example, for the following devices, the following variables can be searched

- Employees, employee groups—first and last name
- Extensions, extension groups—reporting number
- Trunks, trunk groups, DNIS, DNIS groups, Account Codes, divisions—name and reporting number
- Phone numbers, phone number groups—search on information found in all columns except Created by, Created date, Last modified by, or Last modified.

To search for a specific word or number

- Select a device, and, in the **Search** box, type the word or number.

Paging

Paging enables you to specify the number of items to be included per page. You can reduce the page size to increase the application speed. By default, the page size allows for 100 items. When changing the page size, you must close and re-open the device window.

To change the number of items viewed per page

1. In YourSite Explorer, click **YourSite**.
2. Click the **View** tab.
3. After **Page size**, select the number of items to be viewed per page.
4. Click **Save**.

Filtering

The filtering bar enables you to access records alphabetically and numerically.

To filter records alphabetically

- On the filter bar, click the letter with which the record begins.

To filter numerically

- On the filter bar, click **#** to view records that start with numbers 0 through 9.

To reset filtering

- On the filter bar, click **All** to view all records.

You can filter and then search within the filtered records. For example, click *F* to filter for all records that start with the letter *F*. Then type *th* to search within that list for any record with *th*.

Customizing the user interface

You can customize the user interface by minimizing aspects of it, changing the order of the columns, changing column options, and adjusting the page size. This customization is referred to as a profile. Your profile is associated with the username user name you use to access YourSite Explorer. Each time you close YourSite Explorer, your profile is automatically saved. When you reopen YourSite Explorer using the same username, the user interface displays your profile.

Minimizing aspects of the user interface

To add space to the user interface so you can view additional rows of data, you can minimize the following window elements.

- **Filter bar**
  The filter bar is the bar on which the alphabet is displayed.
- **Page bar**
  The page bar is located above the filter bar. The page number is displayed on the left side of the page bar.
- **Ribbon**
  The ribbon is located at the top of the user interface. The ribbon includes Home, View, and Configuration tabs, and enables you to add devices and change the view (horizontal or vertical). Ribbon attributes change depending on the area you are viewing.

To hide the filter bar

1. On the ribbon, click the **View** tab.
2. Clear the **Show filter bar** check box.

To hide the page bar

1. On the ribbon, click the **View** tab.
2. Clear the **Show paging bar** check box.

Changing the order of the columns

You can reorder columns in either of two ways. You can drag a column heading to a different position on the table, or you can change column order using Column options. See *"Changing column options"*.

To drag column headings

1. With the device window open, select the column heading to be moved.
2. Drag it to a different position on the table.

Changing column options

You can adjust the width and order of columns, and hide or show columns in device windows.

To adjust column width

1. Drag the column to the left or right to adjust its width.
2. Click **OK**.

To hide a column

1. Right-click a column heading.
   The Column options window opens.
2. Select **Column options**.
3. Select the column heading to be hidden.
4. Click **<**.
5. Click **OK**.

To change the order of columns

1. Right-click a column heading.
   The Column options window opens.
2. Select **Column options**.
3. Select the column heading to be moved.
4. Use the arrows to change the order of the column headings.

   The top column displays first in the device window.
5. Click **OK**.

Duplicating devices in YourSite Explorer

Devices in YourSite Explorer can be copied and pasted to create duplicate devices for the configuration of a resilient contact center. A copied device has the same configuration as the original and any unique fields must be changed to new values before the copied device can be saved. Duplicated devices will duplicate the membership of the original, so that a duplicate queue, for example, would have the same agent group members as the original queue.

NOTE:

- Embedded RAD messages on 3300 media servers may not be copied as they need to be saved locally on that 3300 media server.
- YourSite Explorer does not support copying and pasting devices using CTRL+C and CTRL+V.

To duplicate a device in YourSite Explorer

1. Select a device or range of devices.
2. In the ribbon, click the **Home** tab.
3. Click **Copy**.
4. Click **Paste**.
5. For any copied device, put new values into fields that must be unique to a single device.
6. Click **Save**.

Alternatively, to duplicate a device in YourSite Explorer

1. Right-click on the device and select **Copy**.
2. Right-click and click **Paste**.
3. For any copied device, put new values into the fields that must be unique to a device.
4. Click **Save**.

Making multiple changes

In one action, you can edit common information across multiple devices of the same type.

You can change information that is common across multiple devices only. For example, you cannot change Name and Reporting number across multiple employees because they are specific to each device item.

Changing the YourSite Explorer view

You can select from two window orientations: horizontal or vertical. The horizontal view displays information in a horizontal layout. The vertical view displays information in a vertical layout.

When you close YourSite Explorer and then restart it, YourSite displays the view and device windows that were open the last time you used YourSite Explorer.

To select a particular view

1. On the ribbon, click **View**.
2. Select **Horizontal** or **Vertical**.

Posting feedback and viewing our forums

Mitel has partnered with UserVoice, a third-party service, to host customer suggestions on https://micontactcenter.uservoice.com. When you post an idea to our feedback forum, others will be able to subscribe to it and make comments.

Our forums enable you to send feedback directly to the people building the product. While we cannot comment on every suggestion, feedback is analyzed and considered for future releases.

NOTE: Please do not use the forums to submit product defects. To submit product defects, please contact your administrator or dealer.

Feedback can also be submitted directly to Mitel without posting the suggestion on the forums. For more general feedback, you can also provide a rating of your experience with MiContact Center Business.

NOTE: Please do not use feedback for requesting customer assistance. For assistance with MiContact Center Business, please contact your dealer or Mitel Customer Support.

To post feedback and view our forums

1. In YourSite Explorer, click **File > Feedback**.
2. Click **Got an idea? Tell us**.

   or

   Access the following URL: https://micontactcenter.uservoice.com.

To submit feedback directly

1. In YourSite Explorer, click **File > Feedback**.
2. Click **Contact Us**.

To rate your Mitel experience

1. In YourSite Explorer, click **File > Feedback**.
2. Click **Rate us**.

Setting up your Enterprise

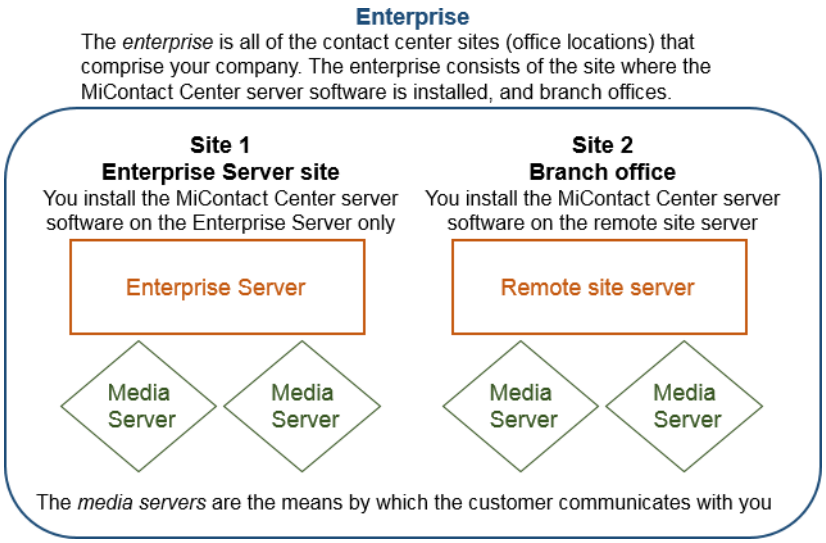
You set up your enterprise structure in YourSite Explorer, under YourSite > Enterprise. Depending on your system capabilities, customers might contact you by phone, email, chat, SMS, or open media. You set up your enterprise to reflect these possibilities and to view statistics and enable reporting on all of these forms of interaction.

For more information on starting and working with YourSite Explorer, see the *"YourSite Explorer"*.

Your enterprise structure is made up of the following components:

- **Enterprise**
  The *enterprise* is all of the sites that comprise your company.
  See the following figure.
- **Site**
  A *site* is an office location with one or more voice media servers. It can be the office where the Enterprise Server is installed or a branch office.
- **Media servers**
  The *media servers* are the means by which customers communicate with you.

Figure 7.1: Enterprise structure



Configuring enterprise settings

The Enterprise Server is the computer on which MiContact Center Business is installed. When programming the enterprise, you configure Enterprise Server general settings, global system language settings, some maintenance services, email settings for alarm notifications, as well as settings for Contact Center Screen Pop (see *"Configuring Contact Center Screen Pop"*) and Multimedia Contact Center (see *"Configuring multimedia enterprise settings"*).

Configuring the Enterprise Server settings

To configure the Enterprise Server settings

1. Click **YourSite > Enterprise**.
2. In the **Enterprise** tab, type the **Name** of the Enterprise.
3. Verify the IP address/DNS name of the Enterprise Server. If the IP address is incorrect, after **IP address/DNS name**, type the IP address of the Enterprise Server.

   NOTE: If you want to change the Enterprise IP address, use the Contact Center Client Update Server IP Wizard. See *"Updating server IP addresses"*.
4. After **Real-time** port, type the real-time port number.

   The default real-time port is 5024.
   The real-time port is used to communicate real-time events.
5. After Auditor port, type the Auditor port number.

   The default Auditor port is 5025.
   The Auditor port is used to run Auditor events.
6. If you want to be notified when your warranty is about to expire, select the **Display warranty warning and expiration message** check box.
7. If you do not want client applications to be automatically updated, clear the **Auto update client applications** check box.

   By default, client applications are updated automatically.
8. After **MiTAI proxy server port**, type the MiTAI proxy server port number.

   The default MiTAI proxy server port is 5026.
9. If you want Lifecycle reports, select the **Enable LifeCycle reports** check box.
10. If you use Secure Socket Layer, select the **This server uses Secure Socket Layer (SSL)** check box.
11. Click **Save**.

Changing the global system language

Administrators can control the default global language of their system using enterprise settings. During the installation of MiContact Center Business, a default global system language is selected. This default language is applied to the alarming RSS feed and emails sent out by YourSite Explorer. Administrators can optionally change this default language post-installation, modifying the language of the alarming RSS feed and emails.

NOTE: MiContact Center Business applications, such as YourSite Explorer and Contact Center Client, all leverage the language settings of the operating system in addition to the language preference set for

MiContact Center Business. Ensure that if you adjust the language settings of MiContact Center Business, you also adjust the language settings of the operating system to match.

To change the global system language

1. Click **YourSite > Enterprise**.
2. Click the **Enterprise** tab.
3. After **Language**, select the global system language from the drop-down menu.
4. Click **Save**.

Configuring enterprise maintenance functions

The MiContact Center Business Maintenance Alarm Dispatcher Service runs nightly, at 2:00 A.M by default. This service performs the following nightly routines:

- Backs up the YourSite database to the local data directory
- Shrinks and truncates the SQL transaction log
- Purges the ANI database table and retains only 10,000 records or 30 days' worth of ANI data
- Re-summarizes the previous days data into the SQL database
- Zips data files in the data directory
- Deletes old files in the data directory as required (when the disk space is low)
- Purges error message queues populated by the MiContact Center Mass Transit Runtime Services

You can determine enterprise maintenance settings, including selecting when to run the maintenance service, by following the steps in the following procedure.

To configure enterprise maintenance functions

1. Click **YourSite > Enterprise**.
2. Click the **Maintenance** tab.
3. After **Zip files older than**, select the number of days after which you want to zip data files.
4. After **Purge reports older than**, select the age after which reports will be discarded.
5. After **Delete maintenance logs older than**, select the age after which maintenance logs will be discarded.
6. After **Delete configuration backup files older than**, select the age after which configuration backup files will be discarded.
7. After **Time Maintenance Service runs**, select the time the maintenance service summarizes data.

   The maintenance service is set to run at 2:00 A.M. by default. Select a time for the maintenance manager to run when your contact center is closed or is the least busy.
8. After **Purge Life cycle reports older than**, select the age after which Life cycle reports will be discarded.
9. After **Purge CDR reports older than**, select the age after which CDR reports will be discarded.
10. After **Purge IVR Data older than**, select the days after which IVR reporting data and call backs will be discarded. The default days is 30 days.
11. Click **Save**.

Configuring email settings

You configure email alarms so you are notified by email about Enterprise Server and real-time performance issues. You must have configured a mail server before configuring your email settings. See *"Adding mail servers"*.

To configure email alarms

1. Click **YourSite > Enterprise**.
2. Click the **Email settings** tab.
3. After **Mail Server Address**, click the **Browse** button.
4. Select a mail server and click **OK.**
5. After **Email notification interval minutes**, select the interval (in minutes) that the Enterprise will check for alarms and send out email notifications.

   NOTE: Notifications of critical alarms are sent immediately after the issue is detected.
6. After **Send Enterprise Server alarms to the following address(es)**, type the email address of the employee(s) who will receive the email notification.

   Separate multiple email addresses with commas.
7. Click **Save**.

Adding sites

A site is an office location with one or more media servers. It can be the office where the Enterprise Server is installed or a branch office.

Your site structure determines how you view statistics and reports. When you add a site, you add the name of the site and the time zone. By making each site distinct, you can restrict user access to sites. For more information on restricting user access, see *"Configuring security roles"*. The site's language determines the default language setting for new employees associated to it.

Administrators can limit whether or not the Make Busy and Do Not Disturb reason codes used by employees are visible in communication tools such as MiCollab and Microsoft Skype for Business.

Administrators can also enable agent greeting and whisper announcement functionality for all agents in the site. Agents record messages from Ignite and assign them to specific queues, so that they are played on each incoming ACD call. See the *MiContact Center Business User Guide* for more information on agent recorded messages. For information on configuring agent greeting workflows, see *"Configuring the Record Agent Greeting workflow"* and *"Configuring agent workflow settings"*.

Administrators can also restrict the site's use of Contact Center Client's Chat Integration, which enables employees to chat with each other in Contact Center Client. Prior to Version 7.0, there was an option to use Microsoft Skype for Business as the default chat client instead of Contact Center Chat. In Version 7.0 and greater,YourSite Explorer automatically detects if you have Microsoft Skype for Business Server and enables it as the default chat client. If your contact center is a mixed environment where some users have Skype for Business and others do not, you may want to use Contact Center Chat to ensure all employees can communicate. For information on using Contact Center Chat in an environment with Skype for Business on some systems, see the following Mitel Knowledge Base article:
https://mitel.custhelp.com/app/answers/answer_view/a_id/1000736/loc/en_US.

NOTE: Contact Center Chat requires server to client hostname resolution to properly function.

If you are licensed for IVR Routing, you can configure callback requests on a site-by-site basis. For more information, see *"Configuring callbacks"*.

Administrators can also configure the case management settings for each of the sites. For more information, see *"Configuring case management settings"*.

To add a site

1. Click **YourSite > Site**.
2. Click **Add**.
3. After **Site Name**, type the name of the site.
4. After **Time Zone**, select the time zone and closest location from the drop-down list.
5. After **Site Language**, select the site language from the drop-down list.
6. After **Default Server**, click the **Browse** button.
7. Select a server and click **OK**.
8. If you want Make Busy and Do Not Disturb reason codes to display in communication tools, select **Display Make Busy and DND Reason Codes in Communication Tools**.
9. To enable agent greeting and whisper announcement functionality for the site, check **Enable Agent Greetings**.

   The system displays an information message advising you to ensure that the appropriate Class of Service options are configured for agents on the MiVoice Business telephone system.

   NOTE: Ensure that Agent Greeting ports have the Class of Service 'ACD Silent Monitor allowed' enabled on the MiVoice Business telephone system.
10. To disable Contact Center Client Chat Integration, clear **Chat Enabled**.

    NOTE: If Contact Center Chat is disabled for a particular site all employees associated to that site will be unable to communicate with each other using Contact Center Client.
11. Click **Save**.

Adding mail servers

To add a mail server

- Click **YourSite > Mail servers > Add**.

After adding the mail server, you must configure SMTP connections to MiContact Center Business.

Configuring SMTP connections to MiContact Center Business

The following configurations take place in **YourSite > Mail servers > Outgoing**.

Configuring an SMTP connection enables MiContact Center Business to send outgoing mail through a contact center's email server. The following explains how to configure an SMTP connection between MiContact Center Business and email servers. The outgoing settings you configure are applied to any email your system sends, such as server alarms and reports.

NOTE: The following procedures require information on your business' email server. Consult the appropriate server documentation to retrieve this information.

Configuring an SMTP connection requires you to

- Add the mail server to YourSite Explorer
  If the mail server has not already been added, see *"Adding mail servers"*.
- Specify the server information for outgoing emails
- Specify the email account's 'From' name and address
- Specify the email account's aliases (if any).
- Optionally, request logon credentials to send outgoing mail
- Test the servers' SMTP socket connection to MiContact Center Business

  NOTE: To test the connection, you must have an email address configured for the employee you are logged in as in the Employee page. This email address receives notification of whether the test was successful.

To specify the server information for outgoing emails

1. After **SMTP Server**, type the server's IP address or name.
2. Select the **Use SSL** check box if the server uses Secure Sockets Layer.
3. After **SMTP Port**, type the server's SMTP port number.

   NOTE: Google Apps for Business' port 465 is not supported.
4. After **Connection Timeout**, type how many seconds the system has to connect to the server before timing out.

To specify the email account's 'From' name and address

1. After **From Name**, type the name that appears on outgoing mail.
   For example, 'XYZ Company Sales'.
2. After **From Email Address**, type the email address that appears on outgoing mail.

   For example, 'xyzsales@example.com'.

To specify the email account's aliases.

1. After **Aliases**, click the **Browse** button.

   NOTE:
   - If you are licensed for Multimedia Contact Center, include all queue email addresses that agents will select as the 'From' address in email responses and outbound emails, if these queues are not configured as the 'From Email Address' for the mail server.
   - If you are licensed for Multimedia Contact Center, failure to include all aliases will impact the ability of the Transfer activity to route inbound emails to all queues when using the <<Destination-Queues>> variable.
2. Type the mail server's alias and click **Add**.

   NOTE: An alias can only be associated to a single mail server.
3. If you want to associate additional aliases for the mail server, for each additional alias, type the alias and click **Add**.
4. Click **Ok**

To request logon credentials to send outgoing mail

1. Select the **SMTP Authentication Required** check box.
2. Enter the **Username**, **Password**, and **Domain** information for the server's email account.
3. Click **Save**.

To test the server's SMTP socket connection to MiContact Center Business

- Click **Test Outgoing Mail**. If an error message is received, verify that the Outgoing Server, User, and Logon information is entered accurately. To troubleshoot, the default installation location for verbose logs is C:\Users\<current user>\Documents\CCMLogs\YourSiteExplorer.txt.

Adding media servers

NOTE: The SX-200, Axxess, and 5000 media servers are not supported with Version 7.x, Version 8.x, and Version 9.x, except as historical media servers. When upgrading to Version 7.x, 8.x, and 9.x SX-200 media servers, along with their associated extensions, agents, agent groups, queues, trunks, and trunk groups, are set to historical. Axxess and 5000 media servers must be marked as historical before upgrading to Version 7.x, 8.x, and 9.x to retain historical data.

For information on adding email, chat, and SMS media servers, see the Multimedia Contact Center Installation and Deployment Guide *"Adding media types to Multimedia Contact Center"*.

When you first install MiContact Center Business, a 3300 ICP media server is added to YourSite Explorer by default. If you do not plan to use this server, we recommend you delete it to avoid receiving unnecessary alarms or error messages. You can modify this default server based on your requirement. If you choose to add a new server, then you need to delete the default server.

To distinguish between the various types of media for management and reporting purposes, you must make each media server distinct when you set up your site. Each media server must have an unique name and IP address.

In **YourSite Explorer Start Page**, under **System Information** tab, you can click **About** link to verify the types of media servers and the number of employees for which you are licensed. You can access the same information in CCM Web you hover over Help and select About your Mitel Applications.

MiContact Center Business works with the following media server types:

3300 IP Communications Platform (ICP)

The 3300 ICP ACD system streams SMDR and ACD real-time data over TCP/IP.

See "Adding a 3300 ICP media server".

Multimedia Contact Center Email

The Multimedia Contact Center Email routing engine dynamically allocates emails from customers to agents. Email servers must support IMAP and maintain a reliable connection to the Enterprise Server. In addition, we recommend that the mail account from which Multimedia Contact Center retrieves emails supports aliases.

See *"Adding email to Multimedia Contact Center"* for more information.

Multimedia Contact Center Chat

The Multimedia Contact Center Chat routing engine dynamically allocates live chat sessions over the Web from customers to agents. The routing engine uses HTTP or HTTPS to communicate between customer and agent.

See *"Adding chat to Multimedia Contact Center"* for more information.

Multimedia Contact Center SMS

The Multimedia Contact Center SMS routing engine dynamically allocates SMS interactions from customers to agents. SMS media servers require integration with the SMS gateway service provider Twilio to provide SMS capabilities to a contact center.

See *"Adding SMS to Multimedia Contact Center"* for more information.

Adding 3300 ICP media servers

You add the 3300 ICP media server and then configure its location settings, telephone system settings, data summary options, data collection settings, MiTAI options and, optionally, write-back functionality and call recording.

As a best practice, we recommend you perform Full Synchronization after adding and configuring a media server in YourSite Explorer and before configuring telephone system settings for the media server. If you are adding media servers as part of a new installation, we recommend you perform synchronization after all media servers have been added. For more information on synchronization, see *"Configuring the YourSite database using synchronization""Configuring the YourSite database using synchronization"*.

To add a 3300 ICP media server

1. In YourSite Explorer, click **YourSite > Media servers**.
2. You can modify the default or add new one. To add new, click **Add > 3300 ICP**.
3. After **Name**, type the name of the media server.

   NOTE:
   - To distinguish between the various types of media for management and reporting purposes, you must name each media server distinctly when setting up your site.
   - The Media server ID field will be populated with a unique number after the media server has been saved.
4. After **Site**, select the site where the media server resides.
5. After **Computer name**, select the server that collects the data on your telephone system.
6. The field after **Telephone System Version** is read-only and is automatically populated after synchronizing with the telephone system. It describes the active software load version on the telephone system.
7. To be informed of media server alarms, select the **Enabled for alarms** check box.

   NOTE: Selecting this check box will inform you of media server alarms via RSS and email. For more information, see *"Monitoring and alarming subsystem"*.
8. The **SDS Mode** check box is automatically selected, if applicable, after synchronizing with the telephone system.

   NOTE: In a network or cluster of elements, the System Data Synchronization (SDS) feature keeps programming data, such as Interconnect Handling Restrictions, Feature Access Codes, and Class of Service Options, identical at each element.
9. If you have Hot Desking Agents, select the **Uses Hot Desking Agents** check box.

   NOTE:
   - If this is selected, all created agents will be Hot Desking Agents. You cannot mix hot desking and traditional agents.
   - We recommend you configure Hot Desking Agents for your contact center instead of traditional agents.
10. Select **Licensed for MiVoice Analytics** if you are applying a MiVoice Analytics license.

NOTE: This check box is selected by default when you add a 3300 ICP media server and have remaining MiVoice Analytics media server licenses. If you are licensed for MiContact Center Business and MiVoice Analytics, you must select 'Licensed for MiVoice Analytics' to have access to MiVoice Analytics. If you are not licensed for a MiVoice Analytics product, you will not be able to select the check box for that product.

11. After **IP address /DNS name**, specify the IP/DNS address of the media server.
12. After **Username**, type the username used to connect to the telephone system.
13. After **Password**, type the password used to connect to the telephone system.
14. After **Confirm password**, type the password used to connect to the telephone system.
15. Click the **Test Connection** button to test the connection between the media server and the Enterprise Server.

    This connection is required to ensure Synchronization functionality. If this test fails, you will not be able to synchronize.
16. Configure the location settings.

    See *"Configuring location settings for a 3300 ICP"*.
17. Under **Data Summary Options**, set the Maximum MiTAI monitors
18. Click **Save**.

At this point, you have completed adding your voice media server, you can further configure additional settings such as data summary options, data collection settings, MiTAI options, and telephone system settings. Optionally, you can configure write-back functionality and call recording.

Configuring location settings

To configure location settings for a media server

1. Click **YourSite > Media servers**.
2. Select a 3300 ICPmedia server and click the **Location** tab.
3. After **Country**, click the **Browse** button and select the country where the media server is located.
4. Click **OK**.
5. After **Area**, click the **Browse** button and select the appropriate area code for the media server's location.
6. Click **OK**.
7. After **Minimum digits to dial locally**, specify the minimum number of digits required for a local external call.

   NOTE: Digits less than the minimum are treated as internal calls.
8. After **Maximum digits to dial locally**, specify the maximum number of digits required for a local external call.

   NOTE: Digits exceeding the maximum are treated as long distance external calls.
9. After **Outbound dialing prefix**, specify the number dialed to access an outside line.
10. Configure the data summary optionsfor the 3300 ICP.

    See *Configuring data summary options"*.

Configuring data summary options

Contact centers operating over midnight should have 'This enterprise operates 24 hours a day' selected for the media server. This option provides more accurate reporting over midnight and determines when and how agent shifts are opened and closed after midnight.

If this option is selected, the system automatically closes and re-opens agent shifts at midnight. All agents remain logged into the system.Agent shift reporting is uninterrupted over this period.

If this option is not selected, the system closes agent shifts after the last agent event before midnight. The system re-opens agent shifts after the first agent events after midnight. All agents remain logged into the system. Agent shift reporting is not extended between the time agent shifts close and the time they re-open.

The agent state timeout audit has four options:

- **Clear line if agent Hold Time exceeds:**
  Select the number of minutes or hours an agent can be in Single Hold state, after which the Enterprise Server resets the state back to Idle.
- **Clear line if agent primary Talk Time exceeds:**
  Select the number of minutes or hours an agent can be in Single Talk state on the primary line (ACD line), after which the Enterprise Server resets the state back to Idle.
- **Clear line if agent secondary Talk Time exceeds:**
  Select the number of minutes or hours an agent can be in Single Talk state on the secondary line (Non ACD line), after which the Enterprise Server resets the state back to Idle.
- **Change the agent state from Ringing to Idle after:**
  Select the number of seconds, minutes, or hours an agent can be in Ringing state, after which the Enterprise Server resets the state back to Idle.

  NOTE: These states do not affect the telephone system.

NOTE: If you set one media server as 24 hours then you should make sure that all of your multimedia media servers match the same or else all agents for an employee will not have consistent behavior.

To configure data summary options for a media server

1. Click **YourSite > Media servers**.
2. Select a 3300 ICP media server and click the **Data summary options** tab.
3. To generate Trace reporting, select the **Inbound/Outbound/Make Busy Trace reporting** check box.
4. If your business operates over midnight, select **This enterprise operates 24 hours a day**.

   NOTE: If you do not select this option, but have agents logged in to MiContact Center Business applications overnight, you may experience difficulties with shift-related statistics, such as agent shift monitor and Make Busy Reason codes. For example, if agents are logged in to Contact Center Client overnight with a Make Busy Reason code, when you change the Make Busy Reason code the following day, Contact Center Client will display 'Unknown Make Busy code'. This can be remedied by logging out of the application and logging back in.
5. To track outbound calls that were not answered, select the **Credit unanswered outbound calls** check box.
6. If you want to display when calls ring at agents' extensions, select the **Monitor Agent Ringing state** check box.
7. After **Digits dialed prefix**, type the digits that must precede a telephone number to make an outbound call.

8. After **Digits dialed postfix**, type the digits that must follow a telephone number to make an outbound call.
9. After **Maximum MiTAI monitors**, specify the maximum number of MiTAI monitors.
10. Under **Agent state timeout audit**, after **Clear line if agent Hold Time exceeds**, specify the number of minutes or hours you are in a hold state before the telephone system clears the line.
11. After **Clear line if agent primary Talk Time exceeds**, select the number of minutes or hours an agent can be in a single state on the primary line (ACD line) before the system clears that line.
12. After **Clear line if agent secondary Talk Time exceeds**, specify the number of minutes or hours an agent can be in a single state on the secondary line (Non ACD) before the system clears that line.
13. After **Change the agent state from Ringing to Idle after**, specify the number of minutes or hours after which you want the agent state to change from Ringing to Idle.
14. If you do not want to report on the secondary line (Non ACD and outbound calls), select the **Ignore agent secondary line activity** check box.
15. Select the **Reset MKB/DND time in realtime after call ends** check box to enable the MKB/DND time to reset in real time when the call concludes.
16. Under **ACD Options**, to store ACD redundant events, select the **File all ACD stream redundant events** check box.
17. If you do not consider ACD real-time sequence errors as record errors, select the **Ignore ACD real-time sequence errors as record errors** check box.
18. Configure Data collection settings.

    See *"Configuring data collection settings"*.

Configuring data collection settings

CAUTION: Selecting the TCP, Enterprise Manager (OPS Manager), or Simulation tabs will change the media server's data collection mode. Ensure that you select the tab for the appropriate data collection mode. Be aware that Simulation mode halts data collection and is used for demonstration purposes only. We do not recommend you run media servers in simulation mode. However, if you want to simulate media server real-time data collection and reporting, see the following Mitel Knowledge Base article:https://mitel.custhelp.com/app/answers/answer_view/a_id/1000546/loc/en_US

To configure data collection settings for a media server

1. Click the **Data collection** tab.
2. If you do not use Enterprise Manager (OPS Manager), click **TCP**. Otherwise, skip to step 8.
3. After **SMDR**, type the SMDR port number of the media server.
4. If you will be entering ACD information, select the **ACD** check box and type the ACD port number of the media server.
5. If you use Traffic Analysis, select the **Traffic Analysis** check box and type 1754 in the text field. This is the recommended Traffic Analysis port number.
6. After **Data Alarm Timeout Minutes**, select the duration of the time lapse in minutes from when the data stops streaming to when you want the alarm to display.

NOTE: In a resilient environment, SMDR and ACD data timeout alarms may trigger unnecessarily. To prevent this, set Data Alarm Timeout Minutes to zero.

7. After **Notify me during these business hours**, click the Search button, select a schedule that reflects the hours of operation for the media server, and click **OK**.
8. If you use Enterprise Manager (OPS Manager), click **Enterprise Manager (OPS Manager)**.
9. After **IP address/DNS name**, type either the IP address or the DNIS name of the Enterprise Manager (OPS Manager) computer.
10. After **FTP port**, type the FTP port number.
11. After **FTP user name**, type the FTP user name to gain access to Enterprise Manager (OPS Manager).
12. After **FTP password**, type the FTP password to gain access to Enterprise Manager (OPS Manager).
13. After **Remote directory to data files**, type the directory path where the data from the telephone system is stored by Enterprise Manager (OPS Manager).
14. Configure the media server's MiTAI options.

    See *"Configuring MiTAI options for 3300 ICP media servers"*.

Configuring MiTAI options

To configure MiTAI options for a media server

1. Click the **MiTAI Options** tab.
2. After **Maximum messages per second**, select the number of messages per second from the drop-down list.

   The default number of messages is 10 per second. The higher the version of MiTAI, the greater the number of messages per second.
3. After **MiTAI auto-synchronization will occur at**, select the time from the list that you want Automatic Synchronization to run.
4. To enable write-back functionality, see *"Enabling write-back functionality"*.

Enabling write-back functionality

For changes that you make to the configuration settings in YourSite Explorer to be written back to the telephone switch, you must enable the read/write option in YourSite Explorer.

To enable write-back functionality

1. In YourSite Explorer, click **YourSite > Media servers**.
2. Select the media server for which you want to enable read/write functionality.
3. On the ribbon, click the **Telephone System** tab.
4. In the **Settings** section, select **Read/Write**.
5. Configure the telephone system settings for the media server.

   See "Configuring telephone system".

Call recording

MiContact Center Business offers 24/7 call recording by integrating with MiVoice Call Recording , dvsAnalytics Encore, or Red Box Quantify call recording software. For enhanced call security, MiContact Center Business also integrates with the Mitel Secure Recording Connector service to facilitate the recording of Mitel encrypted voice streams by third party software. MiVoice Call Recording can optionally be used in conjunction with the Mitel Secure Recording Connector service. dvsAnalytics Encore and Red Box Quantify must be used in conjunction with the Mitel Secure Recording Connector service. For information, see *"Configuring the Mitel Secure Recording Connector service"*.

For specific information regarding supported third-party versions, see the relevant support statements in the *MiContact Center Business and System Engineering Guide*.

Configuring the Mitel Secure Recording Connector service

MiContact Center Business integrates with MiVoice Border Gateway's Secure Recording Connector service, which facilitates the recording of Mitel encrypted voice streams by third-party call recording equipment. In order to use Contact Center Softphone in conjunction with the Mitel Secure Recording Connector service, you must complete the configuration process described below.

NOTE:

- Before you can configure call recording in YourSite Explorer, you must configure the Secure Recording Connector service in MiVoice Border Gateway. See the MiVoice Border Gateway documentation for configuration information.
- If multiple MiVoice Border Gateways are used in a clustered environment to take advantage of load balancing and the soft phone is connected to the primary Secure Recording Connector when that connector goes offline, the soft phone will re-connect as determined by the cluster. New soft phones will attempt to connect to the first MiVoice Border Gateway configured in YourSite Explorer, then try the second MiVoice Border Gateway configured in YourSite Explorer and as a final attempt, try registering with the media server itself. If it registers with the media server, call recording will not be possible.
- For soft phone balancing in a Secure Recording Connector service environment to function properly, you must alter a configuration file on the MiVoice Border Gateway server. If you do not, you will have to restart Contact Center Client and the soft phone in the event of a failover. For instructions on how to make alterations, customers can contact their approved vendor. Certified channel technicians can contact Mitel Technical Support.

To configure the Secure Recording Connector service

1. In YourSite Explorer, under **Enterprise**, click **Media servers**.
2. Select a 3300 ICP media server from the list.
3. Click the **Call recording options** tab.
4. Under **Mitel Secure Recording**, after **IP address 1**, type the primary IP address of the Secure Recording Connector.
5. If you use multiple Secure Recording Connectors, type the IP address of the secondary Secure Recording Connectors after **IP address 2**.

   If the soft phone fails to connect to the primary Secure Recording Connector, it will attempt to connect to the secondary. If that fails, then soft phone will use the IP address of the media server programmed in the data collection field. If it uses the IP address of the media server, call recording will not be possible.
6. Click **Save**.

Configuring call recording integration

MiContact Center Business offers 24/7 call recording by integrating with MiVoice Call Recording, dvsAnalytics Encore, or Red Box Quantify call recording software.

NOTE: MiContact Center Business with MiVoice Connect does not support ASC as a call recorder.

Using the MiVoice Call Recording, MiContact Center Business can optionally record calls based on pre-defined schedules. With MiVoice Call Recording, call recording can be temporarily started or stopped in Contact Center Client to ensure customer confidentiality or to create a record of volatile or sensitive calls.

Indirect recording is not supported with Contact Center Client Softphone.

When a call recording is complete, a hyperlink to the recording is appended to call-specific Lifecycle reports. For more information about Lifecycle reporting, see the Reports Guide appropriate to your MiContact Center Business licensing level.

NOTE:

- MiVoice Call Recording, dvsAnalytics Encore, and RedBox Quantify call recording integration is supported for use with the Mitel 3300 ICP only.
- Before you can configure call recording in YourSite Explorer, you must configure your MiVoice Call Recording, dvsAnalytics Encore, or RedBox Quantify by following the recommended installation and configuration guidelines included with these products.
  Contact your dvsAnalytics or RedBox approved vendor for all setup and troubleshooting issues.
- The dvsAnalytics Encore integration does not support External Hot Desking Agents.
- Contact dvsAnalytics or RedBox for information on integrating call recording with the Mitel Secure Recording Connector.
- Ensure call recordings are working properly for all configured extensions before activating the call recording integration in YourSite Explorer.
- If you use the Mitel Secure Recording Connector and Contact Center Softphone, you must enter the IP addresses of the Mitel Secure Recording Connector in YourSite Explorer.

To configure MiVoice Call Recording Connector

1. In YourSite Explorer, under **Enterprise**, click **Media servers**.
2. Select a media server from the list.
3. Click the **Call recording options** tab.
4. Under **Call recording provider options**
   - After **Recorder type**, select **MiVoice Call Recording** from the drop-down list.
   - After **MiVoice Call Recording server address**, type the IP address of the call recorder.
   - After **MiVoice Call Recording server port**, specify the port of the call recorder.
   - After **Username**, type the username to log into the call recorder.
   - After **Password**, type the password to log into the call recorder.
   - After **Trace Web Services URL**, if applicable to your deployment, enter the relevant URL for use with the latest Tracer API.
5. Click **Save**.

   Call recordings are enabled and can be accessed from hyperlinks in call-specific Lifecycle reports.

To configure dvsAnalytics Encore

1. In YourSite Explorer, under **Enterprise**, click **Media servers**.
2. Select a media server from the list.
3. Click the **Call recording options** tab.
4. Under **Call recording provider options**
   - After **Recorder type**, select dvs Encore from the drop-down list.
   - After **Encore Web API address**, type http://<Encore Server IP address>/WebAPI/ECAPI.svc
5. Click **Save**.

   Call recordings are enabled and can be accessed from hyperlinks in call-specific Lifecycle reports.

To configure Red Box Quantify

1. In YourSite Explorer, under **Enterprise**, click **Media servers**.
2. Select a media server from the list.
3. Click the **Call recording options** tab.
   - After **Recorder type**, select **Red Box Recorder**.
   - After **Recorder IP Address**, type the IP address of the call recorder.
   - After **Username**, type the username of the call recorder
   - After **Password**, type the password of the call recorder.
   - After **Trace Web Services URL**, type the Trace Web Services URL.
4. Click **Save**.

   Call recordings are enabled and can be accessed from hyperlinks in call-specific Lifecycle reports.

Configuring the Record Agent Greeting workflow

Agent Greeting allows agents to record messages that play automatically to callers when an incoming ACD call is answered. Agents can record multiple greeting messages and assign them to different queues, or use the same greeting message on all queues.

Agent Greeting messages are recorded and saved using an outbound workflow in the Record Agent Greeting tab on the voice media server.

NOTE:

- By default, this workflow requires no additional configuration, but administrators can add additional activities to the workflow. For more information on this workflow, see *"Default Record Agent Greeting Workflow"*.
- Agent greeting must be enabled at the site level for the Record Agent Workflow to be active. For more information, see *"Adding sites"*.

To access the Record Agent Greeting workflow

1. Select **YourSite > Media servers**.
2. Click the **Record Agent Greeting** tab.

Default Record Agent Greeting Workflow

The Record Agent Greeting workflow manages the recording and saving of agent greeting messages. When an agent clicks the 'Record' button in Ignite, the workflow is triggered and the system places a call

to the agent's extension and plays an interactive voice menu for message recording. When the message is successfully recorded, the system saves the message and makes it available to the agent to assign to a queue.

This workflow appears on the media server configuration page, and is only activated if agent greeting is enabled on the site to which the media server belongs. For more information on enabling agent greeting, see *"Adding sites"*.

For a complete view of the workflow's activity and operations, expand the entire workflow and all annotations.

To expand the workflow

- Click the **Expand All** button.

To expand all annotations

- Right-click the workflow and select **Annotations… > Show all**.

Description

The first step in this workflow is a Make Call activity. The Make Call activity checks the value of the <<Agent DN>> variable (that is, the dialable number associated with the agent who clicks the 'Record' button in Ignite), and routes a call to that DN.

NOTE: Optionally a name and number can be assigned to the Make Call activity for visibility in real-time monitors. For more information, see *"Configuring the Make Call activity"*.

The next step depends on the result when the Make Call activity calls the destination:

- If the call to the destination times out, the call routes through the No Answer branch
- If the destination is busy, the call routes through the Destination Busy branch
- If the destination does not match an existing phone number, the call routes through the Invalid Destination branch
- If the Make Call activity encounters a failure and does not make the call, the call routes through the Failure branch
- If the destination answers, the call routes through the Success branch

The Success branch contains a Record activity. The Record activity allows the agent to record a .wav file. For detailed information on configuring the Record activity, see *"Configuring the Record activity"*.

The Record activity contains three branches:

- Save branch
- Discard branch
- Review branch

The Discard and Review branches are standard Record activity branches.

The Record activity's Save branch contains a Save Agent Greeting activity that saves the recording to the Enterprise Server, and a Play activity that informs callers that the recording has been saved.

The final activity in the workflow is the Hang up activity, which ends the call.

Managing historical media servers

Media servers that are no longer in active use can be set as historical to retain data on the media servers associated devices. Historical data is retained on the media server but no new data is collected. When a media server is set to historical, it terminates all active licenses for devices associated with that media server. These historical devices are preserved for historical reporting.

NOTE: The SX-200, Axxess, and 5000 media servers are not supported with Version 7.x, Version 8.x, and Version 9.x, except as historical media servers. When upgrading to Version 7.x, 8.x, and 9.x SX-200 media servers, along with their associated extensions, agents, agent groups, queues, trunks, and trunk groups, are set to historical. Axxess and 5000 media servers must be marked as historical before upgrading to Version 7.x, 8.x, and 9.x to retain historical data.

Associated devices affected by setting a media server to historical include

- Agents
- Agent groups
- Queues
- Extensions
- Hunt groups

A historical media server is enabled for

- Historical reporting for associated devices
- Forecasting
- ACD andSMDR Inspector functionality

Once made historical, a media server cannot be returned to active service. A historical media server cannot be edited and can only be deleted.

To set a media server as historical

1. Under **Enterprise**, click **Media Servers**.
2. Select a media server
3. In the **General** tab, click **Make Historical**.
4. Click **OK**.

To delete a historical media server

1. Under **Enterprise**, click **Media Servers**.
2. Select a historical media server.
3. Click **Delete**.

Deleting media servers

CAUTION: If you delete a media server, you will delete all of the devices associated to the media server.

To delete a media server

1. In **YourSite Explorer**, click **Media servers**.
2. Select the media server you want to delete.
3. Click **Delete**.

   A window opens with the message 'All of the data associated with this media server will be permanently deleted. Are you sure you want to delete this media server?'
4. Click **OK**.

Configuring the YourSite database

NOTE: YourSite Explorer enables you to have multiple device tabs open simultaneously. As a best practice, we recommend you only have the device tabs open that you are currently using.

In an ACD contact center using MiContact Center Business there are two main databases: the telephone system database and the YourSite database. Your dealer is responsible for assessing your contact center requirements and configuring the telephone system database accordingly. You are responsible for configuring the YourSite database to mirror the trunk, extension, agent, agent group, queue, Account Code numbers, and routing and timing options in use on the telephone system . This can be achieved quickly using synchronization for the 3300 ICP. See *"Performing Synchronization"*.

Employees and employee groups can be synchronized with users in Active Directory through Active Directory synchronization. For more information, see *"Running Active Directory synchronization"*

In the YourSite database, you create associations between devices and device groups in order to view real-time data and run reports.

NOTE: Mitel refers to agent groups as agent skill groups on 3300 ICP assignment forms for versions 7 UR2 and greater. The MiContact Center Business software refers to agent skill groups as agent groups.

To configure the YourSite database, you

1. Add employees.
2. Add agent groups.
3. Associate employees with agent groups.
4. Add queues.
5. Associate the agent groups with the queues for which they answer calls.
6. Add all other devices for which you intend to run reports, for example, employee groups, Account Codes, Make Busy Reason Codes, etc.

Determining which devices to configure

Before you program devices and device groups in the YourSite database you must consider your needs.

- Reporting
  Will you need to report on all of the devices and device groups, or only on agents, agent groups, queues, and queue groups? You must configure the devices and device groups you will use for reporting in the YourSite database.
- Real time
  Contact Center Client displays statistics on agents and agent groups, queues and queue groups, and employees and employee groups. You configure the individual devices and then associate them with their related groups in YourSite Explorer to enable them to be viewed in real time in Contact Center Client.
  If an employee's licensing is set to 'None' the 'Disable real-time monitoring and data collection on this device' check box in YourSite Explorer for their associated agents will be automatically selected and they will not be visible in Contact Center Client real-time monitors or be reported on historically.
  An agent group must be composed of agents who handle calls for the same media server type. A group of agents of mixed media types would produce a report comparing voice agents to email agents to chat agents. The comparison would not be valid. You want to compare apples to apples (email to email) not apples to oranges (email to chats).

- Email, chat, SMS, and open media
  See the *Multimedia Contact Center Installation and Deployment Guide* for information.

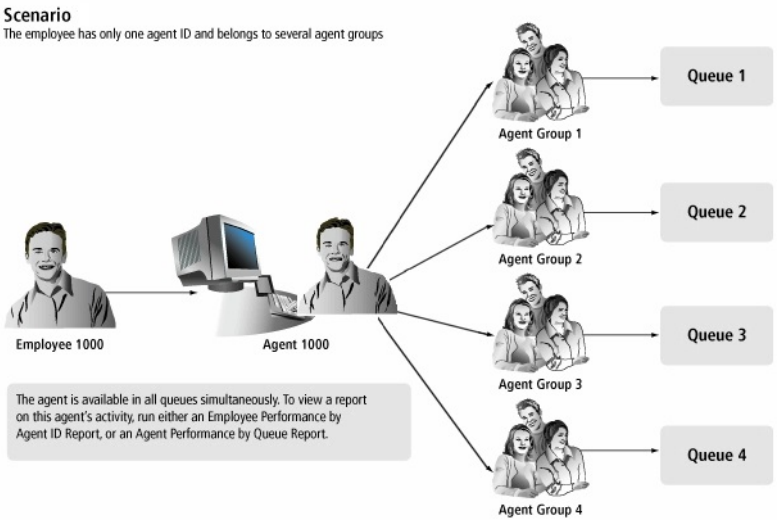
Choosing the employee configuration method

There is one recommended configuration scenario for MiContact Center Business, where employees have a single voice agent and use agent group presence to control which queues they receive calls from. Prior to Version 7.0, there was also a scenario for employees having multiple voice agents, with each voice agent in a different agent group associated to a different queue. This configuration scenario is no longer recommended. For more information, see *"Configuration scenario 2"*.

Recommended configuration scenario

In the recommended configuration scenario, an employee has one agent login ID. The employee belongs to four agent groups that handle calls for four queues. The employee is simultaneously available to handle calls to all four queues without having to log out of one queue and into another queue. (See the following figure.)

Figure 7.2: Recommended configuration scenario



In the recommended configuration scenario, you add your employees via synchronization, importation, or manual creation. For each employee, you enable them for voice media, which automatically creates an agent with the same name, reporting number, and other information as the employee, so that the employee with Employee ID 1000 has an agent with the reporting number of 1000. In the Agent groups device page, you add the employee to Agent Group 1-4. Employee 1000 would now be able to handle interactions for Agent groups 1, 2, 3, and 4.

Multiple voice agents for individual employees configuration scenario (not recommended)

In configuration scenario 2, only a few agents are cross trained and most agents belong to only one agent group. The few agents who are cross trained vigilantly monitor call volumes in all of the queues for which they have been cross trained. As soon as they notice a busy queue, they log out of their current

queue and in to the busy queue. The advantage of this configuration is that you do not need to cross train many employees. Note, though, that your calls are not intrinsically evenly distributed.

YourSite database configuration methods

You can configure the YourSite database in the following ways:

- **Synchronization**
  If you have a 3300 ICP, you can synchronize the YourSite database with the queues, agents (including their skill level within each agent group), agent groups, agent skill groups, trunks, and extensions programmed on the telephone system using Synchronization. You can perform Synchronization on individual 3300 ICPs or all 3300 ICPs in your enterprise.
  See *"Configuring the YourSite database using synchronization"*.
- **Active Directory synchronization**
  If you specified the Windows Authentication model during installation, you can synchronize your system with Active Directory at any time from within YourSite Explorer. When you run Active Directory synchronization, employees in YourSite Explorer are synchronized with users in Active Directory groups. If you use Windows Authentication and Active Directory synchronization, users will not be prompted to authenticate themselves with a username and password when they start MiContact Center Business applications.
  See *"Running Active Directory synchronization"*.
- **Quick Setup**
  If you want to add a range of devices (such as employee groups or Make Busy Reason Codes, and teams) you can use Quick Setup.
  See *"Configuring devices and device groups using Quick Setup"*.
- **Comma-separated value (.csv) import**
  You can also add a range of devices (employee, employee groups, employee divisions, agents, agent groups, queues, queue groups, extensions, extension groups, extension divisions, trunks, trunk groups, DNIS, DNIS groups, Account Codes, Account Code groups, Make Busy Reason Codes, and teams) using .csv files.
  See *"Configuring devices using .csv files"*.
- **Manual configuration**
  See *Configuring devices manually"*.

Configuring the YourSite database using synchronization

YourSite Explorer enables you to configure and write queues, agent skill groups, and agents (including skill level), and validate/edit contact center related Class of Service, Class of Restriction, System Options, and SMDR Options settings using synchronization.

This enhanced functionality enables you to configure MiContact Center Business applications from your desktop. Validation of device and assignment form settings ensures quality data collection and accurate reporting. After running synchronization, Class of Service and Class of Restriction settings programmed in the telephone system can be edited in YourSite Explorer.

During synchronization, administrators can preview device changes, identify devices that should be excluded from synchronization, and manage the business rules related to synchronization of device names and associated device creation.

While synchronizing data, the telephone system continues to operate without experiencing downtime. After synchronization is complete, the Contact Center Client applications open on agent desktops will be refreshed with a device update. After synchronization is complete, all critical programming, such as SMDR Options, System Option, Class of Service, and Class of Restriction settings will be validated. We highly recommend that you correct invalid programming, as detailed on the Telephone system settings tab of media servers in YourSite Explorer, immediately.

Configuring your network using SDS Directory synchronization mode is mandatory for all sites operating with 20 nodes or less. For more information, see *"Classic mode synchronization"* and *"SDS Directory synchronization mode"*.

Classic mode synchronization

Using YourSite Explorer and the 3300 ICP in Classic mode, you can add, edit, and delete standard agents, agent groups, and queues, as well as ACD related Class of Service (COS), Class of Restriction (COR), SMDR Options, and System Options. When not in a clustered environment, you can also continue to add hot desk agents and all synchronization device names. Adding hot desk agents in a clustered environment requires the use of Mitel OPS Manager.

SDS Directory synchronization mode

Using YourSite Explorer and the 3300 ICP in SDS Directory synchronization mode, you can now add, edit and delete standard and hot desk agents, agent groups, queues, trunks, trunk groups, and extensions, synchronize device names, as well as ACD related Class of Service (COS), Class of Restriction (COR) SMDR options and System Options in both a single site and in a clustered environment. When operating in SDS Directory synchronization mode, you can configure Network ACD queue set up on the 3300 ICP without any manual configuration previously required using Mitel OPS Manager.

NOTE:

- In order to use Synchronization to synchronize the YourSite database with resilient, Network ACD, and clustered telephone systems, you must enable the SDS Directory synchronization option on all of the telephone systems in your enterprise.
- If you edit the feature access code used for silent monitoring on the media server, you must also manually edit the feature access code on the telephone system. The feature access code entered in YourSite Explorer must be identical to that on the telephone system and be valid for use with silent monitoring. See *"Editing System Options"*.

Preparing for Synchronization

NOTE: Only Mitel telephones that are programmed on the IP Multiline set assignment form will synchronize with the YourSite database. For details on the phones that are supported, please refer to your Mitel 3300 ICP documentation.

Before you perform synchronization

- In order to use Synchronization to synchronize the YourSite database with resilient, Network ACD, and clustered telephone systems, you must enable the SDS Directory synchronization option on all of the telephone systems in your enterprise.
- Ensure that you have completed programming the 3300 ICP and created a user name and password for synchronization (on the 3300 ICP User Authorization Profile form). The 3300 ICP User Authorization Profile must include Application Access and System Admin Access. Desktop Admin and Group Admin options can be disabled. These steps must be completed for all 3300 ICPs in your Enterprise.
- Ensure your MiXML service is started by navigating to the Control Panel in Windows and selecting 'MiXML'. Verify that port 18000 is entered on the Settings tab and click Start.

- If you are synchronizing a single telephone system, agents and queues must be programmed on the same telephone system. Single node synchronization can disassociate agents and queues if agents and queues reside on separate telephone systems.
- Ensure that your Windows or Corporate firewall is not blocking the following ports
  - SOAP: 18000 (HTTPS)
  - UDP: 53
  - TCP: 7011
  - TCP: 22
  - TCP: 443 (SSH)
- If you have multiple NICs on your Enterprise Server, you must specify the NIC to use for synchronizing data to the telephone system. To do this, navigate to the Control Panel in Windows and select 'MiXML'. After NIC IP Address, specify the primary NIC from the drop-down menu.
- MiContact Center Business clusters and cluster element IDs must match what is programmed on the telephone system.
- If you are running 3300 ICP Release 9.x or earlier and you synchronized your network ACD assignments and/or resilient agents using OPS Manager, you must synchronize all of the 3300 ICPs in your enterprise. Otherwise, agent group and queue group associations will be lost.

Specifying synchronization settings

YourSite Explorer enables you to specify the synchronization settings, read options, and write options used by synchronization. When you select a media server in YourSite Explorer, the following synchronization options are available from the ribbon, on the Telephone system tab:

Settings

- **Disabled**
  This option will fully disable synchronization.
- **Read**
  This option will read devices programmed on your telephone systems and synchronize them with the YourSite database.
- **Read/Write**
  This option will read the devices programmed on your telephone systems and synchronize them with the YourSite database and enable devices programmed in YourSite Explorer to be written to the telephone systems.

Read Options

- **Create employees with new agent**
  For every new agent added to the YourSite database, a new employee will be created and associated with the agent.
- **Create employees with new voice extensions**
  For every new voice extension added to the YourSite database, a new employee will be created and associated with the agent.
- **Use telephone system device names**
  Override device names programmed in YourSite Explorer with the device names configured on the telephone system.
- **Default employee license**
  Select the default employee license that you want to be applied when synchronizing new agents.
- **Default queue business hour schedule**

Select the business hour schedule to be applied when synchronizing queues added on the telephone system.

Write Options

- **Update telephone directory names**
  Override telephone directory names with agent, agent group, queue, and extension names configured in YourSite Explorer.

Performing Synchronization

There are two ways to perform synchronization:

- **Full synchronization**
  Running full synchronization will synchronize the devices programmed on the telephone system and enable you to review all devices, and, optionally, exclude any devices, before committing changes to YourSite Explorer.
- **Telephone system settings synchronization**
  Running telephone system settings synchronization will read the current telephone system settings and enable you to view any errors or warnings related to the telephone system configuration.

NOTE:

- In order to use Synchronization to synchronize the YourSite database with resilient, Network ACD, and clustered telephone systems, you must enable the SDS Directory synchronization option on all of the telephone systems in your enterprise.
- As a best practice, we recommend all new installations run Full synchronization to ensure the telephone systems in your enterprise are synchronized with the YourSite database and that there are no critical telephone system programming errors.
- You must program your 3300 ICPs and perform synchronization before you can configure telephone system assignment form options in YourSite Explorer.
- We recommend you do not exchange the reporting number of one device with that of another device.
- Synchronization will not synchronize a device being added to the YourSite database with the telephone system if the device has the same reporting number as an existing device with a different dialable number.
- If you are synchronizing a single telephone system, agents and queues must be programmed on the same telephone system. Single node synchronization can disassociate agents and queues if agents and queues reside on separate telephone systems.
- If you are running 3300 ICP Release 9.x or earlier and you synchronized your network ACD assignments and/or resilient agents using OPS Manager, you must synchronize all of the 3300 ICPs in your enterprise, Otherwise, agent group and queue group associations will be lost.

To perform full synchronization

1. In YourSite Explorer, under **Enterprise**, click **Media servers**.
2. Select a 3300 ICP media server from the list.
3. Click the **Telephone system** tab.
4. In the ribbon, specify the settings to use with synchronization.

   See *"Specifying synchronization settings"*.
5. In the ribbon, click **Run**.

   The Synchronization window opens.

6. Select the media servers to synchronize.
7. Ensure **Full synchronization** is selected.
8. If this is the first time you have run synchronization, click **Synchronize** and continue to step 11. If you have already run full synchronization, click **Next**.
9. Optionally, select the telephone system media servers and devices to include with synchronization.

   All media servers and devices are selected by default.
10. Specify how you would like to proceed with synchronization:
    - **Synchronize**—selecting this option will synchronize the devices programmed on the telephone system and enable you to review all entries and optionally exclude any devices before committing them to YourSite Explorer. If you select this option, continue to step 11.
    - **Save settings**—selecting this option will save the device settings you specified to be used for the next scheduled or on-demand synchronization. If you select this option, the synchronization window will close.
    - **Cancel**—selecting this option will cancel the synchronization. No changes will be made to the YourSite database or the telephone systems. If you select this option, the synchronization window will close.
    - **Auto commit**—selecting this option and clicking Synchronize will synchronize the devices programmed on the telephone systems and automatically commit them to YourSite Explorer. There will be no opportunity for you to review the entries and optionally exclude any devices before committing them to YourSite Explorer.
11. When the synchronization report displays, you have the following three options:
    - **Commit**—selecting this option will commit the specified changes and synchronize telephone system devices with YourSite Explorer.
    - **Cancel**—selecting this option will cancel the specified changes. No devices will be synchronized and the synchronization window will close.
    - **Edit**—selecting this option will rerun synchronization and enable you to modify the devices to be included in synchronization. If you select this option, return to step 9.

    If this is the first time you have run synchronization, any telephone system errors and warnings will display in the synchronization report. You can correct any errors or warnings found in this report by clicking Edit, clicking the Telephone system settings tab and changing the telephone systems settings to the recommended settings. If this is not the first time you have run synchronization, the synchronization window will close once it is complete and you can review any telephone system setting errors and warnings on by selecting a media server in YourSite Explorer and clicking the Telephone system settings tab.

To perform telephone system synchronization

1. In YourSite Explorer, under **Enterprise**, click **Media servers**.
2. Select a 3300 ICP media server from the list.
3. Click the **Telephone system** tab.
4. In the ribbon, specify the settings to use with synchronization.

   See *"Specifying synchronization settings"*
5. In the ribbon, click **Run**.

The Synchronization window opens.

6. Select the media servers to synchronize.
7. Ensure **Telephone system settings** is selected.
8. Click **Synchronize**.

   The Synchronization report window will open and display the progress and status of the synchronization. Once synchronization is complete, any telephone system errors and warnings will display in the synchronization report. You can correct any errors or warnings found in this report by clicking Edit, clicking the Telephone system settings tab and changing the telephone systems settings to the recommended settings.

Ring Group synchronization

YourSite Explorer can synchronize Ring Groups with your telephone system, but there are several exclusions. When synchronizing with the telephone system, YourSite Explorer only synchronizes with supported Ring Group members. Prime DNs and hot desking users are supported as members of Ring Groups. If your synchronization settings are set to Read, synchronization skips unsupported members on the telephone system when synchronizing with YourSite Explorer. If your synchronization settings are set to Read/Write, then synchronization will delete unsupported members during writeback to the telephone system.

Ring Groups and their attributes and members can be added, modified, and deleted in YourSite Explorer, but the following Ring Group attributes are not synchronized into YourSite Explorer:

- Local-only DN
- Ring Group Type
- Predictive Overflow
- Average Call Duration Minutes/Seconds
- Absent/Present for members

Scheduling synchronization during the nightly maintenance routine

We recommend you schedule Synchronization to run with the nightly maintenance routine to ensure the YourSite database and telephone system are properly programmed. If your synchronization is set to Read or Read/Write, synchronization will happen automatically during nightly maintenance. For more information, see *"Specifying synchronization settings"*.

Editing telephone system assignment forms in YourSite Explorer

After you run Synchronization for the 3300 ICP in YourSite Explorer, you can edit a subset of contact center related 3300 ICP System Options, SMDR Options, Class of Service, and Class of Restriction assignment forms. Any changes made to the telephone system assignment forms in YourSite Explorer are written to the telephone system when a user clicks Save.

After running synchronization, if the 3300 ICP System options, SMDR options, Class of Service options, or Class of Restriction assignment forms are incorrectly configured, alerts will display describing modifications that need to be made to achieve accurate telephone system settings. Alerts are ranked according to severity to display in the following order of importance: errors, warnings, and then informational messages. Only one message can display at a time in the information bar.

In addition, you can automatically repair certain configuration errors by clicking the Fix it button in the information bar where errors, warnings, and information messages display. If the alert that is currently displayed in the information bar is not able to be resolved by the Fix it button, the button will not display. If the Fix it button displays, clicking it will automatically fix the warning or error that is displaying in the information bar as well as fixing any other current warning or error that is enabled to be automatically repaired.

NOTE: You must have read/write capabilities enabled in YourSite Explorer before running synchronization if you want to receive these alerts. See *"Specifying synchronization settings"*.

Editing System Options

Using YourSite Explorer, you can configure access codes and select options for the ACD 2000, ACD Real-time Events Feature Level, and ACD Make Busy Walk Away Codes. Recommended values for these system options are displayed in YourSite Explorer.

To edit System Options

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Enterprise**, click **Media servers**.
3. Under **Media servers**, select a 3300 ICP media server.
4. Click the **Telephone system settings** tab.
5. In the left pane, click **System options**.
6. After **Feature access code for silent monitoring**, type the feature access code used for silent monitoring, as programmed on the telephone system.

   NOTE: If you edit the feature access code on the media server, you must also manually edit the feature access code on the telephone system. The feature access code entered in YourSite Explorer must be identical to that on the telephone system and be valid for use with silent monitoring.
7. Specify remaining system options as required.
8. Click **Save**.

Editing SMDR Options

Using YourSite Explorer, you can edit a subset of contact center related SMDR options. YourSite Explorer displays the recommended value for these SMDR options.

To edit SMDR Options

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Enterprise**, click **Media servers**.
3. Under **Media servers**, select a 3300 ICP media server.
4. Click the **Telephone system settings** tab.
5. In the left pane, click **SMDR options**.
6. Specify the SMDR options.
7. Click **Save**.

Editing Class of Service options

Using YourSite Explorer, you can edit a subset of contact center related Class of Service options. YourSite Explorer displays the recommended value for these Class of Service options.

To edit Class of Service options

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Enterprise**, click **Media servers**.
3. Under **Media servers**, select a 3300 ICP media server.
4. Click the **Telephone system settings** tab.
5. In the left pane, click **Class of Service**.
6. Under **Name**, select the Class of Service to edit.
7. In the right pane, after **Default type**, select a default class of service. Alternatively, select **None** and, after **Comment**, type a description for the Class of Service.
8. Specify the remainder of system options for each Class of Service.
9. Click **Save**.

Editing Class of Restriction options

Using YourSite Explorer, you can edit a subset of contact center related Class of Restriction options.

To edit Class of Restriction options

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Enterprise**, click **Media servers**.
3. Under **Media servers**, select a 3300 ICP media server.
4. Click the **Telephone system settings** tab.
5. In the left pane, click **Class of Restriction**.
6. Under **Number**, select the Class of Restriction to edit.
7. After **Do you want this Class of Restriction to be the default setting**, click **Yes** or **No**
8. After **Classes of restriction for the group**, enter the Class of Restriction numbers to include in the group.

   A range of numbers may be specified. Separate numbers using commas or dashes. For example, 1 through 9 may be entered as 1-9 or a combination of individual numbers and ranges may be entered as 1,2,3,7-10,13.

   NOTE: Class of Restriction numbers must be entered in ascending order within each group.
9. Click **Save**.

Adding resilient and/or Network ACD hot desking agents

Resiliency and network ACD functionality is configured in your Mitel telephone system. For information on configuring your telephone system for resilient and/or network ACD Hot Desking Agents, consult your Mitel telephone system documentation.

When your telephone systems are set up correctly for resiliency and network ACD hot desking, you can configure your media servers in YourSite Explorer to use Hot Desking Agents. See *"Adding 3300 ICP media servers"*.

Invalid ACD cluster programming

Combining traditional ACD agents and ACD Hot Desking Agents on the same telephone system is not supported. All media servers within a cluster must be configured with the same type of agents. If the telephone systems within a cluster are configured with both ACD Hot Desking Agents and traditional ACD agents, agent states will not display correctly in Contact Center Client real-time monitors and you will receive an 'Invalid ACD cluster programming' error in YourSite Explorer.

NOTE: As a best practice, we recommend you perform Synchronization before attempting to resolve any invalid ACD cluster programming errors on the telephone system. This will ensure that your configuration is accurate and any errors being reported are valid.

Running Active Directory synchronization

You can synchronize your system with Active Directory at any time from within YourSite Explorer. Active Directory is a directory service created by Microsoft that is used for managing a domain. Active Directory Synchronization will align Active Directory security groups and users with Microsoft Skype for Business-MiContact Center BusinessMiVoice Analytics employees and employee groups within selected organizational units.

At any time, you can optionally re-synchronize or reset all client computers running MiContact Center BusinessMiVoice Analytics applications and refresh them with the latest configuration changes. Re-synchronizing will send a delta of the latest configuration changes to client computers, while resetting will completely drop client computer configurations and send the latest configurations from YourSite Explorer.

When you run Active Directory synchronization, employees and employee groups in YourSite Explorer are synchronized with users in Active Directory groups. Existing employees can also be associated with specific Active Directory users.

To run Active Directory synchronization

1. In YourSite Explorer, under **YourSite**, click **Enterprise** or **Employees**.
2. On the ribbon, click **Active Directory**.
3. Under **Sync frequency (hh:mm)**, select how often you want automatic synchronization to occur.
4. Click **Select Sync paths**.

   The Select paths to sync window opens.
5. Click **>** or **<** to add or remove Active Directory entities from the Active Directory tree on the left to the selected items list on the right and click **OK**.

   The list of selected items on the right includes the Active Directory entities that will be synched.

   NOTE: Ensure that the groups selected for synchronization contain less than 1500 members, as Active Directory only returns 1500 members.
6. Under **Security Role**, click the Browse button and select a default security role to apply to newly created employees.
7. Click **OK**.

8. Under **Sites**, click the Browse button and select a default site to apply to newly created employees.
9. Click **OK**.
10. Click **Run**.

    Active Directory synchronization is initiated and pertinent information is updated in YourSite Explorer.

To send recent configuration changes to client computers
1. In YourSite Explorer, under **YourSite**, click **Enterprise** or **Employees**.
2. On the ribbon, click **Tools**.
3. Click **Re-synchronize clients**.

To completely reset client computers with the latest YourSite database configuration information
1. In YourSite Explorer, under **YourSite**, click **Enterprise** or **Employees**.
2. On the ribbon, click **Tools**.
3. Click **Reset clients**.

To associate an existing employee with an Active Directory user
1. In YourSite Explorer, under **YourSite**, click **Employee**.
2. Select the employee you want to associate with an Active Directory user.
3. On the ribbon, click **Active Directory**.
4. Click **Pick user**.
5. Select a user from the Active Directory tree and click **OK**.
6. Click **Save**.

Configuring devices and device groups using Quick Setup

You can use Quick Setup to add ranges of the following devices and device groups:
- Employee groupsand employee divisions
- Queue groups
- Extensions, extension groups, and extension divisions
- DNIS and DNIS groups
- Account Codes and Account Code groups
- Make Busy Reason Codes
- Teams

Extension Quick Setup

To add a series of extensions
1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Devices**, click **Extensions**.
3. Click **Quick Setup**.
4. In the **Active number from** and **Active number to** boxes, type a range of device numbers.

5. If you want to add a prefix or postfix to this range of device numbers, after **Name prefix** and/or **Name Postfix** type the prefix and/or postfix.
6. On the **General** tab, select a media server for the extension.
7. If the extension will be costed with MiVoice Analytics, select the **Cost this extension** check box.
8. Select the **Disable real-time monitoring and data collection on this device** check box if you do not want to enable the extension to be set with a MiTAI monitor, viewed in Contact Center Client, and use Contact Center Softphone.

   By default, this check box is not selected.
9. Under **Advanced options**, select the **Extension type**.
10. If you want to create an employee for each extension, on the **Employee associations** tab, select the **Create an employee ID for each extension** check box.

    NOTE: Select this check box only if you have not already added employee IDs to the database.
11. After **Start the employee IDs at**, type the first employee ID to associate to the extension number range.
12. After **Increment the employee IDs by**, type the increment by which the employee IDs will increase.
13. Click **Run**.

Trunk Quick Setup

To add a series of trunks

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Devices**, click **Trunks**.
3. Click **Quick Setup**.
4. In the **Active number from** and **Active number to** boxes, type a range of device numbers.
5. If you want to To add a prefix or postfix to this range of device numbers, after **Name prefix** and/or **Name postfix** type the prefix and/or postfix.
6. On the **General** tab, click **Browse** and select a media server for the trunk.
7. Click **Run**.

Trunk group Quick Setup

To add a series of trunk groups

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Devices**, click **Trunk groups**.
3. Click **Quick Setup**.
4. In the **Active number from** and **Active number to** boxes, enter a range of device numbers.
5. If you want to To add a prefix or postfix to this range of device numbers, after **Name prefix** and/or **Name postfix** type the prefix and/or postfix.
6. On the **General** tab, click the **Browse** button and select the voice media server associated with the trunk (for example, 3300 ICP Voice).

7. If this trunk group uses an intra switch, select the **Intra switch** check box.
8. To cost calls using this trunk, clear the **Do not cost calls** check box.
9. Click **Run**.

DNIS Quick Setup

To add a series of DNIS

1. Click **YourSite > DNIS**.
2. Click **Quick Setup**.
3. In the **Active number from** and **Active number to** boxes, type a range of device numbers.
4. If you want to add a prefix or postfix to this range of device numbers, after **Name prefix** and/or **Name postfix** type the prefix and/or postfix.
5. On the **General** tab, after **Associate the devices to this media server**, click **Browse** and select a media server.
6. After **Short Abandon**, type the Short Abandon threshold for the DNIS.
7. After **Service Level**, type the Service Level time for the DNIS.
8. Click **Run**.

Account Code Quick Setup

To add a series of Account Codes

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Devices**, click **Account Codes**.
3. Click **Quick Setup**.
4. In the **Active number from** and **Active number to** boxes, type a range of device numbers.
5. If you want to add a prefix or postfix to this range of device numbers, after **Name prefix** and/or **Name postfix** type the prefix and/or postfix.
6. If you want to create an employee for each Account Code, on the **Employee Associations** tab, select the **Create an employee ID for each Account Code** check box.

   NOTE: Select this check box only if you have not already added employee IDs to the database.
7. After **Start the employee IDs at**, type the first employee ID number to associate to the Account Code range.
8. After **Increment the employee IDs by**, type the increment by which the employee ID numbers will increase.
9. Click **Run**.

Make Busy Reason Codes Quick Setup

To add a series of Make Busy Reason Codes

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Devices**, click **Make Busy Reasons**.

3. Click **Quick Setup**.
4. In the **Active number from** and **Active number to** boxes, type a range of device numbers.
5. If you want to add a prefix or postfix to this range of device numbers, after **Name prefix** and/or **Name postfix** type the prefix and/or postfix.
6. Click **Run**.

Team Quick Setup

To add a series of teams

1. Click **YourSite > Teams.**
2. Click **Quick Setup**.
3. In the **Active number from** and **Active number to** boxes, type a range of device numbers.
4. If you want to add a prefix or postfix to this range of device numbers, after **Name prefix** and/or **Name postfix** type the prefix and/or postfix.
5. Click **Run**.

Device group Quick Setup

To add a series of Account Code groups, DNIS groups, employee groups and divisions, extension groups and divisions, and queue groups.

1. Under **Devices**, click the device groupname.
2. Click **Quick Setup**.
3. In the **Active number from** and **Active number to** boxes, type a range of device numbers.
4. To add a prefix or postfix to the range of device numbers, after **Name prefix** and/or **Name postfix** type the prefix and/or postfix.
5. If you are adding an agent group, click **Browse** and select a media server and failover media server to associate with the agent group.
6. Click **Run**.

Configuring devices using .csv files

You can import devices to YourSite Explorer using comma-separated value (.csv) files. The following device types are currently supported for use with the YourSite Explorer .csv import tool: employees, employee groups, employee divisions, agents, agent groups, queues, queue groups, extensions, extension groups, extension divisions, trunks, trunk groups, DNIS, DNIS groups, Account Codes, Make Busy Reason Codes, teams, Do Not Disturb Reason Codes, traffic, and ANI.

A .csv file is used for the digital storage of data structured in a table of lists form, where each associated item (member) in a group is in association with others also separated by the commas or tabs of its set.

There are two ways to create .csv files: Notepad or Microsoft Excel. We recommend making .csv files in Excel, as adding and editing a large number of entries at once using auto-fill functions is much simpler and more convenient than using Notepad.

Alternatively, you can also import tabbed delimited text files created in Excel. Tabbed delimited text files are almost identical to .csv files, but use tabs to differentiate data fields instead of commas.

NOTE: When creating .csv files, you must save the file as either a .csv or .txt file. Simply renaming an Excel file or changing a file type extension to .csv will not work and you will be unable to import device data into YourSite Explorer.

The following figures provide two examples of how .csv files can be formatted. The following figures display Microsoft Excel .csv formatting and Notepad .csv formatting. Both .csv examples contain the following data: first name, last name, agentlogin ID, and media server.

NOTE: To import configuration options that display in the YourSite Explorer grid view as a check box, you must enter True or False as the field data.

Figure 7.3: Microsoft Excel .csv formatting example

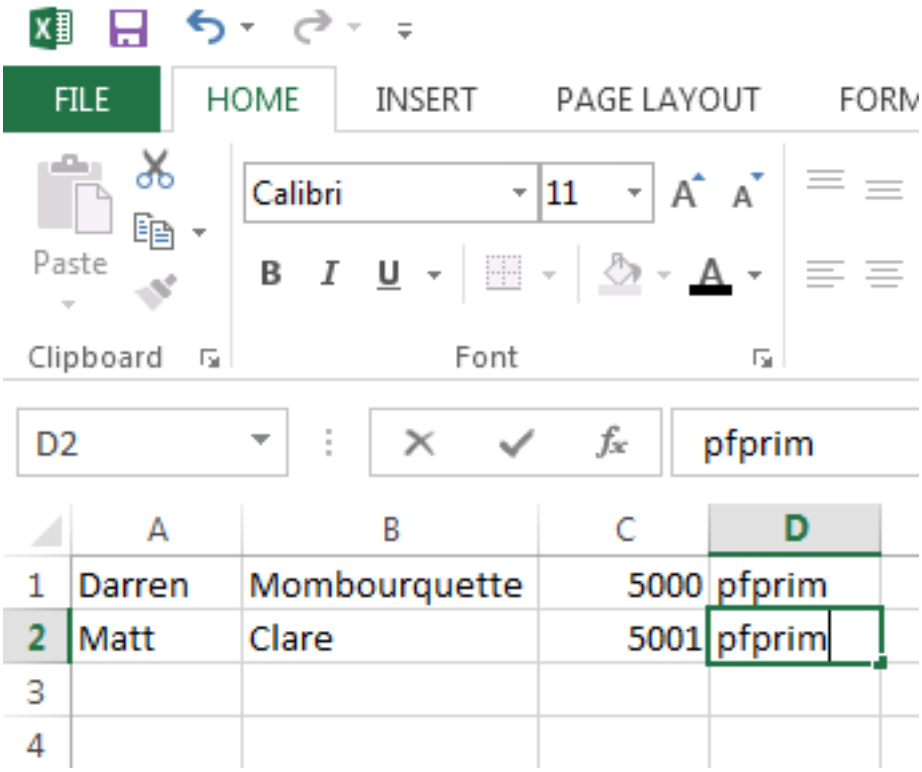
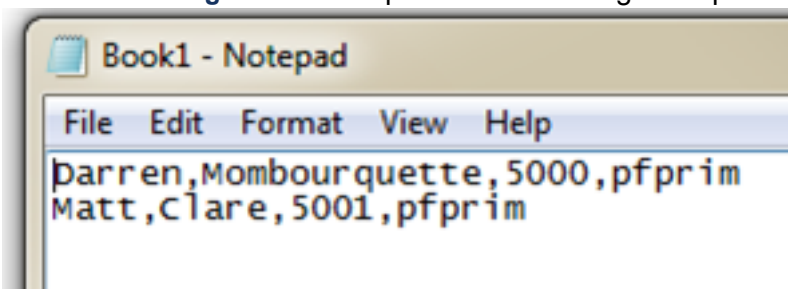


Figure 7.4: Notepad .csv formatting example



Importing a range of devices using a .csv file

Before you attempt to import a device using a .csv file, ensure

- The .csv file contains data for all of the fields required to save a device in YourSite Explorer as detailed in the following table.
- If a device requires a dependency to be specified, for example specifying a media server is required in order to save a queue, the dependency must already exist in YourSite Explorer. The Import Wizard cannot create new dependencies and will fail if the dependency does not already exist in the database.

To import a range of devices using a .csv file

1. In YourSite Explorer, under **Devices**, click the name of the device you will add using a .csv file.
2. Click **Import**.
3. After **Select file type**, specify whether the .csv file uses **Comma separated values** or **Tab separated values**.
4. After **Select file**, click **Browse** and specify the location of the .csv file.
5. Under **Options**, specify how the Import Wizard will handle duplicate items.

   If duplicates are found:
   - **Overwrite entries if duplicates are found** will use the .csv file as the master and overwrite duplicate entries in the YourSite database with data in the .csv file.
   - **Skip duplicate entries during import** will retain data configured in YourSite Explorer as the master and import any new data entries from the .csv file into the YourSite database.
   - **Do not import if duplicates are found** will scan the .csv and YourSite database for duplicates. If duplicates are found in either the .csv or the YourSite database, the import is cancelled and no data is imported to the YourSite database.
6. Click **Next**.
7. On the **Field Mappings** window, map the fields in the **Available columns** list to the **Selected columns** list using the arrow buttons, so they display in the same order as they do in your .csv file.

   NOTE: The order in the Field Mapping window must match the order of fields in your .CSV file. Failure to import data in the order specified will result in import errors.
8. Click **Next**.
9. When the import has completed, click **Finish**.

   NOTE: If the import fails, the Import Wizard will notify you of whether the YourSite database or .csv file contained the duplicate(s) and which row(s) of the .csv file contained the error(s) that resulted in the failure. Fixing these errors will allow devices to be successfully imported.

Fields required for successful .csv imports

The following table details the fields that are required in order to successfully import devices into YourSite Explorer using a .csv file.

Table 7.1: Mandatory device fields for .csv imports (Sheet 1 of 3)

Device	Mandatory fields	fields
Employees	Reporting number, Last name, First name, Username, Password, Security role	Reporting number, Last name, First name, Username, Password, IsEnabledForVoice, IsEnabledForEmail, IsEnabledForChat, IsEnabledForSMS, IsEnabledforOpenMedia, Email address, Middle name, Suffix, Scheduling license, Nickname, Full time, Site, Is a supervisor, Activated, Supervisor, Security role, Use employee email for report distri…, Fax number, Hire date, Preferred printer, Birth date, Print locally, Business phone number, Emergency contact phone number, Emergency contact relationship, Emergency contact name, Country, ZIP or postal code, Street address, City, State or province, Pager number, Phone number, Is active, Supervisor license, Phone type license, MiVoice Analytics Client License, Licensed for Multimedia Contact Center, Licensed for Screen Pop
Employee groups	Name, Reporting number	Name, Reporting number
Employee divisions	Name, Reporting number	Name, Reporting number
Agents	Reporting number, Last name, First name, Media server, Real time, Class of Service, Class of Restriction	Reporting number, Last name, First name, Media server, Failover media server, Employee, Real time, MiTAI enabled, Is active, Class of Service, Class of Restriction
Agent groups	Name, Reporting number	Name, Reporting number, Failover media server, Real time, Voice, Chat, Email, SMS, Open Media, Employee Reporting

Table 7.1: Mandatory device fields for .csv imports (Continued) (Sheet 2 of 3)

Device	Mandatory fields	fields
Queues	Dialable number, Name, Reporting number, Media server, Business-hour schedule	Dialable number, Name, Reporting number, Queue Type, Media server, Service Level goal, Short Handle, Real time, MiTAI enabled, Short Abandon, Service Level, Is active, Include work timer to handling time, Enable Classification Codes, Wrap-up time enabled, Wrap-up time expiry, Agent Group Member 1, Agent Group Member 2, Agent Group Member 3, Agent Group Member 4
Queue groups	Name, Reporting number	Name, Reporting number, Is Virtual
Extensions	Name, Reporting number, Media server	Name, Reporting number, Extension type, Media server, Failover media server, Server Name, Workflow, Real time, MiTAI enabled, Licensed, Notes
Extension groups	Name, Reporting number	Name, Reporting number
Extension divisions	Name, Reporting number	Name, Reporting number
Trunks	Name, Reporting number, Media server	Name, Reporting number, Media server
Trunk groups	Name, Reporting number	Name, Reporting number, Media server, Do not cost calls, Carrier plan, Intra switch
DNIS	Name, Reporting number, Media server	Name, Reporting number, Media server, Short Abandon, Service Level, Carrier plan, Call type, Call rate, Subscriber plan, Subscriber Call type, Subscriber Rate
DNIS groups	Name, Reporting number	Name, Reporting number
Account Codes	Name, Reporting number	Name, Reporting number, Use as Classification code

Table 7.1: Mandatory device fields for .csv imports (Continued) (Sheet 3 of 3)

Device	Mandatory fields	fields
Make Busy Reason Codes	Name, Reporting number	Name, Reporting number
Teams	Name, Reporting number	Name, Reporting number
Do Not Disturb Reason Codes	Name, Reporting number	Name, Reporting number
Traffic	Reporting number, Name	Pkey, Reporting number, Name, Media server, Traffic Type
ANI	Name, Ani	Name, Ani
Call types	Name	Name
Rates	Name	Name, Cost boundary percent surcharge, cost boundary duration, Boundary crossing surcharge, Surcharge per call, Round to cost interval, CostPerMinute, CostInterval, FirstCost, FirstCostInterval, SubsequentCostIncrement, SubsequentCostInterval
Subscribers	Name, Reporting number	Name, Reporting number, Subscriber plan
Subscriber groups	Name, Reporting number	Name, Reporting number

Configuring devices manually

CAUTION:

- For reporting purposes, the trunk, extension, agent, agent group, queue, DNIS, dialable numbers, and Account Code numbers you configure in the YourSite database must be identical to those of the telephone system.
- Print a copy of your telephone system assignment forms to use as a guide for programming YourSite Explorer. The numbers you enter in YourSite for extensions, trunks, and Account Codes must be identical to those of the telephone system.

You add contact center devices manually in YourSite Explorer.

NOTE:

- When you configure numbers for groups in YourSite, use numerical characters only, such as 1 (for Queue group 1). Do not insert symbols, such as a star [*] or pound sign [#], in the number.
- If you attempt to add a device or device group to YourSite that is already in the database, the system notifies you that the device or device group is already present. When you add a series of devices or

device groups to YourSite, such as agent groups 5001 to 5005, if the system detects you have already added agent group 5002, then it will not add agent group 5002 or any subsequent agent groups in the series (that is, agent group 5003 to 5005) to the database.

Adding employees

Every employee configured in YourSite Explorer represents a unique member of a contact center. Employees handling interactions are configured with agents. These agents are tied to the media servers supported by MiContact Center Business.

You must add all contact center employees (agents, supervisors, and administrators) to YourSite Explorer so you can run reports on employee activities, view employee performance in real time, and enable employee access to MiContact Center Business applications.

NOTE: You must assign each employee a unique ID number.

Adding an employee requires you to:

- Add an employee
- Configure general employee information
  See *"Configuring general employee information"*.
- Manage the media types an employee can handle
  See *"Managing the media types an employee can handle"*.
- Configure employee licensing
  See *"Configuring Employee Licensing"*.
- Modify employee Workload
  See *"Adding employee Workload"*.

  NOTE: Modifying employee Workload is only required if the employee is licensed for Multimedia Contact Center.

Optionally, you can:

- Manage employee extensions and Account Codes
- Configure employee Skype for Business settings
  Skype for Business attributes are only visible if you have a Microsoft Skype for Business Server installed.
  See *"Configuring employee skype for business settings"*.
- Configure employee report distribution settings
  See *"Configuring employee report distribution settings"*
- Configure employee personal information
  See *"Configuring employee personal information"*.
- Configure employee scheduling preferences for Workforce Scheduling
  See *"Configuring employee scheduling preferences"*.

To add an employee

1. Click **YourSite > Employee**.
2. Click **Add**.

Continue to *"Configuring general employee information"*.

Configuring general employee information

The following procedures explain how to:

- Configure general information for an employee

The following procedures take place in YourSite > Employee.

To configure general information for an employee

1. Select an employee and click the **General** tab.
2. After **First name**, type the employee's first name.

   NOTE: Changes to the first name will carry over to any of the employee's associated agents and extensions.
3. After **Last name**, type the employee's last name.

   NOTE: Changes to the last name will carry over to any of the employee's associated agents and extensions.
4. After **Employee ID**, enter a unique employee ID number for the employee.

   NOTE: The system creates default employee IDs for newly added employees, starting with '0' and incrementing for each new employee
5. After **Line URI**, type the employee's Line URI.

   NOTE: If you enable an employee for voice without manually entering a Line URI, the system copies the Employee ID to the Line URI field. This will be the employee's SIP address. If you manually enter a Line URI before enabling an employee for voice, the Line URI entered will be the employee's SIP address.
6. After **Email**, enter the employee's email address.

   NOTE: If the employee will use Contact Center Chat with Skype for Business, you must enter the Skype for Business SIP email address in the email field.
7. Enter the employee's **Username**.

   NOTE:
   - By default, the Username field will be populated with the employee's email, unless you are using Windows Authentication.
   - In an environment with both a FQDN and NetBIOS name, the employee username that displays in YourSite Explorer is the domain name and may not match the NetBIOS name that employees use to log into Contact Center applications.
8. Enter the employee's **Password**.
9. If you want to change the site the employee is associated with, after **Site**, click the **Browse** button.

   NOTE:
   - The default site assigned to new employees can be changed in the Configuration tab of YourSite Explorer.
   - The site determines the employee's default language. Employees can change their language settings in CCMWeb.
10. Select a site and click **OK**.
11. After **Security role**, click the **Browse** button.

    The default Local Administrator and Enterprise Administrator roles allow employees full access to all of the MiContact Center Business applications and devices (to which the contact center is licensed) including Write Back for synchronization.

The default Agent Role role allows employees access to Contact Center Client, Employee Portal, and Ignite. This role also enables access to real-time monitors, monitor customization, access to Contact Center Chat, and the ability to control their own real-time presence and status.

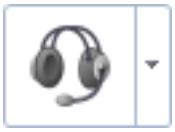
NOTE: The default security role applied to new employees can be changed in the Configuration tab of YourSite Explorer.

12. Select a security role and click **OK**.
13. Click **Save**.

Managing the media types an employee can handle

Employees handle media through their associated agents. The General tab of an employee contains buttons representing each media type that has a configured media server. When a button is selected, an agent of that media type is automatically created and associated to the employee. The following table contains an explanation of which buttons correspond to which media type.

Table 7.2: Media Buttons

MEDIA TYPE	MEDIA BUTTON
Voice	
Chat	
Email	
SMS	
Open Media	

NOTE: Employees must be licensed to handle non-voice media. See *"Configuring employee licensing"*and *"Licensing requirements for employee multimedia capabilities"*.

When you remove the employee's ability to handle non-voicemedia, the employee's agents are made historical. Historical agents are disabled for real-time monitoring and data collection. If the employee is re-enabled to handle thatnon-voice media, then their agent will be made active again. Multimedia agents can be deleted to be removed entirely from the system.

NOTE: Failover media servers for voice agents must be configured on your telephone system and synchronized into YourSite Explorer. Workgroup does not support Contact Center resiliency. You cannot program failover media servers for ACD agents and extensions.

The following procedures explain how to:

- Enable an employee to handle voice media
- Edit an employee's voice agent
- Enable an employee's voice agent for external hot desking
- Enable an employee to handle voice media using an existing agent
- Remove a voice agent from an employee
- Enable an employee to handle multimedia
- Remove an employee's ability to handle multimedia
- Delete a multimedia agent

The following configuration takes place in YourSite > Employees.

To enable an employee to handle voice media

1. Select an employeeand click the **General** tab.
2. Under **Devices**, click the **Voice** button

   A voice agent and extension are automatically created for the employee.
   By default, the extension type is voice softphone, which emulates a 5020 IP set.
   For information on configuring extensions for employees, see *Managing employee extensions and Account Codes for employees*
   By default, the extension reporting number/dialable is populated with the employee's business phone.
3. Optionally, change the agent's **First name**.
4. Optionally, change the agent's **Last name**.
5. Optionally, after **Agent login ID**, enter the reporting number for the voice agent.
6. After **Media server**, click the **Browse** button.
7. Select a media server and click **OK**.
8. If you want to disable real-time monitoring and data collection for this agent, select **Disable real-time monitoring and data collection on this device**.
9. If a 3300 media server was selected, after **COS**, select a Class of Service from the list.
10. If a 3300 media server was selected, optionally, after **COR**, select a Class of Restriction from the list.
11. Select a media server and click **OK**.
12. Click **Save**.
13. Click **Save**.

To edit an employee's voice agent

1. Select an employee and click the **General** tab.
2. Under **Devices**, click the down arrow beside the Voice button and click **<agent ID>** > **Edit**.
3. Edit the agent's fields.
4. Click **Save**.

5. Click **Save**.

To enable an employee's voice agent for external hot desking

1. Select an employee and click the **General** tab.
2. Under **Devices**, click the down arrow beside the Voice button and click <agent ID> > **Edit**.
3. Select **External hot desk user enabled**.
4. After **External dialing prefix**, type the dialing prefix for the device to which calls will be routed.
5. After **External dialing number**, type the dialing number for the device to which calls will be routed.
6. Click **Save**.
7. Click **Save**.

To enable an employee to handle voice media using an existing agent

1. Select an employee and click the **General** tab.
2. Under **Devices**, click the down arrow beside the **Voice** button and click **Associate existing voice agent**.
3. Select an unassigned agent and click **OK**.
4. Click **Save**.

To remove a voice agent from an employee

1. Select an employee and click the **General** tab.
2. Click the down arrow beside the **Voice** icon and click <agent ID> > **Delete**.
3. Select the delete option:
   - **Make the device historical**—sets the agent as historical, but leaves it associated to this employee
   - **Disassociate the device**—disassociates the agent so it can be used with another employee
   - **Remove the device from the system**—deletes the agent
4. Click **OK**.
5. Click **Save**.

To enable an employee to handle multimedia

1. Select an employee.
2. Under **Devices**, click the media button to select which media this employee can handle.
3. Click **Save**.

To remove an employee's ability to handle multimedia

1. Select an employee.
2. Under **Devices**, click the enabled media button.
3. Click **Save**.

To delete a multimedia agent

1. Select an employee.
2. Click the down arrow beside the media button and click **Delete**.
3. Click **Save**.

Configuring employee licensing

Employees have access to the features and components of the starter pack with which they are affiliated, but can be restricted, using security role settings, from accessing any or all of these applications.

Employees consume a Contact Center or Workgroup Agent voice license when enabled to handle voice. Employees consume a Multimedia Agent license when they are enabled to handle non-voice media types. Licenses are removed when an employee's ability to handle a media type is removed.

Licensed employees are reported on historically, viewed in real time, and have access to real-time monitors. Employees also have access to CCMWeb My options page to configure user options, such as language preference.

CAUTION: If data exists for an employee who was previously licensed but is currently unlicensed, that data can be accessed in reports. However, if a summarization is done after the employee is no longer licensed, there is a risk that the statistics currently calculated for the employee could be lost. Re-licensing the employee and performing a summarization will restore the statistics.

The following configuration takes place in YourSite > Employee.

To configure employee licensing

1. Select an employee and click the **Licensing** tab.
2. If the employee is a supervisor, depending on licensing, under Supervisor license select from None, Advanced supervisor, or System Administrator.

   Only one type of supervisor license can be selected for each employee.
   - **None**: use this option for employees who are agentsor general business extensions.
   - **Advanced supervisor**: has access to CCMWeb (reporting, user preferences, and help resources), Contact Center Client (real-time monitoring), Ignite (search for interactions, view statistics, view interactions in queue), and YourSite Explorer (read-only access to the Enterprise section only). Advanced Supervisor abilities are determined by their employee and security role settings (as configured in YourSite Explorer). An Advanced Supervisor can be configured for supervisory duties only or can be enabled to also work as an agent. If an Advanced Supervisor is associated to a configured extension, their telephone status is visible in extension monitors.

     NOTE: Supervisors requiring the ability to handle interactions in Ignite or search interactions in queue must be enabled to handle those media types. See *"Managing the media types an employee can handle"*.
   - **System Administrator**: has full access to all MiContact Center Business,MiVoice Analytics, Multimedia Contact Center, and IVR Routing software for the purposes of configuration and system administration.
3. Under Phone type license, depending on licensing, select a phone type license.
   - **Mitel desk phone**: select this option if the employee will use a **Mitel desk phone**. This is the default option.
   - **Soft phone and/or Mitel desk phone**: select this option if the employee will use and is licensed for Contact Center Softphone.

     NOTE: If the employee requires the use of Contact Center Softphone in addition to or in combination with a Mitel desk phone, select the Softphone phone type. If the employee is a Non ACD employee, you must select 'MiVoice Analytics Client license' to have access to Contact Center Softphone functionality. MiVoice Analytics Client license is an optional add-on to Contact Center and Workgroup.

4. If you want the employee to be licensed for Workforce Scheduling, under Workforce Scheduling license, select Workforce Scheduling license.

   NOTE: Users must be licensed for Voice or Multimedia to be scheduled in Workforce Scheduling.
5. If this employee is a Non ACD employee who needs access to Contact Center PhoneSet Manager, CTI Developer Toolkit Client, Salesforce.com Client, or screen pop, select Business Reporter Client license.

   NOTE: MiVoice Integration for Salesforce is required to activate Salesforce.com Client.
6. Click **Save**.

Managing Employee Workload

Employees handling multimedia interactions must be associated with a Workload. Workloads determine the number and type of media interactions that can be pushed to an agent at any one time. When employees become licensed for Multimedia Contact Center, they are automatically assigned the default Workload, which allows concurrent handling of 1 interaction from each media type. For more information on Workloads, see *Multimedia Contact Center Installation and Deployment Guide*.

The following configuration takes place in YourSite > Employee.

The following procedures explain how to:

- Associate a Workload to an employee
- Associate a new Workload to an employee
- Edit an existing Workload
- Delete a Workload

  NOTE: We recommend disassociating a Workload from all employees before deleting it.

To associate a Workload to an employee

1. Select an employee and click the **Advanced** tab.
2. After **Workload Descriptor**, click the **Browse** button.
3. Select a **Workload**.

   Alternatively, if you want to create a new Workload to associate to the employee, click **Add**.
4. Click **OK**.
5. Click **Save**.

To associate a new Workload to an employee

1. Select an employee and click the **Advanced** tab.
2. After **Workload Descriptor**, click the **Browse** button.
3. Click **Add**.
4. Type a **Name** for the Workload.
5. To apply the Workload to outgoing voice calls, select **Apply rule to outgoing voice calls**.
6. For each media type, under **Concurrent contacts**, select the maximum number of connections of that media type that can be handled concurrently.
7. For each media type, click the icons of the media you do not want employees to concurrently handle when handling that type of media.

NOTE: If you do not want agents to receive multiple ringing interactions of different media types, configure this option.

8. Click **Save**.

To edit an existing Workload

1. Select an employee and click the **Advanced** tab.
2. After **Workload Descriptor**, click the **Browse** button.
3. Select a Workload and click **Edit**.
4. When you are done modifying the Workload, click **Save**.

To delete a Workload

1. Select an employee and click the **Advanced** tab.
2. After Workload Descriptor, click the **Browse** button.
3. Click **Delete**.
4. Click **OK**.

Managing employee extensions and Account Codes

You can optionally assign extensions andAccount Codes to employees. If you are using MiVoice Analytics, Account Codes assigned to employees enable reporting on that Account Code to see the outbound costs associated to that employee. Account Codes can only be associated to one employee.

The following procedures explain how to:

- Create a new extension and associate it with the employee
- Associate an existing extension
- Edit an existing associated extension
- Create an Account Code to associate to the employee
- Associate an existing Account Code
- Edit an existing associated Account Code

The following configuration takes place in YourSite > Employee.

To create a new extension and associate it with the employee

1. Select an employee and click the **General** tab.
2. Under **Devices**, click the **Extension** button.

   Alternatively, click the down arrow beside Extension and click Add.
3. To configure the new extension, see *"Adding extensions"*.

   The extension name is automatically populated with the employee's name.
   By default, the extension type is voice softphone, which uses a 5020 IP set.
   By default, the extension reporting number/dialable is populated with the employee's business phone.
4. Click **Save**.

To associate an existing extension

1. Select an employee and click the **General** tab.
2. Under **Devices**, click the down arrow beside **Extension** and select **Associate existing**.
3. Select an extension and click **OK**.

4. Click **Save**.

To edit an existing associated extension

1. Select an employee and click the **General** tab.
2. Under **Devices**, click the down arrow beside the **Extension** button and click <extension> **> Edit**.
3. When you are finished editing the extension, click **Save**.
4. Click **Save**.

To create an Account Code to associate to an employee

1. Select an employee and click the **Devices** tab.
2. Click the **Account Code** button.
3. If you want to change the Account Code name, type a **Name**.
4. If you want to change the Account Code reporting number, type the **Reporting number**.
5. If you want to use this Account Code as a Classification Code, select **Use as a Classification Code**.
6. Click **Save**.

   If this is a new employee, when you are done assigning Non ACD extensions or Account Codes, continue to *"Configuring employee personal information (in YourSite Explorer)"*.

To associate an existing Account Code

1. Select an employee and click the **Devices** tab.
2. Click the down arrow beside **Account Code** and select **Associate existing**.
3. Select an Account Code and click **OK**.
4. Click **Save**.

   If this is a new employee, when you are done assigning Non ACD extensions or Account Codes, continue to *"Configuring employee personal information (in YourSite Explorer)"*.

To edit an existing associated Account Code

1. Select an employee and click the **Devices** tab.
2. Click the down arrow beside the **Account Code** button and click <Account Code> **> Edit**.
3. When you are finished editing the Account Code, click **Save**.
4. Click **Save**.

   If this is a new employee, when you are done assigning Non ACD extensions or Account Codes, continue to *"Configuring employee personal information (in YourSite Explorer)"*.

Configuring employee Skype for Business settings

The following procedures explain how to:

- Configure Skype for Business attributes for an employee

  NOTE: Skype for Business attributes are only visible if you have a Microsoft Skype for Business Server installed.

The following procedures take place in YourSite > Employee.

To configure Skype for Business attributes for an employee

1. Select an employee and click the **General** tab.
2. Type the employee's **SIP address**.
3. Type the employee's **Line URI**.
4. Click **Save**.

Configuring employee report distribution settings

Optionally, you can configure employee report distribution settings to use non-default settings and enable local printing.

The following procedures take place in YourSite > Employee.

To configure an employee's report distribution

1. Select an employee and click the **Advanced** tab.
2. If you want reports sent to a printer that is not the default printer of the Enterprise Server, type the file path of the **Network printer**.

   The printer path name is case sensitive.
3. If you want the employee's reports to print from their desktop printer, select **Print reports to desktop**.

   NOTE: If you want to print locally, the employee must be running Contact Center Client on their personal computer and the desktop printer must be the default printer on that computer.
4. If you want to use the employee's email address for report distribution, select **Distribute reports from employee**.

   NOTE: By default, the From address assigned to the mail server is used.
5. Click **Save**.

Configuring employee personal information

The following procedures explain how to:

- Configure employee personal information
- Change employee language

The following procedures take place in YourSite > Employee.

To configure employee personal information

1. Select an employee and click the **Profile** tab.
2. Enter the employee's personal information in the relevant fields.

   NOTE:
   - In Multimedia Contact Center, nicknames may be used in chat sessions with customers.
   - Optionally, after Activated, enter the date the employee became an active part of the enterprise. By default, the activated date is set to the date the employee was first added to YourSite Explorer.

     You must provide the date the employee became an active part of the enterprise if you want to generate administrative employee reports, or if you have Workforce Scheduling and will schedule employees based on seniority, or will manage time off entitlements and business rules based on time off allocation.
3. Click **Save**.

To change employee language

1. Select an employee and click the **Profile** tab.
2. Select a language from the **Language** drop-down menu.

   NOTE: MiContact Center Business applications, such as YourSite Explorer and Contact Center Client, all leverage the language settings of the operating system in addition to the language preference set for MiContact Center Business. Ensure that if you change the language settings of MiContact Center Business, you also change the language settings of their operating system to match.
3. Click **Save**.

Adding employee groups

After adding employees, you add employee groups and associate employees to these groups. Employee groups enable you to report on specific groups of employees.

The following procedures explain how to:

- Add an employee group
- Associate an employee with an employee group
- Remove an employee from an employee group

To add an employee group

1. Click **YourSite > Employee groups**.
2. Click **Add**.
3. Type the employee group's **Name**.
4. Type the **Employee group ID**.
5. Click **Save**.

To associate an employee with an employee group

1. Click **YourSite > Employee groups**.
2. Select an employee group from the list.
3. On the **Membership** tab, under **Available** members, select an employee and click **>** to move the employee to the **Selected members** list.
4. Click **Save**.

To remove an employee from an employee group

1. Click **YourSite > Employee groups**.
2. Select an employee group from the list.
3. On the **Membership** tab, under **Selected members**, select an employee and click **<** to move the employee to the **Available members** list.
4. Click **Save**.

Adding employee divisions

A division is composed of several employee groups. The Division tab shows the employee groups that belong to the division currently selected. When you create employee divisions in YourSite, you can run reports for several employee groups simultaneously.

To add an employee division

1. Click **YourSite > Employee Divisions**.
2. Click **Add**.
3. Type a **Name** and **Reporting number** for the employee division.
4. On the ribbon, click **Save**.

To associate an employee group with an employee division

1. Click **YourSite > Employee Divisions**.
2. Select an employee division from the list.
3. On the **Membership** tab, under **Available members**, select an employee group and click **>** to move the employee group to the **Selected members** list.
4. On the ribbon, click **Save**.

Adding agents

Agent IDs enable employees to handle different media and to be reported on and tracked in real time. When an administrator enables an employee to handle a type of media, the employee has an agent ID of that media type automatically created. A contact center employee can have multiple voice agent IDs, but requires a unique agent ID for each of the other media types (email, chat, SMS, and open media) that they handle.

Voice and multimedia agent IDs are added in the Employee section of YourSite Explorer. To add different media agent IDs to an employee, see *"Managing the media types an employee can handle"*. It is recommended to create agents within the Employee section. Voice agents can be created in the Agent section of YourSite Explorer, but must be associated to employees in the Employee section of YourSite Explorer.

The Agent section also enables administrators to delete agent IDs. Deleting an active agent removes an employee's capabilities to handle the corresponding media. Historical multimedia IDs can only be deleted in the Agent section.

NOTE:

- If agents are in a non-SDS clustered environment but not hot desking and not resilient, the agent names will not display on the telephone switch. You must enter these agent names outside of YourSite Explorer.
- We recommend you configure Hot Desking Agents for your contact center instead of traditional agents.
- Failover media servers for voice agents must be configured on your telephone system and synchronized into YourSite Explorer. Workgroup does not support Contact Center resiliency. You cannot program failover media servers for ACD agents or extensions.

In order to provide Contact Center Work Timer functionality in Contact Center Client, every traditional agent’s extension or every Hot Desking Agent ID must be enabled with a MiTAI monitor.

In YourSite > Agents, administrators

- Add voice agent IDs
- Delete agent IDs
- Associate unassociated voice agent IDs to employees
- Specify 3300 ICP Class of Service, Class of Restriction, and Failover media server options for voice agent IDs
- Enable a voice agent for external hot desking

See *"Enabling external hot desk agents"*.

To add a voice agent ID

1. Click **YourSite > Agents**.
2. Click **Add**.
3. Type the voice agent ID's **First name**.
4. Type the voice agent ID's **Last name**.
5. After **Agent login ID**, enter the reporting number for the voice agent ID.
6. After **Media Server**, click the **Browse** button.
7. Select a media server and click **OK**.
8. Click **Save**.

NOTE: The **Disable real-time monitoring and data collection on this device** check box is automatically selected if the employee that is associated to this agent has their licensing attribute set to 'None'. See *"Configuring employee licensing"* for more information.

To configure 3300 ICP options for a voice agent ID

1. Click **YourSite > Agents**.
2. Select an agent from the list.
3. Under **3300 ICP Options**, after **COS**, select a Class of Service from the list.
4. After **COR**, select a Class of Restriction from the list.
5. Click **Save**.

To enable a voice agent for external hot desking

1. Click **YourSite > Agents**.
2. Select an agent from the list.
3. Select **External hot desk user enabled**.
4. After **External dialing prefix**, type the dialing prefix for the device to which calls will be routed.
5. After **External dialing number**, type the dialing number for the device to which calls will be routed.
6. Click **Save**.

To delete an agent ID

1. Click **YourSite > Agents**.
2. Select an agent.
3. Click **Delete**.
4. Click **OK**.

Enabling external hot desk agents

External hot desk agents can work remotely using, for example, a standard PSTN analog telephone or a cellular telephone. External hot desk agents are similar to regular hot desk agents with additional configuration available to specify external number information. To access external hot desk agent functionality you must configure the following options in the User and Device Configuration form for the 3300 ICP:

- **External Hot Desking Enabled:** Select 'Yes' to enable external hot desk agent functionality.
- **External Hot Desking Dialing Prefix:** Type the prefix digit(s) required to dial out to the external hot desk device.
- **External Hot Desking Number:** Type the telephone number of the external hot desk device. This number will be used by the telephone system to route ACD calls to the external hot desk agent.

  NOTE: The combined length of the external dialing prefix and external number cannot exceed 26 digits.

An agent ID can be associated to only one external dialing number. If an external hot desk agent will use more than one external device for handling calls they must be associated to one agent ID for each external dialing number.

An external hot desk agent can either log in externally or internally. When they log in internally (locally) the telephone system recognizes them as a standard hot desk agent. When they log in externally the telephone system recognizes them as an external hot desk agent.

NOTE: External hot desk agent functionality is only supported for use with hot desk agents, not traditional ACD agents.

The following options are available for external hot desk agent login:

- Log in locally from a MiNET phone: agent displays as a regular hot desk agent
- Log in locally from an analog, cellular, or MiNET phone and connect through a loopback trunk: agent displays as an external hot desk agent
- Log in externally from an analog or cellular phone: the agent ID is registered as an external pivot device number and the external number dialing that has been configured in the telephone system is overlaid on this external pivot device number. The external number is then used by the telephone system to deliver ACD calls to the external hot desk agent. The agent displays as an external hot desk agent.

NOTE: An external hot desk agent can also log in externally by directly contacting a specific trunk configured for this purpose. In this case, the agent would not need to log in via Contact Center Client. For more information, log into Mitel Edocs, open the Mitel Communications Director System Administration Help Tool, and browse to 'External Hot Desking - Operation'.

Adding agent groups

Administrators must add agent groups to the YourSite database and associate employees to these agent groups. An employee and their agents can be associated to more than one agent group.

When agent groups are created, an employee’s agents are assigned a default group presence, either Present or Absent. An additional default group presence option (Last Known) is available for the voice agents on MiVoice Business platform. Employees whose agents’ default presence is Absent will not be present in the agent group after logging in their agents. To handle that media type, the employee must change their agent state manually in Contact Center Client orIgnite. Employees whose agents’ default presence is Present will be present in the agent group when they log in.

NOTE:

- If you attempt to add a group to YourSite that is already in the database the system notifies you that the group is already present. When you add a series of groups to YourSite, such as Agent Groups 1 to 5, if the system detects you have already added Agent Group 3, then it will not add Agent Group 3 or any subsequent agent groups in the series (that is, Agent Group 4 or 5) to the database.
- Deleting an agent group that is currently the last member of a voice or multimedia queue will invalidate that queue. Deleting an agent group that is associated to an activity in an Inqueue workflow will create a validation error. The queue will not be able to be saved until another agent group is associated to it.

It is recommended that you disassociate agent groups from queues and their associated Inqueue workflows before deleting the agent group.

- If you want to remove Voice handling from an agent group previously enabled to handle Voice, you must delete the agent group, writeback the deletion to the voice media server, and then recreate the agent group.

To set up an agent group, administrators must:

- Add an agent group
- Manage agent group membership, presence, and skill level
- Specify agent group options for the 3300 ICP media server

The following procedures explain how to:

- Add an agent group
- Disable monitoring and device collection for an agent group
- Specify if the agent group uses skills

The following configuration takes place in YourSite > Agent groups.

To add an agent group

1. Click **Add**.
2. Type a **Name** for the agent group.
3. Type a **Reporting number** for the agent group.
4. Select the media type(s) the agent group will handle.

   See the following table.

Table 7.3: Media icons (Sheet 1 of 2)

Media Type	Media Icon
Voice	
Chat	
Email	
SMS	

Table 7.3: Media icons (Continued) (Sheet 2 of 2)

Media Type	Media Icon
Open Media	

5. If you select voice media and have multiple voice media servers, select the voice media server and click **OK**.

   NOTE: If this agent group is not handling voice interactions, then this option will not be available.
6. Click **Save**.

To disable monitoring and device collection for an agent group

1. Select an agent group.
2. Select **Disable real-time monitoring and data collection on this device**.
3. Click **Save**.

To specify if the agent group uses skills

1. Select an agent group.
2. Select **The group uses skills**.
3. Click **Save**.

Managing agent group membership, presence, and skill level

After configuring an agent group, administrators must associate employees to the agent groups and specify the default presence for each of the employee's agent IDs for the media types the agent is configured to handle. If the agent group uses skills, skill levels must be set for each employee. Skill levels range from 1, which is the most skilled, to 255, which is the least skilled. The skill level assigned to the employee is applied to each media the employee is capable of handling.

Some employees may have multiple voice agents associated to them. When these are added to an agent group, they are highlighted in yellow. Administrators can select which of an employee's voice agents are in the agent group. It is recommended that an employee only have one voice agent associated to an agent group.

The following procedures explain how to

- Add employees to an agent group
- Specify which of an employee's multiple voice agents are in an agent group
- Specify a member's default presence in an agent group
- Specify a member's skill level
- Edit a member employee
- Remove a member from an agent group

The following configuration takes place in YourSite > Agent groups.

To add employees to an agent group

1. Select an agent group and click the **Membership** tab.
2. To add employees to the agent group, click **Add**.

3. Select the employees to add to the agent group and click **OK**.
4. Click **Save**.

To specify which of an employee's multiple voice agents are in an agent group

1. Select an agent group and click the **Membership** tab.
2. Select the employee with multiple voice agents click **Voice agent options**.
3. Select the voice agent to be present in this agent group and click **OK.**
4. Click **Save**.

To specify a member's default presence in the agent group

1. Select an agent group and click the **Membership** tab.
2. In the **Default <media type> Presence** column of the member's row, click the cell and select the default presence.
   - **Absent**—the employee's agent ID will be put into the Logged in Not Present agent state when they join the agent group.
   - **Present**— the employee's agent ID will be put into Idle when they join the agent group.
   - **Last Known**— the employee's voice agent ID will be put into the state that was last set on the PBX.

     NOTE: This additional default group presence option is only available for the voice agents on MiVoice Business platform.
3. Repeat Step 2 for each media type the member can handle in the agent group.
4. Click **Save**.

To specify a member's skill level

1. Select an agent group and click the **Membership** tab.
2. In the **Skill level** column of the member's row, select a skill level from the drop-down list.
3. Click **Save**.

To edit a member employee

1. Select an agent group and click the **Membership** tab.
2. Select an employee and click **Edit**.
3. When you are done editing the employee, click **Save**.

To remove a member

1. Select an agent group and click the **Membership** tab.
2. Select a member and click **Delete**.
3. Click **Save**.

Specifying 3300 ICP options for agent groups

The following configuration takes place in YourSite > Agent groups.

Tospecify 3300 ICP options for an agent group

1. Select an agent group from the list.
2. Click the **3300 ICP options** tab,
3. After **Failover media server**, click **Browse**.

4. Click **OK**.
5. After **Queue callers to this group when no agents are logged in**, select **Yes** or **No**.
6. Click **Save**.

Adding teams

After adding agent groups, you can add teams and associate agent groups to these teams.

To add teams

1. Click **YourSite > Teams**.
2. Click **Add**.
3. Type a **Name** and **Reporting number** for the team.
4. Click **Save**.

Associating agent groups to teams

To associate agent groups to teams

1. Click **YourSite > Teams**.
2. Select a team from the list.
3. On the **Membership** tab, under **Available members**, select an agent group and click **>** to move the agent group to the **Selected members** list.
4. On the ribbon, click **Save**.

Adding queues

Voice queues receive inbound calls and then route them to either agents or extensions, depending on the kind of queue. Voice queues can be ACD paths, referred to as voice queues in YourSite Explorer, that route calls to agent groups, or Ring Groups, which route calls to a pool of extensions.

Non-voice multimedia queues receive inbound interactions, such as voice, email, chat, SMS, and open media, and route them to the agents in the associated agent groups to handle the interaction. The associated agent groups handle the interactions from that queue and generate statistics for reports on the queue. Reports can be generated on queue activities and queue performance can be viewed in real time.

When you add a queue to the YourSite database, the configuration options available depend on the media server or type of queue. Media servers fall under four general categories: voice (a telephone system with or without MiTAI enabled), SIP (a voice gateway), voice, email, chat, SMS, and open media.

For instructions on adding multimedia queues, see the *Multimedia Contact Center Installation and Deployment Guide* .

Adding voice queues (ACD path)

The primary voice queue for MiContact Center Business is the ACD path, which distributes calls to groups of agents. When an administrator adds an ACD path voice queue, they:

- Configure general information for voice queues
- Configure voice queue membership
- Configure Inqueue routing
- Configure queue spectrum settings for voice queues

- Configure performance settings for voice queues
- Configure agent workflow settings (if agent greeting is enabled for the site)
- Optionally, set voice queue options

For information on automatic queue control, including opening, closing, and putting queues in DND, see *"Automatically opening and closing queues"*.

For instructions on how to configure IVR Routing options for queues, consult *"Configuring queues"*. Option availability depends on whether you are licensed for Messaging and Routing or IVR.

- For information on configuring a queue for web callbacks, see *"Enabling web callbacks"*.
- For information on configuring a queue for abandon callbacks, see *"Enabling abandon callbacks"*.
- For information on associating a queue to an UPiQ workflow, see *"Configuring InQueue routing"*.
- For information on setting up UPiQ workflows, see *"Default Inqueue UPiQ workflow and subroutine"*.
- For information on configuring a queue for RAD messages, see *"Configuring RAD messages for queues"*.

To add a voice SIP queue

1. Click **YourSite > Queues**.
2. Click **Add** and select **Voice Queue**.
3. Continue to *"Configuring general information for queues (in Your Site Explorer)"*.

   NOTE: New voice queues cannot be saved until the general settings for the queue have been configured.

Configuring general information for voice queues

When configuring general information for voice queues, administrators configure the basic settings for the queue that are required to be configured before the queue can be saved.

The following procedures take place in YourSite > Queues.

To configure general voice queue information

1. Select a queue and click the **General** tab.
2. Type a **Name** for the queue.
3. Type a **Reporting number** for the queue.
4. After **Dialable number**, enter the path directory number listed on the telephone system assignment forms.
5. After **Media server**, click the **Browse** button.

   NOTE: Once a queue has been saved, the media server cannot be changed.
6. Select the media server and click **OK**.
7. If you do not want the queue to be viewed in Contact Center Client and Ignite, select **Disable real-time monitoring and data collection on this device**.
8. Click **Save**.

Configuring voice queue membership

Agent groups must be assigned to a queue to handle ACD calls. Calls are offered to agent groups in the order in which they are associated to the voice queue and are offered to the next agent group in the list when the set overflow timer for that group expires. When configuring overflow timers for associated agent

groups, the Total Time to Agent Group column is automatically populated to indicate how long a call will be waiting before being offered to that agent group. A maximum of four agent groups can be assigned to a queue.

The following procedures explain how to:

- Associate an agent group to a queue
- Remove an agent group association from a queue
- Set the Overflow timer

The following procedures take place in YourSite > Queues.

To associate an agent group with a queue

1. Select a queue from the list and click the **Membership** tab.
2. Under **Available members**, select an agent group and click > to move the agent group to the **Selected members** list.

   The order agent groups are added determines the order in which agent groups are offered calls.
3. To adjust the order of selected members, select an agent group and click **^** or **v**.
4. Click **Save**.

To remove an agent group association from a queue

1. Select a queue from the list and click the **Membership** tab.
2. Under **Available members**, select an agent group and click < to move the agent group to the **Selected members** list.
3. Click **Save**.

To set the overflow timer

1. Select a queue from the list and click the **Membership** tab.
2. Under **Selected members**, set the **Overflow Timer** for each agent group associated to the voice queue.
3. Click **Save**.

Configuring queue spectrum settings for queues

Queue spectrum reports provide valuable information on how calls are dispersed in your contact center. You configure thresholds for answer, abandon, interflow, handle, and ringing thresholds for queues in YourSite Explorer. The answer, abandon, interflow, and talk statistics will be distributed across the queue spectrum reports in the time intervals you specify.

The following procedures take place in Yoursite > Queues.

To configure queue spectrum settings for a queue

1. Select a queue and click the **Queue Spectrum** tab.
2. Select the spectrum value(s) you want to include in reports and specify thresholds for each.

   All threshold values are in seconds.
3. Click **Save**.

To apply queue spectrum settings to all queues on the same media server

1. Select a queue and in the ribbon, click the **Queue Tools** tab.
2. Select **Apply queue spectrum to all**.

Configuring performance settings for voice queues

When configuring a queue, administrators set the queue priority, configure business hours for the queue, configure the work timer options, set the Service Level objectives, and set the handling times. Business hours control when the queue opens and closes.Agents are set in Reseize Timer to remove agents from ACD when a call fails to route to them. The Reseize Timer duration is set on a queue by queue basisThe following procedures explain how to:

- Set the priority level for the queue
- Configure the business hours for a queue
- Apply the business hours to all queues on the same media server
- Configure the Queue Work Timer options
- Set the voice queue service level objectives
- Set the voice queue handling times

To set the priority level for the queue

1. Select a queue and click the **Performance** tab.
2. After Priority, select the priority level for the queue.

   The highest priority level is 1. The lowest priority level is 64. Queues with the same priority level route to agents based on longest waiting.
3. Click **Save**.

To configure the business hours for a queue ***NOTE:*** *Queues open and close in alignment with the business hour schedule selected. To control queue states according to a different schedule you must create the schedule and assign it to the queue. See "Creating and modifying schedules".*

1. Select a queue and click the **Performance** tab.
2. After **Business-hour schedule**, click the **Browse** button.
3. Select a schedule and click **OK**.
4. If you want to restrict the production of real-time statistics and reports to only during business hours, select **Generate statistics and reports only within business hours**.
5. Click **Save**.

To apply the business hours to all queues on the same media server

1. Select a queue and in the ribbon, click the **Queue Tools** tab.
2. Select **Apply business hours to all**.

To configure the Queue Work Timer options

1. Select a queue and click the **Performance** tab.
2. If you want to add Contact Center Work Timer to handling time in reports, select **Include Queue Work Timer as part of handling time**.

   NOTE: When 'Include work timer as part of handling time' is enabled, the ACD handling time durations for reporting purposes span from ACD pick up to the end of the Work Timer time.

   When this option is disabled, the ACD handling time duration spans from ACD pick up to hang up.
3. To enable the queue for Work Timer, select **Use Queue Work Timer** and set the Queue Work Timer's duration.

   The default duration is 5 minutes.

   NOTE:

- Queue Work Timer maximum duration is 4 hours.
- A queue's work timer must not exceed the Class of Service Work Timer associated with any agents in agent groups who are associated with this queue. See *Default Outbound Callback subroutines*.

4. To force agents to enter call classification Account Codes, select **Force entry of a classification code**.

   This feature only displays if you use either Contact Center PhoneSet Manager or Contact Center Softphone.
5. If you want Work Timer to end once the classification Account Code has been entered, select **Cancel queue work timer once code is entered**.

   This feature only displays if you use either Contact Center PhoneSet Manager or Contact Center Softphone.
6. Click **Save**.

To set the voice queue service level objectives

1. Select a queue and click the **Performance** tab.
2. Specify the **Service Level goal** and **Service Level time** for the queue.
3. Click **Save**.

To set the voice queue handling times

1. Select a queue and click the **Performance** tab.
2. After **Short Handle less than**, type the duration that will define a call as a short handle call.

   For example, type 3 to define a short handle call as one that lasts less than 3 seconds. Short talk calls are included in Agent call statistics but not in Queue call statistics.
3. After **Short abandon less than**, type the duration that will define an abandoned call as 'Abandoned (Short)'.

   For example, type 5 to define a short abandon call as one that is abandoned in less than 5 seconds.
4. Click **Save**.

To set SIP queue Reseize Timer

1. Select a queue and click the **Performance** tab.
2. Select **Use Reseize Timer**.
3. Set the Reseize Timer duration.

   The default Reseize Timer duration is 2 minutes.
4. Click **Save**.

To enable Auto Answer for Agents

1. Select a queue and click the **Performance** tab.
2. Select the **Agent Auto Answer** check box..

   This check box is cleared by default.
3. Click **Save**.

NOTE:

- If the Agent Auto Answer check box is selected, the Accept button is not displayed in Web Ignite because the incoming conversation is auto answered.

- The Agent Auto Answer option can be enabled for voice, chat, email, sms, and, open media queue types, but not for the Ring Groups

Configuring agent workflow settings

The Agent workflow tab contains the default workflow that manages the playback of recorded messages when an agent answers an incoming call from the queue. This workflow is activated when agent greeting is enabled. For more information on enabling agent greeting, see *"Adding sites"* ***NOTE:*** *Agent greeting recording is available in both Ignite (DESKTOP) and WebIgnite. However, agents can only record one greeting which will be used on all greeting enabled queues.* The workflow includes a Play Agent Greeting activity. If Agent Greeting is enabled for the site (see *"Adding sites"*), the Play Agent Greeting activity checks the value of the <<AgentGreetingRecording>> variable (populated with a .wav file, if the agent has recorded a greeting) and plays the recording.You can add activities to customize the workflow (for example, you can add a Scheduling activity if you want the greeting to play only during business hours), however, the default workflow is sufficient for playing an agent greeting message if present. The workflow is triggered when the agent accepts an incoming ACD call. ***NOTE:*** *The Play Agent Greeting activity has the following specific properties:*

- The 'Broadcast To' attribute is set to Both (so that both agent and caller hear the recorded message)
- The 'Greeting Prompt' attribute is set to Agent Greeting (so that the prompt plays the agent's recorded .wav file, as specified in the <<AgentGreetingRecording>> variable, if one exists)

Configuring whisper announcements

The Agent workflow also controls whisper announcements.

- There are two methods of announcements: Queue whisper announcements, and the heritage pre-announcement feature of **Contact Center PhoneSet Manager** or **Contact Center Softphone**. For more information on pre-announce for Contact Center PhoneSet Manager and Contact Center Softphone, see the *MiContact Center Business User Guide*. We recommend you do not configure pre-announcement and whisper announcements on the same system.
- Whisper announcement recording is Ignite (DESKTOP) only.

A whisper announcement is a recording that is played to the agent when an agent answers an inbound call. The whisper announcement can provide useful information to the agent (for example, it can identify the incoming queue) to help the agent to handle the call more efficiently.The whisper announcement plays only to the agent. You can choose a .wav file from the IVR Prompts page, or a Text-to-Speech prompt (if licensed). ***NOTE:*** *When the whisper announcement is playing, the caller is able to hear the agent speaking. To prevent the caller from hearing the agent or other contact center background noise during the whisper announcement, mute the agent's headset for the duration of the announcement.* To add a whisper announcement to the queue

1. Add the Play activity to the workflow and place it before the Play Agent Greeting activity.
2. Select the Play activity and click **Properties** to configure the following attributes:
   - The 'Broadcast To' attribute must be set to Agent (so that only the agent hears the recorded message)
   - The 'Greeting Prompts' attribute must be set to the prompt that you want played

For detailed information on setting properties for the Play activity, see *"Configuring the Play activity"*.

Configuring voice options for queues

The voice options tab contains additional voice queue configuration options.The following procedures explain how to:

- Set queue unavailable answer point directory number

- Set interflow options

The following procedures take place in YourSite > Queues.To set the queue unavailable answer point directory number

1. Select a queue and click the **Voice options** tab.
2. Type the **Queue unavailable answer point directory number**.
3. Click **Save**.

To set the queue's interflow options

1. Select a queue and click the **Voice options** tab.
2. To enable interflow, select **Interflow enabled**.
3. Select the **Interflow** timeout.
4. Type the **Interflow point directory number**.
5. Optionally, select **Allow overflow to interflow before time out**.
6. Optionally, select **Interflow to this queue uses this queue's priority**.
7. Click **Save**.

Adding Ring Groups

With MiContact Center Business, you can configure Ring Groups, with the following limitations:

- Ring Groups require a minimum of MiVoice Business 7.0 .
- MiContact Center Business and MiVoice Analytics Version 9.0 do not support Call Forward Always from Ring Groups. Call Forward Always to Ring Groups is supported.
- Clustered Ring groups are not supported. Ring Groups, their extensions, interflow points, and any IVR ports transferring to Ring Groups must be on the same media server.
- Prime DNs and hot desking users are supported as members of Ring Groups.
- Personal Ring Groups are not supported.

It is recommended that Ring Groups have a default Class of Service configured on the 3300 media server. For more information, see *"Editing Class of Service options"*.

If you are licensed for IVR or Messaging and Routing, Ring Groups are not supported for callback or UPiQ workflows, subroutines, and related activities.

When an administrator adds a Ring Group, they

- Configure general Ring Group queue information
- Configure Ring Group business hours
- Configure Ring Group membership
- Configure queue spectrum settings for Ring Group
- Configure Ring Group voice options

To add a Ring Group queue

1. Click **YourSite > Queues**.
2. Click **Add** and select **Ring Group**.
3. Continue to *"Configuring general information for Ring Group queues"*.

NOTE: New Ring Group queues cannot be saved until the name, reporting number, and media server have been configured for the queue.

Configuring general information for Ring Group queues

The following procedures take place in YourSite > Queues.

To configure common Ring Group queue information

1. Select a Ring Group and click the **General** tab.
2. Type a **Name** for the Ring Group.
3. After **Reporting number**, type the Ring Group's dialable number.

   NOTE: The reporting number cannot be changed after saving the Ring Group.
4. After **Media server**, click the **Browse** button.
5. Select the media server and click **OK**.

   NOTE: The media server cannot be changed after saving the Ring Group.
6. After **Failover Media server**, click the **Browse** button.
7. Select the Failover media server and click **OK**.
8. If you do not want the queue to be viewed in Contact Center Client and Ignite, select **Disable real-time monitoring and data collection on this device**.
9. Click **Save**.

Configuring membership for Ring Groups

Extensions or hot desking users must be assigned to a queue to handle calls sent to Ring Groups. Depending on how the Ring Group is configured to distribute calls, calls will be offered to extensions in their order in the member list.

NOTE: Prior to Version 8.1, all voice softphone extensions created in YourSite Explorer had the setting 'ACD Enabled' applied when written back to the ACD routing system. In Version 9.0, this setting can be set or removed for the extension in YourSite Explorer. ACD Enabled extensions can be added as members of Ring Groups, but they cannot be made present in the Ring Group. This is a restriction imposed by Mi Voice Business. Ring Group Member extensions with ACD Enabled will not receive calls sent to the Ring Group. If a Hot Desking Agent logs into an ACD Enabled extension, they will go out of service and not be updated in the real-time monitors. To remove 'ACD Enabled' from extensions in YourSite Explorer, see *"Adding extensions"*.

Ring group extension members must be located on the same node as the Ring Groups. Ring Groups do not support multi-node configurations.

You can program the following devices as Ring Group members

- Multiline set prime numbers
- Single line sets
- Internal and external hot desk user

The following procedures explain how to:

- Associate an extension to a Ring Group queue
- Remove an extension association from a Ring Group queue

The following procedures take place in YourSite > Queues.

To associate an extension with a Ring Group

1. Select a Ring Group queue from the list and click the **Membership** tab.
2. Under **Available members**, select an extension and click **>** to move the extension to the **Selected members** list.

   Depending on the algorithm selected, calls will be offered to a Ring Group's extensions using the order in the Selected members list.

   NOTE: To ensure accurate reporting, hot desking users should be made members of the same Ring Groups as the extensions to which they log in.
3. To adjust the order of selected members, select an extension and click **^** or **v**.
4. Click **Save**.

To remove an extension association from a Ring Group

1. Select a Ring Group from the list and click the **Membership** tab.
2. Under **Available members**, select an extension and click **<** to move the extension to the **Selected members** list.
3. Click **Save**.

Configuring performance settings for Ring Groups

The following procedures explain how to:

- Configure business hours for a Ring Group
- Set the Ring Group service level objectives
- Set the Ring Group handling times

To configure the business hours for a Ring Group.

1. Select a Ring Group and click the **Performance** tab.
2. After **Business-hour schedule**, click the **Browse** button.
3. Select a schedule and click **OK**.
4. If you want to restrict the production of real-time statistics and reports to only during business hours, select **Generate statistics only within business hours**.
5. Click **Save**.

To set the Ring Group service level objectives

1. Select a Ring Group and click the **Performance** tab.
2. Specify the **Service level goal** and **Service level time** for the Ring Group.
3. Click **Save**.

To set the Ring Group handling times

1. Select a Ring Group and click the **Performance** tab.
2. After **Short handle less than**, type the duration that will define a call as a short handle call.

   For example, type 00:00:03 to define a short handle call as one that lasts less than 3 seconds.
3.

   Short handle calls are included in call statistics.
4. After **Short abandon less than**, type the duration that will define an abandoned call as 'Abandoned (Short)'.

For example, type 00:00:05 to define a short abandon call as one that is abandoned in less than 5 seconds.

5. Click **Save**.

Configuring queue spectrum settings for Ring Groups

Queue spectrum reports provide valuable information on how calls are dispersed in your contact center. The answer, abandon, interflow, handle, and ringing statistics will be distributed across the queue spectrum reports in the time intervals you specify.

If you apply your queue spectrum settings on all queues on a media server, they are applied to both Ring Groups and ACD path queues.

The following procedures take place in YourSite > Queues.

To configure queue spectrum settings for a Ring Group

1. Select a Ring Group and click the **Queue Spectrum** tab.
2. Select the spectrum value(s) you want to include in reports and specify thresholds for each.

   All threshold values are in seconds.
3. Click **Save**.

To apply a Ring Group's queue spectrum settings to all queues on the same media server

1. Select a Ring Group and in the ribbon, click the **Queue Tools** tab.
2. Select **Apply queue spectrum to all**.

Configuring voice options for Ring Group queues

Ring Group specific queue settings are configured in the Voice options tab.

The following procedures take place in YourSite > Queues.

To configure the voice options for a Ring Group queue

1. Select a Ring Group and click the **Voice options** tab.
2. After **Ring Algorithm**, select the Ring Groups call distribution algorithm from the following:
   - **Ring All:** Rings all available extensions in the Ring Group simultaneously.
   - **Terminal Cascade:** Starting from the first extension in the member list, rings the first available extension for the duration of the Cascade Ring Timer before calling the next available extension in the member list.
   - **Terminal:** Starting from the first extension in the member list, rings the first available extension.
   - **Circular:** Starting from the last member to handle a call, rings the next available extension in the members list.
   - **Circular Cascade:** Starting from the last member to handle a call, rings the next available extension in the member list for the duration of the Cascade Ring Time before calling the next available extension in the member list.
3. After **COS**, select a Class of Service for the Ring Group.

   If you have configured a default Class of Service for Ring Groups, the default Ring Group Class of Service will be automatically applied.
4. If you selected a Cascade algorithm, after **Cascade Ring Timer**, set the time a call will ring an extension before ringing the next member extension in the Ring Group.

5. After **Call Queued Timer**, set the maximum time a call will remain in queue for a Ring Group before redirecting to the overflow point.
6. After **Call Ringing Timer**, set the maximum time a call will ring an extension before the call is redirected to the overflow point.
7. After **Call Coverage Service Number**, enter a configured Call Coverage Service Number.
8. If you want to redirect incoming calls to another directory number if the Ring Group extensions do not answer, after **Overflow Point**, type the dialable number for the overflow destination.

   The Overflow Point can be any Prime DN destination, such as an extension or queue.

   NOTE: If a traditional agent logs into the overflow point, calls will never be offered
9. Click **Save**.

Setting a queue as historical

Voice and Ring Groupqueues can be set as historical, disabling real-time monitoring and data collection on the queue. Historical voice queues retain their data for reporting, but cannot handle interactions and are not available in Contact Center Client and Ignite. A historical queue can be restored to active service.

To set a queue as historical or to reactivate a historical queue

1. Select a queue and click the **General** tab.
2. If you are setting the queue as historical, select **Disable real-time monitoring and data collection on this device**.
3. If you are reactivating the queue, clear **Disable real-time monitoring and data collection on this device**.
4. Click **Save**.

Deleting a queue

When you delete a queue, it is removed from both YourSite Explorer and the media server. No more data is collected for the deleted queue, but any collected data for the queue is preserved and can be reported on.

NOTE: If you restore a backup from before the queue was deleted, it will re-associate itself to the collected data for the queue.

To delete a queue

1. Click **YourSite > Queues**.
2. Select a queue and click **Delete**.
3. Click **OK**.

Automatically controlling voice queue states (ACD path)

Voice queue states can be automatically controlled using Interactive Contact Center queue control. Interactive Contact Center queue control automates queue availability to respond to hours of operation and queue conditions, ensuring that calls do not wait in queue after hours or during busy periods.

Interactive Contact Center queue control consists of business hour schedules and queue control plans.

Business hour schedules open and close queues. For example, a 9-5 business hour schedule applied to the queue closes the queue at 5:00 pm. After 5:00 pm, calls route to the queue's unavailable answer point, if one is configured. At 9:00 AM, the queue opens and calls again route to the queue.

Queue control plans put queues in DND when certain conditions are satisfied. For example, if the queue's longest wait time has exceeded 30 minutes for more than one hour, the queue control plan will put the queue in DND. While the queue is in DND, calls route to the queue's unavailable answer point, if one is configured.

The following procedures explain how to

- Open and close queues with business hour schedules
- Set and remove queue DND with queue control plans

Opening and closing voice queues using business hour schedules

NOTE: *If you do not want to open and close queues using business hour schedules, apply the Default 24/7 schedule to the queue.* You can open and close queues automatically by assigning them a business hour schedule. Schedules enable you to customize the hours of operation for individual queues. For example, if your business operates 24 hours a day, but specific queues are open from 9-5 only, you can create individual business hour schedules that will open the queues at 9 and close them at 5.For information on creating business hour schedules, see *"Creating and modfying schedules"*.To assign a business hour schedule to a queue

1. Click **YourSite > Queues**.
2. Select the queue and click the **Interactive queue control** tab.
3. Select the **Queue uses Interactive Contact Center queue control** check box.
4. After **Business-hour schedule**, click the **Browse** button.
5. Select a schedule to apply to the queue and click **OK**.
6. Click **Save**.

Setting and removing queue DND with queue control plans

NOTE: DND can be set manually on a queue via the Queue Now monitor. Queue control plans and business hour schedules do not override a DND state set manually on the queue. Queues put into DND manually must have DND removed manually before queue control plans and business hour schedules can come into effect for the queue, and vice versa, queues opened manually must be closed manually (with set DND command) before queue control plans and business hour schedules can come into effect.

Queue control plans specify conditions under which a queue is automatically put into and taken out of DND.

For example, if customers in queue are experiencing exceptionally high wait times, an administrator might want that queue automatically put into DND. This prevents additional calls from reaching the queue and prevents new callers from experiencing long wait times.

Each queue control plan monitors one queue and, based on the conditions specified, can set and remove DND states for either the queue being monitored, a Directory Number, or an alternate queue. Only one queue control plan can be applied to a queue, but a single queue control plan can be applied to multiple queues.

Setting and removing queue DND with queue control plans requires you to

- Add a queue control plan to YourSite Explorer
- Specify conditions for setting queue DND

- Specify how long conditions must be present until queue DND is removed
- Specify Monitor Settings
- Specify when queue control plan conditions are evaluated
- Associate the control plan to a queue

Optionally, you can

- Remove a control schedule from a queue
- Remove a queue control plan from a queue
- Delete the queue control plan

To add a queue control plan to YourSite Explorer

1. Click **YourSite > Enterprise**.
2. Select **Queue Control Plans**, click **Add**.
3. Under **General**, type a **Name** for the queue control plan.
4. Click **Save**.

   Follow the steps under 'To specify conditions for setting queue DND', below.

To specify conditions for setting queue DND

1. Under **Queue Condition Builder**, click **Add**.
2. Under **Name**, select a criterion from the drop-down list.

   For example, ‘Longest Wait Time’.
3. Select an **Operator**.

   For example, '>'.
4. Specify a **Value**, or select a value from the drop-down list.

   For example, ‘0:30:00’ (30 minutes).
5. To join conditions, select a **Join Type**, click **Add**, and repeat the steps above.

   NOTE: 'And' means that all conditions must be met for the queue to go into DND. 'Or' means that only one of the conditions must be met for the queue to go into DND.
6. Click **Save**.

   Follow the steps under 'To specify how long conditions are present until queue DND is removed', below.

To specify how long conditions are present until queue DND is removed

1. Under **DND Settings**, after **Place the device in DND when the following conditions are true for**, type the amount of time for which the queue conditions must be met before the queue enters DND. For example, once the longest wait time has hit more than 30 minutes for ten minutes, the queue enters DND.
2. Under **DND Settings**, after **Remove the device from DND when the following conditions are false for**, type the amount of time for which the queue conditions must be absent before queue DND is removed.

   For example, once the longest wait time drops below 30 minutes for at least one hour, DND;is removed.
3. Click **Save**.

Follow the steps under 'To specify Monitor Settings', below.

To specify Monitor Settings

NOTE: This configuration requires you to select the queue being monitored for the queue control plan conditions. You then specify the queue or Directory Number upon which action is taken once the monitored queue meets the specified conditions.

1. Under **Monitor Settings**, after **Monitor**, click the **Browse** button, select a queue to monitor and click **OK**.
2. Specify whether action will be taken on the **Current Queue**.

   The 'Current Queue' is the queue to which the plan is assigned.
3. Alternatively, specify whether action will be taken on a **Directory Number**.
4. Alternatively, for action to be taken on an **Alternate queue**, click the **Browse** button, select the queue, and click **OK**.
5. Click **Save**.

   Follow the steps under 'To specify when queue control plan conditions are evaluated', below.

To specify when queue control plan conditions are evaluated

1. Click **YourSite > Queues**.
2. Select the queue and click the **Interactive queue control** tab.
3. Select the **Queue uses Interactive Contact Center queue control** check box.
4. After **Interactive Contact Center queue control schedule**, click the **Browse** button.
5. Select a schedule and click **OK**.

   To create a new schedule, see *"Creating and modifying schedules"*.
6. Click **Save**.

   Follow the steps under 'To associate the control plan to a queue', below.

To associate the control plan to a queue

1. Click **YourSite > Queues**.
2. Select the queue and click the **Interactive queue control** tab.
3. Select the **Queue uses Interactive Contact Center queue control** check box.
4. After **Interactive Contact Center queue control plan**, click the **Browse** button.
5. Select a queue control plan and click **OK**.
6. Click **Save**.

To remove a control schedule from a queue

NOTE: Removing control schedules prevents the queue control plan from running. If you remove a queue control schedule, you must add another in order to use the queue control plan.

1. Click **YourSite > Queues**.
2. Select the queue and click the **Interactive queue control** tab.
3. After **Interactive Contact Center queue control schedule**, click the **Clear…** button.

   To create a new schedule, see *"Creating and modifying schedules"*.

4. Click **Save**.

To remove a queue control plan from a queue

1. Click **YourSite > Queues**.
2. Select the queue and click the **Interactive queue control** tab.
3. After **Interactive Contact Center queue control plan**, click the **Clear...** button.
4. Click **Save**.

To delete a queue control plan

1. Click **YourSite > Enterprise > Queue Control Plan**.
2. Select the queue control plan and click **Delete**.
3. When prompted, click **OK**.
4. Click **Save**.

Adding queue groups

NOTE: Ring Groups are supported in Reporting queue groups only. Ring Groups can be grouped with ACD paths in Reporting queue groups. Ring Groups are not supported in Virtual and Unified Queue Groups.

Administrators can group queues for common purposes. There are three kinds of queue groups available:

- **Reporting**—groups queues together for reporting and viewing their activities in real-time
- **Mitel Virtual**—groups queues across telephone systems that load balance ACD calls between multiple queues.
- **Unified Queue Group**—groups queues of different media types that handle interactions for the same service group in a contact center. For more information, see the Multimedia Contact Center Installation and Deployment Guide *"Adding Unified queue groups"*.

Adding Reporting queue groups

Reporting queue groups enable administrators to run reports on activities for the grouped queues and view queue group activities in real time. Both voice queues and Ring Groups can be added to the same queue group, but ACD queue statistics that do not apply to Ring Groups will display as 0 in real-time monitors and reporting.

The following procedures explain how to:

- Add a Reporting queue group
- Associate a queue to a Reporting queue group
- Remove a queue from a Reporting queue group

To add a Reporting queue group

1. Click **YourSite > Queue groups**.
2. Click **Add > Reporting**.
3. Type a **Name**.
4. Type a **Reporting number**.
5. Click **Save**.

To associate a queue to a Reporting queue group

1. Click **YourSite > Queue groups**.
2. Select a Reporting queue group from the list.
3. On the **Membership** tab, under **Available members**, select a queue and click **>** to move the queue to the **Selected members** list.
4. Click **Save**.

To remove a queue from a Reporting queue group

1. Click **YourSite > Queue groups**.
2. Select a Reporting queue group from the list.
3. On the **Membership** tab, under **Selected members**, select a queue and click **<** to move the queue to the **Available members** list.
4. Click **Save**.

Adding Virtual queue groups

Virtual queue groups comprise two or more queues across multiple ACD routing systems, all of which send ACD voice interactions to the same pool of agent groups, in order to offer load balancing within the virtual queue.

When transferring a call to a virtual queue group, call routing occurs in either of the following two ways, depending on the configuration:

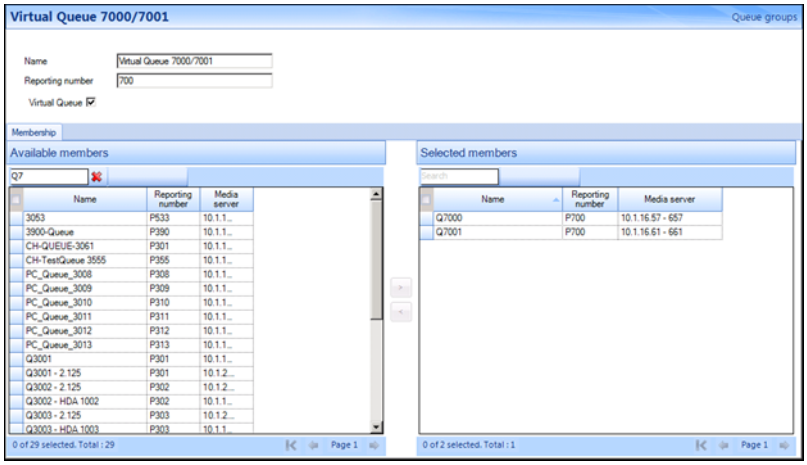
- When the **IVR ports** are not on the same **PBX** as queues, the **Virtual Queue Groups** work as a load-balancing mechanism. When the call is routed to a **Virtual Queue Group**, the call is routed to the queue that has the lowest estimated wait time.
- When the **IVR ports** are on the same **PBX** as the queues, attempt is made to route the call to the queue on the local ACD routing system, and, if it is closed, then the call is routed to the remaining queues in the virtual queue group using the Lowest Estimated Wait Time algorithm.

NOTE: The local queue is considered to be in its last known state if the IVR does not get any information from the Enterprise server.

Queues within a Virtual queue group must have the same reporting numbers, the same agent groups, and different dialable numbers. For example, in the following figure, the virtual queue group is made from two queues on two different ACD routing systems:

- **PBX 1**: Queue 7000: reporting number P700, dialable 7000 on PBX1, queue 700, 701, 702 assigned
- **PBX 2**: Queue 7001: reporting number P700, dialable 7001 on PBX2, queue 700, 701, 702 assigned

Figure 7.5: Virtual queue group



Virtual queue groups provide the ability to merge multiple queues into a single visual representation in Interactive Visual Queue and provide callers with an accurate position in queue through the MiContact Center UPiQ Service.

If you are licensed for IVR or Messaging and Routing, virtual queue groups can be used to provide resiliency paths for activities such as Transfer.

NOTE:

- Although Virtual queue groups are added and configured under Queue Groups in YourSite Explorer, a virtual queue group is treated as a singular entity.
- Ring Groups are not supported for virtual queue groups.

The following procedures explain how to:

- Add a Virtual queue group
- Associate queues to a Virtual queue group
- Remove queues from a Virtual queue group
- Create a virtual queue group using the Virtual Queue Group button

To add a Virtual queue group

1. Click **YourSite > Queue groups**.
2. Click **Add > Mitel Virtual**.
3. Type a **Name**.
4. Type a **Reporting number**.
5. Click **Save**.

To associate queues to a Virtual queue group

1. Click **YourSite > Queue groups**.
2. Select a Virtual queue group from the list.
3. On the **Membership** tab, under **Available members**, select a queue and click > to move the queue to the **Selected members** list.

   Repeat as necessary.
4. Click **Save**.

To remove queues from a Virtual queue group

1. Click **YourSite > Queue groups**.
2. Select a Virtual queue group from the list.
3. On the **Membership** tab, under **Selected members**, select a queue and click < to move the queue to the **Available members** list.

   Repeat as necessary.
4. Click **Save**.

To create a virtual queue group using the Virtual queue group button

1. Click **YourSite > Queues**.
2. Select the queues you want to be part of the Virtual queue group

   NOTE: Queues must be identically configured, with the exception of media servers and dialable numbers.
3. In the ribbon, click **Queue Tools**.
4. Click **Create virtual queue group**.
5. After **Name**, enter the name for the virtual queue group
6. If you want to change the reporting number of the virtual queue group, after **Reporting number**, enter the reporting number

   By default, the reporting number will be the same as the member queues.
7. Click **Save**.

Adding extensions

When you perform Synchronization, YourSite Explorer is configured to mirror the phone set extension numbers/base directory numbers (DNs) on the telephone system.

If you have traditional agents that can sit at multiple locations within your organization, Hot Desking Agents, or general business hot desking extensions, we recommend you give these base extensions generic names based on the position of the physical DNs (for example, Base DN: Floor 2, Desk 1). We recommend only general business hot desking extensions assigned to specific hot desking users be given user-based names (for example, Hot desking extension: John, Smith). If you have traditional ACD agents who sit at the same desk every day, or traditional extension phone sets that belong to single users, we recommend that the base DNs be configured with the user's names.

NOTE:

- If you have enabled agent greeting functionality for a site, you must create one or more agent greeting ports on the same media server that your agents belong to. The Record Agent Greeting workflow (configured on the media server) uses this port to call the agent for message recording. There is no license required for agent greeting ports, but there is a limit of 120 simultaneously open agent greetings and UPiQ ports for every MiVoice Business controller.
- Agents are programmed in YourSite Explorer. If agents are in a clustered environment but not hot desking and not resilient, the agent names will not display on the telephone switch.

In order to provide Contact Center Work Timer functionality in Contact Center Client, every traditional agent’s extension or every Hot Desking Agent ID must be enabled with a MiTAI monitor.

When read/write is enabled on a media server, changes made to extensions may be written back to the media server depending on the type of extension being changed. Changes made by adding or deleting the following extension types are written back to the media server:

- Agent greeting
- App server port
- Hot desk user
- Outbound port 5020 IP
- Messaging port 5020 IP
- RAD port 5020 IP
- UPiQ port 5020 IP
- Voice softphone

Changes made by adding or deleting the following extension types are not written back to the media server:

- Attendant console
- Auto-attendant
- Voice
- Voice mail

For extensions that already exist on the media server, edits to any extension type in YourSite Explorer will update the Name and Class of Service of that extension on the media server.

For information about enabling read/write on the media server, see *"Enabling write-back functionality"*.

NOTE:

- Prior to Version 8.1, all voice softphone extensions created in YourSite Explorer had the setting ‘ACD Enabled’ applied when written back to the ACD routing system. In Version 9.0, this setting can be set or removed for the extension in YourSite Explorer. ACD Enabled extensions can be added as members of Ring Groups, but they cannot be made present in the Ring Group. This is a restriction imposed by Mi Voice Business. Ring Group Member extensions with ACD Enabled will not receive calls sent to the Ring Group. If a Hot Desking Agent logs into an ACD Enabled extension, they will go out of service and not be updated in the real-time monitors. To remove ‘ACD Enabled’ from extensions in YourSite Explorer, see the following procedures.
- You can run extension reports to cost attendant call activity (SMDR Attendant Extension reports). When you create the attendant extension in the YourSite database, you must use the attendant reporting number found on the switch (for example, ATT1) as the extension reporting number. The numbers must be identical. If the switch uses a capital letter, you must use a capital letter in the YourSite database. These SMDR attendant extension reports use data collected from the SMDR stream. If you want to report on traffic attendant activity, you must have the Traffic Analysis application. Traffic attendant reports use data collected from the traffic stream. See "*MiCC Contact Center Reports Guide*" for more information.
- For information on configuring extensions for IVR Routing, see *"Configuring extensions"*.
- Workgroup does not support Contact Center resiliency. You cannot program failover media servers for ACD agents or extensions.

The following procedures explain how to:

- Add an extension
- Configure 3300 ICP extension options

NOTE: Failover media servers for extensions must be configured on your telephone system and synchronized into YourSite Explorer.

- Enable a Hot Desk User for external hot desking
  See *"Enabling external hot desk agents"*.

NOTE: Some fields and tabs are only available to certain extension types.

To add an extension

1. Click **YourSite > Extensions**.
2. Click **Add**.
3. After **Name**, enter a name for the extension.
4. After **Reporting/Dialable number**, enter the extension's dialable number.
5. After **Extension type**, select an extension type from the drop-down list.
6. After **Media server**, click the **Browse** button.
7. Select a media server and click **OK**.
8. Select the **Disable real-time monitoring and data collection on this device** check box if you do not want to enable the extension to be set with a MiTAI monitor, viewed in Contact Center Client, and use Contact Center Softphone.

   By default, this check box is not selected.
9. To license this extension, select **License this Extension**.

   Unlicensed extensions will not be updated in Contact Center Client real-time monitors and cannot be reported on or costed with MiVoice Analytics.
10. After **Notes**, enter any other information for administrators about the extension.
11. Click **Save**.

To configure 3300 ICP extension options

1. Select an extension and click the **3300 ICP** tab.
2. Select the **Class of Service** for the extension from the drop-down list.
3. If you want this extension enabled for ACD, select **ACD enabled**.
4. Click **Save**.

To enable a Hot Desk User for external hot desking

1. Click **YourSite > Extension**.
2. Select a Hot Desk User extension and click the **3300 ICP** tab.
3. Select **External hot desk user enabled**.

   Extensions that are enabled as external hot desk users can handle Non ACD calls while logged in externally.
4. After **External dialing prefix**, type the dialing prefix for the external device to which calls will be routed.
5. After **External dialing number**, type the dialing number for the external device to which calls will be routed.
6. Click **Save**.

Adding extension groups

After adding extensions, you add extension groups and associate extensions with these groups.

To add an extension group

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Devices**, click **Extension groups**.
3. Click **Add**.
4. Type a **Name** and a **Reporting number** for the extension group.
5. On the ribbon, click **Save**.

Associating extensions with extension groups

To associate an extension with an extension group

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Devices**, click **Extension groups**.
3. Select an extension group from the list.
4. On the **Membership** tab, under **Available members**, select an extension and click **>** to move the extension to the **Selected members** list.
5. On the ribbon, click **Save**.

Adding trunks

NOTE:

- If you want to report on SMDR information for SIP trunks you must ensure your SMDR tag is numbered.
- We recommend you name trunks and trunk groups in a way that helps you identify them as either SIP or TDM trunks, enabling the trunk type to be easily identified in reports.

To add a trunk

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Devices**, click **Trunks**.
3. Click **Add**.
4. Type a **Name** and a **Reporting number** for the trunk.
5. Click the **Browse** button and select a **Media server** to associate with the trunk.
6. On the ribbon, click **Save**.

Adding trunk groups

You add trunk groups and then associate trunks with the trunk groups.

NOTE:

- If you have Traffic Analysis and/or MiVoice Analytics and use the same trunk group numbers across multiple telephone systems, you must associate each trunk group with a media server.
- We recommend you name trunks and trunk groups in a way that helps you identify them as either SIP or TDM trunks, enabling the trunk type to be easily identified in reports.

If you have Traffic Analysis and/or MiVoice Analytics and use the same trunk group numbers across multiple telephone systems, you must associate each trunk group with a media server.

To add a trunk group

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Devices**, click **Trunk groups**.
3. Click **Add**.
4. Type a **Name** and a **Reporting number** for the trunk group.
5. Click **...** and select a **Media server** to associate with the trunk group.
6. On the ribbon, click **Save**.

Associating trunks with trunk groups

To associate a trunk with a trunk group

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Devices**, click **Trunk groups**.
3. Select a trunk group from the list.
4. On the **Membership** tab, under **Available members**, select a trunk and click **>** to move the trunk to the **Selected members** list.
5. On the ribbon, click **Save**.

Adding DNIS

Dialed Number Identification Service (DNIS) is a feature of toll-free lines that identifies the telephone number the caller dials. This assists agents who handle calls for more than one business or product line. Each business or product line has its own toll-free number. When a caller dials a toll-free number, the telephone system forwards information to the agent allowing the agent to identify who the caller dialed. For example, a caller dials a toll-free number for a cruise line. The telephone system sends a script to the agent along with the call. The agent then knows to answer 'Good morning. Thank you for calling Southern Cruises', instead of the name of another cruise line serviced by the center.

To add a DNIS

1. Click **YourSite > DNIS**.
2. Click **Add**.
3. Specify DNIS identification information and click the **Browse** button to select the media server for the DNIS.
4. After **Short Abandon**, type the duration for the call abandon parameter for DNIS call statistics. If the abandon time is less than the call abandon parameter, then the call is a short abandon call and is not included in the DNIS call statistics (for example, type 5 to define a short abandon call as a call that lasts less than 5 seconds).
5. After **Service Level**, type the Service Level time.
6. If you have MiVoice Analytics, select a carrier plan, call type, and call rate.
7. Click **Save**.

Adding DNIS groups

After adding DNIS, you can create DNIS groups and then associate DNIS numbers for specific businesses or product lines to those groups.

To add a DNIS group

1. Click **YourSite > DNIS groups**.
2. Click **Add**.
3. Type a **Name** and a **Reporting number** for the DNIS group.
4. On the ribbon, click **Save**.

Associating DNIS to DNIS groups

To associate a DNIS with a DNIS group

1. Click **YourSite > DNIS groups**.
2. Select a DNIS group from the list.
3. On the **Membership** tab, under **Available members**, select a DNIS and click **>** to move the DNIS to the **Selected members** list.
4. Click **Save**.

Adding Account Codes

Account Codes can be verified, non-verified, or forced.

- **Verified and Non-Verified Account Codes**
  Verified and Non-Verified Account Codes allow callers to complete a call without entering a code. These codes are used to categorize calls or portions of calls. You define Account Codes in the YourSite database to generate reports for specific departments, services, and companies. For example, an agent who receives calls for three catalog companies enters Account Code 01 for calls to company X, Account Code 02 for calls to company Y, and Account Code 03 for calls to company Z. When you configure the Account Codes, MiContact Center Business generates reports on the number, origin, and handling of calls for each of the departments, services, or companies.
- **Forced Account Codes**
  Both Verified and Non-Verified verified Account Codes can be forced. With Forced Verified Account Codes, you must enter the Account Code as soon as the phone is off-hook. With Forced Non-Verified verified Account Codes, you must enter the Account Code after you dial the phone number.
  For example, you might have 03 programmed on the telephone system as the trunk access code for calling England. Before you make a call to England, you must preface the telephone number with the Account Code 03, otherwise the call will not go through. To report on these verified Account Codes, you define them in the YourSite database.

NOTE:

- If you will used Forced Account Codes and have a Make Busy button programmed on your Mitel phone set, you must remove the Make Busy button, or Forced Account Codes will not work with Interactive Contact Center and Contact Center PhoneSet Manager.
- If a Forced Verified verified Account Code is not entered in before Work Timer expires, then a -1 Non Compliant Code will be automatically assigned to the call.

You can add Account Codes for accounting for a segment of an ACD interaction. For example, in a contact center helping callers with software issues, you could use Account Codes to identify the duration of discovery, reproduction, troubleshooting, and resolution for caller-found bugs. Agents can tag incoming calls or multimedia interactions with Account Codes for various services. Account Codes not associated to a specific employee can be used by all employees when handling interactions.

Agents who work for companies that use MiContact Center Business can use Account Codes to gain access to outside lines (see *"Assigning Non ACD extensions and Account Codes for employees"*).

If you are adding Account Codes to be used by voice agents, you print a copy of your telephone system assignment forms to use as a guide for programming. If you are adding Account Codes to be used by email and chat agents, you enter Account Code reporting numbers of your choice.

You can label Account Codes as call classification codes. This option associates the entire handling time to calls of this Account Code type.

NOTE: Classification Codes are a type of Account Code, but you can apply them during or after a call. Classification Codes can be applied only to ACD calls, but account codes can be applied to any calls.

To add an Account Code

1. Click **YourSite > Account Codes**.
2. Click **Add**.
3. Type a **Name** and **Reporting number** for the Account Code.
4. If the Account Code will be used as a call classification code, select the **Use as Classification Code** check box.

   NOTE:
   - When the 'Use as Classification Code' check box is selected, the Account Code duration spans from the time the call arrives until the call ends. When you deselect the 'Use as Classification Code' check box, the Account Code duration spans from the time the code was entered until the next code is entered or the call ends.
   - As a best practice, we recommend you name all call classification codes for easy identification or group call classification codes in Account Code groups.
5. Click **Save**.

Adding Account Code groups

You can create Account Code groups to group similar Account Codes or to differentiate traditional Account Codes and call classification codes. Agents can readily identify and select appropriate Account Codes using the soft phone, Ignite, or Interactive Contact Center and supervisors can report on Account Code groups.

To add an Account Code group

1. Click **YourSite > Account Code groups**.
2. Click **Add**.
3. Type a **Name** and **Reporting number** for the Account Code group.
4. Click **Save**.

Associating Account Codes with Account Code groups

To associate an Account Code with an Account Code group

1. Click **YourSite > Account Code groups**.
2. Select an Account Code group from the list.
3. On the **Membership** tab, under **Available members**, select an Account Code and click **>** to move the Account Code to the **Selected members** list.
4. Click **Save**.

Adding Account Code categories

Account Code categories can be used to provide a hierarchical and grouped listing of the Account Codes available to agents and employees. Once you have configured Account Codes, they can be nested under specific Account Code categories. An Account Code can only be in one category. Classification Codes, which are treated the same way as Account Codes, can optionally be nested in Account Code categories.

Account Code category availability to agents and employees can optionally be controlled using MiContact Center Business security. When Account Code categories are enabled,MiContact Center Business reports will display the Account Code category path (for example, Sales > Automotive > Tires).

To enable Account Code categories

1. Click **YourSite > Account Codes**.
2. In the ribbon, click the **Configuration** tab.
3. Select **Enable Account Codes categories**.

To add an Account Code category

1. Click **YourSite > Account Codes**.
2. In the ribbon, click the **Configuration** tab.
3. Ensure the **Enable Account Codes categories** check box is enabled.
4. Click **Edit categories**.

   The Account Code category designer displays.
5. Using the Account Code category designer, add and name Account Code categories in the left pane and then add the Account Codes you have configured, which display in the left pane to the custom categories.

   Account Code categories are sorted by category name and Account Code reporting number. Account Code categories will display in soft phone toolbarsor Ignite (DESKTOP) exactly as you have designed them in the Account Code category designer.

   NOTE: Categories that do not contain Account Codes will not be saved when the Account Code category designer closes.

Defining ANI data

Defining ANI data enables MiContact Center Business to gather information on area codes and geographic regions for incoming calls. ANI data can be given to agents in screen pops, used to route calls to appropriate endpoints, or used in reporting.

NOTE: ANI you want reported on for accounting purposes in MiVoice Analytics should be added as phone numbers as well. For more information on phone numbers, see *"Adding phone numbers"*.

The following procedures explain how to

- Define ANI data
- Delete ANI data

To define ANI data

1. Click **YourSite** and, under **Devices**, click **ANI > Add**.
2. After **Name**, type the geographical region to which the area code corresponds.
3. After **ANI**, type the area code for the geographical region.
4. To import ANI data from a .csv file, click Import and follow the steps under *"Importing a range of devices using a .csv file"*.
5. Click **Save**.

To delete ANI data

1. Click **YourSite > Devices > ANI**.
2. Select the ANI and click **Delete**.
3. When prompted, click **OK**.
4. Click **Save**.

Adding Make Busy Reason Codes

When a voice agent places themselves in Make Busy, they become unavailable for ACD calls. Agents enter Make Busy Reason Codes to indicate why they are placing themselves in Make Busy and not answering interactions.

Voice agents can place themselves in Make Busy using:

- Their phone sets orContact Center Client or Ignite

Make Busy Reason Code capacities:

- <= 12 Make Busy Reason Codes can be configured via the telephone system
- > 12 Make Busy Reason Codes can be configured via Contact Center in YourSite Explorer

  NOTE: If the first twelve Make Busy Reason Codes do not align between YourSite Explorer and the telephone system, delete and re-enter them to ensure they align.

Conditions:

- MiVoice Business supports single digit Make Busy Reason Codes but has the capacity to configure a total of 12 codes using the digits 0-9 and the characters * and #.
  - The digit 0 has a fixed name (0 Make Busy) that cannot be changed. Naming is programmable for the single digits from 1 – 9 and for * and #
- When programming the first 12 Make Busy Reason Codes in MiContact Center Business, ensure they align with the single digit reason codes on the telephone system, as described above.
- MiContact Center Business enables you to configure double digit Make Busy Reason Codes. Double digit Make Busy Reason Codes can be any combination of numbers provided the first digit is not a 0.
- Make Busy Reason Codes >12 are configured in YourSite Explorer and are visible to all MiContact Center Business client users and included in MiContact Center Business reports.

In order for agents to place themselves in Make Busy using their phone sets, the Make Busy with Reason option must be enabled on the telephone system.

Limitations:

- Make Busy Reason Codes programmed on MiVoice Business are not synchronized with MiContact Center Business and must be added manually if you want to report on them and view their use in real time.
- Make Busy Reason Codes configured in YourSite Explorer are not written back to MiVoice Business.

Default Make Busy Reason Codes:

Four Make Busy Reason Codes are configured by default with MiContact Center Business and cannot be deleted from YourSite Explorer:

- The -1 Make Busy Reason Code (System Make Busy Code) is allocated by the Enterprise Server when calls or multimedia interactions are requeued.
- The -2 Make Busy Reason Code (Resize Timer) is allocated when Hot Desking Agents are in a Non ACD call or are off hook. This Code applies to voice only.
- The -3 Make Busy Reason Code (Contact Center Work Timer) is allocated when agents are in Work Timer. This Code is specifically allocated for configurations that use Queue Work Timer instead of the default Class of Service Work Timer.

  NOTE: The -3 Make Busy Reason Code is no longer used in Version 8.1+. However, the Code remains in the system in order to summarize Version 6.x data in reporting.
- The -4 Make Busy Reason Code (Overloaded) is allocated when agents reach their Workload maximum for a media type. For more information on Workload, see *"Adding employee Workload"*.

  NOTE: The default Make Busy Reason Codes listed above do not impact the alignment of the first twelve reason codes used on the telephone system and the first twelve reason codes manually entered in YourSite Explorer.

To add a Make Busy Reason Code

1. Click **YourSite > Make Busy Reasons**.
2. Click **Add**.
3. Type a **Name** and **Reporting number** for the Make Busy Reason Code.

   Single digit reporting numbers can use any digit between 1-9. Make Busy Reason Code 0 is reserved for telephone system Make Busy. Double digit reporting numbers can use any combination of numbers provided the first digit is not a 0.
4. Click **Save**.

Adding Do Not Disturb (DND) Reason Codes

Interactive Contact Center enables supervisors to control the availability of agents and ACD queues. Likewise, agents can control their own availability, including placing themselves in or removing themselves from Do Not Disturb. There are many reasons why agents are placed in Do Not Disturb. You add these reasons in YourSite Explorer.

To add a Do Not Disturb Reason Code

1. Click **YourSite > DND Reason Codes**.
2. Click **Add**.
3. Type a Name and **Reporting number** for the Do Not Disturb Reason Code.
4. Click **Save**.

Adding phone numbers

Phone numbers are used for running MiVoice Analytics reports. The phone number device enables you to

- Add area codes/city codes, city exchange information, and contacts.
- Edit location information that displays in reports.

NOTE: Area codes you want to use in MiContact Center Business to provide data to agents, route calls to appropriate end points, and use to report on contact center functions should be added as ANI. For more information on ANI, see *"Defining ANI data"*.

When adding a phone number to the database, you select

- **Area/City code** when you are adding or updating the area code for a province/state/city
  For the phone number 613-599-0045, 613 is the area code.
- **City exchange** when you are adding a new exchange
  For the phone number 613-599-0045, 599 is the city exchange (Kanata).
- **Contact** when you are adding a phone number with contact information
  For the phone number 613-599-0045, 5990045 is the contact.

To add a phone number area/city code

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Devices**, click **Phone numbers**.
3. Click **Add > Add an area/city code**.
4. Select a country and type an area/city name and area code.

   An area can be a city, region, province, or state.
5. Click **Save**.

To add city exchange information

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Devices**, click **Phone numbers**.
3. Click **Add > Add a city exchange**.
4. After **Country**, select a country.
5. After **Area/City name**, select a city, region, province, or state (for example, Greater Toronto Area).
6. After **City name**, type the name of a city or suburb (for example, Thornhill).
7. After **City/Exchange**, type a city exchange number (for example, 231).

   For the phone number 416-231-5555, 231 is the city exchange.
8. Click **Save**.

To add phone number contact information

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Devices**, click **Phone numbers**.
3. Click **Add > Add a contact**.
4. After **Country**, select a country.
5. After **Area/City name**, select a city, region, province, or state (for example, Washington).

6. After **City name (optional)**, select a city or suburb (for example, Des Moines).
7. Type a contact name and number.

   This information displays in the Phone Number Accounting Trace and Phone Number Group Accounting Trace reports.
8. If you want to hide the contact name and number in reports select the **Hide the name and number in reports** check box.

   The hidden phone numbers appear as 10 zeros and the name/location field is blank.
9. On the ribbon, click **Save**.

Adding phone number groups

You can associate Phone numbers with Phone number groups. Phone number groups are added in YourSite Explorer and then Phone numbers are associated with them.

To add a Phone number group

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Devices**, click **Phone number groups**.
3. Click **Add**.
4. Type a **Name** and **Reporting number** for the Phone number group.
5. Click **Save**.

To associate a Phone number with a Phone number group

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Devices**, click **Phone number groups**.
3. Select a phone number group from the list.
4. On the **Membership** tab, under **Available members**, select a Phone number and click **>** to move the Phone number to the **Selected members** list.
5. Click **Save**.

Configuring business hour schedules

MiContact Center Business performs certain tasks during business hours and other tasks after business hours. You create schedules to specify your business' hours of operation and to apply these hours to devices. For example, a business schedule applied to a queue will open and close the queue in alignment with that schedule. You can create yearly or seasonal schedules.

For example, Multimedia Contact Center can send ‘business hour’ auto-response messages to customers contacting you during business hours, and ‘after hours’ auto-response messages to customers contacting you after hours. Applying a schedule to a Multimedia Contact Center workflow tells the system when to send each type of message.

MiContact Center Business ships with two default schedules: The default 24/7 schedule for businesses that operate 24 hours a day, seven days a week, and the default Monday to Friday 9:00 AM to 5:00 PM schedule. You can modify these schedules according to your business needs. You can also create

schedule exclusion lists, which enable you to omit days such as national holidays from schedules. See *"Managing schedule exclusion lists"*.

The following procedures tell you how to

- Create and modify schedules
- Manage schedule exclusion lists

Creating and modifying schedules

The schedules you create do not expire. The weekly schedule configuration applies week after week until you change the schedule or apply a different schedule to the device. You can exclude specific dates from the schedule for national holidays.

To create a schedule

1. Select **YourSite > Schedules**.
2. Click **Add**.
3. After **Name**, a descriptive name for the schedule.
4. To apply a schedule exclusion list, click the **Browse** button.
5. Select an exclusion list to apply and click **OK**.

   NOTE: The Schedule exclusion list specifies days to be omitted from the schedule. To create a schedule exclusion list, or to edit an existing schedule exclusion list, see *"Managing schedule exclusion lists"*.
6. After **Start time**, type the business day start time for each day of the week.
7. After **End time**, type the business day end time for each day of the week.
8. After **Disable for day**, select the check box for each day your business is closed.
9. Click **Save**.

To modify a schedule

1. Select **YourSite > Schedules**.
2. Select the schedule to modify.
3. After **Name**, type a new name for the schedule. For example, ‘Monday to Friday 8:00 AM to 6:00 PM’.
4. After **Schedule exclusion list**, click the **Browse** button.
5. Select a schedule exclusion list to apply to the schedule and click **OK**.

   NOTE: The Schedule exclusion list specifies days to be omitted from the schedule. To create a schedule exclusion list, or to edit an existing schedule exclusion list, see *"Managing schedule exclusion lists"*.
6. After **Start time**, type the new business day start time for each day of the week.
7. After **End time**, type the new business day end time for each day of the week.
8. After **Disable for day**, select the check box for day your business is closed.
9. Click **Save**.

To set Time Zone for Schedule Activities

1. Select **YourSite > Schedules**.
2. Select the schedule to modify and click **Properties**.
3. Select the required timezone from **Timezone Region** drop down box and click **OK**.

Managing schedule exclusion lists

Schedule exclusion lists enable you to omit days from schedules you create. For example, you can use a schedule exclusion list to omit national holidays from a yearly schedule.

The following procedures show you how to

- Create and apply new exclusion lists to schedules
- Apply existing exclusion lists to schedules
- Remove exclusion lists from schedules
- Edit and remove dates from schedule exclusion lists
- Delete exclusion lists from YourSite Explorer

NOTE: To edit or delete a list you must first select a schedule with an exclusion list already applied to it. You can then access schedule exclusion lists, and the buttons for editing and deleting lists, by clicking 'Manage schedule exclusion list'.

To create and apply a new exclusion list to a schedule

1. Click **YourSite > Schedules**.
2. Click **Add**.
3. Click **Manage schedule exclusion list**.
4. After **Name**, type the name of the exclusion list.

   NOTE: To create a new list for a schedule with an exclusion list already applied to it, click 'Add' and follow steps 4 onward.
5. On the calendar, click the dates to exclude from the schedule.
6. Click **Save**.
7. To apply the exclusion list to the selected schedule, click **Apply**. Otherwise, close the schedule exclusion list designer window.
8. Click **Save**.

To apply an existing exclusion list to a schedule

1. Click **YourSite > Schedules**.
2. Select the schedule to which you will apply a schedule exclusion list.
3. After **Schedule exclusion list**, click the **Browse** button.
4. Select a schedule exclusion list and click **OK**.
5. Click **Save**.
6. Repeat these steps for other schedules to which you will apply the exclusion list.

To remove an exclusion list from a schedule

1. Click **YourSite > Schedules**.
2. Select the schedule from which you will remove a schedule exclusion list.
3. After **Schedule exclusion list**, click the **Clear** button.
4. Click **Save**.

To edit and remove dates from an exclusion list

1. Click **YourSite > Schedules**.
2. Select a schedule with an exclusion list applied to it and click **Manage schedule exclusion list**.
3. Click **Edit**.
4. To add new dates, select the dates from the calendar.
5. To remove dates, select the dates from the list and click **Remove**.
6. To remove all dates, click **Clear**.
7. Click **Save**
8. To apply changes to the schedule, click **Apply**.

To delete an exclusion list from YourSite Explorer

1. Click **YourSite > Schedules**.
2. Select a schedule with the exclusion list to delete.

   NOTE: If you are deleting exclusion lists as part of clean-up, select any schedule with an exclusion list applied to it and follow the steps below.
3. Click **Manage schedule exclusion list**.
4. From the drop-down list, select the exclusion list you want to delete.
5. Click **Delete**.
6. Click **Save**.

Applying schedules

You can apply the schedules you create to

- Media servers
- Queues
- Workflows, if you are licensed for IVR or Messaging and Routing.
  See *"Configuring the Schedule activity"*.
- Alarms
- WallBoarder sign plan business hour and scheduled messages
- Interactive Contact Center queue control
  See *Opening and closing voice queues with business hour schedule"*.

Monitoring and alarming subsystem

MiContact Center Business uses a centralized alarming system configured in YourSite Explorer. The MiContact Center Maintenance Alarm Dispatcher Service is located on the Enterprise Server and performs server maintenance activities as well as controlling all alarming in the network. Alarm notifications are sent for each device that is triggering an alarm and is distributed in the following ways:

- **Email:** Summary emails are sent to valid email subscribers and list all current, active alarm statuses as well as a list of alarms that triggered the alert. Emails contain the most recent alarm changes followed by a list sorted by priority.
- **RSS:** An RSS feed is published on the server and can be subscribed to by any RSS reader that has been given access to the server.
- **Start Page:** A list of currently active MiContact Center Business alarms with a Knowledge Base article list of descriptions, severities, impacts on contact centers, and troubleshooting information can be viewed on the Start Page of YourSite Explorer. The Start Page displays alarms by priority. See *"YourSite Explorer Start Page"*.

By default, alarms are configured to expire after 24 hours.

The MiContact Center Server Monitor is a standalone service that is deployed on each server in the enterprise. It monitors performance counter values based on alarm configuration, collects external alarm data from services, and notifies the MiContact Center Maintenance Alarm Dispatcher Service when alarm states surpass configured thresholds.

Alarms may also be viewed with the Enterprise Status icon and RSS feed link, located in the lower-right corner of the YourSite Explorer and Contact Center Client windows and in the upper-right corner of CCMWeb. In order to view the Enterprise Status icon and RSS feed link in all of the applications in which they are present, we recommend you log in as an Administrator.

The Enterprise Status icon is a circular, colored status indicator. The color indicates the highest level of severity for all alarms currently alerting (Normal = Green, Minor = Yellow, Major = Orange, Critical = Red, Unknown = Gray). If you subscribe to the RSS feed you will be notified with changes to alarm states in your RSS reader. If you don't subscribe to the RSS feed, you can click the RSS feed link and view active alarms in your default browser. The RSS feed does not automatically refresh and must be refreshed manually.

In addition to receiving notification of alarms, you can quickly view Enterprise status and active alarms using the YourSite Explorer Start Page's Alarms tab. The Alarms tab consists of two panes: the Feed Preview and the Mitel Knowledge Base pane. The Feed Preview contains an RSS feed of the active alarms. The Mitel Knowledge Base pane contains a table of contents linking to relevant Knowledge Base (KB) articles for each alarm. Each KB article contains a description of the reason for the alarm, the severity of the alarm, the impact on contact centers, and troubleshooting steps.

If you have multiple servers and you want to be able to determine which server is emailing an alarm, you can set up a unique 'From' address for the emails delivered from the MiContact Center Business server in the 'From Name' field of the Outgoing tab in the mail server configuration window in YourSite Explorer.

Alarms are categorized based on the type of data they analyze. There are three types of alarms:

- **Performance counter** and **Registered services performance counter alarms**: based on performance counters
- **Media server alarms**: independently tracked for each media server
- **General alarms**: all other alarms

The following procedures explain how to

- Configure Performance counter and Registered services performance counter alarms
- Configure Media server alarms
- Configure General alarms
- Disable or enable alarms
- Temporarily disable ('Snooze') alarms

These configurations take place in **YourSite > Alarms**.

To configure Performance counter and Registered services performance counter alarms

1. Select the **Performance counter** or **Registered services performance counter** alarm you want to configure and click the **General** tab.
2. To specify an SNMP category in which the alarm displays, after **Category**, select a category type from the drop-down list.

   NOTE: SNMP Version V3 and above is not supported.
3. Set **Minor**, **Major**, and **Critical thresholds** and **threshold alert delays** for the alarm.

   NOTE: Thresholds determine the severity of the alarm when the specified condition is met. The threshold alert delay settings determine the how long an alarm state is active before an alarm is triggered and notification is sent.
4. To disable a threshold, from the drop-down list next to the threshold select **Disabled**.
5. To be notified when the alarm value changes, select the **Re-alert on value change** check box.
6. Click the **Actions** tab.
7. To send subscribers emails of alarms when the alarm is triggered, under **Email action**, select the **Enabled** check box.
8. Click **Browse** and select a **Business hours** schedule to apply to the alarm.
9. To receive notifications of critical alarms, outside of business hours, select the **Ignore business hours for critical alerts** check box.
10. Click **Save**.

To configure Media server alarms

1. Select the **Media server** alarm you want to configure and click the **General** tab.
2. To specify a category in which the alarm displays, after **Category**, select a category type from the drop-down list.
3. After **Severity**, select the level of severity to apply to this alarm (Minor, Major, or Critical).
4. After **Alert delay**, select how long the alarm state is active before an alarm is triggered and notification is sent.
5. To disable the alarm for specific media servers, after **Disable media servers**, click the … button, select the media server from the **Select disabled media servers** window, and click **OK**.
6. To clear a disabled media server selection, click **Clear**.
7. Click the **Actions** tab.
8. To send subscribers emails of alarms when the alarm is triggered, under **Email action**, select the **Enabled** check box.

9. Click the **Browse** button and select a **Business hours** schedule to apply to this alarm.
10. To receive notifications of critical alarms, outside of business hours, select the **Ignore business hours for critical alerts** check box.
11. Click **Save**.

To configure General alarms

1. Select the **General** alarm you want to configure and click the **General** tab.
2. To specify an SNMP category in which the alarm displays, after **Category**, select a category type from the drop-down list.

   NOTE: SNMP Version V3 and above is not supported.
3. After **Severity**, select the level of severity to apply to this alarm (Minor, Major, or Critical).
4. After **Alert delay**, select how long the alarm state is active before an alarm is triggered and notification is sent.
5. Click the **Actions** tab.
6. To send subscribers emails of alarms when the alarm is triggered, under **Email action**, select the **Enabled** check box.
7. Click the **Browse** button and select a **Business hours** schedule to apply to this alarm.
8. To receive notifications of critical alarms, outside of business hours, select the **Ignore business hours for critical alerts** check box.
9. Click **Save**.

To disable or enable an alarm

1. To disable an alarm, select the alarm and click the **General** tab.
2. Click **Disable**.
3. Click **Save**.
4. To re-enable an alarm, select the alarm and click the **General** tab.
5. Click **Enable**.
6. Click **Save**.

To temporarily disable (‘Snooze’) an alarm

1. Select the alarm to disable and select the **General** tab.
2. Click **Snooze** and, from the drop-down list, select how long the alarm will be disabled.
3. To customize the snooze duration, from the **Snooze** drop-down list select **Custom…** and set the date and time at which the alarm reactivates.
4. Click **Save**.

Validating configuration and clearing alarms

The Validate button manually triggers a validation of your contact center system configuration by going through Class of Service system options, SMDR options,agent groups, voice queues, and media servers,

firing or clearing alarms as appropriate. Validation automatically takes place with the synchronization that occurs during nightly maintenance, but manual validation is required to clear some alarms.

To validate YourSite Explorer configuration

1. In YourSite Explorer, click the **Tools** tab.
2. Click the **Validate** button.

Configuring security settings

You create security roles if you want to restrict employees from specific devices and MiContact Center Business application areas that their licensing would otherwise enable them to access.

NOTE: In order for you to assign security roles, your account must be associated to a security role that has 'May manage security' enabled.

Every time you run the MiContact Center Business installation, a default user is created. The default gives both the Mitel staff and the installer the assurance that there is at least one account with which to gain access to the CCMWeb website. After you install MiContact Center Business, you must change the default account password to a unique password. See *"Changing the default administrator password"*.

MiContact Center Business has three default security settings:

- **Local administrator**: These settings provide employees full access to all MiContact Center Business applications (to which the contact center and employees are licensed) and devices, and allow Write Back for synchronization.
- **Enterprise administrator**: These settings provide employees full access to all MiContact Center Business applications (to which the contact center and employees are licensed) and devices, and allow Write Back for synchronization. Enterprise administrator security role assignments can only be changed by an employee who is assigned the role of an Enterprise administrator.
- **Agent role**: This setting provides employees with a restricted security role. It includes access to Contact Center Client, Employee Portal,and Ignite. Default Agents can access real-time monitors, customize the appearance of real-time monitors, access real-time online chat in Contact Center Client, and control their own real-time status and presence.

Employee access to applications is limited by their security role and their licensing. An employee's security role defines the application areas an employee can access and licensing limits what applications an employee can access. For example, an employee with the Enterprise administrator security role but no supervisor license would not be able to access YourSite Explorer.

The default user name and password are

- Username: _admin
- Password: _password
- Security Role: Enterprise Administrator

The MiContact Center Business default security role ('Enterprise Administrator') allows employees full access to all of theMiContact Center Business applications (to which the contact center is licensed)and devices including Write Back for synchronization.

Security roles have two components

- **Basic**
  Basic security controls user access to the specific areas of MiContact Center Business.
- **Advanced**

Advanced security controls user access to customized lists of devices, real-time monitors, card designs, reports, sites, and users.

Creating and applying security roles

You can create security roles that have a number of combinations of basic and advanced authorizations applied to them. For example, you can create a security role with minimal security restrictions, granting users access to as many reports and applications as you designate. Alternatively, you can create a security role that has full access to some MiContact Center Business application areas but is restricted from accessing other sites, reports, devices, and application components.

To create and apply a security role, you must

1. Ensure employees are configured in the YourSite database.
2. Create security lists (If you intend to use advanced security).
3. Configure security settings to provide access to applications under **General** tab.

   You can broadly restrict an employee from accessing an entire application area with the security settings under **General** tab. For example, you could restrict an employee from configuring devices in YourSite Explorer.
4. Optionally, configure advanced security under specific application tabs.

   You can restrict the employee from specific application components with advanced security. For example, you could specify supervisors only view only employee reports (specific report type) on the employees they manage (specific devices) through creating a report list and restricting access to a specific report type and creating a device list and restricting access to a specific group of employees
5. Assign the security role to one or more employees.

Creating security lists

You can use advanced security options to restrict user access to sites, reporting, and real-time functions.

Before you can specify advanced security, you must create security lists (device lists, real-time monitor lists, report lists, site lists, and user lists). Each list must contain the devices, real-time monitors, reports, sites, and users to which employees are granted access. You can combine these lists when you assign a security role. For example, you can specify advanced security that permits users to create Employee Group Performance by Employee reports (specific report list) on Kanata employees (specific device list) only.

Use the following security lists to define advanced security:

- **Device list**—Device lists specify devices for which employees may view real-time information. You create device lists to restrict access to statistics on specific employees. For example, you might want a manager to view certain employees only (specific device - Kanata employees). The device list must contain the device (employee group - in this case, Kanata employees) to which the user may gain access. Devices include Account Code Group, Agent group, DNIS group, Employee Division, Employee group, Extension Division, Queue group, Team, Trunk Group, Voice extension group, and Voice mail extension group.

  NOTE: If you add an agent to a device list, you must also add the associated employee.
- **Report list**—You create report lists to restrict users from viewing specific report types. For example, you might want managers to view employee reports only (specific report category). The report list must

contain the reports the user may run. If you do not assign a report list to the employee, then the employee will see every YourSite group and team when running reports and monitoring real-time activities (unless a basic security role is assigned to that employee that does not permit the employee to gain access to any reports).

- **Profile list**—You create a profile list to restrict users from managing specific real-time monitor profiles.
- **Site list**—You create a site list to restrict users to accessing only certain sites.
- **Real-time monitor list**—The real-time monitor list specifies real-time monitors to which you are granted access. You create a real-time monitor list to restrict access to particular real-time monitors. The real-time monitor list must contain the monitors that the user will access.
- **User list**—You create a user list to restrict a user from chatting online with certain employees. The user list must contain the employees with which the user may chat. For example, you might want managers to chat online with only the employees they supervise. If Jane manages Bill, Sue, and George, then you assign Jane an advanced security role that permits Jane to chat with Bill, Sue, and George (the user list would contain Bill, Sue, and George).
- **Card design list**—You create a card design list to restrict users from managing card designs (card designs specify the information displayed on agent, employee, and extension real-time monitors).

If you are using Windows Authentication, you must also enable the following browser settings:

- Under Internet Options > Security, enable 'Automatic logon with current user name and password'
- Under Internet Options > Advanced, enable 'Enable Integrated Windows Authentication'

To create a security list

1. Under the **Enterprise** pane, click **Security list**. This displays a pane with the type of security list you want to create.
2. Select the security list you want to add and click **Add**. A selection dialog appears displaying the **Device Type**
3. Select the check boxes of the group you want to include in the device list. Click **OK**.
4. Enter the list **Name**.
5. Enter the list **Description**.
6. Click **Save** to save the changes.

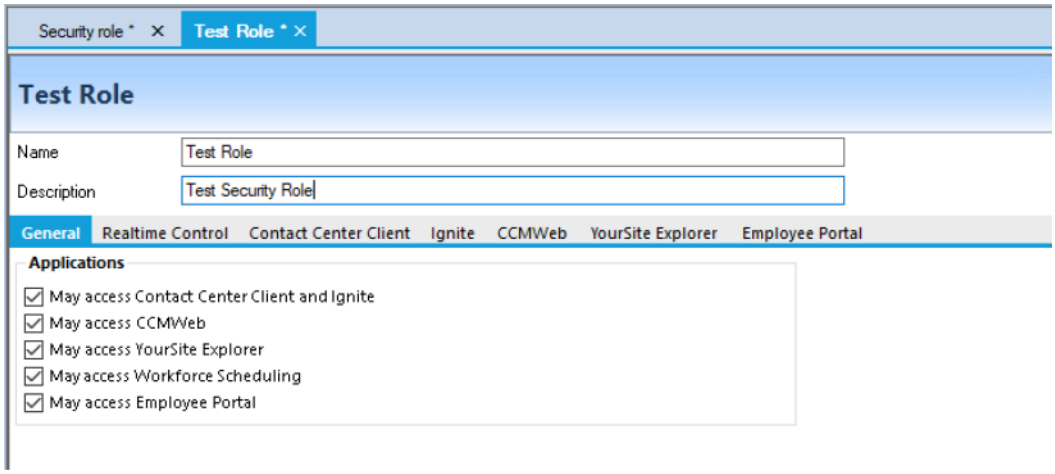
To delete a security list

1. Under the **Enterprise** pane, click **Security list**.
2. Select the security list you want to delete and click **Delete**.

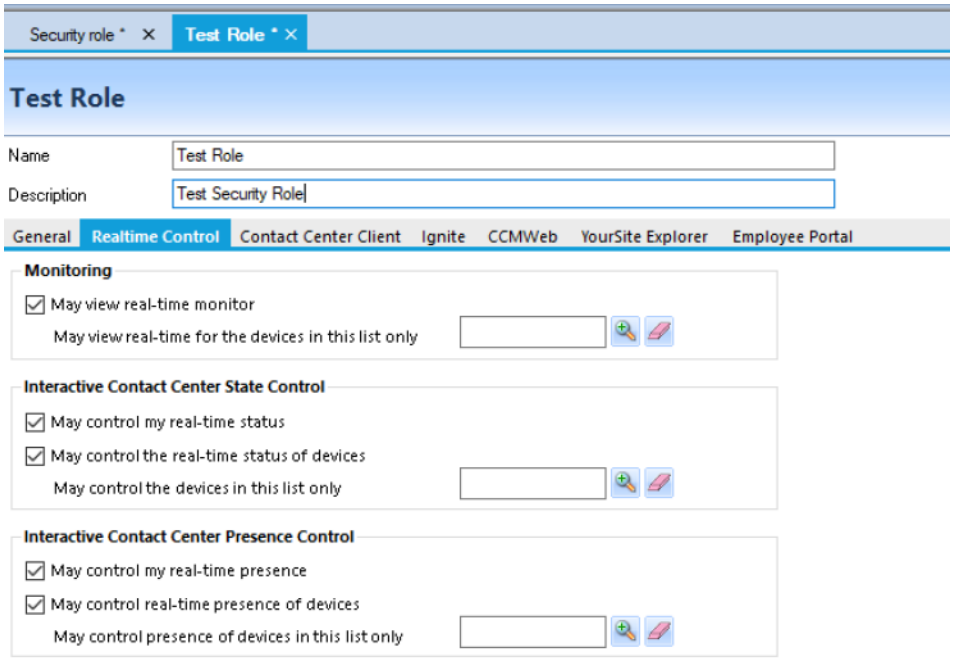
Configuring security roles

You can configure security to restrict user access to specific areas of CCMWeb and the Contact Center Client, YourSite Explorer, Workforce Scheduling, Employee Portal, and Ignite applications.The following figure shows the security options available under **General** tab.

For example, if you want to restrict users from accessing Contact Center Client and Enterprise Configuration, then you must create a security role with those characteristics.



You can further configure security options under the specific tabs to restrict access to reports, real time and Interactive Contact Center statistics, Chat, sites, and real-time monitors. These security options often require that appropriate security lists be made. (See the following figure.)



The following table describes the specific setting options for YourSite Explorer synchronization for security.

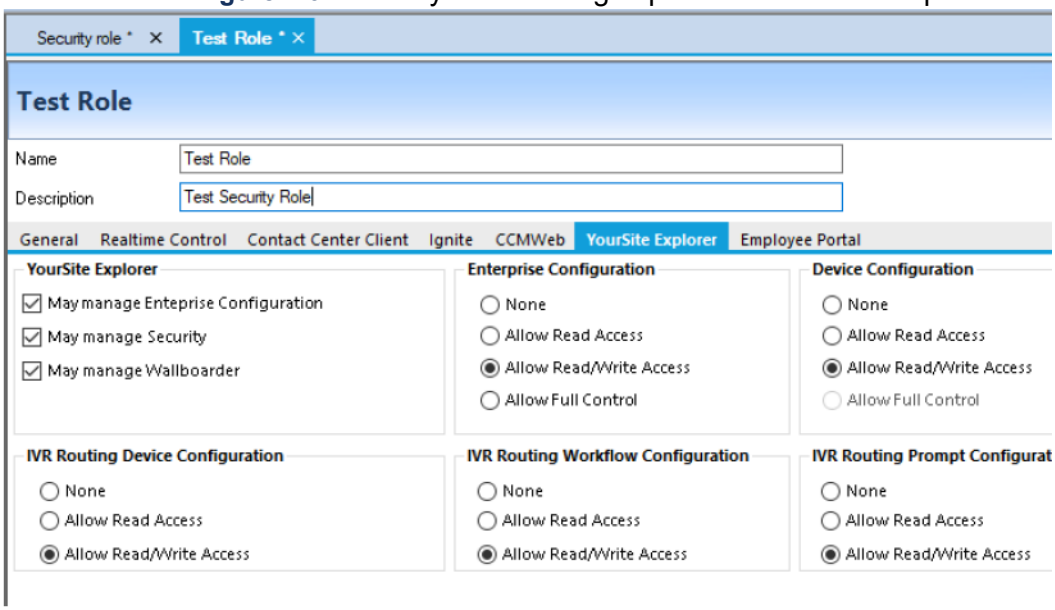
Table 7.4: YourSite Explorer synchronization - security setting options (Sheet 1 of 2)

Option	Description
None	If *None* is enabled you cannot view or configure Enterprise settings or devices in YourSite Explorer.

Table 7.4: YourSite Explorer synchronization - security setting options (Continued) (Sheet 2 of 2)

Option	Description
Allow Read Access	*Allow Read Access* enables you to read Enterprise and device configuration settings in YourSite Explorer.
Allow Read/Write Access	*Allow Read/Write Access* enables you to read Enterprise and device configuration settings in YourSite Explorer and write them to the YourSite database.
Allow Full Control	*Allow Full Control* enables you to read Enterprise and device configuration settings in YourSite Explorer, write them to the YourSite database, and write back devices programmed in YourSite Explorer to the telephone system.

Figure 7.6: Security roles settings options for Yoursite Explorer



Advanced security role options require the creation of a security list before the role can be configured. Using these lists, you can define a security role's access to devices. See *"Creating security lists"*.

Security roles are assigned to employees in their General tab. See *"Configuring general employee information"*.

To add a security role

1. In the **Enterprise** pane, click **Security role**.
2. Click **Add**.
3. Type a role name in **Name**.
4. Type a description in **Description**.

5. Go to any specific components tabs to specify advanced security and clear the check boxes of the items the user is not permitted to use.
6. Click **Save**.

To verify the properties of a security role

1. In the **Enterprise** pane, click **Security role**.
2. Click the security role for which you want to view properties.

   You can assign the security roles to new users and to existing users.

To edit a security role

1. In the **Enterprise** pane, click **Security role**.
2. Select the security role and click **Edit**.
3. Make the desired changes to the security role.
4. Click **Save**.

   NOTE: Users who are currently logged on will not be affected by changes made to their associated role until the next time they log on.

Viewing your security role properties

Users with access to YourSite Explorer can view their own security role properties and determine the application areas to which they have access. Only employees with access to YourSite Explorer and whose security role permits managing security can change the security role properties of employees.

To view the security role properties for your login credentials in YourSite Explorer

- Under **Enterprise**, click **My Role Allowed**.

To view the security role properties for your login credentials in CCMWeb

- Hover over **My options** and select **My security role**.

Assigning security roles to employees

NOTE: Users who are currently logged on will not be affected by changes made to their associated role until the next time they log on.

To assign a security role to an employee

1. Select an employee
2. Click the **General** tab.
3. After **Security role**, click the **Browse** button.
4. Select a security role.

   The default **Local Administrator** and **Enterprise Administrator** allows employees full access to all of the MiContact Center Business applications and devices (to which the contact center is licensed) and for Write Back for synchronization.

   NOTE: The default security role applied to new employees can be changed in the Configuration tab of YourSite Explorer.
5. Click **OK**.

6. Click **Save**.

Interactive Visual Queue

Interactive Visual Queue is a Contact Center Client real-time monitor that enables supervisors to both monitor and control the content in contact center queues.

Interactive Visual Queue includes a Queued media grid and an Abandoned media grid. In the Queued media grid, supervisors and agents can view calls within queues and then use a drag-and-drop operation to move calls from busy queues to less active queues. In the Abandoned media grid, supervisors can view abandoned call information, including the caller name, phone number, and time of the abandoned call. Agents can use the Abandoned media grid to call back abandoned callers.

NOTE: Ring Groups are not supported with Interactive Visual Queue and any queue groups displayed in Interactive Visual Queue will not display calls in the Ring Group queues.

Configuring Interactive Visual Queue

In YourSite Explorer, for each queue you want to monitor, you must configure the priority level and the method for handling interflowed calls. The values you configure must match the values specified on the Path Assignment form of your telephone system.

The YourSite Explorer settings for Interactive Visual Queue monitors do not affect workflow activity on the actual queues. These settings only affect the way Interactive Visual Queue displays the queue monitors in Contact Center Client. If you want to modify workflow on the actual queues, you must change the telephone system settings.

- Add all other devices for which you intend to run reports or use in your contact center, for example, employee groups, Account Codes, Make Busy Reason Codes, etc. See *"Configuring the YourSite database"*.
- In YourSite Explorer, under Enterprise, create schedules that specify the business hours of your operation that will be used for media servers, queues, and alarms.
- In YourSite Explorer, under Enterprise, specify alarm settings. See *"Monitoring and alarming subsystem"*.
- In YourSite Explorer, under Enterprise, restrict user access to specific devices and MiContact Center Business application areas. See *"Configuring security settings"*.

Calls interflowed automatically retain the original call priority, or adopt the priority of the new queue based on telephone system settings. The interflow options you specify for a queue in YourSite Explorer must be identical to those of the telephone system. For more information on configuring interflowed calls, see *"Adding queues"*.

If the telephone system settings and Interactive Visual Queue settings do not match, Interactive Visual Queue will not display the correct call activity. For example, if Queue 1 is set to a priority of 10 on the telephone system and a priority of 20 in YourSite Configuration, Interactive Visual Queue will display calls in Queue 1 as priority 20. However, the actual queue will handle the calls as priority 10.

In order to use Interactive Visual Queue, you must enable all HCI options on Class of Service Assignment form 1 (COS 1)

If you want Interactive Visual Queue to automatically insert 1 when calling back long distance phone numbers, you must program your telephone system ARS accordingly. For more information, see the Mitel 3300 ICP System Administration Tool Help.

Configuring Workforce Scheduling

Workforce Scheduling enables supervisors to create customized employee schedules, forecast scheduling requirements, match employee skills to those skills required for jobs in each schedule, view the distribution of employees across each schedule, and access schedule reports.

You assign the May manage Workforce Scheduling security role to all employees who require access to supervisory Workforce Scheduling features. To enable employees to access Employee Portal (software included with Workforce Scheduling) features, you assign them the following security role permissions: May access Employee Portal, May trade shifts, May trade time off, May request changes to availability. The default security role Agent Role provides access to Employee Portal.

You enable Workforce Scheduling, if your contact center is licensed for it, during the MiContact Center Business software installation.

NOTE: Workforce Scheduling can only be enabled on client computers that are part of the same Windows domain as the SQL Server.

Before configuring Workforce Scheduling

Before you configure Workforce Scheduling, you must enable remote SQL Server connections and grant SQL Server permissions to Workforce Scheduling users.

Enabling remote SQL Server connections

To enable remote SQL Server 2014 connections

1. On the SQL Server, in the **Microsoft SQL Server 2014** program folder, navigate to the **SQL Server Configuration Manager**.
2. Under SQL Server Configuration Manager (Local), expand SQL Server Network Configuration and click Protocols for <SQL Server instance name>.
3. In the right pane, right-click **Named Pipes** and click **Enable**.
4. In the right pane, right-click **TCP/IP** and click **Enable**.
5. Under SQL Server Configuration Manager (Local), click SQL Server Services.
6. In the right pane, right-click **SQL Server (<SQL Server instance name>)** and click **Restart**.
7. In the right pane, right-click **SQL Server Browser** and click **Properties**.
8. Click the **Service** tab and after **Start Mode**, select **Automatic**.
9. Click **Apply**.
10. Click **OK**.
11. In the right pane, right-click **SQL Server Browser** and click **Start**.

Granting SQL Server permissions

NOTE:

- If your enterprise uses remote SQL and SQL Authentication, you can skip this step, because the required credentials are provided during the configuration of MiContact Center Business
- If you do not currently have a copy of Microsoft SQL Server Management Studio installed, you can download a free copy from Microsoft: http://www.microsoft.com/en-ca/download/default.aspx.

To grant SQL Server 2014, or 2016 permissions

1. In Windows, open the **Microsoft SQL Server 2014, or 2016** program folder and go to **SQL Server Management Studio**.
2. Connect to the desired SQL Server.
3. In the left pane, expand the **Security** tree and select **Logins**.
4. If the desired user is not listed, right-click **Logins** and select **New Login**.
5. After **Login name**, type the name of the Windows user account.

   Optionally, click **Search** to search for the user name.
6. If you have the users configured in groups on your domain, you can optionally add the group to add all users at once.

   If you want to grant SQL Server permissions to a domain group, you must click Search, click Object Types, and select the Groups check box.
7. Click **User Mapping**.
8. Under **Users Mapped to this login**, select **CCMData**.
9. Click **OK**.
10. Under **Database role membership for: CCMData**, select **db_owner**.
11. Click **OK**.

    Repeat steps 5-11 for all Workforce Scheduling users.

Configuring employee scheduling preferences

Schedule Builder uses employee preferences/options as parameters when scheduling employees. You must configure employee scheduling preferences accurately in YourSite Explorer to create a meaningful schedule.

To configure employee information for scheduling

1. Select the employee or employees you want to configure.
2. Specify the employee role.

   See *"Configuring employee roles"*.
3. Specify employee work hours.

   See *"Configuring employee work hours"*.
4. Specify employment status.

   See *"configuring employment status"*.
5. Specify employee payroll information.

See *"Configuring employee payroll information"*.

6. Specify employee availability.

   See *"Configuring employee availability"*.

7. Specify time off information.

   See *"Configuring employee time off"*.

8. Specify employee skills.

   See *"Configuring employee skills"*.

Configuring employee roles

To configure an employee role

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Devices**, click **Employees**.
3. Select the employee to which you will add an employee role.
4. On the **Workforce Scheduling** tab, click **General**.
5. If the employee is a supervisor who will schedule employees, select the **Is a supervisor of scheduled employees** check box.
6. After **Schedule supervisor name**, select the name of the scheduling supervisor from the list.
7. On the ribbon, click **Save**.

Configuring employee work hours

To configure employee work hours

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Devices**, click **Employees**.
3. Select an employee.
4. On the **Workforce Scheduling** tab, click **Work hours**.
5. Enter the minimum and maximum number of hours the employee can work in a day, week, or year.
6. If you want to schedule the employee for an unlimited number of hours, click **Unlimited**.
7. After **Minimum time required between shifts**, enter the minimum number of hours required between the employee's shifts.

   NOTE: Ensure you set a minimum time between shifts or Schedule Builder will schedule back-to-back shifts for employees.

8. If the employee is permitted to work overtime, under **Available**, select an overtime type from the list and click **>** to move the overtime type to the **Assigned** list.
9. On the ribbon, click **Save**.

Configuring employment status

To configure employment status

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Devices**, click **Employees**.
3. Select an employee.
4. On the **Workforce Scheduling tab**, click **Payroll**.
5. If the selected employee is full-time, under **Employment status**, select **Full time**.
6. If the selected employee is part-time, under **Employment status**, select **Part time**.
7. On the ribbon, click **Save.**

Configuring employee payroll information

NOTE: If you want to schedule employees by seniority, the employee must be assigned a hire date.

To configure employee payroll information

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Devices**, click **Employees**.
3. Select an employee.
4. On the **Workforce Scheduling** tab, click **Payroll**.
5. Select the employee's employment status.
6. Under **Salary**, after **Pay period**, select the pay period for the employee.
7. If the employee is paid an hourly salary, next to **Hourly salary**, specify the employee's pay per hour.
8. If the employee is paid a yearly salary, next to **Yearly salary**, specify the employee's yearly salary and the typical number of hours the employee works in a week.
9. On the ribbon, click **Save**.

Configuring employee availability

NOTE: If you do not specify availability, Schedule Builder assumes the employees are available 24 hours a day, seven days a week.

To configure employee availability

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Devices**, click **Employees**.
3. Select an employee.
4. On the **Workforce Scheduling** tab, click **Availability**.
5. Select the **Uses availability** check box.
6. Under **New Availability**, after **Work day**, select the day of the week the employee availability applies to from the list.
7. If the employee is available only during certain hours of the day, select **Part of the day** and specify the hours the employee is available.

8. If the employee is available all day, select **Full day**.
9. Click **Add availability**.
10. On the ribbon, click **Save**.

Configuring employee time off

To configure employee time off

1. In YourSite Explorer, in the left pane, click **Workforce Scheduling**.
2. Click **Employees**.
3. Select an employee.
4. On the **Workforce Scheduling** tab, click **Time off**.
5. If the employee's time off is carried over based on their start date, under **Carryover date**, select **Employee start date**.
6. If the employee's time off is carried over based on a fixed date, under **Carryover date**, select **Fixed date** and specify the carryover date.
7. If the employee is permitted time off, under **Available**, select the time off type from the list and click **>** to move the time off type to the **Assigned** list.
8. On the ribbon, click **Save**.

Overriding employee time off

To override an employee time off type

1. In YourSite Explorer, in the left pane, click **Workforce Scheduling**.
2. Click **Employees**.
3. Select an employee.
4. On the **Workforce Scheduling** tab, click **Time off**.
5. Under **Assigned time off**, select a time off type to override.
6. If you want to override the total number of time off hours allowed, select the **Override total hours allowed** check box and specify the number of hours.
7. If you want to override a percent of time off hours based on time worked, select the **Override % of hours worked** check box and specify the number of hours.
8. If you want to override the number of hours that can be carried over, select the **Override allowed carry over** and specify the number of hours.
9. If you want to override the time off hours available to the employee, after **Available as of**, specify the date after which the time off hours are available and number of hours that will be available.
10. On the ribbon, click **Save**.

Configuring employee skills

NOTE: If you have selected multiple employees to edit, skills that are not available to these employees are grayed out and cannot be assigned.

To configure employee skills

1. In YourSite Explorer, in the left pane, click **Workforce Scheduling**.
2. Click **Employees**.
3. Select an employee.
4. On the **Workforce Scheduling** tab, click **Skills**.
5. After **Name**, type the name of the subscriber.
6. Under **Available**, select the skill type from the list and click > to move the skill type to the Assigned list.
7. Repeat step 5 for all skills the employee will use.
8. On the ribbon, click **Save**.

Configuring schedule options

NOTE:

- If you associate a schedule with a queue group, only those employees included in the selected queue group can be configured in the schedule. (Agents are members of agent groups, which are associated with queues that are members of queue groups.)
- If you do not associate a schedule with a queue group, you can schedule any employee whose profile enables you to schedule them in Workforce Scheduling.

Before you can build a schedule, either manually or using Schedule Builder, you must create a new schedule.

On the New Schedule window, you must:

- Name the schedule
- Associate the schedule with a queue or queue group (optional)
- Add employees to the schedule
- Configure business hours for the schedule
- Activate/Deactivate the schedule

You can create new schedules and configure all Workforce Scheduling options using the Schedule wizard. Optionally, use the Schedule tool to add, delete, rename, and activate/deactivate schedules. Within the Schedule configuration window, you can click Apply at any time to apply changes to the schedule without closing the Schedule configuration window.

Configuring holidays

You configure holiday options on the Holidays window. You can add holidays that affect your contact center, specify which holidays give employees the day off, and specify which holidays are paid.

To configure a holiday

1. In YourSite Explorer, in the left pane, click **Workforce Scheduling**.
2. Click **Holidays**.
3. Click **Add**.
4. After **Name**, type the name of the holiday.
5. If this holiday is a company holiday and you want to receive warnings when trying to schedule employees for this day, select the **This holiday is a company holiday** check box.

6. Specify the pattern of the holiday.
   - If the holiday always falls on the same day of the month, select **Every** and specify the month and date the holiday falls on.
   - If the holiday has a pattern of falling on a certain day, week, and month, select **The** and specify the pattern, day of week, and month.
   - If the holiday is a calculated holiday, such as Good Friday or Easter Monday, select **Calculated holiday** and specify the holiday.
7. On the ribbon, click **Save**.

Configuring overtime types

You can configure the following overtime parameters:

1. **Pay rate multiplier**—The number of times by which the basic pay is increased to calculate the overtime pay rate. For example, if the pay rate multiplier is 1.5 and applied to $10 per hour, the overtime pay rate is $15 per hour
2. **Color**—The color in which the job displays in the time bar pane
3. **Hours worked in a given day are greater than**—The number of hours in a day an employee must work before the employee is paid at the overtime pay rate
4. **Hours worked in a given week are greater than**—The number of hours in a week an employee must work before the employee is paid at the overtime pay rate
5. **Days of the week worked**—Any work done on these days will be considered overtime pay
6. **Day of the year worked**—Any work done on this specific date will be considered overtime pay
7. **Holiday worked**—Any work done on this specific holiday will be considered overtime pay

To configure an overtime type

1. In YourSite Explorer, in the left pane, click **Workforce Scheduling**.
2. Click **Overtime**.
3. Click **Add**.
4. After **Name**, type the name of the overtime type.
5. Under **Effects**, enter a pay rate modifier and select a color for the overtime type.
6. Under **Conditions**, select either **Hours worked**, **Days of the week worked**, **Days of the year worked**, or **Holiday worked**.
   - If you select Hours worked, you must select either Hours worked on a given day are greater than or Hours worked on a given week are greater than and specify the number of hours.
   - If you select Days of the week worked, select the days of the week to which this overtime type applies.
   - If you select Days of the year worked, select the days of the year to which this overtime type applies.
   - If you select Holiday worked, select the holiday to which this overtime type applies.
7. On the ribbon, click **Save**.

Configuring time off types

Employees might take time off work for a variety of reasons. Depending on the nature of time taken off, employees might be paid, employees might be required to take a full day as time off, and employees might accrue time off (for example, vacation).

Create time off types that reflect the time off that employees take at your contact center.

- Consider if the type of time off should accrue, such as vacation, time off for a medical procedure, or personal days.
- Consider when the time off is accrued. For example, an employee might accrue 1 day of paid sick leave per month.
- Consider if the type of time off must be taken as a full day.
- Consider if employees must qualify for the type of time off.
- Consider if employees can carry the time off over to the next year.

Workforce Scheduling can warn you when employees do not qualify for the time off or when the scheduled time off is not within the limits allowed.

To configure a time off type

1. In YourSite Explorer, in the left pane, click **Workforce Scheduling**.
2. Click **Time off**.
3. Click **Add**.
4. After **Name**, type the name of the time off type.
5. If employees will be paid for this time off type, under **Effects**, select the **Paid time off** check box and select a color for the time off type.
6. If employees can request this type of time off from Employee Portal, under **Effects**, select the **Can be requested** check box.
7. Under **Employment duration qualification**, select either the **Employed for at least** or **Employed no more than** check box and specify the number of months.
8. Under **Scheduling limitations**, select either the **You must schedule this type in increments of at least** or **You must not schedule this type for more than** check box and specify the number of hours per day/week.
9. If you want to limit the number of hours this time off type can be scheduled, select the **Limit the number of hours that can be scheduled** check box.
   - If you want to fix the annual amount of this time off type, select **Fixed annual amount of** and specify the number of hours.
   - If the annual hours of this time off type are accrued, select the **Annual hours are accrued** check box and select either **Weekly**, **Biweekly**, or **Monthly**.
   - If you want to base this time off type on a percent of the number of hours worked, select **Based on hours worked at a rate of** and specify a percent.
   - If you want to carry over a fixed amount of accumulated time off hours, select **Percent of accumulated hours, at a rate of** and specify a percent.
   - If you want to carry over a percent of accumulated time off hours, select **Percent of accumulated hours, at a rate of** and specify a percent.
10. On the ribbon, click **Save**.

Configuring shifts

A shift represents work hours on a given day for an employee. You can assign shifts to specific employees for any day of the week. You can create several shifts for one or more schedules. There are two types of shifts: fixed shifts and variable shifts. Fixed shifts have a fixed start time and duration. Variable shifts are based on the following shift variables:

Typical hours—the number of work hours for the shift

Minimum hours—the minimum number of hours for the shift

Maximum hours—the maximum number of hours for the shift

Minimum start—the time of day after which the shift must start

Maximum start—the time of day by which the shift must start

Color—the color in which the shift appears in the time bar pane.

You configure the following shift options using the Schedule tool:

- Add fixed shifts
- Add variable shifts
- Rename shifts
- Delete shifts

Configuring Work Timer

Work Timer provides agents handling calls with a period of time after they finish a call to set classification codes, handle paperwork, or deal with other administrative tasks before returning to handling calls. The primary Work Timer, Class of Service Work Timer, is configured in the Class of Service options for agents, but a secondary Work Timer, the Queue Work Timer, may also be configured for individual queues that require agents handling calls from that queue to have less time for post-call work.

When configured, after call completion, Class of Service Work Timer places the agent into the Work Timer real-time state and ACD calls no longer route to them. As the agent enters into the Work Timer agent state, their timer in Contact Center PhoneSet Manager or Contact Center Softphone begins counting down the configured Class of Service Work Timer duration. (In real-time monitors in Contact Center Client, Work Timer will count up.) When the countdown reaches 00:00:00 or if the employee manually ends Work Timer, they are returned to the Idle real-time state where they can handle calls again.

Agents can cancel Work Timer manually in Ignite or by pressing the Cancel Work Timer buttonon their hard set or soft phone applications. If the 'Force entry of a classification code' is enabled, agents must enter a classification code first. If they do not, Work Timer cannot be ended manually and a non-compliance classification code will be assigned to the call when Work Timer expires. Work Timer also automatically ends if the agent enters a classification code when the ‘Cancel work timer once code is entered’ is enabled.

The maximum duration for Class of Service and Queue Work Timers is 4 hours.

You can set the Queue Work Timer duration to suit each individual queue, for example, agents answering calls for your Support queue may typically require a longer work timer duration than those answering calls for the Sales queue. You must set the Class of Service Work Timer to a duration that is equal to or greater than your longest Queue Work Timer setting to prevent agents' work timers from ending prematurely. For example, if your Class of Service Work Timer is set for 3 minutes and your Queue Work Timer for your

Support queue is set for 4 minutes, agents answering calls for that queue will be removed from Work Timer after 3 minutes.

If no Queue Work Timer is set on the queue, the default value configured on the Class of Service Work Timer will be used for that queue's associated agents. Multimedia Queue Work Timer is not dependent on MiVoice Business Class of Service Work Timer and can be set to any duration of time.

NOTE:

- When leveraging the Queue Work Timer feature, the Class of Service Work Timer value must be accurately synchronized to the media server for Queue Work Timer to function.
- When an agent receives a transferred call and enters into Work Timer, regardless of the queue the agent is in, their Work Timer duration is taken from the Queue Work;Timer duration set on the queue the call originally came in on.

For information on configuring Work Timer as a Class of Service for Media Servers, see *"Editing Class of Service options"*.

For information on configuring Work Timer for queues, see *"Adding queues"*.

Preparing media server agent timeout options for MiVoice Business

By default, YourSite Explorer is configured to clear lines if an agent using that line remains in a single state for more than two hours. This can impact Work Timer's functionality if Work Timer has been configured to be greater than two hours. To make proper use of the four hour Work Timer feature available to MiVoice Business, you must configure the agent state timeout audit options for your media servers to ensure that they do not interfere with Work Timer.

To configure the media server agent state timeout audit option

1. In YourSite Explorer, click **Media Servers**.
2. Select your media server from the list of media servers.
3. Click the **Data summary options** tab.
4. After **Clear line if agent primary Talk Time exceeds**, select 24 hours from the drop-down list.
5. If you are using multiple media servers, repeat steps 2-4 for all your contact center media servers.
6. Click **Save**.

Configuring Contact Center Screen Pop

Contact Center Screen Pop can be configured to launch applications or webpages when calls are received and to enable agents to automatically receive caller and account information via pop-ups for incoming calls.

Contact Center Screen Pop is an optional application that requires Contact Center Softphone or Contact Center PhoneSet Manager. If you want to screen pop based on caller entered digits, you require IVR Routing with the Collect Digits activity.

NOTE: When using IVR to populate screen pop information, you must configure IVR ports and queues on the same telephone system.

The following information can be configured to display in the pop-up:

- **Caller name**: name of the caller

- **ANI**: telephone number of the caller
- **DNIS**: telephone number the caller dialed
- **DNIS name**: the name associated to the DNIS number in the YourSite database
- **Agent ID**: agent who transferred the call
- **Extension**: extension from which the call originated
- **Queue**: queue from which the call originated
- **Collect Caller Entered Digits**: digits the caller enters for identification purposes, such as a customer site key (IVR Routing required)
- **Customer Collected Information**: information collected from a third party OBDC database (IVR Routing required)
- **Call notes**: notes added by an agent. Call notes are supported for inbound calls only

Enabling and disabling Contact Center Screen Pop

When you enable or disable Contact Center Screen Pop, the settings you select determine Contact Center Screen Pop accessibility on a per-agent profile basis.

To enable or disable Contact Center Screen Pop

1. Start **Contact Center Client**.
2. Click **Soft Phone > Configure**.

   The Soft phone configuration window opens.
3. Click the **Screen pop** tab.
4. To enable, Contact Center Screen Pop, select the **Display Contact Center Screen Pop** check box.
5. To disable Contact Center Screen Pop, clear the **Display Contact Center Screen Pop** check box.
6. Click **OK**.

Configuring Contact Center Screen Pop options

To configure Contact Center Screen Pop options

1. In YourSite Explorer, click **YourSite > Enterprise**.
2. Click the **Screen pop** tab.
3. If you want to launch an application or Web page when calls are answered, select the **Launch an application or Web page when agents answer receive calls** check box.
4. If you want to display call statistics for incoming ACD calls, select **Display the caller-specific Inbound trace report Web page**. The Inbound Trace report tells you the number of times the caller has called in the last seven days and contains the following fields: Call Start Time, Call Duration, DNIS name, Agent name, Extension, and Account Code. (See the following figure.)

   NOTE: The Contact Center Screen Pop will launch this application field is automatically populated with the URL of the Inbound Trace Report.
5. To launch a specific Web page or application when calls are answered, select the **Display a specific application or Web page** check box and, under **Contact Center Screen Pop will launch this application or Web page**, type the path for the executable file or the URL of the webpage and indicate any variables that the screen pop will contain.

NOTE: For important information on how to configure this field, click the **?** button.

6. If Mitel Professional Services has provided you with an integrated custom screen pop select **Display this Professional Services custom executable file or Web page**. Click **Manage** to review the Professional Services custom screen pop options.
7. To enable screen pop on Non ACD calls, select the **Screen pop on non ACD calls** check box.
8. Click **Save**.

Figure 7.7: Inbound Customer Trace Report

Configuring Contact Center Screen Pop display variables

The variables described in the following table are used by Contact Center Screen Pop to determine the application area or Web page that launches when an agent answers a call. Ensure the required IVR Routing activities are available in workflows to use these variables.

NOTE: The variable names are case-sensitive. For an application, variables must be in quotes and separated by a space.

Table 7.5: Contact Center Screen Pop display variables (Sheet 1 of 2)

Variable	IVR Routing activity required	Description
%PFCALLERNAME%	ANI activity	Caller name as provided by the telephone carrier. For example, 'John Smith'
%PFANI%	ANI activity	Caller number (ANI), the telephone number of the calling party. For example, '6135990045'
%PFDNIS%	DNIS activity	Dialed Number Identification Service (DNIS), numbers passed from the public telephone network to identify what phone number the caller dialed. This is typically used to identify different 1-800 or 1-900 numbers. For example, '9875'

Table 7.5: Contact Center Screen Pop display variables (Continued) (Sheet 2 of 2)

Variable	IVR Routing activity required	Description
%PFVERIFIEDCOLLECTEDDIGITS%	Collect Digits activity	The digits entered by the user during the call. For example, account number '78831'
%Queue%	ANI and DNIS activities	Name of the queue from which the call is answered. For example, 'Sales'
%ReceivingAgent%	N/A	Contains the Agent ID for the agent receiving the current call
%ReceivingExtension%	N/A	Contains the Extension ID for the extension receiving the current call
%SendingAgent%	N/A	Contains the Agent ID for the agent sending or transferring the call to the current recipient
%SendingExtension%	N/A	Contains the Extension ID for the extension sending or transferring the call to the current recipient

To launch an application

- Type the URL of the executable file followed by the required variables.
  For example, C:\MyProgram\CustomerManagement.exe "%PFCALLERNAME%" "%PFANI%""%PFDNIS%""%PFVERIFIEDCOLLECTEDDIGITS%""%Queue%"

  NOTE: Variables must be in quotes and be separated by a space.

If John Smith calls 1-800-266-9875 from 613-599-0045, is prompted to enter his account number (78831), and is then routed to the Sales queue, the executable file will use the actual values of the call, for example, C:\MyProgram\CustomerManagement.exe "John Smith""6135990045""9875""78831""Sales".

To launch a Web page

- Type the URL of the Web page followed by the required variables, as per standard HTTP protocol.
  For example, http://myintranetsite.business.com?CALLERNAME=%PFCALLERNAME%&ANI=%PFANI%&DNIS=%PFDNIS%&COLLECTEDDIGITS=%PFVERIFIEDCOLLECTEDDIGITS%=%PFVERIFIEDCOLLECTEDDIGITS%&QUEUE=%Queue%

If John Smith calls 1-800-266-9875 from 613-599-0045, is prompted to enter his account number (78831), and is then routed to the Sales queue, the Web page will use the actual values of the call, for example, http://myintranetsite.business.com?CALLER-NAME=John%20Smith&ANI=6135990045&DNIS=9875&COLLECTEDDIGITS=78831&QUEUE=Sales.

Enabling MiTAI event logging

The MiContact Center Enterprise Service receives MiTAI events from the MiContact Center Data Collection Service and stores these events in a log file located in the DataDirectory\ CallControlEventLog sub-folder under the main installation directory. The MiContact Center Enterprise Service logs all events across all nodes in one file and time stamps events based on arrival time, providing insight when troubleshooting MiTAI linking issues. Additionally, ANI, DNIS, collected digits, and other custom variables arriving from IVR Routing are logged.

Incorrectly configured devices and monitors will result in missing MiTAI eventsand IVR Routing port events, causing lost data and screen pop failures.

To enable MiTAI event logging

1. Browse to **<drive>:\Program Files (x86)\Mitel\MiContact Center\Services\EnterpriseServer**.
2. Open **prairieFyre.Services.EnterpriseServer.exe.config** in Notepad.
3. Click **Edit > Find**.
4. In the **Find what** field, enter **LogCallTrackingMiTAIEvents** and click **Find Next**.

   NOTE: If the LogCallTrackingMiTAIEvents key does not exist, you must create one. Enter <add key=" LogCallTrackingMiTAIEvents " value="true" />
5. Save the file.
6. Browse to the **DataDirectory\CallControlEventLog** folder.
7. Verify that **MiTAIEvents*.txt** is present in the folder.
8. Open **MiTAIEvents*.txt** and verify that the file contains MiTAI events. (See the following figure.)

Figure 7.8: MiTAI events example

```
Node 1  | 09:23:28.991 | 09:23:29| IQ_CallDetails       | --u092329537    2243   <?xml version="1.0" encoding=
Node 1  | 09:23:28.991 | 09:23:29| IQ_CallDetails       | --u092329537    2243   <?xml version="1.0" encoding=
Node 1  | 09:23:28.991 | 09:23:29| IQ_CallDetails       | --u092329537    2243   <?xml version="1.0" encoding=
Node 1  | 09:23:45.241 | 09:23:45| IQ_CallDetails       | --u092345537    2243   <?xml version="1.0" encoding=
Node 1  | 09:23:45.741 09:23:44  | PathRequestEvent     | --y092344|36|4|50|1297-|266293164|3030|357|10|539|0|
Node 1  | 09:23:45.991 09:23:44  | PathCallDelivered    | --y092344|37|4|53|1297-|266293164|3030|293|6|539|0|7
Node 7  | 09:23:46.991 09:23:45  | CallReceivedEvent    | --y092345|02|1|A9|1303-|291656852|3010|197|10|128|10
Node 7  | 09:23:47.741 09:23:45  | CallReceivedEvent    | --y092345|03|1|A9|1303-|291656852|3010|217|10|128|10
Node 7  | 09:23:53.741 09:23:52  | CallEstablishedEvent | --y092352|04|1|A9|1303-|291656852|3005|78|2|128|10|9
```

Additionally, you must ensure that

- All relevant devices including queues and extensions (or Hot Desking Agents in a hot desking resilient environment) have been synchronized or manually programmed successfully.
- The Advanced Real time option is turned on.
- The MiContact Center Data Collection Service log monitors were correctly set and there are no MiTAI errors (MiTAI errors will be shown as SXERR_*).
- IVR Routing ports are configured and monitored correctly.
  IVR Routing monitoring problems are demonstrated by call flow failure.
- IVR Routing ports are not programmed as 5020 IP ports.
  The IVR Routing messaging service automatically writes IVR Routing ports into the Mi Contact Center Business database. If the IVR Routing ports have been manually programmed and enabled for real-time and advanced real-time monitoring, screen pop will not display correct results.

Ignoring MiTAI events on UPiQ and callback capture ports

MiTAI events arriving on UPiQ ports and callback capture ports should be ignored to reduce MiTAI linking overhead.

To ignore MiTAI events on UPiQ and callback capture ports

1. Browse to **<drive>:\Program Files (x86)\Mitel\MiContact Center\Services\EnterpriseServer**.
2. Open **prairieFyre.Services.EnterpriseServer.exe.config** in Notepad.
3. Click **Edit > Find**.
4. In the **Find what** field, enter **MitaiLinkerPortIgnoreList** and click **Find Next**.

   NOTE: If the MitaiLinkerPortIgnoreList key does not exist, you must create one. Enter <add key="MitaiLinkerPortIgnoreList" value="2230 , 2250-2260, 2270" />
5. Save the file.

Testing Contact Center Screen Pop search functions

This test will confirm that Contact Center Screen Pop will function with the software you selected. See *"Configuring Contact Center Screen Pop options"*.

To test the search function in Contact Center Screen Pop

1. Start **Contact Center Client**.
2. On the ribbon, click **Soft Phone**.
3. Click the **Soft Phone** button.
4. Click **Configure**.
5. Click the **Screen pop** tab.
6. Click **Test**.
7. Type the variables using the described format

   PFCALLERNAME—first name followed by last name, separated by a space (for example, John Smith)
   PFANI—phone number (including area code if relevant) with no spaces, dashes, or brackets (for example, 6135558769)
   PFDNIS—phone number (including area code if relevant) with no spaces, dashes, or brackets (for example, 8005556598)
   PFVERIFIEDCOLLECTEDDIGITS—all digits the caller has entered since entering the telephone system, with no spaces, dashes or brackets (for example, 1113)
   Queue—queue that the caller first entered (for example, P500)
8. Click **OK**.

   A screen pop that contains the test parameters you specified will display. The outcome of the Contact Center Screen Pop test will change depending on the type of screen pop you have configured and the test parameters you entered.

Configuring Lifecycle reports

Lifecycle reports provide detailed information on all of the events related to the life of a specific call, from the moment the call enters the telephone system to call termination. You can generate Lifecycle reports on selected devices, and can filter the reports by a number of options. If you have clustered your enterprise into a single site, you can run a Lifecycle report onsite to report on your entire enterprise. Lifecycle reports also include call notes and links to call recordings. For more information on Lifecycle reporting, see the Reports Guide appropriate to your licensed version of MiContact Center Business.

NOTE:

- Since Lifecycle reports detail all events related to calls, there are significant database storage implications. With Lifecycle reports enabled, your database can fill up rather quickly. If you are unable to store the amount of data required for Lifecycle reports, we recommend configuring the system to purge Lifecycle reports older than a certain number of days or turning off the Lifecycle report option.
- Lifecycle reports containing data for internal transferred ACD calls will not link data properly unless the Call ID feature on the telephone system is enabled.
- For statistical accuracy in MiContact Center Business, all MiVoice Business controllers within a cluster must use the same time zone in the Date and Time form of the MiVoice Business configuration. Localized time display for devices can then be configured using the **Network Zones** form.

To purge Lifecycle reports older than a specific number of days

1. In YourSite Explorer, under **Enterprise**, click **Enterprise**.
2. Click the **Maintenance** tab.
3. After **Purge Lifecycle reports older than**, specify the number of days.
4. Click **Save**.

To turn off Lifecycle reporting

1. In YourSite Explorer, under **Enterprise**, click **Enterprise**.
2. Click **YourSite > Enterprise**.
3. On the **Enterprise** tab, disable the **Enable Lifecycle reports** check box.
4. Click **Save**.

Configuring Workforce Management integration

Workforce Management integration bridges MiContact Center Business with third-party Workforce Management solutions, sending historical data on agents and queues and streaming real-time data on agent states. You can use Workforce Management integration to assist third-party Workforce Management solutions in forecasting call volumes, adjusting contact center requirements, and mapping agent adherence to schedules.

NOTE:

- In order to implement Workforce Management integration, you must ensure the MiContact Center WFM Connector Service is set to automatic and running.
- Verint Impact 360 requires additional configuration for Workforce Management integration. For more information, see *"Configuring Verint Impact 360 for Workforce Management integration"*.

The following third-party Workforce solutions are supported:

- Verint – Blue Pumpkin
- Verint – Monet
- Verint – Impact 360
- NICE – IEX TotalView
- Netcall – Q-Max
- Calabrio - Teleopti WFM

NOTE: Only voice data is included, for all the third party CRM connectors except Teleopti CRM Connector. Teleopti CRM connector includes both Voice and Omnichannel data..

For supported versions of third party Workforce solutions, see the Mi Contact Center Business and MiVoice Analytics System Engineering Guide .

Before you can configure your Workforce Management integration, you must configure your Blue Pumpkin, Verint Impact 360, NICE IEX Workforce Management (TotalView), QMax, Monet, or Teleopti software by following the recommended installation and configuration guidelines included with these products. Contact your Blue Pumpkin, Verint Impact 360, NICE IEX Workforce Management, QMax, Monet, or Teleopti approved vendor for all setup and troubleshooting issues.

The Workforce Management configuration page is rendered from CCMWeb. To ensure proper configuration functionality, ensure that CCMWeb has been added as a Trusted Site. Failure to add CCMWeb as a Trusted Site may result in the Workforce Management configuration page being disabled.

If you are using Windows Authentication, you must also enable the following browser settings:

- Under Internet Options Security, enable ‘Automatic logon with current user name and password’.
- Under Internet Options Advanced, enable ‘Enable Integrated Windows Authentication’

To configure Blue Pumpkin integration

1. In YourSite Explorer, under **Enterprise**, click **Work Force Management**.
2. After **Type,**select **Blue Pumpkin** from the drop-down list.
3. Under **Historical Data Collecting Intervals**
   - After **Demand Data (minutes)**, select the number of minutes' worth of collected data for report creation.
   - After **Non-Demand Data (hours)**, select the number of hours' worth of collected data for report creation.
   - After **Offset (minutes)**, select the number of minutes to wait before collecting data. To ensure accuracy, the number of Offset minutes must be equal to or greater than 15 minutes.
4. Under **Remote FTP Server**
   - After **Address**, type the address of the FTP server to which you will send reports.
   - After **Port**, verify the port number. The default port number is **21**.
   - After **Root**, type the FTP server root. The default FTP server root is **/ftp/switches/**.
   - After **Username**, type the user name for the FTP server.
   - After **Password**, type the password for the FTP server.

     NOTE: Make note of this password. Any configuration changes made to the connector after its initial save require you to re-enter this password and re-save.
5. After **Reports Folder**, type <drive letter:>\Program Files (x86)\Mitel\MiContact Center\Extensions\WFM\Collected Data.

6. If you want to store a copy of files on the Enterprise Server, enable the **Keep Local Files** check box.
7. If you are saving configuration changes to a pre-existing configuration, re-enter the password for the FTP server and click **Save**.
8. If this is an initial configuration and you are not making changes to a pre-existing configuration, click **Save**.
9. Restart the MiContact Center WFM Connector Service.

   NOTE: If the only changes made were enabling/disabling the 'Keep Local Files' option or changes to the 'Reports folder', the MiContact Center WFM Connector Service does not need to be restarted.

To configure Impact 360 integration

1. In YourSite Explorer, under **Enterprise**, click **Work Force Management**.
2. After **Type**, select **Impact 360** from the drop-down list.
3. Under **Historical Data Collecting Intervals**
   - After **Demand Data (minutes)**, select the number of minutes' worth of collected data for report creation.
   - After **Non-Demand Data (hours)**, select the number of hours' worth of collected data for report creation.
   - After **Offset (minutes)**, select the number of minutes to wait before collecting data. To ensure accuracy, the number of Offset minutes must be equal to or greater than 15 minutes.
4. Under **Remote FTP Server**
   - After **Address**, type the address of the FTP server to which you will send reports.
   - After **Port**, verify the port number. The default port number is **21**.
   - After **Root**, type the FTP server root. The default FTP server root is **/ftp/switches/**.
   - After **Username**, type the user name for the FTP server.
   - After **Password**, type the password for the FTP server.

     NOTE: Make note of this password. Any configuration changes made to the connector after its initial save require you to re-enter this password and re-save.
5. After **Reports Folder**, type <drive letter:>\Program Files (x86)\Mitel\MiContact Center\CCM\Extensions\WFM\Collected Data.
6. If you want to store a copy of files on the Enterprise Server enable the Keep Local Files check box.
7. Under **Real-Time Data Socket Settings**, after **Port**, type the socket port number, typically **12000**. No value less than 1024 is permitted.
8. If you are saving configuration changes to a pre-existing configuration, re-enter the password for the **FTP server** and click **Save**.
9. If this is an initial configuration and you are not making changes to a pre-existing configuration, click **Save**.
10. Restart the MiContact Center WFM Connector Service.

    NOTE: If the only changes made were enabling/disabling the 'Keep Local Files' option or changes to the 'Reports folder', the MiContact Center WFM Connector Service does not need to be restarted.

To configure IEX TotalView integration

1. In YourSite Explorer, under **Enterprise**, click **Work Force Management**.
2. After **Type**, select **TotalView** from the drop-down list.
3. Under **Historical Data Collecting Intervals**
   - After **Demand Data (minutes)**, select the number of minutes' worth of collected data for report creation.
   - After **Non-Demand Data (hours)**, select the number of hours' worth of collected data for report creation.
   - After **Offset (minutes)**, select the number of minutes to wait before collecting data. To ensure accuracy, the number of Offset minutes must be equal to or greater than 15 minutes.
4. Under **Remote FTP Server**
   - After **Address**, type the address of the FTP server to which you will send reports.
   - After **Port**, verify the port number. The default port number is **21**.
   - After **Root**, type the FTP server root. The default FTP server root is **/ftp/switches/**.
   - After **Username**, type the user name for the FTP server.
   - After **Password**, type the password for the FTP server.

     NOTE: Make note of this password. Any configuration changes made to the connector after its initial save require you to re-enter this password and re-save.
5. After **Reports Folder**, type **<drive letter:>\program files\Mitel\MiContact Center\Extensions\WFM\Collected Data**.
6. If you want to store a copy of files on the Enterprise Server, enable the **Keep Local Files** check box.
7. After **Media Server Mapping**, determine the destination for reports by entering a report folder identifier for each media server.

   NOTE: You can use the same destination folder for all media server reports.
8. If you want to exclude media server(s) from collecting Workforce Management data, deselect the Reporting enabled check box, which is enabled by default.
9. Under **Real-Time Data Socket Settings**
   - After **Port**, type the socket port number, typically **6999**.No value less than 1024 is permitted.
   - After **Username**, type the socket user name. Socket user names must have an alphanumeric value of 15 characters or less with no spaces.
   - After **Password**, type **IEX**.

     NOTE: Make note of this password. Any configuration changes made to the connector after its initial save require you to re-enter this password and re-save.
   - After **Heartbeat Interval (seconds)**, select the interval in seconds between each Heartbeat Request message.

     Heartbeat Request messages are issued by the Enterprise Server to IEX clients to establish and maintain communication. IEX clients receive these Heartbeat Request messages and respond to them. If the server does not receive a response message after waiting at least twice the specified heartbeat interval, it may terminate the session with the IEX client without notification. Setting the interval to zero helps ensure communication between the server and the client.

10. If you are saving configuration changes to a pre-existing configuration, re-enter the password for the **FTP server** and **Real-Time Data Socket Settings**, and click **Save**.
11. If this is an initial configuration and you are not making changes to a pre-existing configuration, click **Save**.
12. Restart the MiContact Center WFM Connector Service.

    NOTE: If the only changes made were enabling/disabling the 'Keep Local Files' option or changes to the 'Reports folder', the MiContact Center WFM Connector Service does not need to be restarted.

To configure QMax integration

1. In YourSite Explorer, under **Enterprise**, click **Work Force Management**.
2. After **Type,**select **QMax** from the drop-down list.
3. Under **Historical Data Collecting Intervals**
   - After **Demand Data (minutes)**, select the number of minutes' worth of collected data for report creation.
   - After **Offset (minutes)**, select the number of minutes to wait before collecting data. To ensure accuracy, the number of Offset minutes must be equal to or greater than 15 minutes.
4. After **Reports Folder**, type **<drive letter:>\Program Files (x86)\Mitel\MiContact Center\CCM\Extensions\WFM\Collected Data**.
5. Under **Real-Time Data Socket Settings**, after **Port**, type the socket port number, typically **6999**.

   No value less than 1024 is permitted.
6. Click **Save**.
7. Restart the MiContact Center WFM Connector Service.

   NOTE: If the only changes made were to the 'Reports folder', the MiContact Center WFM Connector Service does not need to be restarted.

To configure Monet integration

1. In YourSite Explorer, under **Enterprise**, click **Work Force Management**.
2. After **Type**, select **Monet** from the drop-down list.
3. Under **Historical Data Collecting Intervals**
   - After **Demand Data (minutes)**, select the number of minutes' worth of collected data for report creation.
   - After **Non-Demand Data (hours)**, select the number of hours' worth of collected data for report creation.
   - After **Offset (minutes)**, select the number of minutes to wait before collecting data. To ensure accuracy, the number of Offset minutes must be equal to or greater than 15 minutes.
4. Under **Remote FTP Server**
   - After **Address**, type the address of the FTP server to which you will send reports.
   - After **Port**, verify the port number. The default port number is **21**.
   - After **Root**, type the FTP server root. The default FTP server root is **/ftp/switches/**.
   - After **Username**, type the user name for the FTP server.
   - After **Password**, type the password for the FTP server.

NOTE: Make note of this password. Any configuration changes made to the connector after its initial save require you to re-enter this password and re-save.

5. After **Reports Folder**, type **<drive letter:>\program files\Mitel\MiContact Center\Extensions\WFM\Collected Data**.
6. If you want to store a copy of files on the Enterprise Server, enable the **Keep Local Files** check box.
7. After **Media Server Mapping**, determine the destination for reports by entering a report folder identifier for each media server.

   NOTE: You can use the same destination folder for all media server reports.
8. If you want to exclude media server(s) from collecting Workforce Management data, deselect the **Reporting enabled** check box, which is enabled by default.
9. Under **Real-Time Data Socket Settings**
   - After **Port**, type the socket port number, typically **6999**. No value less than 1024 is permitted.
   - After **Username**, type the socket user name. Socket user names must have an alphanumeric value of 15 characters or less with no spaces.
   - After **Password**, type **Monet**.

     NOTE: Make note of this password. Any configuration changes made to the connector after its initial save require you to re-enter this password and re-save.
   - After **Heartbeat Interval (seconds)**, select the interval in seconds between each Heartbeat Request message.

     Heartbeat Request messages are issued by the Enterprise Server to Monet clients to establish and maintain communication. Monet clients receive these Heartbeat Request messages and respond to them. If the server does not receive a response message after waiting at least twice the specified heartbeat interval, it may terminate the session with the Monet client without notification. Setting the interval to zero helps ensure communication between the server and the client.
10. If you are saving configuration changes to a pre-existing configuration, re-enter the password for the **FTP server** and **Real-Time Data Socket Settings**, and click **Save**.
11. If this is an initial configuration and you are not making changes to a pre-existing configuration, click **Save**.
12. Restart the MiContact Center WFM Connector Service.

    NOTE: If the only changes made were enabling/disabling the 'Keep Local Files' option or changes to the 'Reports folder', the MiContact Center WFM Connector Service does not need to be restarted.

To configure Teleopti integration

1. In YourSite Explorer, under **Enterprise**, click **Work Force Management**.
2. After **Type**, select **Teleopti** from the drop-down list.
3. Select the **Use Employee based stats** check box to use the Teleopti Employee based reports and Real Time streaming.

   This displays the Employee's overriding state. All voice and multimedia agent and queue data will be included in a single report file for every interval.

NOTE: If you have enabled the **Employee based stats** option in YSE, then the **Include Inter flowed In Offered Count** configuration option in WFM Service's configuration file is displayed. By default, the Tele-

opti Contact Queue reports do not include Interflowed calls in the calculation for received calls; the received column of the **Contact Queue** report includes only answered calls and abandoned calls.

If the Include Inter flowed In Offered Count configuration value is set to **True** in WFM service's, then the results in the contact queue **Offered** column displays the Interflowed calls along with the Answered and Abandoned calls.

4. Under **Historical Data Collecting Intervals**
   - After **Demand Data (minutes)**, select the number of minutes' worth of collected data for report creation.
   - After **Non-Demand Data (hours)**, select the number of hours' worth of collected data for report creation.
   - After **Offset (minutes)**, select the number of minutes to wait before collecting data. To ensure accuracy, the number of Offset minutes must be equal to or greater than 15 minutes.
5. Under **Remote FTP Server**
   - After **Address**, type the address of the FTP server to which you will send reports.
   - After **Port**, verify the port number. The default port number is **21**.
   - After **Root**, type the FTP server root. The default FTP server root is **/ftp/switches/**.
   - After **Username**, type the user name for the FTP server.
   - After **Password**, type the password for the FTP server.

     NOTE: Make note of this password. Any configuration changes made to the connector after its initial save require you to re-enter this password and re-save.
6. After **Reports Folder**, type **<drive letter:>\Mitel\MiContact Center\CCM\Extensions\WFM\Collected Data**.
7. If you want to store a copy of files on the Enterprise Server, enable the **Keep Local Files** check box.
8. After **Media Server Mapping**, determine the destination for reports by entering a report folder identifier for each media server.

   NOTE: You can use the same destination folder for all media server reports.
9. If you want to exclude media server(s) from collecting Workforce Management data, deselect the **Reporting enabled** check box, which is enabled by default.
10. Under **Real-Time Data Socket Settings**
    - After **Port**, type the socket port number, typically **6999**.No value less than 1024 is permitted.
    - After **Username**, type the socket user name. Socket user names must have an alphanumeric value of 15 characters or less with no spaces.
    - After **Password**, type **Teleopti**.

      NOTE: Make note of this password. Any configuration changes made to the connector after its initial save require you to re-enter this password and re-save.
    - After **Heartbeat Interval (seconds)**, select the interval in seconds between each Heartbeat Request message.

      Heartbeat Request messages are issued by the Enterprise Server to Teleopti clients to establish and maintain communication. Teleopti clients receive these Heartbeat Request messages and respond to them. If the server does not receive a response message after waiting at least twice the specified heartbeat interval, it may terminate the session with the Teleopti client without notification. Setting the interval to zero helps ensure communication between the server and the client.

11. If you are saving configuration changes to a pre-existing configuration, re-enter the password for the **FTP server** and **Real-Time Data Socket Settings**, and click **Save**.
12. If this is an initial configuration and you are not making changes to a pre-existing configuration, click **Save**.
13. Restart the MiContact Center WFM Connector Service.

    NOTE: If the only changes made were enabling/disabling the 'Keep Local Files' option or changes to the 'Reports folder', the MiContact Center WFM Connector Service does not need to be restarted.

Configuring Verint Impact 360 for Workforce Management integration

Verint Impact 360 requires additional components to be configured on the Impact 360 server to integrate with Workforce Management. To activate the Workforce Management plugin after making the necessary configurations on your Verint Impact 360 server, contact Verint for a technician to activate the plugin and verify in their logs that the integration is running properly.

NOTE: Before configuring Verint Impact 360 for Workforce Management integration, ensure the following are installed on the Verint Impact 360 server:

- .NET Framework 4.5
- Microsoft WSE 3.0 Runtime

To configure Verint Impact 360 for Workforce Management integration

1. On your **Enterprise Server**, create a .zip file of the following folder:
   “<drive>:\Program Files (x86)\\Mitel\MiContact Center\Services\WFM
2. On your Impact 360 server, locate the prairieFyre plugins folder.

   By default, this folder can be found at C:\Program Files\Verint Systems\Integration Server\Plugins\PrairieFyre.
3. Extract the contents of your .zip file to the prairieFyre plugins folder.
4. In the prairieFyre plugins folder, locate **prairieFyre.WFM.Controller.Impact360.RealTime.exe.config** and open it in an editor.
5. After **EnterpriseServerIP**, enter the IP of the Enterprise Server.
6. After **BPFXServer**, enter the name of Impact 360 server.
7. After **BPFXDesc**, enter the name configured for the adapter in Impact 360.
8. Save and close the editor.
9. In the Registry Editor on the Impact 360 server and add the following Registry entry:

   [HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\prairieFyre Software Inc\CCM\Enterprise\WFM]
   "LogName"="WFMRealTime"
   "LogLevel"="3"

Setting up MiVoice Border Gateway on the Mitel Application Server

MiVoice Border Gateway enables MiContact Center Business applications to run from any remote computer, without the use of a Virtual Private Network (VPN). This solution offers the same trusted characteristics as with standard MiVoice Border Gateway deployments (with a hard phone set): local streaming, secure RTP, jitter buffering and packet handling QoS, and G.729 and G.711 encoding.

For instructions on configuring MiVoice Border Gateway on the Mitel Application Server for MiContact Center Business, see the MiVoice Border Gateway documentation.

NOTE: The MiContact Center Business MiVoice Border Gateway Connector does not support TLS 1.2+ as the SSL Ciphers setting in MiVoice Border Gateway.

Configuring Microsoft Dynamics CRM Connector

Mitel® Microsoft Dynamics CRM Connector delivers real-time customer data to employee desktops as calls arrive with Contact Center Screen Pop. With critical customer information at hand, employees can reduce call response and duration times. By streamlining business processes, contact centers of any size can improve efficiency, increase revenues, and boost customer satisfaction.

NOTE: http://crm.dynamics.com/

- Microsoft Dynamics CRM Connector is a Mitel MiContact Center Consulting and Integration Services offering provided through Mitel Networks. You must contact micc_customdevelopment@mitel.com in order to receive the installation files for this product. You must include your site ID when contacting MiContact Center Consulting and Integration Services.
- Microsoft Dynamics CRM Connector functionality requires you to be licensed for Contact Center PhoneSet Manager, Contact Center Screen Pop and IVR Routing with Collected Digits (to screen pop based on Verified Collected Digits)

Please refer to the *MiContact Center Business and MiVoice Analytics System Engineering Guide* for a list of supported Microsoft CRM versions.

For details on Microsoft Dynamics CRM features and functionality and user documentation, see https://www.crmdynamics.com/.

Configuring Microsoft Dynamics CRM Connector

To configure Microsoft Dynamics CRM Connector, you must

- Specify CRM server settings
  See *"Specifying CRM server settings"*.
- Create search masks
  See *"Creating a search mask"*.
- Specify search fields
  See *"Specifying search fields"*.

Once you have completed specifying the CRM server settings, creating search masks, and specifying your search fields, you can then start specifying custom URLs and creating CRM screen pops. See *"Create a Custom URL"* and *"Creating a CRM screen pop"*.

Specifying CRM server settings

To specify CRM server settings

1. In YourSite Explorer, under **Enterprise**, click **Proserv Plugins**.
2. Click **Microsoft CRM**.
3. Click the **CRM Server Settings** tab.
4. In the **Server Domain** text box, enter the name of the domain on which the CRM server resides.

   This is only required for On Premise installations of Microsoft CRM.
5. In the **Server Address** text box, enter the address used to browse to the CRM server. For example, http://appserver:1010/orgName/.

   Ensure the organization name in Microsoft CRM is specified in the URL unless you have multiple organizations and wish to screen pop on different ones.
   Web Service Address and Meta Data Address are static and pre-configured.
6. In the **UserName** text box, type the name used to connect to the CRM server. For internet-facing deployments of Microsoft CRM you must specify the domain and username (Example: user@domain.com)

   CAUTION: Passwords cannot be changed.
7. In the **Password** text box, type the password used to connect to the CRM server.
8. Select the **This is a Cloud Instance** check box if the CRM instance is a Windows Live ID cloud instance.
9. Select the **This is an IFD Instance** check box if the CRM instance is an internet-facing deployment.
10. Click **Save** changes.

Creating and editing search masks

Search masks are used to identify the way phone numbers are configured in your CRM database and ensure that Microsoft Dynamics CRM Connector will display screen pops for each type of phone number configuration in your database.

Creating a search mask

To create a search mask

1. In YourSite Explorer, under **Enterprise**, click **Proserv Plugins**.
2. Click **Microsoft CRM**.
3. Click the **Search Masks** tab.
4. In the **Pattern** text box, enter number signs (#) to type the pattern of the phone number configured in your CRM database that you will use to display screen pops.

   For example, if the phone numbers configured in your CRM database follow the patterns 1234567 and (123)456-7890, you would create two search masks: ####### and (###)###-####.
5. If you want the search mask to be active so screen pops will immediately display based on the search mask, select the **Enabled** check box.

   If the search mask is not enabled, screen pops will not display based on the configured search mask pattern.

6. Click **Insert**.

Editing a search mask

To edit a search mask

1. In the **Search Masks** tab, click **Edit**.
2. Enter number signs to type the new pattern and/or select (or deselect if it has been selected) the **Enabled** check box if you want to change whether the search mask is or is not active so screen pops immediately display based on the search mask.
3. Click **Update**.

Deleting a search mask

To delete a search mask

- Click Delete beside the search mask.

Specifying search fields

Search fields are used to specify the CRM entity that will screen pop based on the search masks you have created for contact phone numbers. You can screen pop CRM based on the following entities: Lead, Account, Case, Contact, and Opportunity.

Creating a search field

To create a search field

1. In YourSite Explorer, under **Enterprise**, click **Proserv Plugins**.
2. Click **Microsoft CRM**.
3. Click the **Search Fields** tab.
4. Select the CRM entity to screen pop from the **Entity** drop-down list.
5. In the **Display Name** text box, enter a name in the Display Name field for the search field.

   NOTE: The display name must be unique.
6. Enter a name in the **Schema Name** text box.

   NOTE: The schema name must be unique.
7. Click **Insert**.

Editing a search field

To edit a search field

1. In the Search Fields tab, click **Edit**.
2. Enter the new Display Name and/or Scheme Name.
3. Click **Update**.

   The search field will save your changes.

Deleting a search field

To delete a search field

- Click **Delete** beside the search field.

Specifying Custom URLs

Custom URLs are used to specify an external web page to pop instead of the stock Microsoft CRM URLs. This enables you to pop a completely different web application when searching and/or finding Microsoft CRM for entities. You can specify a custom URL for the following scenarios:

- When no entity is found
- When one entity is found
- When multiple entities are found

The URL can also be configured to pass the variable it search on (ANI or Collected Digits) as well as the entity ID that it found. The entity ID option to pass is only populated when one entity is found.

Creating a Custom URL

To create a search field

1. In YourSite Explorer, under **Enterprise**, click **Proserv Plugins**.
2. Click **Microsoft CRM**.
3. Click the **Custom URLs** tab.
4. In the **Name** text box enter a unique name for the URL.
5. In the **URL** text box, enter a URL that you wish to launch (Example: http://Example.com).

   NOTE: You can pass some parameters to this URL by specifying the following variables: {0} will pass the screen pop variable you used to search (ANI or Collected Digits, {1} will pass the entity id of a found entity (this will only pass a value if one entity is found).

   An example URL with parameters is as follows: http://Example.com?phone={0}&foundentity={1}
6. Click **Submit**.

Editing a Custom URL

To edit a search field

1. In the **Custom URLs** tab, click **Edit** next to an existing custom URL.
2. Enter the new Name and/or URL.
3. Click **Update**.

CRM screen pops

Once you have specified your CRM server settings, created search masks, and specified search fields, you can create a CRM screen pop that will display customer information to your contact center agents as calls come in. For each screen pop, you can create sub queries, which enable your screen pops to search other CRM entities if the primary entity cannot be located.

Creating a CRM screen pop

To create a CRM screen pop

1. In YourSite Explorer, under **Enterprise**, click **Proserv Plugins**.
2. Click **Microsoft CRM**.

3. Click the **Current Configurations** tab.
4. Click **Create Screen Pop**.

   The Screen Pop Wizard opens.
5. Type a name and description for the screen pop.
6. If you have multiple organizations in your Microsoft CRM instance and are creating multiple screen pops between different organizations, type the organization name in the **MSCRM Organization** text box.
7. Click **Next**.
8. Specify the parameter to use in the screen pop.
9. Click **Next**.
10. Specify whether you will screen pop on ACD calls or non ACD calls and select the queues that will be associated with this screen pop by selecting the queues from the **Available queue(s)** list and clicking **>** or **>>** to move them to the **Selected queue(s)** list.
11. Click **Next**.
12. After **Entity**, select the CRM entity field to search and then specify the search fields used to perform the search.
13. Click **Next**.
14. After **Entity**, select the CRM entity to screen pop. If you created a custom URL, select **Custom URL** in the **Entity** list and then specify the URL from the URL if **One Result Found** list. Optionally, you can select a custom URL if multiple results are found from the **URL if Multiple Results Found** list.
15. Click **Next**.
16. Select the search masks that will be associated to this screen pop by selecting the search masks from the Available search mask(s) list and clicking > or >> to move them to the Selected search mask(s) list.
17. Click **Next**.
18. Select the action to take when no CRM record is found based on your search criteria. If you created a custom URL select **Custom URL** in the Entity list and then specify the URL from the **Select Custom URL** list.
19. Optionally, to have the default action always create a screen pop, enable the **Always Pop Default Action** check box.
20. Optionally, to create a phone activity for each time a screen pop displays, select the **Enable Phone Activity** check box.
21. If you want this screen pop to be active immediately, select the **Enable Screen Pop** check box.
22. Click **Next**.
23. Click **Finish**.

Editing a CRM screen pop

To edit a CRM screen pop

1. Click **Edit**.
   The Screen Pop Wizard opens.
2. Specify the CRM screen pop options as required.
3. Click **Finish** when you reach the final page of the Screen Pop Wizard.

Deleting a CRM screen pop

To delete a CRM screen pop

1. Click **Delete** beside the screen pop you want to delete.
   A confirmation message appears.
2. Click **OK**.

Sub queries

Sub queries enable your CRM screen pops to search for another CRM entity if the screen pop fails to locate the primary entity. If you had a CRM screen pop set up to find an account based on ANI, you could then create a sub query on that account screen pop to search Contact on that same ANI in case an Account entity is not found.

Creating a sub query

To create a sub query

1. Click the **Current Configurations** tab.
2. Click **Sub Queries** beside the screen pop to which you want to add a sub query.
3. Click **Create New Query**.

   The Screen Pop Wizard opens.
4. Type a name and description for the screen pop.
5. If you have multiple organizations in your Microsoft CRM instance and are creating multiple screen pops between different organizations, type the organization name in the **MSCRM Organization** text box.
6. Click **Next**.
7. Beside **Entity**, select the CRM entity field to search and then specify the search fields used to perform the search.
8. Click **Next**.
9. Beside **Entity**, select the CRM entity to screen pop. If you created a custom URL please select **Custom URL** in the **Entity** list and then specify the URL from the **URL if One Result Found** list. You may also select a custom URL if multiple results are found from the **URL if Multiple Results Found** list.
10. Click **Next**.
11. Select the search masks that will be associated to this screen pop by selecting the search masks from the **Available search mask(s)** list and clicking **>** or **>>** to move them to the **Selected search mask(s)** list.

12. Click **Next**.
13. If you want this screen pop to be active immediately, select the **Enable Screen Pop** check box.
14. Click **Next**.
15. Click **Finish**.

Editing a sub query

To edit a sub query

1. Click **Edit**.
   The Screen Pop Wizard opens.
2. Specify the CRM screen pop options as required.
3. Click **Finish** when you reach the final page of the Screen Pop Wizard.

Deleting a sub query

To delete a sub query

1. Click **Delete** beside the screen pop you want to delete.
   A confirmation message appears.
2. Click **OK**.

Installing the Microsoft Dynamics CRM Connector plugin

In order for agents to receive screen pops, they must have the client-side portion of the Microsoft Dynamics CRM Connector. This client-side portion of Microsoft Dynamics CRM Connector is a plugin (Add-on) to Contact Center Client and PhoneSet Manager. This plugin can be pushed out automatically to all Contact Center Client installations or installed manually on individual machines.

To install Microsoft Dynamics CRM Connector plugin automatically

1. On the MiContact Center Business Server, copy the **file <drive>:\Program Files\Mitel\MiContact Center\Extensions\Client\CCCPlugin.zip** to the folder **<drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\CcmWeb\applications\ContactCenterClient**.
2. Copy the file **<drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\CcmWeb\applications\CCCPluginsManifest.xml** to the desktop for backup purposes.
3. Copy the file **<drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\CcmWeb\applications\ClientUpdaterManifest.xml** to the desktop for backup purposes.
4. Open the file **<drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\CcmWeb\applications\CCCPluginsManifest.xml** with an editor.
5. Edit any number in the **"manifestId"** variable to be a different number.

   For example,
   manifestId="{c8a55a0f-3213-4fd1-b1cb-eacb89c1335f}"
   could be edited to:
   manifestId="{c9a55a0f-3213-4fd1-b1cb-eacb89c1335f}"
6. Save the file and exit Notepad.
7. After approximately 10 minutes, all Contact Center Client installations should have the Microsoft Dynamics CRM Connector client plugin installed and should be enabled for MS CRM screen pops.

To install Microsoft Dynamics CRM Connector client-side plugin manually

1. On the MiContact Center Business server, copy the folder **<drive>:\Program Files (x86)\Mitel\MiContact Center\Applications\ContactCenterClient\Plugins** to a central location that client machines can access such as a network share, USB key, etc.
2. On the client machine, copy the plugins folder from the central location to the folder **<<drive>:\Program Files (x86)\Mitel\MiContact Center\Applications\ContactCenterClient**. The plugin is now installed and the client machine is enabled for MS CRM screen pops.
3. Repeat step 2 for every machine you wish to enable for MS CRM screen pops.

Converting MiCC Office data

The MiCC Office Data Import Tool enables customers with historical MiCC Office data (collected using either a 5000 or 3300 media server) to convert their data when migrating to Mi Contact Center Business. The import tool is designed to process data from either Access or DB2 databases. Telephone system information, such as agents and extensions, will be imported and all historic records will be converted into ACD and SMDR files. A historical media server will be created, allowing you to retain data for reporting purposes.

Historical media servers enable

- Historical reporting for queues, agents, and extensions
- Forecasting
- ACD and SMDR Inspector functionality
- Auditor functionality

MiCC Office summary-based options, such as service level and spectrum values, can be modified in YourSite Explorer. Summarize is performed on an on-demand basis from Management Console in Contact Center Client. Historical media servers have no real-time functionality. All devices associated with historical media servers are historical by default and cannot be edited or used to collect any new data.

NOTE:

- If the MiCC Office server that houses the DB2 database is offline or not accessible through the network, you must install and configure a DB2 Server on the host machine. After installing the DB2 Server, restore the DB2 databases onto this server. You will access the databases here using the import tool.
- For Access databases, the import tool requires the following files: System.mdw, config.mdb, and one or any combination of the following: Ha<MMYYYY>.mdb, Hc<MMYYYY>.mdb, Haday.mdb, Hcday.mdb, Hamonth.mdb, Hcmonth.mdb. For Version 4.11 or earlier, select cvgwcfg.mdb instead of config.mdb.
- You should run, save, and store a copy of your MiCC Office reports before decommissioning your MiCC Office server.
- Hunt groups and extensions in MiCC Office convert into paths, agent groups, and agents when migrating to MiContact Center Business.

To convert MiCC Office data

1. If you are converting a DB2 database, you must first install the IBM utility called IBM Data Server Client. It is available for download from https://www.ibm.com/.
2. Open the MiCC Office Data Import Tool, located in **<installation drive>:\Program Files (x86)\Mitel\MiContact Center\Applications\Intertel Import Tool\IntertelDatabaseMigrationTool**.

3. **Under Database Source**, select either **Microsoft Access** or **DB2**.
4. If DB2 is selected, in the MiCC Office Database text field, type the IP address of the machine where the DB2 database resides and the name of the DB2 database using the following format: <IP Address>\<Database Name>, and enter the login credentials of a DB2 Administrator on the host machine.
5. If Microsoft Access is selected, after **MiCC Office Database**, click **Browse** and browse to the location of the files to import/convert.
6. Click **OK**.
7. After **Start Date**, select the start date for the data you want to import.
8. After **End Date**, select the end date for the data you want to import.

   The Detected MiCC Office Version will update based on the version you are running.
9. If you want to retain historic MiCC Office data for reporting purposes, ensure the **Create historic media server** check box is selected.

   This option is selected by default. The files will be imported into <installation drive>:\Program Files (x86)\Mitel\MiContact Center\DataDirectory. You can optionally choose to import the files to an alternate location, and not create a historical media server, by selecting the Target for Import check box. See step 11.
10. If you have multiple, interconnected 5000 media servers that are configured through a CT Gateway, select the **Synchronized system uses CT Gateway** check box.

    NOTE: If the Create historic media server check box is enabled, the Synchronized system uses CT Gateway option will be disabled.
11. If you want to summarize the data immediately after the conversion, **select the Summarize** on completion check box.

    This option is selected by default.
12. Optionally, to generate data files without creating a media server in the database, beside the **Target for Import** field, click **Browse**, and select a location to which you want to import the data.

    The Target for Import option is not available if you selected the Create historic media server check box.
13. Click **Import**.

Configuring WallBoarder

The WallBoarder application displays real-time performance statistics and text messages on one or more Spectrum Light Emitting Diode (LED) reader boards (wall signs).

WallBoarder parameters

WallBoarder consists of site(s), sign groups, signs, sign variables, sign messages, and sign plans.

Site

At the Site level, you

- Add sign groups to your site by clicking Add > Sign group.
- Specify the name of the computer on which the MiContact Center Wallboard Service is installed on the Edit WallBoarder Service for tab.
- Enable priority messages on the Priority message tab.
- View communications between the MiContact Center Enterprise Service and the MiContact Center Wallboard Service on the Database load log tab.
- Verify the serial addresses of your wall signs on the Query signs tab.
- Add sign variables to your site by clicking Add > Sign variable.
- Add sign messages to your site by clicking Add > Sign message.
- Add sign plans to your site by clicking Add > Sign plan.

Edit WallBoarder Service for tab

The Edit WallBoarder Service for tab provides the following function:

- *The WallBoarder Service is installed on the following computer* specifies the computer on which the MiContact Center Wallboard Service is installed.

Priority message tab

NOTE:

- You create priority messages on the Add sign message tab.
- Priority messages override all of the other messages.

The Priority message tab provides the following function:

- *Enable this priority message for this sign group immediately* sends a message to all of the wall signs in the sign group immediately, overriding any business hour, or scheduled messages.

Database load log tab

Under Diagnostics, the Database load log tab records communications between the MiContact Center Data Collection Service and the MiContact Center Wallboard Service, and indicates if the MiContact Center Wallboard Service has loaded the sign plan configured by the MiContact Center Business user.

Query signs tab

Under Diagnostics, the Query signs tab lists the wall signs the MiContact Center Wallboard Service can locate, and information relating to these signs. It displays the serial addresses of the wall signs. This can come in handy.

For example, you have connected a wall sign to Com port 3, have configured the sign and specified the com port value in WallBoarder, and have reset the wall sign, but it does not display the messages in the sign plan. Most likely, the serial address of the sign is not the same as that configured in WallBoarder. The Query signs tab displays the true serial address of the wall sign. You can easily verify the address and amend the address on the Edit sign tab for the sign.

Sign groups

NOTE: You must create at least one sign group in order to register wall sign addresses. You can include all of the wall signs under one sign group, or create additional sign groups. Sign groups dictate which messages are displayed by particular wall signs.

At the Sign group level, you can

- Edit sign groups on the Edit sign group tab.
- Define the wall sign refresh interval and reset wall signs on the Advanced tab.
- Add signs to your sign groups by clicking > AddSign.

Sign addresses distinguish wall signs for messaging purposes. Each wall sign has a unique sign address. You add one or more signs to a sign group. For example, you could add Wall sign 1 to Sign group 1, and Wall signs 2 to 4 to Sign group 2. You associate each sign group with a sign plan. Using sign groups and sign plans you can display the same message on one or more wall signs, or display unique messages on all wall signs.

Edit sign group tab

The Edit sign group tab provides the following functions:

- *Name* lists the name of the sign group.
- *Site* is the contact center site where WallBoarder is installed.

Advanced tab

The Advanced tab provides the following functions:

Reinitialize all of the wall signs every x seconds

The Reinitialize all of the wall signs every x seconds field restarts all of the wall signs in the sign group (clearing all of the sign memory) at the time interval you specify.

Refresh all of the sign messages every x seconds

The Refresh all of the sign messages every x seconds field resends all of the messages to all of the wall signs in the sign group at the time interval you specify. If you see question marks [???] instead of statistics on a wall sign, this means the MiContact Center Enterprise Service does not have a value for the variable. There are two reasons why the MiContact Center Enterprise Service does not have a value for the variable: it is in the process of loading the variable or the telephone system has not sent any real-time information yet.

Refresh all of the ACD sign variables every x seconds

The Refresh all of the ACD sign variables every x seconds field updates all of the variables on all of the wall signs in the sign group at the time interval you specify.

Update wall signs in serial for sign messages

The Update wall signs in serial for sign messages check box updates the wall signs in a sign group individually for sign messages, at the refresh time interval you specify.

Update wall signs in serial for sign variables

The Update wall signs in serial for sign variables check box updates the wall signs in the sign group individually for sign variables, at the refresh time interval you specify.

Minimum pause time between wall sign updates is x seconds

After WallBoarder sends a message or variable update to a wall sign, the Minimum pause time between wall sign updates is x seconds field suspends the transmission of subsequent information to the wall sign for x seconds. Typically you select a value greater than zero only if you have a small Spectrum reader board, such as the 251C reader board.

Minimum display time for a message is x seconds

After WallBoarder sends a message to a wall sign, the Minimum display time for a message is x seconds field displays the message for a minimum of x seconds. This ensures you can view the message for a sufficient amount of time before a subsequent message displays.

Minimum pause time after beep is sent is x seconds

If you select the Beep check box on the Add sign plan tab, the wall sign produces an audible beep prior to displaying each message. It takes a few seconds for the beep to occur. Therefore, the wall sign is delayed in receiving messages by a few seconds.

The Minimum pause time after beep is sent is x seconds field suspends the transmission of messages to the wall sign for x seconds, to accommodate the beep.

Reinitialize all of the wall signs in this sign group

The Reinitialize all of the wall signs in this sign group command restarts all of the wall signs in the sign group instantly, clearing all of the sign memory.

Apply to all of the sign groups at this site

The Apply to all of the sign groups at this site command applies the configuration values on the Advanced tab to all of the sign groups at the site.

Signs

At the Sign level, you

- Configure sign information on the Add sign tab.
- Configure sign connectivity information on the Connectivity tab.
- Reset the wall sign and send a test message to the wall sign on the Tools tab.
- Add signs to your sign groups by clicking Add > Sign.

Diagnostics

Under Diagnostics, the following tabs list information pertaining to wall sign function and are used for trouble shooting purposes:

- General
- Properties
- Tool tab
- Error reporting
- Current message tabs

Tools tab

Under Diagnostics, the Tools tab displays wall sign settings and provides the following functions:

- *Reset sign* restarts the wall sign and empties the sign memory.
- *Get status* displays the latest sign diagnostics.
- *Send test message* sends a message to the wall sign to test the connectivity.

Sign messages

At the Sign message level, you

- Compose, test, and save message strings displayed on wall signs on the Add sign message tab
  Message strings indicate to the wall sign how messages are displayed. They are constructed of

  - Text
  - Queue and queue group performance variables (Variables)
  - Display characteristics (Position, Color, Effects, Special, and Miscellaneous)

- Add sign messages to your site by clicking Add.

Add sign tab

The Add sign tab provides the following functions:

Name

The Name field specifies the name of the sign.

Sign address

The Sign address field specifies the address of the wall sign. Each wall sign has a unique address. You use a keypad provided with the master sign to set the internal addresses of your signs. The addresses distinguish wall signs for messaging purposes. If you have one wall sign only, its address is 00. If you have more than one wall sign, then the address of the master sign is 01.

NOTE: When you assign serial addresses to your Spectrum wall signs using remote or software spectrum tools, you must specify sign addresses greater than 9 as hexadecimal variants. For example, the following decimals are converted to hexadecimal: 10 = a, 11 = b, 12 = c, 13 = d, 14 = e, 15 = f.

Sign group

The Sign group field specifies the sign group to which the sign belongs.

Connectivity tab

NOTE: The default data bits, parity bit, and stop bits Com port settings for newer Spectrum IP/Serial wall signs are 8, None, 1. In the past, the default Com port settings were: 7, Even, 2. If you select one set of Com port values and the wall sign does not display information, try selecting the other set of Com port values, or refer to the Spectrum documentation to verify the correct default Com port settings.

The Connectivity tab provides the following functions:

- *Com port or TCP/IP* specifies the sign connectivity. The default value for Com port is 1.
- The default value for Baud rate is 9600.
- The default value for Data bits is 8.
- The default value for Parity bit is None.
- The default value for Stop bits is 1.
- *TCP* specifies the TCP/IP address of the wall sign.
- *DNS* specifies the name you assigned the wall sign on the network.
- *Port* specifies the port number used by the wall sign.
- *Sign memory* specifies the memory capacity of the sign (typically 32k).
- *Reset this wall sign when it does not respond and at midnight* resets the wall sign. When the MiContact Center Wallboard Service restarts, it queries the wall sign for the information listed on the sign Diagnostics tabs. If it does not get an answer, it resets the wall sign.

Add sign message tab

The Add message tab provides the following functions:

- *Name* specifies the name of the message.
- *Site* is the contact center site where WallBoarder is installed.

- *Test message* sends the message to the wall sign so you can verify it works.

Variables

You associate a queue, queue group, or agent group, and a performance variable with the sign variable on the Variable tab. You specify display characteristics and color-coded alarm thresholds. When you incorporate a sign variable, such as Sign Variable 6, in a message string, the real-time value of the associated performance variable is displayed.

Position

The Position tab specifies the vertical position of the message string on the wall sign. If you do not specify the text position, the wall sign defaults to the fill mode. The message enters the wall sign from the upper left corner and scrolls to fill up to three rows of text. If you specify the text position, do so before you set other display features.

Color

The Color tab specifies the color of the text you type in the message string, and the color of any pre-defined text and graphics you select on the Special tab. You can specify different colors for each word in the text string. If you specify text coloring, do so after specifying text positioning, but prior to specifying other display features. Some Spectrum signs offer more color choices than other Spectrum signs. Please refer to the Spectrum product brochure for more information.

Effect

The Effects tab specifies how messages move across wall signs. If you do not specify effects, the wall sign defaults to the Automode option. Automode produces random message display formats, such as message strings that flash or roll to the left.

Special

The Special tab provides display features and illustrations you can add to message strings.

Misc

The Misc (Miscellaneous) tab specifies the speed at which WallBoarder displays message strings, the size of message string text, the display time and date, and other features.

Sign variables

At the Sign variable level, you

- Associate a queue or queue group, and a performance variable with the sign variable on the Add sign variable tab.
- Define and save display characteristics for sign variables on the Advanced tab.
- Add sign variables to your site by clicking Add.

Add sign variable tab

The Add sign variable tab provides the following functions:

- *Name* specifies the name of the sign variable.
- *Site* is the contact center site where WallBoarder is installed.
- *Select a device type group* specifies the device type (queue or queue group) you will associate with the sign variable.
- *Select a device* specifies the device you will associate with the sign variable (for example, Queue Group 1).

- *Select a variable type* specifies the performance variable you will associate with the sign variable (for example, Agents on ACD).

Advanced tab

The Advanced tab provides the following functions:

- *Select display options for this variable* specifies the number of characters reserved for a performance variable in the message string. It centers, left-justifies, or right-justifies the performance variable within the variable string position.
- *Enable variable color based on these thresholds* defines color-coded alarms for performance thresholds for the variable.

Sign plans

The MiContact Center Wallboard Service displays messages in the following order:

1. Priority messages
2. Business-hour messages
3. Scheduled messages
4. Sign plan messages
5. Default sign plan message

At the Sign plan level, you

- Create a sign plan.
- Associate the sign plan with a sign group.
- Specify up to five statements (conditions) for the sign plan on the Add sign plan tab.
- Specify the hours of operation for your business on the Business hours tab.
- Schedule messages to be displayed on the Scheduled messages tab.

When you configure a sign plan, you can configure up to five messages for a sign group. The conditions, or values, of variables dictate which message strings WallBoarder displays, and the priority in which WallBoarder displays them. If none of the conditions are satisfied, WallBoarder displays the default message on all of the wall signs. The default message can be a message congratulating agents, or informing them of an upcoming meeting or other need-to-know information.

Add sign plan tab

The Add sign plan tab provides the following functions:

- *Name* specifies the name of the sign plan.
- *Sign group* specifies the sign group to which the sign plan applies.
- *If* check boxes activate conditional messages. You can specify up to five statements (conditions). Conditions dictate which message strings WallBoarder displays, and the priority in which WallBoarder displays them.
- *Sign variable* specifies the sign variable to display for the current (active) condition.
- *Evaluates to* specifies the value, above or below which, WallBoarder displays the message string associated with the sign variable for the current condition.
- *Play message* specifies the sign message to display for the current (active) condition.

- *Beep* programs the wall sign to produce an audible beep prior to displaying a message for a satisfied condition.
- *Default message to play if no variables have triggered a message to play* specifies a default message to display on the wall sign. WallBoarder displays the message during periods when the defined conditions ('If' statements) are not satisfied for the sign group. That is, when call center performance objectives are being met.

Business hours tab

The Business hours tab provides the following functions:

- *Outside business hours display this message* specifies which message is displayed on the wall signs after business hours.
- *Business-hours schedule for this sign plan* specifies the hours of the day for the sign plan
- *Apply this business-hours schedule to all of the sign plans at this site* applies the schedule to all of the sign plans at your contact center site.

The Scheduled messages tab provides the following function:

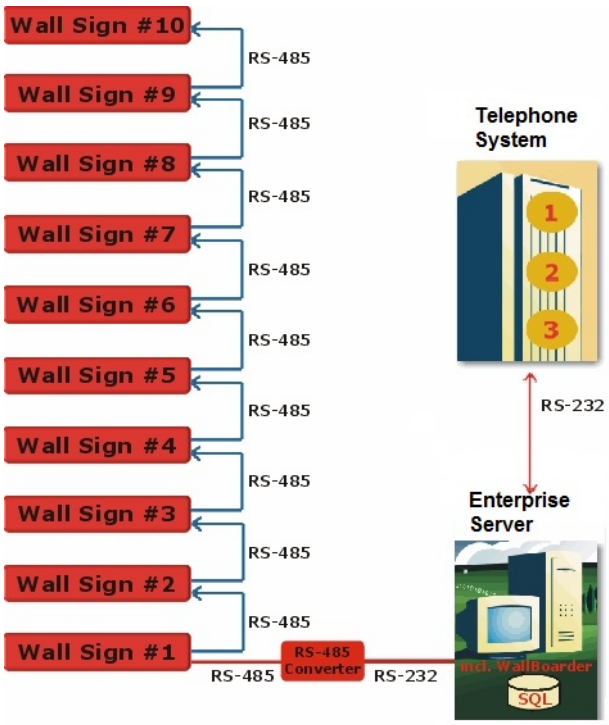
- *Play this message during these hours* specifies the message to be displayed and the schedule for displaying the message.

NOTE: You create schedules under YourSite>Schedule.

Connecting Spectrum wall signs

If you have multiple wall signs, you can daisy chain the wall signs together. The following figure illustrates the connectivity between the Enterprise Server and the master sign (Wall sign 1). The Enterprise Server connects to the master sign over an RS-232 25-pin cable, an RS-485 converter, and RS-485 RJ-11 cabling. The master sign connects to slave signs over RS-485 cabling. In this setup, one Enterprise Server com port is dedicated to your wall signs.

Figure 7.9: Setting up Spectrum wall signs



If you do not want to dedicate an Enterprise Server com port to your wall signs (or you simply need another computer to connect to a wall sign), you can hook up your wall sign(s) to a client computer. In CCMWeb, hover over Help and select Software downloads/Installations > Remote Server Pack to install a remote media server (data collection point) on a client computer. The computer connects to the master wall sign over an RS-232 25-pin cable, an RS-485 converter, and RS-485 RJ-11 cabling, as in the proceeding setup. In this setup, one client computer com port is dedicated to your wall sign(s).

The new Spectrum IP wall signs plug into a network jack on the wall, just like your network printer.

Each wall sign has a unique sign address. You add one or more signs to a sign group. For example, you could add Wall sign 1 to Sign group 1, and Wall signs 2 to 4 to Sign group 2. Keep in mind that all of the signs in the same sign group, display the same messages. You associate each sign group with a sign plan. Using sign groups and sign plans, you can display the same message on one or more wall signs, or display unique messages on all of the wall signs.

Configuring wall signs and wall sign messages

To configure wall signs and wall signs messages

1. For each site, select the computer on which the MiContact Center Wallboard Service is installed. See *"Selecting the computer on which the MiContact Center WallBoard Service is installed"*.
2. Add sign group(s). (In the tree under Site, click Add > Sign group.)

   See *"Creating sign groups"*.
3. Add sign(s) to sign group(s) and send a test message to test the sign connectivity. (In the tree under Sign group, click Add > Sign.)

   See *"Adding signs to sign groups"*.
4. Configure sign variables to use in sign plans. (In the tree under Site, click Add > Sign variable.)

See *"Configuring sign variables"*.

5. Configure sign messages to use in sign plans and test the messages. (In the tree under Site, click Add > Sign message.)

   See *"Configuring sign messages"*.

6. Add and configure a sign plan for each sign group. (In the tree under Site, click Add > Sign plan.)

   See *"Creating sign plans"*.

Optionally, users can

- Activate priority messages
  See *"Activating priority messages"*.
- Schedule messages
  See *"Scheduling messages"*.

Selecting the computer on which the MiContact Center WallBoard Service is installed

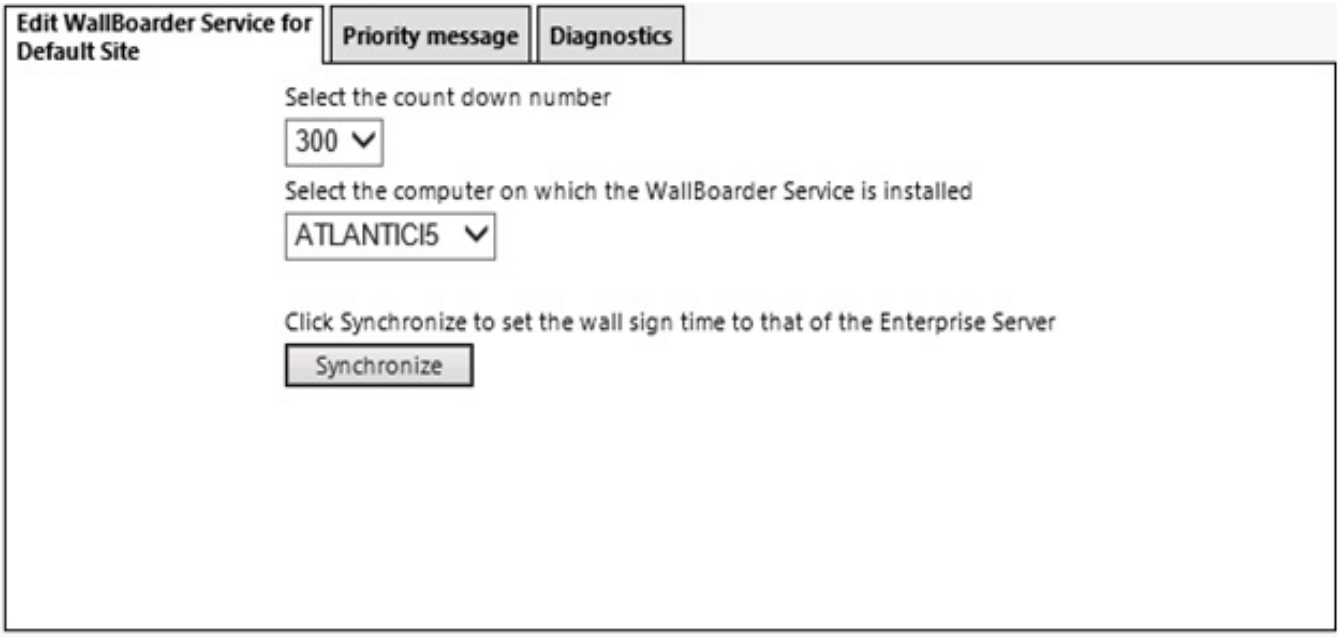
To select the computer on which the MiContact Center WallboardService is installed

1. Under Enterprise, click WallBoarder.
2. Expand the Enterprise tree and click the name of your site.
3. The Edit WallBoarder Service for tab opens.

   See the following figure.

4. Under **Select the count down number**, select the how often the MiContact Center Wallboard Service queries the Wallboard for information.
5. After **The WallBoarder Service is installed on this computer**, select the computer on which the MiContact Center Wallboard Service is installed.
6. Click **Save**.

Figure 7.10: Edit WallBoarder Service for Default Site Demo tab



Creating sign groups

NOTE: You must create at least one sign group in order to register wall sign addresses. You can include all of the wall signs under one sign group or create additional sign groups. Keep in mind that all of the signs in the same sign group display the same messages.

Sign addresses distinguish wall signs for messaging purposes. Each wall sign has a unique address. You set the internal sign addresses using the keypad provided with the master sign and register the sign addresses in WallBoarder on the Edit sign tab.

Each sign group has one or more signs. For example, you can specify that Sign group 1 provide real-time displays for Wall sign 1, Sign group 2 provide real-time displays for Wall signs 2 to 4, and so on. You associate each sign group with a sign plan. Using sign groups and sign plans, you can display the same message on one or more wall signs or display unique messages on all of the wall signs.

Sign groups dictate which messages are displayed by particular wall signs.

Sign groups dictate which messages are displayed by particular wall signs.

To add a sign group and specify sign group information

1. Under **Enterprise**, click **Wallboarder**.
2. Click the name of your site.

   The Edit WallBoarder Service for tab opens.
3. Click **Add > Sign group**. The Add sign group tab opens.

   See the following figure.
4. After **Name**, type the sign group name.
5. After **Site**, select the contact center site where WallBoarder resides.
6. Click the **Advanced** tab.
7. After **Reinitialize all wall signs every**, select a time interval for restarting all of the wall signs in the sign group.
8. After **Refresh all sign messages every**, select a time interval for resending all of the messages to all of the wall signs in the sign group.

   If you see question marks [???] instead of statistics on a wall sign, this means the MiContact Center Enterprise Service does not have a value for the variable. The Enterprise Server does not have a value for the variable because it is in the process of loading the variable, or the telephone system has not sent any real-time information yet.
9. If you are using an older sign and want to send messages to signs in text format rather than binary, select **Send sign messages in uncompressed format**.
10. After **Refresh all ACD sign variables every**, select a time interval for updating all of the variables on all of the wall signs in the sign group.
11. If you are using an older sign and want to send ACD sign variables to signs in text format rather than binary, select **Send sign messages in uncompressed format**.
12. After **Minimum pause time between wall sign updates is**, select a time interval for pausing between wall sign updates.
13. After **Minimum display time for a message is**, select a time interval for displaying a wall sign message.

14. After **Minimum pause time after beep is sent in**, select a time interval for pausing after a beep is sent.
15. If you want to reinitialize all of the wall signs, click **Reinitialize all wall signs in this sign group**.
16. Click **Save**.

To apply a sign group's settings to all sign groups at a single site

1. Under Enterprise, click Wallboarder.
2. Click the name of the site.
3. Click the sign group.
4. Click the **Advanced** tab.
5. Click **Apply to all sign groups at this site**.

Figure 7.11: Add sign group tab

Adding signs to sign groups

NOTE: You can add one or more signs to a sign group. Keep in mind that all of the signs in the same sign group, display the same messages.

To add signs and specify sign information

1. Under **Enterprise**, click **Wallboarder**.
2. Click a site.
3. Click a sign group.
4. Click **Add > Sign**.

   The Add sign tab opens.
5. After **Name**, type the sign name.
6. After **Sign address**, select the address for the sign (for example, type 1).

   You set the internal sign addresses using the keypad provided with the master sign, and register the sign addresses in WallBoarder in the Sign address field.
7. After **Sign group**, select the sign group to which the sign belongs.
8. Click the **Connectivity** tab.

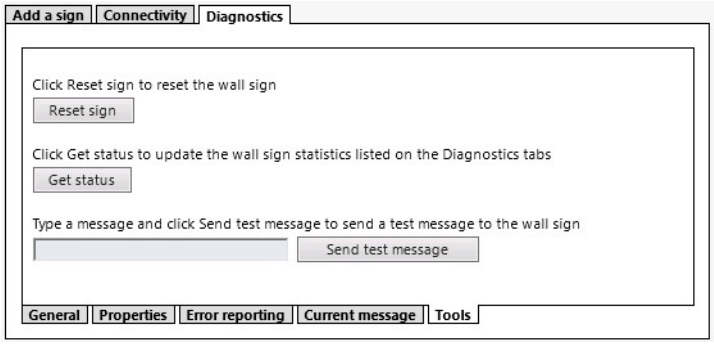
   NOTE: The default data bits, parity bit and stop bits Com port settings for newer Spectrum IP/Serial wall signs are 8, None, 1. In the past, the default Com port settings were: 7, Even, 2. If you select one set of Com port values and the wall sign does display information, try selecting the other set of

Com port values, or refer to the Spectrum documentation to verify the correct default Com port settings.

9. If you click **Com port**, accept the default settings for Com port, baud rate, data bits, parity bit, and stop bits.
10. If you click **TCP/IP**, click **TCP** and specify the TCP/IP address of the wall sign, or click **DNS** and specify the name you assigned the wall sign on the network.
11. If you selected TCP/IP, after **Port**, specify the port number used by the wall sign.
12. After **Sign memory**, select the memory for the sign based on manufacturing specifications.
13. Optionally, select the **Reset this wall sign when it does not respond and at midnight** check box.
14. Click the **Diagnostics** tab.
15. Click the **Tools** tab.

    See the following figure.
16. To restart the wall sign and empty the sign memory, click **Reset** sign.
17. To display the latest sign diagnostics, click **Get status**.
18. To verify the wall sign setup, type a message and click **Send test message**.
19. Click **Add > Sign** and repeat steps 4 to 12 to add additional signs to the sign group.
20. Click **Save**.

Figure 7.12: Diagnostics tab



Configuring sign variables

You define and save display characteristics for sign variables (performance variables associated with a particular queue or queue group) on the Add sign variable tab.

To configure sign variables

1. Under Enterprise, click **Wallboarder**.
2. Click **+**, located beside **local site**.
3. Click **Sign variables**.

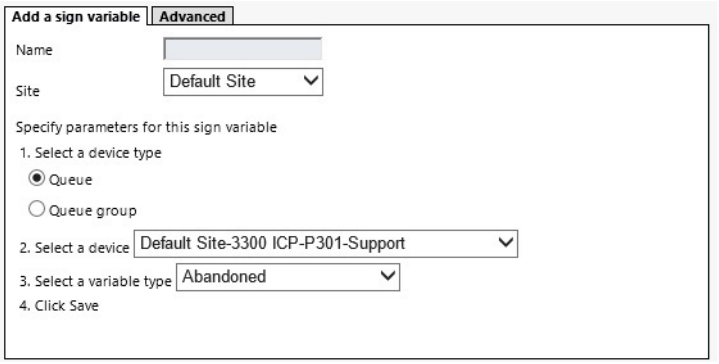
   The Add sign variable tab opens.
   See the following figure.
4. After **Name**, type a meaningful name for the sign variable (for example, type Calls waiting - P800).

The name will display in a list of sign variables on the Message tab.

5. After **Site**, select the contact center site where WallBoarder resides.
6. After **Select a device type**, click a device type.
7. After **Select a device**, select a device.
8. After **Select a variable type**, select a performance variable (for example, select Abandoned).
9. Click the **Advanced** tab.

   NOTE: Some performance variables require a display width of eight characters. For example, WallBoarder displays the Average Speed of Answer Today in hh:mm:ss. If you select a value less than 8 for the width, the at symbol @ will display on the wall sign in place of the Average Speed of Answer Today statistic.
10. After **Select display options for this variable**, click **Left**, **Center**, or **Right** to left-justify, center, or right-justify the performance variable within the variable string position, and accept the default value for the width of displayed characters.
11. After **Width**, select the width of displayed character.
12. To enable different colors to be displayed for different performance thresholds, select **Active**.
13. After **If the value is less than**, specify the threshold and select a color from the drop-down list.
14. If a second threshold is wanted, after the second **If the value is less than**, specify the threshold and select a color from the drop-down list.
15. After **Otherwise use this color**, select a color from the drop-down list for the variable when it is not within the thresholds.
16. Click **Save**.

Figure 7.13: Add sign variable tab



Configuring sign messages

You compose, test, and save message strings displayed on wall signs on the Add sign message tab. Message strings indicate to the wall sign how messages are displayed. They are constructed of performance variables, text, display features, and optionally graphics.

Consider the message strings defined in the following figure. WallBoarder displays the first message string on the top line [PS02-Top Line] of the wall sign. It displays the Long Call Wtg = component of the message string in red [C001-Red]. The message string flashes [MO03-Flash] across the sign at display

speed 2 [MI06-Display Speed 2]. It is comprised of text you type (Long Call Wtg =) and Sign variable 1 [VA01-Calls], that displays the real-time value for the longest waiting caller performance variable. The color of the sign variable statistic changes with the wait time of the longest waiting caller, as per the threshold settings defined on the Variable tab.

To create sign messages

1. Under **Enterprise**, click **Wallboarder**.
2. Select a site.
3. Click **Sign messages**.

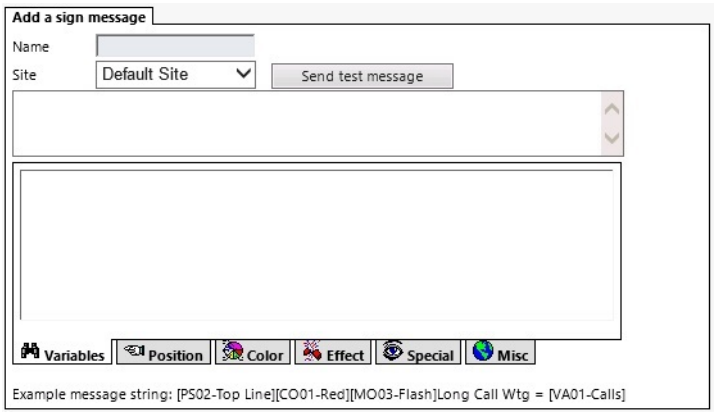
   See the following figure.
4. After **Name**, type the message name.

   The name will display in a list of sign messages on the Plan tab.
5. After **Site**, select the contact center site where WallBoarder resides.

   NOTE: If you do not select display attributes, WallBoarder will post the message using default display attributes.
6. Click the **Position**, **Color**, **Effect**, **Special**, and/or **Misc** tabs and double-click display attributes to select them.
7. Type a message.
8. Click the **Variables** tab and double-click a variable to select it.
9. Click **Send test message**.

   Confirm the message displays on the wall sign correctly.
10. Click **Save**.

Figure 7.14: Add Sign Message tab



Creating sign plans

You associate each sign group with a sign plan. Using sign groups and sign plans, you can display the same message on one or more wall signs, or display unique messages on all of the wall signs. All of the signs in a sign group display the same messages.

If you have two wall signs (that are not daisy chained together) and you want to display the same messages on both signs, you create one sign group, add both signs to it, and associate the sign group

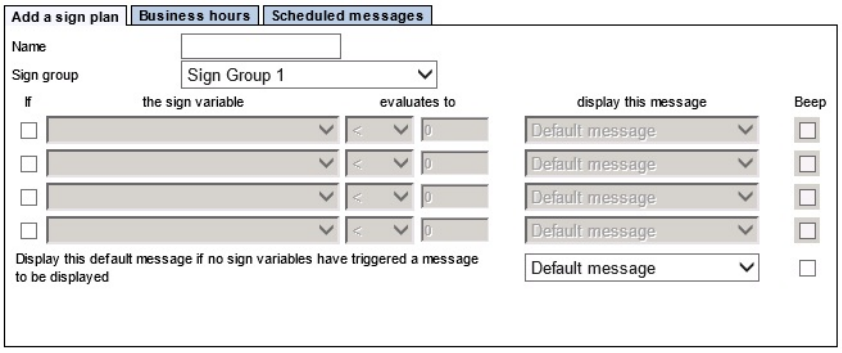
with a sign plan. The serial addresses do not need to be unique in this case, as you are communicating with each sign on a dedicated connection (for example, one sign may be connected to a comport, and the other sign to the network using IP).

You dictate the messages displayed by particular wall signs on the Add sign plan tab. You can specify up to five statements (conditions) using sign groups. Conditions dictate which message strings WallBoarder displays and the priority in which WallBoarder displays them. If none of the conditions are satisfied, WallBoarder displays the default message on all of the wall signs in the sign group. The default message can be a message congratulating agents, or a message informing them of an upcoming meeting or other need-to-know information.

Consider the conditions defined in the following figure:

- The first condition specifies 'If Sign variable 1 (the calls waiting in P800) exceeds 10, play Sign message 01'.
- The second condition specifies 'If Sign variable 2 (the agents logged on to P008) exceeds 45 seconds, play Sign message 02'.
- The third condition specifies 'If Sign variable 3 (the longest waiting caller in P008) drops below 6, play Sign message 03.'

Figure 7.15: Add sign plan tab



Creating sign plans for daisy-chained signs

If your wall signs are daisy chained together and you want to display the same messages on all of the wall signs, you create one sign group, add your signs to it, and associate the sign group with a sign plan. The wall signs share the same com port, but have unique serial addresses.

If your wall signs are daisy chained together and you want to display unique messages on all of the wall signs, you must create one sign group for each sign in the chain, and associate each sign group with a unique sign plan. The wall signs share the same com port, but have unique serial addresses.

To create a sign plan

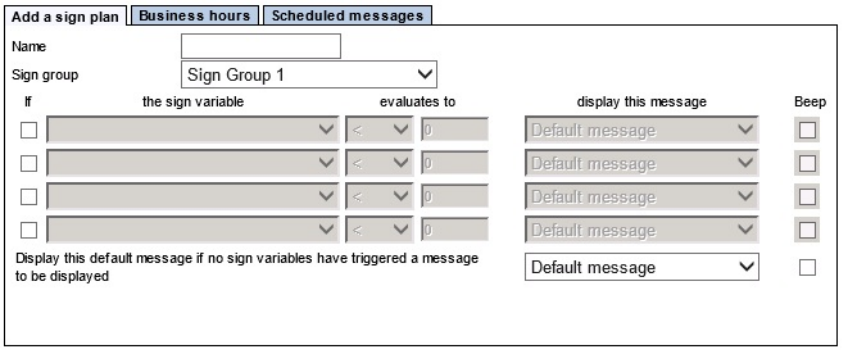
1. Under **Enterprise**, click **Wallboarder**.
2. Select a site.
3. Click **Sign plan**. The Add sign plan tab opens.

   See the following figure.
4. After **Name**, type the plan name.
5. After **Sign group**, select the sign group to which you will apply the sign plan.
6. Select the **If** check box to define the first conditional message for the sign plan.

7. Under **Sign variable**, select a sign variable.
8. Under **Evaluates to**, specify the threshold, above or below which, a sign message is displayed.
9. Under **Play message**, select a sign message.
10. If you want an audible alarm to accompany the message, select **Beep**.
11. If you want additional conditional messages for the sign plan, repeat steps 6-10.
12. Click the **Business hours** tab.
13. After **Outside business hours display this message**, select a message to be displayed on the wall signs after business hours.

    NOTE: Business-hour messages override scheduled messages.
14. After **Business hours schedule for this sign plan**, select a schedule that defines the hours of operation for your business.
15. If you want to apply the schedule to all of the sign plans at your contact center site, select **Apply this business-hour schedule to all of the sign plans at this site**.
16. Click **Save**.

Figure 7.16: Add sign plan tab



Creating sign plans for daisy-chained signs

If your wall signs are daisy chained together and you want to display the same messages on all of the wall signs, you create one sign group, add your signs to it, and associate the sign group with a sign plan. The wall signs share the same com port, but have unique serial addresses.

If your wall signs are daisy chained together and you want to display unique messages on all of the wall signs, you must create one sign group for each sign in the chain, and associate each sign group with a unique sign plan. The wall signs share the same com port, but have unique serial addresses.

To create a sign plan

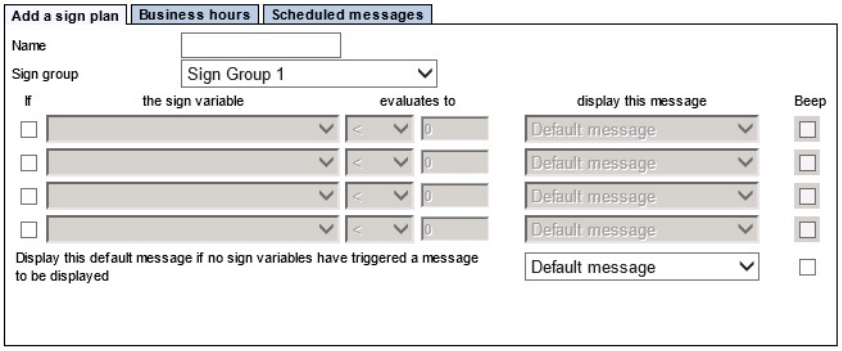
1. Under **Enterprise**, click **Wallboarder**.
2. Select a site.
3. Click **Sign plan**. The Add sign plan tab opens.

   See the following figure.
4. After **Name**, type the plan name.
5. After **Sign group**, select the sign group to which you will apply the sign plan.

6. Select the **If** check box to define the first conditional message for the sign plan.
7. Under **Sign variable**, select a sign variable.
8. Under **Evaluates to**, specify the threshold, above or below which, a sign message is displayed.
9. Under **Play message**, select a sign message.
10. If you want an audible alarm to accompany the message, select **Beep**.
11. If you want additional conditional messages for the sign plan, repeat steps 6-10.
12. Click the **Business hours** tab.
13. After **Outside business hours display this message**, select a message to be displayed on the wall signs after business hours.

    NOTE: Business-hour messages override scheduled messages.
14. After **Business hours schedule for this sign plan**, select a schedule that defines the hours of operation for your business.
15. If you want to apply the schedule to all of the sign plans at your contact center site, select **Apply this business-hour schedule to all of the sign plans at this site**.
16. Click **Save**.

Figure 7.17: Add sign plan tab



Activating priority messages

NOTE:

- You create priority messages on the Add sign message tab.
- Priority messages override all of the other messages.

To activate a priority message

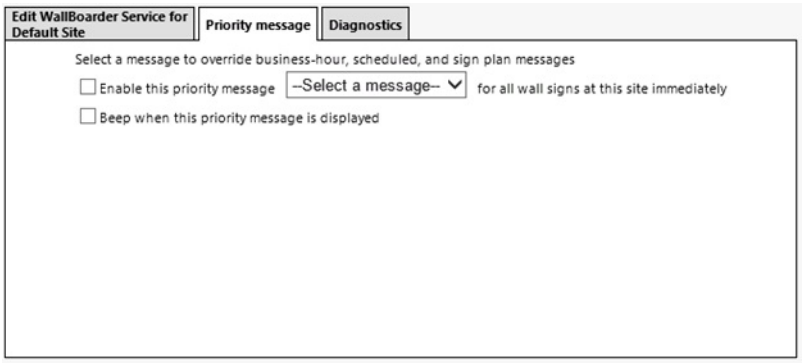
1. Under **Enterprise**, click **Wallboarder**.
2. Select a site.
3. Click the **Priority message** tab.

   See the following figure.

   NOTE: When you enable a priority message, WallBoarder displays the message on all of the wall signs until you manually clear the Enable this priority message check box.

4. To send a priority message, select **Enable this priority** message and select a priority message from the drop-down list to display on all of the wall signs at the site.
5. If you want an audible alarm to accompany the priority message, select **Beep when this priority message is played**.
6. Click **Save**.

Figure 7.18: Priority message tab



Scheduling messages

NOTE:

- You can create schedules under YourSite > Schedule.
- Business-hour messages override scheduled messages.

You can schedule specific messages to play according to schedules.

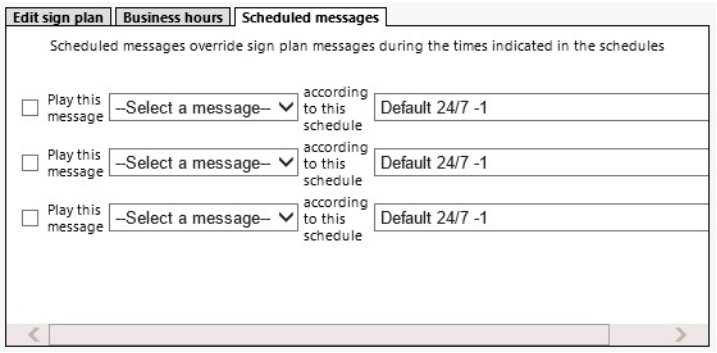
To schedule a message

1. Under **Enterprise**, click **Wallboarder**.
2. Select a site.
3. Select a sign plan.
4. Click the **Scheduled messages** tab.

   See the following figure.
5. Select a check box to activate a schedule.
6. Select **Play this message** to activate the message.

   NOTE: When you enable a scheduled message, WallBoarder displays the message on all of the wall signs in the sign group (associated with the sign plan) until you manually clear the Play this message check box.
7. After **Play this message**, select a message from the drop-down list.
8. After **according to this schedule**, select a schedule.
9. Click **Save**.

Figure 7.19: Scheduled messages tab


Edit sign plan
Business hours
Scheduled messages
Scheduled messages override sign plan messages during the times indicated in the schedules
Play this message
--Select a message--
according to this schedule
Default 24/7 -1
Play this message
--Select a message--
according to this schedule
Default 24/7 -1
Play this message
--Select a message--
according to this schedule
Default 24/7 -1

Services and Database Administration

This section includes a description of how to back up data and of the functions available in Management Console (updating server IP addresses, running the maintenance routine immediately, summarizing data, creating a support package, controlling services, and converting Toolbox data files to Mitel data files). Accessing the diagnostics monitor, for viewing log and error monitors, is also described.

Backing up data

We recommend backing up Enterprise Server data on a regular basis as a preventive measure in case of events that could cause loss of data and necessitate system restoration. The frequency of backups depends on how important the data is to your business. If losing one week of data is acceptable, then backing up once a week is sufficient. If losing more than one day of data is unacceptable, then a daily backup strategy should be implemented.

NOTE: We strongly recommend storing backup files in a location outside of the Enterprise Server in order to maintain essential data in the case of a hardware failure or catastrophic event. We recommend you back up the SQL server data files, YourSite Database configuration data files, and raw telephone system data files to an off-board media type (DVD, CD, tape, alternate network drive).

The data files contained in the following default folders should be backed up using your corporate backup solution. Suggested backup tools include Symantec Backup Exec and Microsoft System Center Data Protection Manager:

- **<drive>:\Program Files (x86)\Mitel\MiContact Center\BackupFiles** - This folder contains the nightly .xml backups of configuration data and IVR Routing and Multimedia Contact Center workflows and prompts that are created during nightly maintenance.
- **<drive>:\Program Files (x86)\Mitel\MiContact Center\DataDirectory** - This folder stores all raw telephone system data from the media servers. Using this data you can re-summarize your raw data to enable reporting. This folder also contains the Multimedia repository for all media, excluding voice.

In the event of server failure, you can restore your company history and configuration with

- A backup copy of .xml files.
- A backup copy of the SQL server data files.
- A backup copy of the YourSite database.
- The raw telephone system data files stored on the local hard drive.

Backing up .xml files

The maintenance routine automatically backs up an .xml file of the YourSite database every night. This backup file is stored in the directory: <drive>:\Program Files (x86)\Mitel\MiContact Center\BackupFiles. The maintenance routine keeps an .xml file for each of the last 30 days maintenance ran.

To back up or restore the .xml files

1. Start **Contact Center Client**.
2. Click **Tools > Management > Configuration**.
3. Click **Back up/Restore configuration data**.

4. Follow the steps in the Backup and Restore Wizard to back up or restore the database.

Backing up raw telephone system data files

To back up raw telephone system data files

1. On the Enterprise Server, right-click **Start > Explore**.
2. Copy the **<drive>:\Program Files (x86)\Mitel\MiContact Center\DataDirectory** folder to the desktop, a network share, or optionally store it on a CD.

Backing up Enterprise Server configuration data

CAUTION: Restoring the YourSite database deletes all of the current database table entries and replaces them with the entries defined at the time of your last database backup. Any changes made to the database in the interim are lost.

Backing up and restoring Enterprise Server configuration data offers protection in case you program the database incorrectly, or a careless user reconfigures it. Mitel recommends you perform this backup weekly, in addition to regular database maintenance. If required, you can later recover the YourSite database data exclusively, rather than restoring the entire SQL database.

NOTE: As a security measure, if backed up data is restored on an Enterprise Server with a different IP address than the Enterprise Server it was backed up on, all mail server incoming and outgoing usernames and passwords will be blank in YourSite Explorer. Administrators must manually re-enter mail server incoming and outgoing usernames and passwords.

To back up or restore the YourSite database

1. Start **Contact Center Client**.
2. Click **Tools > Management > Configuration**.
3. Click **Back up/Restore configuration data**.
4. Follow the steps in the Backup and Restore Wizard to back up or restore the database.

For any additional information, customers can contact their approved vendor. Certified channel technicians can contact Mitel Technical Support.

Backing up SQL Server data files

You back up SQL Server data files to ensure you can replace corrupted or lost data as a result of media problems, user errors, hardware failures, and natural disasters. Please review the Microsoft procedure for creating a recovery model that controls the backup and restores restoration operations for a database.

Understanding SQL Server recovery models

The following section details SQL Server recovery models and how they relate to backups and disk space usage. There are three recovery models available for use with SQL Server:

1. Simple
2. Full
3. Bulk logged

For detailed information on backing up SQL Server through SQL Server Management Studio, see http://msdn.microsoft.com/en-us/library/ms187510.aspx.

For a complete overview of SQL Server recovery models, see https://msdn.microsoft.com/en-us/library/ms175987(v=sql.105).aspx

By default, SQL Server Express uses the Simple recovery model. Retail versions of SQL Server use the Full recovery model. There are two things you must consider when deciding which recovery model to use:

1. The importance of the data being stored in the SQL Server database.
2. The amount of disk space used by the transaction log file.

The only way to recover a SQL Server database is to restore it from a SQL Server backup. The type of recovery model you use impacts the ability to restore the database.

The Simple recovery model is recommended for customers who do not have an IT department upon which to rely for regular backups and who believe the summarization process is sufficient to re-generate historical data. There are several things that should be considered when using the Simple recovery model:

- The log file does not continually grow and is truncated each time a successful transaction is completed.
- When the log file is 80% full, the log will automatically clear out old transactions and rewrite the log file with the newer transactions.
- Point-in-time recovery is not supported with this model and the database can be restored only from the last full or differential backup.
- This model is ideal when the data in the database is not considered mission critical, is being backed up periodically, or can be restored from another means, such as summarization.

The Full recovery model is recommended for customers who have an IT department that can manage scheduled backups. There are several things that should be considered when using the Full recovery model:

- The log file will grow until a transaction log backup is successfully completed against the SQL Server database. Transaction logs can be applied to full database backups to ensure point-in-time recovery, up to the time when the last transaction log backup was taken.
- Point-in-time recovery is supported with this model
- This model requires a regular backup schedule and sufficient disk space to house the log file as it grows between backups.

Frequency and scope of configuration changes may be a suitable indicator in determining which recovery model to use. If configuration changes are infrequent and point-in-time recovery is not critical, the Simple recovery model may be sufficient. However, when using the Simple recovery model, we highly recommend that SQL Server backups are performed after any significant configuration changes have been made to the database.

Regardless of the recovery model used, it is strongly recommended that the data files collected by the MiContact Center Business applications are backed up on a regular basis, as these files are used in the summarization process to re-generate historical data.

Management Console

The Management Console application resides in Contact Center Client. Using Management Console, you can administer the database, perform maintenance functions, create support packages, and update your MiContact Center Business software.

Management Console consists of the following menus:

- Configuration
- Maintenance
- Support
- System

You open Management Console in Contact Center Client. The Console is available to users whose security permissions permit them to use Management Console.

To open Management Console

1. Open **Contact Center Client**.
2. If prompted, type your user name and password.
3. Verify the Enterprise Server IP address.
4. Click **Log on**.
5. In the ribbon, click **Tools > Management**.
6. Access the Configuration, Maintenance, Support, and System options by clicking on the applicable icon in the Console.

Updating server IP addresses

To apply Enterprise Server or SQL Database Server IP address changes to all MiContact Center Business applications, you use the Update Server IP Address Wizard.

To apply the IP address change to all MiContact Center Business applications

1. In **Management Console**, Click **Configuration**.
2. Click **Update server IP address**.
3. Follow the steps in the wizard to apply the IP address change universally.

Running the maintenance routine immediately

MiContact Center Business runs the MiContact Center Maintenance Alarm Dispatcher Service automatically by default at 2:00 A.M. However, you can manually invoke the MiContact Center Maintenance Alarm Dispatcher Service at any time with the Run maintenance command.

To run the maintenance routine

1. In **Management Console**, Click **Maintenance**.
2. Click **Run maintenance**.

   A message notifies you that processing is complete.

Summarizing data

The Summarize Data Wizard uploads historical telephone system data to the SQL database for a specific date range.

If you run a report and notice that data for a particular device is missing from the report output, verify the device is programmed in the telephone system and in the YourSite database. If you determine the device is missing from the database, add it to the database and use the Summarize command to update MiContact Center Data Collection Service and the SQL database with the complete raw telephone system data (stored on the local hard drive). You can then produce reports on the device.

CAUTION: If data exists for an employee who was previously licensed but is currently unlicensed, that data can be accessed in reports. However, if a summarization is done after the employee is no longer licensed, there is a risk that the statistics currently calculated for the employee could be lost. Relicensing the employee and performing a summarization will restore the statistics.

NOTE:

- When a summarize is performed the devices not programmed in the telephone system or YourSite database are identified and logged to an XML file located in the Logs directory. The files are named as in the following example, summarizeInspection[29-01-2007][29-01-2007][29-01-2007].xml, where the first date is the current date, the second is the start date of the summarize, and the third is the end date of the summarize.
- If you attempt to summarize data and there is no data for that date an error opens. Please select another date.

To summarize data

1. In **Management Console**, Click **Maintenance**.
2. Click **Summarize data**.
3. Follow the steps in the Summarize Data Wizard to summarize the data.

Creating an Enterprise Server support package

You can package your Enterprise Server telephone system records and YourSite configuration data to send to Mitel for troubleshooting issues using the Support Package Wizard. The Support package formats your data in a way that helps to resolve any problems.

To create an Enterprise Server support package

1. In **Management Console**, click **Support**.
2. Click **Create support package**.
3. Follow the steps in the Support Package Wizard to package your telephone system records and YourSite configuration data.
4. Click **Finish**.

Controlling services

Services Manager controls all MiContact Center Business services and mandatory system services. A complete list of these services displays in the Services Manager.

To control services

1. In **Management Console**, Click **System**.
2. Click **Services Manager**.
3. Select the service to control.
4. Right-click the service.

   The right-click menu opens. This enables you to control the service the following ways:
   - Start
   - Stop
   - Pause
   - Resume
   - Restart
   - Refresh
   - Restart All Running Services
5. Select the action to perform.

Converting data files

The Data file conversion tool enables you to convert Toolbox data files to Mitel data files. This enables you to restore all historical data from competitor products when changing your solution to MiContact Center Business

1. In **Management Console**,Click **System**.
2. Click **Data file conversion tool**.
3. Select a media server from the list.
4. Click **Browse** and specify the location of the data files to be converted.

   NOTE: The path must be accessible from the server. We recommend you use a Universal Naming Convention (UNC) share.
5. Click **Next**

   The data file conversion will then process.
6. Click **Finish** to complete the data file conversion.

Diagnostics monitor

The log and error monitors are accessed via Contact Center Client.

To access log and error monitors

1. Click **Tools** in the Contact Center Client ribbon.
2. Click either **Log Monitor** or **Error Monitor**, depending on what kind of log information you want to review.

   See the following figure

Figure 8.1: Diagnostics monitor

Untitled
Real Time
Auditor Controls
Soft Phone
Tools
View
Management
Log Monitor
Error Monitor
Diagnostics
Forecasting
Inspectors
Data Mining

IVR Routing

Mitel IVR Routing is an all-in-one, scalable, integrated voice processing solution that works in conjunction with MiContact Center Business.

IVR Routing enables you to rapidly and intuitively

- Build workflows in a drag-and-drop graphical interface
- Create and relay static, dynamic, and custom recorded prompts to callers in queue
- Provide callers with Updated Position in Queue (UPiQ) messaging
- Guide callers to the destination that best meets their needs
- Allow customers to request a queued callback by leaving a voice message or using the Web
- Provide workflow branching based off multiple conditions including ANI, DNIS, schedules, and queue conditions
- Report on IVR activity

If you are licensed for IVR Routing, it is activated during the MiContact Center Business installation process.

NOTE:

- To support IVR Routing resiliency and redundancy, you must have at least one non-resilient extension programmed on the queuing gateway and configured in the Mi Contact Center Business database (either manually or via synchronization). In addition, there must be a MiTAI monitor set on this extension. This is done in YourSite Explorer by ensuring the 'Disable real-time monitoring, data collection and call handling on this device' check box is not selected. (Note: This check box is deselected by default.) Having the MiTAI monitor set on the extension enables our software to recognize when the connection to the queuing gateway is restored following a network outage.
- As a limitation of the telephone system, dual-tone multi-frequency signaling (DTMF) digits are only detected if the SIP trunks are configured to send via DTMF 2833. If your SIP trunks are configured to send DTMF digits in-band, IVR Routing will not detect any DTMF digits.
- Call record data generated on remote instances of IVR Routing when the main IVR Routing server is offline will not be reported on.

IVR Routing enhancements

IVR Routing offers enhancements to navigation, workspace customizing, and existing functionality including

- An Outline pane
  See *"Viewing workflows at a glance: The Outline pane"*.
- Focusing and breadcrumbs
  See *"Viewing specific portions of a workflow: Focusing and the Breadcrumb view"*.
- A MiniMap window and a Pan mode
  See *"Navigating the Workflows Canvas: The MiniMap window and the Pan mode"*.
- A Zoom feature
  See *"Resizing workflows: The Zoom feature"*.
- Expand All, Collapse All, and Restore buttons
  See *"Manipulating all activities in a workflow: The Expand All, Collapse All, and Restore buttons"*.

- The ability to save and copy workflows as images
  See .
- The ability to annotate activities and workflows
  See .
- Expanded troubleshooting for workflow configuration
  See .

Workflow navigation in IVR Routing

IVR Routing now makes it easier to view and navigate large workflows through several functionality enhancements, including

- The Outline pane
- Focusing and breadcrumbs
- The MiniMap window and Pan mode
- The Zoom feature
- The Expand All, Collapse All, and Restore buttons

Viewing workflows at a glance: The Outline pane

The Outline pane displays your workflow in a binary search tree format. You can selectively view the workflow and the parent-child relationships of activities and conditions by expanding or minimizing individual items in the tree. By providing an overview of the workflow in a compact space, the Outline pane enables you to efficiently view complex workflows and the relationships between activities.

You can configure activities or branches directly from the Outline pane by right-clicking in the search tree. Right-clicking also highlights the activity in the workflow, providing a clear means of referencing the specific activity you are configuring. If, for example, you have several similar activities in your workflow, highlighting minimizes errors by helping you confirm you are configuring the correct activity.

Double-clicking an item in the Outline pane brings that item into focus, enabling you to quickly identify and update nested activities in complex workflows.

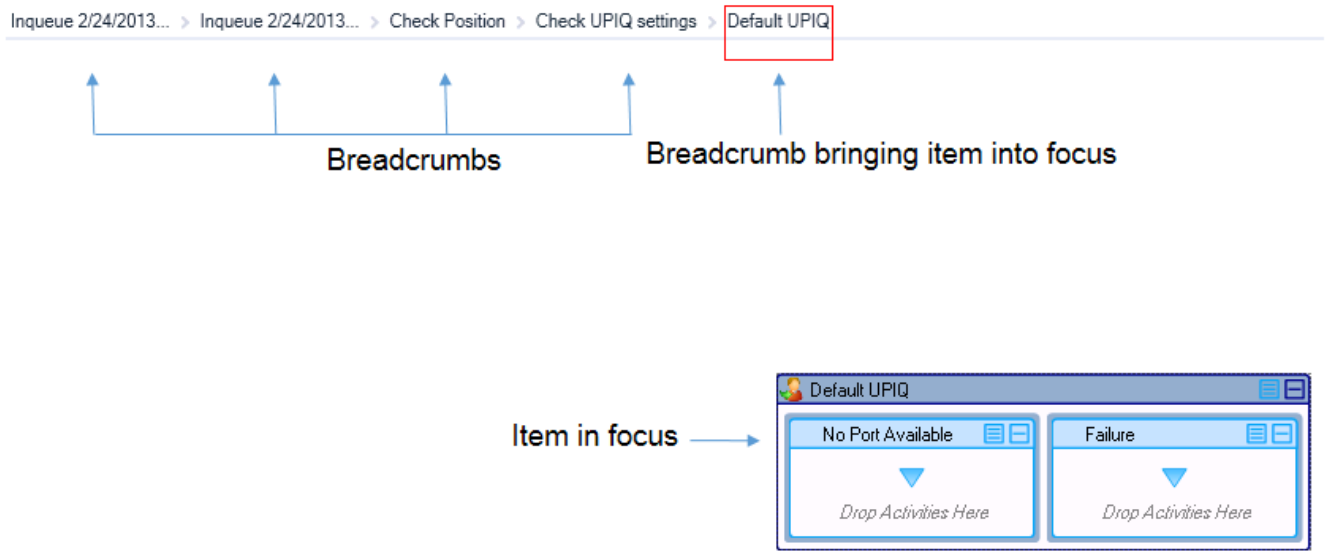
Viewing specific portions of a workflow: Focusing and the Breadcrumb view

You can devote the entire Workflows Canvas to viewing specific portions of a workflow by double-clicking activities or branches on the Canvas. This feature enables you to focus on precise elements of complicated workflows and minimizes the need to use subroutines to conserve viewing space.

When you focus on an activity or branch, the Canvas opens in breadcrumb view. Breadcrumbs at the top of the Canvas indicate the portion of the workflow you are viewing and the parent elements of those portions. After focusing on a specific portion of the workflow, you can incrementally expand your view of the workflow by tracing back through parent relationships using breadcrumbs. You can also right-click an activity and select 'Go To Parent'. The Breadcrumb view provides an ordered way of redirecting your focus in the workflow from precise elements to the bigger picture.

Note that when working in the Breadcrumb view, only the items in focus can be configured. In order to configure other items in the workflow, select the breadcrumb that brings the item into focus. (See the following figure.)

Figure 9.1: Focusing and the Breadcrumb view



Navigating the Workflows Canvas: The MiniMap window and the Pan mode

The MiniMap window and the Pan mode enable you to navigate to sections of a workflow without manipulating the horizontal and vertical scroll bars. The MiniMap window displays the workflow in a pop out that you can use to navigate the Workflows Canvas. The Pan mode enables you to 'grab' the Canvas and, using the mouse, choose what portion of the workflow is centered on the Canvas.

This feature enables you to navigate to specific sections of the workflow without manipulating the horizontal and vertical scroll bars.

The following procedures explain how to

- Navigate the Workflows Canvas using the MiniMap window
- Navigate the Workflows Canvas using the Pan mode

To navigate the Workflows Canvas using the MiniMap window

1. Click **IVR Routing > Workflows**, and select a workflow.
2. Click the **MiniMap** button, located to the right of the plus sign at the bottom of the workflow.
3. Click and drag the highlighted section over the workflow, as it appears in the MiniMap window.
4. To exit out of the MiniMap window, click the **MiniMap** button.

To navigate the Workflows Canvas using the Pan mode

1. Click **IVR Routing > Workflows**, and select a workflow.
2. Click the **Toggle Pan Mode** button, located to the left of the '100%' at the bottom of the workflow.

   The cursor displays as a hand icon.
3. Click anywhere on the Canvas to 'grab', and move the mouse to re-center the workflow.
4. To exit out of Pan mode, click the **Toggle Pan Mode** button.

Resizing workflows: The Zoom feature

You can adjust how large or small your workflow appears in the Workflows Canvas by manipulating the slider bar or the plus/minus buttons at the bottom of the Canvas. Using these features, you can zoom in

to focus on precise elements of your workflow, or zoom out to get a bird's eye view. Expressed as a percentage, the Zoom feature also determines the size of the highlighted section of the Overview window. For more information, see *"Navigating the Workflows Canvas: The MiniMap window and the Pan mode"*.

Manipulating all activities in a workflow: The Expand All, Collapse All, and Restore buttons

You can expand or collapse every activity and its corresponding branches in a single operation by clicking the Expand All or Collapse All buttons. Clicking the Restore button will return your workflow to the condition it was in before you expanded or collapsed the activities, enabling you to resume your work efficiently.

Customizing your IVR Routing workspace

Several enhancements in IVR Routing offer additional options for customizing your workspace. New workflows open as separate tabs in IVR Routing, freeing up visual space and showcasing individual workflows on screen. You can open an existing workflow in a tab by double-clicking the workflow, by right-clicking the workflow and selecting 'Open', or by selecting a workflow and clicking 'Edit'.

The Toolbar, Properties, and Outline panes can be minimized, expanded, or pinned to the workspace. This enables you to choose how much of your screen is comprised of the workflow versus configuration panes. These enhancements enable you to customize your workspace and manage your screen space to better facilitate your work.

Configuring IVR Routing

You configure all aspects of IVR Routing in YourSite Explorer.

We recommend you provision your IVR Routing environment in the following order:

1. **Media servers -** select the media server type and set the media server settings and options.
   See *"Adding 3300 ICP media servers"*.
2. **Ports and extensions -** select the extension type and set extension settings and options.

   See *"Configuring extensions"*.
3. **Hunt groups -** select the phone lines associated to each hunt group and configure the destination point for each hunt group.

   See *"Configuring hunt groups"*.
4. **Workflows -** add various activities and configure their properties and order of execution for incoming calls.

   See *"Building workflows"*.

Viewing IVR Routing

You can view IVR Routing in two formats: Horizontal and Vertical.

To select a view type

1. Click **IVR Routing**.
2. In the ribbon, click **View**.

3. In the **Page layout** pane, select **Horizontal** or **Vertical**.

Using the Import Wizard

The Import Wizard enables you to replicate the configurations by exporting a manually set activity and then importing it into another activity. The .csv file must have individual pieces of information separated by commas or by tabs. You can prepare a .csv file using Microsoft Notepad or Excel.

NOTE: You cannot build a CSV to import it into an IVR activity, but only import the CSV exported from an activity.

Changing multiple IVR Routing items at a time

You can change multiple IVR Routing items at a time using the multi-select feature. This feature saves you from having to make the same change to multiple devices of the same type. If items do not support the multi-select feature, a notification displays in the UI.

NOTE: Only information common across devices of the same type can be changed in one action.

To change multiple IVR Routing items at a time

1. Click **IVR Routing** and select an item.
   For example, 'Queues'.
2. Select multiple items by holding **Ctrl** or **Shift** and clicking the individual items. Clicking 'Ctrl' enables you to select items one at a time and omit items from selection. Clicking 'Shift' selects a span of items.
3. Make any changes.
4. Click **Save**.

Viewing IVR Routing devices by category or type

You can selectively view IVR Routing devices by category or type by applying filters to the device page. For example, you can view only the contact center's Inbound subroutines by applying the Inbound filter to the Subroutines page.

Multiple filters can be applied at a time, enabling you to selectively view devices by multiple categories or types. For example, you can view only Inbound and Outbound subroutines by applying these filters to the Subroutines page.

The following devices may be viewed by category or type

- Extensions
- Hunt Groups
- Queues
- Rules
- Subroutines
- Variables
- Workflows

To view variables by category or type

1. Click **IVR Routing** and select the device.
2. After **Filter**, select a device category or type from the drop-down list.

NOTE: Filters remain in place until a category is deselected. Selecting 'None' removes all filters.

Configuring media servers for IVR Routing

IVR Routing supports 3300 ICP media servers. For more information, see *"Adding 3300 ICP media servers"*.

Configuring extensions

An extension is a telephone system answer point that handles calls. Each extension has a specific extension number. A caller to your contact center is presented with options to dial various answering points. The caller can dial an individual agent at an extension through a queue number.

Following is a list of the four extension types specific to IVR Routing and their functions:

- **RAD port 5020 IP:** is used to play RAD (Recorded Announcement Device) messages for queue announcements.
- **Messaging port 5020 IP:** is used to process inbound workflows
- **Outbound port 5020 IP:** is used to process Outbound workflows, including Callbacks
- **UPiQ port 5020 IP:** is used to process UPiQ (Updated Position in Queue) messages

NOTE:

- Any extensions configured on the telephone switch are retrieved during synchronization and are shown in the extensions list.
- The Outbound extension option is only available if you are licensed for IVR.

Configuring extension port options for IVR Routing

For procedures for adding extensions, see *"Adding extensions"*

The following procedure takes place in IVR Routing > Extensions.

To configure extension port options

1. Select an extension and click the **Port Options** tab.
2. Configure the **Port Options** as follows:
3. After **Workflow**, click the **Browse** button and select the workflow to associate to the extension.

   NOTE: UPiQ ports do not allow you to select a workflow. Instead, you engage UPiQ ports by assigning an UPiQ subroutine to the Connect to Caller activity. See *"Configuring the Connect to Caller activity"*.
4. After **Port State**, select either **Normal** or **Emergency** from the drop-down list.

   Select 'Emergency' as the port state only if this port is associated to a workflow that is configured to have an emergency path. You can configure a port state as 'Emergency' when applicable either within YourSite Explorer directly or by using a Management Plan remotely.
5. Select the **Trusted Service Level** check box to set the service level for the 5020 IP port to 'trusted'. This step is necessary if you are using MiVoice Business 5.0 or greater otherwise, do not select this check box.

   NOTE: In order to set the trusted service level in YourSite Explorer, you must have already enabled write-back functionality on the media server. (See *"Enabling write-back functionality"*). If you do not

have write-back enabled, you must set the trusted service level on the telephone system, instead of in YourSite Explorer, by logging in to the 3300 ICP, navigating to 'User and Device Configuration', clicking the extension for which you want to set the service level, and, on the Profile tab, selecting 'Trusted' from the drop-down list beside Service Level.

6. After **Remote Server**, if this is a remote port, click the **Browse** button and select the remote media server on which IVR Routing is configured.
7. After **MiTAI / MiAudio Local Binding IP Address**; select the appropriate IP address from the drop-down list.

   NOTE: This option is used if you have more than one NIC and want to specify which one is used for MiTAI/MiAudio, for example, if you have a voice and data network split.
8. Click **Save**.

   NOTE: If, after you configure and save the extension, it does not come in to service, check to see if the appropriate services are installed and running. For Inbound and RAD ports, the appropriate service is the MiContact Center Inbound Router Service. For UPiQ ports, the appropriate service is the MiContact Center UPiQ Service. For Outbound ports, the appropriate service is the MiContact Center Outbound Router Service. If you discover the service is not installed, it may be that you were not licensed for IVR Routing at the time of installation. If that is the case, re-run the Mitel Contact Center Configuration Wizard to reinstall the required Routing services.

Deleting extensions

NOTE: You cannot delete an extension if it is associated to a hunt group.

To delete an extension

1. Click **IVR Routing > Extensions**.
2. Select the extension and click **Delete**.
3. When prompted, click **OK**.

Using Extension Quick Setup

The Extension Quick Setup enables you to import extensions into YourSite Explorer from the telephone switch. If Read/Write is enabled in 'YourSite > Media servers > Telephone system', the extensions are written back to the 3300 ICP.

To use quick setup to create extensions

1. Click **IVR Routing > Extensions**, and click **Quick Setup**.
2. After **Active number from**, specify the first dialable number of the extension range.
3. After **Active number to**, specify the last dialable number of the extension range.
4. After **Name prefix**, enter the text you want prefixed to the name of the port.
5. After **Name postfix**, enter the text you want postfixed to the name of the port.
6. On the **General** tab, configure the **Media server options** as follows:
   - **Extension type:** Select the extension type from the drop-down list.

     NOTE: Ensure you select the correct extension type for the port. For example, if you want the extension to be a messaging port, select Messaging port 5020 IP.

- **Associate the devices to this media server:** If you want to configure your ports to be resilient, click the Browse button, select a failover media server from the list, and click **OK**.
- **Associate the devices to this failover media server:** Click the Browse button, select a failover media server from the list, and click **OK**.

  NOTE: The failover media server will be used to handle the call load in the event the primary media server goes offline (only for voice extensions).
- **Class of service:** This field is automatically populated based on the Class of Service set during media server configuration, if there is a default Class of Service selected for the type of port you are creating.
- **Disable real-time monitoring, data collection and call handling on this device:** If you want to disable real-time monitoring, data collection, and call handling for this extension, select this check box.

  NOTE:

  - Selecting this option unlicenses the port and discontinues its use. Unlicensed extensions can be assigned to a workflow but will not go into service or be visible in Contact Center Client.
  - Any ports created after you become overlicensed will have this option enabled.

7. Configure the **Port Options** as follows:

- After Workflow, click the Browse button and select the workflow to associate to the extension.

  NOTE: UPiQ ports do not allow you to select a workflow. Instead, you engage UPiQ ports by assigning an UPiQ subroutine to the Connect to Caller activity. See *"Configuring the Connect to Caller activity"*.
- After **Port State**, select either **Normal** or **Emergency** from the drop-down list.

  Select 'Emergency' as the port state only if this port is associated to a workflow that is configured to have an emergency path. You can configure a port state as 'Emergency' when applicable either within YourSite Explorer directly or by using a Management Plan remotely.
- Select the **Trusted Service Level** check box to set the service level for the 5020 IP port to 'trusted'. This step is necessary if you are using Mi Voice Business 5.0 or greater otherwise, do not select this check box.

  NOTE: In order to set the trusted service level in YourSite Explorer, you must have already enabled write-back functionality on the media server. (See *"Enabling write-back functionality"*). If you do not have write-back enabled, you must set the trusted service level on the telephone system, instead of in YourSite Explorer, by logging in to the 3300 ICP, navigating to 'User and Device Configuration', clicking the extension for which you want to set the service level, and, on the Profile tab, selecting 'Trusted' from the drop-down list beside Service Level.
- Select the **This is a remote port** check box, if applicable.
- After **MiTAI / MiAudio Local Binding IP Address**, select the appropriate IP address.

  NOTE: This option is used if you have more than one NIC and want to specify which one is used for MiTAI/MiAudio, for example, if you have a voice and data network split.
- The **Port License** area details how many IVR Routing port licenses remain and the total number of primary and redundant ports for which you are licensed.

8. To create an employee for each extension, on the **Employee associations** tab, select the **Create an employee ID for each extension** check box.
9. After **Start the employee IDs at**, type the first employee ID to associate to this extension.
10. After **Increment the employee IDs by**, type the increment by which the employee IDs will increase.

11. Click **Run**.

Configuring hunt groups

A hunt group is a collection of extensions. When a call enters the system and is routed to a hunt group, the hunt group searches its members for an available extension and directs the call to that number. Calls are rotated through the hunt group until an available extension is found and the caller can be connected. Hunt groups can be configured to be resilient, using a failover media server if the primary server fails.

NOTE:

- MiContact Center Business does not support remote members in a hunt group.
- Any hunt groups configured on the telephone switch are retrieved during synchronization and are shown in the hunt group list.
- For information on enabling ports shared by hunt groups to play different messages to different queues, see *"Dynamic RAD messages"*.

Adding hunt groups

To add a hunt group

1. Click **IVR Routing > Hunt Groups > Add**.
2. Complete the following fields:
   - **Name**–Type a name for the hunt group.
   - **Dialable**–Type a dialable number for the hunt group.
   - **Media Server**–Click the **Browse** button, select a media server from the list, and click **OK**.
   - **Failover media server**—Click the **Browse** button, select a failover media server from the list, and click **OK**.
   - **Class of Service**– This field is not mandatory. However, the field may be automatically populated based on the class of service for the selected media server.
   - **Phase timer ring**– This option is only configured if you are using a RAD hunt group type and determines the delay required between successive recorded announcements If no delay is required, select '0'.
   - Optionally, select **Disable real-time monitoring, data collection and call handling on this device**.

     NOTE: If selected, this option disables the hunt group. Deselecting the check box enables the hunt group.
   - **Hunt Group Type**–Select the type of extensions for this hunt group:
     - Voice– handles messaging type extensions
     - RAD – handles RAD type extensions
     - Phantom – performs modified DND rerouting
     - Voice Mail – handles voice mail type ports
     - HCI Reroute – enables external applications to tell the system how to route calls
     - Recorder – handles groups of devices using the Record-A-Call feature
     - Emergency – identifies the group as an Emergency Call notification hunt group
     - Name Tag – identifies the group as using destination-based name tags for display on the ringing sets
     - Pre-Announce – handles agent greeting extensions

- **Hunt Group Mode**–Select **Terminal** if you want the first line in the hunt group list to always be used, Select **Circular** if you want the next line in the hunt group to be used.

  NOTE: RAD hunt groups must be terminal.
- **Priority**–Specify the hunt group priority level. The priority level ranges from 1 (highest) to 64 (lowest).

3. Click **Save**.

Adding extensions to hunt groups

Hunt group members are extensions. To be a member of a hunt group, the extension and the hunt group must be of the same type. For example, you can only add RAD extensions to RAD hunt groups.

To add an extension to a hunt group

1. Click **IVR Routing > Hunt Groups**, and select a hunt group.
2. On the **Membership** tab, under **Available members**, select the extension to add to the hunt group.

   NOTE: The Available members pane only displays extensions belonging to the same media server as the hunt group. Available members are also filtered by hunt group type.
3. Click the **>** button.

   The extension displays in the Selected members window and is now part of the hunt group.

   NOTE:
   - If you have assigned the hunt group a Terminal Mode, extensions are searched in chronological order and the first available extension is selected first. See *"Adding hunt groups"*. If you have assigned the hunt group a Circular Mode, extensions are searched in the order in which they appear in the Selected members pane.
   - If your workflow uses Dynamic RAD messages, configure each hunt group to begin its search starting on different extensions. You do this by changing the order in which extensions appear in the Selected members pane for each hunt group. For more information on Dynamic RAD messages, see *"Dynamic RAD messages"*.
4. Repeat these steps for all additional extensions you want to add to the hunt group.
5. If your contact center uses a remote configuration, click the **Interleave** button to distribute the hunt group members equally throughout your servers.
6. Click **Save**.

Configuring hunt group IVR settings

Configuring hunt group IVR settings enables you to associate hunt groups to workflows and set the state of ports associated to the hunt group.

To configure hunt group IVR settings

1. Click **IVR Routing > Hunt Groups**, and select a hunt group.
2. Click the **Options** tab.
3. To associate the hunt group to a workflow, after **Workflow** click the **Browse** button, select a workflow, and click **OK**.
4. To set the state of the port associated to the hunt group, after **Port State**, select either **Normal** or **Emergency** from the drop-down list.

NOTE: If ports are dialed directly, the port's state (Normal or Emergency) is executed. If the port is associated to a hunt group and the hunt groups is dialed directly, the port takes on the state configured here.

Deleting hunt groups

To delete a hunt group

1. Click **IVR Routing > Hunt Groups**.
2. Select the hunt group and click **Delete**.
3. When prompted, click **OK**.

Configuring queues

A queue consists of a group of agentsor extension responsible for answering calls pertaining to a specific product, service, department, or functional area within your organization. Agentsand extensions can be members of multiple queues, handling calls for multiple departments, services etc., depending on agentor extension availability. For information on adding queues, see *"Adding queues"*.

IVR Routing adds the ability to configure callbacks, associate UPiQ workflows, and configure RAD messages for queues. For information, see *"Configuring callbacks"*, *"Configuring UPiQ options"*, and *"Configuring RAD messages for queues"*.

NOTE: Any queues configured on the telephone switch are retrieved during synchronization and are shown in the queues list.

Configuring Inqueue routing

You can select Inqueue workflows, such as the Default UPiQ Inqueue workflow, to run when a call enters into a queue. You can build your own workflow in the Workflows Canvas or you can associate an Inqueue workflow to the queue. For information on building workflows, see *"Building workflows"*.

Inqueue workflows containing Connect to Caller activities require UPiQ ports provisioned for the system. Associating these workflows to queues without having UPiQ ports returns a validation error when saving the workflow or queue. To provision UPiQ ports for the system, see *"Configuring extension port options for IVR Routing"*.

For information on the Default Inqueue and Callback workflows, see *"IVR Routing default workflows and subroutines"*.

NOTE: Inqueue workflows cannot be associated to Ring Groups.

The following procedures explain how to:

- Add and associate a new Inqueue workflow to a queue
- Associate an existing Inqueue workflow to a queue
- Remove an association to an Inqueue workflow

To add and associate a new Inqueue workflow to a queue

1. Select a voice queue and click the **Inqueue Workflow** tab.
2. Click the **Add** button.

   The default Inqueue workflow is added to the queue.
3. Configure the Inqueue workflow.

For procedures, see *"Building workflows"*.

4. Click **Save**.

To associate an existing Inqueue workflow to a queue

1. Select a voice queue and click the **Inqueue Workflow** tab.
2. Click the **Browse** button.
3. Select a workflow and click **OK**.
4. Click **Save**.

To remove an association to an Inqueue workflow

1. Select a voice queue and click the **Inqueue Workflow** tab.
2. Click the **Clear** button.
3. Click **Save**.

Configuring UPiQ options

Updated Position in Queue (UPiQ) messages inform customers of their initial queue position and dynamically continue to inform them of their position in queue and estimated wait time.

NOTE: UPiQ is not available for Ring Groups.

UPiQ messages are configured via the default UPiQ subroutine and a default Inqueue workflow. We recommend you configure UPiQ messages by reconfiguring the default workflow and subroutine. See *"IVR Routing default workflows and subroutines"*. For information on adding Expected Wait Time announcements to a UPiQ subroutine, see *"Playing Expected Wait Time announcements"*.

Playing Expected Wait Time announcements

By default, the Default UPiQ subroutine only provides Updated Position in Queue announcements. Expected Wait Time announcements can be added to UPiQ subroutines through the addition of a Play activity with the Expected Wait Time prompt to an UPiQ subroutine.

The following procedure takes place in an open UPiQ subroutine.

To add an Expected Wait Time announcement to a UPiQ subroutine

1. Add a **Play** activity to the subroutine.
2. Select the **Play** activity and click **Properties**.
3. After Greeting Prompts, click the button and select **Select from an existing prompt**.
4. Select **Expected wait time** and click **OK**.
5. Click **Save**.

Configuring RAD messages for queues

RAD messages are associated to queues and can broadcast to up to 50 callers in the queue. After a call is received and has traveled through a workflow to a queue, RAD messages can be configured to play at programmed intervals for all callers in that queue. Up to four RAD messages can be associated to each queue. A typical RAD message may greet the caller and thank them for holding.

RADs have been optimized in MiContact Center Business to minimize the number of RAD devices that IVR Routing requires. Previously, RADs were mapped to a specific queue and its position. RAD optimi-

zation enables you to reduce the number of ports your system uses by configuring one port to play a message simultaneously to multiple queues.

Note that UPiQ and RAD messages are both played to callers in queue. If an UPiQ message plays, the RAD;timers reset to prevent both types of messages playing at once.

NOTE: Ring Groups cannot have RAD messages configured through IVR Routing.

To configure RAD messages for a queue

1. Click **IVR Routing > Queues**, and select a queue from the list.
2. Click the **Recorded announcements** tab.
3. Specify the following RAD messaging options:
   - **Dialable**— click the **Browse** button and enter the dialable number of the port or hunt group you want to use to play the RAD message
   - **Start delay**—specify the time that must pass after a caller enters the queue or from when the last message finished playing before playing the RAD message
   - **Interflow dialing list**—select the interflow dialing list you have configured on the telephone system
   - **Release digit receiver after recording**—select to limit callers to entering digits only while the RAD message is playing. If this option is not selected, the caller may still enter digits as prompted by the RAD after the RAD completes.
   - **Embedded music source**—select the in-queue music list you have configured on the telephone system
   - **Alternative dialable**—enter a secondary port or hunt group you want to use to play the RAD message
4. If you want to repeatedly play the RAD message, select **Repeat recording enabled** and specify the repetition interval.
5. After **Repeat recording interval**, specify the intervals at which the RAD message repeats.
6. After **DTMF Receiver Unavailable Action**, specify the action when a dial out from a RAD is programmed but no DTMF receiver can be seized to enable that functionality.
   - **Play recording**—plays a RAD message. The caller may be prompted with the option to dial out
   - **Skip**—does not play a RAD message but leaves the caller in the queue
   - **Divert**—transfers the caller to the number programmed in the DTMF Receiver Unavailable Answer Point Directory Number field
7. After **DTMF Receiver Unavailable Answer Point Dialable**, enter the desired directory number. For numbers longer than seven digits, program this field as a speed call.

   NOTE: To use the DTMF Receiver Unavailable Answer Point Dialable option, the DTMF Receiver Unavailable Action field must be set to 'Divert'.
8. Click **Save**.

Configuring queue groups

IVR Routing can use virtual queue groups to provide resiliency to destinations within workflows. For activities with queue destinations such as Transfer, virtual queue groups can be used as well. When a virtual queue group is used with an activity, any time IVR Routing attempts to route to the virtual queue group, it will route to the queue located on the same media server as the IVR Routing port running the workflow.

In the event that queue is unavailable, the call will be sent to the least busy queue in the virtual queue group on the other telephone system.

For IVR Routing devices or activities that use queue conditions, both reporting queue groups and virtual queue groups can be used. For queue conditions, a virtual queue group will be treated as a single queue. Reporting queue groups use a sum of their stats when used for queue conditions. For more information on how queue groups handle real-time queue statistics, see *"Real-time queue conditions and queue groups"*.

For more information on configuring queue groups, see *"Adding queue groups"*.

Building workflows

Workflows are the pathways callers use to reach areas and individuals in your organization. Workflows dictate the prompts callers hear, the inputs requested by the system, and the available routing options. Workflows can identify customers and determine their service needs by phone number, numbers dialed, and the digits entered to reach specific areas of your organization. Proper workflow configuration is necessary to direct callers to the agents, departments, and employees best qualified to handle their requests.

The following sections explain workflows available in IVR Routing, and general workflow configuration procedures.

NOTE:

- The functions performed when a caller contacts your organization depend on the activities included in the workflow and how the activities are configured. For more information, see *"Activities"*.
- If your contact center routinely handles a high volume of calls, for optimal traffic handling, we recommend using subroutines in your workflowsor increasing the number of available ports for your workflows. For more information on subroutines, see *"Building subroutines"*.
- Workflows must be associated to an extension, hunt group, or queue in order to go live in the system. For more information, see *"Associating workflows to devices"*.
- The recommended maximum workflow size is 1 MB.

Workflow types

Workflows are categorized into five types.

- **Inbound**—directs incoming calls to the agents, departments, and employees best qualified to handle their requests. Inbound workflows can also be used for self-service.
- **Outbound**—makes outgoing calls to external and internal numbers. Once connected, an Outbound workflow can play the connected party a greeting or ask them to enter information into IVR Routing. Outbound workflows can also transfer a connected party to a queue, agent, or extension automatically or based on responses to an option menu.

  NOTE: Outbound workflow and extension options in YourSite Explorer are only available when licensed for IVR.
- **RAD**—plays RAD messages to all callers in their associated queues
- **Inqueue**—plays UPiQ and Estimated Wait Time messages to callers in queue
- **Agent**—plays messages to callers and agents when an agent accepts an incoming ACD call.

Each workflow type offers a specific selection of IVR Routing activities with which to build the workflow. For more information, see *"Activities"*.

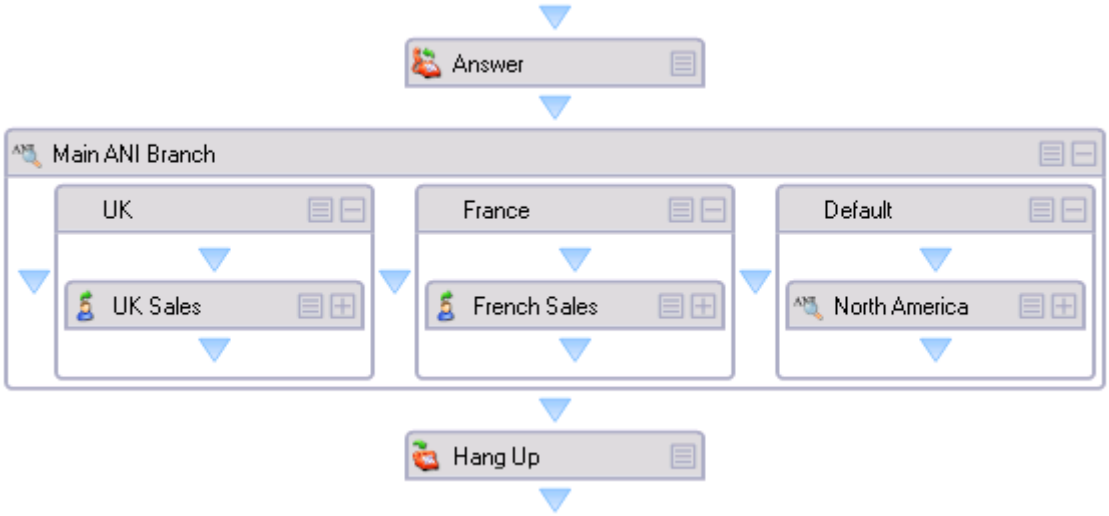
Workflow examples

The following workflow examples illustrate common call routing scenarios.

Example 1 — ANI routing

The ANI routing example shows a workflow that routes calls based on the phone number of the customer contacting your company. Incoming calls are answered and, based on configured telephone routing rules, routed to the Sales department in the incoming call's country of origin. (See the following figure.)

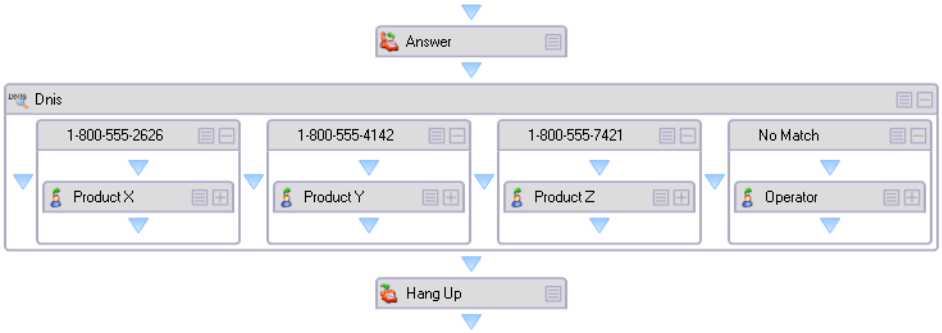
Figure 9.2: ANI routing workflow example



Example 2 — DNIS routing

The DNIS routing example shows a workflow that routes calls to separate product lines based on the toll-free line dialed by the customer. Incoming calls are answered and, based on the toll-free number dialed, routed to the queue responsible for handling call requests for that product line. (See the following figure.)

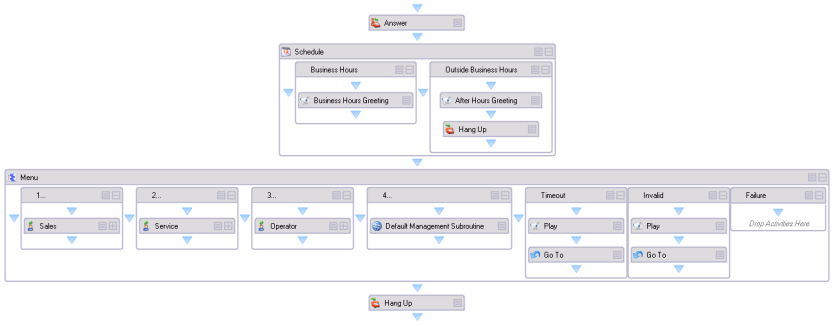
Figure 9.3: DNIS routing workflow example



Example 3 — Schedules and Menus

The schedules and menus routing example shows a workflow that first routes calls through a schedule. This determines the system's action based on the date and time that the call arrived. If within business hours, the workflow provides a user menu to the caller. If outside business hours, the caller hears an after-hours greeting, after which the system terminates the call. (See the following figure.)

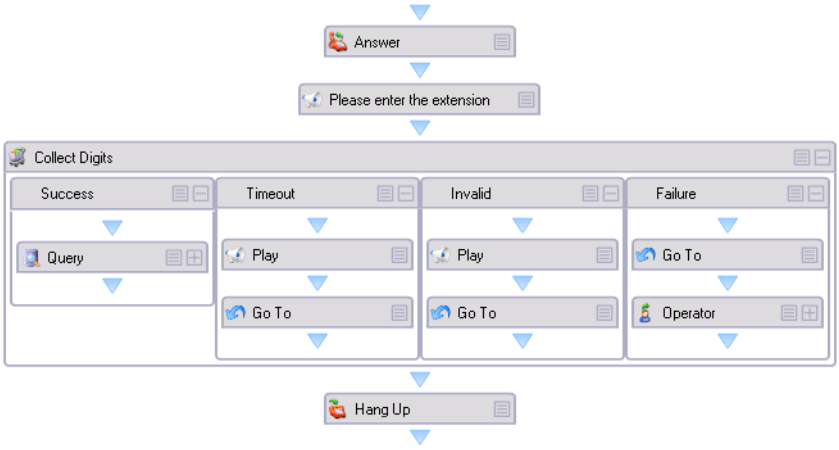
Figure 9.4: Schedules and menus workflow example



Example 4 — Collected Digits

The premium collected digits workflow example shows a workflow that routes calls based on the extension number inputted by the caller. The call is answered and the caller is prompted to enter the extension number of the party they want to reach. The call is routed based on the digits collected. (See the following figure.)

Figure 9.5: Collected digits workflow example



Adding new workflows

The following explains the procedure for adding new workflows to IVR Routing. For examples of workflows that ship with IVR Routing, see *"IVR Routing workflow samples"*, and *"IVR Routing default workflow and subroutines"*.

For information on using Dynamic RAD messages in workflows, see *"Dynamic RAD messages"*.

To create a workflow

1. Click **IVR Routing > Workflows**.
2. Click **Add > Voice**, and select either **Inbound**, **Outbound**, **RAD**,**Inqueue**, **Media**, or **Agent**.
3. In the **Properties** pane, type a **Name** for the workflow. The Name must be unique.
4. Type a **System Name** for the workflow. The System Name must be unique.
5. To disable validation, enabling you to save a workflow with configuration errors or stop a valid workflow from being executed, deselect the **Validate workflow** check box.
6. Select the **Designer** tab and, from the **Toolbox**, drag and drop activities to the Workflows Canvas.

NOTE: Inbound and RAD workflows must begin with an Answer activity if you intend to play a message or collect digits. Inbound, and Outbound, and RAD workflows must end with a Hang Up activity if they do not end with a Transfer activity.

7. To assign the workflow to a device, see *"Associating workflows to devices"*.

   NOTE: All workflow configuration errors must be corrected before workflows can be assigned to devices. For more information, see *"Troubleshooting workflow configuration with the Validation button"*.

8. Click **Save**.

Naming workflows

For administrative and reporting purposes, you must give workflows unique names and system names. A system name is used by IVR Routing to identify the workflow and is used in reporting. A name labels the workflow for the user.

To name a workflow

1. Click **IVR Routing > Workflows**.
2. Select the workflow and click **Properties**.
3. Type a **Name** for the workflow. The Name must be unique.
4. Type a **System Name** for the workflow. The System Name must be unique.
5. Click **Save**.

Copying workflows

You can reuse existing workflows as templates by copying them. A copied workflow retains all of the actions, menus, and conditions of the original workflow, but is not assigned to any device.

To copy a workflow

1. Click **IVR Routing > Workflows**.
2. Right-click the workflow and select **Copy**.
3. Right-click anywhere in the workflow list and select **Paste**.
4. Click **Save**.

Cutting, pasting, and copying workflow items

You can cut, paste, and copy activities and branches via the right-click menu, within and between workflows. This functionality enables you to create and edit workflows efficiently by duplicating, or removing, activities and branches and their configuration.

NOTE: Some activities are specific to workflow types. For example, an ANI activity is used in Inbound workflows but not Inqueue workflows. Some branches are specific to activity types. For example, the Record activity has a Discard branch, but the ANI activity does not. Only cut and paste activities and branches into the appropriate workflow and activity types.

To cut an activity or branch from a workflow

- Right-click the activity or branch and select **Cut**.

To paste an activity inside a workflow

1. Right-click the activity and select either **Copy** or **Cut**.
2. Right-click the activity that will precede the pasted activity, and select **Paste**.

To paste a branch inside an activity

1. Right-click the branch and select either **Copy** or **Cut**.
2. Right click a different branch inside the activity and select **Paste**.

   The copied branch is inserted to the right.

Deleting workflows

NOTE: You cannot delete a subroutine that is added to a workflow. Remove the subroutine from any workflow to which it is added, then delete the subroutine.

To delete a workflow

1. Click **IVR Routing > Workflows**.
2. Select the workflow and click **Delete**.
3. When prompted, click **OK**.

Importing and exporting subroutines and workflows

IVR Routing enables you to import and export subroutines and workflows from, and to, machines and networks. Imported subroutines and workflows are automatically converted to IVR Routing's latest version. Exported subroutines and workflows can be saved to local hard drives and copied to computers and networks.

After importing a subroutine or workflow, please note the following

- Subroutines and workflows must be validated and any configuration errors corrected in order to go live
  See *"Troubleshooting workflow configuration with the Validation button"*.
- Workflows must be connected to devices specific to your system in order to go live
  See *"Associating workflow to devices"*.

In addition, please see "Recommended practices for importing workflows and subroutines".

To import a workflow

1. Click **IVR Routing > Workflows**.
2. Click the **Import** button, browse to the workflow .xaml file and click **Open**.
3. Click **Save**.

To export a workflow

1. Click **IVR Routing > Workflows**.
2. Click the **Export** button, browse to the workflow .xaml file and select it.
3. Browse to the workflow save location and click **Save**.

Saving and copying workflows as images

You can save snapshots of workflows as images in JPG, PNG, GIF, and XPS formats. You can also copy and paste workflow images onto the clipboard, to paste into other programs. Saving or copying workflows enables you to easily reference, share, and print your workflow designs.

Once saved, some portions of large workflows may not display clearly in the image

To save and copy a workflow as an image

1. To save a workflow as an image, right-click on the active portion of the Workflows Canvas and select **Save As Image...**.
2. Select a location and a format for saving the image.
3. To copy a workflow as an image, right-click on the active portion of the Workflows Canvas and select **Copy as Image**.
4. You can paste this image into a word-processing or image editing program.

Validating workflows

IVR Routing validates workflows to ensure they do not contain programming or configuration errors before going live. To execute a workflow, workflow validation must be enabled. Workflow validation is also required to successfully offer interactions to agents. By default, workflow validation is not enabled. This allows administrators to configure and save workflows in progress.

If validation is enabled, workflows with errors cannot be saved until the errors are corrected. If validation is not enabled, workflow with errors can be saved.

Red exclamation marks on activities indicate configuration errors to be corrected. Yellow exclamation marks on activities indicate warnings. Clicking the 'Validation' button opens a pane explaining the workflow's errors and warnings.

The pane lists the number of errors and warnings, the activity to which the error or warning is associated, and what is required to fix the problem. Double-clicking the error and warning information in the Validation pane brings the specific activity into focus, for ease of identification. For more information on focusing, see *"Viewing specific portions of a workflow: Focusing and the Breadcrumb view"*.

To validate a workflow

1. Select **IVR Routing > Workflows**.
2. Select the workflow and, in the **Properties** pane, select the **Validate workflow** check box.
3. Click **Save**.

Locating workflow items with the Search field

You can locate specific activities and branches in workflows using the Outline pane's Search field. The Search field returns results based on workflow items' names and system names.

Searches can be performed based on complete or partial search terms. For example, searching 'sched' will return results for all workflow items containing 'Schedule' in the name or system name.

After locating an item in the Search field, you can edit the item either by right-clicking it, toggling to the Properties pane, or right-clicking the item on the Canvas.

To locate workflow items using the Search field

1. Click **IVR Routing > Workflows**.
2. Select a workflow and click **Outline**.
3. In **Search Outline**, type the search term and click the **Search** icon.

Associating workflows to devices

Workflows must be associated to a device in order to be active in the system. Workflows can, depending on their type, be associated to extensions, hunt groups, or queues.

You can only associate workflows to extensions or hunt groups that are of the same type as the workflow. For example, you cannot associate a RAD workflow to an Outbound extension type.

After associating Outbound workflows to a device, the ‘Always run' check box in the Workflows and Properties pane enables and disables workflow execution.

The following workflow types may be associated to the following devices. (See the following figure.)

Table 9.1: Workflows and associated devices, by type

Workflow type	Device type
Inbound	Extension or Hunt Group
Outbound	Extension
RAD	Extension or Hunt Group
Inqueue	Queue
Agent	Queue

NOTE: Inbound and RAD workflows may be assigned to an extension and a hunt group. We recommend you use one or the other.

The following procedures explain how to

- Associate a workflow to an extension
- Associate a workflow to a hunt group
- Make an Outbound workflow live
- Associate a workflow to one or more queues

To associate a workflow to an extension

1. Click **IVR Routing > Extensions**, and select an extension to associate to the workflow.

   NOTE: For IVR Routing sample workflows, you must select an extension with a Messaging port 5020 IP extension type.
2. Under **Port Options**, after **Workflow**, click the **Browse** button.
3. Select the workflow to associate to the extension and click **OK**.

   NOTE: The 'Select a workflow' window displays workflows of the same type as the extension, without validation errors.
4. After **Port State**, select either **Normal** or **Emergency** from the drop-down list. Select **Emergency** only if this port is associated to a workflow that is configured to have an emergency path.
5. Click **Save**.

To associate a workflow to a hunt group

1. Click **IVR Routing > Hunt Groups**, and select a hunt group to associate to the workflow.
2. Select the **Options** tab.
3. Under **IVR Settings**, after **Workflow**, click the **Browse** button.

4. Select a workflow and click **OK**.
5. After **Port State**, select either **Normal** or **Emergency** from the drop-down list. Select **Emergency** only if this port is associated to a workflow that is configured to have an emergency path.
6. Click **Save**.

To make an Outbound workflow live

1. Click **IVR Routing > Workflows**.
2. Select an **Outbound workflow**.
3. In the **Properties pane**, select **Always run**.
4. Click **Save**.

To associate a workflow to one or more queues

NOTE: Inqueue workflows containing Connect to Caller activities require UPiQ ports provisioned for the system. Associating these workflows to queues without having UPiQ ports returns a validation error when saving the workflow or queue. To provision UPiQ ports for the system, see *Activities*.

1. Select **IVR Routing > Workflows**, and select an Inqueueor Agent workflow.
2. Select the **Queue Membership** tab.
3. Under **Available members**, select the queue to associate the workflow to and click **>**. You can associate multiple queues to a single workflow.
4. To associate all queues to the workflow, click **>>**.
5. Click **Save**.

Dynamic RAD messages

Dynamic RAD messages enable a group of IVR Routing ports, shared by multiple hunt groups, to play different RAD messages to callers waiting in queue. For example, if hunt groups for a Sales queue and a Customer Service queue share a port, a workflow using Dynamic RAD messages enables the shared port to play a Sales greeting to the Sales queue and a Customer Service greeting to the Customer Service queue. Because Dynamic RAD messaging reduces the number of ports required to play messages, it is a cost-effective means of tailoring greetings to queues. For more information on configuring RAD messages for playback, see *"Configuring RAD messages for queues"*.

NOTE:

- To ensure the expected Dynamic RAD functionality, we recommend that you configure each hunt group to begin its search starting on different extensions. See *"Adding extensions to hunt groups"*.
- Dynamic RAD messages can only be used within RAD workflows.

To use Dynamic RAD messages in workflows, you must ensure that

- Media server configuration is complete. Dynamic RADs require that all hunt groups, extensions, and Class of Service options are populated with data from the 3300 ICP. For more information on configuring media servers, see *"Adding 3300 ICP media severs"*.
- The Class of Service provisioned in the PBX for Dynamic RADs must have Do Not Disturb set to Yes. See *"Editing Class of Service options"*.
- Full Synchronization is completed. For information, see *"Performing Synchronization"*.

- Extension configuration is complete. Dynamic RAD messages require that each IVR Routing port playing the messages is set to RAD port 5020 IP. You must also enable Trusted Service Level for the relevant extensions. See *"Configuring extensions"*.
- Hunt group configuration is complete. Dynamic RADs require hunt groups to be configured as RAD hunt group types and that the appropriate RAD extensions have been added to the hunt groups you will use in your workflow. See *"Configuring hunt groups"*.
- If you using are an IVR Routing instance on a Remote Server, ensure that remote configuration is complete. Dynamic RAD messages require that the relevant ports are specified as remote ports and assigned to the Remote Server. See *"Configuring extensions"*.
- You have configured the necessary prompts for your RAD messages. See *"Configuring prompts"*.
- You have associated the workflow to the ports (extensions) that will play the RAD messages and to the appropriate hunt groups. See *"Associating workflows to devices"*.
- If you are using multiple, un-teamed NICs, you have selected the appropriate MiTAI Binding IP address. See *"Configuring extensions"*.

For a demonstration on how to build a workflow that uses Dynamic RAD messages, please see the following Mitel Knowledge Base article: http://micc.mitel.com/kb/KnowledgebaseArticle51476.aspx.

Building resilient workflows

Many of IVR Routing's workflow activities and configurations are dynamic, relying upon statistics and information from the Enterprise Server. In situations where the Enterprise Server is unavailable, such as during a reboot, the functionality of dynamic workflows is affected. IVR Routing enables contact centers to build resilient workflows that respond to disruptions in service to the Enterprise Server, routing calls to alternate branches that are not reliant upon statistics from the Enterprise Server. Resilient workflows rely on the queue condition statistic Last Queue Update Received and the system variable CCMOnlineStatus.

The Last Queue Update Received queue condition statistic is available in the Queue Condition builder for the Queue activity and Rules. In the Queue Condition builder, Last Queue Update Received is assigned a duration of time (with a minimum duration limit of 30 seconds) that defines the time that may pass between updates from the Enterprise Server before the statistics are considered to be stale. This real-time statistic is particularly useful for contact centers that consider a limited amount of stale statistic data to be acceptable, such as during the length of time it takes the Enterprise Server to reboot, but may want calls to be routed using the Queue activity to different workflow paths if the real-time data from the Enterprise Server remains unavailable beyond that timeframe. For information on configuring rules and Queue activity, see *"Configuring rules"* and *"Configuring the Queue activity"*.

The CCMOnlineStatus is a system variable that detects whether or not any real-time data is coming from the Enterprise Server to the Routing services for IVR Routing. If data is available from the Enterprise Server, it is set to True. If the Enterprise Server's real-time data is unavailable, it is set to False. In conjunction with the Variable Compare activity, calls can be routed down the appropriate True and False branches immediately if the availability of data from the Enterprise Server changes. For information on the Variable Compare activity, see *"Configuring the Variable Compare activity"*.

Configuring prompts

Prompts are audio clips that provide callers with information during a call. Associated with activities, prompts play messages when callers reach the associated activity in a workflow. Prompts can be individual wave files or multiple wave files joined together to form custom messages. To see a list of pre-configured prompts, go to 'IVR Routing > Prompts'.

The default language for prompts will be taken from the site language and workflows will be executed in that language unless a Language activity has been included in the workflow. Individual prompts can be configured to handle multiple languages, working with the Language activity to support multiple languages in a single workflow. This reduces the number of prompts that must be created and allows for the same set of ports to be used for multiple languages. For more information on the Language activity, see *"Configuring the Language Activity"*.

NOTE: The language preference is set to English US by default. To change it to your preferred language during the installation, do either of the following:

- Use a Language Activity to overwrite the default settings
- Go to **YourSite Explorer** and click **Site**, select the appropriate Site, and select the language you prefer as default.

If you want to use your own custom prompts with a callback, you must add your wave files by importing the files or recording wave files using a microphone on your computer or your telephone using a Record activity in a workflow. Files recorded using YourSite Explorer are added to the Custom category. Files recorded using the Record activity are added to the Recording category. You must then associate your custom wave files to your callback workflow. See *"Configuring callbacks"* for more information.

If IVR Routing is enabled for Text-to-Speech, you can add text or Speech Server Markup Language (SSML) files to prompts. Text and SSML files support variables entered between double angle brackets, such as <<EstimatedWaitTime>>. For information on configuring Text-to-Speech, see *"Configuring a Text-to-Speech server"*.

NOTE: Agent prompts cannot be configured to play in a language that is different than the language selected as a preference in CCMWeb. Agent language preference settings override agent prompt language choices as IVR Routing aligns with agent language settings.

Adding prompts

NOTE: If you are adding prompts in a new language, you must add audio files that correspond to the existing audio files in IVR Routing's default language. Otherwise, the caller will not hear anything when the prompts are supposed to be playing.

To add a prompt

1. Click **IVR Routing > Prompts > Add**.
2. After **Language**, select the primary language from the drop-down list.

   For Text prompts, Language determines the Voice to use.

   NOTE: By default, the language is set to your default site language.
3. Type a **Name** for the prompt.
4. Type a **Description** for the prompt.
5. After **Category**, select one of the following categories from the drop-down list:

   – Callback
   – Management
   – Samples
   – UPiQ
   – Custom

   Prompt categories are an organizational tool to help keep your prompts sorted and easily accessible. To create your own category, after **Category**, type a name for the new category.

6. Click one of the following tabs:
   - **Text**—lists the SSML files added to IVR Routing. Users can add an SSML file or add text to the prompt. To add an **SSML file**, click **Add** and select **SSML file**. To add a text, click **Add**, select **Text**, enter the text, and click **OK**. To add text to the SSML library for reuse, click **Export**.

     NOTE: If adding variables to text, enclose them within double angle brackets. For example, the EstimatedWaitTime variable is formatted as <<EstimatedWaitTime>>. By default, variables are read as Numbers or, if they are currency, Dollars.
   - **System wave files**—lists the system wave files callers hear while in the system or while waiting on hold. This pane displays the wave files that are available in your selected language.
   - **Custom wave files**—lists imported and wave files you have recorded.

     To import or record a custom wave file, click **Add**, then you can do one of the following:
     - Select the **Existing wave file** option to browse the required folder and select an existing file.
     - Select the **Record wave file** option to use your computer's microphone to record the file.

     NOTE: Wave files must be 8khz, Mono, or ULAW format.
   - **Queue stats**—lists up-to-date queue statistics that can be used in prompts
   - **Variables**—lists variables that can be used in prompts

     NOTE: Read back on variables is based on the type of variable. Number variables read back the whole number, while digit variables read back individual numbers. For example, number variables would read 123 as 'one hundred and twenty-three', while digit variables would read 123 as 'one, two, three'.
   - **Prompts used in workflows and subroutines**—lists all prompts used in workflows and subroutines
7. In the All SSML Files, **All system wave files**, **All custom wave files**, **All queue stats**, **All variables**, or **Prompts used in workflows and subroutines** pane, select the file(s) you want to add to the prompt.
8. Click **>** to add the file to the prompt.

   NOTE: The wave or SSML files play in the order they are added to the prompt. To change the order in which the files are played, select the file and click the up or down arrow buttons on the right-hand side of the dialog box.
9. To add another language's version of the prompt, click the **General** tab, and select another language from the **Language** drop-down list. Repeat steps 6-8.
10. Click **Save**.

Adding files, queue statistics, or variables to prompts

NOTE: Variable readback is only available for numerical variables.

To add files, queue statistics, or variables to a prompt

1. Click **IVR Routing > Prompts**, and select the prompt.
2. Click either the **Text, System wave files**, **Custom wave files**, **Queue stats**, or **Variables** tab.
3. Select either the file, queue stat, or variable to add to the prompt and click **>**.
4. Click **Save**.

Deleting prompts

To delete a prompt

1. Click **IVR Routing > Prompts**.
2. Select the prompt and click **Delete**.
3. When prompted, click **OK**.

Playing prompts

The following explains how to

- Play a prompt
- Play an individual or selection of wave file in a prompt

To play a prompt

1. Click **IVR Routing > Prompts**, and select the prompt to play.
2. Click **Play**.

To play an individual or selection of wave file in a prompt

1. Select the prompt you want to play from the prompt list.
2. Select the **System save files** or **Custom wave files** tab.
3. Select the wave file(s) to play.
4. Click **Play**.

Using Prompts Quick Setup

Quick setup enables you to import previously created wave files.

To use quick setup to import prompts

1. Click **IVR Routing > Prompts > Quick Setup**.
2. After **Folder Path**, click **Browse...**.
3. Browse to the folder containing the wave files and click **OK**.
4. After **Language**, select the primary language from the drop-down list.

   NOTE: By default, the language is set to your default site language.
5. Click **Run**.

Building subroutines

Subroutines are portions of workflows that can be reused in multiple workflows. Subroutines create common workflow activity groups that can be easily reused, encapsulating common activity groups in one single activity. Subroutines can be reused across workflows or within a single workflow, which helps keep workflows manageable and enables rapid workflow creation. They also facilitate workflow updates by requiring only one change to affect all workflows that use the subroutine.

With a few exceptions, subroutines and workflows function almost identically. Subroutines are configured as Inbound, Outbound, RAD,Management, UPiQ, Media, Agent, and Callback Inbound. Subroutines are configured using activities, with specific activities available to each type of subroutine. This enables you to use subroutines to access activities not normally available to your workflow type.

All workflows are associated to queues, ports or hunt groups, however, subroutines are contained within workflows and are not associated to queues, ports or hunt groups.

To build a subroutine

1. Click **IVR Routing > Subroutines**.
2. Click **Add > Voice**, and select a type of subroutine.
3. In the **Properties** pane, type a **Name** for the subroutine. The Name must be unique.
4. Type a **System Name** for the subroutine. The System Name must be unique.
5. Select the **Designer** tab and, from the **Toolbox**, drag and drop activities to the Workflows Canvas.
6. Click **Save**.

Adding subroutines to workflows

You can add subroutines you have built or default subroutines to workflows. For more information on the default subroutines that ship with IVR Routing, see *"IVR Routing default workflows and subroutines"*.

To add a subroutine to a workflow

1. Click **IVR Routing > Workflows**, and select the workflow to which you want to add a subroutine.
2. Click **Toolbox**, and drag and drop a **Subroutine** activity onto the Workflows Canvas.
3. Right-click the Subroutine and select **Assign Subroutine**.
4. Select a subroutine from the list and click **OK**.
5. Click **Save**.

Deleting workflows

NOTE: You cannot delete a subroutine that is added to a workflow. Remove the subroutine from any workflow to which it is added, then delete the subroutine.

To delete a workflow

1. Click **IVR Routing > Workflows**.
2. Select the workflow and click **Delete**.
3. When prompted, click **OK**.

Configuring callbacks

Callbacks are specialized workflows and subroutines that enable customers to leave a request for a return call (callback) from the contact center. These requests sit in queue like a call and offer the agents the ability to call back the customer. When a callback is made, customers see the media server's site name and the first endpoint dialable of the media server as the caller ID. For more information about the workflows and subroutines that enable your contact center to offer callbacks, see *"Default callback workflow and subroutines"*.

For callbacks to function correctly, you must have configured location settings for your media server. If location settings are not configured, your callbacks will not be able to contact your customers. See *"Configuring location settings"*.

Supervisors can monitor and requeue, reject, or delete callbacks using the Global callback monitor in Contact Center Client and the Callback to be processed grid in Interactive Visual Queue. Alternatively, supervisors can use the Callback Requests monitor in Ignite (WEB).

NOTE: Ring Groups do not support handling callbacks. Ring Group queues will not be available when configuring callbacks or their associated workflows. Any callback that is routed to a Ring Group will fail.

Three kinds of callbacks are available with IVR Routing.

- **Abandon**—Abandon callbacks are automatically generated when a customer hangs up while still in a queue, enabling contact centers to contact callers who might have otherwise been missed. Abandon callback subroutine workflows are enabled system-wide. For information about adding abandon callbacks to queues, see *"Enabling abandon callbacks"*.
- **Voice**—Voice callbacks are initiated by the customer. The customer's call is removed from the queue and a callback request is resubmitted to the queue. This option can be provided by including a Callback Request in a workflow. For an overview of the default inbound voice subroutine workflow, see *"Default Inbound Voice Callback subroutine"*.
- **Web**—Web callbacks enable customers to submit callback requests using a website, removing the need for customers to call the contact center in order to be placed in queue to speak to an agent. For information about enabling web callbacks, see *"Enabling web callbacks"*.

Enabling callbacks

Voice, Abandon, and Web callbacks are enabled in different ways. Voice callbacks are enabled by placing a Callback Request activity into a workflow, configuring the activity's inbound and outbound workflows, and then making the workflow available to a queue through a dial out option. For more information on the Callback Request activity, see *"Configuring the Callback Request activity"*. For more information about the Default Inbound Voice Callback subroutine, see *"Default Inbound Voice Callback subroutine"*. For more information about the Default Outbound Callback workflow and the Default Outbound Voice callback subroutine, see *"Default Outbound Callback workflow"* and *"Default Outbound Callback subroutines"*.

Abandon callbacks are disabled by default and must be enabled for each site in MiContact Center Business. Once enabled, the abandon callback settings are applied to all workflows associated to the devices belonging to that site. Individual queues may be configured to use different abandon callback workflows and queues. For more information on enabling abandon callbacks, see *"Enabling abandon callbacks"*. For more information about the Default Outbound Callback workflow and the Default Outbound Abandon callback subroutine, see *"Default Outbound Callback workflow"* and *"Default Outbound Callback subroutines"*.

Web callbacks require a webpage to be set up to submit callbacks. IVR Routing includes a template to use as your web callback submission page. For details of the template and configuring the template for use, see *"Configuring the web callback templates"*. For more information on enabling web callbacks, see *"Enabling web callbacks"*. For more information about the Default Outbound Callback workflow and the Default Outbound Web callback subroutine, see *"Default SIP Outbound workflow"* and *"Default Outbound Callback subroutines"*.

Enabling abandon callbacks

Abandon callbacks are applied to all of a site's queues when enabled for the site. Unless configured with different abandon callback workflows and destination queues, all queues will use the default abandon callback options for the site. If no default queue is selected when abandon callbacks is enabled, abandon callbacks will only be generated for queues that have queue destinations set for their abandon callbacks. By default, abandon callback requests are only applied to calls that abandon with a time greater than the

'Short abandon less than' time specified in individual queues, but short abandon callbacks can be enabled for all queues.

NOTE:

- To duplicate the functionality of the Version 6.0 queue condition builder, place a Queue activity into your Outbound abandon callback workflow before the Make Call activity, with a Save Callback activity placed in the No Match branch to requeue the callback request. See *"Default Outbound Callback subroutines"*.
- Ring Groups do not support abandon callbacks and are not available to be selected for abandon callback default queues.

The following procedures explain how to:

- Enable abandon callbacks
- Change the default Outbound abandon callback workflow
- Select the default queue
- Clear the default queue
- Change the default Outbound abandon callback workflow for a queue
- Change the abandon callback destination for a queue
- Clear the abandon callback destination for a queue
- Disable abandon callbacks

To enable abandon callbacks

1. Click **YourSite > Site**.
2. Select a site.
3. Click the **Callback Requests** tab.
4. Select **Submit callback requests when caller abandon a queue**.
5. To enable short abandon callback requests, select **Allow short-abandon callback requests**.
6. After **Default outbound subroutine**, click the **Browse** button.
7. Select an outbound subroutine and click **OK**.
8. After **Default queue destination**, click the **Browse** button.
9. Select a queue and click **OK**.
10. Click **Save**.

To change the default Outbound abandon callback workflow

1. Click **YourSite > Site**.
2. Select a site.
3. Click the **Callback Requests** tab.
4. After **Default outbound subroutine**, click the **Browse** button.
5. Select an outbound subroutine and click **OK**.
6. Click **Save**.

To change the default queue

1. Click **YourSite > Site**.
2. Select a site.
3. Click the **Callback Requests** tab.
4. After **Default queue destination**, click the **Browse** button.
5. Select a queue and click **OK**.
6. Click **Save**.

To clear the default queue

1. Click **YourSite > Site**.
2. Select a site.
3. Click the **Callback Requests** tab.
4. After **Default queue destination**, click the **Clear** button
5. Click **Save**.

To change the default Outbound abandon callback workflow for a queue

1. Click **IVR Routing > Queues**.
2. Select a queue and click the **Voice options** tab.
3. After **Abandon callback subroutine**, click the **Browse** button.
4. Select an outbound subroutine and click **OK**.
5. Click **Save**.

To change the abandon callback destination for a queue

1. Click **IVR Routing > Queues**.
2. Select a queue and click the **Voice options** tab.
3. After **Abandon callback queue**, click the **Browse** button.
4. Select a queue and click **OK**.
5. Click **Save**.

To clear the abandon callback destination for a queue

1. Click **IVR Routing > Queues**.
2. Select a queue and click the **Voice options** tab.
3. After **Abandon callback subroutine**, click the **Clear** button.
4. Click **Save**.

To disable abandon callbacks

1. Click **YourSite > Site**.
2. Click the **Callback Requests** tab.
3. Clear **Submit callback requests when caller abandon a queue**.
4. Click **Save**.

Enabling web callbacks

Web callbacks require a webpage configured to allow customers to submit callback requests to a contact center.

1. Configure sites for web callback settings.
   See *"Configuring sites for web callbacks"*.
2. Configure an Outbound Web Callback subroutine.

   IVR Routing includes the Default Outbound Web Callback subroutine. You can configure your own if you so choose. For more information on the Default Outbound Web Callback subroutine, see *"Default Outbound Callback subroutines"*.
3. Configure a web callback request page for your contact center.

   See *"Configuring the web callback template"*.
4. Enable the web callback page for callbacks.

   See *"Enabling the web callback template for callbacks"*.

Configuring sites for web callbacks

For each site in your contact center, you must specify the maximum number of web callback requests that can be generated by a single IP address per hour. Ring Groups do not support handling web callbacks.

To configure the maximum number of web callback requests that can be generated by a single IP address per hour

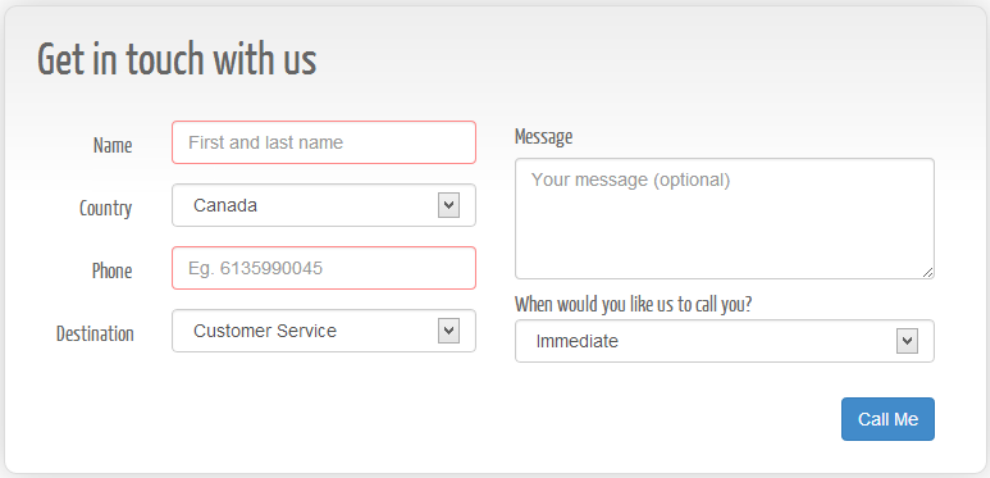
1. Click **YourSite > Site**.
2. Select a site.
3. Click the **Callback Requests** tab.
4. After **Web callback hourly submission limit per user**, select the number of callbacks that can be submitted from a single IP address per hour.
5. Click **Save**.

Configuring the web callback template

Web callback enables callers to submit callback requests using a callback request page accessed through a contact center's website. Callers submit a telephone number, name, and time frame within which their call should be returned, as well as other optional information, which is then routed to the contact center.

IVR Routing includes a web callback template for use as the callback request page for your contact center. The following figure shows the web callback template. The web callback template must be manually configured as a part of your contact center's corporate website. Experienced web developers can also use the template to construct their own web callback page.

Figure 9.6: Template - Default.html



Viewing the web callback template

The web callback template is stored in a zip file in <installation drive>*:\Program Files(x86)\Mitel\MiContact Center\WebSites\WebCallbackTemplate.zip*.

Customizing the web callback templates

You can edit elements of the web callback template to meet your contact center's needs, changing headers, customizing Cascading Style Sheets (CSS), customizing the available countries for the template, or even customizing the web callback template content.

Customizing the header

In the templates, Index.html has a header consisting of the text 'Get in touch with us' where you may insert a company logo or change the text. You can customize these headers for your contact center.

To customize the header

1. Open **Index.html** in a text editor.
2. Replace the text with your own text or an image.

   NOTE: If you are using Notepad with Index.html, press CTRL+F and type <h1> to locate the header in the HTML.
3. Save and close the HTML editor.

Customizing the Cascading Style Sheet

The Cascading Style Sheet (CSS) defines how HTML elements are displayed. CSS enables you to control the style and layout of multiple Web pages all at once.

To customize the CSS

1. Open **\WebCallbackTemplate\css\main.css** in a text editor.
2. Edit the heading and body font sizes and styles, or spacing.
3. Click **Save**.

Customizing the content of the web callback template

You can change the content of the web callback template to reflect your business, however, we do not recommend changing fields as improper changes will result in a non-functioning webpage. If you have the experience, expertise, and resources to edit HTML, you can use the templates to build the webpage you desire.

Customizing the available countries in the template

Callbacks to the UK, the USA, and Canada are available by default. You can customize this template to include only the countries to which you will offer web callbacks. To do this, you must obtain the country GUIDs of the relevant countries from SQL and then add them to index.html.

To obtain country GUIDs from SQL

1. Open **SQL Server Management Studio** or another SQL Management program.
2. Query the following select statement:

   SELECT [Pkey], [Name] FROM [CCMData].[dbo].[tblConfig_Country]
3. Record the country GUIDs you require.

To customize the available countries in the template

1. Open **index.html** in a text editor.
2. To add a country, add the country GUID from the SQL database and the Country name you want to appear in the drop down in the following format:

   <option value=”countryGUID” selected>Country Name in Dropdown</option>
3. If you do not intend to offer web callbacks to Canada, delete <option value="A0A5E01E-1304-4893-840B-CFC30B65983F" selected>Canada</option>
4. Save and close the text editor.

Customizing the available queues in the template

Queues enabled for web callbacks are listed on the callback webpage. Contact Centers can select the queues which appear and limit customers from accessing certain queues on a given callback webpage. To do this, you must obtain the queues’ GUIDs and add them to index.html.

To obtain a queue GUID from YourSite Explorer

1. In **YourSite Explorer**, click **IVR Routing > Queues**.
2. Select a queue.
3. In the ribbon, click **Queue Tools**.
4. Click **Copy queue ID**.

   The queue GUID is copied to your clipboard.

To obtain queue GUIDs from SQL

1. Open **SQL Server Management Studio** or another SQL Management program.
2. Query the following select statement:

   SELECT [Pkey], [Name] FROM [CCMData].[dbo].[tblConfig_Queue]
3. Record the queue GUIDs you require.

To customize the available queues in the template

1. Open **index.html** in a text editor.
2. To add a queue, add the queue GUID and the queue name you want to appear in the drop down in the following format:

   ```
   <select name="queue" class="form-control" id="queue">
   <option value="queue guid" selected>queue name</option>
   </select>
   ```
3. Save and close the text editor.

Enabling the web callback template for callbacks

After you create a web callback request page, you need to enable your web callback page to generate callback requests for your queues. This is done by adding an application pool for web callbacks and adding web callbacks as an application for your website in IIS and specifying in config.js which web callback workflow to use. Optionally, the default messages contacts receive after successfully submitting a callback or if their callback request fails to submit can be changed.

Before the procedure, you must have

- Configured a web callback request page using the template
- Added the web callback template files into the desired directory

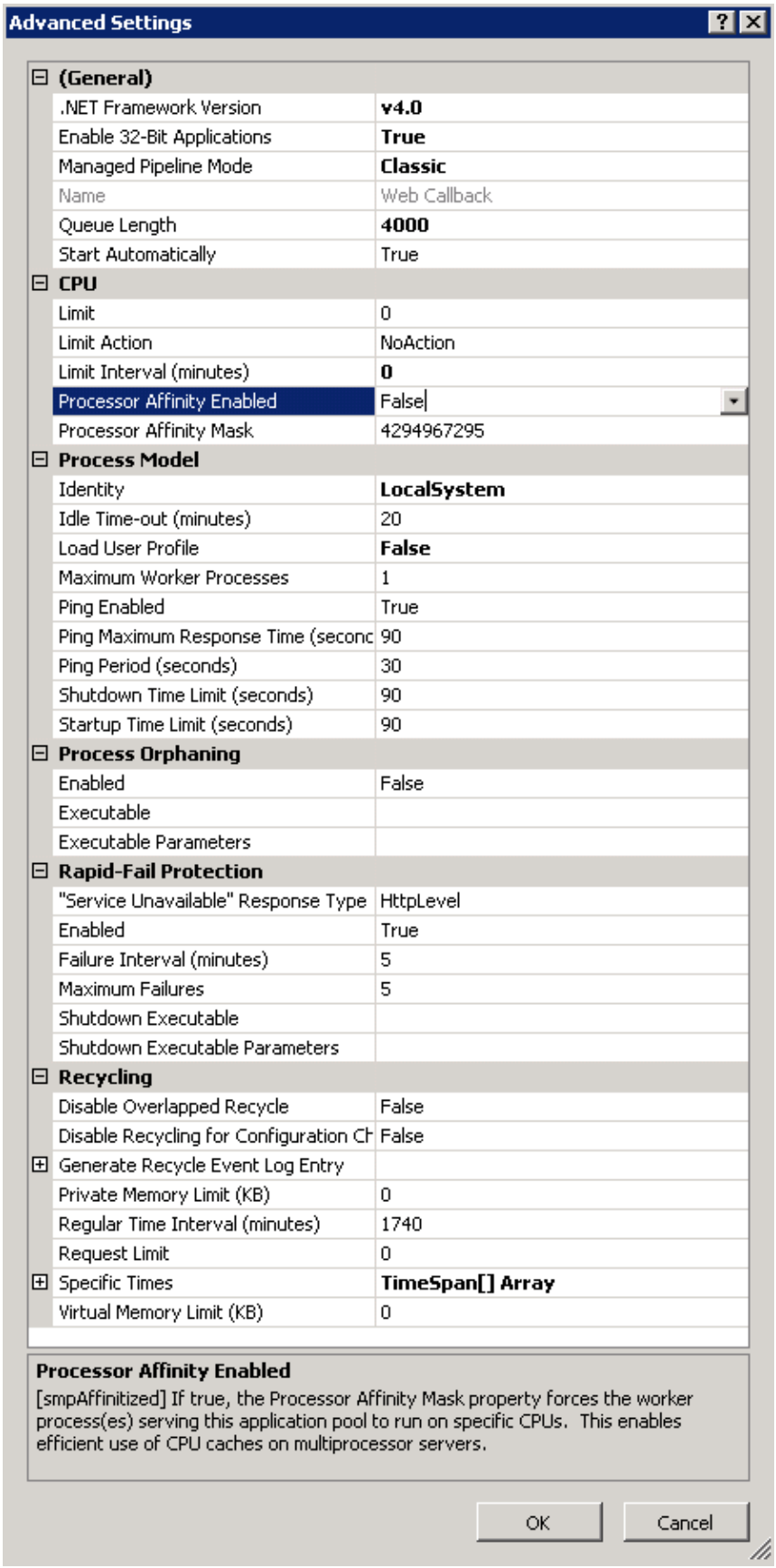
To enable the web callback template for callbacks

1. Add the web callback application pool and configure the application settings
2. Add the web callback as an application to your website
3. Set the Enterprise Server for callbacks
4. (Optional) Change the default web callback subroutine
5. (Optional) Change the default success and failure messages

To add the web callback application pool and configure the application settings

1. Start **IIS Manager**.
2. Under **Connections**, select **Application Pools**.
3. In the **Actions** pane, select **Add Application Pool…**.
4. Under **Name**, add a name for the pool.
5. Under **.NET Framework version**, select the most recent version of .NET Framework 4.5.
6. Under **Managed pipeline mode**, select **Classic**.
7. Click **OK**.
8. Select the **Application Pool** and in the **Actions** pane, select **Advanced Settings…**.
9. Configure the settings to match the figure below.

Figure 9.7: Web callback Application Pools Advanced Settings


Advanced Settings
(General)
.NET Framework Version
v4.0
Enable 32-Bit Applications
True
Managed Pipeline Mode
Classic
Name
Web Callback
Queue Length
4000
Start Automatically
True
CPU
Limit
0
Limit Action
NoAction
Limit Interval (minutes)
0
Processor Affinity Enabled
False
Processor Affinity Mask
4294967295
Process Model
Identity
LocalSystem
Idle Time-out (minutes)
20
Load User Profile
False
Maximum Worker Processes
1
Ping Enabled
True
Ping Maximum Response Time (seconc
90
Ping Period (seconds)
30
Shutdown Time Limit (seconds)
90
Startup Time Limit (seconds)
90
Process Orphaning
Enabled
False
Executable
Executable Parameters
Rapid-Fail Protection
"Service Unavailable" Response Type
HttpLevel
Enabled
True
Failure Interval (minutes)
5
Maximum Failures
5
Shutdown Executable
Shutdown Executable Parameters
Recycling
Disable Overlapped Recycle
False
Disable Recycling for Configuration Ch
False
Generate Recycle Event Log Entry
Private Memory Limit (KB)
0
Regular Time Interval (minutes)
1740
Request Limit
0
Specific Times
TimeSpan[] Array
Virtual Memory Limit (KB)
0
Processor Affinity Enabled
[smpAffinitized] If true, the Processor Affinity Mask property forces the worker process(es) serving this application pool to run on specific CPUs. This enables efficient use of CPU caches on multiprocessor servers.
OK
Cancel

10. Click **OK**.

To add the web callback as an application to your website

1. Start **IIS Manager**.
2. In the **Connections** pane, navigate to **Default Web Site**.
3. In the **Actions** pane, click **View Applications**.
4. In the **Actions** pane, click **Add Application…**.
5. Under **Alias**, provide an alias.
6. Click **Select…**.
7. Select the web callback application pool and click **OK**.
8. Under **Physical path**, click … and navigate to the folder containing **web.config** and click **OK**.
9. Click **OK**.

To set the Enterprise Server IP address for callbacks

1. Navigate to **config.js** and open in a text editor.
2. Locate the following line of text:

   var Config.EnterpriseServerAddress = "localhost";
3. Replace **localhost** with your Enterprise Server's IP address.
4. If the Enterprise Server was configured to use SSL during installation, locate the following line of text:

   var Config.EnterpriseUsingSSL = false;
5. Replace **false** with **true**.
6. Save and close the text editor.

To change the default web callback subroutine

1. Navigate to **config.js** and open in a text editor.
2. Locate the following line of text:

   var Config.OutboundCallbackSubroutineID = "B0AA4E0E-A97D-461E-A7F9-E32026C1FA40";
3. Replace the value with the GUID of the subroutine from SQL.

   The GUID can be obtained from tblConfig_VWM_Subroutine in SQL. See the procedure below for instructions on how to obtain this information.
4. Save and close the text editor.

To obtain web callback subroutine information from SQL

1. Open **SQL Server Management Studio** or another SQL Management program.
2. Query the following select statement:

   select Pkey,Name from tblConfig_VWM_Subroutine
3. Find your value for your web callback subroutine.

To change the default success and failure message for the web callbacks

1. Navigate to **config.js** and open in a text editor.
2. Locate the following lines of text:

var Config.SuccessMessage = "Thanks, we will get in touch with you shortly.";
var Config.FailureMessage = "Sorry, we are having difficulties right now. Please try again.";

3. Replace **"Thanks, we will get in touch with your shortly."** with the desired message for a successful callback submission.
4. Replace **"Sorry, we are having difficulties right now. Please try again."** with the desired message for a failed callback submission.
5. Save and close the text editor.

Configuring rules

Rules provide call conditions that are evaluated at the runtime of the workflow. They enable you to compare against a broad range of conditions in a single workflow activity, reducing workflow clutter and enabling more precise routing.

In a workflow, rules are assigned to a Rules activity. When an incoming call enters a workflow and encounters a Rules activity, the call is evaluated against the activity's associated rules and is branched based on whether or not the call meets the rule's routing rules' conditions. Routing rules can be based on a number of different conditions:

- ANI (Voice, Inqueue, and Agent)
- DNIS (Voice, Outbound, Inqueue, and Agent)
- Emergency (Voice, RAD, Outbound, Inqueue, and Agent)
- Hunt Group (Voice, RAD, Outbound, Inqueue)
- Queue (Voice, RAD, Outbound, Inqueue, and Agent)

  NOTE: Ring Groups are supported for queue routing rules
- Redirect (Voice, Outbound, Inqueue)
- Schedule (Voice, RAD, Outbound, Inqueue, and Agent)

If the call meets the routing rules' conditions, then it is routed through the Success branch and has variables set to specific values based on the pre-configured variable options in the rule. If it does not meet the rule's routing conditions, then the call is routed through the Failure branch. If the call is comparing against many routing rules in a single Rules activity, the variables will only be set once, by the first routing rule matched.

Rules are best used when you want to route calls based on multiple conditions. A site that has a Monday to Friday, 9 am to 5 pm French language queue and a 24-hour English queue could, using ANI and Schedule routing rules in a single rule, route calls from French area codes that are calling within business hours to the French queues and all other calls to the 24-hour English queue.

For more information on the Rules activity for workflows, see *"Configuring the Rules activity"*.

Adding rules

Routing rules' conditions vary by rules type. See *"Configuring rules"*. Note that you cannot save routing rules until after you add variables to your rules. See *"Adding variables to rules"*.

To add a rule

1. Click **IVR Routing > Rules > Add**.
2. Select either **Voice**, **RAD**,**Outbound**, **Inqueue**, or **Agent**.
3. Type a **Name** for the rule.

NOTE: The Expression field is automatically populated when routing rules have been configured. See *Adding routing conditions to rules"*.

Adding routing conditions to rules

NOTE:

- You cannot save routing rules until after you add variables to your rules. See *"Adding variables to rules"*.
- For instructions on grouping rule conditions, see *"Grouping expressions"*.

The following procedures explain how to

- Add an ANI, DNIS, Hunt Group, or Redirect routing condition to a rule
- Add a Schedule routing condition to a rule
- Add a Queue routing condition to a rule
- Add an Emergency routing condition to a rule

To add an ANI, DNIS, Hunt Group, or Redirect routing condition to a rule

1. Under **Routing Rules**, click **Add**.
2. From the second column, select one of the following routing rule types from the drop-down list:
   - ANI
   - DNIS
   - Hunt Group
   - Redirect
3. From the third column, click the **-** button.
4. To add a value, click **Add** and enter a value for the routing rule.
5. Click the **Add** button.
6. Repeat the above steps to add additional values to the routing rule.
7. To test values, after **Test**, type the values. 'Pass' or 'Fail' displays depending on whether the test is successful.
8. Click **OK**.

To add a Schedule routing condition to a rule

1. Under **Routing Rules**, click **Add**.
2. From the second column, select **Schedule** from the drop-down list.
3. From the third column, click the **-** button.
4. Click **Add**.
5. Select one of the following conditions from the drop-down list:
   - Date
   - DOW (Day of Week)
   - Holiday
   - Schedule
   - Time

6. Select a value for the condition and click **OK**.
7. To add more schedule conditions, click **Add** and repeat the above steps.
8. To test the conditions, under **Utilities**, enter time and date information and click **Test**. 'Pass' or 'Fail' displays depending on whether the test is successful.
9. Click **OK**.

To add a Queue routing condition to a rule

1. Under **Routing Rules**, click **Add**.
2. From the second column, select **Queue** from the drop-down list.
3. From the third column, click the **-** button.
4. After **Queue**, click the ... button.
5. Select either the **Queue**, **Queue Group**, or **Variable** tab.

   NOTE: For information on how queue groups use queue real-time statistics, see *"Real-time queue conditions and queue groups"*.
6. Select a queue, queue group, or variable to add to the condition and click **OK**.
7. To add a new queue, see *"Configuring Queues"*.

   NOTE: To configure a new queue for web callbacks, see *"Enabling web callbacks"*.
8. To add a new queue group, select the **Queue Group** pane and click **Add**.
   - After **Name**, type a name for the queue group.
   - After **Reporting number**, type a reporting number for the queue group.
   - In the **Available members** pane, select a queue group and click the **>** button.
9. To add a new variable, see *"Configuring variables"*
10. Click **Save**.
11. To add conditions, at the top of the Queue Conditions dialog box, click **Add**.
12. From the second column, select a real-time statistic from the drop-down list:

    NOTE: Expected Wait Time requires at least one call waiting in queue for IVR Routing to calculate an Expected Wait Time value.
13. From the third column, select one of the following operators from the drop-down list. Options vary according to the real-time statistic selected:
    - ! = Not Equal to
    - < Less than
    - <= Equal to or less than
    - = Equal to
    - > Greater than
    - >= Equal to or greater than
14. In the third column, from the drop-down list select either the **Value**, **Queue Stats**, or the **Variable** tab.
15. Under **Value**, type in a numeric value or enable the check box for the value.
16. Under **Queue Stats**, select a queue stat from the drop-down list.

17. Under **Variable**, select a variable from the drop-down list.
18. Click **OK**.
19. If you want to add another condition, at the top of the dialog box, click **Add**.
20. Repeat the above steps for each additional condition to add to the Queue Condition builder.
21. To import queue conditions, click the **Import** button and navigate to a *.csv file.
22. To export queue conditions, click the **Export** button and navigate to a *.csv file.

NOTE:

- Conditions on a single line and separated by a comma will be added to a single branch.
- Conditions on multiple lines and separated by a comma will be added to multiple branches.

23. To test the conditions, click **Test Parameters**, enter a value in the relevant fields and click **Test**. 'Pass' or 'Fail' displays depending on whether the test is successful.
24. To delete a queue condition, from the drop-down list to the left of the condition select **Delete**.
25. Click **OK**.

To add an Emergency routing condition to a rule

1. Under **Routing Rules**, click **Add**.
2. From the second column, select **Emergency**.
3. From the third column, select **Yes** or **No**.

Adding variables to rules

To add a variable to a rule

1. Under **Variables**, click **Add**.
2. From the second column, select a variable from the drop-down list and click **OK**.
3. In the third column, select either **Value** or **Variable**.
4. If you selected 'Value', type the value.
5. If you selected 'Variable, select a variable from the list.
6. Click **OK**.
7. Click **Save**.

Deleting rules

To delete a rule

1. Under **IVR Routing > Rules**, select the rule from the list provided.
2. Click **Delete**.
3. When prompted, click **OK**.

Configuring holidays

Holidays can be configured for dates that affect your contact center functionality. For information on configuring holidays, see *"Configuring holidays"*.

To configure a holiday

1. In YourSite Explorer, in the left pane, click **IVR Routing**.
2. Click **Holidays**.
3. Click **Add**.
4. After **Name**, type the name of the holiday.
5. If this holiday is a company holiday and you want to receive warnings when trying to schedule employees for this day, select the **This holiday is a company holiday** check box.
6. Specify the pattern of the holiday.
   - If the holiday always falls on the same day of the month, select **Every** and specify the month and date the holiday falls on.
   - If the holiday has a pattern of falling on a certain day, week, and month, select **The** and specify the pattern, day of week, and month.
   - If the holiday is a calculated holiday, such as Good Friday or Easter Monday, select **Calculated holiday** and specify the holiday.
7. Click **Save**.

Configuring data providers

You can create a connection to a data provider located on a local or an external server to access information about incoming callers. For example, the data providers query can be configured to retrieve customer information based on ANI, DNIS, collected digits, or variables.

IVR Routing can add the following as data providers to query for data:

- Microsoft Excel worksheets
- Microsoft SQL servers
- Lightweight Directory Access Protocol (LDAP)

NOTE: If you plan to use the Microsoft Excel worksheets to query for data, you must install the appropriate version of Microsoft Access Database Engine Redistributable package. The version and architecture of the package should be same as that of the Microsoft Office installed on the system.

IVR Routing also supports the following platforms as generic data providers to query for data:

- SAP
- Salesforce
- Microsoft Dynamics CRM
- Sugar CRM
- NetSuite
- Zendesk

IVR Routing can also import ODBC connections configured using the Windows ODBC Data Source Administrator. IVR Routing supports the following reference platforms for ODBC connections:

- IBM DB2
- Oracle Database
- MySQL
- Microsoft Access
- PostgreSQL

Adding a Microsoft SQL server as a data provider

To add a Microsoft SQL server as a data provider

1. Click **IVR Routing > Data providers**.
2. Click **Add** and select **Microsoft SQL Server** from the drop down list.
3. Type a **Name** for the data provider.
4. Type the **Server Name**.
5. Under **Log on credentials**, select **Windows Authentication** or **SQL Server Authentication**.
6. If you select SQL Server Authentication, enter a **Username** and **Password**.
7. Click **Test Connection**.
8. After **Database Name**, select a database name from the drop down list.
9. Click **Save**.

Adding a Microsoft Excel worksheet as a data provider

Administrators can add Microsoft Excel worksheets as data providers the system can query.

To add a Microsoft Excel worksheet as a data provider

1. In the left pane, click **IVR Routing > Data providers**.
2. Click **Add** and select **Excel** from the drop-down list.

   A new data provider is added to the data provider list.
3. Type a **Name** for the data provider.
4. After **Workbook**, click **Select File** and browse to the Excel worksheet you want to use as a data provider.

   NOTE: The Excel worksheet must be shared as a workbook and located on a UNC (Universal Naming Convention) path, also known as a shared network path. The syntax for a UNC path is \\ComputerName\SharedFolder\Resource. An example of the syntax format is \\IVRMA-CHINE\IVRDIRECTORY\WORKSHEET.xls. Locating the worksheet on a UNC enables IVR Routing to access the data provider remotely.
5. Click **Open**.
6. Click **Test Connection**.
7. Click **Save**.

Adding a LDAP as a data provider

To add a LDAP as a data provider

1. Click **IVR Routing > Data providers**.
2. Click **Add** and select **LDAP** from the drop down list.
3. Type a **Name**for the data provider.
4. Type the **Domain** of the LDAP.
5. Type the **Username** for the LDAP.
6. Type the **Password** for the LDAP.
7. Click **Test Connection**.
8. Click **Save**.

Adding a generic data provider

Salesforce, Microsoft Dynamics CRM, SAP, Sugar CRM, NetSuite and Zendesk can be added as generic data providers in YourSite Explorer. Generic data providers have certain limitations on the SQL language for queries. Consult the following Knowledge Base articles for the SQL language supported for these data providers: https://mitel.custhelp.com/app/answers/answer_view/a_id/1013095/loc/en_US.

To add a generic data provider

1. Click **IVR Routing > Data providers**.
2. Click **Add** and select **Generic** from the drop-down list.
3. Type a **Name** for the data provider.
4. After **Type**, select a data provider.
5. Type the **User Name** of the data provider.
6. Type the **Password** for the data provider
7. After **Other Settings**, enter the data provider-specific information.
   - **SAP**: Enter the client number, the system number, and the connection type, separating the values by semi-colons. For example: 250;25;SOAP
   - **Salesforce**: Enter your Salesforce security token.

     Contact your Salesforce administrator to obtain the Salesforce security token.
   - **Dynamics CRM**: Enter the CRM version. For example, CRM Online Office 365.
   - **Sugar CRM**: Enter your Sugar CRM credentials.
   - **NetSuite**: Enter your NetSuite credentials.
   - **Zendesk**: Enter your Zendesk credentials.
8. Enter the connection's **Url**.
9. To test the connection, click **Test Connection**.
10. Click **Save**.

Adding an ODBC as a data provider

ODBC connections can be added as a data provider through the Windows ODBC Data Source Administrator. After adding an ODBC using ODBC Data Source Administrator, the ODBC will automatically appear in data source providers and will be made available for the Query activity.

You cannot edit an ODBC data provider in IVR Routing.

NOTE: When adding an ODBC connection for IVR Routing, you must use the 32-bit Windows Server tool. For more information, see the following Mitel Knowledge Base article:
https://mitel.custhelp.com/app/answers/answer_view/a_id/1001249/loc/en_US

When adding third-party data providers for IVR routing, use 64-bit SQL ODBC drivers.

To install 64-bit drivers, use the ODBCAD32.EXE tool from the following location

C:\Windows\System32 folder to configure the System Data Service Name (DSN).

To obtain the required driver for ORACLE 11.x, use Oracle Instant Client Basic and ODBC 11.2.0.2 or later installation versions, or contact Oracle for support.

Deleting data providers

NOTE: You cannot delete ODBC data providers from the data providers list.

To delete a data provider

1. Click **IVR Routing > Data providers**.
2. Select the data provider and click **Delete**.
3. When prompted, click **OK**.

Configuring variables

Variables are used in multiple activities and to perform various tasks, including

- Storing information for later use
- Collecting user data
- Performing database queries
- Building simple or complex conditions

Variables can be used for different activities such as:

- Transferring a call to a different queue based on customer class
- Playing different prompts based on account balance
- Holding collected digits for use later in a database query

Some variables can also be passed to agents in the form of a desk top screen pop, providing agents with call information generated in the workflow. For more information, see *"Passing agents call information in screen pops"* and *"Populating screen pops with workflow variables"*.

Variables may be configured to mask their contents, enabling variables to be delivered either entirely masked or partially masked with a user-specified number of characters left unmasked. This limits the exposure of potentially sensitive information, such as credit card or SIN numbers, in logs, call notes, databases, and screen pops. Masked variables cannot be used with the Set Variable activity, but can be used with the Variable Compare and Collect Digits activities. Variables that contain file paths to .wav files will

also mask the .wav file. System variables cannot be masked. Masking is available to the following types of variables:

- Unspecified
- Digits
- Number
- Dollars
- Euros
- Pounds
- DateTime

Masked variables are a component of building workflows in support of PCI compliant systems. For an example of a PCI compliant workflow, see *"Workflow for PCI Complaint systems"*.

IVR Routing includes built-in variables that you can use in your workflows. To view these variables and to see a description of each, open YourSite Explorer and select IVR Routing > Variables.

Custom variables can be populated through queries and activities such as Set Variable and Execute. See *"Configuring the Query activity"*, *"Configuring the Set Variables activity"*, and *"Configuring the Execute activity"*.

Adding variables

To add a variable

1. Click **IVR Routing > Variables > Add**.
2. Type a **Name** for the new variable.

   NOTE:
   - The Name must be unique and cannot contain any spaces.
   - A variable's name cannot be changed after you save.
3. After **Description**, provide a brief explanation of the variable function.
4. After **VariableType**, select the type of variable from the drop-down list.

   NOTE: A variable's type cannot be changed after you save.
5. If **Mask Type** is available to this type of variable, select the variable's mask from the drop-down list.
   - **NoMask**– The variable will not be masked within IVR Routing and associated screen pops, databases, etc.
   - **FullMask**– The entire variable will be masked within IVR Routing and associated screen pops, databases, etc.
   - **MaskAllExceptLastX**– The variable will be masked except for the specified number of final characters
   - **MaskAllExceptFirstX**– The variable will be masked except for the specified number of first characters
6. If you selected **MaskAllExceptLastX** or **MaskAllExceptFirstX**, specify the number of characters to be left unmasked.
7. To enable this variable to display in a toaster notification or screen pop select the **Send to agent desktop** check box.

8. After **Display Name**, type the name this variable has when it appears in a toaster notification or screen pop.
9. If you selected Dollars, Euros, or Pounds as the variable type, after **Currency Format**, select the format from the drop-down list.
10. If you selected Date Time as the variable type, after **Date Format**, select the date format from the drop-down list. After **Time Format**, select the time format from the drop-down list.
11. Click **Save**.

Deleting variables

NOTE: Default variables are grayed out and cannot be deleted.

To delete a variable

1. Click **IVR Routing > Variables**.
2. Select the variable and click **Delete**.
3. When prompted, click **OK**.

Configuring security

You can configure IVR Routing security settings in YourSite Explorer to allow or prevent users from making changes to workflows, devices, and prompts, and to the runtime operations of your business. See *"Cofiguring security roles"*.

Configuring Automatic Speech Recognition

IVR Routing supports integration with an Automatic Speech Recognition server to provide Automatic Speech Recognition capabilities for collecting spoken caller input. Automatic Speech Recognition enables callers in IVR Routing workflows to provide information verbally rather than by entering digits or text using a phone keypad.

Automatic Speech Recognition can be added to a site and its media servers through associating an Automatic Speech Recognition server to the site. For information on supported Automatic Speech Recognition servers, see the *MiContact Center Business and MiVoice Analytics System Engineering Guide*.

The following activities support Automatic Speech Recognition:

- Collect Digits
  See *"Configuring the Collect Digits activity"*.
- Menu
  See *"Configuring the Menu activity"*.

Activities using Automatic Speech Recognition require a Confidence Threshold for speech input. The Confidence Threshold determines the threshold for accepting speech input and routing down the appropriate branch of the activity. A high Confidence Threshold improves the accuracy of the input while increasing the likelihood that speech input will be considered invalid. A low Confidence Threshold lowers the chance that speech input will be considered invalid, at the cost of accuracy. The default Confidence Threshold for activities using Automatic Speech Recognition is 50%. It is the responsibility of contact centers to determine the acceptable Confidence Threshold for speech input in their workflows.

IVR Routing Automatic Speech Recognition works with IVR Routing Text-to-Speech. For more information on Text-to-Speech, see *"Configuring a Text-to-Speech server"*.

Configuring an Automatic Speech Recognition server

Automatic Speech Recognition servers are added on a site-by-site basis.

The following procedure takes place in YourSite > Site.

To configure an Automatic Speech Recognition server

1. Select a site and click the **Speech Recognition** tab.
2. After **MRCP Server IP**, type the IP address of your Automatic Speech Recognition server.
3. After **Server Port**, type the port the Automatic Speech Recognition server is listening on.

   By default, this is port 5060.
4. Click **Save**.

Configuring Text-to-Speech

IVR Routing supports integrating with a Text-to-Speech server to provide Text-to-Speech capabilities for prompts and activities in IVR Routing.

Text-to-Speech enables textual content to be read to callers in prompts, such as information returned from a query, text updates on the status of a service or product queried information back to callers, enable businesses to provide a text update on the status of a service or product and be able to read this message back to customers calling in.

Text-to-Speech can be added to a site and its media servers through associating a Text-to-Speech server to the site and specifying the Text-to-Speech server voices (languages) that IVR Routing should use for corresponding MiContact Center Business supported languages.

NOTE: Not all languages and their dialects may align exactly to MiContact Center Business supported languages. Administrators should select the voice that best matches their region in cases when there is not an exact match.

For information about adding Text-to-Speech servers to sites, see *"Configuring a Text-to-Speech server"*. For information on Text-to-Speech servers and supported languages, see the *MiContact Center Business and MiVoice Analytics System Engineering Guide*.

If Text-to-Speech capability has been added to IVR Routing, Speech Server Markup Language (SSML) files can be added to prompts. Text can also be added to prompts or saved as an SSML file for use in other prompts. For information on creating Text prompts, see *"Configuring prompts"*.

Certain IVR Routing activities also support having Text added to them directly. For information on adding text-to-speech to activities, see *"Configuring the Play activity"*, *"Configuring the Collect Digits activity"*, and *"Configuring the Menu activity"*.

Text-to-Speech for IVR Routing is available as an optional add-on to Contact Center or Workgroup.

Configuring a Text-to-Speech server

Text-to-Speech is configured on a site-by-site basis. To configure Text-to-Speech, you must provide server settings as well as associate the Text-to-Speech server's voices to MiContact Center Business supported languages. Associating a voice to a language ensures that the correct voice is used for a work-

flow's language settings. Voices must be configured on your Text-to-Speech server before they can be added to IVR Routing.

For information on supported Text-to-Speech servers, see the *MiContact Center Business and MiVoice Analytics System Engineering Guide*.

he following procedures take place in YourSite > Site.

To configure a Text-to-Speech server

1. Select a site and click the **Text-to-Speech** tab.
2. After **MRCP Server IP**, type the Text-to-Speech server's IP address.
3. After **Server Port**, type the port the Text-to-Speech server is listening on.

   By default, this is port 5060.
4. Click **Save**.

To configure Text-to-Speech server voices

1. Select a site and click the **Text-to-Speech** tab.
2. After **Voices**, click **Add**.
3. Under **Language**, select the voice's language.
4. Under **Name**, enter the voice's name.

   The Name must match the name on your Text-to-Speech server.
5. Click **Save**.

Activities

You use IVR Routing's activities to build workflows and subroutines and configure the routing conditions that send customers to queues. Activities perform a range of functions, such as answering, transferring, and redirecting calls, collecting caller-entered digits, playing customized prompts, and running database queries to retrieve caller information. The following sections explain the activities available in IVR Routing and how you can configure activities to build workflows, subroutines, and routing conditions.

This section on Activities begins with *"Activities available in IVR Routing"* table, which lists IVR Routing's activities, displays the activities' icons, and lists activity availability by workflow and subroutine types. The section then explains how different activities are categorized based on the functions they perform and how they instruct IVR Routing to manage call routing. This Activities section concludes by explaining how to configure activities in order to build workflows, subroutines, and ultimately routing conditions. It provides procedures for configurations that are common to many activities and concludes with procedures for configuring individual activities.

NOTE: The following sections explain activities and their configuration, but do not explain how to use activities to create an entire workflow or subroutine. For information on how activities can be used to create workflows and subroutines, see *"Workflow examples"*, *"IVR Routing workflow samples"*,*"IVR Routing complex workflow configuration"*, and *"IVR Routing default workflows and subroutines"*.

Activities available in IVR Routing

The following table lists the activities used to create IVR Routing workflows and subroutines. The table lists the activity, shows the activity's icon, and lists the activities' availability according to workflow and subroutine type. The table also contains links to the configuration procedures for each activity.

Activity availability varies depending on whether you are licensed for Messaging and Routing or IVR. For detailed licensing information, see the *MiContact Center Business and MiVoice Analytics System Engineering Guide*.

Table 9.2: Activities available in IVR Routing (Sheet 1 of 8)

Activity Name	Icon	Details
ANI		Available in Inbound, Inqueue and Agent workflows Available in Inbound, Management, Callback Inbound, and Agent subroutines For configuration procedures, see *"Configuring the ANI activity"*.
Answer		Available in Inbound and RAD workflows Available in Inbound, RAD, Management, UPiQ, Callback Inbound, and Agent subroutines For configuration procedures, see *"Configuring the Answer activity"*.
Callback Request		Available in Inbound workflows Available in Inbound and UPiQ subroutines For configuration procedures, see *"Configuring the Callback Request activity"*.
Collect Digits		Available in Inbound and Outbound workflows Available in Inbound, Outbound, Management, UPIQ, and Callback Inbound subroutines For configuration procedures, see *"Configuring the Collect Digits activity"*.
Conference		Available in Outbound workflows Available in Outbound subroutines For configuration procedures, see *"Configuring the Conference activity"*.

Table 9.2: Activities available in IVR Routing (Continued) (Sheet 2 of 8)

Activity Name	Icon	Details
Connect to Caller		Available in Inqueue workflows For configuration procedures, see *"Configuring the Connect to Caller activity"*.
Date Time Validation		Available in Callback Inbound subroutines For configuration procedures, see *"Configuring the Date Time Validation activity"*.
Delay		Available in Inbound, Outbound, RAD, Inqueue, and Agent workflows Available in Inbound, Outbound, RAD, Management, UPiQ, Callback Inbound, Agent subroutines For configuration procedures, see *"Configuring the Delay activity"*.
DNIS		Available in Inbound, Outbound, Inqueue, and Agent workflows Available in Inbound, Outbound, Management, UPiQ, Callback Inbound, and Agent subroutines For configuration procedures, see *"Configuring the DNIS activity"*.
Email		Available in Inbound, Outbound, RAD, Inqueue, and Agent workflows Available in Inbound, Outbound, RAD, Management, UPiQ, Callback Inbound, and Agent subroutines For configuration procedures, see *"Configuring the Email activity"*.

Table 9.2: Activities available in IVR Routing (Continued) (Sheet 3 of 8)

Activity Name	Icon	Details
Execute		Available in Inbound, Outbound, RAD, Inqueue, and Agent workflows Available in Inbound, Outbound, RAD, Management, UPiQ, Callback Inbound, and Agent subroutines For configuration procedures, see *"Configuring the Execute activity"*.
Go To		Available in Inbound, Outbound, RAD, Inqueue, and Agent workflows Available in Inbound, Outbound, RAD, Management, UPiQ, Callback Inbound, and Agent subroutines For configuration procedures, see *"Configuring the Goto activity"*.
Hang Up		Available in Inbound, Outbound, and RAD workflows Available in Inbound, Outbound, RAD, Management, UPiQ, and Callback Inbound subroutines For configuration procedures, see *"Configuring the Hang up activity"*.
Hold State		Available in Inbound workflows Available in Inbound subroutines For configuration information, see *"Configuring the Hold State activity"*.
Hunt Group		Available in Inbound, RAD, and Inqueue workflows Available in Inbound, RAD, and Callback Inbound subroutines For configuration procedures, see *"Configuring the Hunt Group activity"*.

Table 9.2: Activities available in IVR Routing (Continued) (Sheet 4 of 8)

Activity Name	Icon	Details
Language	Language	Available in Inbound, Outbound, RAD, and Inqueue workflows Available in Inbound, Outbound, RAD, Management, UPiQ, and Callback Inbound subroutines For configuration procedures, see *"Configuring the Language Activity"*.
Make Call	Make Call	Available in Outbound workflows. Available in Outbound subroutines For configuration procedures, see *"Configuring the Make Call activity"*.
Management	Management	Available in Inbound workflows Available in Inbound, Management, and Callback Inbound subroutines For configuration procedures, see *"Configuring the Management activity"*.
Menu	Menu	Available in Inbound and Outbound workflows Available in Inbound, Outbound, Management, UPiQ, and Callback Inbound subroutines Available in Inbound and Outbound workflows Available in Inbound, Outbound, Management, UPiQ, and Callback Inbound subroutines For configuration procedures, see *"Configuring the Menu activity"*.
Mode of Operation	Mode of Operation	Available in Inbound workflows Available in Inbound and Management subroutines For configuration procedures, see *"Configuring the Mode of Operation activity"*.

Table 9.2: Activities available in IVR Routing (Continued) (Sheet 5 of 8)

Activity Name	Icon	Details
Play		Available in Inbound, Outbound, RAD, Inqueue, and Agent workflows Available in Inbound, Outbound, RAD, Management, UPiQ, Callback Inbound, and Agent subroutines For configuration procedures, see *"Configuring the Play activity"*.
Query		Available in Inbound, Outbound, RAD, Inqueue, and Agent workflows Available in Inbound, Outbound, RAD, Management, UPiQ, Callback Inbound, and Agent subroutines For configuration procedures, see *"Configuring the Query activity"*.
Queue		Available in Inbound, Outbound, RAD, Inqueue, and Agent workflows Available in Inbound, Outbound, RAD, UPiQ, Callback Inbound, and Agent subroutines For configuration procedures, see *"Configuring the Queue activity"*.
Queue Control		Available in Management subroutines For configuration procedures, see *"Configuring the Set Queue State activity"*.
Record		Available in Inbound workflows Available in Inbound, Management, UPiQ, and Callback Inbound workflows For configuration procedures, see *"Configuring the Record activity"*.

Table 9.2: Activities available in IVR Routing (Continued) (Sheet 6 of 8)

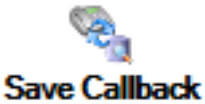
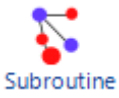
Activity Name	Icon	Details
Redirect		Available in Inbound and Agent workflows Available in Inbound, Management, Callback Inbound, and Agent subroutines For configuration procedures, see *"Configuring the Redirect activity"*.
Retrieve Callback		Available in Outbound workflows Available in Outbound subroutines For configuration procedures, see *"Configuring the Retrieve Callback activity"*.
Rules		Available in Inbound, Outbound, RAD, Inqueue, and Agent workflows Available in Inbound, Outbound, RAD, Management, UPiQ, Callback Inbound, and Agent subroutines For configuration procedures, see *"Configuring the Rules activity"*.
Save Agent Greeting		Available only in the Default Record Agent Greeting workflow For configuration procedures, see *"Configuring the Save Agent Greeting activity"*.
Save Callback		Available in Inbound, Outbound, RAD, Inqueue, and Agent workflows Available in Inbound, Outbound, RAD, UPiQ, Management, Callback Inbound, and Agent, subroutines For configuration procedures, see *"Configuring the Save Callback activity"*.

Table 9.2: Activities available in IVR Routing (Continued) (Sheet 7 of 8)

Activity Name	Icon	Details
Schedule	Schedule	Available in Inbound, Outbound, RAD, and Inqueue workflows Available in Inbound, Outbound, RAD, UPiQ, and Callback Inbound subroutines For configuration procedures, see *"Configuring the Schedule activity"*.
Set Device Mode of Operation	Set Device Mode of Operation	Available in Management subroutines For configuration procedures, see *"Configuring the Set Device Mode of Operation activity"*.
Set System Mode of Operation	Set System Mode of Operation	Available in Management subroutines For configuration procedures, see *"Configuring the Set System Mode of Operation activity"*.
Set Variables	Set Variables	Available in Inbound, Outbound, RAD, and Inqueue workflows Available in Inbound, Outbound, RAD, Management, UPiQ, and Callback Inbound subroutines For configuration procedures, see *"Configuring the Set Variables activity"*.
SMS	SMS	Available in Inbound, Outbound, RAD, Inqueue, and Agent workflows Available in Inbound, Outbound, RAD, Management, UPiQ, and Callback Inbound subroutines For configuration procedures, see *"Configuring the SMS activity IVR"*

Table 9.2: Activities available in IVR Routing (Continued) (Sheet 8 of 8)

Activity Name	Icon	Details
Subroutine		Available in Inbound, Outbound, RAD, Inqueue, and Agent workflows Available in Inbound, Outbound, RAD, Management, UPiQ, Callback Inbound, and Agent subroutines For configuration procedures, see *"Configuring the Subroutine activity"*.
Swap Prompt		Available in Management subroutines For configuration procedures, see *"Configuring the Swap Prompt activity"*.
Transfer		Available in Inbound, Outbound, and Inqueue workflows Available in Inbound, Outbound, Management, and Callback Inbound subroutines For configuration procedures, see *"Configuring the Transfer activity"*.
Variable Compare		Available in Inbound, Outbound, RAD, Inqueue, and Agent workflows Available in Inbound, Outbound, RAD, Management, UPiQ, Callback Inbound, and Agent For configuration procedures, see *"Configuring the Compare Variables activity"*.

Configuring common activity options

Several of IVR Routing's activities share configuration procedures. This section explains procedures for configurations that are common to many activities, branches, and branching conditions.

NOTE: Branches route callers to different portions of the workflow. Branching conditions represent the circumstances a call must match in order to be sent to a particular branch.

Adding activities to workflows or subroutines

NOTE: The availability of activities varies depending on

- The workflow or subroutine type you select. For example, you cannot use a Menu Activity in a RAD workflow.However, you can use subroutines to access activities from other workflow types. *"Activities available in IVR Routing"* lists the workflows and subroutines to which different activities are available.
- Whether you are licensed for Messaging and Routing or IVR. See the *MiContact Center Business and MiVoice Analytics System Engineering Guide* for more information regarding licensing and activity availability.

To add an activity to a workflow or subroutine

1. Click either **IVR Routing > Workflows** or **IVR Routing > Subroutines**, and select the workflow or subroutine.
2. Select the **Designer** tab and, from the **Toolbox**, drag and drop activities to the Workflows Canvas.
3. Click **Save**.

   NOTE: A red exclamation mark icon shown in the top right corner of an activity signals a configuration error or missing information. You must correct any errors and add all required information before the workflow can be associated to a device and go live in the system. For more information, see *"Troubleshooting workflow configuration with the Validation button"*.

Deleting activities or branches from workflows

To delete an activity or branch from a workflow

1. Right-click the activity or branch and select **Delete**.
2. When prompted, click **OK**.

Naming activities, activity configurations, and branches

For administrative and reporting purposes, we recommend you give activities, configuration settings within an activity, and branches unique names and system names. A system name is used by IVR Routing to identify an activity, activity condition, or branch and is used in reporting. A name labels an activity, activity condition, or branch for the user to see.

To name an activity, activity configuration, or branches

1. Select the activity, activity configuration or branch and click **Properties**.
2. Type a **Name** for the activity, activity configuration, or branch.
3. Type a **System Name** for the activity, activity configuration, or branching condition.

   NOTE: System Names must be unique.
4. Click **Save**.

Configuring activities and branches for reporting

By configuring activities or branches for reporting, you can run reports on them. This enables you to analyze workflow traffic and see how callers are moving through your workflows.

NOTE: You must select 'Child Reporting Enabled' for any branches and conditions on which you want to run Workflow Condition reports. For more information on Workflow Condition reports, see the Reports Guide appropriate to your MiContact Center Business licensing level.

To configure an activity and branch for reporting

1. Select the activity or branch to configure for reporting and click **Properties**.
2. Select the **Reportable** or the **Child Reporting Enabled** check box.

NOTE: Selecting 'Child Reporting Enabled' on parent activities selects all child activities.

3. Click **Save**.

Configuring an activity's prompts

Many IVR Routing activities use prompts to play messages at specified points in the workflow or subroutine. Some activities are pre-configured with prompts, while others require prompts to be specified. If an activity has configurable prompts, it will have a prompt section in its Properties pane.

If your system is licensed for Text-to-Speech, you can add a prompt as a text string. The system reads the text as voice output when the prompt is played.

Prompts can be configured in a number of different ways for activities. You can:

- Add a new prompt
- Add a variable to a prompt
- Add a new variable to a prompt
- Clear a prompt
- Add a prompt using Quick Add Prompt
- Add text
- Change a prompt to an existing prompt

To add a new prompt

1. Select the activity in the workflow or subroutine.
2. In the **Properties** pane, after the prompt you want to change, click the ▼ button and select **Add a new prompt**.
3. After **Language**, select the primary language from the drop-down list.

   NOTE:
   - The language you select determines the system wave files available to you.
   - By default, the language is set to the default site language.
4. Type a **Name** for the prompt.
5. Type a **Description** for the prompt.
6. Select a **Category** for the prompt from the drop-down list:
   - Callback
   - Custom
   - Management
   - Samples
   - UPiQ
7. To create your own category, after **Category**, type a name for the new category.

   NOTE: Prompt categories are an organizational tool to help keep prompts sorted and easily accessible.
8. Select one of the following tabs:
   - **Text**—lists the SSML files added to IVR Routing. Users can add an SSML file or add text to the prompt. To add an **SSML file**, click **Add** and select **SSML file**. To add a text, click **Add**, select **Text**, enter the text, and click **OK**. To add text to the SSML library for reuse, click **Export**.

- **System wave files**–lists the system wave files callers hear while in the IVR system or while waiting on hold. This pane will only show the wave files that are available in the language you have selected.
- **Custom wave files**–lists imported and recorded wave files. To import or record a custom wave file, click 'Add' and select 'Existing wave file' to import the file or 'Record wave file' to use the microphone on your computer to record the file.

  NOTE: Wave files must be 8khz, Mono, or ULAW format.
- **Queue stats**–lists up-to-date queue statistics for use in prompts
- **Variables**–lists all variables available for use in prompts

  NOTE: Read back on variables is based on the type of variable. Number variables read back the whole number, while digit variables read back individual numbers. For example, number variables would read 123 as 'one hundred and twenty-three', while digit variables would read 123 as 'one, two, three'.
- **Prompts used in workflows and subroutines**–lists all prompts used in workflows and subroutines

9. In the **All SSML Files**, **All system wave files**, **All custom wave files**, **All queue stats**, **All variables**, or **Prompts used in workflows and subroutines pane**, select the files to add to the prompt.
10. Click > to add the file to the prompt.

    NOTE: The wave or SSML files play in the order they are added to the prompt. To change the order in which the files will be played, select the file and click the up or down arrow buttons on the right-hand side of the dialog box.
11. Click **Save**.

    NOTE: If you are adding prompts in a new language, you must add audio files that correspond to the existing audio files in IVR Routing's default language. Otherwise, the caller will not hear anything when the prompts are supposed to be playing.

To add a variable to a prompt

1. Select an activity in the workflow.
2. In the **Properties** pane, after the prompt you want to change, click the button and select **Add a variable to a prompt**.
3. Select the variable and click **OK**.
4. Click **Save**.

To add a new variable to a prompt

1. In the **Properties** pane, after the prompt you want to change, click the button and select **Add a variable to a prompt**.
2. Click the **Add** button.
3. Type a **Name** for the variable. The name must be unique and cannot contain spaces.
4. Type a **Description** for the variable.
5. After **Variable Type**, select a type from the drop-down list.

   NOTE: A variable's type cannot be changed after you save.
6. If **Mask Type** is available to this type of variable, select the variable's mask from the drop-down list.

- **NoMask**– The variable will not be masked within IVR Routing and associated screen pops, databases, etc.

- **FullMask**– The entire variable will be masked within IVR Routing and associated screen pops, databases, etc.
- **MaskAllExceptLastX**– The variable will be masked except for the specified number of final characters
- **MaskAllExceptFirstX**– The variable will be masked except for the specified number of first characters

7. If you selected **MaskAllExceptLastX** or **MaskAllExceptFirstX**, specify the number of characters to be left unmasked.
8. To enable this variable to display in a toaster notification or screen pop, select the **Send to agent desktop** check box.
9. Type the **Display Name** that this variable has when it appears in a toaster notification or screen pop.
10. If you selected Dollars, Euros, or Pounds as the variable type, after **Currency Format**, select the format from the drop-down list.
11. If you selected Date Time as the variable type, after **Date Format**, select the date format from the drop-down list. After **Time Format**, select the time format from the drop-down list.
12. Click **Save**.

To clear a prompt

1. Select an activity in the workflow or subroutine.
2. In the **Properties** pane, after the prompt you want to change, click the button and select **Clear Prompt**.
3. Click **Save**.

To add a prompt using Quick Add Prompt

1. Select an activity in the workflow or subroutine.
2. In the **Properties** pane, after the prompt you want to change, click the button and select **Quick Add Prompt**.
3. Navigate to the .wav file and click **Open**.
4. Click **Save**.

To add text

1. Select an activity in the workflow or subroutine.
2. In the **Properties** pane, after the prompt you want to change, click the button and select **Add text**.
3. Type the text to be read by Text-to-Speech and click **OK**.

   You can export the text to your SSML library for reuse by clicking Export.
4. Click **Save**.

To change a prompt to an existing prompt

1. Select an activity in the workflow or subroutine.
2. In the **Properties** pane, after the prompt you want to change, click the button and select **Select from an existing prompt**.
3. Select a prompt and click **OK**.

4. Click **Save**.

Editing branches

You can edit branches by editing the conditions determining when calls follow the branch.

NOTE: You cannot add branches to the workflow from the edit menu. However, you can use the edit menu to add multiple conditions to an existing branch.

To edit a branch

1. Expand the relevant activity.
2. Right-click the branch to edit and select **Edit Condition**.
3. Select the value to edit and type the new value.
4. Click **Add**.
5. To add another value to the condition, at the top of the pane, click **Add** and type the value or range of values.
6. To delete a value, select the value and click **Delete**.
7. Click **OK**.
8. Click **Save**.

Annotating activities in workflows and subroutines

You can tag activities and branches with visible notes using the annotation field. Similar to a sticky note, annotations enable you to mark workflows and subroutines with descriptive information. For example, you can annotate a Timeout branch to indicate, at a glance, how long before the system times out and where customers are directed in the workflow or subroutine once a timeout occurs.

You annotate an activity and open annotations by clicking the notepad icon on an activity or branch. To hide an individual, open annotation, click the notepad icon. You can right-click an activity to edit, delete, show all, and hide all annotations to provide custom descriptions of your workflow or subroutine.

To add an annotation

1. Click the notepad icon on the activity or branch and type text in the annotation field.

To delete an annotation

- Right-click the activity or branch and select **Annotations... > Delete**.

To expand an individual annotation

- Click the notepad icon on the activity or branch.

To hide an individual annotation

- On an open annotation, click the notepad icon.

To expand all annotations

- Right-click the workflow and select **Annotations… > Show All**.

To hide all annotations

- Right-click the workflow and select **Annotations... > Hide All**.

Troubleshooting workflow configuration with the Validation button

IVR Routing validates workflows to ensure they do not contain programming or configuration errors before going live in your system. IVR Routing also warns you of configurations that are not recommended.

Red exclamation marks on activities indicate configuration errors to be corrected. Yellow exclamation marks on activities indicate warnings. Clicking the 'Validation' button opens a pane explaining your workflow's Errors and Warnings.

The pane lists the number of Errors and Warnings, the activity to which the Error or Warning is associated, and what is required to fix the problem. Double-clicking the Error and Warning information in the Validation pane brings the specific activity into focus, for ease of identification. For more information on focusing, see "Viewing specific portions of a workflow: Focusing and the Breadcrumb view".

You can disable the validation function by deselecting the 'Validate workflow' check box in the Workflows pane

NOTE:

- Workflows containing validation errors, or that have validation disabled, cannot be made active and will not run. This prevents improperly configured workflows from going live.
- Workflows that are already assigned to a device but become invalidated cannot be saved until the error is corrected.

Changing the order in which branches are evaluated

Administrators change the order in which they system evaluates branches by places the branches in sequence. The highest priority branch should be in the left-most position, as IVR Routing evaluates branches in the order of left to right.

To change the order in which branches are evaluated

1. Expand the relevant activity.
2. Right-click a branch and select Move Left or Move Right.

   Alternatively, drag and drop the branches into the desired position
3. Click **Save**.

Building conditions in IVR Routing

Several features in IVR Routing, including activities, require users to build conditions. For example, users may build schedule conditions, queue conditions, and variable compare conditions. These conditions help determine how calls are routed through a workflow.

While the individual types of expressions that can be added to conditions may vary, the interface for adding, deleting, and grouping expressions remains consistent throughout IVR Routing.

Adding and removing expressions

To add an expression

- When in a condition designer window, click the **Add** button.

To remove an expression

- When in a condition designer window, select the expression you want to delete and click the **Delete** button.

Understanding operators

IVR Routing offers a number of different operators to use when building conditions. The following table outlines the operators available with IVR Routing.

Table 9.3: Operators

Operator	Use
!=	With this operator the expression will only look for value that do not match the exact value entered. This operator is case-sensitive.
=	With this operator the expression will looks only for the exact value entered in the expression. This operator is case-sensitive. If this operator is being used in a comparison, then the expression will look for an exact string match between the two items being compared.
Contains	With this operator, the expression matches values that contain the entered string. It is not case-sensitive.
Length	With this operator the expression will look for a value with the specified number of characters.
Starts With	With this operator, the expression will look for any value that starts with the entered value.

Selecting expressions

To select an expression

1. Click the expression's drop-down menu button.
2. Choose **Select/Deselect Row**.

Alternatively,

- Click the expression's selector column on the left side of the expression's row.

Grouping expressions

IVR Routing enables users to group expressions, facilitating the easy construction of detailed and specific conditions. Expressions within a group may also be grouped together to create nested levels of sub-groups within a single group. While grouping is associated with a number of different activities, configurations, and dialogs, the grouping clauses are consistent throughout IVR Routing.

NOTE: We recommend you do not exceed eight nested levels of grouping within a group of expressions.

Expressions may be grouped by one of two clauses:

- **AND**: Expressions grouped by the AND clause require that all the expressions in a group be met to successfully meet the condition.

  NOTE: If no grouping is selected, the AND clause is applied by default.
- **OR**: Expressions grouped by the OR clause require that only one of the expressions in a group be met to successfully meet the condition.

To group expressions

1. Press the **CTRL** or **Shift** key and select the expressions you want to group. Clicking 'CTRL' enables you to select items one at a time and omit items from selection. Clicking 'Shift' selects a span of items.
2. Click either the **Group AND** or **Group OR** buttons.

NOTE: You can change the grouping clause by selecting the drop-down beside 'And' or 'Or', and changing your selection.

To ungroup grouped expressions

1. Click the group's drop-down menu button.
2. Select **Ungroup**.

To add a new expression to a group

1. Click the group's drop-down menu button.
2. Select **Add**.

NOTE: If you cannot add an expression to an existing group, ungroup the expression and then regroup it with the expression you want to add.

To remove a single expression from a group

1. Click the expression's drop-down menu button.
2. Select **Ungroup**.

Configuring the ANI activity

The ANI activity branches workflows based on all or part of a customer's ANI. For example, you can configure an ANI activity to identify the area codes for callers from French-speaking locations and route all applicable calls to queues with French-speaking agents. The ANI activity enables customers to be efficiently routed to the agents best suited to serve them.

You can add branching conditions to ANI activities to determine how IVR Routing directs callers through the workflow. You can also import and export ANI conditions in .csv files.

The ANI activity is available in

- Inbound, Inqueue, and Agent workflows
- Inbound, Management, Callback Inbound, and Agent subroutines

Adding branching conditions to ANI activities

Branching conditions represent the criteria by which IVR Routing directs calls.

To add a branching condition to an ANI activity

1. Right-click the **ANI** activity and select **Add Condition**.
2. Click **Add** and type a value or range of values for the ANI condition.

   NOTE:
   - To branch all calls from a specified area code, city exchange, or other number identification, include an 'x' at the end of the numeric value. 'x' indicates multiple wildcard characters.
   - To indicate individual digits or to set branching conditions to match any ANI, include question marks instead of numeric values.
3. Click the **Add** icon.
4. To add more ANI conditions, at the top of the ANI dialog box, click **Add**.
5. If you want all ANI conditions in the same branch, deselect the **Add each row in a separate branch** check box.
6. Optionally, select the **Enable reporting for this branch** check box.

7. To test the ANI conditions, under **Utilities**, enter a value.

   If the test is successful, 'Pass' displays.
   If the test is unsuccessful, 'Fail' displays.

   NOTE: You cannot test a range of values.
8. Click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
9. Click **Save**.

To import and export ANI conditions

1. Right-click the **ANI** activity and select **Add Condition**.
2. To import ANI conditions in *.csv format, click **Import** and navigate to the file name you want to import.
3. To export ANI conditions in *.csv format, click **Export** and navigate to the file name you want to export.

   NOTE:
   - Conditions on a single line and separated by a comma will be added to a single branch.
   - Conditions on multiple lines and separated by a comma will be added to multiple branches.
4. Optionally, select the **Enable reporting for this branch** check box.
5. To test the ANI conditions, under **Utilities**, enter a value.

   If the test is successful, 'Pass' displays.
   If the test is unsuccessful, 'Fail' displays.

   NOTE: You cannot test a range of values.
6. Click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
7. Click **Save**.

Configuring the Answer activity

The Answer activity prompts a port to answer a ringing line and begin the workflow.

An internal timeout of 10 seconds determines how long the Answer activity has to answer the line. Once the timeout is reached, the workflow is terminated.

NOTE: Inbound and RADworkflows must begin with an Answer activity if you intend to play a message or collect digits.

The Answer activity is available in

- Inbound and RAD workflows
- Inbound, RAD, Management, UPiQ, Callback Inbound, and Agent subroutines

Configuring the Callback Request activity

The Callback Request activity offers customers the ability to leave a callback request. For example, you can use the Callback Request activity to enable callers experiencing longer than average wait times to request a callback from an agent. Callback Request helps you meet your service level goals by reducing abandoned calls.

You can assign callback subroutines and destinations to Callback Request activities. You can also add devices to Callback Request destinations.

The Callback Request activity is available in

- Inbound workflows
- Inbound and UPiQ subroutines

NOTE: For callbacks to function correctly, you must have configured location settings for your media server. If location settings are not configured, your callbacks will not be able to interact your customers. See *"Configuring location settings"*.

Assigning callback subroutines to Callback Request activities

The subroutines assigned to Callback Request activities tell the system which Callback Inbound subroutine to offer the caller and which Outbound subroutine offers callback requests to agents.

NOTE:

- IVR Routing provides default callback subroutines. For information on these default subroutines, see *"Default Inbound Voice Callback subroutine"* and *"Default Outbound Callback routine"*.
- You must assign both Inbound and Outbound subroutines to Callback Request activities.
- You can only save Callback Request activities once you have assigned them subroutines and destinations.

The following procedures explain how to

- Assign a Callback Inbound subroutine
- Assign a Callback Outbound subroutine
- View associated Callback Inbound subroutine
- View associated Callback Outbound subroutine

To assign a Callback Inbound subroutine

1. Right-click the **Callback Request** activity and select **Inbound Callback Subroutine...**.
2. Select a subroutine and click **OK**.

To assign a Callback Outbound subroutine

1. Right-click the **Callback Request** activity and select **Outbound Callback Subroutine...**.
2. Select a subroutine and click **OK**.

To view the associated Callback Inbound subroutine

- Right-click the **Callback Request** activity and select **Open Inbound Subroutine**.

To view the associated Callback Outbound subroutine

- Right-click the **Callback Request** activity and select **Open Outbound Subroutine**.

Assigning destinations to Callback Request activities

The callback destination represents the agent groups responsible for answering callbacks.

NOTE: Ring Groups are not supported for handling callback requests.

To assign a destination to a Callback Request activity

1. Right-click the **Callback Request** activity and select **Destination...**.
2. Select a destination from one of the following devices:
   - Queue
   - Queue group
   - Variable

- Agent
- Extensions

3. Click **OK**.
4. Click **Save**.

Adding new devices to Callback Request destinations

The following procedures explain how to

- Add a new queue, queue group, extension, variable, or agent device to a Callback Request destination

To add a new queue, queue group, variable, extension, or agent device to a Callback Request destination

1. Right-click the **Callback Request** activity and select **Destination...**.
2. Select one of the following tabs:
   - Queue
   - Queue Group
   - Variable
   - Extensions
   - Agent
3. In the **Queue**, **Queue Group, extension**, or **Agent** tabs, at the top of the dialog box, click **Add**.
4. To add a new queue, in the Queue pane, follow the steps under *"Adding queues"*.

   NOTE:
   - To configure a new queue for web callbacks, see *"Enabling web callbacks"*.
   - To configure a new queue for abandon callbacks, see *"Enabling abandon callbacks"*.
   - To associate a queue to an UPiQ workflow, see *"Configuring Inqueue routing"*. For information on setting up UPiQ workflows, see *"Default Inqueue UPiQ workflow and subroutine"*.
5. To add a new queue group, follow the corresponding steps in *"Adding queue groups"*.
6. To add a new variable, follow the corresponding steps in *"Adding variables"*.
7. To add a new extension, see *"Configuring extension port options for IVR Routing"*.
8. To add a new agent, follow the corresponding steps in *"Adding agents"*.
9. When you have configured the new device, click **Save**.
10. Click **Save**.

Configuring the Collect Digits activity

The Collect Digits activity prompts callers to enter, through their dial pad or by speech, information that can then be stored in a variable. For example, Collect Digits could enable a caller to enter their member-ship number when they enter the workflow. If stored in a custom variable, this information can be sent to an agent to provide additional information about the customer.

You can configure options and collection settings for Collect Digits activities to determine how IVR Routing directs callers through the workflow.

The Collect Digits activity is available in

- Inbound and Outbound workflows
- Inbound, Outbound, Management, UPiQ, and Callback Inbound subroutines

NOTE: Information acquired by a Collect Digits activity is stored within the <<LastCollectedDigits>> system variable. Subsequent Collect Digits actions overwrite this system variable. You can also select a variable in which to store customer-entered digits.

Configuring options for Collect Digits activities

The Collect Digits activity supports both dialed confirmation input as well as spoken confirmation input. Spoken input requires that a confidence threshold be set. For information on confidence thresholds, see *"Configuring Automatic Speech Recognition"*.

The following procedures explain how to:

- Configure options for the Menu activity
- Configure confirmation settings for the Collect Digits activity
- Configure speech confirmation settings for the Collect Digits activity
- Configure reporting for the Collect Digits activity

NOTE: The Collect Digits activity requires collection settings be configured before the activity can be saved. See *"Configuring collection settings for Collect Digits activities"* and *"Configuring speech collection settings for Collect Digits activities"*.

To configure options for a Collect Digits activity

1. Select the **Collect Digits** activity and click **Properties**.
2. After **Invalid Attempts**, type the number of times a caller can try to enter information.
3. After **Multi Digit Delay**, type how long a caller has to enter another digit.

   NOTE: Callers who take longer to enter a digit will be prompted again to enter their digits. After the maximum number of attempts is reached, the call follows the Failure branch.
4. After **No digit timeout (sec)**, type how long the system waits for the caller to enter a digit before timing out.
5. Click **Save**.

To configure confirmation options for the Collect Digits activity

1. Select the **Collect Digits** activity and click **Properties**.
2. To enable callers to skip the system's readback of the collected digits, select the **Barge In** check box.
3. After **Confirm Digit**, select a confirmation digit from the drop-down list. This is the digit a caller presses to confirm that their input is correct.
4. After **Confirm Input**, click the button and follow the applicable steps under *Default Outbound Call-back subroutines*. This sets the prompts callers hear asking them to confirm the digits they have entered.
5. Click **Save**.

To configure speech confirmation setting for the Collect Digits activity

1. Select the **Collect Digits** activity and click **Properties**.
2. After **Confirm Speech**, click **…**.
3. Click **Add** and type the confirmation digit.

4. Click the **Add** button.
5. To add more confirmation digits, click **Add**.
6. Click **OK**.
7. After **Speech Confidence**, set the confidence threshold.

   The default is 50.
8. Select **Speech Enabled**.
9. After **Speech Language**, set the language for the speech confirmation input from the drop-down list.
10. Click **Save**.

To configure reporting for the Collect Digits activity

1. Select the **Menu** activity and click **Properties**.
2. Select the **Child Reporting Enabled** check box.
3. Click **Save**.

Configuring collection settings for Collect Digits activities

Collection settings assign:

1. The variable in which collected digits are stored, if you do not want to use <<Last Collected Digits>>
2. The greeting callers hear when prompted to input digits
3. The digit callers enter when finished inputting digits
4. The maximum and minimum number of digits a caller can input

To configure a collection setting for a Collect Digits activity

1. Select the **Collect Digits** activity and select **Properties**.
2. After **Collection Settings**, click the **…** button.
3. To store customer-entered digits in a variable other than <<Last Collected Digits>>, after **Variable**, click the **…** button.
4. To use an existing variable, select a variable and click **OK**.
5. To add a new variable, click **Add** and follow the applicable steps under *"Adding variables"*.

   NOTE: The following variables are available to Collect Digits: Dollars, Euros, Pounds, Digits, Number, and DateTime.
6. Under **Greeting**, click the **…** button and select the greeting callers hear.
7. Click **OK**.
8. To add a new greeting, click **Add** and follow the corresponding steps in *"Configuring prompts"*.
9. Under **Terminating Digit**, type the digit that callers enter when they are finished inputting digits.
10. Under **Minimum digits to collect**, type the minimum number of digits a caller can input.
11. Under **Maximum digits to collect**, type the maximum number of digits a caller can input.

    NOTE: When a caller reaches the maximum number of digits, IVR Routing will not wait for the terminating digit.

12. To configure another collection setting, click **Add**.
13. To delete a collection setting, select the setting and click **Delete**.
14. Click **OK**.
15. Click **Save**.

Configuring speech collection settings for Collect Digits activities

The Collect Digits activity can be used to collect speech and store it as data in variables. The Collect Digits activity will not pass through the Success branch until the collected speech has been recognized by the system. If the speech is not recognized, the activity will route down the Invalid branch.

In addition to the specified collection variable, collected speech and its confidence threshold are stored in the <<LastCollectedDigits>> and <<LastRecognitionConfidence>> variables by the Collect Digits activity.

Collecting speech requires two key additional elements be set on the Collect Digits collection settings:

- Confidence Threshold
- Grammar type and speech grammar

The Confidence Threshold determines the threshold for accepting the speech and routing down the Success branch of the Collect Digits activity. For more information on Confidence Thresholds, see *"Configuring Automatic Specch Recognition"*.

Collect Digits applies grammar to the collected speech to process it. Grammar type determine what set of speech grammar is available for use with Collect Digits. There are two sorts of grammar types supported with IVR Routing:

- **Builtin** – Default ASR grammar file. Builtin provides speech grammar for the standard IVR Routing variables, selectable from the speech grammar drop-down list. Consult your Automatic Speech Recognition server documentation for information on Automatic Speech Recognition grammar.
- **GrXML** – Custom grammar files in the GrXML format. GrXML can be used to provide grammar for names of employees so callers can say a name to get routed to that employee's extension or for bank numbers. Speech grammar is specified in the GrXML file.

To configure speech collection settings

1. Select the **Collect Digits** activity and select **Properties**.
2. After **Collection Settings**, click the **…** button.
3. To store customer-entered digits in a variable other than <<Last Collected Digits>>, after **Variable**, click the **…** button.
4. Under **Variable**, click the **...** button, select a variable and click **OK**.

   To add a new variable, click Add and follow the applicable steps under *"Adding variables"*.

   NOTE: The following variables are available to Collect Digits: Dollars, Euros, Pounds, Digits, Number, and DateTime.
5. Under **Greeting**, click the … button and select the greeting callers hear.
6. Click **OK**.

   To add a new greeting, click Add and follow the corresponding steps in *"Configuring prompts"*.
7. Under **Terminating Digit**, type the digit that callers enter when they are finished inputting digits.

8. Under **Minimum digits to collect**, type the minimum number of digits a caller can input.
9. Under **Maximum digits to collect**, type the maximum number of digits a caller can input.

   NOTE: When a caller reaches the maximum number of digits, IVR Routing will not wait for the terminating digit.
10. Select **Recognition Enabled**.
11. Under **Configured Threshold**, set the Confidence Threshold

    The default is 50.
12. Under **Grammar Type**, select the grammar type to apply to the collected speech.
13. If you are using Builtin Grammar Type, under **Speech Grammar**, select the Speech grammar matching the variable type.
14. If you are using GrXML Grammar Type, under **Speech Grammar**, click ….
15. Browse to a GrXML file and click **Open**.
16. To configure another collection setting, click **Add**.
17. To delete a collection setting, select the setting and click **Delete**.
18. Click **OK**.
19. Click **Save**.

Configuring the Conference activity

The Conference activity connects a call already in progress to a specified destination. For example, you can use the Conference activity as part of an outbound workflow to enable an agent, who has been offered a callback request from the queue, to connect to the customer who left the interaction request. The Conference activity's destination can be retrieved from a data source, including a SQL database, an Excel file, a Web Service call, or a custom variable.

The Conference activity has seven branches: Success, Client Disconnected, Agent Disconnected, No Answer, Destination Busy, Invalid Destination, and Failure. Client Disconnected and Agent Disconnected enable workflow behavior to be configured when the client (the party called by the Conference activity) or the agent (the party who initiated the Conference) disconnects while the Conference activity is playing its prompts to both conference parties.

The Conference activity uses three prompts:

- **Pre connect**—This prompt plays to the conference initiator, informing them that the call is being established. The default prompt is Callback Agent Pre-Connect.
- **Connecting to customer**—This message indicates that the conference is being connected. The default prompt is Callback Agent Connecting.
- **Greeting message to customer**—This prompt plays to the destination (typically a customer) before the agent connects indicating that they are being connected to an agent. The default prompt is Callback Agent Callers Message.

Administrators can change the prompts if they want to use a Conference activity for something other than callbacks. For instructions on changing an activity's prompts, see *"Configuring an activity's prompts"*.

The Conference activity is available in

- Outbound workflows

- Outbound subroutines

Setting the Conference activity's destination and call behavior

You must set the Conference activity's destination. This destination can be internal or external, and may be set from an extension,a queue, a queue group, or a variable. A newextension, queue, queue group, or variable may be created to serve as the destination.

By default, the Conference activity's call to the destination is defined as an external call using the outbound digits defined on the media server. This option can be disabled if the Conference activity is used to reach internal destinations.

The Conference activity will ring for a designated time (configurable but one minute by default) before routing down the No Answer branch.

The following procedures explain how to:

- Specify a destination for the Conference activity
- Specify a newextension, queue, or queue group as a destination
- Specify a new variable as a destination
- Configure the Conference activity for internal calls
- Set how long the Conference activity will ring a destination

To specify a destination for a Conference activity

1. Select the **Conference** activity and click **Properties**.
2. After **Destination**, click the … button.
3. Select one of the following from the drop-down list:
   - Extension
   - Queue
   - Queue group
   - Variable
4. Click **OK**.
5. If the call to the destination will use the outbound digits defined on the media server, ensure **External Call** is selected.
6. Click **Save**.

To specify a newextension, queue, or queue group as a Conference activity's destination

1. Select the **Conference** activity and click **Properties**.
2. After **Destination**, click the … button.
3. Select one of the following from the drop-down list:
   - Extension
   - Queue
   - Queue group
   - Variable
4. In theExtension, **Queue**, **Queue Group**, **Variable** tabs, at the top of the dialog box, click **Add**.
5. To add a new extension, see *"Configuring extension port options for IVR Routing"*.

6. To add a new queue, in the Queue pane, follow the steps under *"Adding queues"*.

   NOTE:
   - To configure a new queue for web callbacks, see *"Enabling web callbacks"*.
   - To configure a new queue for abandon callbacks, see *"Enabling abandon callbacks"*.
   - To associate a queue to an UPiQ workflow, see *"Configuring Inqueue routing"*. For information on setting up UPiQ workflows, see *"Default Inqueue UPiQ workflow and subroutine"*.

7. To add a new queue group, follow the corresponding steps in *"Adding queue groups"*.
8. To add a new variable, follow the corresponding steps in *"Adding variables"*.
9. Click **Save**.
10. If the call to the destination will use the outbound digits defined on the media server, ensure **External Call** is selected.
11. Click **Save**.

To configure the Conference activity for internal calls

1. Select the **Conference** activity and click **Properties**.
2. Clear the **External Call** check box.
3. Click **Save**.

To set the amount of time the Conference activity will ring a destination

1. Select the **Conference** activity and click **Properties**.
2. After **Timeout Duration**, set the number of seconds the Conference will ring a destination.
3. Click **Save**.

Configuring the Connect to Caller activity

When a caller is waiting in queue, the Connect to Caller activity finds an available UPiQ port and enables the port to connect to the caller. The activity then executes a subroutine that plays UPiQ messages to callers waiting in queue, based on criteria you specify.

To specify this criteria, you can assign the Connect to Caller activity the default UPiQ subroutine, or a reconfigured version of the default UPiQ subroutine. If the caller hangs up or if the activity is not able to connect to the caller, the Failure branch is followed. If no available UPiQ port is found, the No Port Available branch is followed.

For information on configuring the Connect to Caller activity in UPiQ workflows, including the Failure and No Port Available branches, see *"Default Inqueue UPiQ workflow and subroutine"*.

The Connect to Caller activity is available in Inqueue workflows.

NOTE: Inqueue workflows containing Connect to Caller activities require UPiQ ports provisioned for the system. Associating these workflows to queues without having UPiQ ports returns a validation error when saving the workflow or queue. To provision UPiQ ports for the system, see *"Configuring extension port options for IVR Routing"*.

Assigning subroutines to the Connect to Caller activity

Assigning subroutines to the Connect to Caller activity enables callers to hear UPiQ messages while waiting in queue. You can only assign an UPiQ subroutine to the Connect to Caller activity.

NOTE: If you want to create a subroutine for the Connect to Caller activity, we recommend you do so by reconfiguring the default subroutine shipped with IVR Routing. To access the subroutine, select IVR Routing > Subroutines > Default UPiQ.

To assign a subroutine to the Connect to Caller activity

1. Right-click the **Connect to Caller** activity and select **Assign**.
2. Select a subroutine and click **OK**.
3. Click **Save**.

Configuring the Date Time Validation activity

The Date Time Validation activity is used in Callback Inbound subroutines to validate date and time information stored in the <<<CallbackPreferredDateTime>> variable. The activity checks that the date and time entered in a previous Collect Digits activity (and collected in the <<CallbackPreferredDateTime>> variable) is accurate and displays in the day/month/year/time of day format of DDMMYYYYTTTTXX, where XX is either ‘26’ for AM or ’76’ for PM.

The Date Time Validation activity is available in:

- Callback Inbound subroutines

Configuring the Delay activity

The Delay activity suspends a workflow for a predetermined time. For example, a customer calling the system will hear a welcome menu that lasts a certain number of seconds. To test your workflow and simulate the customer’s experience, you can insert a Delay activity suspending the workflow for a duration that matches the length of the prompt. The Delay activity also enables third-party applications to process a command before continuing to a step that requires the processing be complete.

You can set the duration of a Delay activity to determine for how long the IVR Routing will suspend the workflow.

The Delay activity is available in

- Inbound, Outbound, RAD, Inqueue, and Agent workflows
- Inbound, Outbound, RAD, Management, UPiQ, Callback Inbound, Agent subroutines

Setting the duration of Delay activities

To set the duration of a Delay activity

1. Select the **Delay** activity and click **Properties**.
2. Set the **Duration** of the Delay activity, in seconds.
3. Click **Save**.

Configuring the DNIS activity

The DNIS activity branches workflows based on the number a customer has dialed. For example, you can configure DNIS activities to branch calls to a 'Service' section of the workflow as opposed to a 'Sales' section of the workflow. DNIS activities enable the use of a single workflow and port set for calls to multiple business lines.

You can add branching conditions to DNIS activities to determine how IVR Routing directs callers through the workflow. You can also import DNIS conditions from a .csv file or from a DNIS table.

The DNIS activity is available in

- Inbound, Outbound, Inqueue, and Agent workflows
- Inbound, Outbound, Management, UPiQ, Callback Inbound, and Agent subroutines

Adding branching conditions to DNIS activities

To add a branching condition to a DNIS activity

1. Right-click the **DNIS** activity and select **Add Condition**.
2. Click **Add** and type a value or range of values for the DNIS condition.
3. Click the **Add** icon.
4. To add more DNIS conditions, at the top of the dialog box, click **Add**.
5. If you want all DNIS conditions in the same branch, deselect the **Add each row in a separate branch** check box
6. Optionally, select the **Enable reporting** for the Branch check box.
7. To test the DNIS conditions, under **Utilities**, enter a value or range of values.

   If the test is successful, 'Pass' displays.
   If the test is unsuccessful, 'Fail' displays.

   NOTE: You cannot test a range of values.
8. Click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
9. Click **Save**.

To import and export DNIS conditions

1. Right-click the **DNIS** activity and select **Add Condition**.
2. To import DNIS conditions in .csv format click **Import > Import from file** and navigate to the file name.

   NOTE:
   - Conditions on a single line and separated by a comma will be added to a single branch.
   - Conditions on multiple lines and separated by a comma will be added to multiple branches.
3. To import DNIS conditions from a DNIS table, click **Import > Import from DNIS table**.
4. Select the DNIS conditions to import and click **OK**.
5. If you want all DNIS conditions in the same branch, deselect the **Add each row in a separate branch** check box.
6. To export DNIS conditions, click **Export** and navigate to the file name.
7. Optionally, select the **Enable reporting for the Branch** check box.
8. To test the DNIS conditions, under **Utilities**, enter a value.

   If the test is successful, 'Pass' displays.
   If the test is unsuccessful, 'Fail' displays.

   NOTE: You cannot test a range of values.
9. Click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.

10. Click **Save**.

Configuring the Email activity

The Email activity enables IVR Routing to send emails, with or without attachments, to recipients via the SMTP connection configured in YourSite Explorer. You can populate Email fields with variables, and you can populate email attachments with variables or files. For example, you can use the Email activity to enable automated emailing of purchase orders and reports from within a workflow. The Email activity allows electronic information to be sent from within a workflow efficiently and accurately.

Email activity templates support HTML and text-based content. Template fields can be populated with variables, and attachments can be populated with variables or files.

You can configure Email activity templates and add and edit SMTP mail server connections to the Email activity.

The Email activity is available in

- Inbound, Outbound, RAD, Inqueue, and Agent workflows
- Inbound, Outbound, RAD, Management, UPiQ, Callback Inbound, and Agent subroutines

NOTE: To configure the SMTP connection in YourSite Explorer, see *"Configuring SMTP connections to MiContact Center BusinessMiVoice Analytics"*.

Populating Email activity templates

The following explains how to populate email templates.

NOTE:

- To see a list of Email variables and their descriptions, go to **Multimedia > Variables**.
- You can populate fields in an Email activity template with a variable by typing the name of the variable between double-angle brackets. The text between the angle brackets will be replaced with the value of the variable currently executing in the workflow.
  For example, <<ANI>>. In this variable, ANI will be replaced with the number from which the caller is phoning.
- You can also right-click any field in the email template and select a variable from the dropdown list.
- Variables must be either populated with a value that points to a file path or populated by an activity within the workflow.

To populate an Email template

NOTE: Email content inserted via the <<Body>> variable in the Email activity is limited to 2MB. After 2 MB, content inserted via the <<Body>> variable is truncated.

1. Right-click the **Email** activity and select **Edit Email Template**.
2. Configure all email fields as applicable.

   NOTE: In the To:, Cc:, and Bcc: fields, separate multiple addresses with semi-colons.
3. In the body of the email, type the template's text.
4. To populate fields with variables, right-click the field and select the variable from the dropdown list. You can also type the name of the variable between double angle brackets. For example, <<ANI>>.
5. To indicate the importance of the email message, after **Priority**: select a level from the drop-down list.

   NOTE: This option sets a visual indicator of the message's importance in supporting email clients only.

6. Click **OK**.
7. Click **Save**.

To add attachments

1. Right-click the **Email** activity and select **Edit Email Template**.
2. After **Attachments**, click the **Browse** button.
3. To add a variable, click **Attachments** and select the variable.
4. Click **Add**.
5. To add additional variables, repeat steps 3-4.
6. To add a file, click **Browse**.
7. Navigate to the file and click **Open**.
8. To add additional files, repeat steps 6-7.
9. To change the order of the attachments, select the attachment and click **Up** or **Down**.
10. To remove an attachment, select the attachment and click **Remove**.
11. Click **OK**.
12. Click **OK**.
13. Click **Save**.

Adding and editing SMTP mail server connections to Email activities

To add and edit SMTP mail server connections to an Email activity

1. Right-click the **Email** activity and select **Edit SMTP Server**.
2. Select an SMTP mail server connection and click OK.
3. To add a new SMTP mail server, click the **Add** button and follow the steps in *"Configuring SMTP connections to MiContact Center Business"*.
4. To edit an SMTP mail server, select the mail server connection and click the **Edit** button.
5. Follow the steps in *"Configuring SMTP connections to MiContact Center Business"*.
6. Click **OK**.
7. Click **Save**.

Configuring email send settings

By default, every time a contact reaches an Email activity in a workflow, an email is sent. Email activities can be configured to only send an email once per contact, so that if that contact reaches the same Email activity again, as a result of a requeue or transfer, the Email activity will not send a second email. New contacts from the same source will still trigger the Email activity to send an email.

To configure auto-response email settings

1. Select the **Email** activity and click **Properties**.
2. Select the **Only Send Once** check box to avoid sending more than one email to the same contact with this activity.

3. Click **Save**.

Configuring the Employee Control activity

The Employee Control activity enables workflows to interact with employee presence, either changing the presence and reason code of an employee or reading the current state and storing it in variables for use in the workflow. For example, a contact center could set up a workflow with the Employee Control activity that employees using mobile devices can call to change their presence when they do not have access to agent applications such as Ignite or Contact Center Client.

The Employee Control activity can perform two kinds of actions within a workflow:

- **Read**—The Read action enables you to collect the employee state and reason code within the variables <<PresenceState>> and <<PresenceReason>>. Only one employee's presence state and reason code can be stored in the variables at a time.
- **Update**—The Update action enables you to change the employee's presence state and, if the state is Busy or Do Not Disturb, add a reason code.

NOTE: Updating an employee to Available will place the employee in Logged In, Not Present. Employees must log into their agent groups themselves

The Employee Control activity is available in:

- Inbound, Outbound, RAD, Inqueue, and Agent workflows
- Inbound, Outbound, RAD, Management, UPiQ, Callback Inbound, and Agent subroutines

The following procedures explain how to

- Read an employee's presence
- Update an employee's presence

To read an employee's presence

1. Right-click the **Employee Control** activity and select **Configure**.
2. After **Action**, select Read.
3. After **Employee**, click **…**.
4. To select an employee, in the **Employee** tab, select the employee.
5. To select a variable, in the **Variable** tab, select the variable containing an employee's ID.
6. Click **OK**.
7. Click **Save**.

To update an employee's presence

1. Right-click the **Employee Control** activity and select **Configure**.
2. After **Action**, select **Update**.
3. After **Employee**, click **…**.
4. To select an employee, in the **Employee** tab, select the employee.
5. To select a variable, in the Variable tab, select the variable containing an employee's ID.
6. Click **OK**.
7. After **State**, select a state from the drop-down list.

8. If you select **Busy** or **Do Not Disturb**, after **Reason** click **….**
9. To select a reason code, in the **Make Busy Reason** or **DND Reason**, select a reason code and click **OK**.
10. To select a variable, in the **Variable** tab, select the variable containing a reason code and click **OK**.
11. Click **OK**.
12. Click **Save**.

Configuring the Execute activity

The Execute activity enables IVR Routing to interact with external systems by running one of the following four processes:

- **Executable/Script** – Runs an *.EXE file or *.BAT script on the server and delivers return values or parameters if the script executes successfully.

  NOTE: The Execute activity requires *.EXE files and *BAT scripts to be on a UNC path.
- **PowerShell** – Runs a PowerShell script on the server and delivers return values or parameters if the script executes successfully.

  NOTE:
  - The Execute activity requires PowerShell scripts to be on a UNC path.
  - The Execution Policy for PowerShell scripts must be set in the command prompt window of PowerShell to Set-ExecutionPolicy RemoteSigned.
- **Web Service** – Enables the Execute activity to retrieve a JSON or XML response from an external web service using SOAP or REST and delivers return values if the script executes successfully.

  NOTE: The data being returned must be valid XML characters. Any invalid characters (such as &, <, or >) will not return successfully and the workflow will route down the Failure branch. The XMLNode object type is not supported.
- **CRM Service** – Sends user-defined queries to a Microsoft CRM 2011, Microsoft CRM 2013, or Microsoft CRM Online system and delivers return values if the script executes successfully.

For example, you can use the Execute activity to retrieve customer information from a Web Service database and store this information in a custom variable for use within the workflow or to pass on to agents in a screen pop for enhanced customer service. You could also use the Execute activity to run a PowerShell script enabling an authorized caller to run remote maintenance on the IVR Routing server. You can configure the options and the process types for Execute activities.

For an example of an IVR Routing workflow that uses the Execute activity to execute PowerShell and perform a web service SOAP call to a publicly accessible web service, see the following Mitel Knowledge Base article: https://mitel.custhelp.com/app/answers/answer_view/a_ id/1000724/loc/en_US.

The Execute activity is available in

- Inbound, Outbound, RAD, Inqueue, and Agent workflows
- Inbound, Outbound, RAD, Management, UPiQ, Callback Inbound, and Agent subroutines

NOTE: In most instances, a success return value indicates the process executed without errors, and the Success branch is followed. A failure return value indicates the process exited with errors and did not complete as expected, and the Failure branch is followed. If a success return value contains errors, it is recommended to map the return value to a variable and then use a Variable Compare activity to confirm if the output is a Success.

Configuring options for Execute activities

To configure the options for an Execute activity

1. Select the **Execute** activity and click **Properties**.
2. To set waiting prompts to always play to completion before allowing the workflow to proceed, regardless of whether the process has completed executing, deselect the **Barge Prompt** check box.

   NOTE: The waiting prompt is what callers hear while they wait for the Execute activity process to complete. Barge Prompt signifies that the prompt will stop playing once the process has completed executing.

   Barge must be driven through MiCCB and not through the native capability of the PBX.
3. To set the Execute activity to route to the Success branch without waiting for a process to complete, deselect the **Wait for completion** check box.

   NOTE:
   - We recommend you deselect 'Wait for completion' only if you do not require the Execute activity to retrieve information and return a result. For example, deselect Wait for completion if you are using the Execute activity to run maintenance.
   - If the process fails to start, the activity will route to the Failure branch regardless of whether 'Wait for completion' is deselected.
4. After **Waiting Prompt**, click the ▼ button and follow the steps under *"Adding prompts to Play activities"*.

   NOTE:
   - Waiting prompts help keep callers engaged on the line during processes that take longer than usual to complete.
   - If the Wait for completion check box is deselected, it is not necessary to configure a waiting prompt.
5. Optionally, select the **Child Reporting Enabled** check box.
6. After **Timeout (sec)**, specify how long an associated process has to complete successfully before executing to the Failure branch.
7. Click **Save**.

Specifying the external processes to execute in workflows

The following procedures explain how to instruct the Execute activity to run

- Executable/Script processes
- PowerShell processes
- Web Service processes
- CRM Service processes

To set an Executable/Script or PowerShell process

1. Right-click the **Execute** activity and select **New Process > Executable/Script or PowerShell script**.
2. For Executable/Script processes, after **Path**, click the **Browse** button and navigate to the *.EXE or *BAT script. The script must be on a UNC path.
3. For Executable/Script processes, select the **Separator** required by the .exe file. The separator is the character separating the parameters in the process' command line statement.

4. For PowerShell processes, navigate to the PowerShell script.
5. To add a set of **Input Parameters**, click **Add** and select the **Parameter** the process uses to execute.

   NOTE: If batch files or Executable/Script processes require delimiters, they must be entered manually in the Parameter column.
6. Under **Value**, select a variable or type a static value.

   NOTE:
   - The variable is replaced when a contact progresses through the workflow.
   - To configure the process to use a value not linked to a parameter, select a variable from the Value field and leave the Parameter field blank.
7. Repeat steps 5 and 6 for each set of input parameters the process uses. To delete a set of parameters, click the arrow to the left of **Parameter** and click **Remove**.
8. Under **Test Value**, enter values to test the process and click **Execute**.

   NOTE:
   - For Executable/Script processes, the Results dialog box lists return values and output pipeline values.
   - For PowerShell processes, the Results dialog box lists return values and PSObject[X] values.
9. Click **OK** to auto-populate the Output Mappings pane with Output values.
10. Leave the Process Setup window open and complete the steps under *"Storing retrieved data as variables"*.

To set a SOAP Web Service process

1. Right-click the **Execute** activity and select **New Process > Web Service**.
2. Type the Web Service **URI**.
3. After **Http Action**, select an action from the drop-down list.
4. After **Web Service Type**, select **SOAP**.

   CAUTION: If you are using the Execute activity with a web service as a part of a PCI compliant workflow, ensure that you
   - Use an HTTP Secure (https) address.
   - If the return or input fields of the SOAP call contain sensitive information, use masked variables in the Input and Output parameters of the Execute activity.

   Failure to do so could invalidate your PCI compliance.
5. If using a SOAP Web Service, click the **Scan** button to verify the Web Service.
6. Select a **Web Method** from the drop-down list. The Web Method populates the Parameters field.

   NOTE: SOAP Web Services populate the Web Methods field with a drop-down list of available functions.
7. Under **Value**, select a variable or type a static**Value**.
8. Under **Test Value**, enter values to test the process and click **Execute**.
9. On the results dialog box, click **OK**.
10. Click **OK** to auto-populate the Output Mappings pane with Output values.

11. Leave the Process Setup window open and complete the steps under *"Storing retrieved data as variables"*.

To set a REST Web Service process

1. Right-click the **Execute** activity and select **New Process > Web Service**.
2. Type the Web Service **URI** and, for the **Web Service Type**, select **REST**.

   CAUTION: If you are using the Execute activity with a web service as a part of a PCI compliant workflow, ensure that you
   - Use an HTTP Secure (https) address.
   - If the return or input fields of the SOAP call contain sensitive information, use masked variables in the Input and Output parameters of the Execute activity.

   Failure to do so could invalidate your PCI compliance.
3. Type the **Username** and **Password** for the Web Service. Login credentials might not be necessary depending on the Web Service used.
4. To add a set of **Headers**, click **Add** and type the **Parameter** the process uses to execute.
5. Under Value, select a variable or type a static value.
6. Repeat steps 4 and 5 for each set of headers the REST Web Service process uses.
7. To add a set of **Input Parameters**, click **Add** and type the **Parameter** the process uses to execute.
8. Under **Value**, select a variable or type a static **Value**.
9. Repeat steps 7 and 8 for each set of input parameters the REST Web Service process uses. To delete a set of parameters, click the arrow to the left of **Parameter** and click **Remove**.
10. To test the headers and input parameters, enter values under **Test Value** in Headers and Input Parameters and click **Execute**.
11. In the **XML Output** pane of the **Results** dialog box, select the node containing the information the Execute activity retrieves.
12. After **Selected Node**, click the **Show Results** button.
13. Click **OK** to auto-populate the Output Mappings pane with Output values.
14. Leave the Process Setup window open and complete the steps under *"Storing retrieved data as variables"*.

To configure a CRM Service process

1. Right-click the **Execute** activity and select **New Process > Microsoft CRM**.
2. Type the **CRM URI** used to communicate with the CRM system.
3. Select the **CRM Version**.
4. Complete the following fields:
   - **Domain** – Type the domain name of the CRM site.

     NOTE: Domain name is only required for CRM 2011 or 2013.
   - **Operation** – Select the operation the Execute activity is performing
   - **Username** – Type the username for the CRM site login.
   - **Password** – Type the password for the CRM site login.

- **Entity Name** – Select the name of the CRM entity that the Execute activity queries.

5. To add a set of **Input Parameters**, click **Add** and select the **Parameter** the process uses to execute.

   The parameters depend on the Entity Name selected.
6. Under **Value**, select a variable or type a static Value.
7. Repeat steps 5 and 6 for each set of input parameters the CRM Service process uses. To delete a set of parameters, click the arrow to the left of **Parameter** and click **Remove**.
8. Under **Test Value**, enter values to test the process and click **Execute**.

   The results dialog shows mappings of the parameters to values.
9. Click **OK**.
10. Click **Mapping** to assign the output to variables, and click **OK** to store the data as variables.
11. Click **Save**.

Storing retrieved data as variables

The following procedure explains how to store data retrieved by the Execute activity as a variable. These variables can be used later in the workflow.

To store retrieved data as a variable

1. In the **Process Setup** window, under **Mapping**, select a variable from the drop-down list to correspond to each Output value.
2. Click **OK**.

   When a contact progresses through the workflow, each variable in the Mapping field is assigned the value indicated in the Output field.
3. Click **Save**.

Configuring the Go To activity

The Go To activity sends calls to its target activity and resumes workflow execution starting with that activity

For example, if a customer enters an invalid account number, the Go To activity sends them back through the workflow so they can enter their digits again. The Go To activity helps minimize the number of customers routed to the failure branch and helps callers route to the queues best able to help them.

You can configure destinations for Go To activities, determining the activities to which the Go To sends callers. Go To activities in subroutines can be pointed to destinations in parent workflows in conjunction with the Subroutine activity.

The Go To activity is available in

- Inbound, Outbound, RAD, Inqueue, and Agent workflows
- Inbound, Outbound, RAD, Management, UPiQ, Callback Inbound, and Agent subroutines

Configuring destinations for Go To activities

To configure a destination for a Go To activity

1. Right-click the **Go To** activity and select **Target...**.
2. Select the activity to which the Go To returns callers and click **OK**.

3. If you do not want to increase the repeat count of your workflow, for example if your workflow uses embedded menus or the Collect Digits activity, in the **Properties** pane, select the **Reset Repeat Count** check box to give callers an unlimited number of attempts to enter information.
4. Click **Save**.

Configuring parent workflow destinations for subroutine Go To activities

If a Go To activity is placed in a subroutine, it can route contacts to the parent workflow to which the subroutine is assigned by setting its destination as 'Go To Parent Workflow'. A target destination must be set on the Subroutine activity to set where the contacts are routed to in the Parent workflow.

To configure a parent workflow destination for a subroutine Go To activity

1. In the parent workflow, select the **Subroutine** activity.
2. In the **Properties**, after **Target Activity** select the activity to which the subroutine Go To activity returns contacts from the drop-down list.
3. Click **Save**.

Configuring the Hang Up activity

The Hang Up activity instructs IVR Routing to end the workflow, preventing callers from waiting on a dead line and freeing up ports to take new calls. Hang Up activities are inserted at the end of a workflow or branch. For example, you can insert a Hang Up activity at the end of a 'Closed' branch in a Schedule activity to terminate the call after a customer hears that the contact center is closed.

The Hang Up activity is available in

- Inbound, Outbound, and RAD workflows
- Inbound, Outbound, RAD, Management, UPiQ, and Callback Inbound subroutines

NOTE: We recommend you insert a Hang Up activity any place where the call could potentially end. This ensures the call is terminated correctly and the port is freed to accept a new call. Inbound, Outbound, and RAD workflows must end with a Hang Up activity if they do not end with a Transfer activity. UPiQ subroutines should end with a Hang Up activity to free the UPiQ port.

Configuring the Hold State activity

The Hold State activity places an agent on hold. In calls between caller and agent, caller privacy can be ensured for private or sensitive activities, such as entering credit card information, without the agent monitoring them. The activity searches for the Agent ID and then places the corresponding extension on hold. While Hold State activity's enforced Hold state is active, agents cannot remove themselves from hold. Hold is only removed when the call finishes routing through the Success branch of the Hold State activity. The Hold State activity requires no configuration.

Only agents configured in your contact center can be affected by the Hold State activity. Other callers in your workflows will not be affected.

For an example of how to use the Hold State activity in a workflow in support of PCI compliant systems, see *"Workflow for PCI Compliant systems"*.

The Hold State activity is available in

- Inbound workflows
- Inbound subroutines

Configuring the Hunt Group activity

The Hunt Group activity branches workflows based on the hunt group to which a call has been directed. For example, you can configure a Hunt Group activity to route a call towards 'Technical Assistance' telephone lines and the queues that use these lines to provide technical support. The workflow will search the Technical Assistance hunt groups for the first available line and switch the call onto the line when one is found. The Hunt Group activity enables customers to be efficiently routed to the services they need. You can add branching conditions to Hunt Group activities to determine how IVR Routing directs callers through the workflow.

The Hunt Group activity is available in

- Inbound, RAD, and Inqueue workflows
- Inbound, RAD, and Callback Inbound subroutines

Adding branching conditions to Hunt Group activities

Branching conditions represent the criteria by which IVR Routing directs calls.

The following procedures explain how to

- Add a branching conditions to a Hunt Group activity
- Import branching conditions from a .csv file
- Export branching conditions into a .csv file

To add a branching condition to a Hunt Group activity

1. Right-click the Hunt Group activity and select **Add condition**.
   The Hunt Group dialog box opens.
2. To add a hunt group value, click **Add** and type a value or range of values for the hunt group condition.
3. Click the **Add** icon.
   - To branch all calls from a specified area code, city exchange, or other number identification, include an 'x' at the end of the numeric value. 'x' indicates multiple wildcard characters.
   - To indicate individual digits or to set branching conditions to match any Hunt Group, include question marks instead of numeric values.
4. To import hunt group conditions in .csv format, click **Import**, navigate to the file name, and click **Open**.
5. To export the hunt group conditions in .csv format, click **Export**, select a file location and file name and click **Save**.

   NOTE:
   - Conditions on a single line and separated by a comma will be added to a single branch.
   - Conditions on multiple lines and separated by a comma will be added to multiple branches.
6. To add more hunt group conditions, at the top of the Hunt Group dialog box, click **Add**.
7. If you want all Hunt Group conditions in the same branch, clear the **Add each row in a separate branch** check box.

   By default, separate branches are added for each condition.
8. To enable reporting for the branch, select the **Enable reporting for this Branch** check box.
9. To test the hunt group conditions, under **Utilities**, enter a value or range of values.

If the test is successful, 'Pass' displays.
If the test is unsuccessful, 'Fail' displays.

NOTE: You cannot test a range of values.

10. Click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
11. Click **Save**.

To import branching conditions from a .csv file

1. Right-click the Hunt Group activity and select **Import Conditions**.
2. Navigate to the .csv file and click **Open**.
3. Click **Save**.

To export branching conditions into a .csv file

1. Right-click the Hunt Group activity and select **Export Conditions**.
2. Navigate to the .csv file and click **Save**.

Configuring the Language Activity

The Language activity changes IVR Routing's system language, enabling the IVR to provide an identical workflow in different languages. When the Language activity is reached in the workflow, all subsequent prompts play in the set language. For example, you can insert a Language activity into a menu to allow customers to choose the language in which they receive service. By supporting multiple languages in a single workflow, the Language activity reduces the number of prompts you must create and the number of duplicate activities in your workflow. The Language activity also reduces the number of ports that IVR Routing uses by allowing the same set of ports to be used for multiple languages. You can set and edit the languages for Language activities.

The Language activity is available in

- Inbound, Outbound, RAD, and Inqueue workflows
- Inbound, Outbound, RAD, Management, UPiQ, and Callback Inbound subroutines

NOTE: The language value is stored within the <<Language>> system variable. Each subsequent Language action overwrites the value in the system variable.

Setting and editing languages for Language activities

The following procedures explain how to:

- Set the language for a Language activity
- Edit the language for a Language Activity

To set the language for a Language activity

1. Right-click the **Language** activity and select **Select Language**.
2. Select one of the following languages for the workflow
   - Chinese Simplified (zh-CN)
   - Dutch Netherlands (nl-NL)
   - English United Kingdom (en-GB)
   - English United States (en-US)
   - French Canada (fr-CA)

- French France (fr-FR)
- German (de-DE)
- Italian (it-IT)
- Norwegian Norway (nb-No)
- Portuguese Brazil (pt-BR)
- Russian (ru-RU)
- Spanish Latin America (es-CL)
- Spanish Spain (es-ES)
- Swedish Sweden (sv-SE)
- Welsh (cy-GB)

3. Click **Save**.

To edit the language

1. Right-click the Language activity and select **Select Language**.
2. Select a different language for the workflow.
3. Click **Save**.

Configuring the Make Call activity

The Make Call activity prompts an associated port to process an outbound call to a specified destination. This destination can be retrieved from a data source including a SQL database, an Excel file, a Web Service call, or custom variable. For example, you can use the Make Call activity as part of an outbound workflow designed to contact customers during an advertising campaign. You can assign the Make Call activity a destination, set the amount of time the port has to make the call before IVR Routing terminates the action, and add new devices to Make Call activity destinations.

The next step depends on the result when the Make Call activity calls the destination:

- If the call to the destination times out, the call routes through the No Answer branch
- If the destination is busy, the call routes through the Destination Busy branch
- If the destination does not match an existing phone number, the call routes through the Invalid Destination branch
- If the Make Call activity encounters a failure and does not make the call, the call routes through the Failure branch
- If the destination answers, the call routes through the Success branch

The Make Call activity is available in

- Outbound workflows
- Outbound subroutines

Configuring options for Make Call activities

The following procedures explain how to:

- Set a destination for a Make Call activity
- Set a dialable number or SIP address as the destination
- Set the caller name and caller number of the Make Call activity
- Configure the Make Call activity for internal calls
- Set how long a Make Call activity will ring a destination

To set a destination for a Make Call activity

1. Select the Make Call activity.
2. In the Properties pane, after **Destination** click the **…** button.
3. Select one of the following from the drop-down list:
   - Extension
   - Queue
   - Queue group
   - Variable
4. Click **OK**.
5. If the call to the destination will use the outbound digits defined on the media server, ensure **External Call** is selected.
6. Click **Save**.

To set a dialable number or SIP address as the destination

1. Select the **Make Call** activity.
2. In the **Properties** pane, after **Destination**, type the dialable number or SIP address.

   A dialable number cannot include punctuation marks.
3. Click **Save**.

To set a caller name and caller number of the Make Call activity

1. Select the **Make Call** activity.
2. In the **Properties** pane, after **Caller Name**, enter the name that will display as the call's name.
3. After **Caller Number**, enter the number that will display as the activity's ANI.
4. Click **Save**.

To configure the Make Call activity for internal calls

1. Select the **Make Call** activity.
2. Clear the **External Call** check box.
3. Click **Save**.

To set how long a Make Call activity will ring a destination

1. Select the **Make Call** activity.
2. After **Timeout Duration**, set the number of seconds the Make Call will ring a destination.
3. Click **Save**.

Adding new devices to Make Call destinations

To specify a new device as a destination

1. Select the Make Call activity.
2. In the Properties pane, after **Destination** click the **…** button.
3. Select one of the following from the drop-down list:
   - Extension

- Queue
- Queue group
- Variable

4. At the top of the dialog box, click **Add**.
5. To add a new extension, see *"Configuring extension port options for IVR Routing"*.
6. To add a new queue, in the Queue pane, follow the steps under *"Adding queues"*.

   NOTE:
   - To configure a new queue for web callbacks, see *"Enabling web callbacks"*.
   - To configure a new queue for abandon callbacks, see *"Enabling abandon callbacks"*.
   - To associate a queue to an UPiQ workflow, see *"Configuring Inqueue routing"*. For information on setting up UPiQ workflows, see *"Default Inqueue UPiQ workflow and subroutines"*.
7. To add a new queue group, follow the applicable steps in *"Adding queue groups"*.
8. To add a new variable, follow the applicable steps in *"Adding variables"*.
9. Click **Save**.
10. If the call to the destination will use the outbound digits defined on the media server, ensure External Call is selected.
11. Click **Save**.

Configuring the Management activity

The Management activity represents a management plan that is available to authorized callers, enabling them to manage the state of IVR Routing and its prompts over the phone. For example, if the contact center is unexpectedly closed due to severe weather, a manager working from home can use the Management activity to set the IVR to Emergency mode and record a prompt informing callers of the center's closure. You assign subroutines to Management activities and if you are using the Default Management Subroutine, configure remote access options for authorized callers.

The Management activity is available in

- Inbound workflows
- Inbound, Management, and Callback Inbound subroutines

Assigning subroutines to Management activities

IVR Routing provides a default Management subroutine. For information on building subroutines to assign to Management activities, see *"Building subroutines"*.

To assign a subroutine to a Management activity

1. Select the **Management** activity.
2. In the **Properties** pane, after **Management Subroutine**, click the **...** button.
3. Click either the **Subroutines** or **Variables** tab and select a subroutine or a variable to assign to the activity.
4. If you want to assign a new variable, under the **Variables** tab, click **Add** and follow the corresponding steps in *"Configuring variables"*.

5. Click **OK**.
6. Click **Save**.

To view the assigned subroutine or variable

- Right-click the **Management** activity and click **Open**.
  The assigned subroutine or variable opens.

Configuring properties for remote access to the Default Management Subroutine

To configure properties for remote access to the Default Management Subroutine

1. Click **IVR Routing > Subroutines**.
2. Select the **Default Management Subroutine**.
3. Select the 'Enter Management Password' **Menu** activity.
4. To enable callers to skip instructions using a digit entry, select the **Barge In** check box.
5. After **In Between Digit Delay**, set time taken to reset each digit after it is pressed.

   NOTE: Between 1 to 5 seconds is recommended.
6. After **Invalid Attempts**, set the number of times a caller can enter incorrect digits before being routed down the Failure branch.
7. After **No digit timeout (sec)**, set the amount of time that IVR Routing will wait for a caller to enter digits before routing the call to the Timeout branch.

   NOTE: If this time elapses, IVR Routing will send the caller back through the workflow.
8. After **Timeout Attempts**, set the number of times the No digit timeout (sec) can expire before routing the call through the Failure branch.
9. After **Instructions**, click the ▼ button and follow the steps under *"Configuring an activity prompts"*.

   NOTE: Instructions play prompts and menu options to an authorized caller.
10. To enable reporting, select the **Child Reporting Enabled** check box.
11. Right-click the Menu condition branch '1234' and click **Edit Condition**.
12. Click the condition '1234' and enter the new management password.
13. Click the **Add** button.
14. Click **OK**.
15. Click **Save**.

Configuring the Menu activity

The Menu activity prompts callers with messages and manages routing based on caller input. For example, you can configure the Menu activity to ask customers to press '1' on their dial pad to reach Technical Support and '2' if they want to reach Sales. IVR Routing then directs callers to the appropriate queue based on the number they pressed. The Menu activity enables efficient routing to the appropriate queue. You can configure the prompts callers hear, input options, and digit options for Menu activities. If you are enabled for Automatic Speech Recognition, you can also configure the Menu activity to accept speech input.

The Menu activity is available in

- Inbound and Outbound workflows
- Inbound, Outbound, Management, UPiQ, and Callback Inbound subroutines

NOTE: Due to the inability to use Set Variable for specifying a masked variables value, the Menu activity cannot be used with a wildcard branch and a Set Variable activity with masked variables as the masked variables will be exposed in the Last Menu Collected Digits variable in the query string.

Configuring options for Menu activities

NOTE: If validation is enabled, the Menu activity cannot be saved until it has instructions and branches configured.

The following procedures explain how to:

- Configure options for the Menu activity
- Configure instructions for the Menu activity
- Configure reporting for the Menu activity

To configure options for the Menu activity

1. Select the **Menu** activity.
2. To enable callers to skip instructions using a digit entry, select the **Barge In** check box.
3. After **In Between Digit Delay**, set the time taken to reset each digit after it is pressed

   NOTE: Between 1 to 5 seconds is recommended.
4. After **Invalid Attempts**, set the number of times callers can try to enter information.

   NOTE: If this number is exceeded, IVR Routing sends the call to the Failure branch.
5. After **No digit timeout (sec)**, set the time to wait if the user does not enter any digits.

   NOTE: If this time elapses, IVR Routing will send the call to the Timeout branch
6. After **Timeout Attempts**, set the number of times users can timeout before being routed down the Failure branch.

To configure instructions for the Menu activity

1. Select the **Menu** activity.
2. After **Instructions**, click the ▼ button and follow the steps under *"Configuring an activity"s prompts"*.

   NOTE: Instructions play prompts and menu options to callers.
3. Click **Save**.

To configure reporting for the Menu activity

1. Select the **Menu** activity.
2. To enable reporting for this branch, select the **Child Reporting Enabled** check box.
3. Click **Save**.

Configuring Menu activity branches

Menu branches are the numbers callers select to navigate the IVR Routing menu.

To configure digit options

1. Right-click the Menu activity and select **Add branch**.
   The Menu dialog box opens.

2. To add a digit option, at the top of the dialog box, click **Add** and type a value or range of values.

   NOTE:
   - Adding question marks to a digit option enables callers to enter customer-specific information, of a set length, into IVR Routing. For example, you may have a menu asking callers who are members to enter their 10-digit membership number. Adding a digit option of '??????????' will route all callers entering a 10-digit number to the appropriate queue.
   - Adding the letter 'x' to a digit option enables callers to enter customer-specific information of an unspecified length. For example, you may have a menu asking callers to enter their telephone number, including extensions. Adding a digit option of '613x' will route all callers phoning from a 613 area code to the appropriate queue.

3. Click the **Add** icon.
4. To import branch conditions in .csv format, click **Import**, navigate to the file name, and click **Open**.
5. To export the branch conditions in .csv format, click **Export**, select a file location and file name and click **Save**.

   NOTE:
   - Digit options on a single line and separated by a comma will be added to a single branch.
   - Digit options on multiple lines and separated by a comma will be added to multiple branches.

6. To add more digit options, at the top of the Menu dialog box, click **Add**.
7. If you want all digit option conditions in the same branch, clear the **Add each row in a separate branch** check box.

   By default, separate branches are added for each condition.
8. To enable reporting, select the **Enable reporting for this Branch** check box.
9. To test the digit options, under **Utilities**, enter a value or range of values.

   If the test is successful, 'Pass' displays.
   If the test is unsuccessful, 'Fail' displays.
10. Click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
11. Click **Save**.

Configuring speech recognition for Menu activities

If you have an Automatic Speech Recognition server configured, you enable callers to speak the Menu activity's branch numbers rather than pressing numbers on their dialpad. When speech recognition is enabled, the callers will not be routed down the appropriate Menu branch until the system recognizes their speech or the callers enter the branch's digits. The Confidence Threshold determines the threshold for accepting the speech and routing down the appropriate branch of the Menu activity. For more information on Confidence Thresholds, see *"Configuring Automatic Speech Recognition"*.

To configure speech recognition

1. Select a **Menu** activity and click **Properties**.
2. After **Confidence Threshold**, set the confidence threshold for the speech recognition.
3. Select **Recognition Enabled**.

4. After **Recognition Language**, select the language for the Menu activity from the drop-down list.
5. Click **Save**.

Configuring the Mode of Operation activity

The Mode of Operation activity branches workflows to a secondary type of operation when the contact center is temporarily out of service. It can also change IVR Routing back to the Normal mode. For example, you can use the Mode of Operation activity to route calls to an Emergency branch if the contact center is closed due to severe weather. You can add activities to the Mode of Operation activity's branches to determine how IVR Routing directs callers through the workflow in the event of an Emergency or in the case of Normal operations.

The Mode of Operation activity is available in

- Inbound workflows
- Inbound and Management subroutines

NOTE: For more information on setting IVR Routing to Emergency mode, see *"Configuring Set Device Mode of Operation activity"* and *"Configuring the Set System Mode of Operation activity"*.

Configuring Mode of Operation activities for Emergency and Normal modes

Configure the Mode of Operation activity by specifying the actions a workflow will take in Emergency and Normal modes.

To configure a Mode of Operation activity for Emergency and Normal modes

1. In the Workflow Canvas, expand the **Mode of Operation** activity.
2. From the Toolbox pane, drag activities to the **Emergency** or **Normal** branch.
3. To enable reporting on the activity's branches, select the **Child Reporting Enabled** check box.
4. To enable reporting on a single branch, select the branch and select the **Reportable** check box.
5. Click **Save**.

Configuring the Play activity

The Play activity enables IVR Routing to play messages or read back the contents of variables to callers. The Play activity can play a prompt or a single wave file to customers. For example, you can use a Play activity to greet callers and ask them to hold for the next available agent. You can add a new prompt to a Play activity, add a prompt that you have previously recorded, or add a variable to a prompt. For more information on configuring prompts in workflows, see *"Configuring Prompts"*.

The Play activity is available in

- Inbound, Outbound, RAD, Inqueue, and Agent workflows
- Inbound, Outbound, RAD, Management, UPiQ, Callback Inbound, and Agent subroutines

NOTE: The duration of a prompt is stored within the <<LastWavePlayedDuration>> system variable. This value will be overwritten any time a wave file is played in the workflow.

Adding prompts to Play activities

Prompts are the messages played at specified points in the workflow. Prompts can be configured to be played to the caller only, to the agent only, or to both.

If your system is licensed for Text-to-Speech, you can add a prompt as a text string. The system reads the text as voice output when the prompt is played.

To enable callers to skip prompts using a digit entry

1. Select the **Play** activity and click **Properties**.
2. Select the **Barge Enable** check box.
3. Click **Save**.

To specify who you want to hear the prompt

1. Select the **Play** activity and click **Properties**.
2. After **Broadcast To**, click the button and select one of the following:
   - **Both:** the prompt plays to both the caller and the agent
   - **Caller:** The prompt plays to both the caller and the agent
   - **Agent:** the prompt plays to the agent only
3. Click **Save**.

To add an existing prompt to a Play activity

1. Select the **Play** activity and click **Properties**.
2. After **Greeting Prompts**, click the button and select **Select from an existing prompt**.
3. Select a prompt and click **OK**.
4. Click **Save**.

To add a new prompt

1. Select the **Play** activity and click **Properties**.
2. After **Greeting Prompts**, click the button and select **Add a new prompt**.
3. After **Language**, select the primary language from the drop-down list.

   NOTE:
   - The language you select determines the system wave files available to you.
   - By default, the language is set to the default site language.
4. Type a **Name** for the prompt.
5. Type a **Description** for the prompt.
6. Select a **Category** for the prompt from the drop-down list:
   - Callback
   - Custom
   - Management
   - Samples
   - UPiQ
7. To create your own category, after **Category**, type a name for the new category.

   NOTE: Prompt categories are an organizational tool to help keep prompts sorted and easily accessible.
8. Select one of the following tabs:

- **Text**—lists the SSML files added to IVR Routing. Users can add an SSML file or add text to the prompt. To add an **SSML file**, click **Add** and select **SSML file**. To add a text, click **Add**, select **Text**, enter the text, and click **OK**. To add text to the SSML library for reuse, click **Export**.

  NOTE: If adding variables to text, enclose them within double angle brackets. For example, the EstimatedWaitTime variable is formatted as <<EstimatedWaitTime>>. By default, variables are read as Numbers or, if they are currency, Dollars. You can specify how variables are read in SSML files. For more information, see the MiContact Center Knowledge Base.
- **System wave files**–lists the system wave files callers hear while in the IVR or while waiting on hold. This pane will only show the wave files that are available in the language you have selected.
- **Custom wave files**–lists imported and recorded wave files. To import or record a custom wave file, click 'Add' and select 'Existing wave file' to import the file or 'Record wave file' to use the microphone on your computer to record the file.

  NOTE: IVR Routing does not support 44.1 khz format for prompts. IVR Routing has been tested with 8khz, Mono, and ULAW formats.
- **Queue stats**–lists up-to-date queue statistics for use in prompts
- **Variables**–lists all variables available for use in prompts

  NOTE: Read back on variables is based on the type of variable. Number variables read back the whole number, while digit variables read back individual numbers. For example, number variables would read 123 as 'one hundred and twenty-three', while digit variables would read 123 as 'one, two, three'.
- **Prompts used in workflows and subroutines**–lists all prompts used in workflows and subroutines

9. In the **All SSML Files**, **All system wave files**, **All custom wave files**, **All queue stats**, **All variables**, or **Prompts used in workflows and subroutines pane**, select the files to add to the prompt.
10. Click **>** to add the file to the prompt.

    NOTE: The wave or SSML files play in the order they are added to the prompt. To change the order in which the files will be played, select the file and click the up or down arrow buttons on the right-hand side of the dialog box.
11. Click **Save**.

    NOTE: If you are adding prompts in a new language, you must add audio files that correspond to the existing audio files in IVR Routing's default language. Otherwise, the caller will not hear anything when the prompts are supposed to be playing.

To add a variable to a prompt

1. Select the **Play** activity and click **Properties**.
2. After **Greeting Prompts**, click the button and select Add a variable to a prompt.
3. Select the variable and click **OK**.
4. Click **Save**.

To add a new variable to a prompt

1. Select the **Play** activity and click **Properties**.
2. After **Greeting Prompts**, click the button and select **Add a variable to a prompt**.
3. Click the **Add** button.
4. Type a **Name** for the variable. The name must be unique and cannot contain spaces.

5. Type a **Description** for the variable.
6. After **Variable Type**, select a type from the drop-down list.

   NOTE: A variable's type cannot be changed after you save.
7. If **Mask Type** is available to this type of variable, select the variable's mask from the drop-down list.
   - **NoMask**– The variable will not be masked within IVR Routing and associated screen pops, databases, etc.
   - **FullMask**– The entire variable will be masked within IVR Routing and associated screen pops, databases, etc.
   - **MaskAllExceptLastX**– The variable will be masked except for the specified number of final characters
   - **MaskAllExceptFirstX**– The variable will be masked except for the specified number of first characters
8. If you selected **MaskAllExceptLastX** or **MaskAllExceptFirstX**, specify the number of characters to be left unmasked.
9. To enable this variable to display in a toaster notification or screen pop, select the **Send to agent desktop** check box.
10. Type the **Display Name** that this variable has when it appears in a toaster notification or screen pop.
11. If you selected Dollars, Euros, or Pounds as the variable type, after **Currency Format**, select the format from the drop-down list.
12. If you selected Date Time as the variable type, after **Date Format**, select the date format from the drop-down list. After **Time Format**, select the time format from the drop-down list.
13. Click **Save**.

To add a Text-to-Speech prompt

1. Select the **Play** activity and click **Properties**.
2. After **Greeting Prompts**, click the button and select **Add text**.

   NOTE: The 'Add Text' option is only available if your system is licensed for Text-to-Speech.
3. In the Add Text window, type a message for the prompt and click **OK**.
4. Click **Save**.

To clear a prompt

1. Select the **Play** activity and click **Properties**.
2. After **Greeting Prompts**, click the button and select **Clear Prompt**.
3. Click **Save**.

To add a prompt to a Play activity using Quick Add Prompt

1. Select the **Play** activity and click **Properties**.
2. After **Greeting Prompts**, click the button and select **Quick Add Prompt**.
3. Navigate to the .wav file and click **Open**.
4. Click **Save**.

Configuring the Query activity

The Query activity reads and writes information through a data provider, such as an MS SQL connection, ODBC connection, Excel sheet, or LDAP provider. Administrators can use the Query activity to retrieve information and store it in custom variables for use within workflows. Advanced queries return multiple records of information that can be stored in multiple variables.

For example, you can use the Query activity to retrieve customer account balances for the past year. Callers can then have their account history read back to them from within the workflow. You can configure the data providers for Query activities, configure simple or advanced queries, and define simple or advanced write statements for Query activities.

The Query activity is available in

- Inbound, Outbound, RAD, Inqueue, and Agent workflows
- Inbound, Outbound, RAD, Management, UPiQ, Callback Inbound, and Agent subroutines

CAUTION: IVR Routing can mask variables to protect information used in queries but customers are responsible for implementing appropriate network security to encrypt information passing between IVR Routing and data providers.

NOTE:

- By default, the query result is stored within the <<LastQueryResult>> system variable. Each subsequent Query action overwrites this variable. It is not recommended to use the <<LastQueryResult>> variable when expecting protected information to be contained within this variable.
- For more information on configuring data providers, see *"Configuring data providers"*.

Connecting Query activities to data providers

Connecting Query activities to data providers enables the Query activity to access data and use this information to route interactions. For more information on creating data providers, see *"Configuring data providers"*.

To assign a data provider to a Query activity

1. Select the **Query** activity.
2. In the **Properties** pane, after **Data Provider**, click the **...** button.

   The Selection Connection window opens.
3. Select a data provider for the query and click **OK**.

   NOTE: The Query activity cannot be saved without a query or write statement configured.

Running simple queries in workflows

Running simple queries enables administrators to retrieve information from a database and store it in a variable.

To run a simple query in a workflow

1. Select the **Query** activity and click **Properties**.
2. After **Query statement**, click the **Browse** button and, under **Query Type**, select **Simple Query**.
3. After **Database Table Name**, from the drop-down list, select the table to query.

   'Database table names' refer to the tables in the data source from which the Query activity retrieves information.

4. After **Column Return Name**, from the drop-down list, select the column of data to query.

   'Column return names' refer to the columns in the selected table, from which the Query activity retrieves information.
5. After **Variable Return Name**, from the drop-down list, select the variable to populate with the return value.

   'Variable return names' refer to the variables populated as a result of the query.
6. After **Column Where Name**, from the drop-down list, select the name of the column of data to compare against.

   'Column where names' refer to the columns in the data source against which the Query activity compares information.
7. After **Variable Where Name**, from the drop-down list, select the variable to use for comparison.

   'Variable where names' refer to the variables against which the Query activity compares.
8. To enable the activity to convert digits into text values, select the **Dialpad Compare** check box.

   For example, if a caller is trying to reach an employee's telephone extension, dialpad compare enables the caller to enter the letters of the employee's name into their dialpad instead of entering an extension number.
9. To test the query, after **Test with a value equal to**, enter an existing value from the data provider and click **Test Query**.

   The Raw SQL window displays the SQL statement based on the selections from the drop-down lists.
10. To clear all fields and return to the Canvas, click **Clear**. To accept the query, click **OK**.
11. Click **Save**.

Configuring Query activities with advanced queries

Advanced queries enable administrators with knowledge of SQL to write SQL statements retrieving information from a database provider. Advanced queries also support LDAP syntax for LDAP providers, and advanced queries for MS SQL Server and ODBC data providers support stored procedures.

To run an advanced query in a workflow

1. Select the **Query** activity and click **Properties**.
2. After **Query** statement, click the **Browse** button, and under **Query Type**, select **Advanced Query**.
3. Under **Query**, type the SQL statements to be run directly against the data provider and click **Execute**.

   The Execute window opens displaying a list of detected input and output parameters.
4. Under **Value**, type the numbers corresponding to the values contained in the data provider.
5. To enable the activity to convert digits into text values, select the Use **Dialpad Compare** check box.
6. Click **Run**.
7. To assign variables to store information returned by the SQL statements, click the **Variable Assignment** tab.

   Return Column will be populated with the column names in the data provider.
8. Under **Variable Name**, select the variables to store information returned by the SQL statements.

9. To assign values to the parameters filled by the SQL statements, click the **Parameter Assignment** tab.

   Parameter Name will be populated with the SQL parameters used to query the data provider.
10. After **Variable Name**, select a variable from the drop-down list to store the information retrieved by the SQL parameter.
11. To translate parameters from a dial-pad digit, select the **Dialpad** check box.
12. To view the values returned from the query, click the **Test Results** tab.
13. To clear the variables and their parameters, click **Clear**. To accept the query, click **OK**.
14. Click **Save**.

Defining write statements

Write statements define a delete, insert, or update statement against a specified data provider. Write statements enable administrators to delete, insert, or update column values in a data provider from within a workflow.

The following procedures explain how to configure simple and advanced write statements

NOTE: Advanced write statements enable users with knowledge of SQL to write insert, update, or delete SQL statements.

To define a simple write statement

1. Select the **Query** activity, click **Properties** and, after **Write** statement, click the **Browse** button.
2. Select **Simple Write** and select a **Write Type** from the drop-down list. Options vary by data provider.
3. After **Table Name**, select the table in the data provider against which the write statement is defined.
4. Under **Column Name**, select a column in the data provider against which the write statement is defined.
5. Under **Value**, select the data to be inserted into the data provider.
6. Under **Where**, select a column name.

   NOTE:
   - 'Where' statements display only if Delete or Update is selected
   - The column names displaying in the list derive from the Table Name selected.
7. Select an operator from the drop-down list
   - =
   - <>
   - >
   - <
   - >=
   - <=
8. From the third drop-down list, select or type the variables used to evaluate the information selected from the first column
9. To test the write statement, click **Test Syntax**.

10. To empty column values, click **Clear**. To accept the write statement, click **OK**.
11. Click **Save**.

To define an advanced write statement

1. Select the **Query** activity, click **Properties**.
2. After **Write statement**, click the **Browse** button and select the **Advanced Write** button.
3. Under **Query**, type the insert, update, or delete SQL statements to be run against the data provider and click **Execute**.
4. The Parameter name column will be populated with the column names in the data provider.
5. Under **Variable Name**, from the drop-down list, select the variables used to evaluate the information you selected from the first column.
6. To test the write statement, click **Test Syntax**.
7. To empty column values, click **Clear**. To accept the write statement, click **OK**.
8. Click **Save**.

Returning multiple results with queries

The Query activity supports returning multiple results from a query. When a Query activity returns multiple results from a query, the call is looped through the Success branch for each result unless it is interrupted by a caller-activated activity, such as Go To or Transfer. When there are no more results for the Success branch to loop, the call exits the Success branch of the Query activity and continues along the workflow.

Multiple result returning Query activities enable contact centers to build more complex workflow functions, such as providing callers access to an employee directory.

For more information on returning multiple results with queries, see the following Mitel Knowledge Base article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1000706/loc/en_US..

Configuring the Queue activity

The Queue activity branches workflows based on real-time queue conditions, enabling you to route calls based on emerging queue conditions.The Queue activity supports Ring Group queue conditions.

For example, you can configure a Queue activity to check queue conditions and offer a Callback Request activity to callers experiencing long wait times. The Queue activity can help to lessen abandoned calls and manage Service Level objectives by routing calls based on emerging queue conditions.

You can add and edit branching conditions for queue activities and group queue conditions to determine how IVR Routing directs callers through the workflow. Queue group real-time condition definitions vary depending on the type of queue group. For more information, see *"Real-time queue conditions and queue groups"*.

The Queue activity is available in

- Inbound, Outbound, RAD, Inqueue, and Agent workflows
- Inbound, Outbound, RAD, UPiQ, Callback Inbound, and Agent subroutines

Applying queue conditions to the Queue activity

The following explains how to

- Associate queue conditions to a queue, queue group, or variable
- Associate queue conditions to a variable
- Edit and delete queue conditions
- Import and export queue conditions
- Group queue conditions

NOTE:

- The actions that IVR Routing takes when queue conditions are met are determined by activities you insert into the **Drop Activities Here** section of the Workflows Canvas for that Queue condition.
- The workflow evaluates Queue conditions from left to right. For information on how to change the order of Queue conditions, see *"Changing the order in which branches are evaluated"*.

To associate queue conditions to a queue or queue group

1. Right-click the **Queue** activity and select **Add**.
2. Type a **Name** for the queue condition and, after **Queue**, click the ... button.
3. Select either **Queue or Queue Group**, select the queue or queue group; and click **OK**.

   NOTE: For information on how queue groups use queue real-time statistics, see *"Real-time queue conditions and queue groups"*.
4. Click **Add** and, from the second column, select a real-time statistic from the drop-down list.

   NOTE: Expected Wait Time requires at least one call waiting in queue for IVR Routing to calculate an Expected Wait Time value.
5. In the third column, select an operator from the drop-down list. Options vary according to the variable chosen.
6. Click the fourth column and select either **Value**, **Queue Stats**, or **Variable**.
7. For **Value**, type in a numeric value or enable the check box for the value.
8. For **Queue Stats**, select a queue stat from the drop-down list.
9. For **Variable**, select a variable from the drop-down list.
10. To test the conditions, click **Test Parameters**, enter a value in the relevant fields and click Test.
11. Click **OK**.
12. To add another condition, click **Add** and repeat steps 4-11.
13. Click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
14. Click **Save**.

To associate queue conditions to a variable

NOTE: Associating queue conditions to a variable requires first inserting and configuring an activity on the Canvas capable of populating the Queue activity's destination variable.

1. Right-click the **Queue** activity and select **Add**.
2. Type a **Name** for the queue condition and, after **Queue**, click the ...button.
3. Select the **Variable** tab, select a variable, and click **OK**.

   Only Numbers, Digits, Queue, and Unspecified variable types are available.

4. Click **Add** and, from the second column, select a real-time statistic from the drop-down list.
5. In the third column, select an operator from the drop-down list. Options vary according to the variable chosen.
6. Click the fourth column and select either **Value**, **Queue Stats**, or **Variable**.
7. For **Value**, type in a numeric value or enable the check box for the value.
8. For **Queue Stats**, select a queue stat from the drop-down list.
9. For **Variable**, select a variable from the drop-down list.
10. To test the conditions, click **Test Parameters**, enter a value in the relevant fields and click Test.
11. Click **OK**.
12. To add another condition, click **Add** and repeat steps 4-11.
13. Click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
14. Click **Save**.

To edit and delete queue conditions

1. To edit queue conditions, right-click the relevant branch in the Queue activity and select **Edit Condition**.
2. To delete a queue condition, select the row for the condition and click **Delete**.

To import and export queue conditions

1. To import queue conditions, click the Import button and navigate to a *.xaml file, and click **Open**.

   NOTE:
   - Conditions on a single line and separated by a comma will be added to a single branch.
   - Conditions on multiple lines and separated by a comma will be added to multiple branches.
2. To export queue conditions, click the **Export** button, navigate to a *.xaml file, and click **Save**.
3. To test the conditions, click **Test Parameters**, enter a value in the relevant fields and click **Test**.

To group conditions being compared

- See *"Grouping expressions"*.

Real-time queue conditions and queue groups

IVR Routing supports both queue conditions and queue group conditions. Queue group queue conditions are defined differently than queue conditions. Between reporting queue groups and virtual queue groups, however, there are some differences between how the queue conditions stats are calculated.The following table outlines how queue condition statistics are applied to reportingand virtual queue groups.

Table 9.4: Queue Groups Queue Condition statistics definitions (Sheet 1 of 2)

Queue condition statistic	Reporting Queue Group definition	Virtual Queue Group definition
Agents Available	The sum of the available agents in all member queues	The number of available agents found in the first Online queue
Agents Idle	The sum of the idle agents in all member queues	The number of idle agents found in the first Online queue
Agents Unavailable	The sum of the unavailable agents in all member queues	The number of unavailable agents found in the first Online queue
Average Time to Abandon	The sum of the duration of the abandons divided by the sum of the abandons from all queues in the group	
Average Time to Answer	The sum of the answer duration of the calls divided by the sum of the calls answered from all queues in the group	
Call Load	The sum of Calls Waiting in all queues in the group divided by the sum of Agents Available in all queues in the group	The sum of the Calls Waiting in all queues in the group divided by the number of Agents Available in the first Online queue
Expected Wait Time	If there are agents available, the expected wait time is the average talk time for the queues in the group multiplied by Calls Waiting in all Queues in the group, divided by all Available Agents in the group If there are no agents available, the Expected Wait Time is the sum of the answer duration of the calls divided by the sum of the calls answered from all queues in the group	If there are agents available, the expected wait time is the average talk time for the queues in the group multiplied by Calls Waiting in all queues in the group, divided by the Available Agents in the first Online queue in the group If there are no agents available, the Expected Wait Time is the sum of the answer duration of the calls divided by the sum of the calls answered from all queues in the group
Last Queue Update Received	The last queue update received from any queue in the queue group	

Table 9.4: Queue Groups Queue Condition statistics definitions (Continued) (Sheet 2 of 2)

Queue condition statistic	Reporting Queue Group definition	Virtual Queue Group definition
Longest Wait Time	The longest time that a call has been waiting in all of the queues in the queue group	
Number of Calls Waiting	The sum of the number of calls waiting in each member queue of the queue group	
Path DND	Checks if any member of the group is in Do Not Disturb	
Service Level	The service level of the queue group	

Configuring the Queue Control activity

The Queue Control activity changes the queue's state from Do Not Disturb or vice-versa. When a queue is put into Do Not Disturb with the Queue Control activity, its state will not change due to business hours. For example, if only one of the IVR Routing's queues is experiencing issues, you can use the Queue Control activity to put that queue into Do Not Disturb.

A queue's state can also be changed in Contact Center Client. For more information, see *"Manually controlling queues"*.

The Queue Control activity is available in

- Management Subroutines

To configure the Queue Control activity

1. Select the **Queue Control** activity.
2. In the **Properties** pane, after Input variable, click the … button.

   The Input variable is the variable containing the queue's dialable number.
3. Select an input variable and click **OK**.
4. If you want the queue to be put into Do Not Disturb, select **QueueDNDState**.
5. If you want the queue to be removed from Do Not Disturb, clear **QueueDNDState**.
6. Click **Save**.

Configuring the Record activity

The Record activity enables authorized callers to record a wave file over the phone as opposed to using a microphone in a computer. For example, a manager can call into IVR Routing from home and use the Record activity to record a wave file to populate a custom prompt for Play activities. The Default Management Subroutine that ships with IVR Routing includes a Record activity for this purpose. You can use the Default Management Subroutine to record prompts for Play activities in your workflow. The Record activity is also used by callers to record a message to accompany their callback request in the Default Inbound Voice Callback subroutine. The Record activity increases the flexibility with which you can create custom prompts for your workflow and respond to after-hours conditions affecting the call center's operations.

You can configure Record activities with prompts to determine the message authorized callers hear when they dial the IVR Routing system, and configure recording options for authorized users phoning into the

system. You can also set the options by which an authorized caller reviews, accepts, or rejects a message they recorded.

The Record activity is available in

- Inbound workflows
- Inbound, Management, UPiQ, and Callback Inbound subroutines

Configuring Record activities with prompts

By default, the Record activity is automatically assigned an instruction prompt. This prompt can be changed to another prompt, but the Record activity must have an instruction prompt assigned to it. Optionally, a confirmation prompt can be assigned to the Record activity to inform callers that their recording is complete. If no confirmation prompt is assigned to a Record activity, users are directed to the Save branch.

To change the Record activity's Instruction prompt

1. Select the **Record** activity and click **Properties**.
2. To configure recording instructions for authorized callers, after **Instructions**, click the drop-down list and select from the following:
   - **Add a new prompt**
   - **Quick Add Prompt**
   - **Clear prompt**
   - **Select from an existing prompt**
3. If you are adding a new prompt, follow the appropriate steps under *"Configuring an activity"s prompts"*.

   NOTE: Adding a prompt requires you to select a wave file in IVR Routing, which will be added to the system as a prompt.
4. If you are Quick Adding a prompt, follow the appropriate steps under *"Configuring an activity"s prompts"*.

   NOTE: Quick Adding a prompt enables you to populate the recording instructions with a wave file saved on your machine. The prompt is created in IVR Routing and is given the file name.
5. If you are selecting an existing prompt, select the prompt from the list offered to you and click **OK**.
6. To remove a prompt from recording instructions, after Instructions, click the drop-down list and select **Clear prompt**.
7. Click **Save**.

To configure a Record activity with a confirmation prompt

1. Select the **Record** activity and click **Properties**.
2. To configure recording instructions for authorized callers, after **Confirmation Prompt**, click the drop-down list and select from the following:
   - **Add a new prompt**
   - **Quick Add Prompt**
   - **Clear prompt**
   - **Select from an existing prompt**
3. If you are adding a new prompt, follow the appropriate steps under *"Configuring an activity"s prompts"*.

NOTE: Adding a prompt requires you to select a wave file in IVR Routing, which will be added to the system as a prompt.

4. If you are Quick Adding a prompt, follow the appropriate steps under *"Configuring an activity"s prompts"*.

   NOTE: Quick Adding a prompt enables you to populate the recording instructions with a wave file saved on your machine. The prompt is created in IVR Routing and is given the file name.

5. If you are selecting an existing prompt, select the prompt from the list offered to you and click **OK**.
6. To remove a prompt from recording instructions, after **Confirmation Prompt**, click the drop-down list and select **Clear prompt**.
7. Click **Save**.

Clearing prompts from Record activities

The following explains how to remove prompts from Record activities.

To clear a prompt from the Record activity

- Right-click the Record activity and select either **Edit Instruction Prompt > Clear prompt** or **Edit Confirmation Prompt > Clear prompt**.

Configuring recording options

You can configure the recording options for authorized users phoning in to the system.

1. Select the **Record** activity and click **Properties**.
2. To remove a date and time stamp from the wave file name, deselect the **Append Date Time Stamp** check box.
3. After **Output Name**, type a name for the wave file being recorded.

   NOTE: The output name must be a valid file name but may contain variables enclosed between double angle brackets. For example: <<ANI>>. The text between the angle brackets will be replaced with the value of the variable currently executing in the workflow.

4. After **Recording Timeout (sec)**, type the number of seconds an authorized caller has to record a message.

   NOTE: This figure determines the amount of time before the Timeout branch is followed.

5. After **Termination Digit**, from the drop-down list, select a number that an authorized caller enters to end the recording.
6. Click **Save**.

Configuring the Save, Discard, and Review branches of the Record activity

The Record activity contains an embedded menu with three options. After recording a message, authorized callers are presented with the option of pressing one to save their message, pressing two to discard and re-record their message, and pressing three to review their message before deciding to save or discard it.

You can reconfigure the digit options for the Save and Discard branches, configure options for the Review branch, and add additional branches to the Record activity's Menu.

NOTE: Go To activities in the Review branch direct authorized callers to the Save or Discard branches depending on the caller's selection. If authorized callers choose Save, they hear a prompt confirming that their message has been saved. If they choose Discard, they are taken back to the Record activity.

The following procedures explain how to

- Reconfigure the digit options for the Save and Discard branches
- Configure user options for reviewing messages
- Add branches to the Record activity's Menu

To reconfigure the digit options for the Save and Discard branches

1. In the **Record** activity, select the branch in the **Menu** activity.
2. In the **Properties** pane, after **Condition**, click the **…** button.
3. Select the existing digit option.
4. Enter the new digit option and click the **Add** button.
5. Click **OK**.

   NOTE: The Save and Discard branches in the Record activity's Menu are named '1' and '2'. You can change these names using the Properties pane, after selecting the relevant branch.

To configure user options for reviewing messages

1. Select the **Menu** activity and click **Properties**.
2. To enable users to enter digits before a prompt completes, select the **Barge In** check box.
3. After **In Between Digit Delay**, type the number of seconds a user has between digit entries.

   NOTE: Taking longer than this time between digit entries constitutes a timeout and counts against the system's configured Timeout Attempts.
4. After **Invalid Attempts**, type the number of times an authorized caller can select an invalid menu option before the system follows the **Failure** branch.

   NOTE: If users select invalid menu options but do not exceed this number, the system follows the Invalid branch.
5. After **No digit timeout (sec)**, type the number of seconds a user has to make their first digit entry.
6. After **Timeout Attempts**, type the number of times the system can timeout before following the Failure branch.
7. To change the menu instructions an authorized caller hears, after **Instructions**, click the drop-down list and follow the appropriate steps under *"Adding prompts to Plat activities*.

   NOTE: These instructions are preprogrammed in IVR Routing. You must change these instructions if you reconfigure digit options or add branches to the Menu.
8. To enable reporting on all branches in this activity, select the **Child Reporting Enabled** check box.
9. Click **Save**.

Configuring the Redirect activity

The Redirect activity branches workflows based off a redirect value received in a call record and the number of the device from which the call was redirected. The Redirect activity provides an additional means of branching workflows so that calls can reach the appropriate queue. You can add branching conditions to Redirect activities to determine how IVR Routing directs callers through the workflow.

The Redirect activity is available in

- Inbound, Inqueue, and Agent workflows
- Inbound, Management, Callback Inbound, and Agent subroutines

NOTE: Redirects are achieved using the ACD routing system's HCIRedirect or Name Tag hunt groups.

Adding branching conditions to Redirect activities

To add a branching condition to a Redirect activity

1. Right-click the **Redirect** activity and select **Add condition**.
2. To add a Redirect value, at the top of the dialog box, click **Add** and type the value or range of values for the Redirect condition.
3. Click the **Add** icon.
4. To import Redirect conditions in .csv format, click **Import** and navigate to the file name.
5. To export Redirect conditions, click **Export** and navigate to the file name.

   NOTE:
   - Conditions on a single line and separated by a comma will be added to a single branch.
   - Conditions on multiple lines and separated by a comma will be added to multiple branches.
6. To add more Redirect conditions, at the top of the dialog box, click **Add**.
7. If you want all Redirect conditions in the same branch, clear the **Add each row in a separate branch** check box.

   By default, separate branches are added for each condition.
8. To enable reporting for the branch, select the **Enable reporting for this Branch** check box.
9. To test the Redirect conditions, under **Utilities**, enter a value or range of values.

   If the test is successful, 'Pass' displays.
   If the test is unsuccessful, 'Fail' displays.
10. Click **OK** to create the branch, or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
11. Click **Save**.

Configuring the Retrieve Callback activity

The Retrieve callback activity enables a workflow to retrieve the next available callback request from the SQL database for use in the current workflow. The Retrieve Callback activity prioritizes callback requests by time, whether the request is new or if it was requeued. To route down the Success branch, there must be an active callback request in the SQL database. To see how the Retrieve Callback activity functions within a workflow, see *"Default Outbound CallbackDefault SIP Outbound workflow"*.

The Retrieve Callback activity requires no configuration. You can optionally provide the activity with a name and system name.

The Retrieve Callback activity is available in

- Outbound workflows
- Outbound subroutines

Configuring the Rules activity

The Rules activity enables workflows to be branched according to multiple conditions, or routing rules, nested within a single activity. When an incoming call enters a workflow and encounters a Rules activity, the call is evaluated against the activity's preconfigured routing rules. Calls will be directed through the workflow based on whether the call meets the activity's routing rules. If a call meets the activity's routing rules, it is routed to the Success branch and the activity will populate variables for the call based on pre-configured options in the rule. These variable values will determine the queue to which the call is directed. For example, you can assign a rule to a Rules activity that specifies the hours of operation and the ANI condition for a French-language queue. If a call enters IVR Routing and matches the ANI of a French-speaking region during the French queue's hours of operation, that call will have an ANI variable populated with the French area code and will be routed to the appropriate branch. You can assign and edit rules for Rules activities to determine how IVR Routing directs callers through the workflow.

The Rules activity is available in

- Inbound, Outbound, RAD,;Inqueue, and Agent workflows
- Inbound, Outbound, RAD, Management, UPiQ,;Callback Inbound, and Agent subroutines

NOTE:

- Before creating a Success branch, configure a rule that will contain the conditions for a successful match. For information on rules and configuring rules, see *"Configuring rules"*.
- If the call is evaluated against multiple routing rules, first routing rule to be matched will set the variable values.

Adding and editing rules for Rules activities

To assign a rule to a Rules activity

1. Right-click the Rules activity and select **Configure...**.
2. From the **Available members** pane, select the rule to assign to the Rule activity and click the > button.
3. Click **OK**.

   NOTE:

   – Rules are evaluated in the order they appear in the selected list. IVR Routing will evaluate all rules in order to find a match. By default, it will not stop at the first match.
   – You can only configure one Success branch per Rules activity.
4. To edit a rule assigned to a Rules activity, right-click the activity and select **Configure...**.
5. Change the rule assigned to the branch.
6. Click **OK**.
7. To stop evaluating rules at the first match, select **Stop at First Match**.
8. To enable reporting for this branch, in the Properties pane, select the **Child Reporting Enabled** check box.
9. Click **OK**.
10. Click **Save**.

Configuring the Save Agent Greeting activity

The Save Agent Greeting activity instructs IVR Routing to save a recording as an agent greeting for a specific queue, or as a default greeting if not assigned to a specific queue.

The Save Agent Greeting activity only appears in the outbound Record Agent Greeting workflow. See *"Default Record Agent Greeting Worflow"* for more information.

Configuring the Save Callback activity

The Save Callback activity saves a callback request to the SQL database. This activity can be used to both save the information collected in the callback variables as a new callback request or save an existing callback request back to the SQL database with a reason of completed or requeued. The Global Callback monitor in Contact Center Client informs the supervisor which callback requests were saved and why.

Following are the reasons associated to saving callback requests and their expected behavior:

- **New Request**—collects the information from the callback variables and throughout the workflow and compiles it as a callback request with the type specified
- **In Progress**—saves the callback request to the SQL database with an update on its progress, but does not remove it from the workflow.
- **Completed**—saves the callback request to the SQL database with the indicated reason and prevents it from being retrieved and offered to the queues and agents again.
- **Requeued**—saves the callback request back to the SQL database to be retrieved later. The callback handling count is modified based on the reason for requeue. In outbound callback subroutine workflows, callback requests may no longer be offered if they have been requeued a specified number of times without being completed. If there is a customer-based reason for the requeue (no answer, customer hang up, etc.), the handling count is increased. If the reason for requeue is due to an agent or other factor outside a client's control, then the handling count is not modified.

The Save Callback activity has a Success and Pending branch. The activity routes down Pending when network issues prevent the callback from being submitted. When the network issues are resolved, the callback will be saved.

NOTE: Using a Save Callback activity in a workflow that routes callback requests enables the SQL records for callback requests to be updated when they leave the workflow. Otherwise, IVR Routing will treat the callback request as a callback request with the highest priority, potentially creating a loop.

For an example of how the Save Callback activity functions within a workflow, see *"Default Outbound Callback subroutines"*.

The Save Callback activity is available in

- Inbound, Outbound, RAD, Inqueue, and Agent workflows
- Inbound, Outbound, RAD, UPiQ, Management, Callback Inbound, and Agent, subroutines

To set the Save Callback request reason

1. Select the **Save Callback** activity.
2. Select a **Request Reason** from the drop-down menu.
3. Click **Save**.

Configuring the Schedule activity

The Schedule activity branches workflows based on date and time conditions, enabling a workflow to respond to a business' hours of operation.

For example, you can use the Schedule activity to route customers calling after hours to an after-hours voicemail and menu. The Schedule activity reduces workflow clutter by providing 'Open' and 'Closed' branching conditions within a single workflow.

NOTE: The Schedule activity applies schedules based on the local time of the IVR Routing server. If the IVR Routing server is located remotely in a different time zone than the contact center to which it is routing calls, the schedules for the Schedule activity should include offset time to compensate for time zone differences.

Administrator can set business hours for different time zones for a Schedule activity. By default, the value for the **Time Zone Region** is set to **Local** that is the Local Time of the Enterprise/Remote server on which the administrator is creating the workflow.

The Schedule activity is available to

- Inbound, Outbound, Inqueue, Agent, and Media workflows
- Inbound, Outbound, Agent, Media, Management, UPiQ, and Callback Inbound subroutines

Adding and modifying business hour Schedule conditions

The business hour schedule conditions determine when IVR Routing executes business hours workflows and after hours workflows. These include the default Monday to Friday, 9:00 AM to 5:00 PM schedule and the default 24/7 schedule, as well as other user-created schedules. You can add these default Schedule conditions as is, or modify them to suit your contact center's hours of operation.

To add a Business Hour Schedule condition

1. Right-click the **Schedule activity** and select **Add a schedule condition**.
2. Type the **Name** of the schedule condition.
3. Click **Add** and select **Schedule** from the second drop-down list.
4. From the third drop-down list, select a schedule.
5. Click **OK**.
6. To test the conditions, under **Testing**, select a date and time and click **Test**.

   Pass or Fail displays, indicating whether the test was successful.
7. To enable reporting, select the **Enable Reporting** check box.
8. Click **OK** to create the branch, or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
9. To edit schedule conditions, on the Workflows Canvas, right-click a branch and select **Edit**.
10. Click **Save**.

To modify a Business Hour Schedule condition

1. Select **YourSite > Schedules** and select the default schedule you wish to modify.
2. Type a new **Name** for the schedule. For example, 'Monday to Friday 8:00 AM to 6:00 PM'.
3. After **Schedule exclusion list**, click the **Browse** button.
4. Select a schedule exclusion list to apply to the schedule and click **OK**.

   NOTE: The Schedule exclusion list specifies days to be omitted from the schedule. To create a schedule exclusion list, or to edit an existing schedule exclusion list, see *"Managing schedule exclusion lists"*.

5. After **Start time**, type the business day start time for each day of the week.
6. After **End time**, type the business day end time for each day of the week.
7. After **Disable for day**, select the check box for each day your business is closed.
8. Click **Save**.

To set Time Zone for Schedule Activities

1. In YSE, select a schedule activity and drop on to the workflow
2. Select the schedule to modify and click **Properties**.
3. Select the required timezone from **Timezone Region** drop down box and click **OK**.

Adding and modifying time and day of the week conditions for Schedule activities

Adding time and day of week conditions to a Schedule activity specifies when calls are routed to queues based on a call center's business hours.

To add or modify a time and day of the week condition for a Schedule activity

1. Right-click the **Schedule** activity and select **Add a schedule condition**.
   The Schedule Dialog box opens.
2. After **Name**, type the name of the schedule condition.
3. At the top of the dialog box, click **Add** and select **Time** from the second drop-down list.
4. Using the third drop-down list, type your contact center's **Start time** (hh/mm/ss) and **End Time** (hh/mm/ss) and click **OK**.
5. To add more time conditions follow steps 3-4.
6. To add a day of the week condition, at the top of the dialog box, click **Add** and select **DOW** from the first drop-down list.
7. Under **<Value>**, specify the days of the week your contact center is open by selecting the checkboxes for those days, and click **OK**.
8. To add more Day of the Week conditions follow steps 6-7.
9. To import schedule conditions, click the **Import** button and navigate to a *.csv file.
10. To export schedule conditions, click the **Export** button and navigate to a *.csv file.

    NOTE:
    - Conditions on a single line and separated by a comma are added to a single branch.
    - Conditions on multiple lines and separated by a comma are added to multiple branches.

11. To test the conditions, under **Utilities**, enter time and date information and click **Test**.

    If the test is successful, 'Pass' displays beside the Test button.
    If the test is not successful, 'Fail' displays beside the Test button.
12. To enable reporting, select the **Enable reporting** check box.
13. To delete a schedule condition, from the drop-down list to the left of the condition, select **Delete**.
14. Click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.

15. To edit schedule conditions, on the Workflows Canvas, right-click the branch and select **Edit Schedule condition**.
16. Click **Save**.

Adding and modifying date or holiday conditions for Schedule activities

Adding date and holiday conditions to a Schedule activity specifies when calls are routed to a branch designed to handle calls when the contact center is closed. Use date conditions to specify exceptional days your contact center is closed. Add holiday conditions to specify Holiday closures.

To add and modify a date or holiday condition for a Schedule activity

1. Right-click the **Schedule** activity and select **Add a schedule condition**.
   The Schedule Condition Designer opens.
2. After **Name**, type the name of the schedule condition.
3. At the top of the dialog box, click **Add** and select **Date** from the first drop-down list.
4. Using the second drop-down list, specify the date the contact center is closed and click **OK**.

   If your contact center is regularly closed on this date, select the **Reoccur every year** check box.
5. To add more dates the contact center is closed, follow steps 3-4.
6. To add a holiday condition, click the **Add** button and select **Holiday** from the first drop-down list.
7. After **<Select a holiday>**, select the check box beside the holiday and click **OK**.
8. To add more holidays follow steps 6-7.
9. To import schedule conditions, click the **Import** button and navigate to a *.csv file.
10. To export schedule conditions, click the **Export** button and navigate to a *.csv file.

    NOTE:
    - Conditions on a single line and separated by a comma will be added to a single branch.
    - Conditions on multiple lines and separated by a comma will be added to multiple branches.
11. To test the conditions, under **Utilities**, enter the dates and click **Test**.

    If the test is successful, 'Pass' displays beside the Test button.
    If the test is not successful, 'Fail' displays beside the Test button.
12. To enable reporting, select the **Enable reporting** check box.
13. To delete a schedule condition, from the drop-down list to the left of the condition select **Delete**.
14. Click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
15. To edit schedule conditions, right-click the branch and select **Edit Schedule**.
16. Click **Save**.

Importing and exporting Schedule conditions

The following explains how to import and export Schedule conditions from *.csv files

To import and export Schedule conditions

1. Right-click the **Schedule** activity and select **Add a schedule condition**.
2. Type a **Name** for the schedule condition.
3. To import schedule conditions, click the Import button, navigate to a *.csv file, and click **Open**.
4. To export schedule conditions, click the Export button, navigate to a *.csv file, and click **Save**.

   NOTE:
   - Conditions on a single line and separated by a comma are added to a single branch.
   - Conditions on multiple lines and separated by a comma are added to multiple branches.
5. To test the conditions, under **Testing**, select a date and time and click **Test**.
6. Click **OK** to create the branch, or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
7. Click **Save**.

Grouping schedule conditions in Schedule activities

You can group conditions in Schedule activities using the 'Group AND' or 'Group OR' buttons in the Schedule Condition Designer. Grouping conditions by 'Group AND' means that every queue condition specified must be met to route the call to the Success branch. Grouping conditions by 'Group OR' means that only one of the queue conditions specified must be met to route the call to the Success branch.

NOTE:

- The 'Group AND' and 'Group OR' buttons will be disabled unless you have at least two conditions to group.
- 'Group AND' is the default grouping for the Schedule activity.

To group Schedule conditions

- See *"Grouping expressions"*.

Configuring the Set Device Mode of Operation activity

The Set Device Mode of Operation activity changes the mode of operation for a specific device server from Normal to Emergency or vice-versa. These devices include

- Hunt Groups
- Extensions

For example, if only one extension is experiencing emergency conditions, you can use the Set Device Mode of Operation to put that port into Emergency mode without affecting the entire system's operations.

The Set Device Mode of Operations activity is available in

- Management subroutines

Configuring properties for Set Device Mode of Operation activities

To configure the properties for a Set Device Mode of Operation activity

1. Select the **Set Device Mode of Operation** activity.
2. In the Properties pane, after **Device Type**, select device type from the drop-down list.

   NOTE:

- Device type refers to the type of device checked when searching a dialable number.
- Dialable number refers to the digit or series of digits a caller dials to reach an agent at an extension.

3. To set the variable containing the device dialable number, after **Input Variable**, click the **…** button.

   The Select a variable dialog box opens.
4. Select an input variable and click **OK**.
5. After **Mode of operation**, select either **Normal** or **Emergency** from the drop-down list.
6. To enable reporting on the activity or a branch, select the activity or branch and select the **Child Reporting Enabled** or **Reportable** check box.
7. Click **Save**.

Configuring the Set System Mode of Operation activity

The Set System Mode of Operation activity changes the mode of operation for IVR Routing from Normal to Emergency and vice-versa. For example, if the contact center is closed due to weather you can use the Set System Mode of Operation Activity to change IVR Routing to Emergency mode and route all work-flows in accordance with an emergency plan.

The Set System Mode of Operation activity is available in

- Management subroutines

Configuring properties for Set System Mode of Operation activities

To configure properties for a Set System Mode of Operation activity

1. Select the **Set System Mode of Operation** activity.
2. In the Properties pane, after **Mode of Operation**, select either **Normal** or **Emergency** from the drop-down list.
3. To enable reporting on the activity or a branch, select the activity or branch and select the **Child Reporting Enabled** or **Reportable** check box.
4. Click **Save**.

Configuring the Set Variables activity

The Set Variables activity enables IVR Routing to take values generated within a workflow or static, predefined values and use them to populate variables for use later in the same workflow. For example, you can use the Set Variables activity to populate a variable with a caller's choice of service language. IVR Routing can use this information later in the workflow to direct callers to a queue with service in the appropriate language. You can determine the variables to be populated in Set Variables activities.

For security and privacy reasons, variables that use any masking cannot be used with the Set Variables activity.

The Set Variables activity is available in

- Inbound, Outbound, RAD, and Inqueue workflows
- Inbound, Outbound, RAD, Management, UPiQ, and Callback Inbound subroutines

Populating the Set Variables activity with workflow data

The following explains how to retrieve workflow data and use it to populate Set Variables activities

To populate the Set Variables activity with workflow data

1. Right-click the **Set Variables** activity and select **Edit Variable Settings**.
2. Type a **Name** for the activity and click **Add**.
3. **Select a variable** from the drop-down list and click **OK**.

   To see a list of IVR Routing variables and their descriptions, go to 'IVR Routing > Variables'.
4. In the third column, either type a **Value**, an expression in **Advanced Text**, or select **Variable** and select a variable from the drop-down list. If selecting a value, note that options vary according to the variable selected. Advanced Text is only available with certain variables.
5. To add a variable row, click **Add**. To delete a variable row, select the row and click **Delete**.
6. Click **OK**.
7. Click **Save**.

Configuring the SMS activity

If you are licensed for Multimedia Contact Center and have an SMS media server, you can send SMS interactions with the SMS activity. For more information, see *"Sending SMS with the SMS activity"*.

The SMS activity is available in

- Inbound, Outbound, RAD, Inqueue, and Agent workflows.
- Inbound, Outbound, RAD, Management, UPiQ, and Callback Inbound subroutines

Configuring the Subroutine activity

The Subroutine activity represents a set of workflow steps that can be inserted at any point in a workflow or in multiple workflows. Editing the subroutine changes all instances of that subroutine in workflows, enabling you to edit multiple workflows using a single point of configuration. The Subroutine activity is an efficient means of replicating and configuring workflow segments. For information on subroutines, see *"Building subroutines"*.

You can assign IVR Routing's default Management or Callback subroutines to the activity, or build a subroutine to assign to the activity.

The Subroutine activity is available in

- Inbound, Outbound, RAD, Inqueue, and Agent workflow
- Inbound, Outbound, RAD, Management, UPiQ, and Callback Inbound subroutines

Assigning subroutines and variables to Subroutine activities

IVR Routing provides default Management and UPiQ subroutines. To build other subroutines see *"Building subroutines"*.

The following section explains how to

- Assign subroutines to the Subroutine activity
- Assign variables to the Subroutine activity
- Expand subroutines in workflows

To assign a subroutine to a Subroutine activity

1. Right-click the **Subroutine** activity and click **Assign…**.
2. Click the **Subroutines** tab, select a subroutine to assign and click **OK**.

3. Click **Save**.

To assign a variable to the Subroutine activity

NOTE: Assigning a variable to the Subroutine activity requires first inserting and configuring an activity on the Canvas capable of populating the variable.

1. Right-click the **Subroutine** activity and click **Assign…**
2. Click the **Variable** tab, select a variable to assign and click **OK**.

   To see a list of IVR Routing variables and their descriptions, go to 'IVR Routing > Variables'.
3. Click **Save**.

To expand a subroutine in a workflow

- Right-click the **Subroutine** activity and click **Open..**.

Configuring parent workflow destinations for subroutine Go To activities

If a Go To activity is placed in a subroutine, it can route contacts to the parent workflow to which the subroutine is assigned by setting its destination as 'Go To Parent Workflow'. A target destination must be set on the Subroutine activity to set where the contacts are routed to in the Parent workflow.

To configure a parent workflow destination for a subroutine Go To activity

1. In the parent workflow, select the **Subroutine** activity.
2. In the **Properties**, after **Target Activity** select the activity to which the subroutine Go To activity returns contacts from the drop-down list.
3. Click **Save**.

Configuring the Swap Prompt activity

The Swap Prompt activity enables you to swap the contents of one prompt with the contents of another prompt in IVR Routing. For example, if an emergency greeting informs customers that the contact center is closed due to bad weather, in the event of an earthquake you can use Swap Prompt to change the contents of the emergency greeting. The Swap Prompt activity enables you to provide specialized prompts within a single workflow without inserting additional activities. You can set the prompts to be exchanged in Swap Prompt activities from existing prompts in IVR Routing or from prompts that you create.

The Swap Prompt activity is available in

- Management subroutines

NOTE: If you have switched the contents of one prompt with another, you may eventually need to switch the contents of prompts back again.

Setting prompts to be exchanged in Swap Prompt activities

To set the prompts to be exchanged in a Swap Prompt activity

1. Select the **Swap Prompt** activity.
2. After **Source Prompt**, click the ▼, button and follow the applicable steps under *"Configuring an activity"s prompts"*.

   NOTE: The source prompt is the prompt that will be used to replace the target prompt.
3. After **Target prompt**, click the ▼, button and follow the applicable steps under *"Configuring an activity"s prompts"*.

NOTE: The target prompt is the prompt that will be swapped with the source prompt.

4. Click **Save**.

Configuring the Transfer activity

The Transfer activity transfers a caller to a specified destination, enabling you to send callers to a queue, queue group, variable, or other specified destination. For example, you can use a Transfer activity to route calls across queues.

Transfers can be blind or supervised. Both types of transfer place the caller on hold and transfer the call to the activity's destination. Blind transfers are considered completed when the destination begins ringing, while supervised transfers are considered completed when the destination answers. Callers cannot hear the phone ringing during the transfer unless the transfer time exceeds the timeout.

The Transfer activity contains three branches, which determine how the call is handled in the workflow after the attempted transfer. The three branches are:

- **Success**—This branch determines how the workflow handles the call after the caller is transferred to the transfer destination. By default, the Success branch contains a Hang Up activity. A call routed through the Success branch is separated from the caller, who starts a new call at the transfer destination. The Hang Up activity ends the call remaining in the current workflow and clears the port for a new call.

NOTE: Removing the Hang Up activity from the Success branch is not recommended as it may result in unnecessary port use.

- **Abandon**—This branch determines how the workflow handles the call when the original caller hangs up before a supervised transfer is completed. By default, the Abandon branch contains a Hang Up activity. A call routed through the Abandon branch is separated from the caller, who abandoned it when they hung up. The Hang Up activity ends the call remaining in the current workflow and clears the port for a new call.

NOTE: Removing the Hang Up activity from the Abandon branch is not recommended as it may result in unnecessary port use.

- **Failure**—This branch determines how the workflow handles the call when the Transfer activity fails to connect to the destination. By default, the Failure branch contains a Hang Up activity. A call routed through the Failure branch is not separated from its caller and may continue in the workflow. By default, this branch contains a Hang Up activity that ends the call in the current workflow and clears the port for a new call.

You can configure the options for how and where a call is transferred, and add new devices to Transfer activities.

The Transfer activity is available in

- Inbound, Outbound, and Inqueue workflows
- Inbound, Outbound, Management, and Callback Inbound subroutines

Configuring options and adding devices to Transfer activities

The following procedures tell you how to:

- Set a destination
- Set a dialable number as the destination
- Add a new device as the destination
- Set the dialing properties

- Set the reporting and timeout options

To set a destination

1. Select the **Transfer** activity.
2. In the **Properties** pane, after **Destination**, click **...**.
3. Select a destination from one of the following tabs and click **OK**.
   - Extension
   - Queue

     NOTE: Ring Groups can be set as destinations, but the workflow's port must be located on the same media server as the Ring Groups.
   - Queue Group

     NOTE: When transferring to a virtual queue group, the Transfer activity will route to the first queue on the same media server as the IVR port. If the status of this queue is Offline, it will route to the next local queue configured in the queue group. If all local queues are Offline, it will route to the first remote queue. Queues in Do Not Disturb are considered Online.
   - Variable
4. Click **Save**.

To set a dialable number or SIP address as the destination

1. Select the **Transfer** activity.
2. In the **Properties** pane, after **Destination**, type the dialable number or SIP address.

   A dialable number cannot include punctuation marks.
3. Click **Save**.

To add a new device as the destination

1. Select the **Transfer** activity.
2. In the **Properties** pane, after **Destination**, click **...**.
3. Click **Add**.
4. Select one of the following from the drop-down list:
   - Extension
   - Queue
   - Queue group

     NOTE: Only unified queue groups containing a SIP queue are supported. For more information on unified queue groups, see the *"Adding Unified queue groups"*.
   - Variable
5. In the **Extension**,**Queue**, **Queue Group**, or **Variable** tab, at the top of the dialog box, click **Add**.
6. To add a new extension, see *"Adding extensions for IVR Routing"*.
7. To add a new queue, in the Queue pane, follow the steps under *"Adding queues"*.

NOTE:

- A new Ring Group can be used as a destination, but only if the workflow's port is on the same media server as the Ring Group.
- To configure a new queue for web callbacks, see *"Enabling web callbacks"*.

- To configure a new queue for abandon callbacks, see *"Enabling abandon callbacks"*.
- To associate a queue to an UPiQ workflow, see *"Configuring InQueue routing"*. For information on setting up UPiQ workflows, see *"Default InQueue UPiQ workflow and subroutine"*.

8. To add a new unified queue group, follow the corresponding steps in the *"Adding Unified queue groups"*.
9. To add a new variable, follow the corresponding steps in *"Adding variables"*.
10. Click **Save**.

To set the dialing properties

1. Select the **Transfer** activity.
2. In the **Properties** pane, after **Transfer Type**, to instruct the activity to hold calls transferred to busy lines, in the **Properties** pane, select the **Camp On Busy** check box.
3. To append outbound calls with a prefix digit, in the **Properties** pane, select the **External Transfer** check box.

   The prefix digits appended to external transfers are defined on the media server.
4. Select **Blind** or **Supervised** from the drop-down list.
5. Click Save.

To configure the reporting and timeout options

1. Select the **Transfer** activity.
2. To enable reporting, select the **Child Reporting Enabled** check box.
3. To set the duration that a call is put on hold during a transfer, after **Timeout Duration**, enter the time allotted for the transfer.
4. Click **Save**.

Configuring the Variable Compare activity

The Variable Compare activity routes calls through workflow branches by comparing information, stored in either custom or system variables, against specified conditions.

For example, you can use Variable Compare to create a priority branch for customers with Gold membership. The Variable Compare activity compares a variable for Gold membership against a customer's actual membership level. If the customer's membership information compares positively against the criteria for the Gold branch then the caller is routed to the priority branch. Customers whose membership information does not match the criteria for the Gold branch are routed to the No Match branch.

You can apply branching conditions to Variable Compare activities, and you can group variable conditions to determine how IVR Routing directs callers through the workflow.

The Variable Compare activity is available in

- Inbound, Outbound, RAD, Inqueue, and Agent workflows
- Inbound, Outbound, RAD, Management, UPiQ, Callback Inbound, and Agent subroutines

Applying branching conditions to Variable Compare activities

The following procedures explain how to

- Add conditions to be compared against workflow data

- Edit conditions being compared
- Delete conditions being compared

To add a condition to be compared against workflow data

1. Right-click the **Variable Compare** activity and select **Add Variable Compare condition**.
2. Type a **Name** for the condition and click **Add**.
3. Select a variable from the drop-down list and click **OK**.

   To see a list of IVR Routing variables and their descriptions, go to 'IVR Routing > Variables'.
4. Select an operator from the second drop-down list. Options vary according to the variable chosen.
5. In the third column, type or select a value for the variable. If selecting a value, note that options vary according to the variable selected.

   NOTE: '' means 'No Value'.
6. Click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
7. Click **Save**.

To edit a Variable Compare condition

1. Right-click the condition's branch and select **Edit**.
2. Edit the condition, and click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
3. Click **Save**.

To delete a Variable Compare condition

1. Right-click the condition's branch and select **Delete**.

Grouping variable compare conditions

You can group variables to be compared in the Variable Compare activity using the 'Group AND' or 'Group OR' buttons in the Variable Compare Condition Designer. Grouping variables by Group AND means that every variable condition specified must be met to route the call to the Success branch. Grouping variables by Group OR means that only one of the variable conditions specified must be met to route the call to the Success branch.

NOTE:

- The 'Group AND' and 'Group OR' buttons will be disabled unless you have at least two conditions to group.
- Group AND is the default grouping for the Variable Compare activity.

To group variable compare conditions

- See *"Grouping expressions"*.

Passing agents call information in screen pops

Screen pops pass call information to agents. When the system routes a call, information can be passed to agents as follows:

You can configure Contact Center Screen Pop. Contact Center Screen Pop is applied uniformly across queues, providing all agents the same type of call information. For more information, see *"Configuring Contact Center Screen Pop"*.

You can configure screen pops within an Inqueue workflow, programmed on a queue-by-queue basis. See *"Populating screen pops with workflow variables"*.

NOTE:

- Contact Center Screen Pop is hidden unless you are licensed for it.
- If Contact Center Screen Pop and screen pops configured via Inqueue workflows are both active, the workflow screen pop overrides Contact Center Screen Pop.

Populating screen pops with workflow variables

When a call is processed through a workflow, you can populate URLs or executable files with variables detected for the call. These URL and executable files, and the variable information they contain, can be passed to agents in the form of a screen pop.

Screen pops display when an interaction is ringing on the agent's extension. Variables available to the workflow's media type, which also contain the 'Send to Agent's desktop' check box, can populate a screen pop with information. Populating URLs and executable files with workflow variables enables you to customize screen pops on a queue-by-queue basis.

For example, you can configure a workflow to query a database and retrieve a customer's name and account number. When the call rings on an agent's extension, a screen pop opens a web page delivering the customer information to the agent. The agent is immediately able to provide personalized, informed service.

Administrators must provide webcodes and servers for URLs and the executable codes behind executable files. URLs must include 'http://' in the URL string.

Executable files may prompt a Windows security warning before popping. Administrators may disable this security setting in Internet Explorer. For more information, consult Microsoft documentation.

NOTE:

- Agents using Ignite (WEB) may need to disable pop-up blockers for the Ignite URL in order for screen pops to display .
- Ignite (WEB) supports URL screen pops only. Executable file screen pops are not supported.
- If Contact Center Screen Pop and screen pops populated with workflow variables are both active, the workflow variable screen pop overrides Contact Center Screen Pop.

To populate a screen pop with a workflow variable

1. Click **IVR Routing > Variables**, and select the **ScreenPopOnRinging** variable.
2. Select **Send to agent desktop**.
3. In an Inbound workflow, place a **Set Variables** activity on the Workflows Canvas.

   NOTE: We recommend placing the Set Variables activity quite close to the activity offering the call to an agent's extension. This helps prevent the screen pop's value from being overwritten by another variable query.
4. Right-click the **Set Variables** activity and select **Edit Variable Settings**.
5. Click **Add** and, from the **<Select a variable>** drop-down list, select **ScreenPopOnRinging**.
6. Click **<Value>** and, in the **Value** tab, enter a URL string or the path to an executable file.

NOTE: The paths to executable files must be accessible to any clients who require its use. For example, administrators can place the file on a network share.

7. To populate a web page screen pop with variable information, insert the variable's name between double angle brackets where applicable in the URL string.

   For example, <<DNIS>>.
8. Click **OK** to close the variable dialog box and click **OK** to return to the workflow.
9. Click **Save**.

IVR Routing default workflows and subroutines

There are a number of default workflows and subroutines included in the IVR Routing installation. The workflows and subroutines are based on common scenarios and demonstrate IVR Routing's enhanced functionality. They can be configured according to your business needs.

IVR Routing includes the following default workflows

- Default UPiQ Inqueue workflow
  - Includes default UPiQ subroutine
- Default Management subroutine
- Default Callback Outbound workflow
  Includes the following subroutines
  - Default Outbound Abandon Callback subroutine
  - Default Outbound Voice Callback subroutine
  - Default Outbound Web Callback subroutine

In addition, IVR Routing includes the following default Callback Inbound subroutine:

- Default Inbound Voice Callback subroutine

The following sections summarize the default workflows and subroutines and explain how they operate. For ease of understanding, we also recommend you expand the entire workflow and all annotations.

To expand the workflow

- Click the **Expand All** button

To expand all annotations

- Right-click the workflow and select **Annotations... > Show All**.

Changes to callbacks and UPiQ

Version 7.0 introduced important changes to how callbacks and UPiQ are configured.

Prior to Version 7.0, callbacks and UPiQ were configured directly on the queue. Callbacks were configured via callback plans, and UPiQ was configured by selecting from a set of predetermined options. In Version 7.0 and greater, callbacks and UPiQ are configured using default workflows and subroutines included with IVR Routing. These default workflows and subroutines replicate the functionality of callbacks and UPiQ prior to Version 7.0 while enabling you to configure and customize the callback and UPiQ processes. This new configuration ensures that callbacks and UPiQ can be as simple or sophisticated as you require.

Upgrading to MiContact Center Business Version 7.1 seamlessly migrates your existing Callback and UPiQ configuration from the Version 6.x configuration options into Version 7.1 workflows. This includes custom .wav files and any changes to the default options. For more information on how Callback and UPiQ function in workflows, see *"Default callback workflow and subroutines"*, and *"Default Inqueue UPiQ workflow and subroutine"*.

Note that the Callback Outbound workflow is now enabled or disabled by selecting the 'Always run' check box on the Workflows pane.

NOTE: Callback ports have been deprecated and are converted to Outbound ports during the migration process.

Customizing the default workflows and subroutines

If you want to create your own versions of IVR Routing's default workflows, we recommend you do so by reconfiguring the default workflows. For more information, see *"Copying workflows"* and *"Cutting, pasting, and copying workflow items"*.

Some default workflows require additional configuration to get them up and running for your business. For information on configuring the workflow activities to suit your contact center, follow the cross-references located throughout each summary.

The following requirements are shared among default workflows. You must

- Validate the workflow and activity configuration and correct any errors detected. See *"Troubleshooting workflow configuration with the Validation button"*.
- Associate Inbound workflows to an extension or hunt group, and associate Outbound workflows to an extension Inbound and Outbound workflows to a media server. See *"Associating workflow to devices"*.
- Associate Inqueue workflows to at least one queue. See *"Associating workflow to devices"*.

Default Inqueue UPiQ workflow and subroutine

This workflow instructs IVR Routing to obtain callers' position in queue and executes a subroutine to play callers different UPiQ messages based on their position. Previously, UPiQ was turned on or off on a queue-by-queue basis and contained pre-programmed options from which to choose. UPiQ is now comprised of a configurable subroutine referenced within a dedicated Inqueue workflow. You can use the subroutine to choose how many customers on hold are updated, the frequency with which they are updated, and the specific messages they hear based on their queue position. You can assign the workflow to any Voice queue in your enterprise. This UPiQ Inqueue workflow enables you to create a customized, dynamic UPiQ experience for customers waiting in queue, helping you to meet your service level objectives by reducing abandoned calls.

To add the Default UPiQ subroutine to a queue's Media workflow, add a Subroutine activity and assign this subroutine to the activity.

Expected Wait Time announcements are not included in the Default UPiQ subroutine, but can be added to the Default UPiQ subroutine. For more information, see *"Playing Excepted Wait Time announcements"*.

To further illustrate the workflow's activities and their operations, we recommend you expand the entire workflow and all annotations.

To expand the workflow

- Click the **Expand All** button.

To expand all annotations

- Right-click the workflow and select **Annotations… > Show All**.

Description

The first step in this workflow is a Delay activity. The Delay activity determines the time until callers in queue hear the first UPiQ message. By default, the Delay activity is set to 10 seconds. To reconfigure this time, see *"Configuring the Delay activity"*.

Next in the workflow is a Variable Compare activity, in this example named ‘Check Customer Position’. This activity determines the range of positions hearing UPiQ messages and compares it to a caller’s actual position in queue and expected wait time. If a caller is in position one through eight, and if their expected wait time is less than the last expected wait time reported, the 'Customers to update' branch is followed. To reconfigure the criteria determining whether callers hear UPiQ messages, edit the Variable Compare activity. See *"Configuring the Variable Compare activity"*.

NOTE: Any additional position you configure in the Variable Compare activity must have a branch associated to it in the UPiQ subroutine’s Variable Compare activity (see below).

If callers do not meet this criteria, the No Match branch is followed and the system is continuously prompted to recheck queue positions against the UPiQ criteria. This enables callers moving into the range of UPiQ positions to hear their updated position. The frequency with which the system rechecks positions and estimated wait time is determined by a second Delay activity (see below). A Go To activity loops back to the Variable Compare activity to begin the process again (see below).

For callers within the range of UPiQ positions, a Connect to Caller activity, embedded within the Variable Compare activity and labeled ‘Default UPiQ’ in this example, prompts the UPiQ port to engage callers and executes the subroutine determining the messages different positions hear (see below).

If the Connect to Caller activity cannot find an available UPiQ port, the No Port Available branch is followed. If the Connect to Caller action fails, the Failure branch is followed. In each case, after an initial delay determined by the Delay activity (see below), a Go To activity loops back to the Variable Compare activity to begin the process again. A Set Variables activity, in this example named ‘Update Last Position and Wait time reported’, is configured so callers whose position has not changed do not hear their position read to them repeatedly. If you delete the Variable Compare activity, delete this activity also.

The subroutine contains activities enabling you to customize the experience of a caller waiting in queue.

To see the subroutine, go to **IVR RoutingSubroutines > Default UPiQ**.

The first step in the subroutine is an Answer activity. The Answer activity tells the UPiQ port to answer the call. The next step in the subroutine is a Language activity, which enables the prompt language to change, based on options previously selected by the customer. To change this language from English, see *"Configuring the Language Activity"*. If the system language will remain English only, you can delete this activity.

Next is a Set Variables activity, configured to determine if the estimated wait time a caller hears should be rounded to the nearest minute. The default setting for this variable is ‘False’, meaning that the estimated wait time is not rounded to the nearest minute. To round the estimated wait time to the nearest minute, you must reconfigure the setting to ‘True’. For more information, see *Configuring the Set Variables activity"*.

Next is a Variable Compare activity. This activity compares a caller’s position in queue to those hearing UPiQ messages. If callers are in position one, the ‘UPiQ Position Equal 1’ branch is followed. Additional branches are followed for other caller positions. These branches contain Play activities informing callers of their position in queue. To alter the messages callers hear, see *"Configuring the Play activity"*.

If callers are outside the range of UPiQ positions, the No Match branch is followed. We recommend you configure this branch with activities to determine how the system behaves when the branch is followed.A Hang Up activity ends the subroutine. To reconfigure the Variable Compare activity, for example to add branches to incorporate additional queue positions, see *"Configuring the Variable Compare activity"*.

NOTE: Callers are directed to the No Match branch in the subroutine only if you have not programmed a branch to incorporate their position in queue. If callers are being directed to the No Match branch, ensure you adjust the subroutine so these callers hear a message and stay in queue.

Following the subroutine is a Delay activity. The Delay activity determines how frequently the system compares queue positions to the range of callers hearing UPiQ messages. This Delay activity also determines how frequently the script to check position in queue is rerun after a Timeout or if the enterprise is down. By default the Delay activity is set to 20 seconds. To reconfigure this time, see *"Configuring the Delay activity"*.

A Go To activity at the end of the workflow loops back to the 'Check Position' Variable Compare activity. This ensures the UPiQ messages run continuously, adjust to shifting caller position in queue, and incorporate new callers.

Default Management subroutine

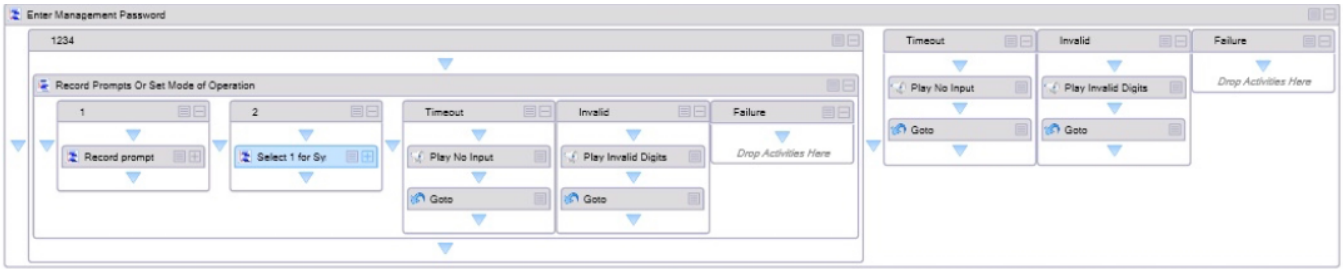
When assigned to a Management activity in a workflow, the Default Management subroutine enables authorized callers to remotely perform management operations on their IVR Routing application. For example, authorized callers can switch the IVR Routing Mode of Operation between Normal and Emergency mode and modify the prompts that callers hear.

This subroutine:

- Enables you to change over from Normal to Emergency mode if extreme weather conditions or other events force the temporary, unforeseen closure of your contact center. In such conditions, it is often desirable and sometimes necessary to make such changes from a remote location.
- Enables authorized users to make changes to the IVR Routing system remotely. You can modify incoming caller options and record new prompts using a phone. This is useful when a commute to the site is either inconvenient or not possible.

The following figure displays the Management Subroutine.

Figure 9.8: Management subroutine



Description

The first step in this subroutine is a Menu activity, which prompts you to enter the Management Password. Authorized users enter their password (in this sample, 1234) in order to access the Management subroutine.

The next step in the subroutine is the Record Prompts or Set Mode of Operation Menu activity. Within this Menu activity there are two, numbered options that were added manually and complete the following actions:

- **Option 1:** Record prompts or record new greeting
- **Option 2:** Select 1 for System; 2 for Device

If you press Option 1 in the Record Prompts or Set Mode of Operation Menu, you can record new prompts or record new greetings and swap prompts from one position to another within a workflow or subroutine.

If, after recording a Prompt, you want to continue recording Prompts, press 1 to record, press 2 to exit, or press any other key to return to the Record prompts or record new greeting Menu activity through a Go To activity.

If you press Option 2, you can record a new Greeting or swap a Prompt. For example, you can record an Emergency Closed Message during an emergency situation and then swap it for a traditional Open Message once the emergency has been resolved.

If you press Option 2 in the Record Prompts or Set Mode of Operation Menu, you can set the System or Device Mode of Operation to either Emergency or Normal mode. If you select 1 (for system) you are affecting the Mode of Operation for all for all media servers. If you select 2 (for device) you are affecting only the media server for which you enter a reporting number.

Additional configuration required

This subroutine must be associated to a Management activity in an Inbound workflow or an Inbound, Management, or Callback Inbound subroutine.

It is recommended that you incorporate access to the Default Management subroutine into your main workflows. There are various ways to do this. For example, you could use an ANI condition that refers to a list of authorized user numbers and gives them the option, when they call in, of accessing the Management activity configured with the Default Management subroutine. You could alternatively add a DNIS condition and give users the appropriate number to call in to access the Default Management Plan. If your workflow has an ANI or DNIS branch, you can add the Default Management Plan ANI or DNIS branch as an additional branch in that location of the workflow. The menu option for accessing the Default Management Plan should be hidden (unadvertised) meaning that it is not mentioned in your greeting message. The authorized user would input a set code to access the Default Management Plan.

Default Callback workflow and subroutines

IVR Routing includes the following default callback workflows:

- Default Callback Outbound workflow
  Includes the following subroutines:
  - Default Outbound Abandon Callback subroutine
  - Default Outbound Voice Callback subroutine
  - Default Outbound Web Callback subroutine

In addition, IVR Routing includes the following Callback Inbound subroutine:

- Default Inbound Voice Callback subroutine

Default Outbound Callback workflow

This workflow manages retrieving callbacks and offering them to agents. This workflow runs continuously, searching SQL for submitted callback requests and offering them to queues. Depending on the kind of

callback submitted, this workflow leverages the appropriate Outbound callback subroutine so that the call-back type is handled correctly and offers the agent relevant options.

This workflow must be associated to an Outbound port. See *"Associating workflows to devices"*.

To further illustrate the workflow's activity and operations, we recommend you expand the entire workflow and all annotations.

To expand the workflow

- Click the **Expand All** button.

To show all annotations

- Right-click the workflow and select **Annotations… > Show all**.

Description

The first step of this workflow is the Retrieve Callback activity. This activity looks in SQL for submitted callback request that are ready to be delivered to the callback destination. Retrieve Callback has two branches: Success and Failure. If the Retrieve Callback activity fails to retrieve a callback, such as if there are no submitted callback requests, it continues in the workflow to the Delay activity. If a callback request is detected, it is retrieved and routed to the Success branch.

The Success branch contains a Subroutine activity, which checks the <<CallbackOutboundWorkflowId>> variable in the callback request for the appropriate subroutine and then routes the request through the appropriate subroutine workflow. For an overview of the subroutines, see *"Default Outbound Callback Subroutines"*. The next activity in the Success branch is a Hang Up activity, which ends the callback.

The final activity in the workflow is a Delay activity, which is configured with a five-second delay. This activity creates a buffer of time between each offering of a callback request. For information on modifying the Delay activity, see *"Configuring the Delay activity"*.

Default Outbound Callback subroutines

IVR Routing includes the following three subroutines for Outbound callbacks:

- Default Outbound Abandon Callback subroutine
- Default Outbound Voice Callback subroutine
- Default Outbound Web Callback subroutine

These subroutines are used by the Default Callback Outbound subroutine to offer callback requests to agents and manage outbound calls to customers. The three subroutines manage the state of the callback request, setting the frequency and number of times a callback request is offered to a queue. This prevents an unsuccessful callback request from being offered repeatedly. Using the Save Callback activities located throughout the subroutine at the various endpoints, callback requests are saved back to the SQL database with reason codes that inform the system whether or not the callback request is complete or if it needs to be requeued.

The subroutines handle the offering of the callback request to agents as well as managing the outbound call to the customer.

The subroutines are functionally identical with the exception of the Menu option for Branch 1. The voice callback enables the agent to listen to any message left by the customer when they made their voice call-back request. The web callback enables the contact center agent to hear a text-to-speech reading of the customer's submitted name. The abandon callback has no option for Branch 1.

If you are migrating from Version 6.0.x to Version 9.0, the Default Outbound Callback subroutines replace the voice, web, and abandon Callback Plan's Routing Rules and Agent options. For guidance as to which

activities replace which elements of the callback plans, consult the notes placed throughout the following description.

Description

The first step in this subroutine is a Set Variable activity. This activity is configured with the maximum number of callback attempts and the interval for the next attempt at making this callback request, enabling you to control the frequency and number of times a callback will be offered to agents. The number of attempts is added to the callback request's SQL record, depending upon which Save Callback activity reasons are applied to the callback request as it is routed through the subroutine. For information on configuring the Set Variable activity, see *"Configuring the Set Variables activity"*.

Next in the subroutine sequence is a Subroutine activity. This subroutine is associated to the Migrated Queue Callback Workflow subroutine, which is populated with your pre-7.0 callback configuration. If you are not upgrading from a pre-7.0 version of Mi Contact Center Business, this activity can be deleted. For information on configuring a subroutine activity, see *"Configuring the Subroutine activity"*.

If this is the Default Abandon Callback Subroutine, the next step is a Queue activity with two branches: Agents Greater than 0 and No Agents Available. This activity checks to see if there are any available agents in the destination queue. If there are no agents, the subroutine routes down the No Agents Available branch. This branch contains a Save Callback activity that saves the callback with the reason 'Requeued - Queue conditions did not pass'. The branch continues to a Hang Up activity that ends the subroutine. If the queue has available agents, the subroutine routes down the Agents Greater than 0 branch. The first activity of this branch is a Save Callback activity that saves the callback with the In Progress - Dialing agent reason. The branch then continues to a Make Call activity.

If this is the Default Voice or Email Callback Subroutine, the next step of the subroutine is a Save Callback activity. This activity saves the callback with the reason In Progress - Dialing agent.

The subroutine continues to a Make Call activity. This submits the callback request to the destination set in the <<CallbackDestination>> variable, usually the queue from which the caller made the callback request. Calls submitted to the queue remain in the queue for the time set in the Timeout duration property before following the Timeout branch. By default, the Timeout duration is set to 30 minutes. For details on configuring Make Call activity, see *"Configuring the Make Call activity"*.

NOTE: The destination of the Make Call activity can be changed if there is an alternate destination, other than the queue of origin, from which you want to handle callback requests. For information on configuring the Make Call activity's destinations, see *"Configuring the Make Call activity"*.

The Make Call activity has five branches: Success, No Answer, Destination Busy, Invalid Destination, and Failure. Branches with a Save Callback Request activity are: No Answer Timeout, Destination Busy, Invalid Destination, and Failure.

Callback requests are routed to the No Answer branch when the timeout duration expires, where the Save Callback Request activity saves the callback request to SQL with the reason 'Requeued – Agent did not answer'. This enables the outbound ports to re-offer it to the queue. If the destination that the callback request was routed to is busy, the callback request is sent to the Destination Busy branch. This branch's Save Callback Request activity saves the callback request to SQL with the reason 'Requeued – Agent was Busy', which enables the outbound ports to re-offer it to the queue. If the destination in the <<CallbackDestination>> variable is invalid, the callback request is routed to the Invalid Destination branch. This branch's Save Callback Request saves the callback request to SQL with the reason 'Completed – Invalid Agent Destination', which prevents the callback from being re-offered to the queue. If there is a failure to queue the callback request, the callback request is routed to the Failure branch. This branch's Save Callback Request saves the callback request to SQL with the reason 'Requeued – PBX connection was lost', which enables the outbound ports to reoffer it to the queue.

NOTE: If you are migrating from Version 6.0.x to Version 9.0, the Make Call activity's timeout duration corresponds to 'No answer timeout (secs)' field from the 'Agent Options' tab of the Callback Plans.

If the destination is valid and the callback request does not timeout, the request is routed through the Success branch and offered to the queue. The Success branch contains a Save Callback activity, which saves the callback with the 'In Progress - Agent' reason.

When the contact center agent answers the callback request, they are connected to the Menu activity in the subroutine. In the Voice and Web callback subroutines, the Menu activity plays an instruction prompt that tells the agent 'To listen to the caller's message, press 1. To place this call, press 2. To requeue this request, press 3. To reject this request, press 4. To hear these options again, press 5.' In the Abandon callback subroutine, the Menu activity plays an instruction prompt that tells the agent 'To place this call, press 2. To requeue this request, press 3. To reject this request, press 4. To hear these options again, press 5.' The Menu activity has one branch for each menu option, as well as branches for Timeout, No Match, and Failure.

NOTE: If you are migrating from Version 6.0.x to Version 7.1+, the Menu activity's prompts and branches correspond to the options in the 'Digit Menu' section of the 'Agent Options' tab of the Callback Plans.

In the Voice callback subroutine, 1 – Play Customers Message enables the employee handling the callback request to listen to the recorded message the customer left. The first activity of 1 – Play Customers Message is a Play activity that is configured to play to the agent the .wav file of the message the customer recorded with their callback request, stored in the <<CallbackClientRecording>> variable. The next activity in this branch is a Go To activity that returns the agent to the start of the Menu activity.

In the Web callback subroutine, 1 – Play Customers Message enables the employee handling the callback request to listen to a text-to-speech reading of the customer's name. The first activity of 1 – Play Customers Message is a Play activity that is configured to play a text-to-speech reading of the customer's name. After playing this, the branch continues to a Go To activity that returns the agent to the start of the Menu activity.

NOTE: In the Abandon callback subroutine, there is no option for 1 – Play Customers Message.

The 2 – Call the Customer Back enables the employee to callback the customer who made the callback request. The first activity in this branch is a Save Callback activity that saves the callback with the 'In Progress - Establishing connection to client'. The next activity in this branch is a Conference activity that is configured to call the number the customer left when making their callback request, stored in the <<CallbackClientNumber>> variable. This activity has seven branches Success, Client Disconnect, Agent Disconnect, Destination Busy, Timeout, Invalid, and Failure.

NOTE: If you are migrating from Version 6.0.x to Version 9.0, the Conference activity's timeout duration corresponds with the 'No answer client timeout (secs)' field in the 'Routing Rules' tab of the Callback Plans.

If the agent's call is successful, it is routed to the Success branch of the Conference activity where a Play activity plays the following message 'Please wait while the call is established.' The agent is then connected to the caller. When the agent is finished with the callback, the subroutine continues to a Save Callback activity that saves the reason 'Completed', indicating that the request is complete and should no longer be offered to the queue.

If the customer hangs up on the callback attempt from the agent, the callback request is routed to the Client Disconnect branch of the Conference activity. This branch contains a Play activity that informs the agent that the conference has failed and the customer is not available and a Save Callback activity that saves the callback request with the reason 'Requeued – Client did not answer', which enables the outbound ports to be re-offered to the queue. The client disconnect is counted as an attempt for a callback, increasing the saved number of attempts for the callback by 1.

If the agent hangs up on the callback attempt, the callback request is routed to the Agent Disconnect branch of the Conference activity. The Agent Disconnect branch contains a Save Callback activity that saves the callback request with the reason 'Requeued – Agent did not answer'. This sets the callback request to be requeued to be tried again later and does not count as a callback attempt in the callback request's record.

If the callback request rings on the customer's phone for the configured Timeout duration, it is routed down the Timeout branch of the Conference activity. The Timeout branch contains a Play activity that informs the agent that the conference has failed and the customer is not available and a Save Callback activity that saves the callback request with the reason 'Requeued – Client did not answer'. This sets the callback request to be requeued again later and does not count as a callback attempt in the callback request's record.

If the customer's phone is busy, the callback request is routed down the Destination Busy branch of the Conference activity. This branch contains a Play activity that informs the agent that the conference has failed and the customer is not available and a Save Callback activity saves the callback request with the reason 'Requeued – Client was busy', which is counted as a callback attempt.

If the callback request included an invalid phone number for the customer, the callback request is routed to the Invalid branch of the Conference activity. This branch contains a Play activity that informs the agent that the conference has failed and the customer is not available and a Save Callback activity saves the callback request with the reason 'Completed – Invalid Client Destination', which resolves the callback request and ensures it will no longer be offered to the queue.

If a failure occurs, the callback request is routed to the Failure branch of the Conference activity. This branch contains a Play activity that informs the agent that the conference has failed and the customer is not available and a Save Callback activity saves the callback request with the reason 'Requeued – Failed to connect to agent or queue', which does not count as a callback attempt.

The 3 - Requeue the Callback branch of the Menu activity requeues the callback request, offering it to the queue again after the retry interval duration expires. This branch contains a Save Callback activity that saves the callback request with the reason 'Requeued – By an agent', which ensures it is re-offered to the queue.

The 4 – Reject the Callback branch of the Menu activity rejects the callback and marks it as completed so it is no longer offered to the queue. This branch contains a Save Callback activity that saves the call-back request with the reason 'Completed – Rejected by agent', which completes the callback request.

The 5 – Hear the Options Again branch enables the agent to listen to the Menu options again. This branch contains a Go To activity that sends the agent back to the start of the Menu activity in the subroutine.

If the agent does not choose an option after 5 seconds, they are routed down the Timeout branch. This branch contains a Go To activity that sends the agent back to the start of the Menu activity in the subrou-tine.

If an agent pushes a number that is not programmed in the menu, they are routed down the Invalid branch. This branch contains a Go To activity that routes the agent back to the start of the Menu activity in the subroutine.

The Failure branch of the Menu activity contains a Hang Up activity. The agent is routed to this branch if the Menu activity times out three times. If the agent is routed to this branch, the callback attempt is deleted from the system.

Default Inbound Voice Callback subroutine

This subroutine workflow is the default workflow for customers in queue to submit voice callbacks. Callers who leave queue when presented with the option from the Callback Request activity can use this workflow to leave a message and set a time to be contacted later.

NOTE:

- If you change any of the activities in the workflow, ensure that the prompts used are still accurate and reflect the options offered to the callers.
- To further illustrate the workflow's activity and their operations, we recommend you expand the entire workflow and all annotations.
- As of Version 7.0 and greater, this callback subroutine workflow replaces the Voice Callback Plan's Callers Options tab.

To expand the workflow

- Click the **Expand All** button.

To show all annotations

- Right-click the workflow and select **Annotations… > Show all**.

Description

The first step in the workflow is a Collect Digits activity. This activity prompts callers to enter the phone number they would like to be reached at, which the workflow then stores in the <<CallbackClient-Number>> variable. By default, callers must enter between four and ninety-nine digits and press # as the terminating digit, but these defaults may be altered. For information on changing the defaults, see *"Configuring the Collect Digits activity"*.

NOTE:

- If you are migrating from 6.0.x to Version 7.1+, the options in this activity correspond to the General options in the Callers Option tab for Voice Callback Plans.
- This activity is mandatory, but another activity that can obtain and store the caller's number in the CallbackClientNumber variable could be used instead of collect digits.

The Collect Digits activity has four branches: Phone Number Collected, Timeout, Invalid, and Failure. Callers are routed to the Timeout Branch if they do not enter anything after 5 seconds. This branch contains a Play activity, whose prompt informs callers that there was no input, and a Go To activity, which returns callers to this Collect Digits activity. Callers are routed to the Invalid branch if the phone number goes over or under the specified minimum and maximum number of digits. This branch is identical to the Timeout branch. Callers are routed to the Failure branch when their timeouts or invalid digit entries exceed the set number of Invalid attempts, which by default is 3. The Failure branch contains a Hang Up activity that terminates the workflow. For information on configuring Collect Digits activity options, see *"Configuring the Collect Digits activity"*.

If a caller successfully enters their phone number, they are routed into the Phone Number Collected branch. This branch validates the caller's phone number against a phone number exclusion list, ensuring contact center agents are only handling valid callback requests. The first activity of this branch is a Variable Compare activity, which compares the <<CallbackClientNumber>> variable to a series of conditions in the activity's Invalid Numbers condition. These numbers can be changed and additional numbers can be added to the exclusion list. For information on configuring the Variable Compare activity, see *"Configuring the Variable Compare activity"*.

NOTE: If you are migrating from 6.0.x to Version 7.1+, the Variable Compare activity and its branches correspond to the 'Exclusion Phone List' from the 'Callers Option' tab for Voice Callback Plans.

The Variable Compare activity contains two branches: Invalid Numbers and No Match. If the phone number collected in <<CallbackClientNumber>> matches any of the conditions of the exclusion list, then the caller is routed into the Invalid Numbers branch. This branch contains a Play activity, which informs callers they have input an invalid phone number. Next in this branch is a Go To activity, which returns the caller to the Collected Digits activity. If the phone number in the <<CallbackClientNumber>> does not match anything in the exclusion list, the caller is routed through the No Match branch to the next activity in the workflow.

The workflow's next step is to capture the customer's preferred date and time for the callback. The workflow continues with a Collect Digits activity, which prompts the caller to enter the requested date and time for their callback. The format for this is DDMMYYYYTTTTXX, where XX is either '26' for AM or '76' for PM. IVR Routing will not offer the caller's callback request to a queue until this date and time.

NOTE:

- If you are migrating from 6.0.x to Version 7.1+, this activity and its branches correspond to the options under 'Capture Preferred Time' options in the 'Callers Option' tab for Voice Callback Plans. A 12-hour date-time format is used exclusively and can only be entered as DDMMYYYYTTTTXX, where XX is either '26' for AM or '76' for PM.
- This activity and its branches are not mandatory and may be removed from the workflow if you do not want to enable callers to specify a date and time for a callback. If no date or time is entered by callers, the preferred date time of Now is set on the callback request by IVR Routing.

This activity has four branches: Success, Timeout, Invalid, and Failure. The Timeout and Invalid branches are standard Collect Digits branches. Callers are routed to the Timeout Branch if they do not enter anything after 12 seconds, while callers are routed to the Invalid branch if they enter too few digits or too many digits. Callers are routed to the Failure branch when their timeouts or invalid digit entries exceed the set number of Invalid attempts, which by default is 3. The Failure branch contains a Hang Up activity that terminates the workflow. For information on modifying the timeout duration of the Collect Digits activity, see *"Configuring the Collect Digits activity"*.

If they enter valid digits, the caller is routed to the Success branch, where the Collect Digit activity reads back the date and time entered. The branch contains a Date Time Validation activity. This activity validates the entered date to ensure that the date and time are formatted correctly for use in the Outbound Callback workflow. This activity contains three branches: Success, Timeout, and Failure. Callers are routed to the Failure branch if the format of the date is not recognized as valid. This branch contains a Go To activity that returns the caller to this Collect Digits activity. The Success branch routes callers to the next activity in the workflow.

The Success branch contains a Set Variables activity that defines the window of opportunity the system has to offer a callback to a caller. By default it is configured to 30 minutes, so if the system is unable to contact the customer within 30 minutes of their preferred date and time, it will not try again. The time may be customized to match contact center requirements for callbacks. For information on modifying the Set Variables activity, see *"Configuring the Set Variables activity"*.

Once the date and time have been saved, the workflow continues to a Record activity, so callers can leave a message with their callback request. The Record activity contains three branches: Save, Discard, and Review. Discard and Review branches are standard Record activity branches. The Record activity's Save branch contains a Play activity, which informs callers that the recording has been saved. The branch continues to a Set Variables activity that links the .wav file to the submitted callback in SQL, ensuring that it is available to the agent when they receive this callback request. For information on configuring the Record activity and its branches, see *"Configuring the Record activity"*.

NOTE:

- If you are migrating from 6.0.x to Version 7.1+, the Record activity and its options correspond to the ‘Capture Recording’ section from Voice Callback Plans.
- This activity and its branches are not mandatory and may be removed from the workflow if you do not want to offer callers the ability to record a message.

The workflow continues with a Menu activity. This activity is the final step in the workflow for the caller, requesting that they either confirm or cancel their callback request. The instruction prompt informs the caller 'To submit this callback request, Press 1. To cancel this request and exit this system, please press the * key.' The Menu activity has five branches: 1. Confirm, *. Cancel, Timeout, No Match, and Failure. The Timeout and No Match branches are standard Menu branches with no additional configuration. The Failure branch contains no activities and routes callers through to the Save Callback to Requeue Activity, the *. Cancel branch, which contains a Play activity informing callers that their callback has been cancelled, and a Hang Up activity, which ends the workflow. The Confirm Branch contains no activities and routes the callers through to the Save Callback activity.

NOTE:

- If you are migrating from 6.0.x to Version 7.1+, the Menu activity and its options correspond to the ‘Capture Confirmation’ section from Voice Callback Plans.
- This activity and its branches are not mandatory and may be removed from the workflow if you do not want to offer callers to ability to confirm or cancel their callback request.

The final activity in this workflow is a Save Callback activity. This activity saves the callback request to the SQL database with the reason ‘New Request – Voice’, which enables the outbound port to detect it and offer it to the queue. This activity contains two branches: Success and Failure. The Success branch contains a Play activity that informs the caller that the callback has been submitted and routes the caller out of the workflow. The Failure branch has a Play activity that informs callers that the callback request submission failed, followed by a Go To activity that returns the callers to the Menu activity to attempt callback resubmission.

IVR Routing workflow samples

IVR Routing includes a variety of sample workflows. These workflow samples are based on common business scenarios. They not only demonstrate how IVR Routing can be used to efficiently direct calls to appropriate queues but, because they can be imported directly into your IVR Routing application, they save you the time of creating your own introductory workflows.

The sample workflows create a basis upon which you add elements to fully customize your IVR Routing solution. For example, if you want to be able to access a database of customer phone numbers, you will need to create the database and make it available to your workflow. Each sample workflow description below includes recommendations for workflow configuration optimization.

Generic prompt messages are included for applicable workflow samples.

IVR Routing gives you access to the following sample workflows:

- Schedule with Mode of Operation and Menu
- ANI and DNIS condition with unique menus and a callback option
- Schedule condition followed by DNIS and Language with Shared Menus
- Outbound workflow with Excel
- Workflow for PCI; Compliant systems

Some sample workflow contain Menu activities. The Menu activity prompts callers with messages and manages routing based on caller input. Besides the options you configure and add in the Menu, there are three default branches included in all Menu activities: Timeout, Invalid, and Failure. These branches cannot be deleted and function as follows:

- **Timeout:** Calls are routed to this option if the caller does not respond to a request within the time limit allowed, as configured for the Main Menu in the Properties pane, under Options. A default timeout message plays and the caller is returned to the Main Menu. You configure the number of times the call is returned to the Main Menu, after failing to respond to a request within the set time limit. If the caller exceeds the number of attempts, the call proceeds to the Failure branch.
- **Invalid:** This branch works similarly to the Timeout branch except that it channels callers that have entered invalid response digits. There is a default Invalid number message that plays.
- **Failure:** Calls are routed to this branch if the maximum Timeout or Invalid attempts are reached. Calls that enter the Failure branch are, in most samples, transferred to the Operator. If the Operator is unavailable, the call proceeds to the Hang up activity. If you want a message to play in this branch, you must configure and add one.

NOTE: After importing the sample workflows and assigning them to ports they will be 'live' in your system. Any modifications to the workflows will affect your IVR Routing system. For example, if you put a port into Emergency Mode using the Sample Management Plan workflow that port will indeed go into Emergency Mode.

Importing IVR Routing sample workflows

In order to have access to the sample workflows you must import them from the folder in which they are stored when you download our software.

To import IVR Routing sample workflows

1. Click **IVR Routing > Workflows**.
2. Click the **Import** button.
3. Navigate to the .xaml file you want to import and click **Open**.

   NOTE: The sample workflows are located in C:\Program Files (x86)\Mitel\MiContact Center\Ivr\Sample Callflows.
4. Click **Save**.

   NOTE: After importing a workflow, you must configure your own prompts and connect the workflow to devices that are specific to your system. If the prompts you configure or the connections you make to devices are invalid, a red exclamation mark icon displays on the Workflows Canvas indicating a validation error. For more information, see *"Troubleshooting workflow configuration with the Validation button"*.

Associating sample workflows to extensions or hunt groups

After you import a sample IVR Routing workflow, you must associate it to extensions or hunt groups in order to make the workflow go 'live' in your system. For more information, see *"Associating workflows to devices"*.

Sample Schedule with Mode of Operation and Menu

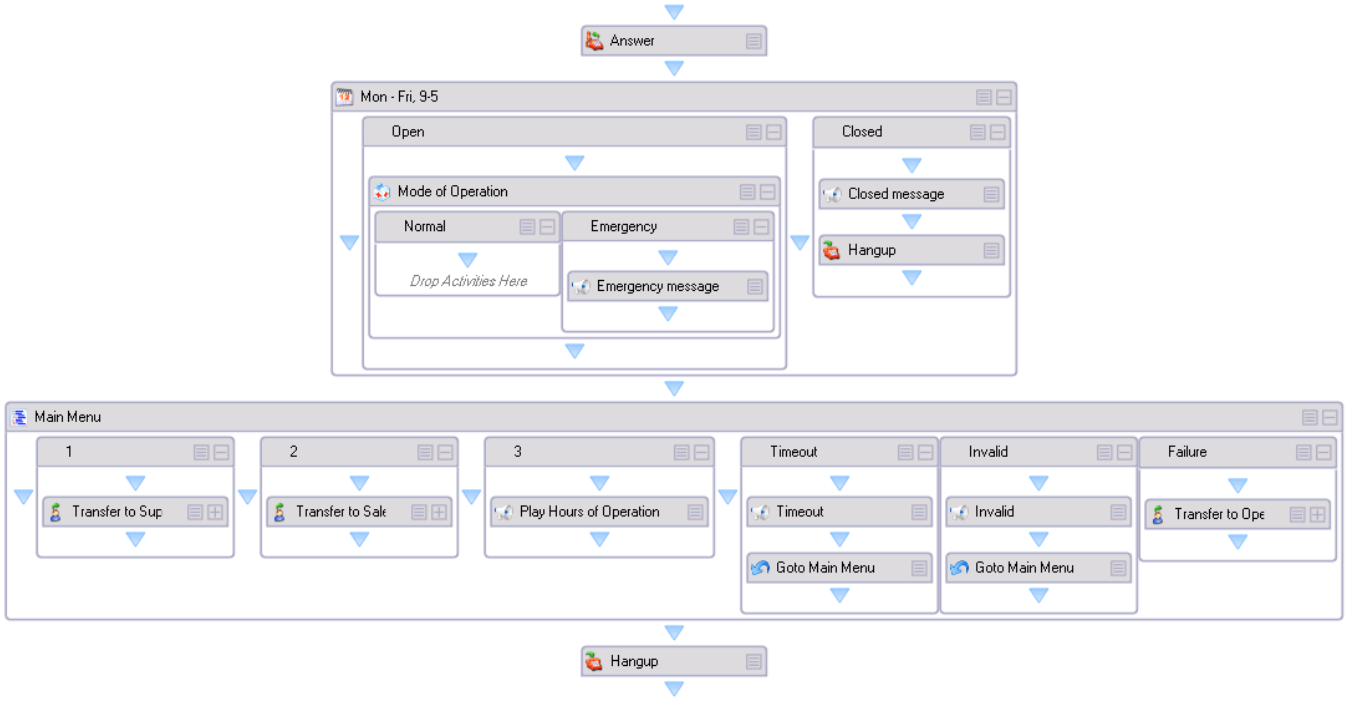
This workflow instructs IVR Routing to direct calls that arrive during business hours, in normal conditions, to the appropriate queues based on the caller's selection of menu options. Calls arriving during business hours when the contact center is closed due to emergency conditions are routed to an Emergency branch where they hear an emergency message explaining why the contact center is closed. Calls arriving outside business hours are routed to a Closed branch where they hear a prompt informing them that the contact center is closed.

This workflow:

- Makes customers aware of business hours and channels their calls as applicable
- Enables calls to be routed during emergency closures, for example, in extreme weather conditions
- Routes callers to the appropriate queues, based on customer digit selection

The following figure displays this workflow as it appears when first imported.

Figure 9.9: Schedule with Mode of Operation and Menu



Description

The first step in this workflow is an Answer activity. The Answer activity tells the port to answer the call. Until this condition is met, the caller hears ringing.

Next in the workflow sequence is the Schedule condition (Mon-Fri, 9-5). There are two branches, Open and Closed, each containing activities, within the Schedule. A check is done to confirm that the date and time of the call falls within business hours (set as Monday – Friday, 9 AM – 5 PM).

If the call arrives outside of business hours, then the call is routed to the Closed branch, a Closed Message plays, and the call proceeds to the Hang up activity. The Hang up activity ends the workflow and disconnects the call. If you do not have a Hang up activity, the call will continue through the workflow until it reaches the end of all possible actions, at which point it will wait in silence until the port resets.

If the call arrives within business hours, then the call is routed to the Open branch and the Mode of Operation activity is confirmed. The system checks if the ports or hunt groups assigned to the workflow are in Normal mode or Emergency mode. If they are found to be in Emergency mode, the Emergency Message plays and the call is directed to the Hang Up activity. If they are found to be in Normal mode, the call proceeds to the Main Menu activity.

The Main Menu activity prompts callers with messages and manages routing based on caller input. In this example, the Main Menu activity has been configured with three options and customers are prompted to press whichever option suits their needs. IVR Routing then directs the caller to the appropriate queue based on the number they pressed.

The three numbered options in the Main Menu activity were added manually to this sample workflow and complete the following actions:

- **Option 1:** Transfers the caller directly to the Support Queue
- **Option 2:** Transfers the caller directly to the Sales Queue
- **Option 3:** Plays the Hours of Operation Message

Options 1 and 2 have a Failure branch. If the transfer destination is unavailable, the caller is routed to the Operator. We recommend you set up the Failure branch to redirect calls to a dependable, available endpoint.

The last step in this workflow is the Hang Up activity. We recommend you end workflows with a Hang Up activity to prevent errant calls from resting at the end of the workflow and tying up the port until it can reset and disconnect the call.

Additional configuration required

To get your workflow sample up and running, you must:

Associate the workflow to a port (extension) or a hunt group. See *"Associating workflows to devices"*.

Configure Properties for Transfer Activities. In this sample, the Operator and the Sales and Support queue destination information needs to be added. To do this, simply right-click the Transfer activity in the workflow and specify the Destination in the Properties pane

Create prompts (messages) as needed. For example, in this workflow, generic prompts are included for the Greeting Message, Closed Message, Emergency Message, and Hours of Operation Message. If you want to customize these messages, you will need to create your own and add them to the workflow.

Sample ANI and DNIS Condition with unique Menus and a Callback option

This workflow instructs IVR Routing to direct calls to appropriate queues based on the caller's telephone number (ANI), the number the caller dialed to reach the contact center (DNIS), and caller-entered responses to menu options. The menu options are unique to each branch, meaning that callers are presented with different menu options based on where their call originated or the number they dialed to reach the contact center. In addition, the customer is offered the option of requesting a callback rather than waiting in queue for an agent. In this example, callers are routed based on their customer status (derived from their ANI) or based on the number they called to reach your contact center, either the Enterprise Business Level or Entry Level Business Software contact number.

This workflow:

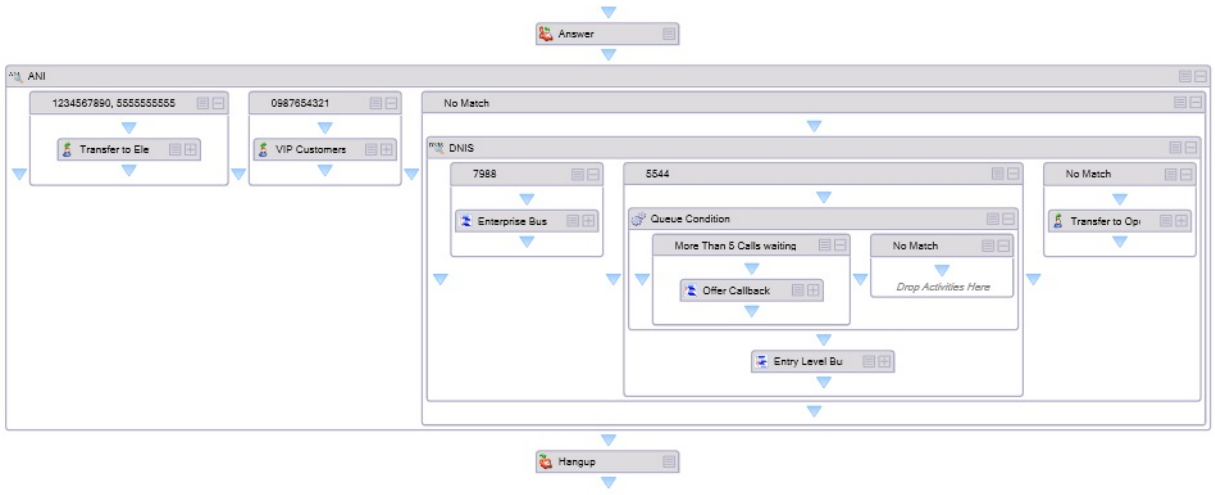
- Shows you how to channel callers to queues based on the area from which they are calling. This type of call routing could be beneficial if, for example, you have a sales promotion that is targeted toward particular geographical markets, callers from those areas would be directed to a queue with promo-

tional RADs and agents who have been trained to sell products specifically related to the current promotion. Another useful application for this workflow could be for companies who offer services that are specific to a certain area. For example, a flooring installation company with offices in cities across the country could direct callers based on the city from which they are calling to agents who book in-home flooring consultations.

- Demonstrates how you can set up your IVR Routing system using ANIs to help route customers with specific needs to the agents most suited to assist them. In this sample, a VIP customer calls in and is recognized as such by their ANI, which you have added to the ANI list. They are automatically transferred to an experienced agent with advanced customer relation skills.
- Allows you to send callers to queues based on the number they dialed to access your contact center. This enables callers to be more accurately routed to the services in which they are most interested. In this sample, callers are channeled to either the Enterprise Business Level or Entry Level Business Software queue based on the number they called to reach you.
- Gives callers the option of leaving a message and receiving a callback rather than waiting in queue. Customer satisfaction is improved when callers are offered this enhanced level of control. In addition, the call center operates more smoothly as some calls are diverted during busier periods to be handled during less busy hours

The following figure displays this workflow as it appears when first imported.

Figure 9.10: Sample ANI and DNIS Condition with unique Menus and Callback option



Description

The first step in this workflow is an Answer activity. The Answer activity tells the port to answer the call. Until this condition is met, the caller hears ringing.

Following the Answer activity, is an ANI condition that checks the caller's phone number. We recommend placing the ANI condition near the beginning of the workflow as you can use this activity to initially filter calls based on whatever parameters work best for you, for example, you could filter based on VIP status or, conversely, based on a list of customers with a heightened need for immediate support, such as those with a recent history of dissatisfaction with your product. By filtering these calls based on ANI, you can configure the subsequent workflow sequence to channel these calls to queues that are best suited to their needs.

Within the ANI condition, there are three branches that evaluate the ANI and branch the call based on the results. In this example, the caller is branched, based on ANI, either to the Elevated Support Line branch,

VIP Customers branch, or a No Match branch. The Elevated Support Line branch (in this example, used for customers that are in need of immediate, skilled support, as they are currently experiencing difficulties with your product) and the VIP Customers branch each contain a Failure branch which routes the caller to the Operator if the transfer destination is unavailable. We recommend you set up the Failure branch to redirect calls to a dependable, available endpoint.

If the ANI is unrecognized (No Match), the system moves on to check the DNIS (the number the customer called to reach the contact center).

Within the DNIS condition, there are three branches that evaluate the DNIS and branch the call based on the results. In this example, the caller is branched, based on DNIS, either to the Enterprise Business Level Menu, the Entry Level Business Software Menu, or a No Match branch.

The Enterprise Business Level Menu prompts callers with messages and manages routing based on caller input. In this example, it has been configured with two options and customers are prompted to press whichever option suits their needs. IVR Routing then directs the caller to the appropriate queue based on the number they pressed.

The two numbered options in the Enterprise Business Level Menu activity were added manually to this sample workflow and complete the following actions:

- **Option 1:** Transfers the caller directly to the Support Queue
- **Option 2:** Transfers the caller directly to the Sales Queue

Options 1 and 2 have a Failure branch. If the transfer destination is unavailable, the call goes to the Hang Up activity.

The Entry Level Business Software Menu activity prompts callers with messages and manages routing based on caller input. In this example, it has been configured with two options and customers are prompted to press whichever option suits their needs. IVR Routing then directs the caller to the appropriate queue based on the number they pressed.

A Queue Condition has been added to this branch to enable the callback request option. In this case, the Queue Condition checks if more than five calls are waiting in queue and if this is the case, the caller is offered the option of requesting a callback rather than waiting in queue. You can alter this Queue Condition as needed.

In the Offer Callback Menu, you configure a message that informs the customer about current call volume and wait times, based on the queue condition you set. There is a sample Default Callback Inbound Voice subroutine included with IVR Routing. You can either use this subroutine with the Callback Request activity or create your own callback subroutine to use with this workflow. For more information about callback plans, see *"Configuring callbacks"*.

If the customer declines the request for a callback, the workflow progresses to the Entry Level Business Software Menu.

The two numbered options in the Entry Level Business Software Menu were added manually to this sample workflow and complete the following actions:

- **Option 1:** Transfers the caller directly to the Support Queue
- **Option 2:** Transfers the caller directly to the Sales Queue

Options 1 and 2 have a Failure branch. If the transfer destination is unavailable, the call goes to the Hang Up activity.

If the DNIS is unrecognized, the caller is routed down the No Match branch and, subsequently, the Operator.

The last step in this workflow is the Hang Up activity. We recommend you end workflows with a Hang Up activity to prevent errant calls from resting at the end of the workflow and tying up the port until it can reset and disconnect the call.

Additional configuration required

To get your workflow sample up and running, you must:

- Associate the workflow to a port (extension) or a hunt group. See *"Associating workflows to devices"*.
- Configure properties for all Transfer activities. For example, the Operator and the Sales and Support queue destination information needs to be added. To do this, simply right-click the Transfer activity in the workflow and specify the Destination in the Properties pane.
- In addition, for the Callback Request activity, you must designate a Callback Outbound subroutine and a destination queue.
- Create prompts (messages) as needed. Generic prompts are included in this workflow but if you want to customize these messages, you will need to create your own and add them to the workflow.

Sample Schedule Condition followed by DNIS and Language with Menus

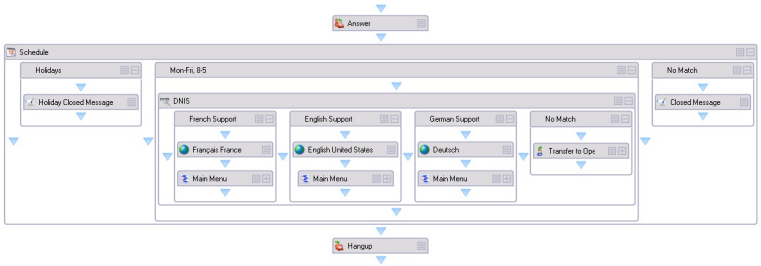
This workflow instructs IVR Routing to direct calls that arrive on standard work days, during business hours, to language-specific queues based on the number the caller dialed. Callers are routed to a single menu, which presents prompts in the appropriate language.

This workflow enables you to:

- Configure schedule conditions to route calls based on predefined holidays
- Offer services in more than one language based on the number dialed to reach your contact center
- Use the same Prompt but make it available to all configured languages

The following figure displays this workflow as it appears when first imported.

Figure 9.11: Schedule condition followed by DNIS and Language with Menus



Description

The first step in this workflow is an Answer activity. The Answer activity tells the port to answer the call. Until this condition is met, the caller hears ringing.

Next in the workflow sequence is the Schedule condition. There are three branches, Holidays, Mon-Fri, 8-5, and No Match. Placing the Holiday branch on the far-left of the workflow ensures that this branch is checked first. If it is determined that the call is being received on a predefined holiday, a Closed Message plays and the call proceeds to the Hang Up activity.

NOTE: You must configure the workflow to check whether it is a holiday before checking whether it is within business hours. If a call enters the system between 8 AM and 5 PM on a Monday that is a statutory holiday

and you check the business hour schedule first, the system will erroneously determine that the call center is open and the call will proceed through the workflow, even though your office is closed.

If it is not a holiday, a check is done to confirm if the date and time of the call falls within business hours (set as Monday – Friday, 8 AM – 5 PM). If the call arrives within business hours, the call is routed to the DNIS check. If the call arrives outside of business hours, it is routed to the No Match branch and a Closed Message plays. The call then proceeds to the Hang Up activity. The Hang Up activity ends the workflow and disconnects the call. If you do not have a Hang Up activity, the call will continue through the workflow until it reaches the end of all possible actions, at which point it will wait in silence until the port resets.

If the call passes the Schedule criteria, it continues to the DNIS activity. This workflow sample contains three DNIS, each one representing a different language (French, English, and German, in this case). According to the DNIS, the call is routed through the appropriate Language activity to a Menu. The Menu is the same for each DNIS and has the same Prompt. The Prompt contains .wav files that are specific to each language. Depending on which language activity the call was channeled through, the matching language .wav file will play. This enables reuse of the same Prompt regardless of the number of language activities that are configured. If there is no DNIS match, the workflows to the No Match branch and is transferred to the Operator.

As noted above, the Menu options are the same for each DNIS – only the Language is different. The two numbered options in the Menu activity (Main Menu) were added manually to this sample workflow and complete the following actions:

- **Option 1:** Transfers the caller directly to the Support Queue
- **Option 2:** Plays the Shipping Instructions Message

Option 1 has a Failure branch. If the transfer destination is unavailable, the call goes to the Hang Up activity.

The last step in this workflow is the Hang Up activity. We recommend you end workflows with a Hang Up activity to prevent errant calls from resting at the end of the workflow and tying up the port until it can reset and disconnect the call.

Additional configuration required

To get your workflow sample up and running, you must:

- Associate the workflow to a port (extension) or a hunt group. See *"Associating workflows to devices"*.
- Configure properties for all Transfer activities. For example, the Support queue destination information needs to be added. To do this, simply right-click the Transfer activity in the workflow and specify the Properties in the Properties pane.
- Create prompts (messages) as needed. Generic prompts are included in this workflow but if you want to customize these messages, you will need to create your own and add them to the workflow.

Sample Outbound with Excel

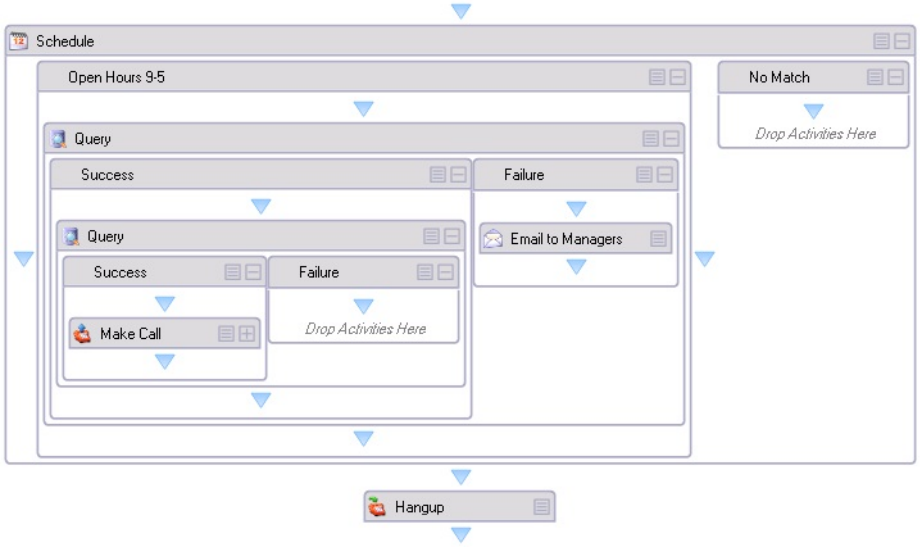
This workflow queries a data provider, in this case an Excel spreadsheet, to retrieve customer contact information. The workflow then uses the contact information to make outbound calls to customers. If a call is not answered by the customer or if the line is busy, IVR Routing continues to attempt the call until it is connected. If the customer answers the ringing line or the call goes to the customer's voicemail the workflow updates the call status as 'Completed' and the customer will not be called again. Customers who answer the outbound call are directed to a menu presenting them with routing options.

This workflow enables:

- Contact centers to make outbound calls to customers by accessing an internal database

The following figure displays this workflow as it appears when first imported.

Figure 9.12: Outbound workflow with Excel



Description

This sample workflow uses an Excel spreadsheet, called OutboundSample.xlsx. This file is located in the IVR\Sample Callflows folder on the Enterprise Server. You populate the Excel sheet with customer phone numbers that you access while making outbound calls.

The first step in this workflow is the Schedule condition. There are two branches, Open Hours 9-5 and No Match. If calls are executed during business hours, they progress to the Query. If calls are executed outside of configured business hours the workflow routes to the No Match branch and then to the Hang Up activity.

If during business hours, the workflow progresses to the Query. The Query references the Data Provider (in this case, Default Outbound Provider). In this sample, the Data Provider refers to the Excel sheet of customer phone numbers that is mentioned above. This Excel sheet has two columns – one for the customer's phone number and one for the customer's status. The Excel sheet and the Query can be modified as needed.

The first Query action is to run a Select statement to pull the first number with an 'Incomplete' status to call. The Select Query either goes to the Success branch (if it successfully finds/selects a customer phone number) or to the Failure branch if no customer phone number is found. When the call enters the Failure branch an email is sent to managers advising them that no 'Incomplete' calls remain in the database Excel sheet. Access to this functionality requires you to first configure the SMTP Server and the email template used for this example.

If an 'Incomplete' status call is selected, the workflow progresses to the Success branch and the Write statement executes, which changes the customer's status from 'Incomplete' to 'In Progress', preventing other ports from simultaneously calling the same customer.

When the Query successfully pulls a customer phone number, it proceeds to the Make Call activity. The Make Call activity has a destination set for <<LastQueryResult>>, meaning it will dial the phone number that the Query pulled from the Excel spreadsheet.

The Make Call activity has several branches. When you successfully connect to a customer, the call goes down the Success branch, a query is executed and the customer status is updated to 'Completed',

ensuring that number is not called again. Following this action, the customer is presented with two options. They can choose to either be transferred to a queue to speak to an agent or listen to a message for more information. For example, you could record a message with details about a current sales promotion.

If there is no answer, a Query is executed and the customer status is updated to 'No Answer', meaning that when this number is selected from the list the next time, the system will attempt to call it again.

If there is a busy signal (Destination Busy), a Query is executed and the customer status is updated to 'Busy', meaning that when this number is selected from the list the next time, the system will attempt to call it again.

If the number is not in service (Invalid Destination), a Query is executed and the customer status is updated to 'Invalid', meaning that when this number is selected from the list the next time, the system will not attempt to call it again.

If the Make Call fails due to an issue with the telephone system, an email is sent to the manager(s) advising them of the communication failure. Access to this functionality requires you to first configure the SMTP Server and the email template used for this example.

The last step in this workflow is the Hang Up activity. We recommend you end workflows with a Hang Up activity to prevent errant calls from resting at the end of the workflow and tying up the port until it can reset and disconnect the call.

Additional configuration required

To get your workflow sample up and running, you must:

1. Associate the workflow to a port (extension). This workflow type cannot be assigned to a hunt group. See *"Associating workflows to devices"*.
2. Configure properties for all Transfer activities. For example, the Transfer to queue destination information needs to be added. To do this, simply right-click the Transfer activity in the workflow and specify the Properties in the Properties pane
3. Create prompts (messages) as needed. Generic prompts are included in this workflow but if you want to customize these messages, you will need to create your own and add them to the workflow.
4. In order to make the workflow active, you must select 'Always Run' in the Properties Pane, under Workflow. If you want to end the workflow activity, deselect this option.
5. We recommend adding a queue condition in the Success branch of this workflow so callers are directed to the queue only if, for example, a sufficient number of agents are available to take their call or the number of calls waiting in the queue is not excessive. Rather than making the caller wait to speak to an agent in this situation, it might be preferable to instead play the 'Play more information on offer' message.
6. We suggest adding a queue condition following the Schedule condition that sets calling times for the optimum times of the day, for example, you might only want to make outbound calls between 3 PM and 7 PM. By setting a condition in this way, you can ensure that you have sufficient agents available during that time to handle calls.

Workflow for PCI Compliant systems

The PCI Compliant workflow is an example of how contact centers can use IVR Routing to collect sensitive information, such as credit card numbers, from contacts while ensuring their privacy. While handling an interaction, agents need the ability to collect sensitive information without being able to interact with

that information. The PCI Compliant workflow offers a demonstration workflow configuration that leverages the Hold State activity to enable a contact to enter private information while on call with an agent.

NOTE: The PCI Compliant workflow itself is not PCI compliant but it implements PCI security requirements to protect the privacy of collected data. You are responsible for ensuring that your configuration, including its associated variables, queries, and web services, meets the standards of PCI Compliance.

In this workflow, the agent dials the port associated with this PCI Compliant workflow, starting a conference call with the workflow. The workflow puts the agent on hold and prompts the caller to enter their private information, which is stored in a masked variable. The information is routed to a Query activity, which uses it to perform a query transaction. The agent is then returned from hold and both contact and agent are informed via a Play activity if the PCI Compliant transaction was completed correctly. The workflow then hangs up, returning the agent and contact to a two party call.

To further illustrate the workflow's activities and their operations, we recommend you expand the entire workflow and all annotations.

To expand the workflow

- Click the **Expand All** button.

To expand all annotations

- Right-click the workflow and select **Annotations…>Show All**.

Requirements

The workflow provides a framework and as such requires several devices be configured before the workflow can be used:

- Prompts
- Variables
- Data provider
- Extension

This workflow uses a number of prompts. You require the following prompts containing the following messages:

- **Agent Notification:** A message indicating to caller and agent that the agent is being placed on hold
- **Collect Digits instructions:** A message indicating to the caller what information they must enter
- **Unable to Hold:** a message indicating to caller and agent that the system was unable to place the agent on hold
- **Request is being processed:** A message informing the customer that their information has been entered and is being processed.
- **Successful transaction:** A message informing the caller and the agent that the caller's information has been entered and processed correctly
- **Failed transaction:** A message informing the caller and the agent that the caller's information was not entered correctly

For instructions on configuring prompts, see *"Configuring prompts"*.

You require two variables configured for this workflow: a Secure Information variable and a Validation variable. The Secure Information Variable is used to store the private information entered by the caller. This variable must be set to FullMask to prevent the collected data from being viewed by others. The Validation variable is used by a Query activity to store the confirmation that the caller's information was entered correctly and is used by a Variable Compare activity to inform both the caller and the agent that the transaction was completed successfully. For instructions on configuring variables, see *"Configuring variables"*.

This workflow requires that you have a data provider added to IVR Routing for use with this workflow's Query activity that contains the information that the caller enters.

For instructions on configuring data providers, see *"Configuring data providers"*.

This workflow also requires you to have a specific transaction that you want to perform using a Query or an Execute activity. The workflow includes a Query activity, but you must configure a query relevant to your business needs. The Query should use the information entered in the Secure Information variable and return any relevant information in other variables, as determined by your transaction's function. At a minimum, the Query activity's query must be configured to store a value in the Validation variable that will be used to confirm to both the agent and the caller that the caller's private information was entered successfully.

The PCI Compliant workflow requires a port with which to be associated, so an agent can dial it while handling a caller.

Description

The first activity in this workflow is the Answer activity. The agent and contact are next routed to a Play activity. The purpose of this Play activity is to provide a message to the agent that they are being placed on hold. This activity should be configured with your 'Agent Notification' prompt. For more information, see *"Configuring the Play activity"*.

After the workflow answers, the caller and agent are routed to the Hold State activity. This activity places the agent on hold for the duration of the Success Branch of the Hold State activity, preventing them from hearing the caller's call as they enter their credit card information. This activity must not be removed or modified, otherwise PCI Compliance will be compromised. This activity has two branches: Success and Failure. If the agent is successfully placed on hold, the workflow routes down the Success branch. The agent remains on hold for the entirety of the Success branch. If the agent is not placed on hold, the workflow routes down the Failure branch.

The Failure branch contains a Play activity. The purpose of this Play activity is to provide a message informing the agent and caller that the system was unable to place the agent on hold. This activity should be configured with your 'Unable to Hold' prompt. For more information, see *"Configuring the Play activity"*.

The first activity of the Success branch is a Collect Digits activity. This activity, when configured, prompts the caller to enter the private information, which is stored in the Secure Information variable. By default, this activity has no preset configuration. Under the Variable Collection Settings, set the Variable as the Secure Information variable and set the Greeting as the 'Collect Digits instruction' prompt. You must also set the Minimum and Maximum digits to collect for the caller's information. This activity can be configured with a Confirmation prompt to inform customers that their information has been entered. For more information, see *"Configuring the Collect Digits activity"*.

The Collect Digits activity has four branches: Success, Timeout, Invalid, and Failure. Callers are routed to the Timeout branch if they do not enter anything after 5 seconds. This branch contains a Play activity, whose prompt informs callers that there was no input, and a Go To activity, which returns callers to this Collect Digits activity. Callers are routed to the Invalid branch if the caller-entered information goes over or under the specified minimum or maximum digits specified during this activity's configuration. This branch is identical to the Timeout branch. Callers are routed to the Failure branch when their timeouts or invalid digit entries exceed the set number of Invalid attempts, which by default is 3.

The Success branch contains a Play activity. The purpose of this Play activity is to provide a message informing callers that their information is being processed. This activity should be configured with your 'Request is being processed' prompt. For more information, see *"Configuring the Play activity"*.

The next activity in the Success branch is a Query activity. This activity's purpose is to query a customer database with the information from the Secure Information variable. The Query activity requires a database provider and a Query statement so that the Secure Information variable can be used to retrieve confirmation information to populate the Validation variable. For more information on configuring a Query activity, see *"Configuring the Query activity"*.

NOTE:

- Depending on the complexity of your transaction logic you may need to add additional Query or Execute activities to complete your transaction and retrieve the desired information.
- This activity can be replaced with an Execute activity if you need to communicate with an external source, such as a web service. If executing a web service, ensure that you use HTTP Secure (https). The Execute activity must populate your Validation variable. For more information, see *"Configuring the Execute activity"*.

The activity next continues to a Variable Compare activity, which should be configured to check if the Validation variable has the correct value stored. For more information, see *"Configuring the Variable Compare activity"*.

The Variable Compare activity has two branches: Successful Transaction Condition and No Match. If the variable compare matches your configured conditions, the workflow routes down the Successful Transaction Condition branch. This branch contains a Play activity, which should be configured with the 'Successful Transaction' prompt, informing caller and agent that the transaction was completed successfully. If the variable does not match your configured conditions, the workflow routes down the No Match branch. This branch contains a Play activity, which should be configured with the 'Failed transaction' prompt, informing caller and agent that the transaction was not completed.

The workflow continues to a Hang Up activity, ending the conference call with the workflow and returning the caller and the agent to a two party call.

IVR Routing complex workflow configuration

The following section describes how to configure two intricate workflows. You can use these instructions to create the workflows as described or as an educational exercise from which you can learn to build your own customized, unique workflows. Before attempting to configure these workflows you must be familiar with IVR Routing and able to proficiently configure intermediate to advanced level workflows using IVR Routing.

This document shows you how to construct:

- **Outbound workflow**: An outbound workflow that returns abandoned calls on a priority basis according to customer status
- **Dial Active Directory workflow**: A workflow that uses a LDAP connection to a Windows Active Directory domain to retrieve phone numbers and transfer the caller to the retrieved extension

Outbound workflow configuration

This example demonstrates how to build an outbound workflow that returns abandoned calls on a priority basis according to customer status. This workflow makes use of the delay activity, populates custom variables with a specific format type, demonstrates enhanced email activity by adding attachments, and sends custom variable information to agents via enhanced screen pop.

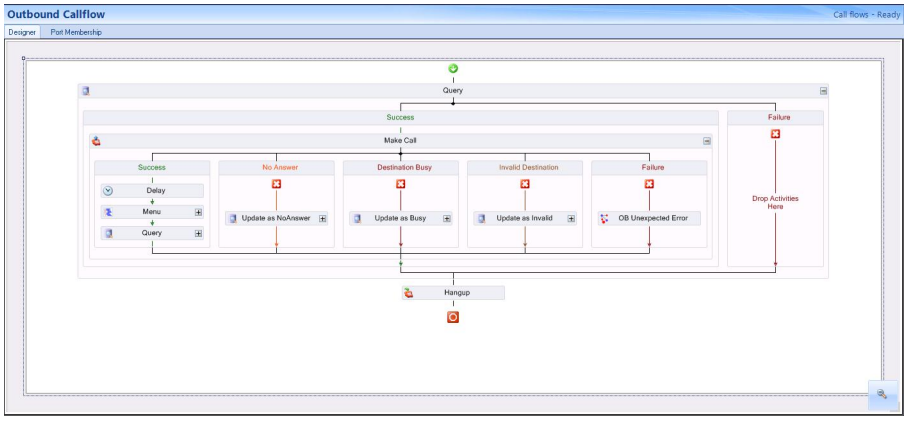
Consider the following scenario:

Problem: A busy order desk is having trouble keeping up with customer requests. As a result, they are dealing with a high number of abandoned calls. Their customers are sorted into three priority levels: gold, silver, and bronze. Gold member callers are considered the highest priority and the order desk is obligated to return their calls expediently in order to meet service level agreements. Each day a SQL table is populated with all of the abandoned calls from the previous day including the customer's priority levels. All gold customers must be called back.

Solution: The following outbound workflow is configured to search for customer numbers based on priority level, thus ensuring gold-level customer calls are returned expediently. In addition, customers are given options that can expedite call handling, resulting in a more efficient use of agent resources. For example, if callers are offered choices, besides the option of connecting with an agent, of being sent a PDF of their order status or listening to a message describing their balance and due date, some caller's needs would be satisfied without having to speak to an agent. If callers choose to speak to an agent, specific caller information, for example, their status is delivered to the agent via a screen pop display when the agent connects to the call.

The following table depicts the final, post-configuration version of the Outbound workflow example described here.

Figure 9.13: Outbound workflow



Configuring a database provider

The first step in creating this workflow is to determine the source from where you will retrieve the numbers to call back. Typically the outbound call list is stored in a SQL database or an Excel spreadsheet. In this example, the following table was created in a SQL database. The example SQL database used in this sample workflow is named abandoned_caller. (See the following table.)

NOTE: We recommend following standard database design practices when setting up your database. The example database referred to in this document is for demonstration purposes only.

Table 9.5: SQL database example for abandoned caller list (Sheet 1 of 2)

ID	[Level]	CallerID	UserName	Balance	EMail
100	Gold	3001	Dave	21.32	dave@prairiefyre.com
101	Silver	6132221212	James	201.55	james@prairiefyre.com

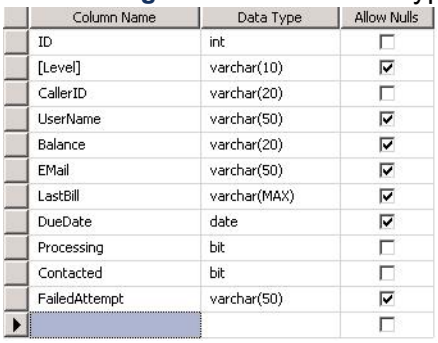
Table 9.5: SQL database example for abandoned caller list (Continued) (Sheet 2 of 2)

ID	[Level]	CallerID	UserName	Balance	EMail
102	Bronze	6135990000	Curtis	30	curtis@prairiefyre.com

ID	LastBill	DueDate	Processing	Contacted	FailedAttempt
100	\\share\bills\100bill.docx	April 20, 2012	0	false	NULL
101	\\share\bills\100bill.docx	September 1, 2012	0	false	NULL
102	\\share\bills\100bill.docx	Dec 12, 2012	0	false	NULL

The SQL data types used for this example are shown in the following figure.

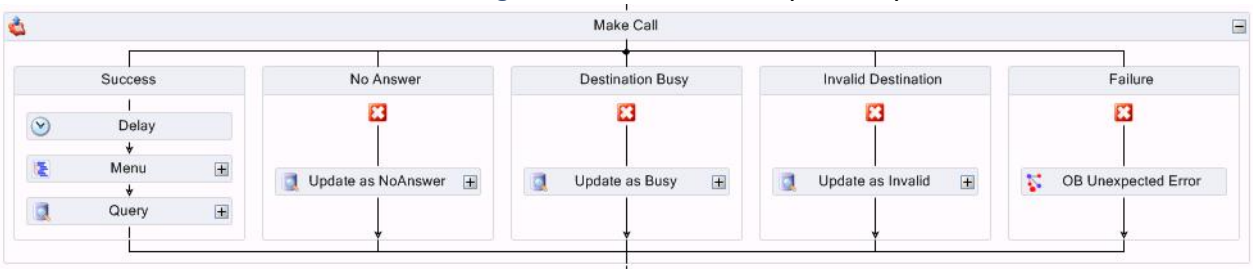
Figure 9.14: SQL data types



The columns **Processing** and **Contacted** are added to the table to assist with call processing, as follows. The outbound workflow executes in an always-run fashion. If there are records present in the database and outbound ports are available, calls will be executed constantly. The processing column is used to flag a call as in progress. When a call is in progress, it means that the outbound port is currently calling that number. After the outbound workflow has completed, the contacted column is set to true. This process ensures callers, once contacted, are not called back.

A **FailedAttempt** column is added to indicate the reason the attempt to call failed, for example, due to No Answer, Destination Busy, or Invalid Destination. The following figure displays an example of failed attempts as they display in the workflow.

Figure 9.15: Failed attempt example



You must configure a database provider to supply outbound call records to the Outbound workflow. This example uses a Microsoft SQL server as a data provider and names the data provider Abandon DB. See *"Adding a Microsoft SQL server as a data provider"*.

Creating outbound ports

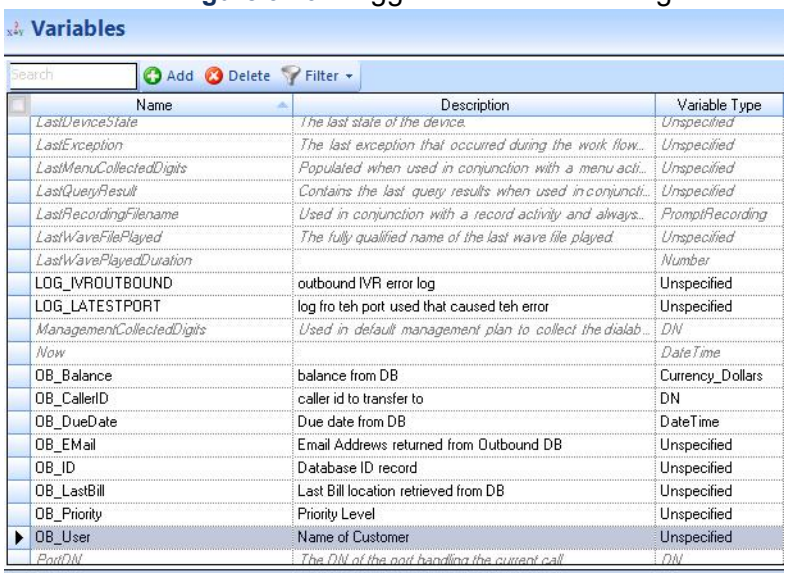
Outbound workflows and IVR Routing callbacks are both executed by the existing MiContact Center Outbound Router Service. Outbound port 5020 IP are used to process outbound workflows and IVR Routing callbacks.

Refer to the procedure *"Adding extensions"* and add the appropriate number of outbound ports. If you have any questions regarding the number of ports you require, contact the Systems Engineering Team.

Defining variables

Before creating the workflow, define the variables that it will use. For this example, we have created the following variables from the above SQL database example table. Ensure the 'Send to Agent's Desktop' check box is selected if you want customer-relevant database information to be available in a screen pop display for agents upon call receipt. (See the following figure.)

Figure 9.16: Suggested variable configuration



Name	Description	Variable Type
LastDeviceState	*The last state of the device.*	*Unspecified*
LastException	*The last exception that occurred during the work flow...*	*Unspecified*
LastMenuCollectedDigits	*Populated when used in conjunction with a menu acti...*	*Unspecified*
LastQueryResult	*Contains the last query results when used in conjunctl...*	*Unspecified*
LastRecordingFilename	*Used in conjunction with a record activity and always...*	*PromptRecording*
LastWaveFilePlayed	*The fully qualified name of the last wave file played.*	*Unspecified*
LastWavePlayedDuration		*Number*
LOG_IVROUTBOUND	outbound IVR error log	Unspecified
LOG_LATESTPORT	log fro teh port used that caused teh error	Unspecified
ManagementCollectedDigits	*Used in default management plan to collect the dialab...*	*DN*
Now		*DateTime*
OB_Balance	balance from DB	Currency_Dollars
OB_CallerID	caller id to transfer to	DN
OB_DueDate	Due date from DB	DateTime
OB_EMail	Email Addrews returned from Outbound DB	Unspecified
OB_ID	Database ID record	Unspecified
OB_LastBill	Last Bill location retrieved from DB	Unspecified
OB_Priority	Priority Level	Unspecified
OB_User	Name of Customer	Unspecified
PortDN	*The DN of the port handling the current call.*	*DN*

Creating an outbound workflow

Now that you have populated the table in the SQL database with abandoned interaction information, added a database provider and outbound ports, and created applicable variables, you can create the outbound workflow

To create an outbound workflow

1. Click **IVR Routing > Workflows**.
2. Click **Add** and select **Mitel Voice > Outbound** as the workflow type from the drop-down list.
3. In the **Properties** pane, configure the workflow properties as needed.

NOTE: To make the workflow active, select the **Always run** check box. When you no longer want the workflow to be active, deselect this option.

4. Click **Save**.

Configuring the outbound workflow for abandoned interactions

The first steps in configuring the outbound workflow for use with abandoned interactions are to add a Query activity, a Make Call activity, and a Hang Up activity. The Make Call activity is used to place calls to external phone numbers that are typically stored in a data source, such as a SQL database or an Excel spreadsheet. The Query activity is used to retrieve the numbers from the database that are then stored in a variable which is accessed by the Make Call activity when dialing. The Make Call activity determines the location of the media server and provides the correct formatting for the external phone number before placing the call. In this example, the query looks for gold-level customers that require a return call.

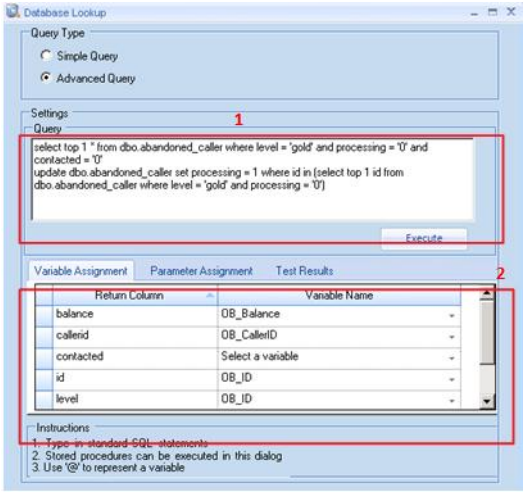
To configure the outbound workflow for abandoned interactions

1. Add a **Query** activity and a **Hang Up** activity into the Workflows Canvas.
2. Right-click the **Query** activity and select **Edit Database Provider**.
3. Select the **Abandon DB** database provider created earlier.
4. Click **OK**.
5. Right-click the **Query** activity and select **Edit Query Definition**.
6. Under **Query type**, select **Advanced Query** and, under **Settings**, enter the following SQL query(1):

   SELECT top 1 * from dbo.abandoned_caller where level = ‘gold’ and processing = ‘0’ and contacted = ‘False’
   UPDATE dbo.abandoned_caller set processing = 1 where id in (select top 1 id from dbo.abandoned_caller where level = ‘gold’ and processing = ‘0’)
7. On the **Variable Assignment** tab, assign the appropriate variables to the parameters returned from the query(2).

   The following figure displays steps 5-7.

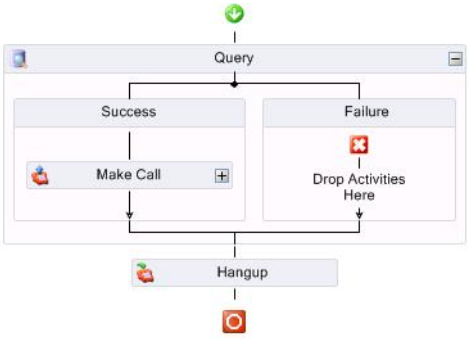
Figure 9.17: Creating the advanced SQL query



8. In the **Success** branch of the **Query** activity, add a **Make Call** activity.

   See the following figure.

Figure 9.18: Make Call activity



9. Select the **Make Call** activity and configure the properties in the **Properties** pane.
10. For this example, beside **Destination**, select the variable **<<OB_CallerID>>** and click **OK**.
11. Select the **External Call** check box to indicate that these calls are external to the PBX. Outbound dialing digits are appended when dialing externally.

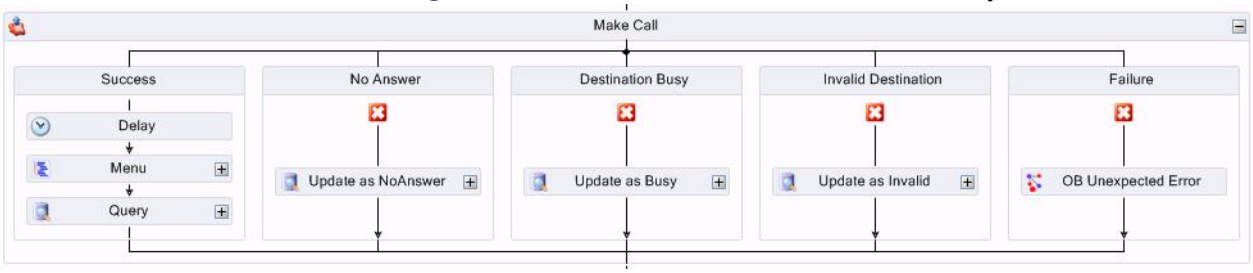
    NOTE: Outbound dialing digits must be programmed in YourSite Explorer for the media server upon which the outbound ports reside. This is configured in YourSiteMedia serversLocation tab.

Configuring the branches of the Make Call activity

If the query is successful, the outbound number variable will populate. The caller is then offered the option to speak with an agent, receive an email with account details, or listen to a message that includes their account balance and due date. If the query is unsuccessful, for example, if you are set up to call back gold-level callers and there are none available in the SQL database table, the failure branch is followed

In the Success branch of the Make Call activity three actions are performed: Delay, Menu, and Query. (See the following figure.)

Figure 9.19: Branches of the Make Call activity

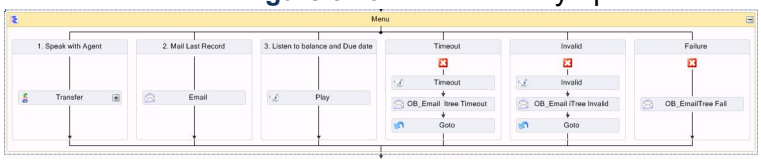


To configure the success branch of the Make Call activity

1. In the **Success** branch of the **Make Call** activity, add and configure properties for a **Delay** activity. The Delay action is used to give the customer time to answer the phone and greet the caller. The delay value is set in seconds.
2. Following the **Delay** activity, add a **Menu** activity.
3. Right-click the **Menu** activity and add the three digit options as follows: 1. Speak with Agent, 2. Mail Last Record, and 3. Listen to balance and due date.

   The customer will be able to select 1 to speak to an agent, 2 to receive an email containing their most recent account information, or 3 to hear a message regarding their account balance and due date. See the following figure.

Figure 9.20: Menu activity options



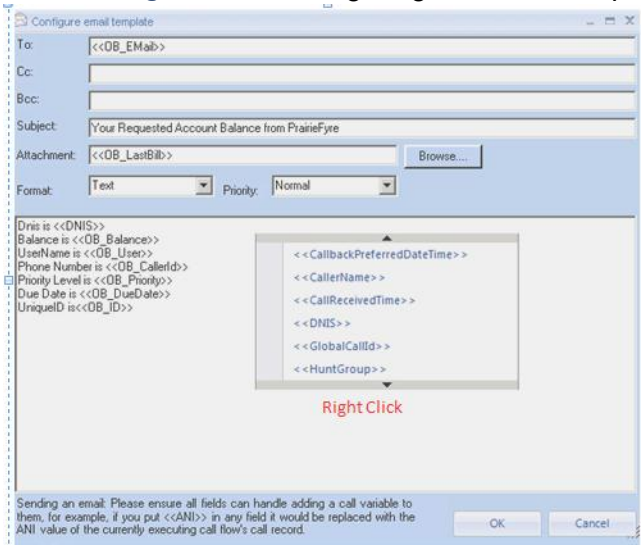
4. Add a **Transfer** activity under option 1, an **Email** activity under option 2, and a **Play** activity under option 3.
5. Configure the **Properties** for the **Transfer** activity. Be sure to set the **Destination** to an ACD path.
6. Configure the **Properties** for the **Email** activity. Select the SMTP Server address from the SMTP servers that were configured in YourSite Explorer during the software installation process.

   For more information, see *"Configuring the SMTP Server"*.
7. Right-click the **Email** activity and select **Edit Email Template**.
8. Right-click in the **Configure email template** window to see a list of available variables.

   NOTE: To ensure the email is sent to the customer, use the variables that were populated previously with the query action.

   See the following figure.

Figure 9.21: Configuring the email template

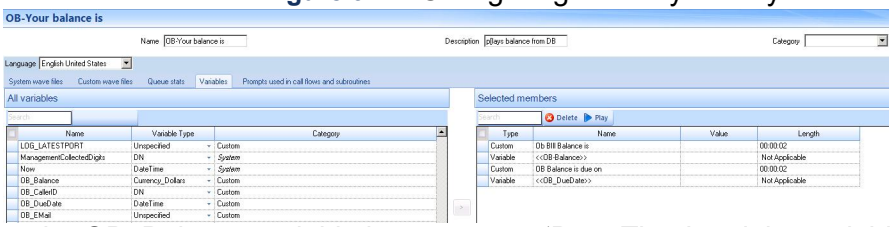


9. Configure the **Properties** for the **Play** activity.
10. Right-click the **Play** activity and select **Greeting prompts > Add a new prompt**.

    The Prompt window opens.
    You will configure the activity to play two custom .wav files and two prompts. The customer will hear their account balance and due date, based on the variables you associate with the prompts.
11. Select the **Variables** tab.

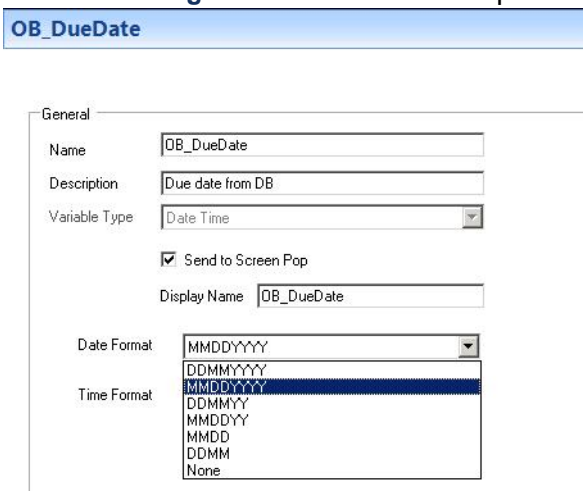
    See the following figure.

Figure 9.22: Configuring the Play activity



In this example, the OB_Balance variable is set as type ‘Date Time’ and the variable OB_Balance is set as type ‘Dollars’. These variables have an associated format type. The variable type ‘Date Time’ must be formatted to suit the variable populated from the database query. The available options display in the following figure.

Figure 9.23: Date format options



12. Select **MMDDYYY** as the **Date Format** for the due date variable (OB_DueDate).

NOTE: The balance due variable (OB_Balance) can have either **Currency Format** selected. The currency format is only used when writing data to a database.

13. Configure the exception branches, **Timeout**, **Invalid**, and **Failure**, as needed.
14. As a final step in configuring the success branch of the Make Call activity, under the **Menu** activity, add a **Query** activity.

    This query updates the SQL table to indicate that the call has been completed, ensuring that number is not called again.

To configure the failure branch of the Make Call activity

1. Under **No Answer**, add and configure a **Query** activity that updates the customer status in the database to 'No Answer' when the customer does not answer the call. The next time this number is selected from the list, the system will attempt to call it again.
2. Under **Destination Busy**, add and configure a **Query** activity that updates the customer status in the database to 'Destination Busy' when the busy signal is encountered. The next time this number is selected from the list, the system will attempt to call it again.
3. Under **Invalid Destination**, add and configure a **Query** activity that updates the customer status in the database to 'Invalid' when the number called is out of service. The next time this number is selected from the list, the system will not attempt to call it.
4. Under **Failure**, add and configure a **Subroutine** activity that advises the Administrator when there are problems with the workflow.

   Adding this subroutine is recommended in order to help error proof the workflow.

After configuring the outbound workflow, associate it to a port. An outbound workflow cannot be associated to a hunt group. See *"Associating workflows to devices"*.

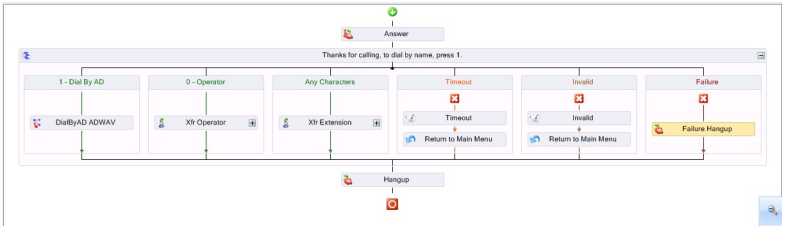
Dial Active Directory workflow configuration

This section demonstrates how to build a workflow that uses an LDAP connection to a Windows Active Directory domain to retrieve phone numbers and transfer the caller to the retrieved extension.

This example is composed of a main workflow and a subroutine that contains an LDAP query. The caller is presented with a menu that prompts them to enter the extension of the party they wish to reach. If they know the extension they can dial it at any time or they can dial by name (by pressing 1) or choose to speak to the operator (by pressing 0). When the caller chooses option 1, the workflow is directed to the Dial By Active Directory (DialByAD) subroutine. Subroutines are recommended when a call process contains many activities or repeating tasks. In this case, the DialByAD subroutine contains several activities. Segregating it from the main workflow simplifies the process.

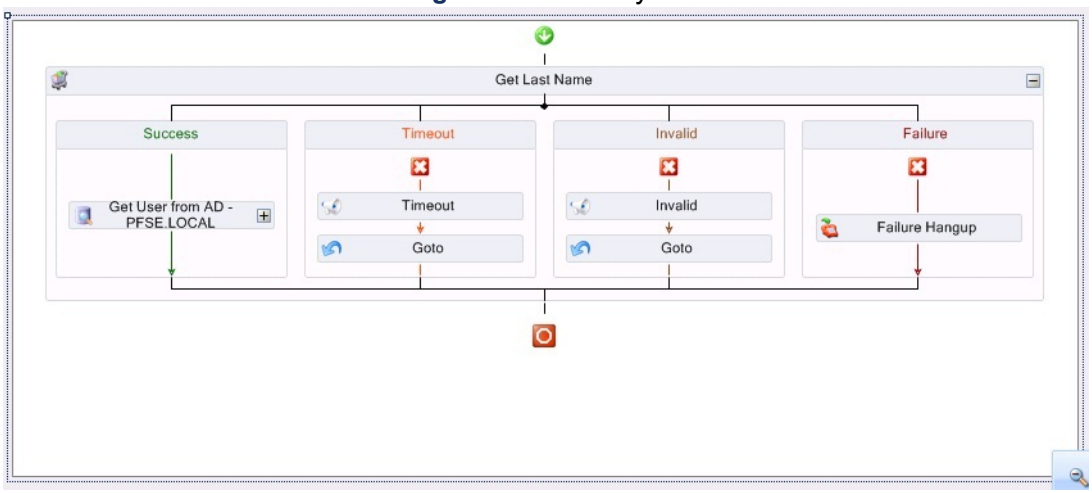
The following figure depicts the final, post-configuration version of the Dial Active Directory workflow.

Figure 9.24: Dial Active Directory workflow



The following figure depicts the final, post-configuration version of the DialByAD subroutine.

Figure 9.25: DialByAD subroutine

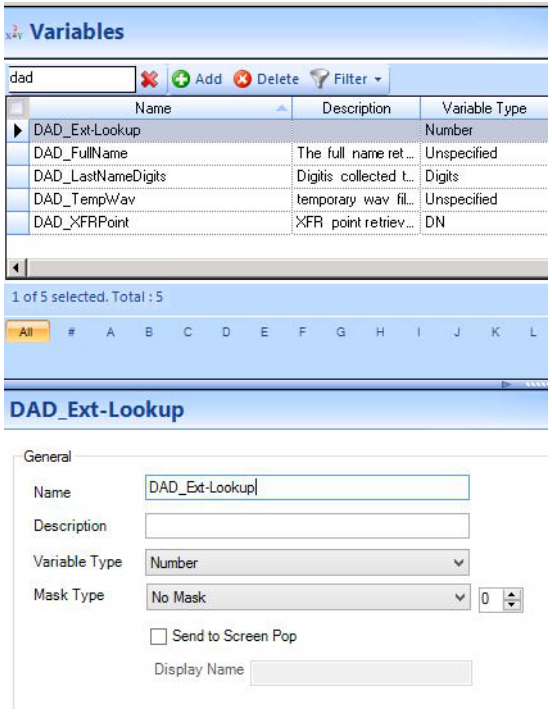


Preliminary configuration

Before creating the workflow, you must configure the required variables and prompts.

Create the following list of variables along with their associated variable type. (See the following figure.)

Figure 9.26: Required variables



After creating the variables, configure applicable prompts as shown in the following table.

Table 9.6: Required prompts

Prompt Name	Script
DialAD – Main Menu	Thank you for calling. If you know the extension of the party you wish to reach, dial it now. To dial by name, press 1. For operator assistance, press 0.
DialAD – Name from Dialpad	Using your touchtone keypad, please type the last name of the person you wish to reach, followed by the pound (#) sign.
DialAD – Did you mean ... **NOTE:** This prompt references the variable DAD_TempWav created earlier	<DAD_TempWav> If this is the person you want to reach, press 1. If not, press star (*).

Creating the main Dial Active Directory workflow

Now that you have created the variables and prompts, you can create the main Dial Active Directory workflow.

1. Click **IVR Routing > Workflows**.
2. Click **Add** and select **Voice > Inbound** as the workflow type from the drop-down list.
3. In the **Properties** pane, configure the workflow properties as needed.
4. Add an **Answer** activity and a **Hang Up** activity onto the Workflows canvas.
5. After the **Answer** activity, add a **Menu** activity.

6. Click **Save**.

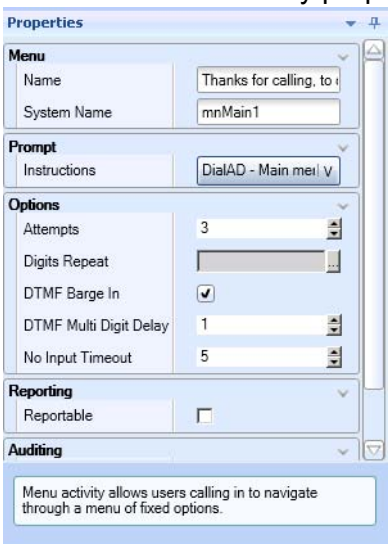
The next step in creating the Dial Active Directory workflow is configuring the Menu activity.

To configure the Menu activity

1. Select the **Menu** activity on the Workflows Canvas and, in the **Properties** pane, configure the Menu properties.
2. Enter an appropriate **Name** for the menu and add a **Prompt** to play a greeting message to the caller (DialAD – Main Menu, as shown in the following table).

   See the following figure for suggested configuration settings.

Figure 9.27: Main Menu activity properties configuration



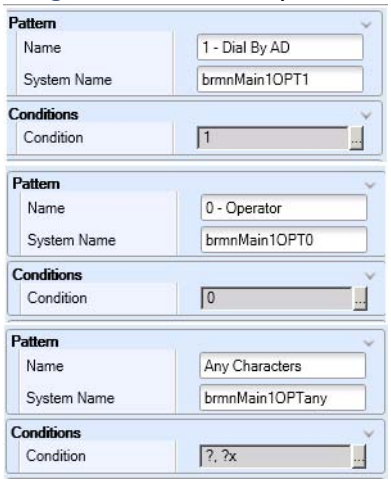
3. Right-click the **Menu** activity and add the three digit options as follows: **1 - Dial by AD**, **0 - Operator**, and **Any Characters**.

   NOTE: The In Between Digit Delay function allows the system to wait for one second (default value) after hearing the first DTMF tone from the caller to see if another digit will be pressed before processing the call.
4. In the **Properties** pane, configure the Menu options.

   NOTE: It is important to give each menu option branch an appropriate name as doing so simplifies the troubleshooting process when interpreting log files.

   See the following figure.

Figure 9.28: Menu option configuration



5. In the **0 – Operator** and the **Any Characters** branches of the menu options, add a **Transfer** activity.
6. Right-click the **Transfer** activity that follows **0 – Operator** and select **Destination**.
7. In the **Properties** pane, after **Destination**, type the extension that reaches the operator in your organization.
8. Right-click the **Transfer** activity that follows **Any Characters** and select **Destination**.
9. Configure the **Destination** as the variable **<<LastMenuCollectedDigits>>**.

   This sets the entry that is received by the Menu activity as the transfer point.
10. Name the **Timeout**, **Invalid**, and **Failure** branches of the **Menu** activity according to best practices. Use the nomenclature **br<PARENT_MENU><OPT>**.

    Following this naming convention simplifies the troubleshooting process when searching through log files. See the following table for an example of best practice naming conventions.
11. Click **Save**.

Table 9.7: Best practice naming convention example

Menu branch	Naming convention
Timeout	brmnMain1OPTTIME
Invalid	brmnMain1OPTINV
Failure	brmnMain1OPTFAIL

Now that the main Dial Active Directory workflow has been configured, the DialByAD subroutine must be configured and added to the overall workflow.

Configuring the DialByAD subroutine

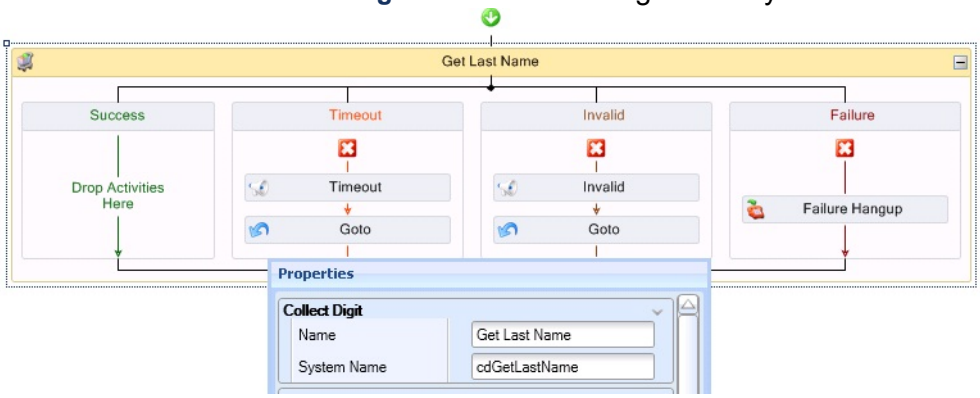
If the caller knows the last name of the person they are trying to reach, they enter the matching digits in their dial pad. The dial pad compare feature is used to support this search function. The first step in being able to access this functionality is to collect the digits. This is done via a Collect Digits activity within the subroutine.

To configure the DialByAD subroutine

1. Click **Subroutines > Add > Voice > Inbound**.
2. In the **Properties** pane, after **Name**, type **DialByAD**.
3. Add a **Collect Digits** activity to the subroutine.
4. Select the **Collect Digits** activity and, in the **Properties** pane, after **Name**, type **Get Last Name** and after **System Name**, type **cdGetLastName**.
5. Configure the **Go To** activities in the **Timeout** and **Invalid** branches to return to the **Get Last Name** Collect Digits activity.

   See the following figure.

Figure 9.29: Collect Digits activity



6. Name the **Success**, **Timeout**, **Invalid**, and **Failure** branches according to best practices, as shown in the following table.

Table 9.8: Best practice naming convention example

Menu branch	Naming convention
Success	brcdGetLastNameSUCC
Timeout	brcdGetLastNameTIME
Invalid	brcdGetLastNameINV
Failure	brcdGetLastNameFAIL

7. Right-click the **Get Last Name** Collect Digits activity and select **Edit Variable Settings**.

   The Collect Digits settings window opens.
8. Select the appropriate options for each value in the Collect Digits settings window.

   The **Variable** should be unique to this workflow and be of the Variable Type **Number**. In this case, the variable **<<DAD_Ext-Lookup>>** is used.

   NOTE: This example uses a greeting that asks the caller to enter the last name of the person they are trying to reach by using their dial pad and pressing pound (#) when finished. The settings and greeting verbiage you choose are dependent on your environment and needs.
9. Click **OK**.
10. Click **Save** to save the subroutine.

This example performs a lookup based on the last name of the employee in Active Directory. However, the procedure can easily be converted to use the first name or a different value altogether. When a caller successfully enters digits they are branched down the Success branch in the Collect Digits activity. In the Success branch, a Query to Active Directory is inserted to search for the requested employee. Prior to this action, a new data provider must be created.

Configuring the LDAP data provider

To configure the LDAP data provider

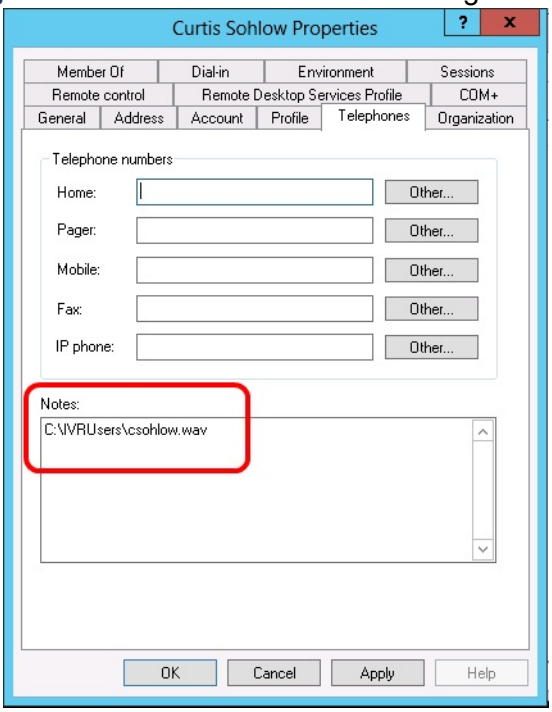
1. Click **Data providers > Add** and select **LDAP** from the drop-down list.
2. Enter the appropriate settings for the Active Directory domain, including a user with read access.
3. Click **Test Connection** to attempt to connect to the domain.

   This example connects to a local domain labeled 'PFSE Domain'.
4. Click **Save**.

Configuring the Active Directory LDAP query

This example queries based on the employee's last name and returns their extension to which the call is then transferred. The Last Name, Display name, and Telephone number fields from the user object in Active Directory are accessed. In addition, the objects will return a .wav file so the names can be read back to the caller. It is suggested that each employee record their name to use as a customized .wav file. In this example, the customized employee name .wav files are stored in the Telephones tab in Active Directory. Note that this location must be accessible from the IVR Routing instance performing the query and readback. (See the following figure.)

Figure 9.30: Customized .wav file storage in Active Directory



To configure the Active Directory LDAP query

1. Add a **Query** activity to the **Success** branch of the **Get Last Name** Collect Digits activity.
2. Select the **Query** activity and, in the **Properties** pane, enter an appropriate **Name** and **System Name**.

   This example uses 'Get User from AD – PFSE.LOCAL' and 'qrPFSEAD' respectively.
3. Name the **Success** and **Failure** branches in adherence with best practices. In this case, Success: **brqPFSEADSUCC** and Failure: **brqrPFSEADFAIL**.
4. Right-click the **Query** activity and select **Edit Database Provider**.
5. In the **Select Connection** window, choose the appropriate provider.

   This example uses PFSE Domain.
6. Right-click the **Query** activity and select **Edit Query Definition**.
7. Under **Query Type**, select **Advanced Query** and, under **Settings**, enter the following query: **select info,telephoneNumber,CN from 'LDAP://PFSE.LOCAL where objectClass='user' AND sn = '@LastName'**.

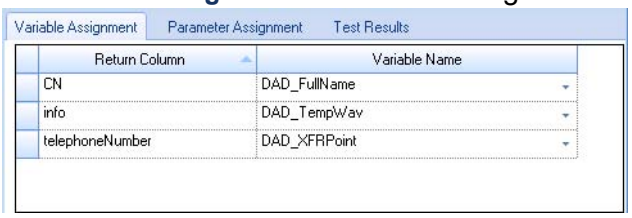
   An advanced query is necessary in this example to enable the return of multiple variables. If there was only a need for a single variable, a simple query would suffice.
8. Click **Execute**.
9. In the **Parameters** window, select the **Value** of '76' for **@LastName** and select the **Use Dialpad Compare** check box.

   The value of '76' is translated into the following when using the dialpad compare feature: p, pn, Po, Q, Qm, Qn, Qo, R, Rm, Rn, Ro, S, Sm, Sn, So.
10. Click **Run**.

    The command runs and the Database Lookup window for the Advanced Query opens.
11. Confirm correct configuration by clicking the Test Results tab and checking the **info** column to ensure the expected result(s) were returned.
12. In the **Variable Assignment** tab, select appropriate variables for the returned values.

    In this example, CN is used for the common name of the Active Directory object (display name in Active Directory) and telephoneNumber for the extension of the user being queried. The information from the Telephones tab is also returned as it contains the location of the .wav file to be played. (See the following figure.)

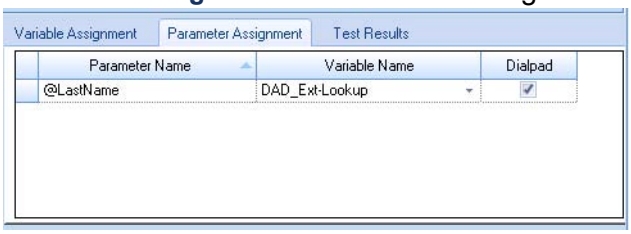
Figure 9.31: Variable assignment



13. In the **Parameter Assignment** tab, select the variable that was populated in the Collect Digits activity, 'cdGetLastName'. In this case, **DAD_Ext-Lookup**.

    Configuring the parameter assignment with a variable replaces the query with the appropriate run-time information. (See the following figure.)

Figure 9.32: Parameter Assignment



Configuring the Success branch of the query

Now that information has been retrieved via the LDAP query, the process loops through the results until the correct one is found. The customized employee name .wav file is played and the caller is asked if that is the individual they want to reach. Once the correct name is found, the caller is transferred to that destination and the workflow is terminated.

To configure the Success branch of the query

1. Add a **Menu** activity into the **Success** branch of the **Query** activity (**Get User from AD – PFSE.LOCAL**).
2. Select the **Menu** activity and, in the **Properties** pane, enter appropriate information for the **Name** and **System Name**.

   This example uses 'Did you mean…?' and 'mnDidYouMeanQ', respectively.
3. Under **Prompt**, in the **Properties** pane, select **Existing Prompt** from the drop-down list and choose the prompt called **DialAD – Did you mean …**
4. Right-click the **Menu** activity and add a digit option for **1**.
5. Name the **Menu** branches in accordance with best practices, as shown in the following table.

Table 9.9: Best practice naming convention example

Menu branch	Naming convention
1	brmnDidYouMeanQOPT1
Timeout	brmnDidYouMeanQTIME
Invalid	brmnDidYouMeanQINV
Failure	brmnDidYouMeanQFAIL

6. In the **Failure** branch, add **Hang Up** activity
7. In the **Timeout** and **Invalid** branches, remove the default **Play** and **Go To** activities.
8. Removing these activities ensures that if the returned employee extension is not the correct one, the parent Query activity will move on to the next result found and offer it to the caller instead.
9. In the Digit option **1** branch, add a **Play** activity, a **Transfer** activity, and a **Hang Up** activity.
10. Name the activities, according to best practices, as shown in the following table.

Table 9.10: Option 1 activity naming example

Activity	Name	System Name
Play	Transferring your call	pfTransferring
Transfer	Xfr To Extension	xfrToExt
Transfer Branch	Failure	brxfrToExtFAIL
Hang Up	Hangup After Transfer	hgTransfer

11. Choose an applicable prompt for the **Play** activity.

    This example uses a prompt called 'DAD – Transferring' that plays a .wav file that says: 'Transferring your call now.'
12. Right-click the **Transfer** activity and select **Destination**.
13. In the **Select a device** window, select **Variable** and choose the appropriate variable assigned in the LDAP query.
14. Click **Save**.

Synchronizing IVR Routing Servers

IVR Routing servers across your enterprise are synchronized so that saved changes made to one or more remote servers are automatically applied to other servers. The IVR Sync status column in YourSite Explorer enables you to monitor synchronization across servers after saving changes to media servers, workflows, and subroutines. Prompts show synchronization status directly on the Prompts page.

All synchronization information displays in real-time. If synchronization is unsuccessful, a message displays in all applicable IVR Sync Status columns and in the device page header. Detailed information also displays in YourSite Explorer's RSS feed. For more information on alarms in MiContact Center Business, see *"Monitoring and alarming subsystem" on page 1*. For information on specific alarm messages, consult the following Mitel Knowledge Base article: http://micc.mitel.com/kb/KnowledgebaseArticle51286.aspx.

Only one set of pending changes to a specific device can be saved at any time. If another user saves changes to the same device you are updating, before you save your changes, you will see the synchronization in YourSite Explorer and will receive an error message when attempting to save your changes. In these instances you must refresh YourSite Explorer after the other user's changes have been saved and synchronized. You may then re-enter and save your changes. We recommend you save changes to IVR Routing devices frequently, in order to avoid losing work.

Thee following table lists the IVR Routing synchronization states and the corresponding messages in each device's IVR Sync Status column. The same information displays in the device page header.

NOTE:

- If synchronization does not complete in one minute's time, you receive the synchronization failure message as listed in the following table.
- Only media servers running IVR Routing display the IVR Sync Status column.
- Prompts show synchronization status only when you add a new custom .wav file to an existing prompt. Otherwise, the synchronization status on the Prompts page displays as 'Sync Completed'.

Table 9.11: Synchronization state and IVR Sync Status messages by device

Synchronization state	IVR Sync Status Message	Device
No synchronization taking place	Sync Completed	All
Currently synchronizing	Syncing IVRs X/Y Completed Synching <device name>	Workflow, prompt, subroutine Server
All servers are synchronized	Sync Completed	All
Synchronization failure	Failed <device name> 'Sync Incomplete. See the Server page to view the Status of Remove Servers.	Server Workflow, prompt, subroutine
IVR Routing Service disruption	IVR services are stopped or the server is offline	All

Configuring IVR Routing for hot fixes

Hot fixes are applied on the Enterprise Server and, if the hot fix applies to client applications, it is then distributed to remote clients via the MiContact Center Updater Service.

When you apply a hot fix to a single server configuration of IVR Routing, your extensions will become unavailable until the hot fix is complete. If you are running an IVR Routing configuration with one or more Remote Servers, however, you can distribute your extensions between your Enterprise Server and Remote Servers both before and during the application of the hot fix to minimize the impact on your contact center and preserve contact center functionality.

NOTE: You must close all instances of YourSite Explorer before installing a hot fix on the Enterprise Server, including instances of YourSite Explorer on Remote Servers. This ensures that Remote Servers are updated successfully.

For more information on IVR;Routing's possible configurations, see *"Appendix F"*.

Applying a hot fix in a single server configuration

When applying a hot fix on a single server configuration of IVR Routing, you download the hot fix and then run it.

For more information on single server configurations, see *"Resilient Configuration"*.

CAUTION: While the hot fix is being applied, all active calls in your contact center will be lost. In a single server configuration, your IVR Routing extensions will be unavailable during the update process (approximately up to 30 minutes).

To apply a hot fix on a single server configuration of IVR Routing

1. Run the hot fix.
   If you have any active calls in queue, you will receive a pop-up warning that they will be dropped during the installation.

2. Follow the installation wizard's instructions.

Applying a hot fix in a single Remote Server configuration

If IVR Routing is configured with a single Remote Server, you can minimize contact center functionality loss while applying a hot fix.

Hot fixes are applied to your Enterprise Server first and then to Remote Servers. By moving extensions back and forth between your Enterprise Server and your Remote Server during the update process, you can minimize the loss of your contact center functionality by keeping your extensions on the server that is not currently being updated with a hot fix. The amount of time it takes to move extensions from your Enterprise Server to your Remote Server depends on the distance between your servers and the network communication speeds between them.

NOTE: You must close all instances of YourSite Explorer before installing a hot fix on the Enterprise Server, including instances of YourSite Explorer on Remote Servers. This ensures that Remote Servers are updated successfully.

For more information about single Remote Server configurations, see *"Redundant Configuration"*.

To apply a hot fix on a single Remote Server configuration

CAUTION: Queue statistics will not be available while running the hot fix. If you have any conditions or announcements based on Mi Contact Center Business data, these will not function during the hot fix application.

1. Run the hot fix.
2. Follow the installation wizard's instructions.
3. Once the hot fix on the Enterprise Server is complete, click **Finish**.
4. In YourSite Explorer, disable the **This is a remote port** check box for the extensions on the Remote Server.

   The extensions relocate to the Enterprise Server. The hot fix is automatically applied to the Remote Server.
5. When the hot fix is finished installing on the Remote Server, in YourSite Explorer, enable the **This is a remote port** check box for each extension that was originally located on the Remote Server before applying the hot fix.
6. Click the browse button beside the **Remote Server** field.
7. Select your Remote Server.
8. Click **OK**.

   The extension will be moved back to your Remote Server.

Applying a Hotfix to a MiContact Center Business in High Availability or Upgrading to a Later Release

See the Neverfail documentation and the MiContact Center documentation for detailed instructions on how to upgrade.

The Neverfail procedures are documented in the location:
https://support.neverfail.com/hc/en-us/articles/115004919367-How-to-Update-Applications-on-a-Trio-of-Servers-When-Neverfail-Heartbeat-Engine-is-Installed

When a pair of servers are in a high availability environment, the following sequence of events occurs:

- The secondary MiContact Center Business is made active (which stops the MiContact Center Business on the primary) and the Continuity Engine is stopped on both servers.
- The secondary MiContact Center Business is upgraded and stopped.
- The primary MiContact Center Business is made active.
- The primary MiContact Center Business is upgraded.
- The Continuity Engine is started on both servers.

When a trio of servers are in a high availability environment, the following sequence of events occurs:

- The secondary MiContact Center Business is made active (which stops the MiContact Center Business on the primary). The tertiary MiContact Center Business is already stopped and the Continuity Engine is stopped on all three servers.
- The secondary MiContact Center Business is upgraded and stopped.
- The tertiary MiContact Center Business is made active.
- The tertiary MiContact Center Business is upgraded and stopped.
- The primary MiContact Center Business is made active.
- The primary MiContact Center Business is upgraded.
- The Continuity Engine is started on all three servers.
  See the *MiContact Center Installation and Administration Guide* for instructions on upgrading MiContact Center Business.

When IVR Routing is part of a configuration with multiple Remote Servers, you can apply a hot fix with either a partial or minimal loss of contact center functionality during the update. Hot fixes are applied to Enterprise Servers first and then to Remote Servers. By moving extensions back and forth between your Enterprise Server and your Remote Server during the update process, you can limit or minimize the loss of your contact center functionality by keeping your extensions on the server that is not currently being updated with a hot fix. The amount of time it takes to move extensions from your Enterprise Server to your Remote Server depends on the distance between your servers and the network communication speeds between them.

With multiple Remote Servers, this can be a time consuming process. By accepting some loss of contact center functionality during the hot fix, you can minimize the time spent configuring and shifting IVR Routing's extensions between your Enterprise Server and your Remote Servers during the update process. Alternatively, you can shift all extensions between the Enterprise Server and the Remote Servers during the application of the hot fix, losing none of your contact center functionality during the application of the hot fix.

NOTE: You must close all instances of YourSite Explorer before installing a hot fix on the Enterprise Server, including instances of YourSite Explorer on Remote Servers. This ensures that Remote Servers are updated successfully.

For more information about multiple Remote Server configurations, see *"High Availability Configuration"*.

To apply a hot fix to a multiple Remote Server configuration with a partial loss of service

1. Open YourSite Explorer.
2. Select **IVR Routing > Extensions**.

3. For each IVR Routing extension on your Enterprise Server, under **Port State**, enable the **This is a remote port** check box.

   NOTE: For ease of reassigning extensions to their original configuration, it is recommended that you note the original configuration of your extensions before re-assigning them between the remote and Enterprise Servers.
4. Click the browse button beside the **Remote Server** field.
5. Select a Remote Server.
6. Click **OK**.

   The extension moves to your Remote Server.
7. Click **Save** in the ribbon.
8. Run the hot fix.

   If you have any active calls, you will be warned that they will be dropped during the installation.

Follow the installation wizard's instructions.

In YourSite Explorer, disable the **This is a remote port** check box for the extensions on the Remote Server that were originally on the Enterprise Server.

The extensions relocate to the Enterprise Server. The hot fix is automatically applied to the Remote Server.

CAUTION: When you start applying the hot fix on your Remote Servers, you will lose any current calls to your contact center that are using the extensions on your Remote Servers. These IVR Routing extensions will remain unavailable during the update process (up to approximately 30 minutes).

Allow the MiContact Center Updater Service to update the Remote Servers.

To apply a hot fix to a multiple Remote Server configuration with a minimal loss of service

1. Open YourSite Explorer.
2. Select **IVR Routing > Extensions**.
3. For each IVR Routing extension on your Enterprise Server, under **Port State**, enable the **This is a remote port** check box.

   NOTE: For ease of reassigning extensions to their original configuration, it is recommended that you note the original configuration of your extensions before re-assigning them between the Remote and Enterprise Servers.
4. Click the browse button beside the **Remote Server** field
5. Select a Remote Server.

   NOTE: It is easier to put the Enterprise Server extensions on a single Remote Server but you can distribute them amongst your Remote Servers if you choose.
6. Click **OK**.

   The extension moves to your Remote Server.
7. Click **Save** in the ribbon.
8. Run the hot fix.

   If you have any active calls, you will be warned that they will be dropped during the installation.

Follow the installation wizard's instructions.

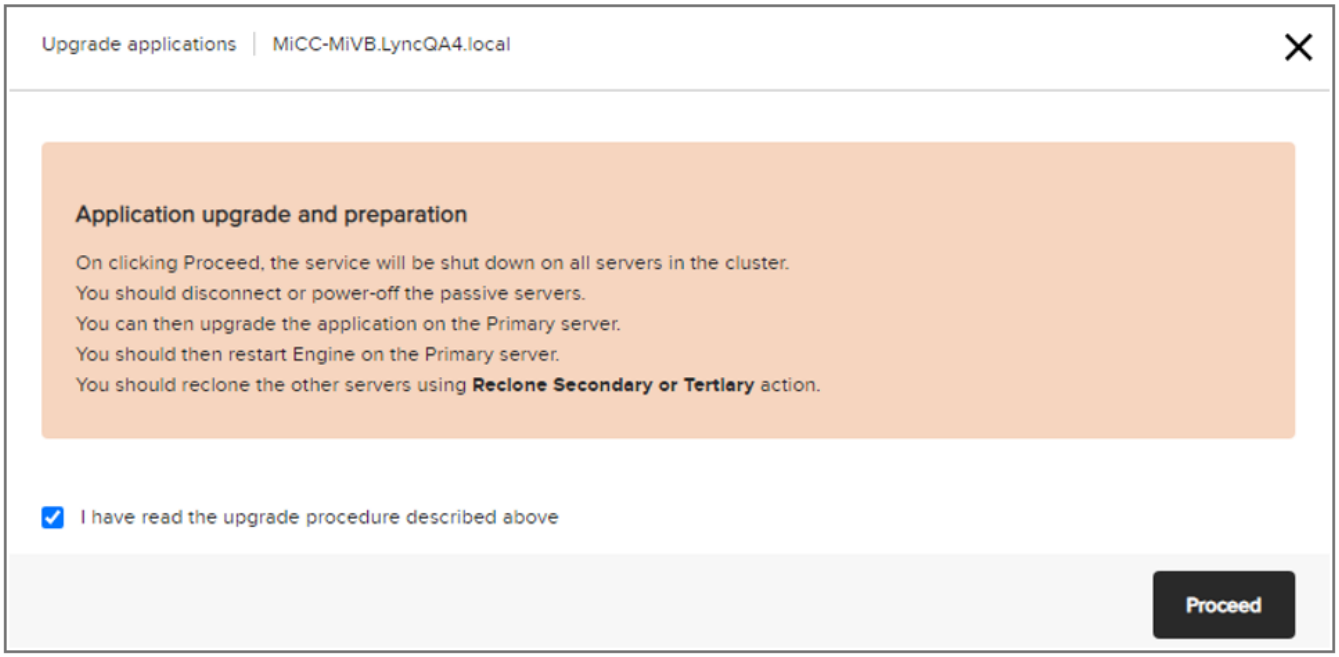
1. In YourSite Explorer, disable the **This is a remote port** check box for the extensions on the Remote Servers.
   The extensions relocate to the Enterprise Server. The hot fix is automatically applied to the Remote Server.
2. When the hot fix is finished installing on the Remote Servers, in YourSite Explorer, enable the **This is a remote port** check box for each extension that was originally located on the Remote Server before applying the hot fix.
3. Click the browse button beside the **Remote Server** field.
4. Select your Remote Server.
5. Click **OK**.

   The extension will be moved back to your Remote Server.
6. Repeat steps 11-14 for the other extensions from the Remote Server until all extensions are returned to their original configuration.

Upgrading applications and Reclone Secondary or Tertiary server in Neverfail

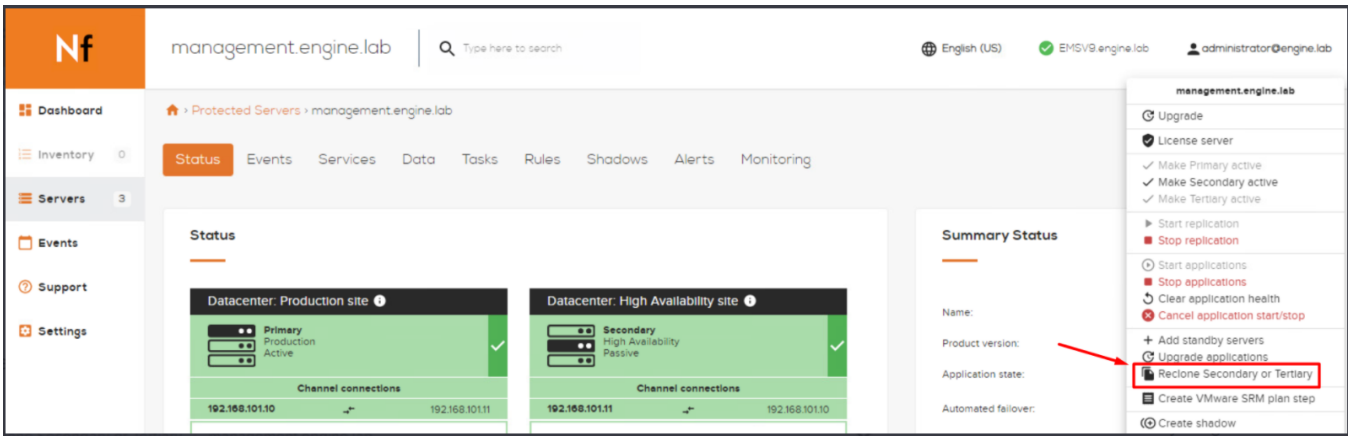
To upgrade applications in Neverfail software

1. From **Actions** menu, click **Upgrade applications**.
   NOTE: This activity shuts down the Neverfail Engine.
   The Application Upgrade window is displayed, follow the instructions in the window. The "You can then upgrade the application…" comment in the window below applies to an upgrade/full install/hotfix.



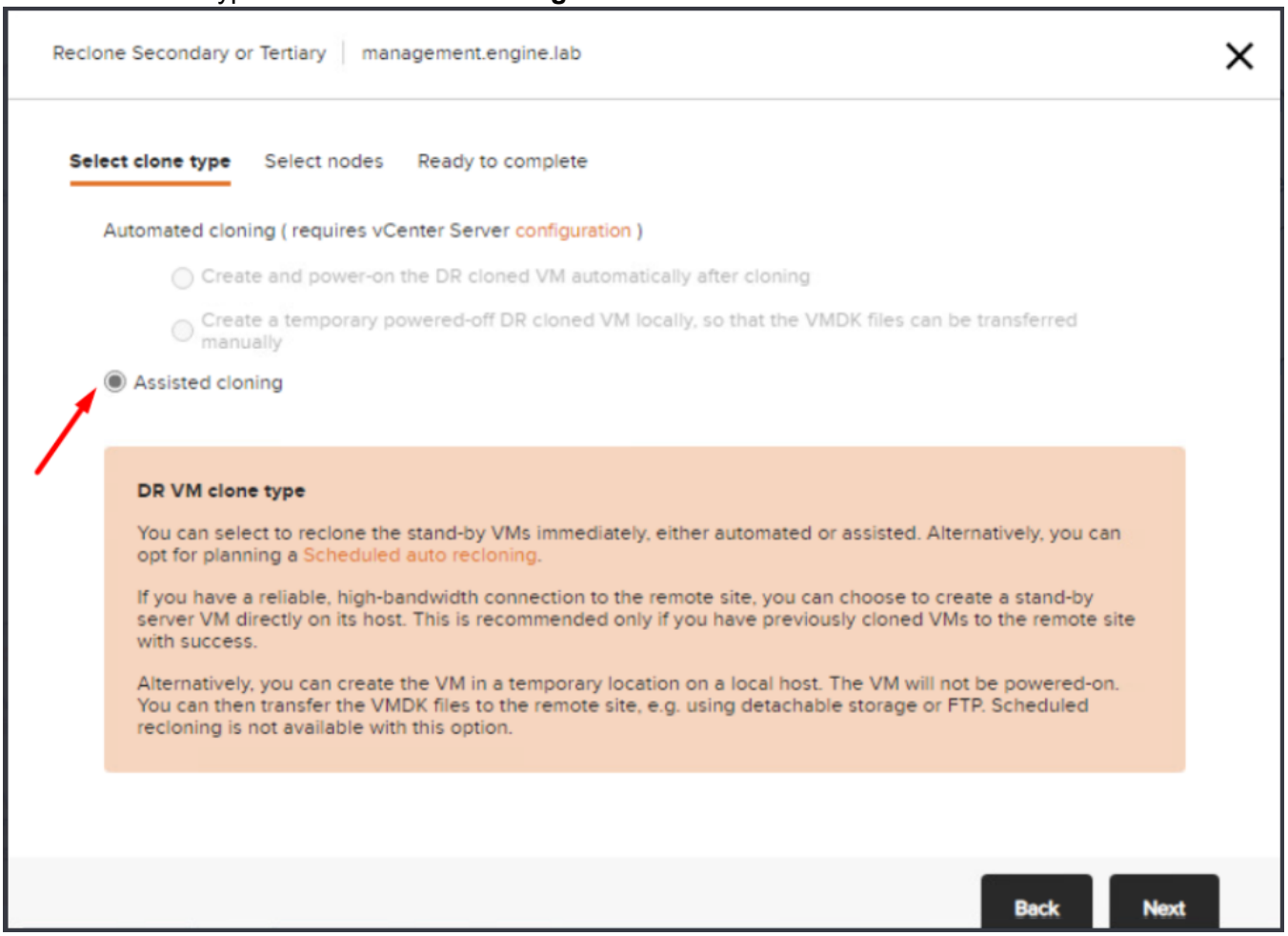
To Reclone Secondary or Tertiary server

1. Login into the Neverfail Engine Management Server (EMS) console and select the Primary server to be cloned. Click the **Actions**button and then click the**Reclone Secondary or Tertiary**option in the menu.

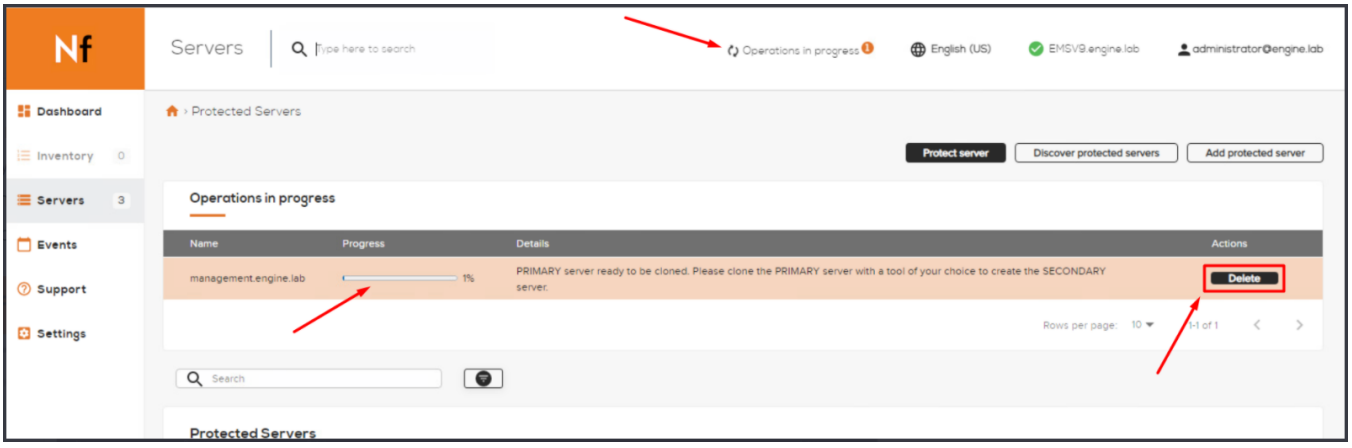


NOTE: Please be aware that this first step is essential. If this first step is omitted then we will simply end up creating a copy of the Primary server instead of creating a secondary server.

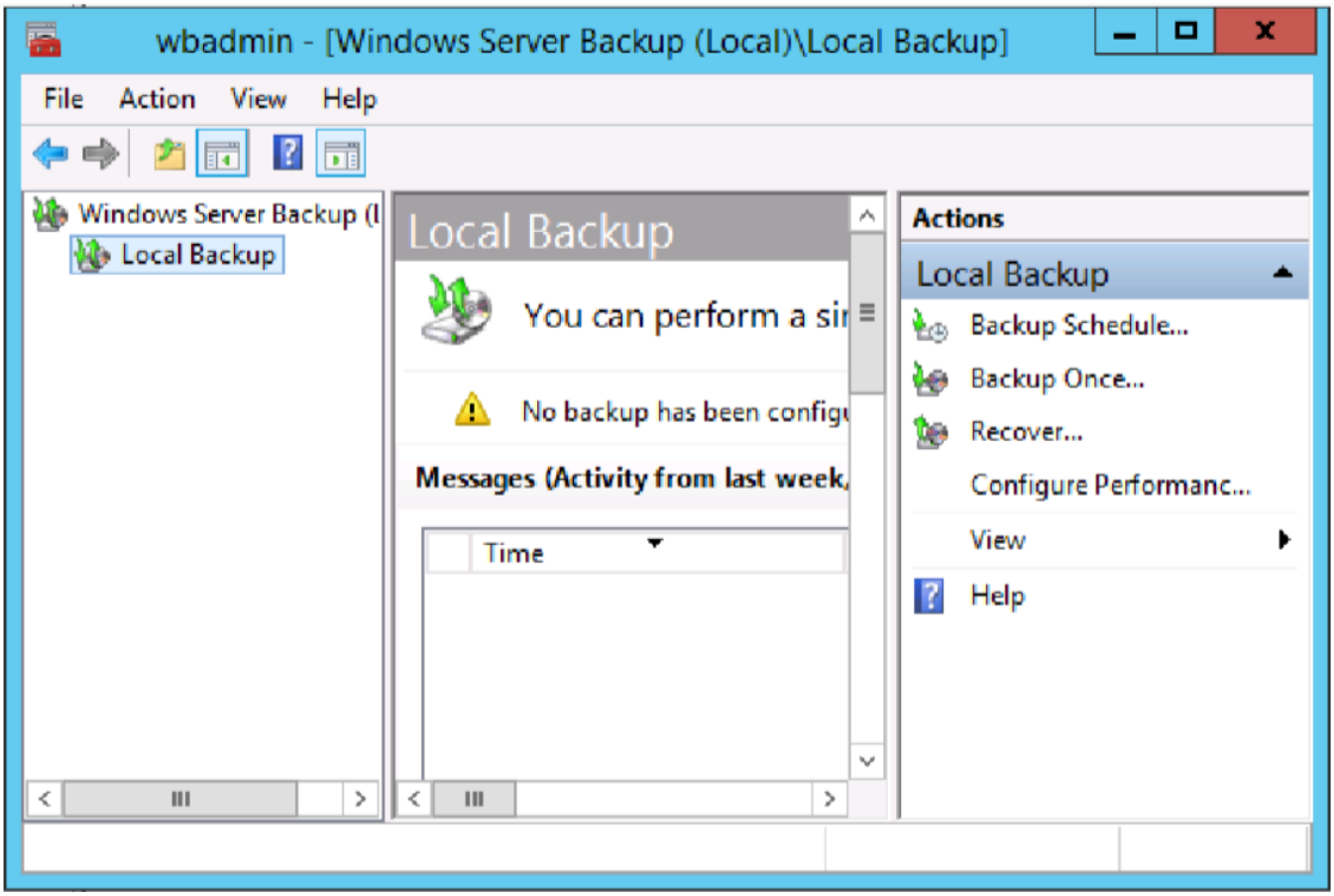
2. Select clone type to be **Assisted Cloning**.



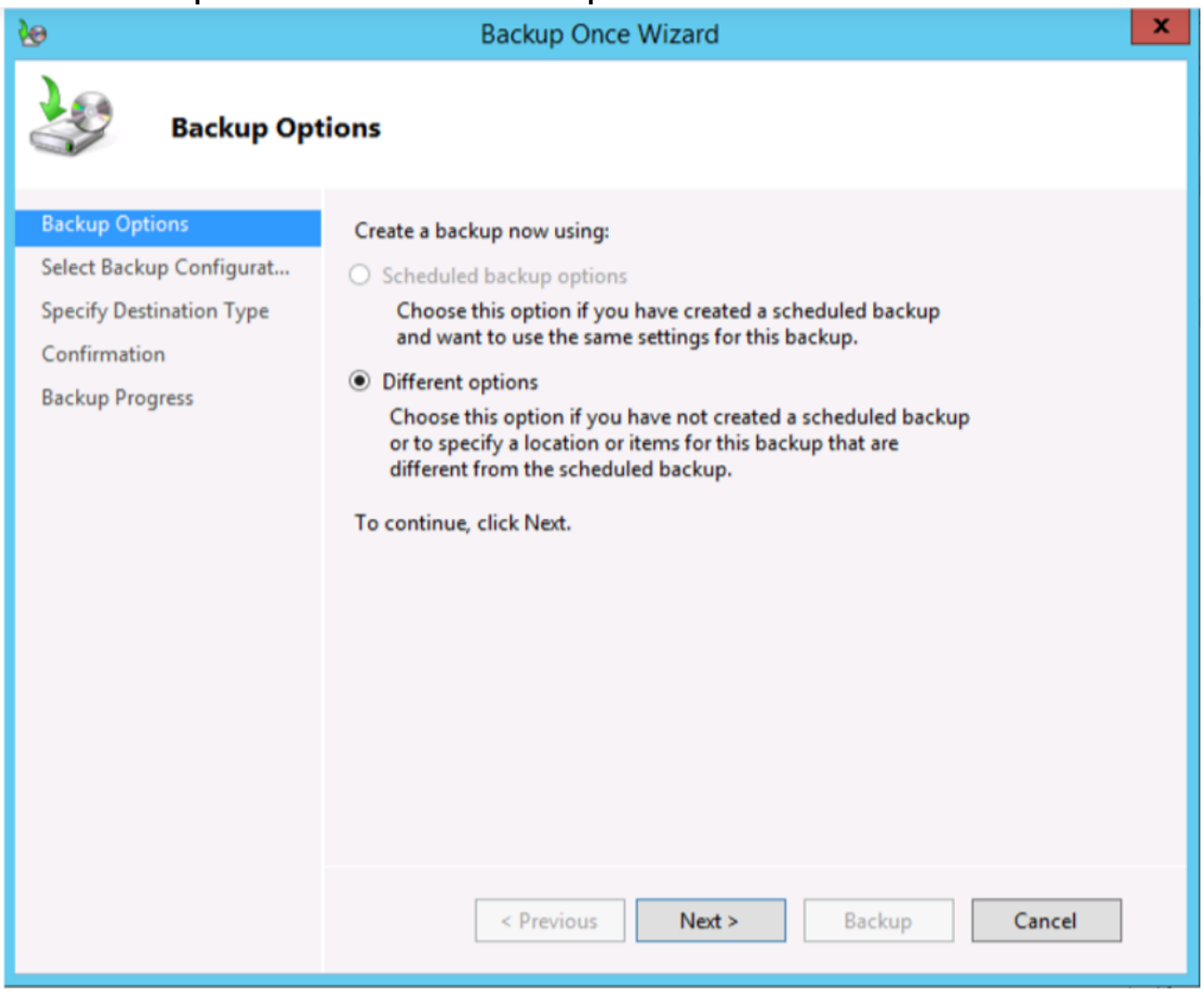
3. We now must wait until the Primary server is reconfigured in order to be ready for cloning. This is displayed in EMS as below. Please focus on the **Operations in progress** status and on the **Progress Bar** showing the reconfiguration of the Primary server. When this is completed the **Delete** button will become available.



4. When the Primary server is ready to be cloned, please launch **Windows Server Backup** and select **Local Backup** then click **Backup Once.**

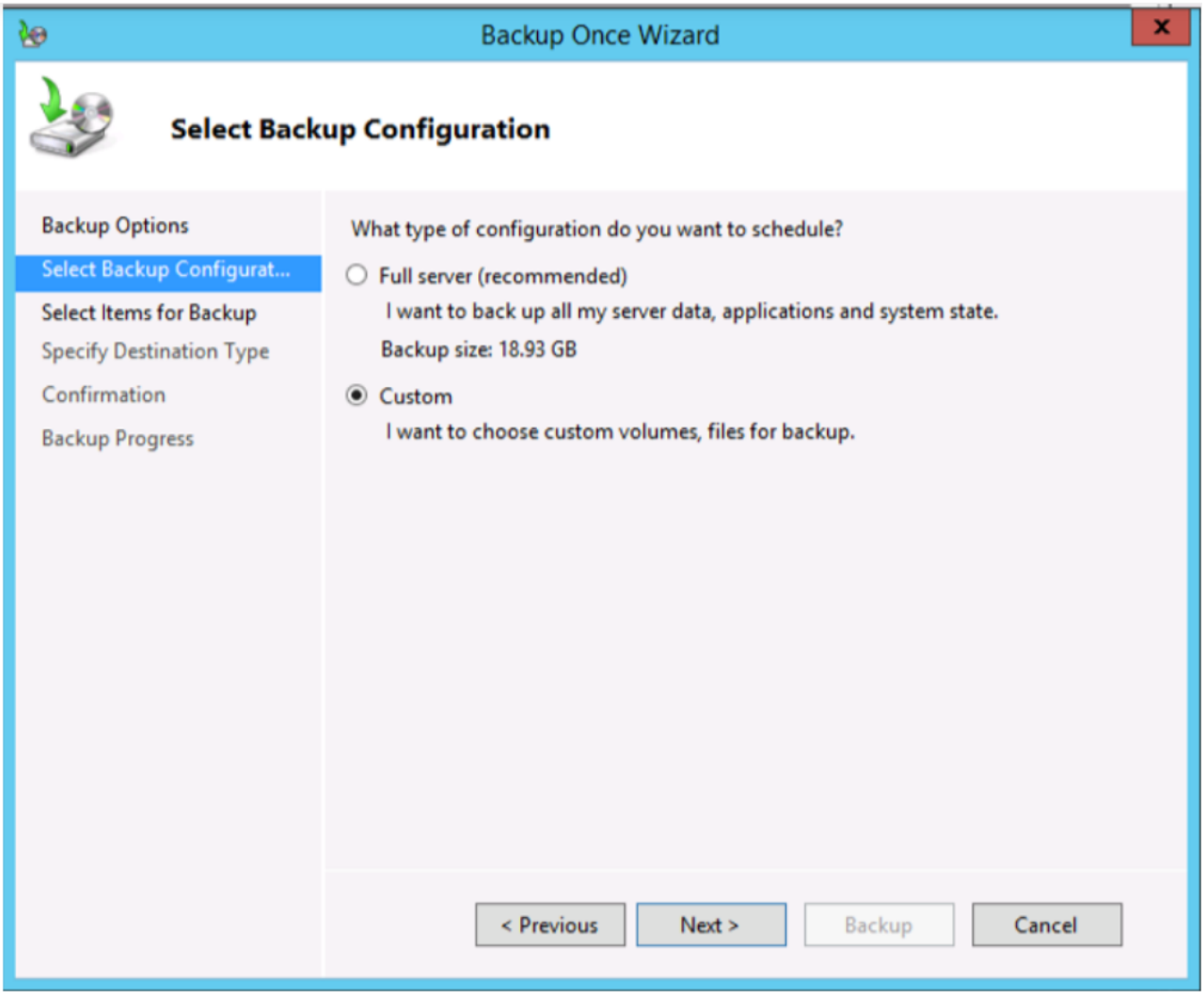


5. In the **Backup Once Wizard** select **Different options** and click **Next**.

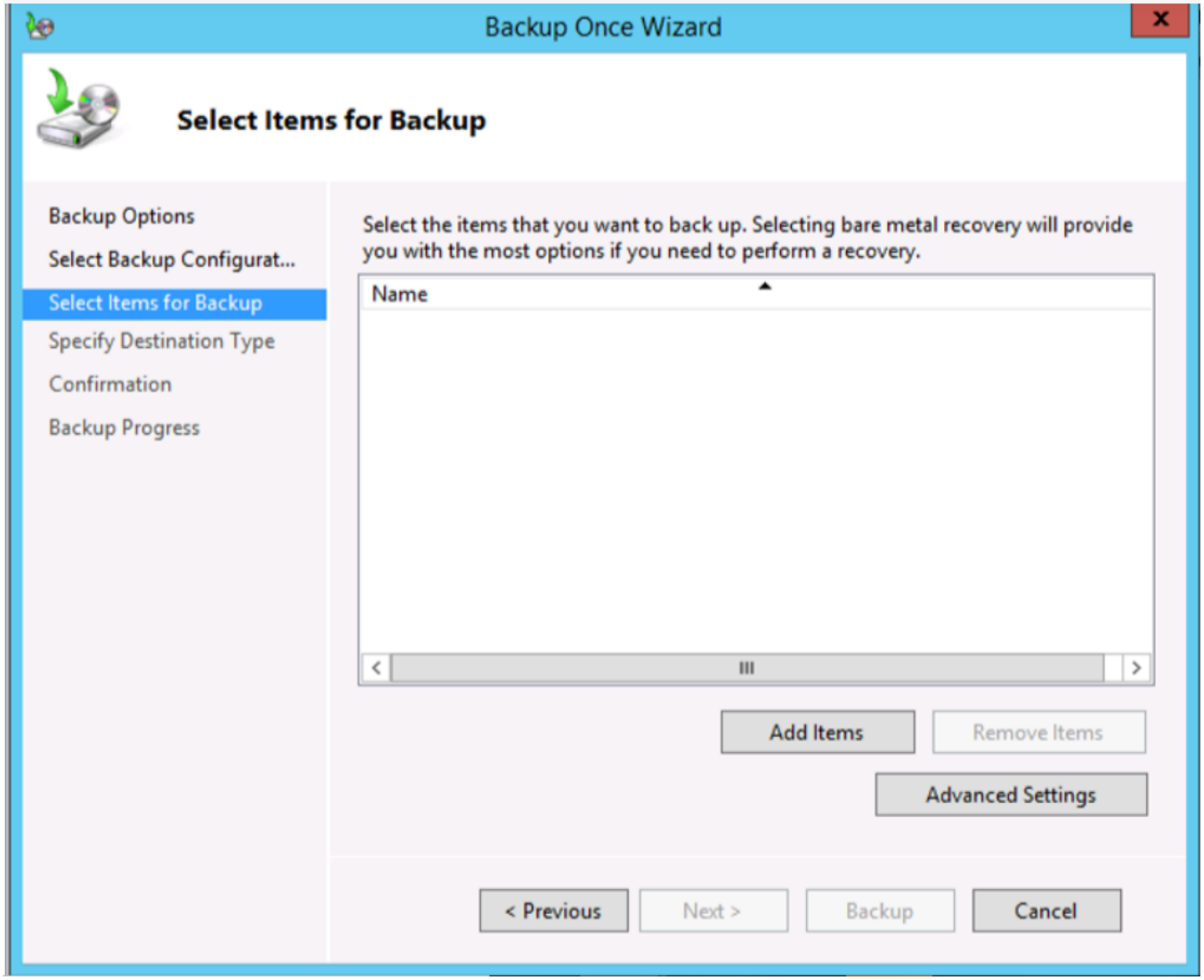


6. In the next window select **Custom**. Be sure Not to select "**Full server**" as this may result in a huge backup file. There is no need to include in the backup the data which will be replicated by Engine from

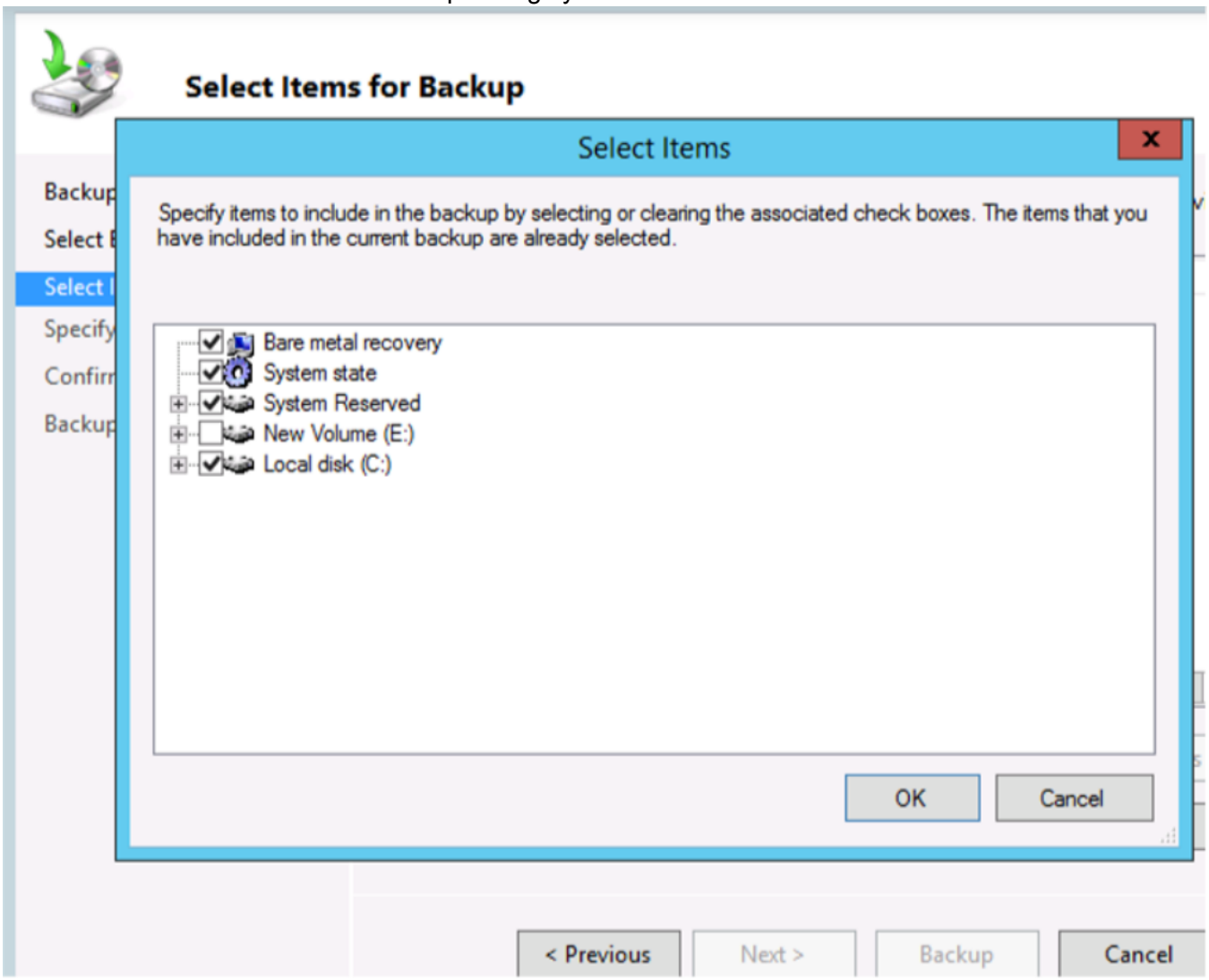
Primary to Secondary once the Secondary server is up and running.



7. Click **Next** and choose **Select Items for Backup**. Click on **Add items**.

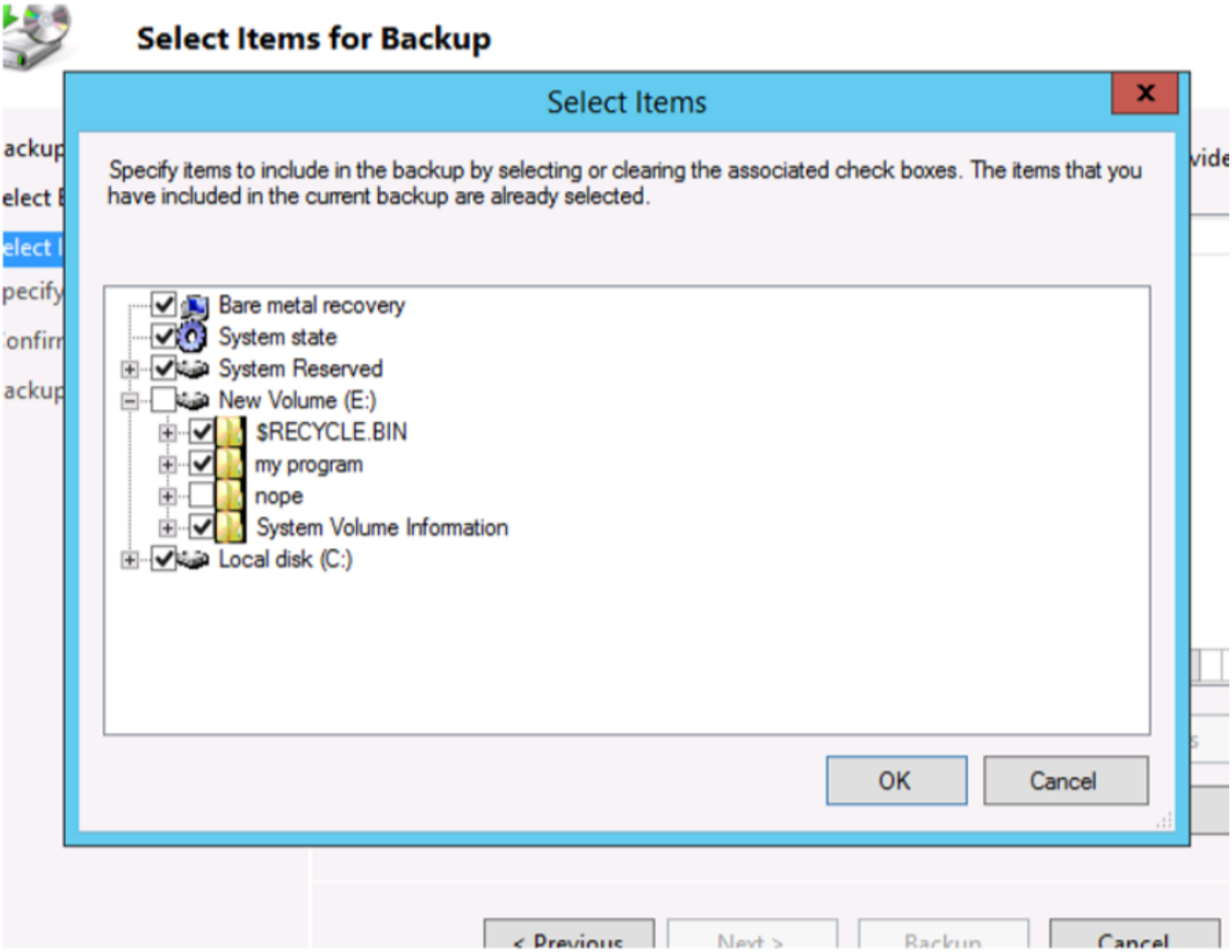


8. In **Select Items**, check/enable the **Bare metal recovery**. This is essential. When you check this option then other options will be automatically checked for you: **System state**, **System reserved**, and all critical volumes which contain operating system files.

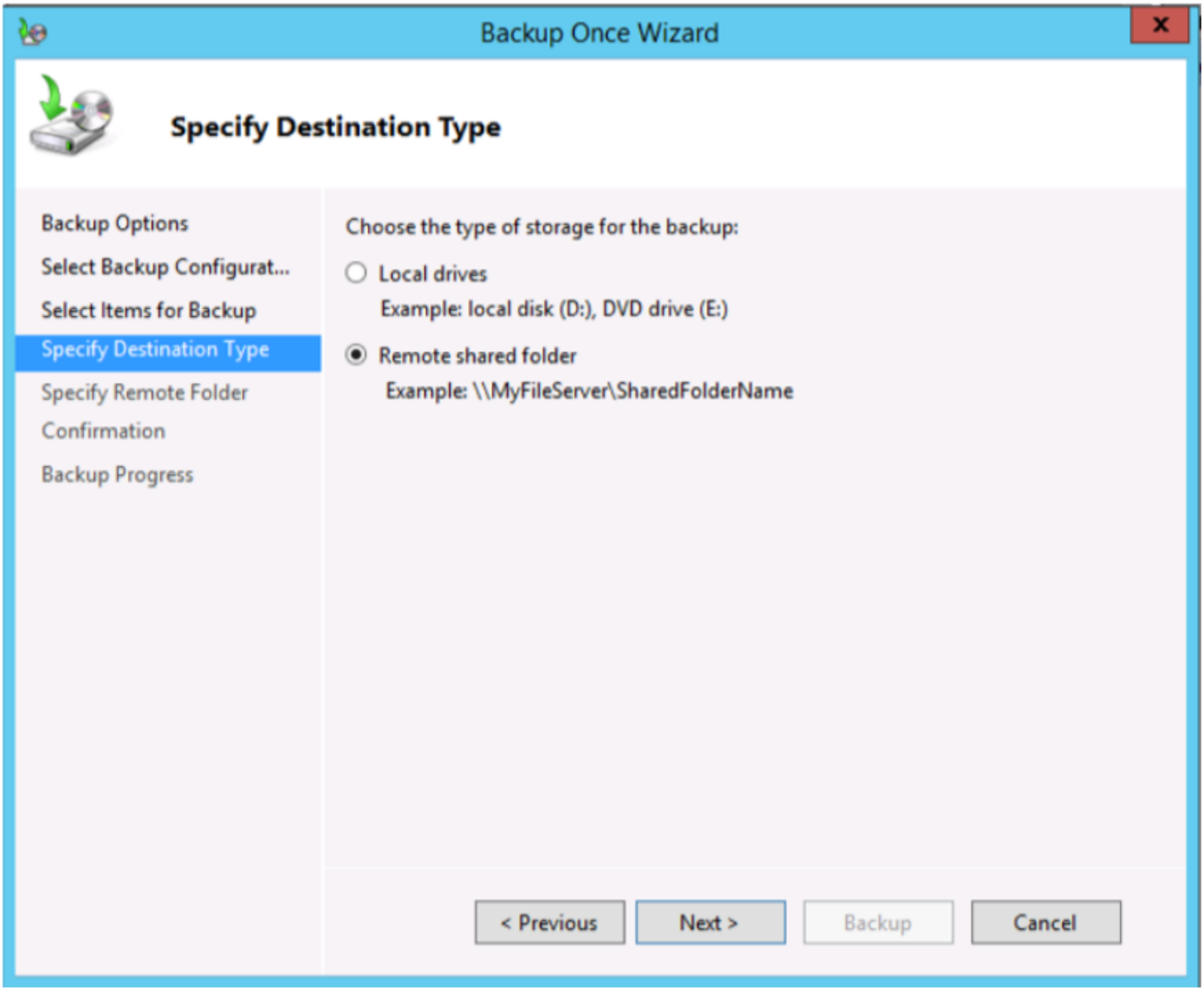


9. Notice that other driver (like E: in this case) was not automatically selected because this volume does not contain OS files. However there is other content on E: which might need to be included, for example if there's a "Program Files" folder because this contains application binaries. When done

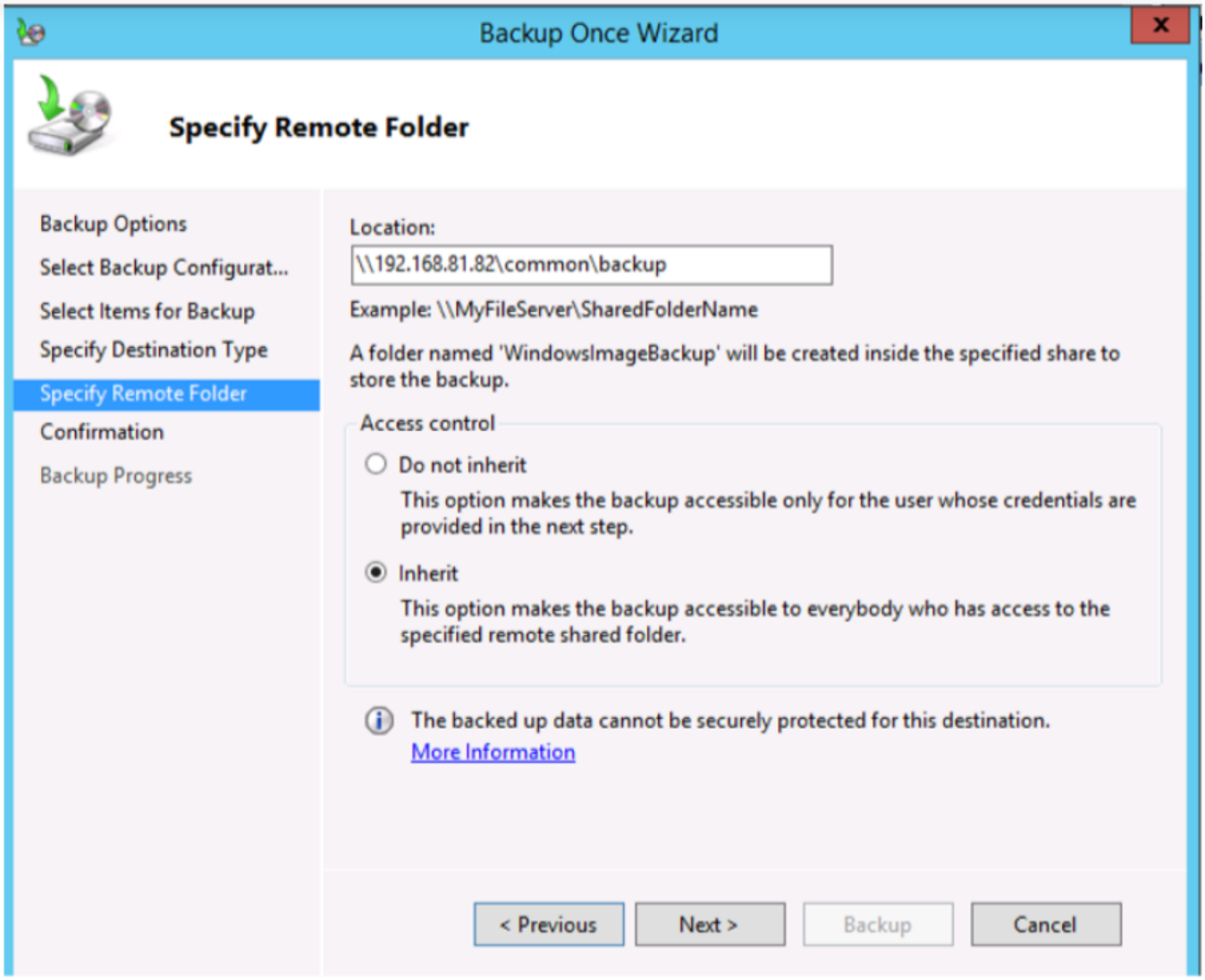
selecting items, click **OK.**



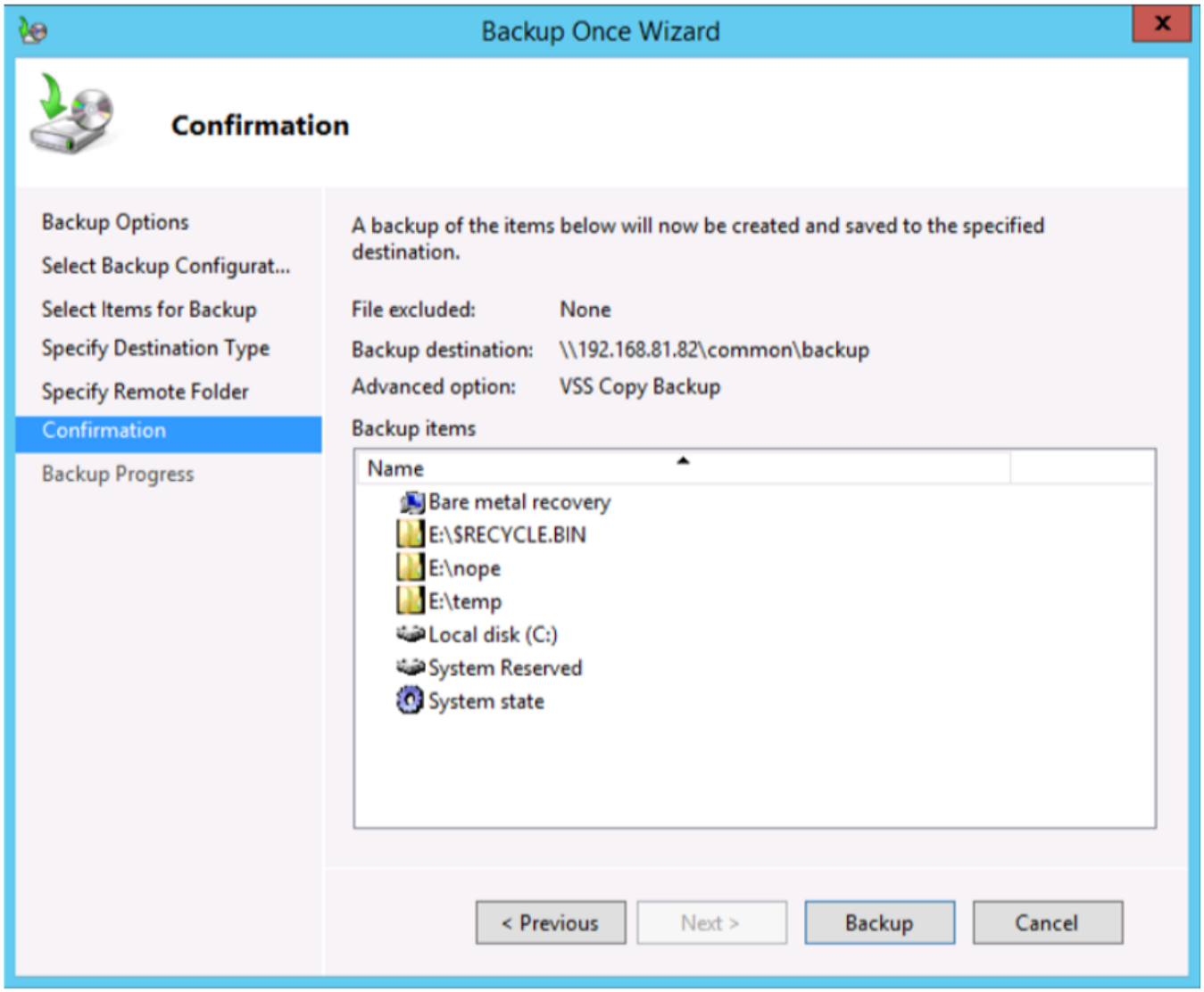
10. Specify a destination type where the backup file will be saved. In this example we will backup to a directory on a network share for convenience. The backup file created on the Primary server can be also saved on an external disk too.



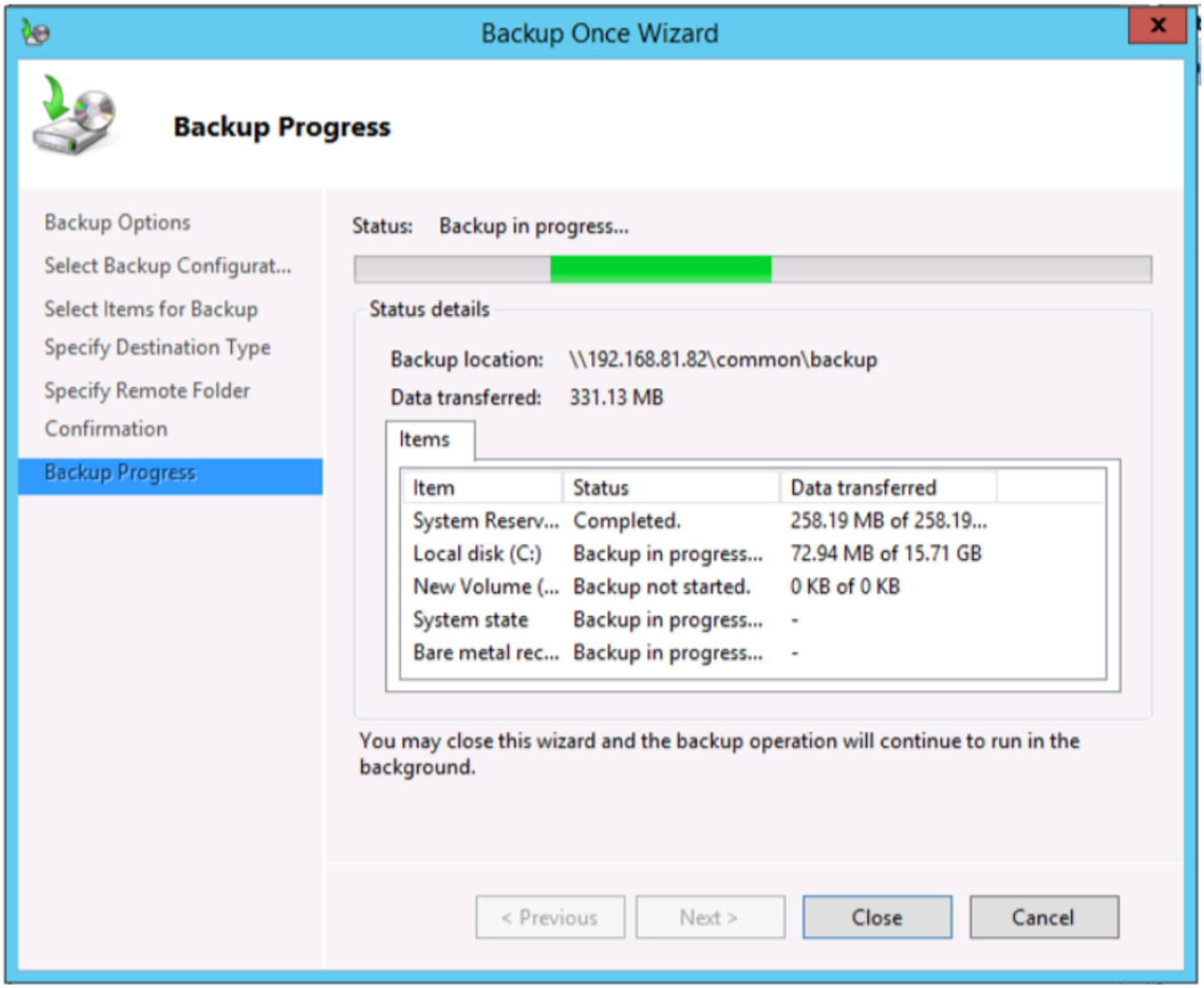
NOTE: The network share or the external disk will need to be accessible during the restore on the Secondary.

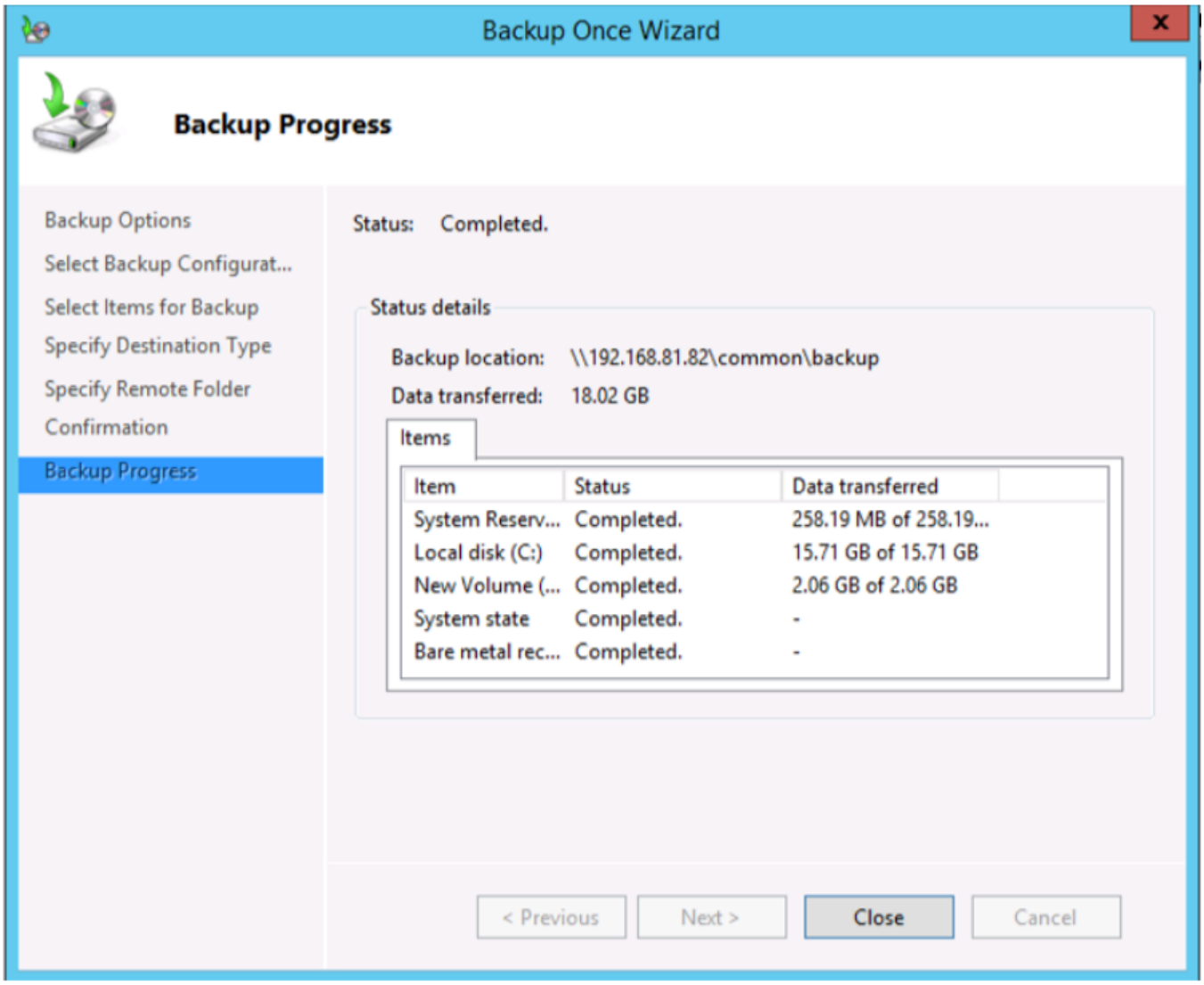

Backup Once Wizard
Specify Remote Folder
Backup Options
Select Backup Configurat...
Select Items for Backup
Specify Destination Type
Specify Remote Folder
Confirmation
Backup Progress
Location:
\\192.168.81.82\common\backup
Example: \\MyFileServer\SharedFolderName
A folder named 'WindowsImageBackup' will be created inside the specified share to store the backup.
Access control
Do not inherit
This option makes the backup accessible only for the user whose credentials are provided in the next step.
Inherit
This option makes the backup accessible to everybody who has access to the specified remote shared folder.
The backed up data cannot be securely protected for this destination.
More Information
< Previous
Next >
Backup
Cancel

11. After completing all the steps above, please click **Backup**. The backup will take some time.



And will report as “Completed” when finished.

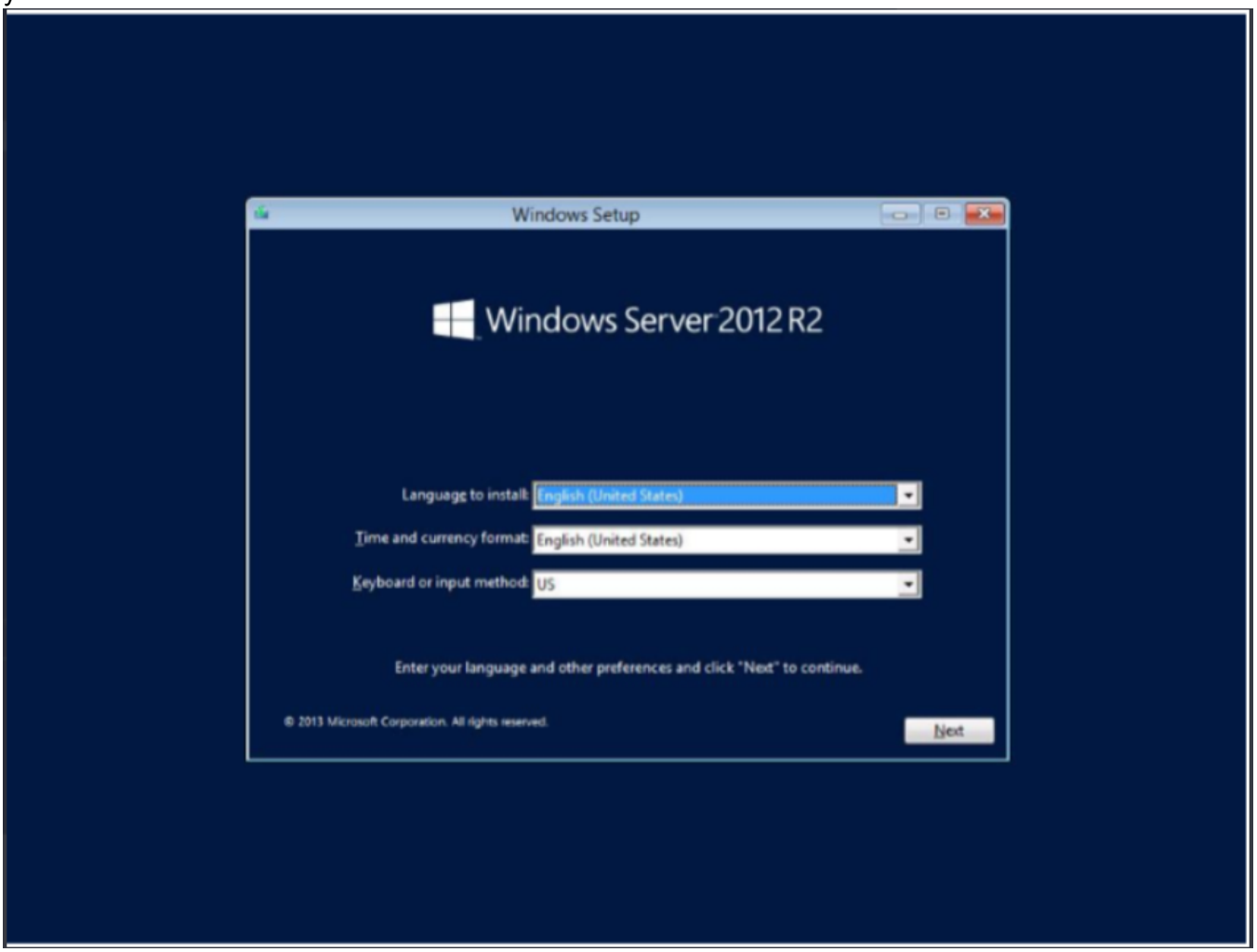




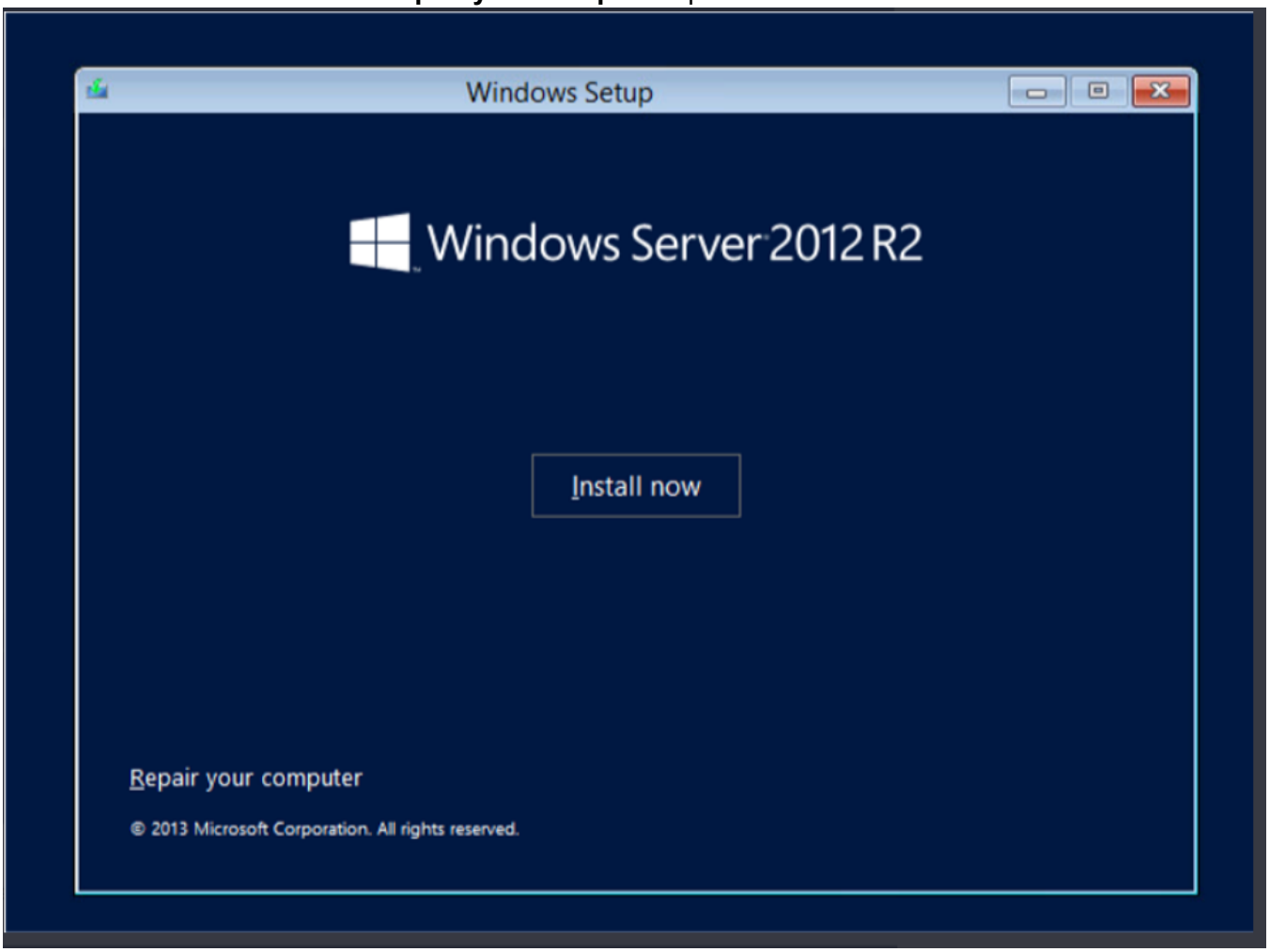
12. Click **Close.**

Next steps will be performed on the Secondary server.

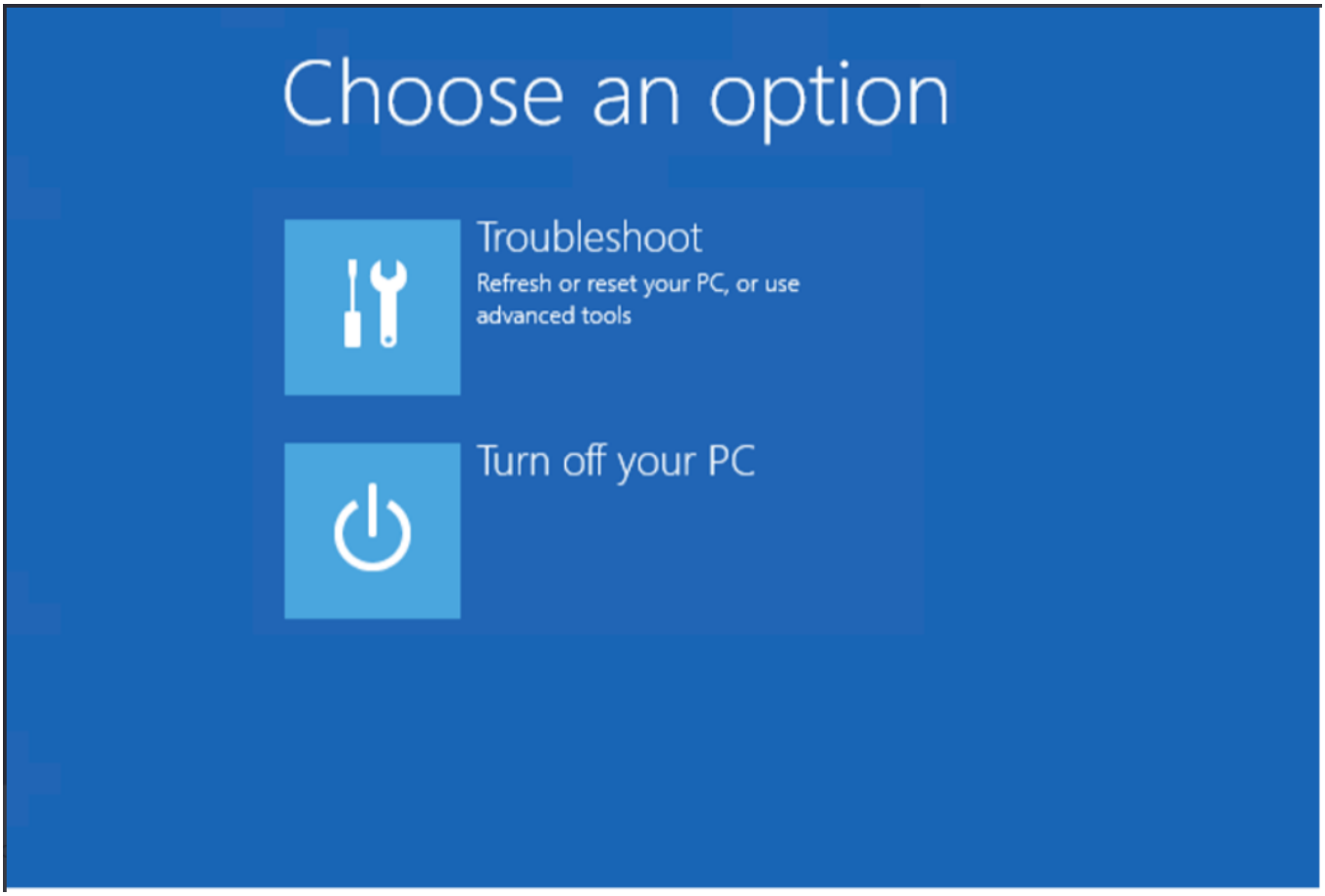
Remember that the Windows Server Install DVD needs to be inserted into the Secondary unit so that the Secondary machine will boot from the DVD and not from its local hard-disk. Once booted from the DVD you will see the screen below:



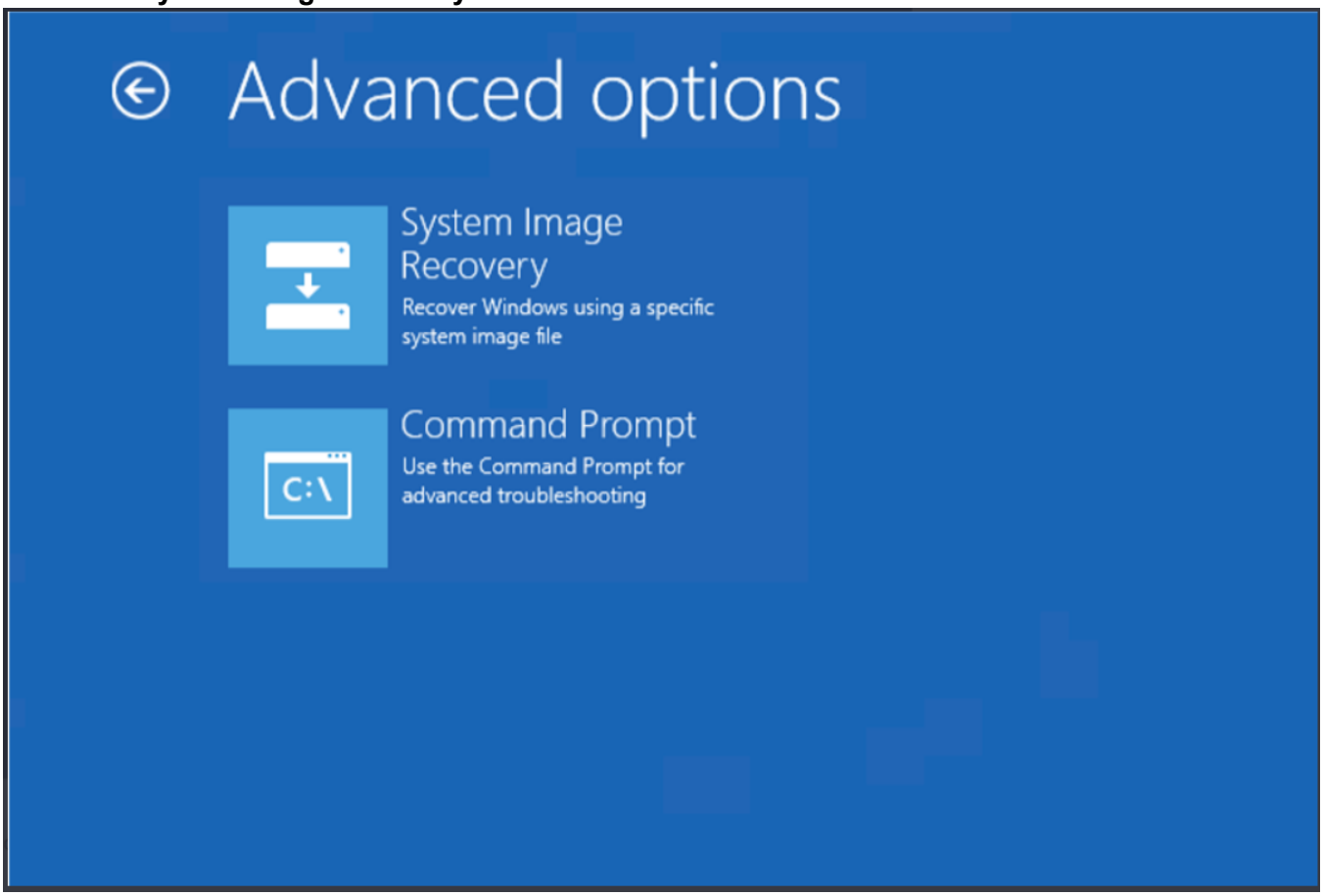
1. Click **Next** and choose the **Repair your computer** option.



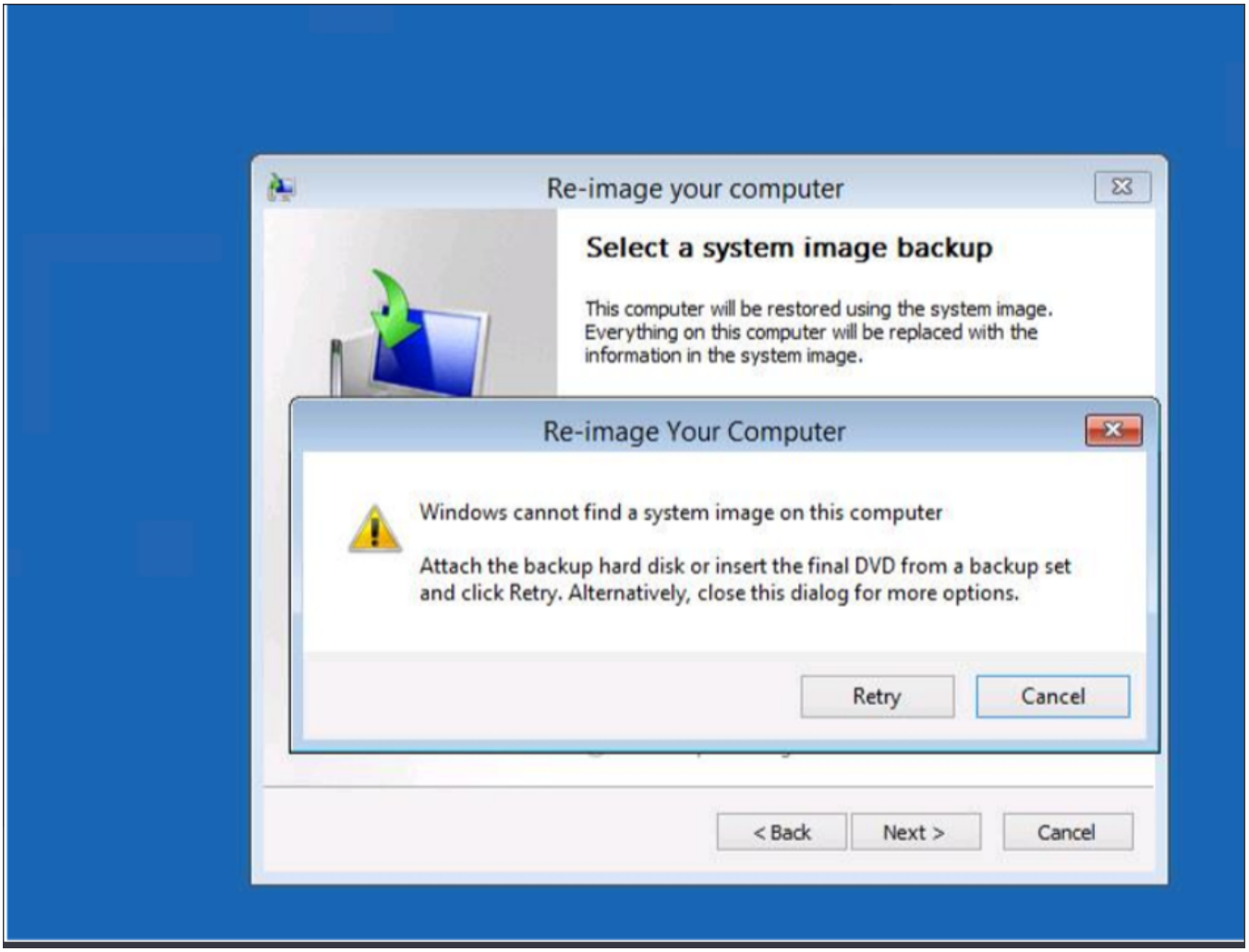
2. Click **Troubleshoot**.



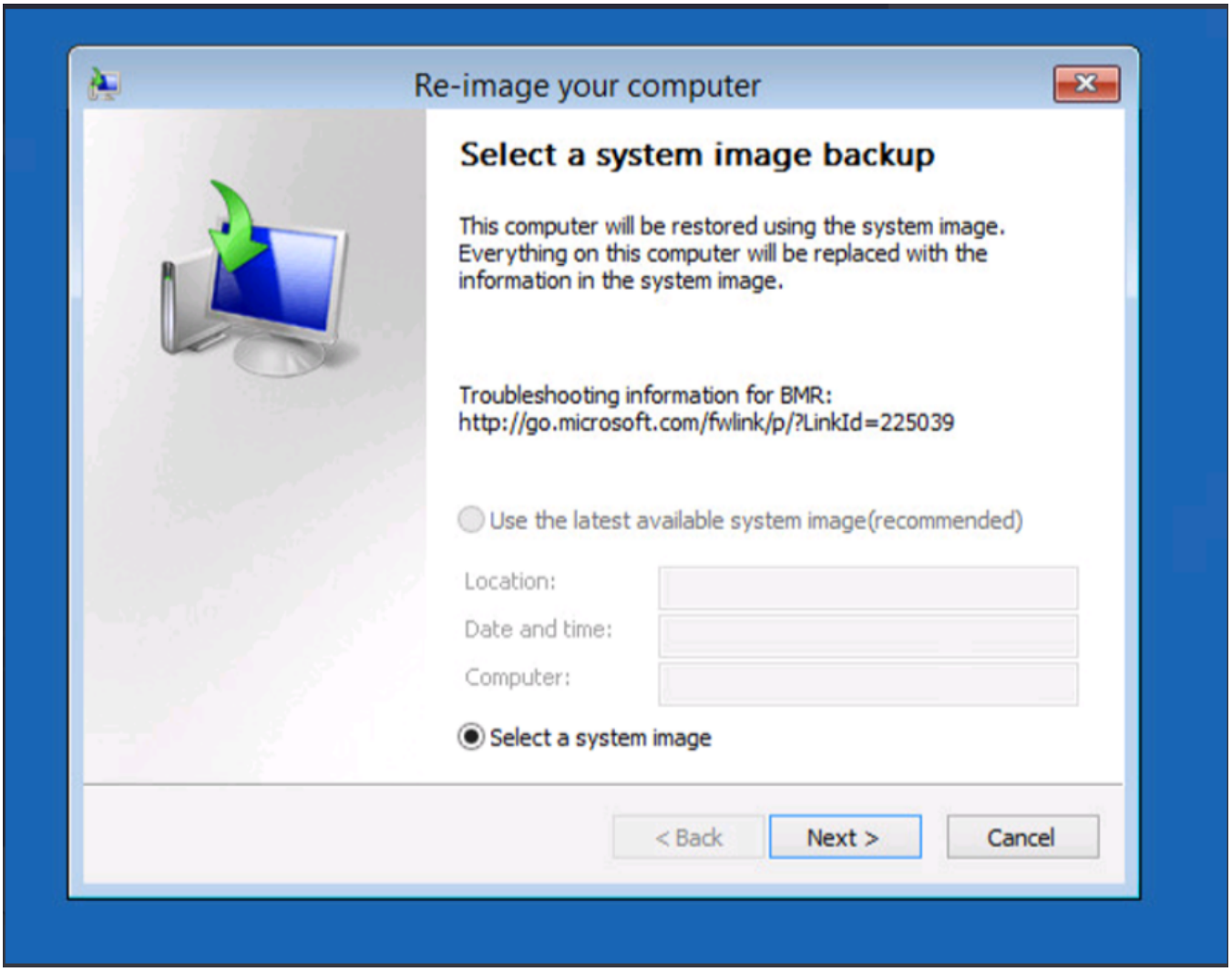
3. Select **System Image Recovery**.



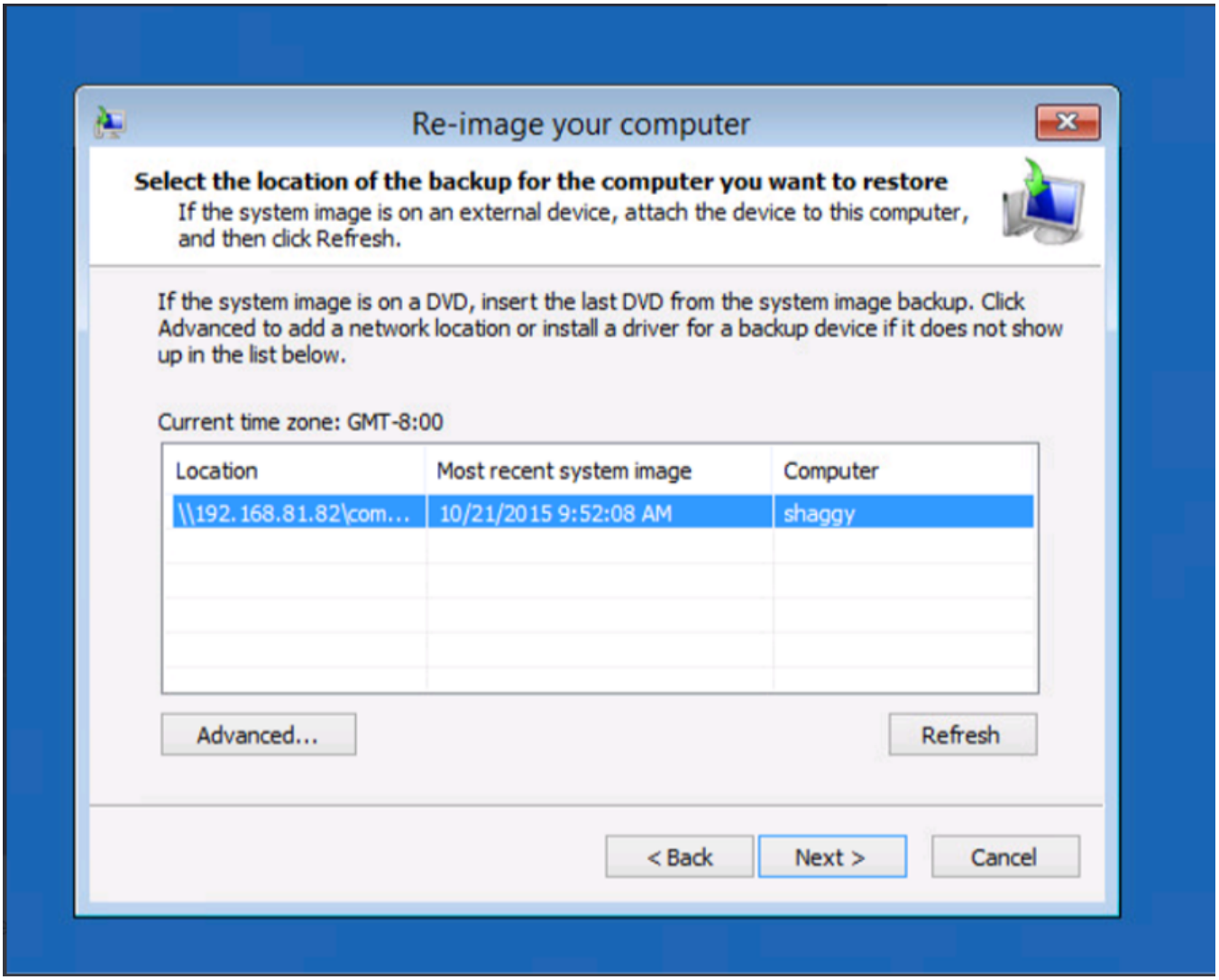
4. Windows is going to search the Secondary server for the backup file to restore, but since the backup file is saved on a network share, click **Cancel**.



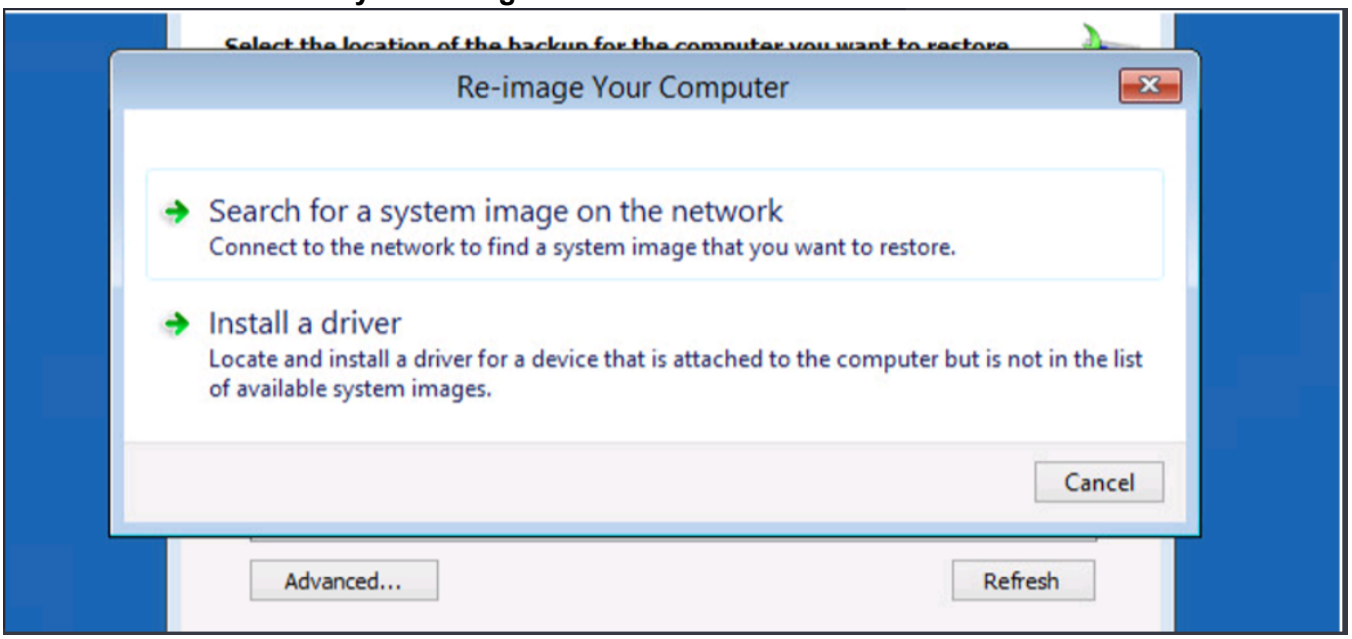
5. Click **Next**.


Re-image your computer
Select a system image backup
This computer will be restored using the system image. Everything on this computer will be replaced with the information in the system image.
Troubleshooting information for BMR:
http://go.microsoft.com/fwlink/p/?LinkId=225039
Use the latest available system image(recommended)
Location:
Date and time:
Computer:
Select a system image
< Back
Next >
Cancel

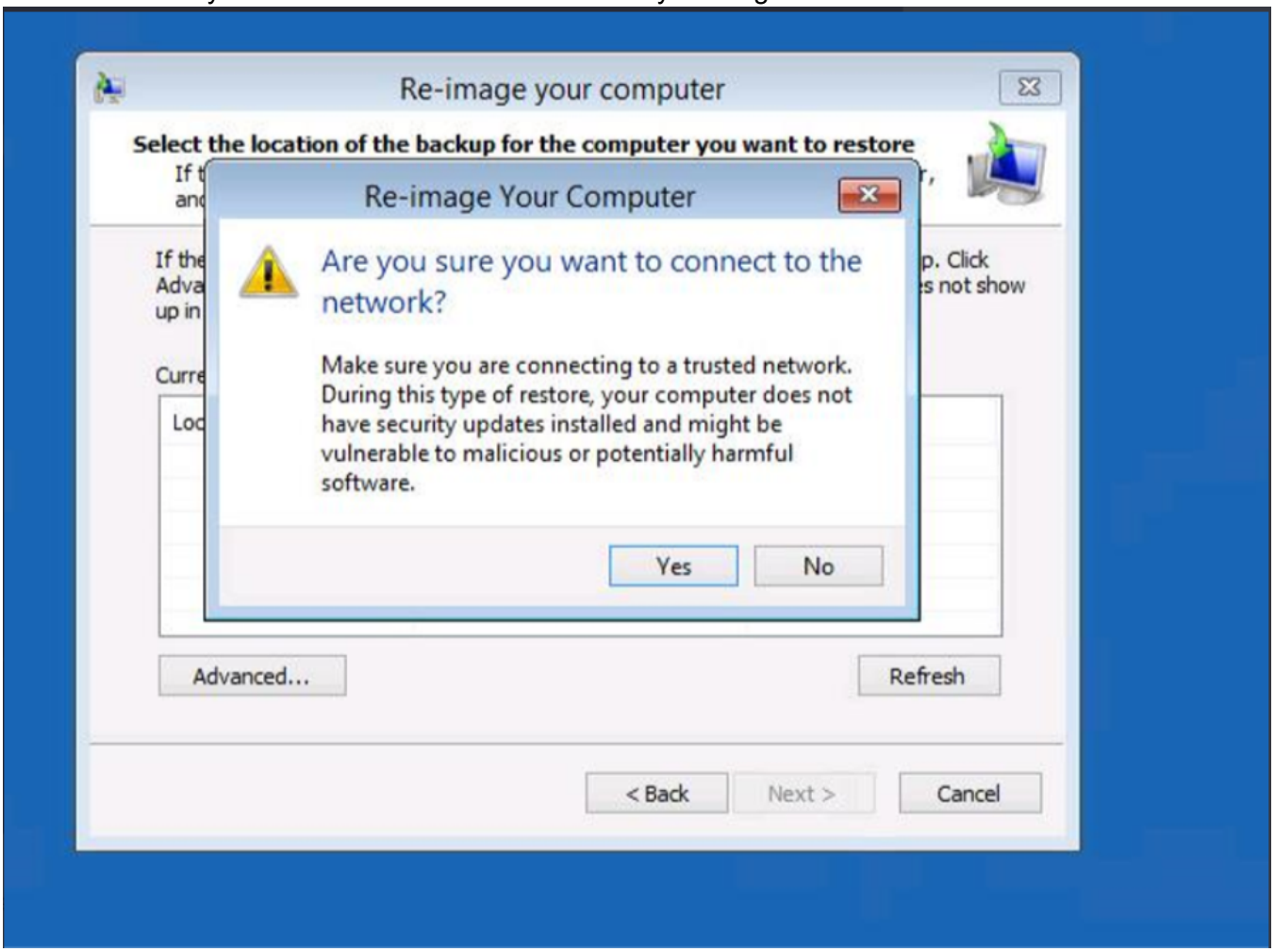
6. Click **Advanced**.



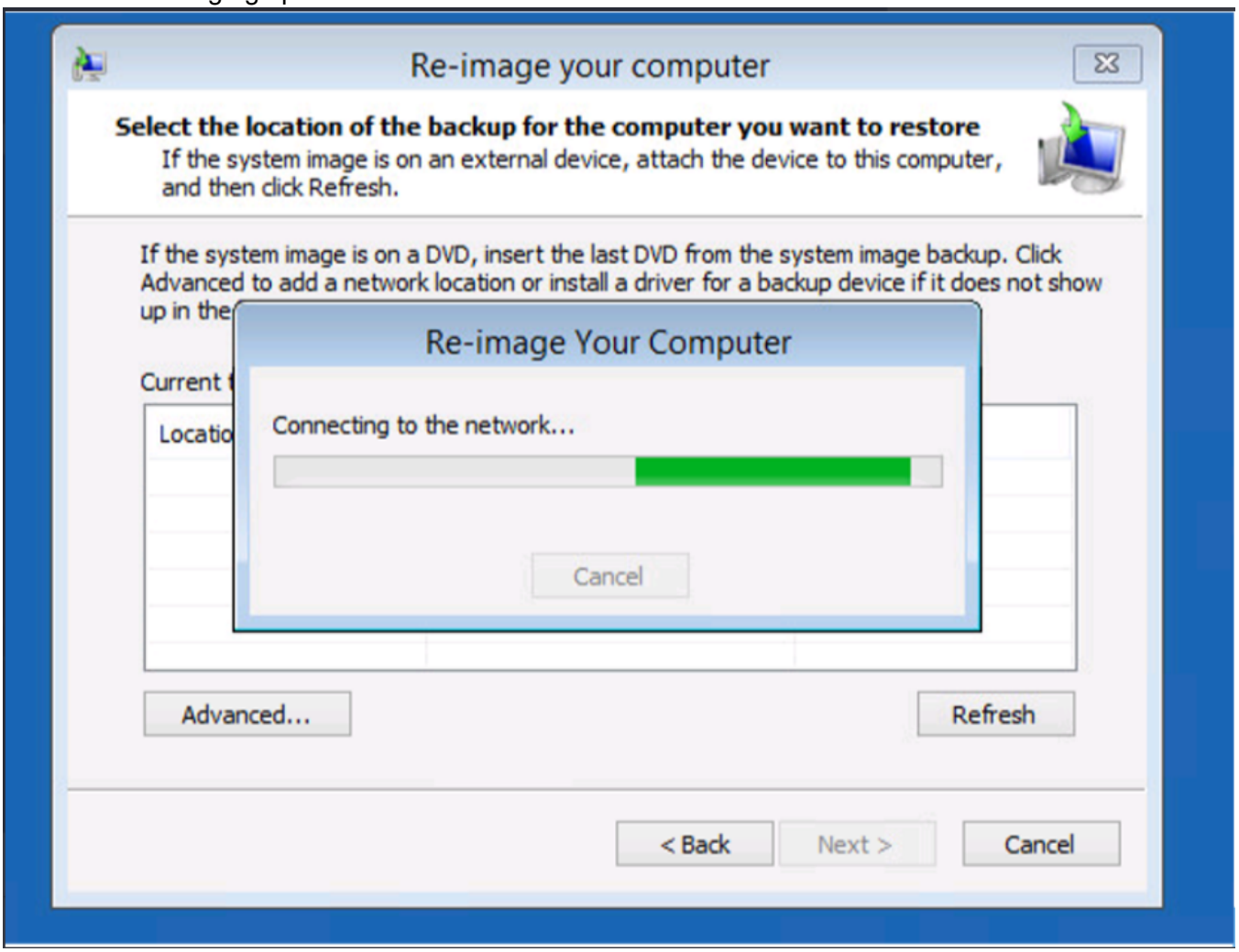
7. Choose **Search for a system image on the network**.



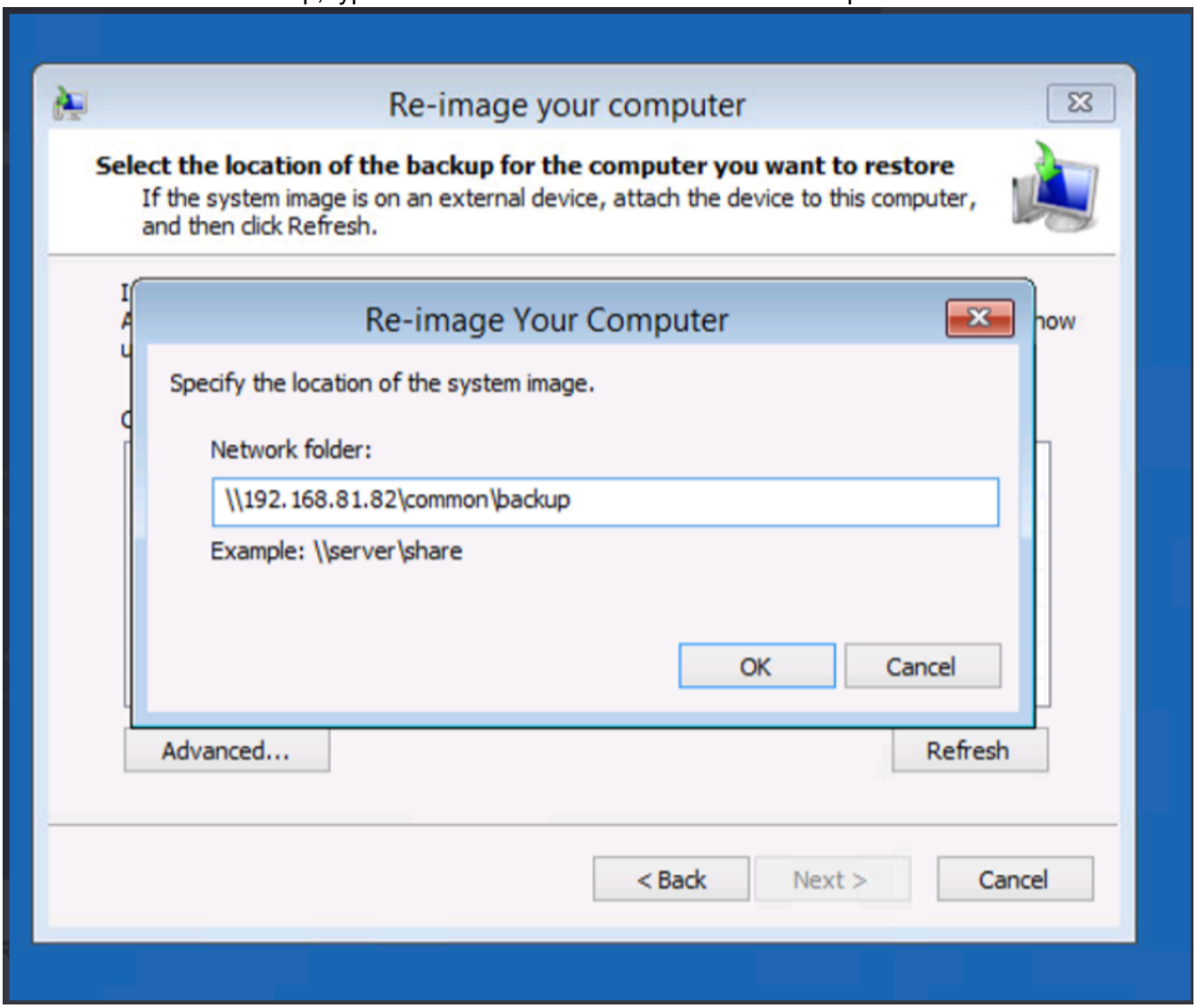
8. Confirm that you want to connect to the network by clicking **Yes**.



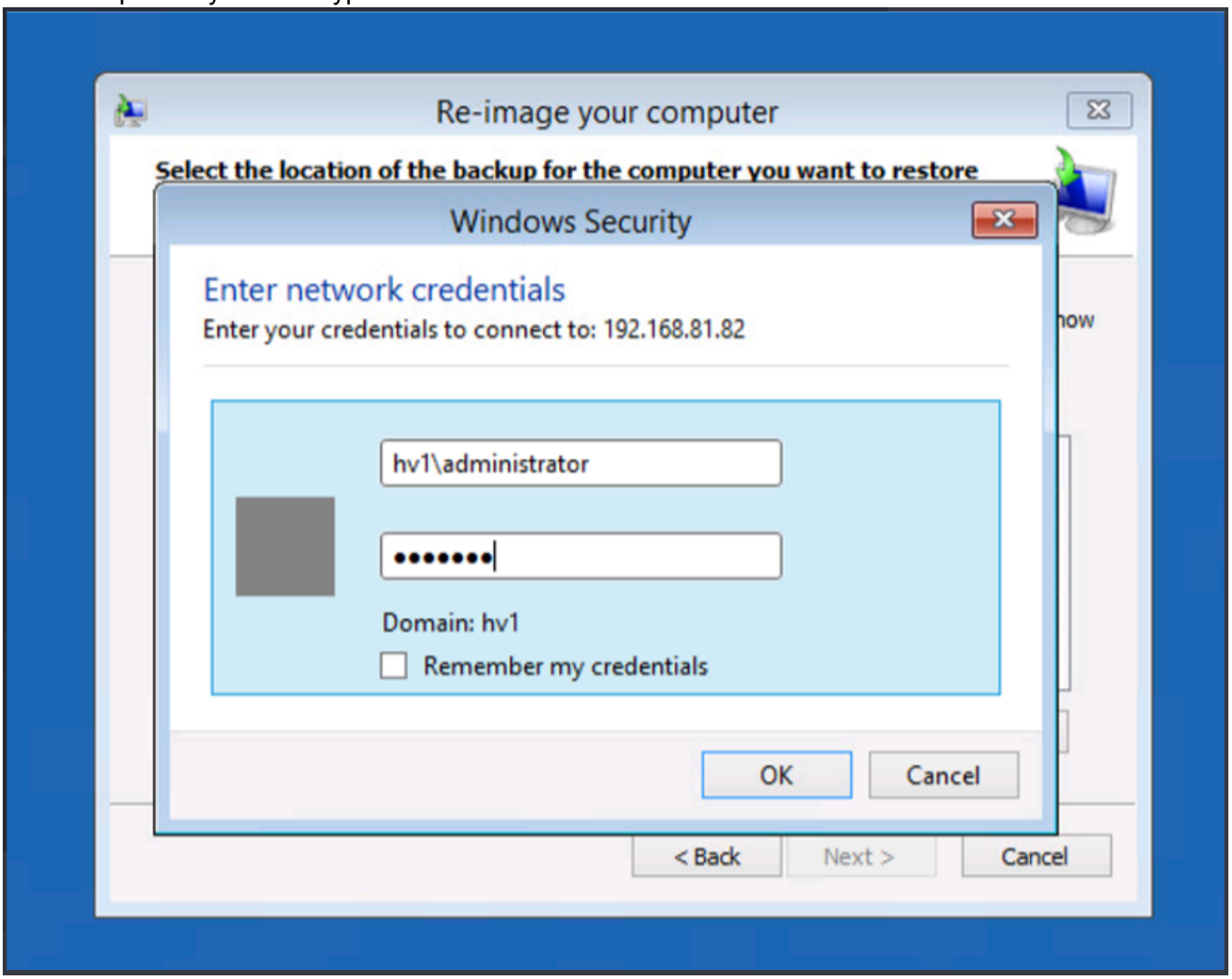
9. WinPE is bringing up the network here. You'll need a DHCP server.



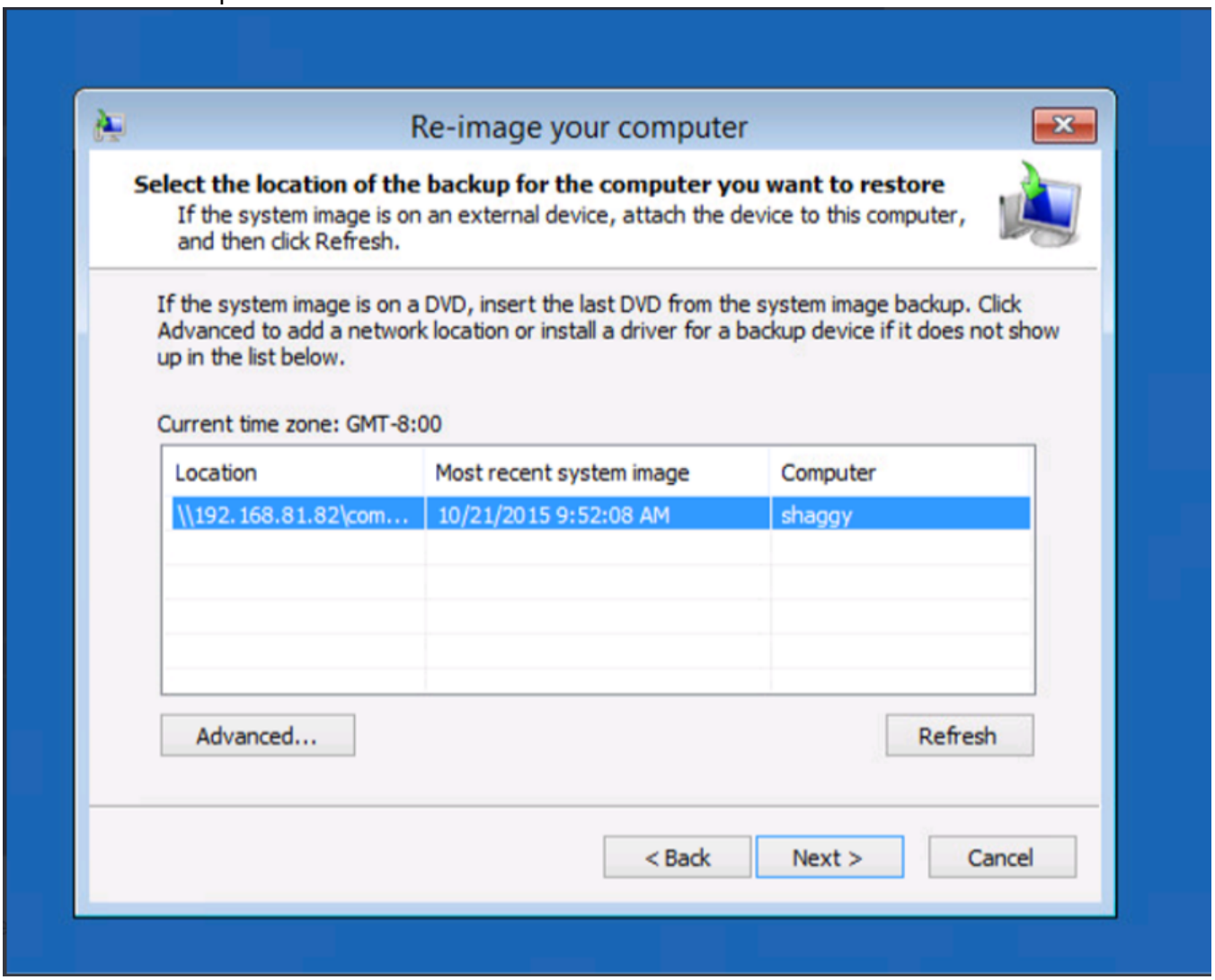
10. When the network is up, type the network folder location for the backup file and click **OK**.



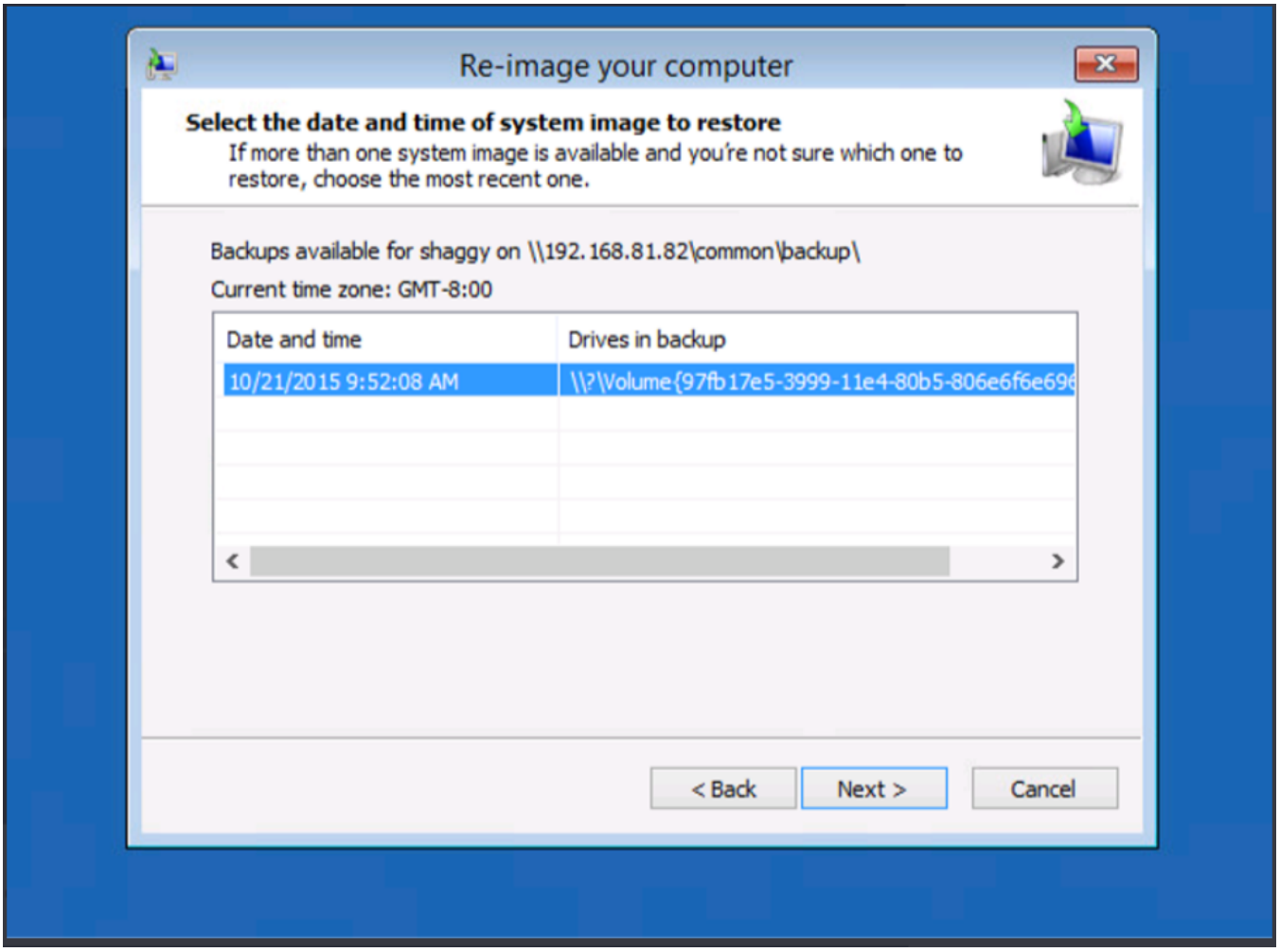
11. You'll probably need to type in credentials. Click **OK**.



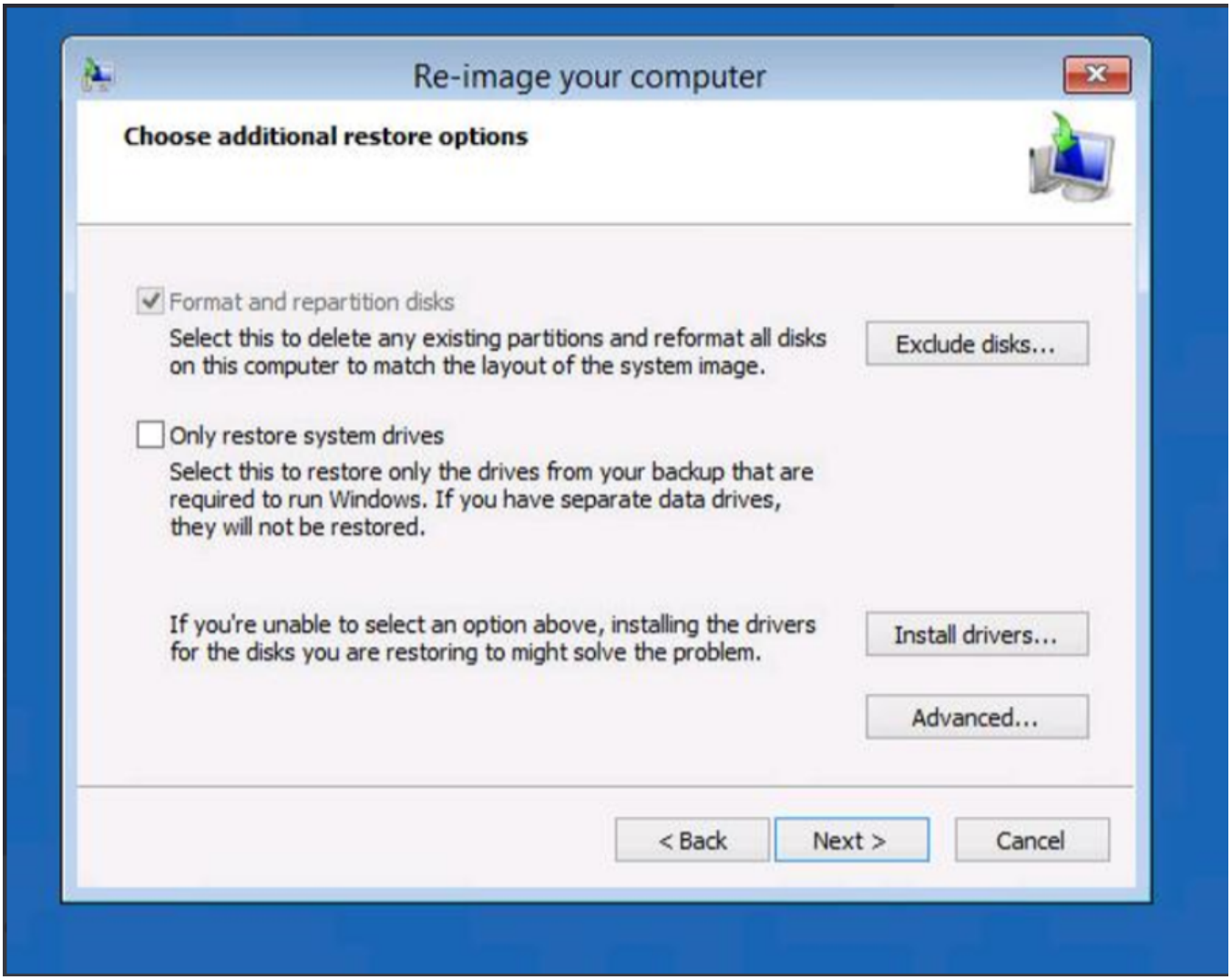
12. Select a backup location.



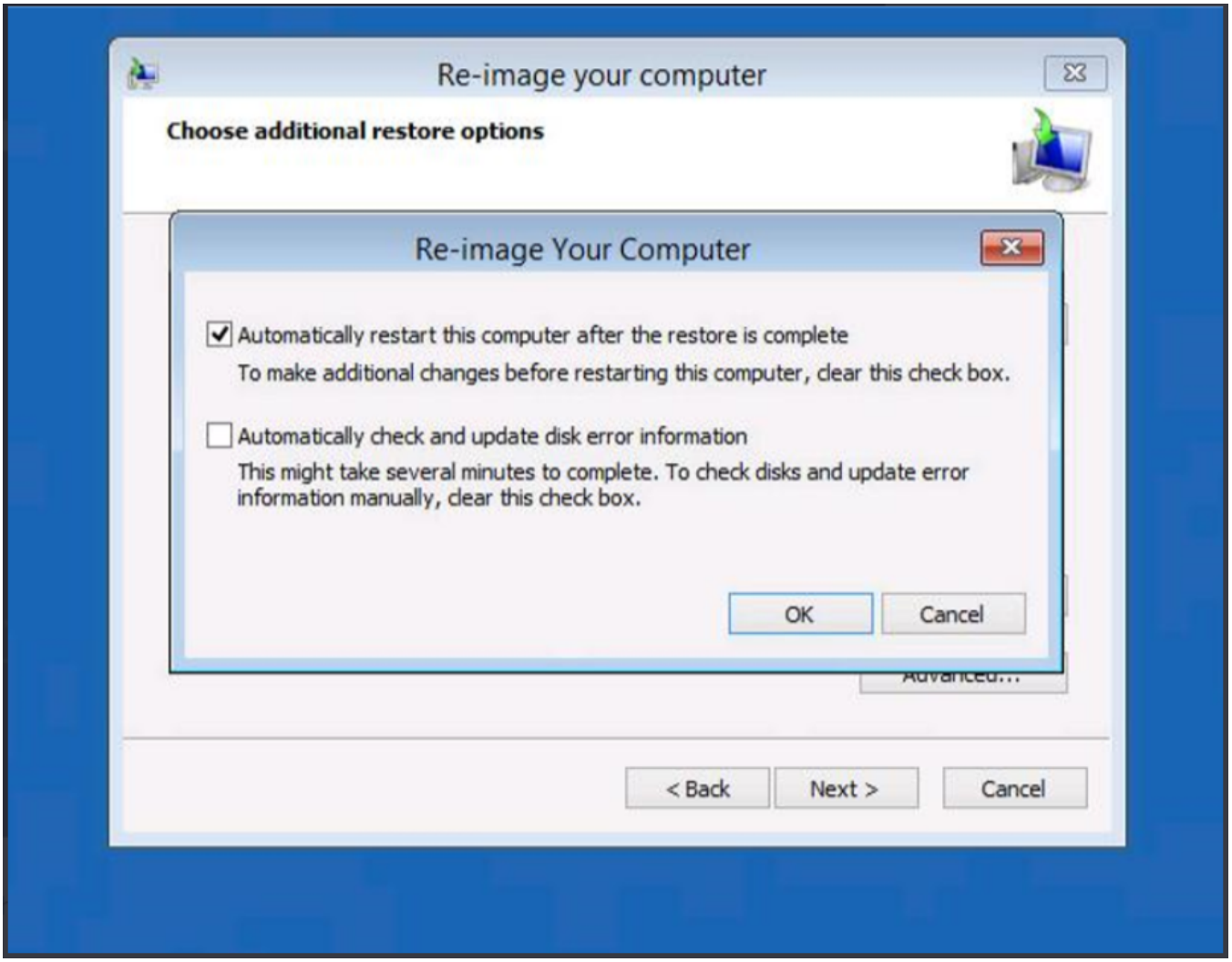
13. Click **Next**.



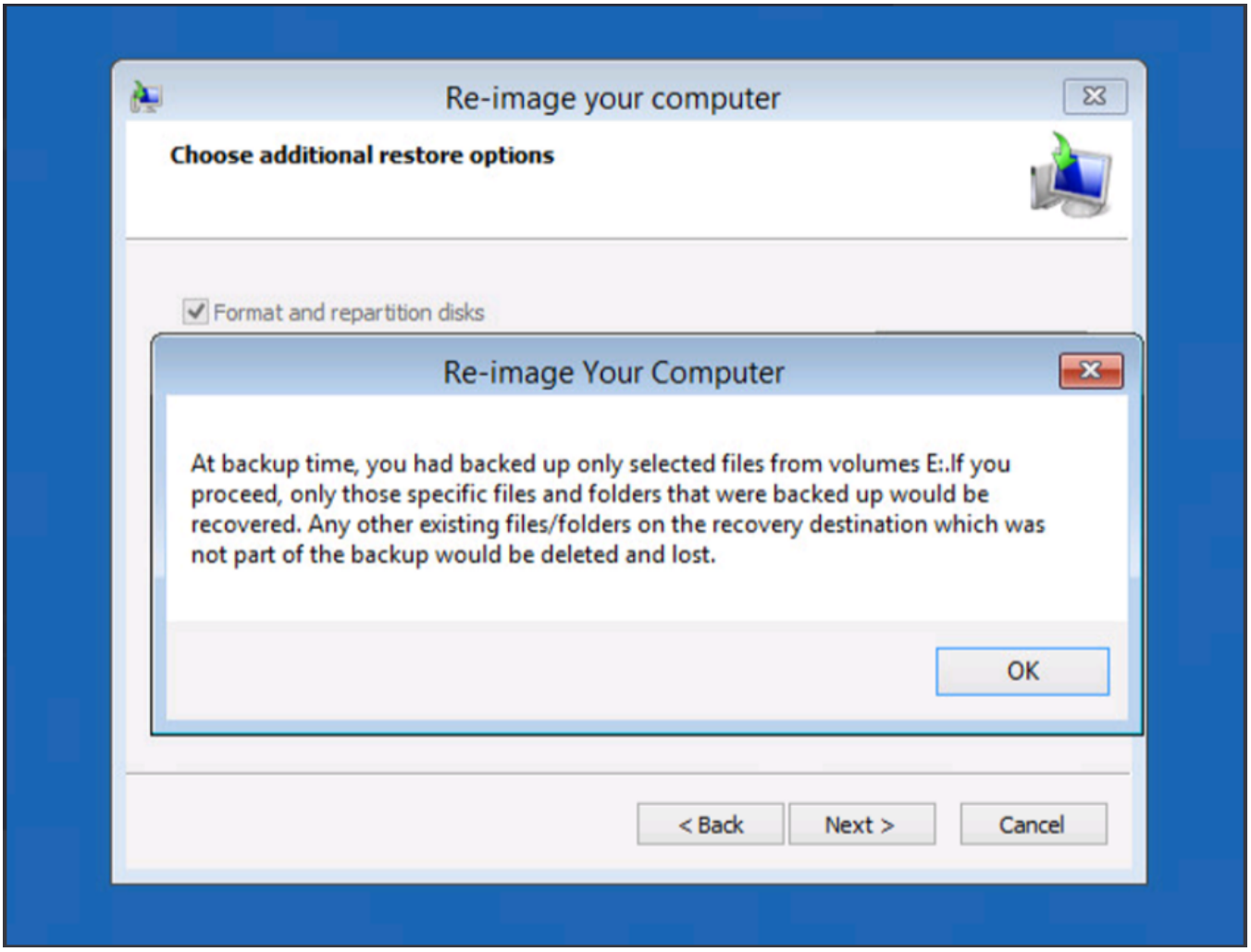
14. Click on **Advanced.**



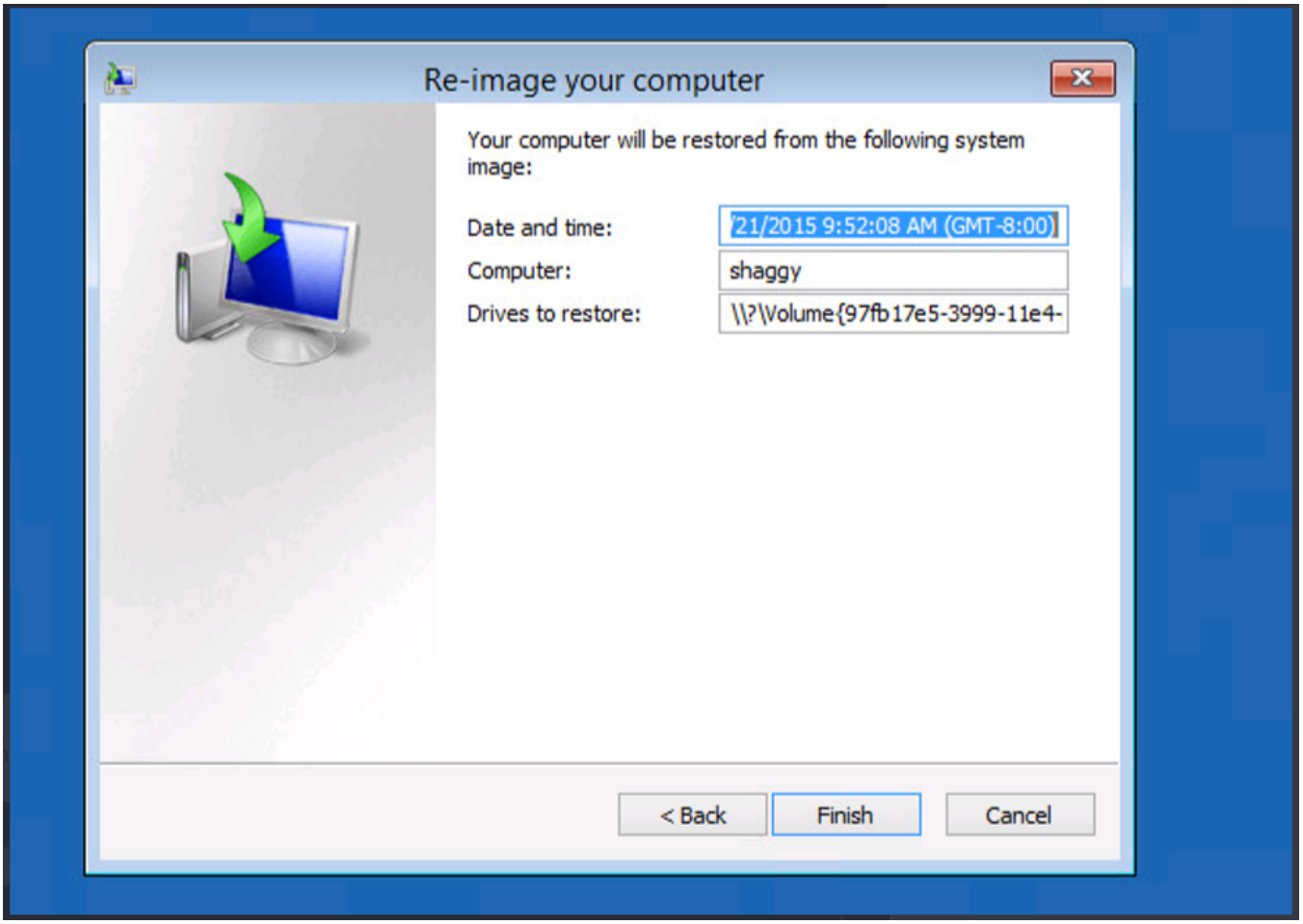
15. Uncheck/disable the **Automatically check and update disk error information** option, then click **OK** and click **Next**.



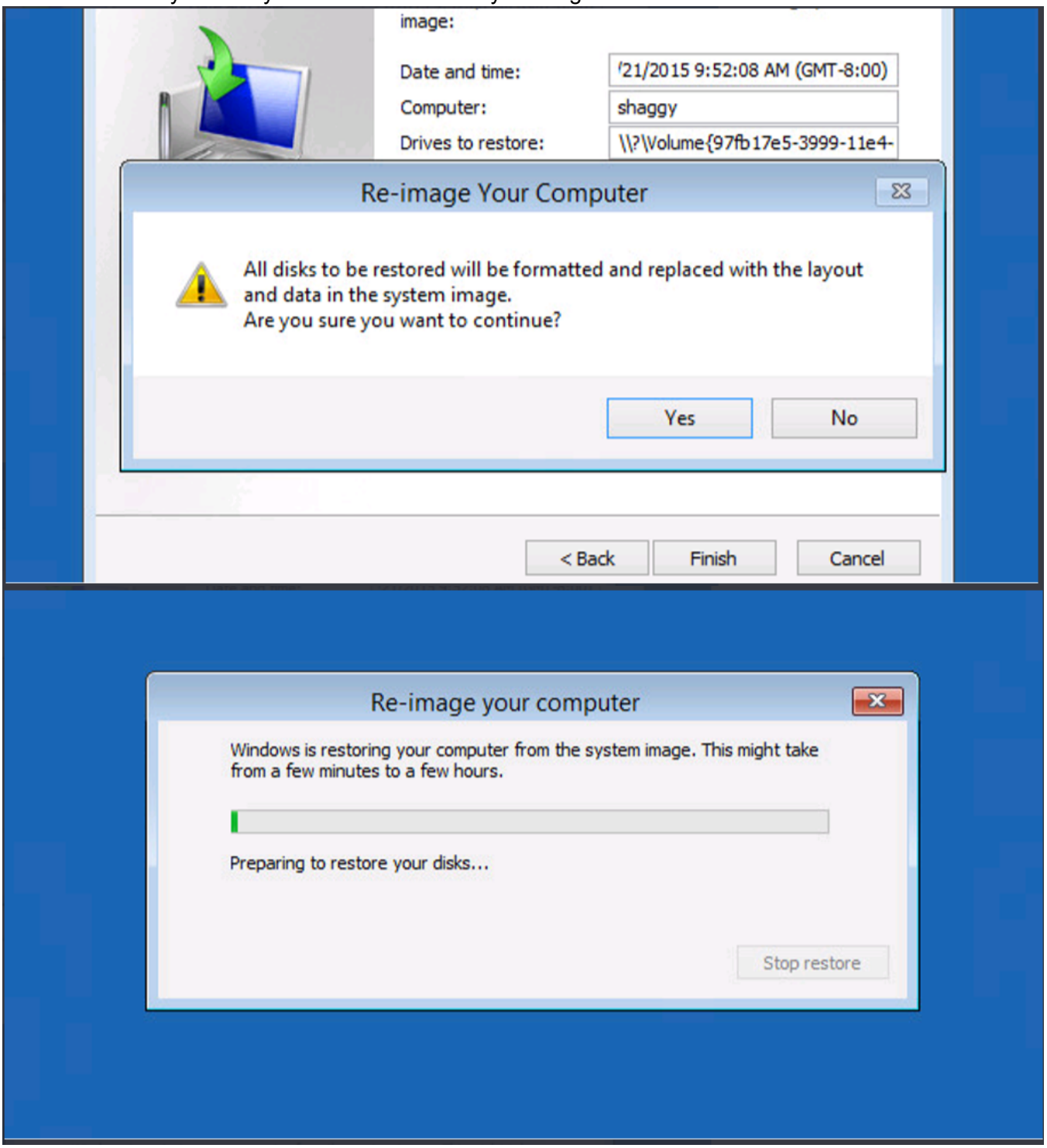
16. Click **OK** and click **Next** once more.



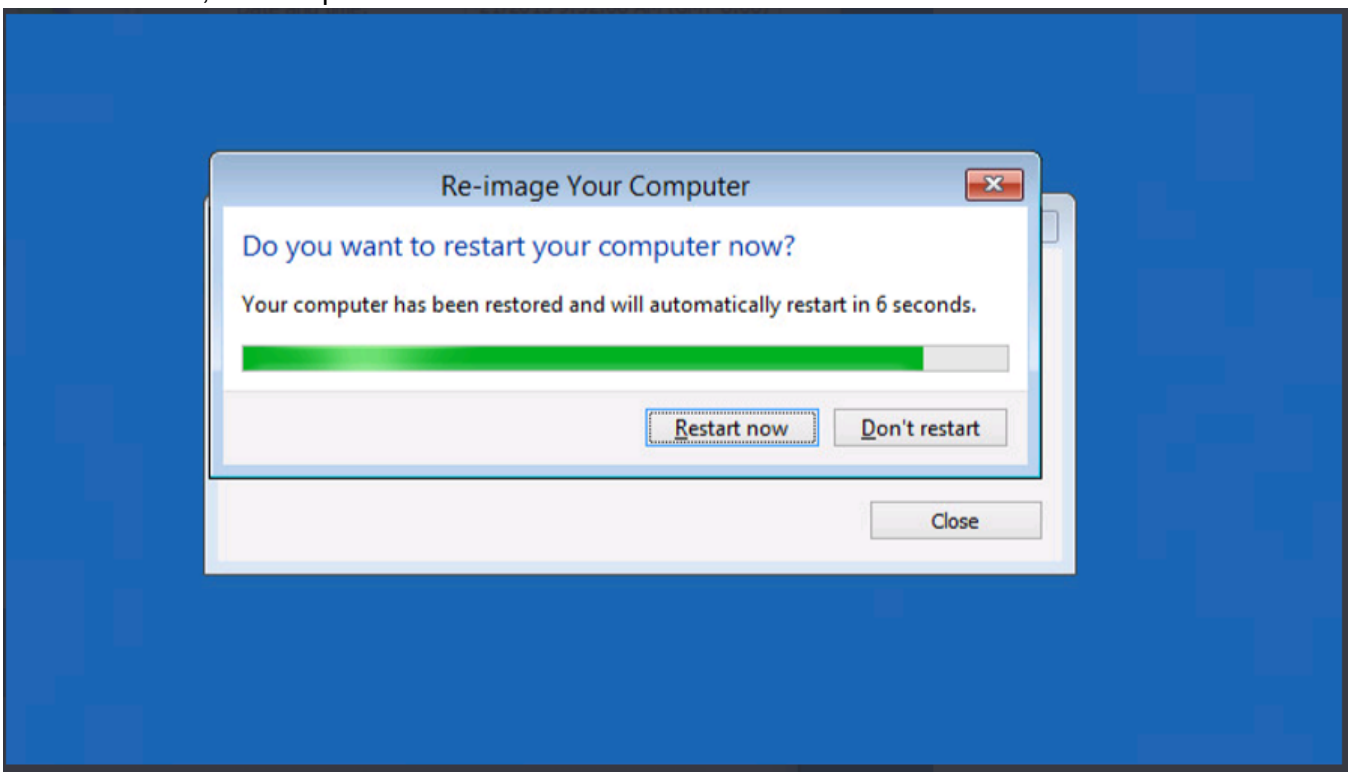
17. Click **Finish**.



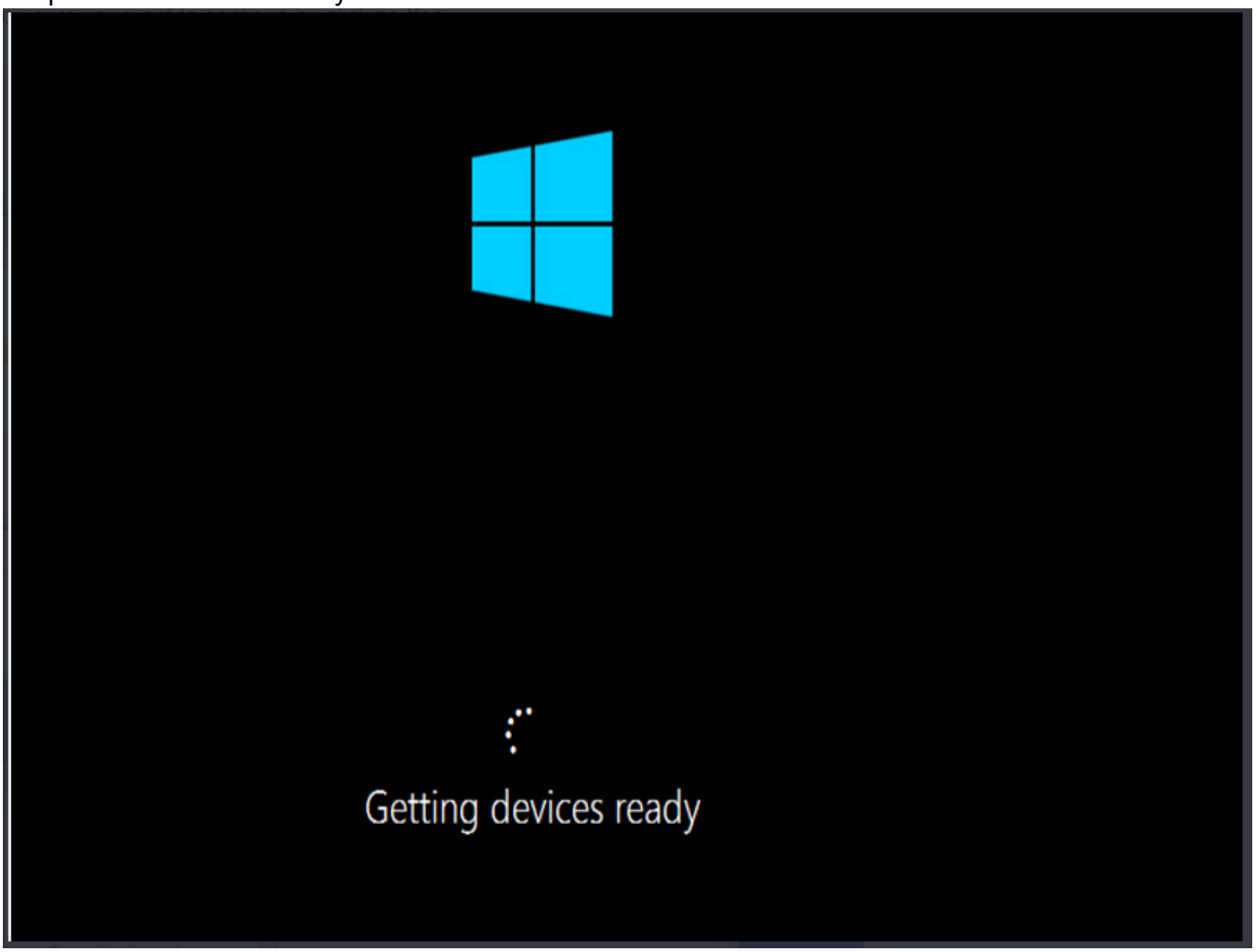
18. Confirm that you sure you want to continue by clicking **Yes**.



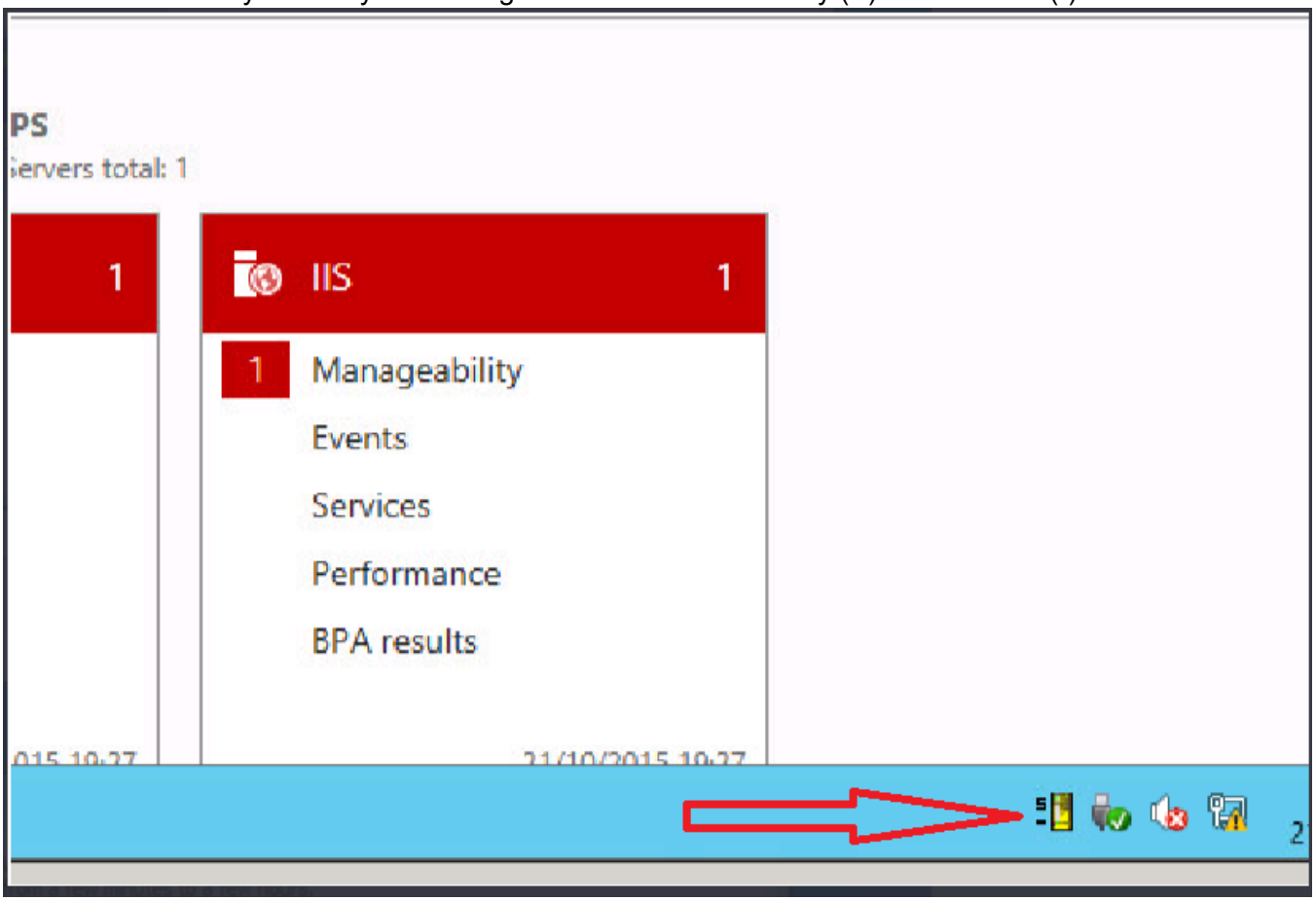
19. When done, the computer asks for a restart. Click **Restart Now**.



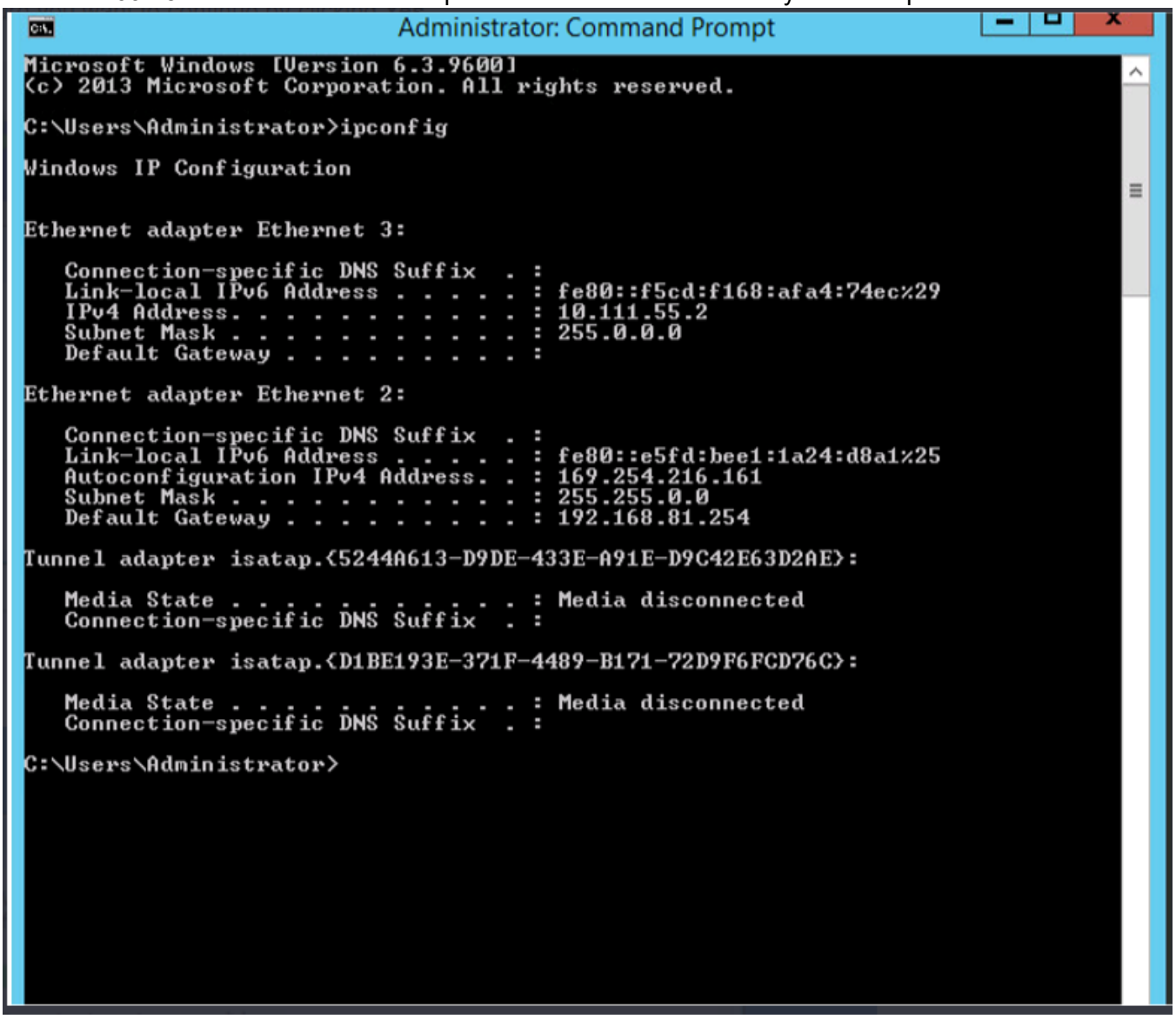
20. There will be some PnP action on the pre-login screen because some new devices are discovered and installed. Once that's completed, login in Windows by using the same administrator name and password as the Primary.



21. The Neverfail system tray is showing the server as Secondary (S) and Passive (-).



22. Run an **ipconfig /all** command and check to make sure that one Network Adapter is configured with the Secondary channel IP address and the other Network Adapter shows an 169.254. IP address. This 169.254 IP address is to be expected because the Secondary server is passive.

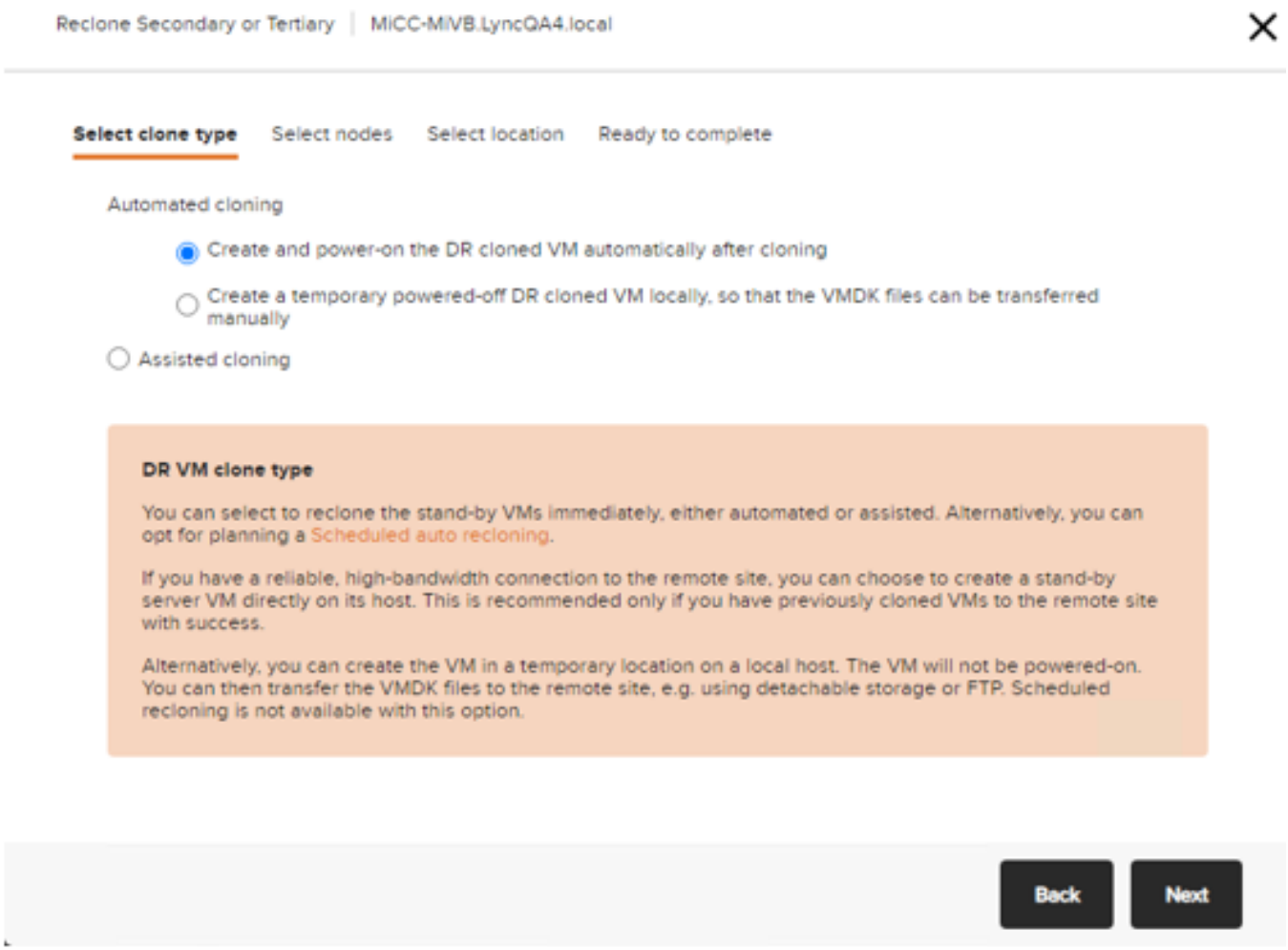


23. At this point you can click the **Delete** button in EMS so that the Primary server is reverted back to its normal settings.

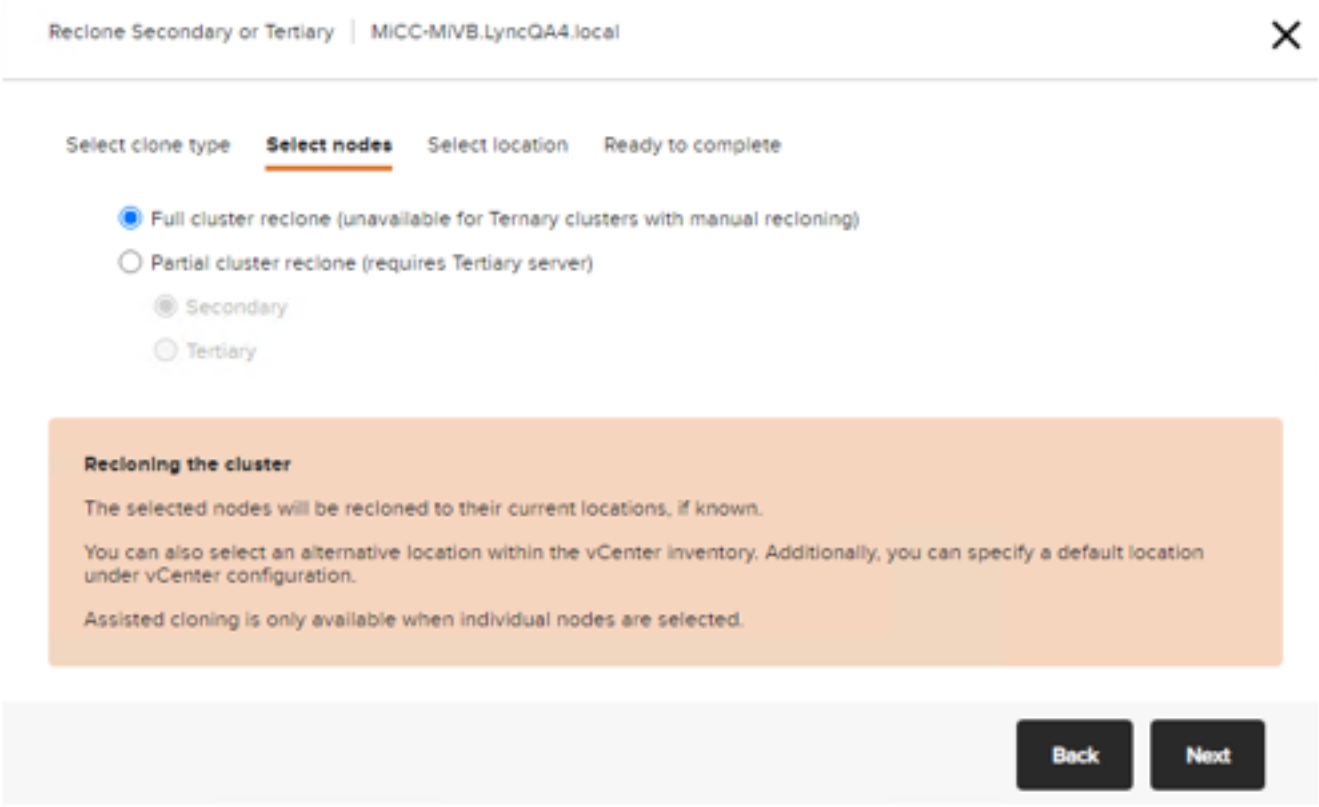
24. Now the EMS should be showing the cluster up and running and replicating

To Reclone Secondary or Tertiary server using automated Vmware.

1. From the **Actions** menu, select **Reclone Secondary Tertiary server**. All IPs configured for the secondary and tertiary are retained.
2. Select **Automated cloning (requires vCenter)**and then select**Create and power-on the DR cloned VM automatically after cloning** option and follow the instructions, if all the servers are on the same VMware.



3. Click **Full cluster reclone.**

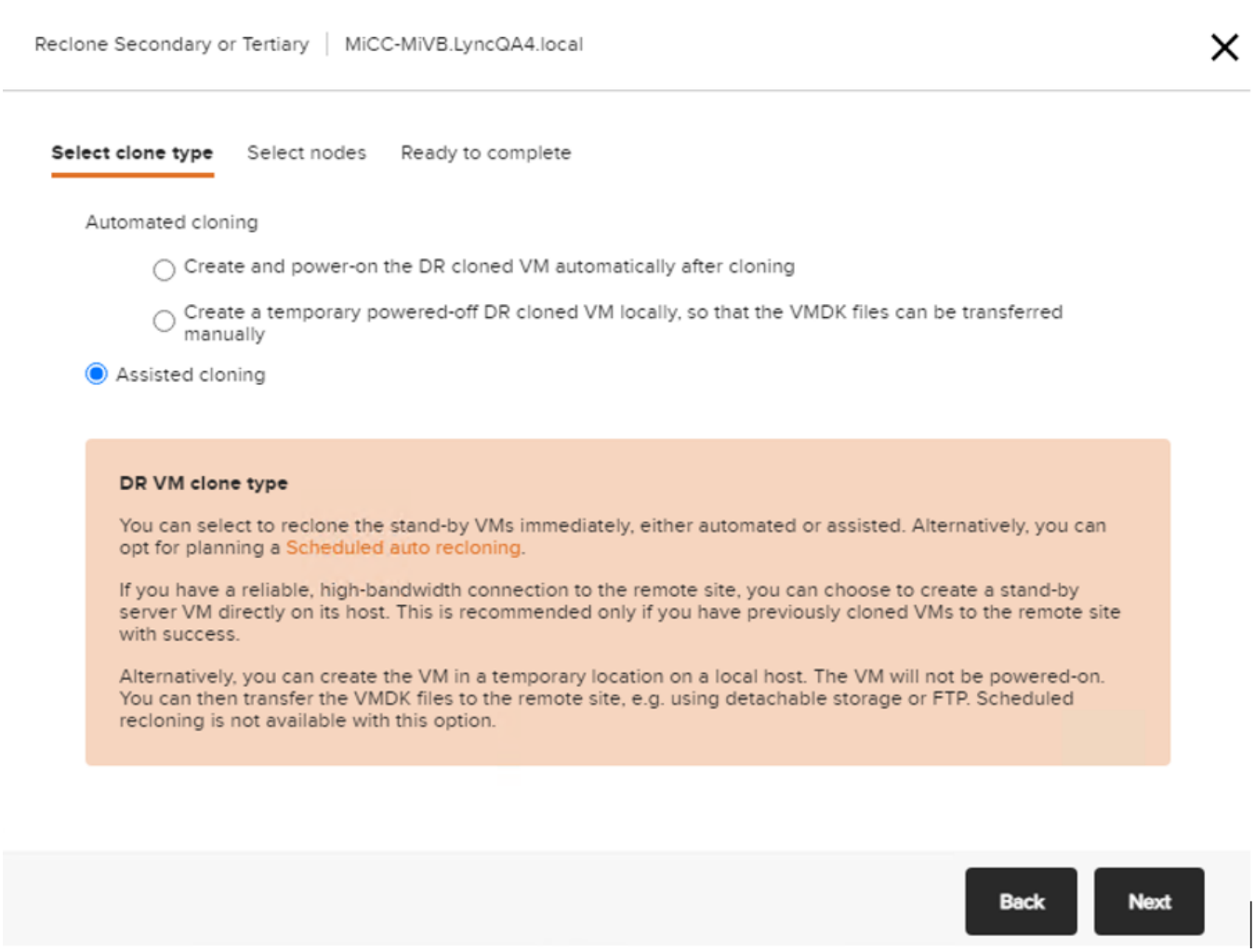


4. Enter the New locations and Finish.

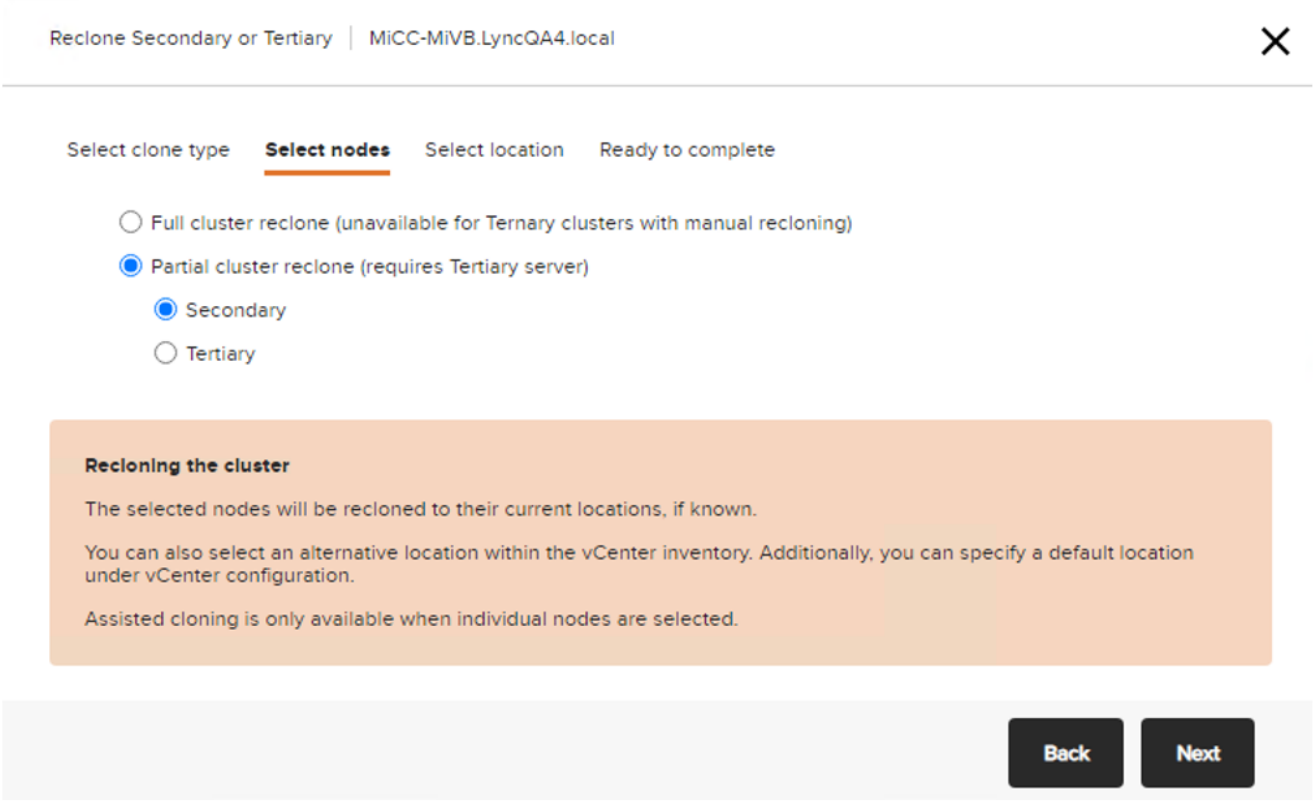
For Assisted(maual) cloning, when the servers are not on the same VMware.

1. Select clone type to be **Assisted(maual) Cloning**.

   NOTE: Assisted(maual) cloning cannot perform a full cluster reclone when a tertiary is configured. It clones only one at a time.



2. If a Tertiary is configured, select **Partial cluster reclone (requires Tertiary server)**optionand then select **Secondary**.



3. Click **Next** and Enter the locations.
4. Select **Finish**.
5. When the Secondary clone is complete. Now clone the Primary server manually. Select **Reclone Secondary or Tertiary server** again.
6. Select **Assisted(maual) Cloning** again but select **Partial cluster reclone** and select **Tertiary** this time.
7. Select **Finish** to complete.

Remote Server installation

A Remote Server, optionally installed at a remote site, performs many of the functions of the Enterprise Server without requiring you to install an additional Enterprise Server or upgrade your licensing.

Remote Servers collect and stream ACD/SMDR data from media servers to the Enterprise Server over TCP/IP. The Enterprise Server gathers, summarizes, and writes the data to a SQL database for monitoring and reporting purposes.

Should the link to the Enterprise Server go down, Remote Servers will buffer ACD/SMDR data until communication is restored and the data can be streamed. Note that if the link between the Enterprise Server and a Remote Server goes down, the managers and supervisors cannot view real-time data from the Remote Server until the connection is restored.

NOTE:

- You require a Network License to collect data using a Remote Server. For more information, see the *MiContact Center Business and MiVoice Analytics System Engineering Guide* .
- A single Remote Server can collect ACD/SMDR data from up to 65 voice media servers. If attempting to collect data from more than 65 PBXs with a single Remote Server, customers can contact their approved vendor. Certified channel technicians can contact Mitel Technical Support for guidance.

Using a remote server, you can

- Create a remote IVR Routing instance. This enables IVR Routing instances to continue to function if they lose access to the primary database or site.
  See *"Configuring IVR Routing on Remote Servers"*.

  NOTE: If the connection from Remote Servers to the Enterprise Server goes down, loss of real-time connectivity affects all workflow components that depend on data derived from real-time queue statistics including queue condition activities, Updated Position in Queue (UPiQ) messages, and prompts based on real-time statistics.
- Monitor MiContact Center Business services activity and collect data on alarms.
  The Remote Server can monitor its performance and notify the Enterprise Server when server states surpass configured alarm thresholds. You configure alarm thresholds and view alarms for Remote Servers in YourSite Explorer. For more information on server-side alarms, see *"Monitoring and alarming subsystem"*.
- View the status of data collection on the Remote Server.
  You can view real-time ACD and SMDR data collection by clicking the Data Link button, located in the YourSite Explorer ribbon when a 3300 ICP media server has been selected.
- Display real-time performance statistics and text messages from the Remote Server on LED wall signs.
  You can run WallBoarder on Remote Servers to keep agents and employees throughout your contact center aware of enterprise-wide statistics and key messages. For more information, see *"Configuring WallBoarder"*.
- Provide a software update source for the client computers or other Remote Servers. The Remote Servers will be prompted with an update by the MiContact Center Updater following the upgrade of the Enterprise Server. The MiContact Center Updater will download the files and place them in a virtual directory on the Remote Server. The clients and the other Remote Servers will then update using these files from the Remote Server.

This section

- Provides an overview of Remote Server installation
- Explains how to install the Remote Server software and modify installed components and features
- Explains how to configure IVR Routing on Remote Servers

The Remote Server installation includes

- MiContact Center Data Collection Service
- MiContact Center MiTAI Proxy Service
- Remote Routing Services, for IVR Routing
- MiContact Center Wallboard Service
- MiContact Center Updater Service
- CCMWeb
- Contact Center Client
- YourSite Explorer

Overview of Remote Server installation

To install a Remote Server, you

- Provision a Remote Server at a site and ensure any applicable media servers are configured.
  For more information on configuring media servers, see *"Adding media servers"*.
- Install the Remote Server software.
  See *"Installing the Remote Server software"*.
- Configure IVR Routing on the Remote Server, if desired.
  See *"Configuring IVR Routing on Remote servers"*.
- Verify data is streaming from the Remote Server to the Enterprise Server.
  See *"Verifying that ACD and SMDR data is streaming"*.

Installing the Remote Server software

You install the Remote Server software on a computer other than the Enterprise Server. The computer on which you install Remote Server software must meet the appropriate hardware and software requirements. See the MiContact Center Business and MiVoice Analytics System Engineering Guide for more information.

NOTE: If you have Remote Servers in your enterprise, they are prompted with an update by the MiContact Center Updater Service following the upgrade of the Enterprise Server.

To install the Remote Server software

1. On the client computer, in a supported browser, type **http://[your Enterprise Server IP address]/CCMWeb**.
2. If prompted, type your username and password and click **Login**.
3. Hover over **Help** and select **Software downloads/Installations**.
4. Click **Remote Server Pack**.
5. Click **Run**.

   The MiCC Setup wizard opens.
6. Click **Remote Server Pack**.

7. If you want to install the Remote Server Pack in an alternate folder, click **Browse** to select the location.

   The default destination folder is <drive>:\program files (x86)\Mitel\MiContact Center\.
8. Enter the IP address of the Enterprise Server.
9. If you use Secure Socket Layer, select the **I want to use SSL** check box.

   For more information on planning, deploying, and securing communications with MiContact Center Business, please refer to the *"SSL Requirements"*.
10. Select the **I want to specify a different Updater source** check box and enter the IP address of the Remote Server you will use as a source for updating clients instead of the Enterprise Server.

    If you have clients that are connected from a remote site, to reduce traffic across the network, you can program these clients to update from a remote server instead of the Enterprise Server.
11. Click **Next**.
12. Toggle the switches to **On** or **Off** to select the features you want to enable on the Remote Server.
13. Click **Next**.

    The MiCC Set up wizard installs pre-requisite software and, if applicable, displays relevant warnings.
14. Click **Next**.
15. Enter the username and password that will be used to control Windows services.
16. Click **Next**.

    The MiCC Set up wizard installs the remote server software and, if applicable, displays relevant warnings.
17. Click **Next**.
18. Select the appropriate check box to either launch YourSite Explorer now or on system start up.
19. Click **Finish**.

Modifying Remote Server installed components and features

The MiCC Setup wizard can be rerun at any time to modify the components and feature choices you selected during the installation of MiContact Center Business remote server software.

CAUTION: If the MiCC Setup wizard has already been run successfully, re-running it will undo the Remote Server configuration settings you previously specified. You must complete the MiCC Setup wizard each time you run it or the Remote Server will not function properly.

To modify Remote Server installed components and features

1. In Windows, open the Mitel program folder and launch **MiCC Setup**.
2. Click **Repair Remote Server Pack**.
3. Follow the steps as described in *"Installing the Remote Server software"*, ignoring the download instructions and modifying components and features as needed during the installation process.

Uninstalling Remote Server MiContact Center Business software

To uninstall Remote Server software

1. In Windows, open the Mitel program folder and launch **MiCC Setup**.
2. Click **Uninstall Remote Server Pack**.
3. When the warning displays, click **Yes**.
4. Click **Finish**.

Verifying name changes of remote servers

If you change the name of a remote server, you must perform several configuration steps to verify that YourSite Explorer recognizes the name change and points to the renamed remote server as expected.

To verify the name change of a remote server

1. On the Remote Server, after changing the Remote Server's computer name, start **Regedit**.
2. Navigate to prairiefyre Software Inc\CCM\Common

   The path is \HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\prairieFyreSoftware Inc\CCM\Common\ComputerName.
3. Right-click **ComputerName** and select **Modify**.
4. Under **Value Data**, enter the new name of the Remote Server.
5. Click **OK**.
6. On the Remote Server, start the **Contact Center Management Configuration Wizard**.

   The Remote Server Configuration Wizard opens.
7. Run the Remote Server Configuration Wizard.
8. On the Enterprise Server, open **YourSite Explorer**.
9. Click **Media servers**.

   Verify that media servers are pointing to the new remote server name.
10. Click **Extensions**.

    Verify that remote ports are pointing to the new remote server name.
11. Click **Servers**

    The renamed server is listed as a new entry. The server with the old name is listed as a separate entry.
12. Select the old server entry.
13. Click **Delete**.
14. Click **OK**.

Configuring IVR Routing on Remote Servers

Configuring IVR Routing instances on a Remote Server enables IVR Routing to run independently from the Enterprise Server. These IVR Routing servers can continue to function if they lose access to the Enterprise Server. IVR Routing servers throughout your enterprise are synchronized so that changes

made to one server are applied to other servers in real-time. After making changes to media servers, workflows, subroutines, or prompts, you can monitor the synchronization status of IVR Routing instances in YourSite Explorer.

Note that, in the rare event of an Enterprise Server outage, loss of real-time connectivity affects all workflow components that depend on data derived from real-time queue statistics, for example, queue condition activities and Updated Position in Queue (UPiQ) messages.

If you are licensed for one instance of IVR Routing only and configure IVR Routing on a Remote Server, the Enterprise Server remains available as a backup. If the Remote Server on which IVR Routing is configured goes offline and you are licensed for one instance of IVR Routing, you must reassign the IVR Routing ports back to the Enterprise Server in order for IVR Routing functionality to continue. See *"Assigning IVR Routing Remote Server ports to the Enterprise Server"*.

NOTE:

- The MiContact Center Inbound Router Service should be left running on the Enterprise Server. Optionally, if the Enterprise Server is not intended to use IVR Routing functionality, the Enterprise Server's memory usage can be decreased by disabling the following services on the Enterprise Server:
  - MiContact Center Inbound Router Service
  - MiContact Center Outbound Router Service
  - MiContact Center UPiQ Service
- To replicate workflows and media on the IVR Routing Remote Server, we recommend that the Enterprise and Remote Servers are on the same domain.
- If the Enterprise and IVR Routing Remote Servers are in a workgroup, ensure that the workgroup names are identical, the user name and password for each server are identical, and that the IVR Routing instances on each server are running under the same administrative login credentials. To run the remote IVR Routing instance under the Enterprise Server's administrative login credentials, see *"Configuring remote IVR Routing communication with the Enterprise Server"*.
- If the IVR Routing instance runs PowerShell, Executable Application, or Batch scripts, ensure the scripts are on a UNC share.
- You must have access to PowerShell scripts from the domain under which the MiContact Center Inbound Router Service is running. For optimal functionality, ensure you have permissions to access the UNC share where the PowerShell scripts are located. This is only relevant if you have not disabled the MiContact Center Inbound Router Service.
- You must install Excel on every Remote Server in your enterprise if your workflows execute Excel database queries.

To install an IVR Routing instance on a Remote Server

1. Install the **Remote Server** software on the Remote Server. See *"Installing the Remote Server software"*.
2. See the configuration procedures for IVR Routing in *"IVR Routing"*.

   When you are configuring extensions, ensure you configure them as remote IVR Routing ports, as follows.
3. In YourSite Explorer, click on **IVR Routing > Extensions**.
4. Select every port you want to assign to the Remote Server.

   You can select multiple ports by holding the Shift key.
5. From the **Extension type** drop-down list, select an extension type to assign to the ports.

NOTE: If you have a single IVR Routing instance, ensure that your ports are assigned to the same server where the IVR instance resides, or you will exceed the licensed number of IVR Routing servers assigned to your ports.

6. Select the **This is a remote port** check box for all ports you want to assign to the Remote Server.
7. After **Remote Server** click the **Browse** button.

   The Select a computer pane opens.
8. Select the computer that will act as the Remote Server and click **OK**.
9. On the ribbon, click **Save**.

Assigning IVR Routing Remote Server ports to the Enterprise Server

If you are licensed for one instance of IVR Routing only and the IVR Routing Remote Server ports go offline, the Enterprise Server remains available as a backup. In this case, you must re-assign ports from the offline IVR Routing Remote Server back to the Enterprise Server.

NOTE: If you disabled MiContact Center Inbound Router Service, MiContact Center Outbound Router Service, and MiContact Center UPiQ Service, you must re-enable them before assigning ports from the Remote Server back to the Enterprise Server.

To assign an IVR Routing Remote Server port to the Enterprise Server

1. In YourSite Explorer, click **IVR Routing > Extensions** and select every port to assign back to the Enterprise Server.
   You can select multiple ports by holding the Shift key.
2. After **Remote Server**, click the **Browse** button.
3. Select the Enterprise Server and click **OK**.
4. Deselect the **This is a remote port** check box.
5. On the ribbon, click **Save**.

   The ports are assigned back to the Enterprise Server.

Configuring remote IVR Routing communication with the Enterprise Server

For remote IVR Routing instances to communicate with the Enterprise Server in a workgroup configuration, all remote Routing Services, for IVR Routing, must run under the Enterprise Server's administrative login credentials.

To configure remote IVR Routing communication with the Enterprise Server

1. On the Remote Server, in Windows, navigate to **Services**.
2. Right-click **MiContact Center Inbound Router Service** and select **Properties**.
3. Click the **Log On** tab and select **This account:**.
4. After **This account**, type the administrator account's user name for the workgroup or click **Browse** to search for it.
5. If you click **Browse**, under **Enter the object name to select:**, type the user name for the administrator's account and click **OK**.
6. After **Password**, enter the account's password.
7. After **Confirm password:**, re-enter the account's password.

8. Click **Apply** and then click **OK**.
9. Repeat these steps for each MiContact Center Business Routing Service, for IVR Routing, on the Remote Server.

CTI Developer Toolkit

NOTE:

- If you require the calculations used to populate reports to use in your custom application built with the CTI Developer Toolkit, you can download these applications from Mitel Connect under Downloads > MiContact Center.
- In Version 7.0 and greater, the CTI toolkit application uses .NET Framework 4.5. When upgrading from a pre-7.0 version, any third-party products that use the CTI Toolkit will need to be recompiled using the latest CTI Toolkit dlls.

Mitel Computer Telephony Integration (CTI) Developer Toolkit is a programmable .NET C# Dynamic-link library (DLL) that can be used in any .NET Framework 4.5 application or website.

The CTI Developer Toolkit is offered in two forms: server side and client side license. The server side license provides the ability to insert custom real-time IVR collected data to each incoming call. It also uses the Contact Center Screen Pop infrastructure to deliver third-party data to agents (using either the client side license or Contact Center PhoneSet Manager). The client side license provides basic telephony functions (answer, hang up, transfer, and hold), provides agent control (such as set/remove Make Busy) and delivers caller information such as ANI, DNIS, Collected Digits, and call notes in real time as calls arrive. The client side license may be used to display information in CRM, Microsoft Outlook, or custom applications.

If you want to route or screen pop on digits or other data sets collected from a third-party IVR, you must adhere to the following conditions:

- You must have a CTI Developer Toolkit Server license
- The third-party vendor must be a Mitel MSA Development partner. As a Mitel MSA Development partner, they must have completed a MiTAI (API) integration that allows them to pass the collected digits or other data set, along with a unique call ID provided by this API, enabling Mitel's Contact Center software to associate the collected digits to a particular call with unique call ID matching.
- If you want to route or screen pop on ANI or DNIS or on digits collected within the Mitel IVR, the above are not required.

NOTE: Once you have installed the CTI Developer Toolkit, typically to <installation_drive>:\Program Files (x86)\Mitel\CTI Developer Toolkit 8.0.0.0\, you can access the DLLs required to create customized applications in the CTI Developer Toolkit\Redist folder. You must include the entire Redist folder with your final compiled custom application or it will not function properly.

The CTI Developer Toolkit includes a number of sample applications, including source code, that can be used to test CTI Developer Toolkit functionality. For a complete overview of the sample applications included, see *"CTI Developer Toolkit sample applications"*.

The CTI Developer Toolkit is currently available with the following functionality:

- Connect and disconnect from the MiContact Center Business Server with user authentication
- Retrieve devices from the MiContact Center Business configuration database, based on all
  - All agent devices for the user currently logged on to the system
  - All agent devices associated with employees
  - All extensions
  - All queues

- Set real-time monitors on agents, extensions, and queues to receive notification when
  - A call is received (including call detail information)
  - A device state changes (for example, idle, ACD, and hold)
- Set phone monitors on agents and extensions to receive notification when
  - A call is received (including call detail notification)
  - A call is made
  - A call is cleared
  - A call is transferred
  - A call is conferenced
  - A call is established
  - A call fails
- Control a device (for example, set/remove Do Not Disturb or Make Busy)
- Make calls from agent or extension devices
- Place calls on hold
- Retrieve calls that are on hold
- Remove calls from queues
- Redirect calls from queues to agents/extensions
- Transfer or conference calls between agent and extension devices
- Clear calls for agent and extension devices
- Add call detail information from third-party IVRs and dialers. This information is available to client applications in the Call Received event

The following table lists the major areas of functionality exposed with each version of the CTI Developer Toolkit. The version specified indicates the most recent version, including any service packs available to customers.

Table 11.1: Supported functionality by version (Sheet 1 of 3)

Functional Area	Version 6.0.3	Version 7.0	Version 7.1 / 8.0 / 9.0 / 9.1/9.2
Application events			
Connection state changes	x	x	x
Configuration loaded	x	x	x
Device Information			
Get all devices	x	x	x
Get all extension	x	x	x
Get all agents	x	x	x
Get all queues	x	x	x
Get agents by login	x	x	x

Table 11.1: Supported functionality by version (Continued) (Sheet 2 of 3)

Functional Area	Version 6.0.3	Version 7.0	Version 7.1 / 8.0 / 9.0 / 9.1/9.2
Get agents for all employees	x	x	x
Device events[1]			
Device state changed	x	x	x
Voice events[1]			
Call info received	x	x	x
Call delivered	x	x	x
Call received	x	x	x
Call cleared	x	x	x
Call transferred	x	x	x
Call established	x	x	x
Call failed	x	x	x
Call diverted	x	x	x
Call originated	x	x	x
Call retrieved	x	x	x
Extension events			
Extension state changed	x	x	x
Agent events			
Agent state changed	x	x	x
Queue events			
Queue Now statistics	x	x	x
Queue totals statistics	x	x	x
Interactive Visual Queue delta	x	x	x
Interactive Visual Queue snapshots	x	x	x
Voice control[3]			
Make call	x	x	x

Table 11.1: Supported functionality by version (Continued) (Sheet 3 of 3)

Functional Area	Version 6.0.3	Version 7.0	Version 7.1 / 8.0 / 9.0 / 9.1/9.2
Clear call	x	x	x
Answer call	x	x	x
Hold call	x	x	x
Retrieve held call	x	x	x
Conference call	x	x	x
Transfer call	x	x	x
Make consultation call	x	x	x
Transfer consultation call	x	x	x
Cancel consultation call	x	x	x
Trade call	x	x	x
Agent control			
Login	x[4]	x[4]	x[4]
Logout	x[4]	x[4]	x[4]
Set Make Busy	x	x	x
Remove Make Busy	x	x	x
Set Do Not Disturb	x	x	x
Remove Do Not Disturb	x	x	x
Cancel Work Timer	x	x x	
Cancel reseize timer	x[5]	x[5]	x[5]
Conference call	x	x	x
Queue control			
Redirect call	x	x	x
Remove call	x	x	x
IVR integration			
Add call detail[6]	x	x	x

1 Device events are supported by all device types.

2 Voice events are supported by extension and agent devices

3 Voice control is supported by extension and agent devices.

4 Supports External hot desk agent and External hot desk user functionality.

5 The Cancel reseize timer agent control function requires External hot desk agent functionality.

6 The AddCallDetail method requires a CTI Developer Toolkit server license.

NOTE: The CTI Developer Toolkit may also be referred to as the prairieFyre.CallControl.Toolkit name-space throughout this chapter and in the CHM help file documentation, as the CHM help file included with the CTI Developer Toolkit is sourced from the source code, which refers to the namespace by this name.

The following table lists and describes the top level classes available with the CTI Developer Toolkit.

Table 11.2: Primary object classes

Class	Description
DeviceManager	This class contains functionality to manage the connection to the Enterprise Server and provides access to configured agents, extensions, and queues.
Device	This abstract class includes the core properties for all device types. Objects of this class may not be directly instantiated.
Voice	This class is derived from the Device class and serves as the base class for the agent and extension classes. It includes properties and functionality that is specific to devices with voice characteristics.
Agent	This class is derived from the Voice class. It represents both traditional ACD and Hot Desking Agents. Specialized functionality handled in this class includes agent control operations, such as agent login and set/remove Make Busy.
Extension	This class is derived from the Voice class. It represents configured extensions.
Queue	This class is derived from the Device class. It represents configured queues. It includes properties and functionality that is specific to the queue device. Specialized functionality handled in this class includes set/remove Do Not Disturb, redirect call, and remove call.

Installing the CTI Developer Toolkit

The CTI Developer Toolkit is included in the MiContact Center Business installation. Refer to the following section if you want to download and install the CTI Developer Toolkit before deploying the Enterprise Server.

Before installing the CTI Developer Toolkit, ensure

- The version of the CTI Developer Toolkit you are installing is compatible with the version of the MiContact Center Business software you are using.
- You have access to the MiContact Center Business Server.
- The MiContact Center Business Server has been properly set up and configured with the extensions, agents, and queues that you will be using with your custom application.
- The telephone system(s) in your enterprise has been properly set up and configured with the extensions, agents, and queues that you will be using with your custom application. See the Golden Rules documentation located in the Mitel Knowledge Base at: https://mitel.custhelp.com/app/answers/answer_view/a_id/1002335/loc/en_US.
- You have a supported version of Microsoft .NET Framework installed on your workstation. See the *MiContact Center Business and MiVoice Analytics System Engineering Guide* for supported version information.
- You have an IDE installed on your workstation, either Visual Studio or SharpDevelop.

To download and install the CTI Developer Toolkit

1. Log on to the Enterprise Server with a Windows administrator account.
   The account must have full administrative privileges.
2. Ensure all of the Windows programs are closed.
3. Using a web browser browse to **http://www.mitel.com**.
4. Click **Login**.
5. Type your Mitel Connect **Username** and **Password** and click **Login**.
6. Click **Downloads**.
7. Under **Title**, click **MiContact Center**.
8. Click the link of version you want to download and the Knowledge Base Article is displayed. Occasionally, due to browser incompatibility, the link will not respond. If this happens, right-click the link and select **Open in new tab**.
9. In the **Knowledge Base Article**, click the link of version you want to download.
10.
11. Under **Optional Release Components**, click **CTI Developer Toolkit**.

    Occasionally, due to browser incompatibility, the link will not respond. If this happens, right-click the link and select Open in new tab.
12. To download your software:
    - Click **I Agree [Download using Software Download Manager (Recommended)]** to download using the Software Download Manager.
    - Click **I Agree [Download using HTTP]** to download using your browser.

NOTE: If you click **I Disagree**, you will be unable to download the software.

13. If you choose to download using the Software Download Manager, select the destination for the download and click **Save**. When the file finishes downloading, click **Launch**.
14. If you choose to download using HTTP, depending on the options presented in your browser, select whether to **Save** or **Run** the installation file.
    - If you saved the file, browse to the downloaded installation file and run it.

      The CTI Developer Toolkit Setup Wizard opens.
    - If you ran the file, the CTI Developer Toolkit Setup Wizard opens when the file finishes downloading.
15. Click **Browse** to select the location to which the install files will be extracted.

    We recommend you do not alter the default path to which the files are extracted.
16. Click **Next**.

    The End User License Agreement window opens.
17. To continue with the installation, select the **I accept the terms in the License Agreement** check box and click **Next**.

    The Custom Setup window opens.
18. To change the default location for the primary installation features (Documentation files, Redistributable files, and Sample applications), click **Browse**, specify a new location, and click **OK**.

    NOTE:
    - The Sample applications feature, and all sub-features within the Sample applications, can be disabled by clicking the disk icon and choosing 'Entire feature will be unavailable'.
    - When the default installation location is customized for any of these product features, the new location is automatically used by the other product features.
19. Click **Next**.

    The Ready to install CTI Developer Toolkit window opens.
20. Click **Install**.

    The CTI Developer Toolkit is installed.
21. When the installation is complete, click **Finish**.

    Once the installation is complete, you should perform the steps listed below to ensure your development environment and the servers you will be using are properly configured.

To verify your environment and servers are configured properly for the CTI Developer Toolkit

1. Load the **DeviceMonitor.sln** sample in your IDE and build the application.
2. Run the **DeviceMonitor.exe** application, verifying the following operations

- Connect to a MiContact Center Business Server.
- Execute the **Retrieve All Devices** option on the **Actions menu** and verify that all programmed devices are displayed.
  Device level operations, such as SetMonitor, MakeCall, and Login will display a message in the status bar indicating the number of devices affected by the operation. Refer to this message and the device state image icon displayed next to the device when performing the following tests.
  - Select an extension device and perform the following operations
    i. Set Monitor

ii. Make Call
iii. Clear Call

– Select an agent device that is in the logged out state and perform the following operations
i. Set Monitor
ii. Login
iii. Set Make Busy
iv. Remove Make Busy
v. Logout

Upgrading the CTI Developer Toolkit

When upgrading from a previous version of the CTI Developer Toolkit to the latest version of the CTI Developer Toolkit, we recommend you:

- Download the latest version of the CTI Developer Toolkit and install it on a development machine.
- Locate the redistributable files under *<installation directory>Redist* and copy them over the existing files in the custom written application.
- Recompile any applications developed on top of the CTI Developer Toolkit and test the applications against the latest version of a MiContact Center Business Server to ensure that they behave as expected.

NOTE: Any applications being upgraded to current version that use call details, such as a customer screen pop application using variables from IVR, must replace the MiTAI call ID parameter with a global call ID. AddCallDetail(…) and AddClientCallDetailMonitor_NoDevice(…) in the DeviceManagerClass have been made obsolete and have been replaced with API calls that take the MiTAI global call ID instead. Global call ID can be obtained from CallReceivedEvent.

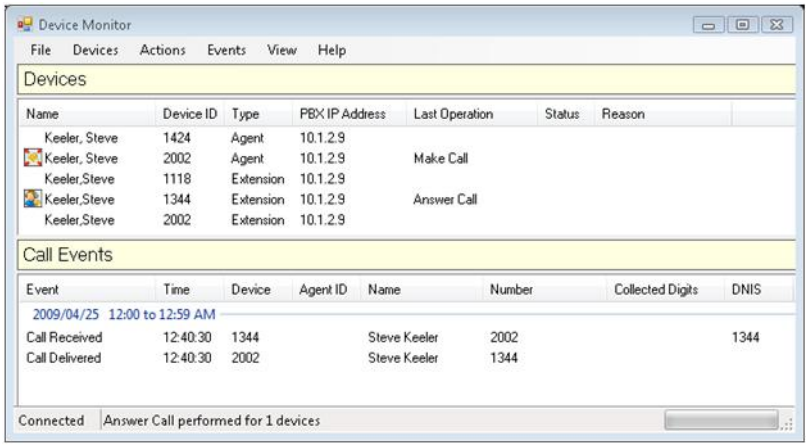
CTI Developer Toolkit sample applications

There are currently four sample applications, including source code, that are included with the CTI Developer Toolkit.

Device Monitor

The Device Monitor sample application provides a graphical user interface that enables developers to connect to the MiContact Center Business Server, retrieve a list of devices, perform agent control activities on the retrieved devices (for example, login/logout, set/remove Make Busy, etc.), perform call control activities (for example, make call, answer call, clear call, etc.), and retrieve call event notifications. (See the following figure.)

Figure 11.1: Device Monitor sample application



To use the CTI Developer Toolkit Device Monitor sample application

1. In Windows, navigate to the **CTI Developer Toolkit** and open **Device Monitor**.
2. Click **File > Connect**.
3. Type the IP address of the Enterprise Server, user name, and password and click **OK**.
4. Click **Devices** and select one of the following options:
   - Retrieve agents for current login
   - Retrieve agents for all employees
   - Retrieve all agents
   - Retrieve all extensions
   - Retrieve all queues
   - Retrieve all devices
5. Once the devices you selected have loaded, you perform actions on the selected device(s) by clicking **Actions** and selecting an available action or by right-clicking and selecting an available action from the list:
   - Set monitor > Phone, Real time, All
   - Remove monitor > Phone, Real time, All
   - Login
   - Logout
   - Set Make Busy
   - Remove Make Busy
   - Set DND
   - Remove DND
   - Cancel Work Timer
   - Make call
   - Answer call
   - Hold call
   - Retrieve call
   - Transfer call
   - Conference call

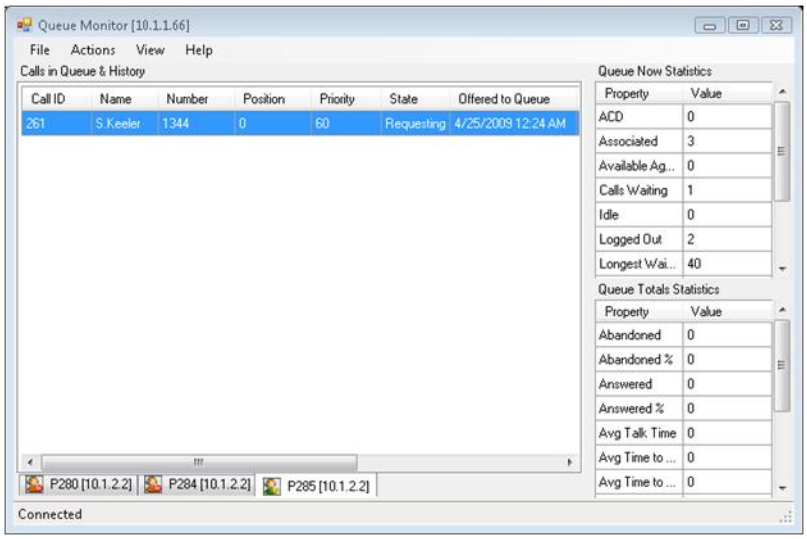
- Clear call
- Add call notes

  NOTE: Call notes are supported for inbound calls only.
- Make consultation call
- Transfer consultation call
- Cancel consultation call
- Trade call

Queue Monitor

The Queue Monitor sample application displays the functionality and support for queue device types included with the CTI Developer Toolkit. The Queue Monitor application is similar to the optional Interactive Visual Queue monitor that is housed in Contact Center Client. It enables developers to connect to the MiContact Center Business Server, load a set of queues, and view real-time call activity (calls entering and exiting queues) and queue statistics (for example, calls waiting, number of agents available, longest waiting, etc.). (See the following figure.)

Figure 11.2: Queue monitor sample application



To use the CTI Developer Toolkit Queue Monitor sample application

1. In Windows, navigate to the **CTI Developer Toolkit** and open **Queue Monitor**.
2. Click **File > Connect**.
3. Type the IP address of the Enterprise Server, user name, and password and click **OK**.
4. Click **Actions**.
5. Select one or more queues to open.
6. Click **OK**.

   If you selected multiple queues, you can toggle between them using the tabs at the bottom of the queue monitor.
7. Once the queues you selected have loaded, you perform actions on the selected device(s) by clicking **Actions** and selecting an available action or by right-clicking and selecting an available action from the list:

   - Open queue

- Close queue
- Set DND
- Remove DND
- Redirect call
- Remove call

Console Call Monitor

The Console Monitor sample application displays call received information for either single or multiple agents or extensions in a simple console application window. It is intended to be a very brief example, with little error handling that can be used to demonstrate the basics of coding screen pop displays.

To use the CTI Developer Toolkit ConsoleCallMonitor sample application

1. In Windows, open the command prompt window.
2. Type **cd "<installation_drive>:\Program Files (x86)\Mitel\CTI Developer Toolkit 8.0.0.0\\Samples\ConsoleCallMonitor\bin"** and click **Enter**.
3. Type **ConsoleCallMonitor.exe Device Number/Telephone System IP Address/Type** and click **Enter**.

   The ConsoleCallMonitor application takes multiple parameters in the following form, Device Number/Telephone System IP Address/Type. For example, 2000/10.1.1.1/Agent 1800/10.1.1.10/Extension would invoke agent 2000 on telephone system 10.1.1.1 and extension 1800 on telephone system 10.1.1.10.

Console Queue Monitor

The Console Queue Monitor sample application displays information on calls entering/exiting queues and queue statistics in a simple console application window. Similar to the Console Call Monitor application, it represents a minimal set of code required to build a real-time queue monitoring application.

To use the CTI Developer Toolkit Console Queue Monitor sample application

1. In Windows, open the command prompt window.
2. Type **cd "<installation_drive>:\Program Files (x86)\Mitel\CTI Developer Toolkit 8.0.0.0\Samples\ConsoleQueueMonitor\bin"** and click **Enter**.
3. Type **ConsoleQueueMonitor.exe Queue/Telephone System IP Address** and click **Enter**.

   The ConsoleQueueMonitor application takes multiple parameters, in the following form: Queue/Telephone System IP Address. For example: P200/10.1.1.1 P180/10.1.1.10 would invoke monitoring calls on two queues, queue P200 on telephone system 10.1.1.1 and queue P180 on telephone system 10.1.1.10.

Best practices for custom development

The following best practices must always be followed when developing custom developments to work in conjunction with MiContact Center Business software.

- When developing custom applications and integrations
  - Verify that what you are attempting to build is possible by attempting the functions from an alternate client application, such as Contact Center Client, the Device Monitor sample application, or MiTAI Browser.

  - Routinely check the log files of all related services, specifically the MiContact Center Business, MiContact Center Data Collection, and MiContact Center MiTAI Proxy Services to ensure there are no unusual or unexpected warnings or errors.
  - Routinely check the log files of alternative client applications for any unusual or unexpected warnings or errors (as listed in the previous bullet).

The following best practices must always be followed when developing custom connectors to third-party IVRs.

- Third-party IVR ports and IVR Routing ports must all be programmed in YourSite Explorer as an extension type > Messaging Port or RAD Port. When configuring the extension as a port type, the disable real-time monitoring option will not be configurable.
- In addition to whatever custom data your third-party IVR is sending, it must also send the same data that IVR Routing does (using the same naming conventions). These are PFANI, PFCALLERNAME, and PFDNIS. This will ensure that the existing MiTAI record linking logic within the Mi Contact Center Business Server gets the correct information, which is typically at the first controller/port.

Common user scenarios and source code examples

This section details the following common user scenarios for developing custom integrations and applications using the CTI Developer Toolkit

- Click to dial
- Call received notification
- Add call detail (using a third-party IVR)

Click to dial

NOTE: This code sample is not included in the sample project that is included with the CTI Developer Toolkit.

The following C# code fragment provides sample source code that can be used to build a console application with click-to-dial functionality.

```
    static void Main()
    {
    DeviceManager dm = DeviceManager.Instance;
    string pbxIpAddress = "10.1.1.10";
    string server = "the-CCM-server-IP-address-here";
    string username = "your-username-here";
    string password = "your-password-here";
    Voice extension;
    if (!dm.Connect(server, 5024, username, password))
    {
    Console.WriteLine("Uable to connect to server");
    return;
    }
```

```
    extension = dm.GetDevice("1100", pbxIpAddress, DeviceType.Extension) as
    Voice;
    if (extension == null)
    {
    Console.WriteLine("Unable to retrieve extension device");
    return;
    }
    if (!extension.SetMonitor())
    {
    Console.WriteLine("Unable to monitor extension");
    return;
    }
    extension.MakeCall("16135990045");
    dm.ReleaseAllDevices();
    dm.Disconnect();
    Console.WriteLine("Exit application");
    }
```

This source code will connect to the specific Enterprise Server using the supplied username and password. It then initiates a call from extension 1100 on the telephone system with IP address 10.1.1.10 to the phone number 16135990045.

Call received notification

The following C# code fragment shows a condensed version of the source code provided with the ConsoleCallMonitor sample application that is shipped with the CTI Developer Toolkit.

```
    static void Main()
    {
    DeviceManager dm = DeviceManager.Instance;
    string pbxIpAddress = "10.1.1.10";
    string server = "the-CCM-server-IP-address-here";
    string username = "your-username-here";
    string password = "your-password-here";
    Voice extension;
    if (!dm.Connect(server, 5024, username, password))
    {
    Console.WriteLine("Unable to connect to server");
    return;
    }
    extension = dm.GetDevice("1100", pbxIpAddress, DeviceType.Extension) as
    Voice;
    if (extension == null)
    {
    Console.WriteLine("Unable to retrieve extension device");
    return;
```

```
    }
    if (!extension.SetMonitor())
    {
    Console.WriteLine("Unable to monitor extension");
    return;
    }
    device.CallInfoReceived += CallInfoReceivedHandler;
    Console.WriteLine("Listening for calls on extension 1100");
    Console.WriteLine("Press any key to end application.");
    while (!Console.KeyAvailable) ;
    dm.ReleaseAllDevices();
    dm.Disconnect();
    Console.WriteLine("Exit application");
    }
    static void CallInfoReceivedHandler(object sender,
    CallInfoReceivedEventArgs e)
    {
    Console.WriteLine("-----------------------------------------------");
    Console.WriteLine("Call Info Received:");
    Console.WriteLine(" Caller Name : " + e.Info.CallerName);
    Console.WriteLine(" Caller Number : " + e.Info.CallerNumber);
    Console.WriteLine(" DNIS : " + e.Info.DNIS);
    Console.WriteLine(" Collected Digits : " + e.Info.CollectedDigits);
    }
```

Add call detail (using a third-party IVR)

The following C# code fragment shows a condensed version of using the AddCallDetail method so toolkit users can invoke to add custom key/value pairs into call information.

In summary, this code fragment does the following:

- Device_CallReceived is an event handler that is invoked whenever a monitored IVR extension/port receives a call. This is needed to acquire the MiTAI Call ID which is used to link these extra information records (--w records in ACD data files) to other call records.
- When this event handler is invoked, it makes three sequential calls to the AddCallDetail method, adding call values for the following keys: PFANI, PFCALLERNAME, and PFDNIS.
- The keys used above are the ones that the default screen pop display recognizes but developers can easily make up their own key names as well, provided they have toolkit code on the client side to pull the custom information from the CallInfoReceivedEvent notifications.

public void Device_CallReceived(object sender, CallReceivedEventArgs e)

```
    {
    Device device = sender as Device;
    DeviceManager.Instance.AddCallDetail(
    e.CallingDevice.CallReferenceID, device.PBXIPAddress, device.DeviceID,
```

```
    "PFANI", "6135990045");
    DeviceManager.Instance.AddCallDetail(
    e.CallingDevice.CallReferenceID, device.PBXIPAddress, device.DeviceID,
    "PFCALLERNAME", "John Smith");
    DeviceManager.Instance.AddCallDetail(
    e.CallingDevice.CallReferenceID, device.PBXIPAddress, device.DeviceID,
    "PFDNIS", "8001");
    }
```

Troubleshooting CTI Developer Toolkit issues

Diagnosing any issues experienced while using the CTI Developer Toolkit requires a high level of familiarity with MiContact Center Business and MiVoice Analytics applications and CTI Developer Toolkit functionality. This section details several troubleshooting tips and tricks when encountering issues with CTI Developer Toolkit functionality.

The CTI Developer Toolkit and any custom applications created using it rely heavily on the proper configuration and operation of the MiContact Center Business Server. Ensuring that the server is operating correctly is the first diagnostic step that should be taken when troubleshooting CTI Developer Toolkit issues. This includes:

- Verifying that the CTI Developer Toolkit and MiContact Center Business software are compatible and that you are properly licensed for the desired functionality.
- Verifying that all MiContact Center Business software pre-installation and post installation steps have been completed.
- Checking the log files of all related services, specifically the MiContact Center Business, MiContact Center Data Collection, and MiContact Center MiTAI Proxy Services to ensure there are no unusual or unexpected warnings or errors.
- Attempting the same operation using an alternate client application. This can be any of the following, depending on the underlying issue:
  - Contact Center Client
  - Device Monitor sample application
  - MiTAI Browser
- Checking the log files of alternative client applications for any unusual or unexpected warnings or errors (as listed in the previous step).
- Confirming the telephone system conforms to the guidelines stated in the Golden Rules document. In particular, aspects of the CTI Developer Toolkit rely on the ability to set MiTAI monitors on devices. As such, the 'HCI Options' must be enabled for the Class of Service on all monitored devices. For more information, refer to the following Mitel Knowledge Base article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1002335/loc/en_US.

Troubleshooting specific issues

This section describes some specific problems that may be encountered when working with the CTI Developer Toolkit and provides any recommended steps for diagnosing issues and potential solutions.

Retrieve All commands does not display any devices

If any of the *Retrieve All* commands in the Device Monitor application return an empty list of devices, there may be a configuration problem with the *IPAddress* values stored in the *CCMData* database table named tblEnterpriseConfig_Node.

To troubleshoot this issue, run the following SQL query and pay particular attention to values in the [IP Address] column. This query simulates the query used by the CTI Developer Toolkit and will return a list of agents and extensions for all voice media servers.

```
SELECT node.Name AS [Node],
node.IPAddress AS [IP Address],
'Agent' AS [Type],
device.FirstName AS [First Name],
device.LastName AS [Last Name],
device.Reporting AS [Reporting Number]
FROM tblConfig_Agent device INNER JOIN tblEnterpriseConfig_Node node
ON device.FKNode = node.Pkey INNER JOIN tblLookup_NodeType NodeType
ON node.FKNodeType = NodeType.Pkey
WHERE FKNodeFamily = 1
UNION
SELECT
node.Name AS [Node],
node.IPAddress AS [IP Address],
'Extension' AS [Type],
'' AS [First Name], -- No first name on extensions
'' AS [Last Name], -- No last name on extensions
device.Reporting AS [Reporting Number]
FROM tblConfig_Extension device INNER JOIN tblEnterpriseConfig_Node node
ON device.FKNode = node.Pkey INNER JOIN tblLookup_NodeType NodeType
ON node.FKNodeType = NodeType.Pkey
WHERE FKNodeFamily = 1
ORDER BY [Node], [Type]
```

The [IP Address] values in the query results should contain the IP address of the telephone system that is associated with the voice media server. If this value is incorrect or blank, use YourSite Explorer to set the IP address to the correct value.

GetDevice method fails or returns null unexpectedly

If a custom applications calls the *GetDevice* method and returns null even though the device is valid and programmed in MiContact Center Business, there may be a timing issue with the Connect operation. When a custom application calls the *Connect* method in the CTI Developer Toolkit, the operation returns

as soon as an authenticated connection has been established with the Enterprise Server. However, there may still be some basic configuration loading occurring in the background, which must complete before calls to *GetDevice* can be successful.

An event named *ConfigurationLoaded* is provided in the CTI Developer Toolkit, which is used to notify custom applications that background configuration loading has completed. In previous versions, the Device Monitor sample application used a workaround method of issuing *aSleep* method call on the active thread to give background configuration loading time to complete.

Agent control actions succeed while call control actions fail

In this scenario, agent control actions (for example, login, logout, and set/remove Make Busy) succeed, while call control actions (for example, make call, answer call, and clear call) fail. The key difference between these two types of operations is that call control actions require a MiTAI monitor set on the device and agent control actions do not. Your investigation should start with an analysis of MiTAI related configuration, including:

- Verifying that the MitaiEnabled flag set properly for devices in the database
- Checking telephone system (for example, HCI Options enabled)
- Confirming the telephone system version is supported

Unable to set monitor on agent device

In some cases, using the Device Monitor to issue a Set Monitor operation on an agent will fail. If you have the Errors view open in the application, it displays a MiTAI error, indicating 'Operation failed: MessageTag[8] ReturnCode [SXERR_FEATURE_NOT_ALLOWED]'

In this case, you should verify that the agent device is properly configured on the telephone system, including HCI Options enabled for the associated Class Of Service.

Web service errors occurring in log files

If you encounter Web service error messages in log files and an application built with the CTI Developer Toolkit is experiencing errors, check to ensure that the Microsoft.Web.Services3.dll file is present under the Windows system directory or in the custom application directory.

Client installation

The first time you install MiContact Center Business, you must go to each client computer to install the client software. After the initial installation, the MiContact Center Updater Service will perform updates on client computers each time the Enterprise Server is updated.

Client software can also be installed silently. Refer to the following Mitel Knowledge Base article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1000648/loc/en_US.

If you are performing a client installation where connectivity to the Enterprise Server is not available, you must follow the instructions for a silent installation. See the following Mitel Knowledgebase article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1000648/loc/en_US.

NOTE:

- The date format for MiContact Center Business is tied to the regional settings on your client computer. For example, if you configure your computer to display the date as mm/dd/yyyy, when you browse to the MiContact Center Business Web UI the MiContact Center Businessapplications display the date as mm/dd/yyyy.
- The system administrator must provide all MiContact Center Business users with a user name and password.
- After an upgrade is performed on the Enterprise Server, any clients that use the MiVoice Border Gateway Connector to connect to the Enterprise Server should close MiVoice Border Gateway Connector to allow pending updates to be applied. Once the MiVoice Border Gateway Connector has been updated, it can be restarted.
- Launching client-side applications from the taskbar causes them to bypass the MiContact Center Updater Service process. To ensure successful updates from the Enterprise Server, after an upgrade close all client-side applications for 15 minutes or reopen them from the Start menu.
- We recommend you install the Client Component Pack on computers used to run and view reports. Without the Client Component Pack installed, users may experience errors caused by permissions or network security. These issues are outside the scope of Mitel Technical Support.
- We recommend using Adobe Reader to view documents and reports in .pdf format and to view online user guides and reports.

Client roles

MiContact Center Business client installation includes the Client Role Selector. It is an installation wizard that installs and enables the applications and components typically used by the following employee roles:

- **Supervisor**
  The Supervisor role is designed for supervisors and managers who monitor devices (for example agents and queues) and schedule agents.
- **Agent**
  The Agent role is designed for agents who monitor themselves and, possibly, other agents and queues.
- **Administrator**
  The Administrator role is designed for employees who manage the Enterprise Server.
- **Custom**

The Custom role is designed for employees who may perform the functions of a supervisor, agent, and administrator and requires the use of a variety of applications.

After installing the Client Component Pack, you can re-run the MiCC Setup wizard on a client computer at any time to change the components and applications installed on the client computer. See *"modifying available client applications and client roles"*.

The following table lists the components and applications available for installation with each client role installation.

NOTE:

- If you want to customize the client installation, select Custom. For example, if a supervisor also performs administrative functions, select the Custom role and choose the components and applications the supervisor requires.
- The applications that display in the Client Component Pack installation are dependent on licensing.

Table 12.1: Client role installations

Components /applications	Supervisor	Agent	Administrator	custom
Ignite*	x	x		x
Contact Center Client	x	x	x	x
Flexible Reporting	x			x
Contact Center Softphone	x	x		x
MiVoice Border Gateway Connector	x	x		x
Workforce Scheduling	x			x
YourSite Explorer			x	x
Employee Portal	x	x	x	x

Accessibility to components and applications is dependent on your licensing package. For more information, see the licensing section in the *MiContact Center Business and MiVoice Analytics System Engineering Guide*.

*Ignite is available as either a desktop or Web version. In our documentation, we refer to desktop Ignite and its features as Ignite (DESKTOP) and Web Ignite and its features as Ignite (WEB) or, where appropriate, as DESKTOP or WEB only.

Before running the client installation

Before running the client installation, read and adhere to the following notes:

- Verify the hardware and software requirements for running MiContact Center Business on client computers, as detailed in the *MiContact Center Business and MiVoice Analytics System Engineering Guide*.
- To view reports, Microsoft Excel 2010+ or greater is required on all client computers. As a minimum, you may install Microsoft Excel Viewer, but clients will be unable to take advantage of distributing reports for printing. You can download Excel Viewer for free from Microsoft: http://www.microsoft.com/en-us/download/default.aspx.

NOTE: Protected View is a Microsoft Office security feature that can impact the ability to view Excel reports in MiContact Center Business. If you use Excel 2010 to view reports, configure the following in Excel:

  - Ensure the following Protected View options are not enabled:
    - Enable Protected View for files originating from the Internet
    - Enable Protected View for files located in potentially unsafe locations
    - Enable Protected View for Outlook attachments
    - Enable Data Execution Prevention mode
  - Ensure that the following Trusted Location option is selected:
    - Allow Trusted Locations on my network (not recommended)

- Some group policy settings can disrupt the installation and upgrading process for client computers. We recommend all clients be configured with Local Administrators permission to install the Client Component Pack.
- Ensure antivirus software is disabled before installing the Client Component Pack.

Client installation process

To set up MiContact Center Business, on the client computer

1. Install prerequisite software.
   See *"Before running the client installation"*.
2. Install Client Component Pack and client applications.

   See *"Installing the Client Component Pack and client applications"*.

Installing the Client Component Pack and client applications

When you install Client Component Pack, you select the applications that will be installed on the client computer based on client roles. For more information on client roles, see *"Client roles"*.

To install Client Component Pack

1. On the client computer, in a supported browser, type **http://[your Enterprise Server IP address]/CCMWeb**.
2. If prompted, type your username and password and click **Login**.
3. Hover over **Help** and select **Software downloads/Installations**.
4. Click **Client Component Pack**.
5. Click **Run**.

   The MiCC Setup wizard displays.

6. Click **Client Component Pack**.
7. If you want to install the Client Component Pack files in an alternate folder, click **Browse** to select the location.

   The default destination folder is <drive>:\program files (x86)\Mitel\MiContact Center\.
8. Enter the IP address of the Enterprise Server.
9. If you use Secure Socket Layer, select the **I want to use SSL** check box.

   For more information on planning, deploying, and securing communications with MiVoice Analytics, please refer to the *MiContact Center Business and MiVoice Analytics System Engineering Guide*.

NOTE: If you have previously installed the client with SSL disabled and now need to connect using the SSL, you have to launch the **MiCC Setup** from the Windows Start Menu and **Repair Client Component Pack**, then provide the new Enterprise address and SSL settings. Alternatively, download a new copy of the Client Component Pack from the CCMWeb.

10. Select the **I want to specify a different Updater source** check box and enter your Remote Server IP address if you want the Remote Server to act as the source for updating clients instead of the Enterprise Server.

    If you have clients that are connected from a remote site, to reduce traffic across the network, you can program these clients to update from a remote server instead of the Enterprise Server. Ignore this step if you do not have remote servers.

    NOTE: Changes that result from selecting this option will be active when you upgrade to the next fix pack or full release.
11. Click **Next**.
12. If you want to install applications based on client roles, from the drop-down list beside **Optional Template Role**, select the appropriate client role. Otherwise, toggle the switches to **On** or **Off** to select the applications you want to install.

    - **Supervisor**—The Supervisor role installation is designed for supervisors and managers who monitor devices (for example agents and queues), run reports, and schedule agents.
    - **Agent**—The Agent role installation is designed for agents who monitor themselves and, possibly, other agents and queues.
    - **Administrator**—The Administrator role installation is designed for employees who manage the Enterprise Server.
    - **Custom**—The Custom role installation is designed for employees who may perform the functions of a supervisor, agent, and administrator, and enables you to select any or all of the displayed applications for installation.

    NOTE: Applications toggle on and off based on the role selected. For example, an agent does not typically access YourSite Explorer, so when you select Agent as a role, the YourSite Explorer toggle switches to Off, indicating that with an Agent role selected, YourSite Explorer will not be installed on the client computer. Selectable options depend on your licensing.
13. Click **Next**.

    The MiCC Setup wizard installs pre-requisite software and, if applicable, displays relevant warnings.
14. Click **Next**.

    The MiCC Setup wizard installs your selected applications.
15. Select the appropriate check box to either launch Contact Center Client now or on system start up.

16. Click **Finish**.

Modifying available client applications and client roles

Client applications are installed and client roles are defined during the Client Component Pack installation. Modifications can be made at any time by re-running the Client Component Pack installation via the MiCC Setup wizard.

NOTE: If you have previously installed the client with SSL disabled and now need to connect using the SSL, you have to launch **MiCC Setup** from the Windows Start Menu and **Repair Client Component Pack**, then provide the new Enterprise address and SSL setting. Alternatively, download a new copy of the Client Component Pack from the CCMWeb.

To modify installed applications and client role selection

1. In Windows, open the Mitel program folder and launch **MiCC Setup**.
2. Click **Repair Client Component Pack**.
3. If you want to install the Client Component Pack files in an alternate folder, you must uninstall and reinstall the Client Component Pack. See *"Uninstalling the Client Component Pack"*.
4. Enter the IP address of the Enterprise Server.
5. If you use Secure Socket Layer, select the **I want to use SSL** check box.

   For more information on planning, deploying, and securing communications with MiContact Center Business, please refer to the *MiContact Center Business and MiVoice Analytics System Engineering Guide*.
6. Select the **I want to specify a different Updater source** check box and enter your Remote Server IP address if you want the Remote Server to act as the source for updating clients instead of the Enterprise Server.

   If you have clients that are connected from a remote site, to reduce traffic across the network, you can program these clients to update from a remote server instead of the Enterprise Server. Ignore this step if you do not have remote servers.
7. Click **Next**.
8. If you want to install applications based on client roles, from the drop-down list beside **Optional Template Role**, select the appropriate client role. Otherwise, toggle the switches to **On** or **Off** to select the applications you want to install.
   - **Supervisor**—The Supervisor role installation is designed for supervisors and managers who monitor devices (for example agents and queues), run reports, and schedule agents.
   - **Agent**—The Agent role installation is designed for agents who monitor themselves and, possibly, other agents and queues.
   - **Administrator**—The Administrator role installation is designed for employees who manage the Enterprise Server.
   - **Custom**—The Custom role installation is designed for employees who may perform the functions of a supervisor, agent, and administrator, and enables you to select any or all of the displayed applications for installation.

     NOTE: Applications toggle on and off based on the role selected. For example, an agent does not typically access YourSite Explorer, so when you select Agent as a role, the YourSite Explorer toggle

switches to Off, indicating that with an Agent role selected, YourSiteExplorer will not be installed on the client computer. Selectable options depend on your licensing.

9. Click **Next**.

   The MiCC Setup wizard installs pre-requisite software and, if applicable, displays relevant warnings.

10. Click **Next**.

    The MiCC Setup wizard installs your selected applications.

11. Select the appropriate check box to either launch Contact Center Client now or on system start up.
12. Click **Finish**.

Uninstalling the Client Component Pack

The Client Component Pack can be uninstalled from a client computer using the MiCC Setup wizard.

To uninstall the Client Component Pack and previously installed applications

1. In Windows, open the Mitel program folder and launch **MiCC Setup**.
2. Click **Uninstall Client Component Pack**.
3. When the warning displays, if you want to continue, click **Yes** to uninstall the product.
4. Select the check box beside **I want to remove MiContact Center data**.

   You are given options to remove all backup and/or log files. You may choose to retain either or both of these file types in order to reduce configuration time for your next deployment.

5. Click **Next**.

   The MiCC setup wizard uninstalls the Client Component Pack and all associated installed applications.

6. Click **Finish**.

Client configuration

This section focuses on client-specific configuration procedures, including:

- Agent and agent group presence settings and best practices
- Ring group presence settings
- Soft phone setup
- Whisper Coach settings
- MiCollab Client and Ignite integration pre-installation notes and recommendations
- MiVoice Border Gateway setup to support remote agents and employees

Configuring agent and agent group presence settings

Agents can be assigned to multiple agent groups, which are associated with different queues. When agent groups are created, an employee's agents are assigned a default group presence, either Present or Absent. Employees whose agents' default presence is Absent, in all agent groups, will be set in the Logged In Not Present state when they log in to the system. To handle interactions the employees can make themselves present in their agent groups using either Contact Center Client or Ignite. Employees whose agents' default presence is Present are put in an Idle state when they log in and are able to receive interactions.

The Mitel 3300 ICP enables agents to be placed in or removed from multiple agent groups (up to 16 on the Mitel 3300 MXe II Controller and up to 30 on the Mitel 3300 MXe server). Agents can be added and removed from agent groups using Feature Access Codes (FAC), a Feature Access Key (FAK) programmed on their set, or using Interactive Contact Center or Ignite.

The agent group presence option is controlled by Class of Service. Once the appropriate Class of Service has been set, the agent group presence status can be changed in the following ways.

- Feature Access Keys can be programmed on a Mitel multiline phone set. One button would be used to join or leave each agent group to which the agent is a member.
- Supervisors and agents can dial a feature access code followed by the group number to change their status for that group or to change their status for all groups to which they are a member.
- The desktop tool in the embedded system management can be used to make status changes.
- MiTAI controls are also available to make status changes.

Agent Group Presence has several licensing and configuration prerequisites:

- For agents to use Agent Group Presence, Group Presence Control must be enabled for all agents on the Class of Service Options Assignment form on the Mitel 3300 ICP.
- For supervisors or system administrators to use Agent Group Presence, they must log into Contact Center Client as a non-administrative user. They also require a valid employee licenseand an associated device with Group Presence Control and Group Presence Third Party Control enabled on the Class of Service Options Assignment form on the Mitel 3300 ICP.
- For supervisors to control Agent Group Presence in Interactive Contact Center, the agent and at least one of the agent's dialable numbers must be enabled for Real-time monitoring. See *"Adding agents"*. For information on enabling Real-time monitoring for multimedia agents, see the *Multimedia Contact Center Installation and Deployment Guide*.

Agent Group Presence requires that specific security roles be enabled:

- To control employee and extensionpresence status in Interactive Contact Center, you must enable 'May change the real-time presence states of devices in Interactive Contact Center'.
- To control your own presence status in Interactive Contact Center, you must enable 'May control my real-time presence status in Interactive Contact Center'.

For more information, see *"Configuring security Roles"*.

If the ACD Logout Agent No Answer Timer Class of Service option is enabled on your Mitel 3300 ACD routing system, when an agent in an agent group fails to answer a call offered to them after the logout time expires, the agent is removed by the ACD routing system from their agent group.

Agent group presence best practices

It is important to note that agents may join or leave agent groups but not queues. Agents become absent from a queue indirectly if they leave all agent groups associated with that queue. An agent who is present in an agent group which is associated to all queues would be disassociated from all queues simultaneously if they became absent in their agent group. Since the goal of agent group presence is to provide a dynamic response to varying queue activity, allowing agents to become absent from all queues simultaneously is counterproductive.

As a best practice, we recommend you associate agent groups to queues based on business groups within your organization. A unique agent group to business group queue association allows agents who leave an agent group associated to a particular business group to remain present in an agent group associated to another business group.

Configuring Ring Group presence settings

The Ring Group presence option is controlled by Class of Service. Once the appropriate Class of Service has been set, the Ring Group presence status can be changed in the following ways.

- Supervisors and agents can dial a feature access code followed by the group number to change the extension status for that group or to change their status for all groups to which they are a member.
- The desktop tool in the Embedded System Management can be used to make status changes.
- MiTAI controls are also available to make status changes.

Ring Group Presence has several licensing and configuration prerequisites:

- For extensions to use Ring Group presence, Group Presence Control must be enabled for all extensions on the Class of Service Options Assignment form on the Mitel 3300 ICP.
- Real-time monitoring must be enabled in YourSite Explorer for all extensions. For supervisors to control Ring Group presence in Interactive Contact Center, the Ring Group and at least one of the Ring Group’s extensions must be licensed for real-time monitoring. Extensions that have the option ‘ACD Enabled’ selected cannot be made present in a Ring Group. See *"Adding extensions"*.
- The ability to modify Ring Group Presence can also be controlled using HCI options on your ACD routing system. It is recommended that your extension Class of Service conforms to the Golden Rules document available from the MiCC Knowledge Base at https://mitel.custhelp.com/app/answers/answer_view/a_id/1002335/loc/en_US..

Ring Group Presence also requires that specific security roles be enabled:

- To control employee and extension presence status in Interactive Contact Center, you must enable 'May change the realtime presence states of devices in Interactive Contact Center'.

- To control your own presence status in Interactive Contact Center, you must enable 'May control my real-time presence status in Interactive Contact Center'.

For more information, see *"Configuring security roles"*.

Setting up soft phones

NOTE:

- Before you set up a soft phone on client computers, you must configure the soft phone as a 5020 IP phone on the telephone system. Refer to the Golden Rules when configuring your telephone system. See the following Mitel Knowledge Base article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1002335/loc/en_US.
- Contact Center Softphone and Contact Center PhoneSet Manager extensions must have Real-time and reporting enabled in YourSite Explorer. If they are programmed as Historical reporting only, the Directory Numbers will not display in the list of available soft phone extensions when you launch the soft phone.
- When an agent logs into their soft phone, they are prompted to enter a PIN. If the login PIN they entered is invalid the login will fail and they will be asked to enter a valid PIN. By default, users can attempt to log in 3 times before their PIN locks, requiring it to be reset with a new PIN. We recommend you increase the default number of failed attempts on your telephone system to prevent locking. For information on changing this setting, see the following Knowledge Base article: https://mitel.custhelp.com/app/answers/answer_view/a_ id/1001243/loc/en_US.
- If you configure employees with the third party call control security setting, they will not be prompted to enter a PIN when logging into their soft phone

Soft phone comprises Contact Center Softphone and Contact Center PhoneSet Manager.

To set up a client computer to use the soft phone, on the client computer

1. Run Client Component Pack.
   See *"Modifying available client applications and client roles"*.
2. Ensure your headset is connected.
3. Configure sound and audio device properties.

   To configure sound and audio device properties for Windows operating systems, you must set the PC speakers as the default audio device and adjust the volume of the PC speakers, headset speakers, and headset microphone.
4. Launch Contact Center Client and select your soft phone extension.

Configuring Whisper Coach settings

NOTE: Whisper Coach requires MiVoice Business 7.0+ on a MiVoice Business for x86 platform, a Multi Instance Platform, or VMware for Virtual Appliance. Whisper Coach is not supported on Mxe platforms.

If you want the Coach On display in the Contact Center Softphone toolbar to appear in another language, you must configure the device on the ACD routing system to the display language. The translation is driven by the ACD routing system rather than MiContact Center Business.

Whisper Coach requires specific Class of Service options enabled for agents and supervisors:

- Agent COS
  - ACD Silent Monitor Accept
  - ACD Silent Monitor Accept Monitoring Non-Prime Line
  - ACD Silent Monitor Notification
  - HCI/CTI/TAPI Call Control Allowed
  - HCI/CTI/TAPI Call Monitor Allowed
- Supervisor COS
  - ACD Silent Monitor Allowed
  - HCI/CTI/TAPI Call Control Allowed
  - HCI/CTI/TAPI Call Monitor Allowed

Whisper Coach is supported with External Hot Desking Agents, Hot Desking Agents, and External Hot Desking Users

Only certain IP phones are supported with Whisper Coach. Consult your Mitel documentation for supported IP phones.

Configuring the MiCollab Client and Ignite integration (DESKTOP)

NOTE: The MiCollab and Ignite integration described in this section only applies to Ignite (DESKTOP). Ignite (WEB) integrates with MiCollab for inbound and outbound call handling and supports supervised transfers and conferences from MiCollab Client.

Before installing and running the MiCollab Client and Ignite integration, please read the following notes and recommendations.

To enable MiCollab Client and Ignite integration functionality:

- When setting up the 'Feature Profile Details' in MiCollab Client Service, you must select the 'Desktop Client SDK' and 'Presence' check boxes.
- Choose ‘Custom Install’ and then select ‘MiCollab Client SDK’ in the Custom Setup window during the MiCollab Client installation process. You must be licensed for the MiCollab Client Desktop/Softphone. MiCollab Basic does not support full MiCollab Client and Ignite functionality and does not require the installation of the MiCollab Client SDK.
- Agents' first and last names must match between YourSite Explorer and MiCollab Client. If there are two agents with identical first and last names, ensure they have unique email addresses in both YourSite Explorer and MiCollab Client.
- MiCollab Client must be Version 6.0 SP3 or greater to support this integration.
- When running this integration, to prevent duplicate toaster displays, you can optionally disable the MiCollab Client incoming call toaster when an agent logs in. This is an Ignite configuration file setting.
- When running this integration in a Windows 8 environment, ensure the MiCollab Client process always runs as an administrator by selecting the ‘Run this program as an administrator’ option in the MiCollab Client properties settings.
- Ignite includes a toaster with basic call information but a more advanced screen pop can be configured using the workflow variable ‘ScreenPopOnRinging’ (available when licensed for IVR Routing or Multimedia Contact Center). See *"Populating screen pops with workflow variables"*.

Providing MiVoice Border Gateway support to remote agents and employees

Using MiVoice Border Gateway, remote employees can connect to the Enterprise Server using a VPN-like connection, and use all MiContact Center Business applications as if they were in the office.

With the MiVoice Border Gateway Connector, customers can now optionally configure connections to multiple instances of the MiVoice Border Gateway. When employees connect to the system using the MiVoice Border Gateway Connector, they can specify which MiVoice Border Gateway they will connect to.

After remote employees attempt to connect to the system for the first time, a MiVoice Border Gateway system administrator must approve the MiVoice Border Gateway certificate from the MiVoice Border Gateway web application. Once approved, remote users are connected and have access to all of the MiContact Center Business applications for which they are licensed and have the required security permissions.

While active, the MiVoice Border Gateway Connector is visible in the Windows system tray and displays the name of the active connection. Only one connection can be made at a time. The name of the MiVoice Border Gateway connection will become the address in all application login windows and users sign in with their normal username and password.

The MiVoice Border Gateway Connector offers the same trusted characteristics as with a standard MiVoice Border Gateway deployment: local streaming, secure RTP, jitter buffering and packet handling QoS, and G.729 and G.711 encoding.

NOTE:

- The following corporate firewall ports must be open in order to take advantage of the full features and functionality provided by the MiVoice Border Gateway Connector: 80, 443, 1433, 5024, 5025, 5026, 5030, 7001, 7003, 8083, 8084, 36000-36004, 35001-35007, and 42440.
- You must disable IIS and SQL Server Reporting Service services as they consume port 80, which is required for the MiVoice Border Gateway Connector. Any other applications or services that consume port 80 and 443 should also be disabled or shut down.
- Ensure the Start button is enabled at all times on the MiVoice Border Gateway web application user interface or the MiVoice Border Gateway Connector will fail.
- The MiVoice Border Gateway Connector is not supported for use in conjunction with MiContact Center Business Windows Authentication sign-in model. Windows Authentication requires direct access to a domain controller on the network and therefore a VPN solution must be used if you want to use the MiVoice Border Gateway remotely.
- You must be logged in as an administrator on a client computer in order to configure a connection to a MiVoice Border Gateway. Once the connection has been made, any user on the computer can connect using the MiVoice Border Gateway Connector.
- The MiContact Center Business MiVoice Border Gateway Connector does not support TLS 1.2+ as the SSL Ciphers setting in MiVoice Border Gateway.

Setting up phones for remote agents and employees

If you are working at the office and select Remember my credentials when you log on to Contact Center Client, and then subsequently attempt to log on at home, your logon will fail. Contact Center Client does not recognize your office IP address when you log on remotely.

NOTE: Before you set up the soft phone on your client computer, ensure your network administrator has configured your soft phone as a 5020 IP phone on the telephone system.

To set up Contact Center Softphone and Contact Center PhoneSet Manager to support the MiVoice Border Gateway Connector, you must

1. Register your phones for use with MiVoice Border Gateway.
   When adding phones as MiNet devices:
   - For Contact Center Softphone device ID, type **a1:21:00:00:xx:xx**, where xx:xx is the extension.
   - For Contact Center PhoneSet Manager device ID, type the MAC address located under the agent's Mitel phone.
2. Approve the MiVoice Border Gateway certificate.
3. Log in to client computers using an administrative account and set up the connection to the MiVoice Border Gateway from the MiVoice Border Gateway Connector.

   See *"Running the MiVoice Border Gateway Connector"*.

For instructions on setting up phones for remote agents and employees and approving certificates, see the MiVoice Border Gateway documentation.

Running the MiVoice Border Gateway Connector

In order to use MiContact Center Business applications with MiVoice Border Gateway, you must run the MiVoice Border Gateway Connector and configure the connection to the MiVoice Border Gateway.

NOTE: A user with administrative credentials must be logged in to client computers when configuring connections to the MiVoice Border Gateway for the first time. After this is complete, any user can sign in to the computer, run the MiVoice Border Gateway Connector, and connect to a MiVoice Border Gateway.

To install and configure the MiVoice Border Gateway Connector

1. Consult your network administrator to confirm your soft phone extension number.
2. Ensure your headphone is connected.
3. Run the MiCC Setup wizard and ensure you select **MiVoice Border Gateway Connector** and all other options you need, such as Contact Center Softphone on the Enable Features page installation.

   See *"Installing the Client Component Pack and client applications"*.
4. In Windows, open the **MiVoice Border Gateway Connector**.

   Ensure you are logged in to the computer with administrative credentials.
5. Click **New**.
6. After **Name**, type a name for the connection to the MiVoice Border Gateway.
7. After **IP address**, type the IP address of the MiVoice Border Gateway.
8. After MAC address
   - If you have a desk phone, type the MAC address located on the sticker under your desk phone.
   - If you have a soft phone, click **Extension**, type your soft phone extension number, and click **OK**.
9. Click **OK**.

   The connection to the MiVoice Border Gateway you just created will display in the MiVoice Border Gateway Connector list.

To run the MiVoice Border Gateway Connector

1. Start the **MiVoice Border Gateway Connector**.
2. Select a connection to a MiVoice Border Gateway from the list.
3. Optionally, enable the **Connect automatically** check box.

   Enabling this check box will automatically connect you to the configured MiVoice Border Gateway when you launch the MiVoice Border Gateway Connector.
4. Click **Connect**.

   A message displays stating 'Waiting for certificate approval'. If the request is rejected, contact your system administrator to approve the certificate.
   Once your certificate has been approved, you can begin using all MiContact Center Business applications remotely as if you were in the office. Any user configured with administrative credentials on the computer can change the MiVoice Border Gateway connection settings and delete connections from the MiVoice Border Gateway Connector at any time.

Data Mining

The data-mining tools comprise

- **ACD Inspector**
  ACD Inspector searches for agent and ACD queue event records.
- **SMDR Inspector**
  SMDR Inspector searches through SMDR data to find specific contact center events.

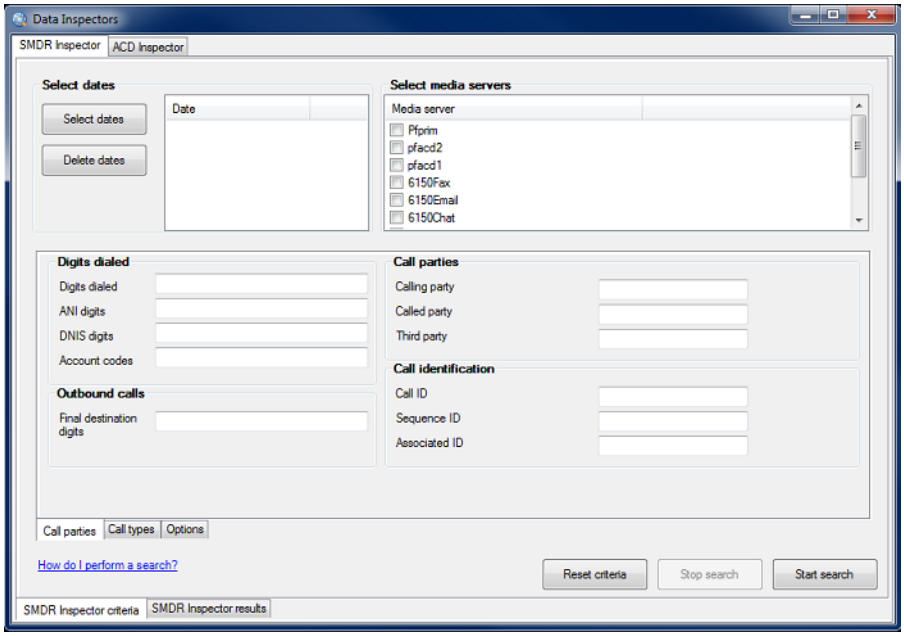
You access ACD and SMDR Inspectors via the Contact Center Client ribbon. In order to access the ACD and SMDR Inspectors, your security role must have the 'May manage ACD Inspector' and 'May manage the SMDR Inspector' options enabled.

To access ACD and SMDR Inspectors

1. Click **Tools** in the Contact Center Client ribbon.
2. In the **Data Mining** column, click **Inspectors** to open the Data Inspectors tool. The Data Inspectors window opens.

   See the following figure.

Figure 14.1: Data Inspectors window



ACD Inspector

ACD Inspector searches through raw data obtained from the ACD routing system, for agent (ACD path only) and queue (ACD paths and Ring Groups) event records. For example, using ACD Inspector, you can find the exact time an agent logs off at lunch. You can run a search and examine the activities of individual agents or all of the agents in a particular agent group or customer service queue during that time interval. You can also search on specific agent states and other parameters, such as the number of calls

waiting and the number of active agents. The search follows a wild card format. Your specifications do not have to be exact. You can make the search as inclusive or exclusive as you wish. The results are placed in an easy-to-interpret grid that can be printed or saved to file. You can verify that your reports are valid by conducting searches against raw ACD routing system data.

NOTE: ACD Inspector Ring Group support extends to queue events only. Ring Group member (extension) events are not supported. Agent events, date events, and exception events do not apply to Ring Group data.

There are four types of search result tabs:

- Agent events
- Queue events
- Date events
- Exception events

Running searches in ACD Inspector

NOTE: When you run searches on queues in ACD Inspector, be sure to include a P preceding the queue number.

When you run a search, ACD Inspector searches through the raw ACD routing system data on the local hard drive. Each search requires the following information:

Select dates/Delete dates

The Select dates button specifies the date range within which you want to search. The Delete dates button deletes days within the range you selected. The date is displayed month first, then day, then year.

Select media servers

The Select media servers check boxes specify the origin of the data used in the search. Currently you can search on voice media servers only.

In addition to the date and media server parameters, the ACD Inspector has the following search criteria tabs:

- Agent events
- Queue events
- Option events

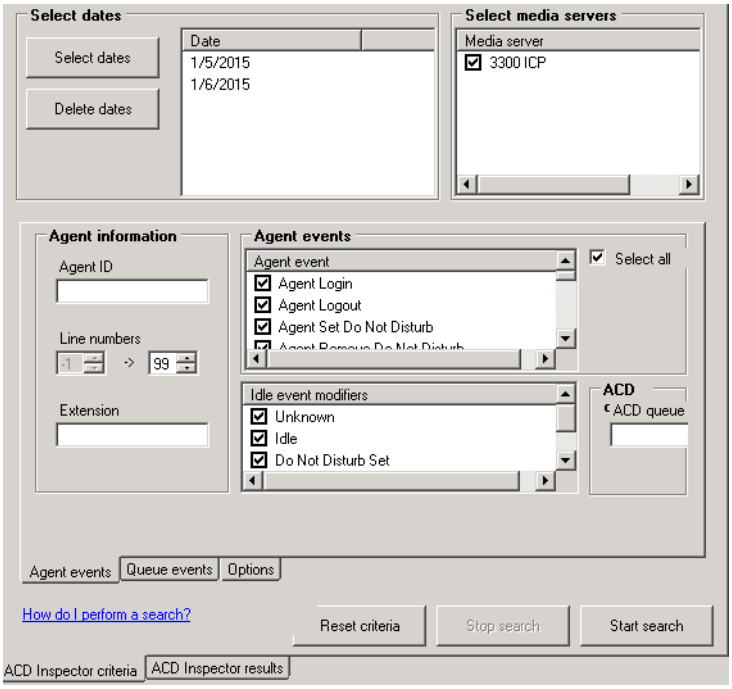
You can use the Reset criteria button to reset all of the search parameters to their default settings.

Agent events criteria for searches

NOTE: When conducting a search, if you accept the default settings—all check boxes—the search output will contain all of the event records. You can clear check boxes to narrow down your search. For example, if you clear all of the agent states except for the Agent login and Agent logout check boxes, the agent event search output will include log on and log off event records only.

When you click Tools > Inspectors > ACD Inspector, the Agent events tab opens. It displays the agent event criteria used in the search. (See the following figure.)

Figure 14.2: ACD Inspector main window - Agent events tab



The Agent events tab has the following search criteria:

Agent information

The Agent information boxes specify the agent's ID and extension number, and line numbers for one or more telephone lines to which the agent connects. You can search for agent information records for a particular agent, or for all of the agents. The agent information specifies the Agent ID for the media server you have already selected. For example, if you selected the media server Phone, ensure you select the Agent Login ID for the media server Phone. It is specified in YourSite Explorer > YourSite > Agents.

Agent events

The Agent events criteria are listed and automatically selected.

Idle event modifiers

The idle event modifier check boxes provide additional agent event searches. You can select one or more check boxes to include records for agents who are in the following states: unknown, idle, DND, Make Busy, and both DND and Make Busy.

NOTE: When conducting a search, if you accept the default settings the search output will contain all of the event records. You can clear check boxes to narrow down your search.

ACD queue

The ACD queue specifies the queue to which your agent belongs. For example, if the agent belongs to Tech Support, then you specify the Tech support queue. The agent's queue is specified in YourSite Explorer > YourSite > Queues. When you enter an ACD queue number and an agent number (in the Agent ID box), the search results contain records for all of the calls the agent receives from the queue.

The following figure describes the ACD information provided by the Agent events tab.

Table 14.1:ACD information provided by Agent event tab (Sheet 1 of 5)

Agent events	Description
Agent Login	This record is produced whenever an agent successfully logs on.
Agent Logout	This record is produced whenever an agent successfully logs off. If agent A is currently logged on extension X and agent B logs on to extension X, a log off record is automatically produced for A. This is followed by the log on record for B. Make Busy is automatically enabled on the extension when the agent logs out. No remove Make Busy record is produced. The extension number is the prime line of the ACD set which an agent is logged on.
Agent Set Do Not Disturb	A record is not produced when a hunt group is placed in DND. The records do not differentiate between setting DND locally and remotely. The extension number reported is always the prime line of the ACD extension. A set DND record will be produced for the following conditions: • Setting DND locally by using the DND access code • Setting DND remotely by using the remote DND access code • Setting DND remotely by using the attendant console features key • Setting DND locally on a SUPERSET 4 telephone by pressing the select features hardkey and dialing the digit 2 or setting it on a SUPERSET 4DN or SUPERSET 430 telephone by pressing the Do Not Disturb Feature Key

Table 14.1:ACD information provided by Agent event tab (Continued) (Sheet 2 of 5)

Agent events	Description
Agent Remove Do Not Disturb	The extension number is always the prime line of the ACD extension. A clear DND record will be produced for the following conditions: • Clearing DND locally by using an access code • Clearing DND remotely by using the Cancel Remote DND access code • Clearing DND remotely by using the attendant console feature key • Clearing DND by using the Cancel All Features access code • Clearing DND by using the Cancel All DND feature on the attendant console • Agent logging in on an extension in DND
Agent Set Make Busy	This record is produced whenever an extension is placed in the Make Busy state. A record is not produced when an agent logs out because Set Make Busy is implied when an agent log out record is received. The extension number is always the prime line of the ACD extension.
Agent Remove Make Busy	This is similar to Set Make Busy. No record is produced when the agent logs on. The remove Make Busy is implied by the log in record. The extension number is always the prime line of the ACD extension.
Agent Answer ACD	This record is produced whenever an agent answers a call that was directed to the ACD hunt group. The event record contains the Agent ID and extension number (hunt group pilot number to which the call was placed). The ACD extension that answered the call can be determined by using the last agent log in event for that extension. If the ACD set does not have a logged in agent, the Agent ID area is blank and the extension number is that extension's prime line.
Agent Answer Personal	A record of all of the Non ACD hunt group calls are included in this category. The extension number is always the prime line of the ACD extension that answered.

Table 14.1:ACD information provided by Agent event tab (Continued) (Sheet 3 of 5)

Agent events	Description
Agent Make Outbound	This record is produced whenever an agent originates a call and enters an interaction. A record is not produced under the following conditions: entering a feature access code, dialing an invalid number, or hanging up before the called party answers. An agent extension number is always the prime line of the ACD set that originated the call.
Agent Idle	If Work Timer is in effect, the Agent Idle record is produced when the Work Timer expires or when it is cancelled. If the agent enters Make Busy while Work Timer is in effect, an Agent Idle record is produced followed immediately by a set Make Busy record. A record is not produced to show the end of the call or the start of the Work Timer. This entire period is treated as part of the time to process the call. If Work Timer is not in effect, the Agent Idle record is produced at the end of a call, not when the agent hangs up. For example, if the agent presses the HANG-UP softkey and remains off hook for 5 seconds, the record is produced when the HANG-UP is pressed, not when the agent actually goes on hook. The extension number is always the prime line of the ACD set that is now idle.
Agent Work Timer Stat	This record is produced when an agent terminates an ACD call and the Work Timer is started for that agent. If the Work Timer cannot be started, an idle event record is produced instead.
Agent Remove Work Timer	This record is produced when the Work Timer expires for that agent.
Agent Hold Active	When an agent places a call on hold, a record is produced. If the agent places another call or answers a call on a second line, the second call will be recorded independently of the first.
Agent Hold Retrieve	When the held call is retrieved, a record is produced, indicating that the agent is now busy on that line.
Agent Hold Abandon	When the held call is abandoned, a record is produced for that line.

Table 14.1:ACD information provided by Agent event tab (Continued) (Sheet 4 of 5)

Agent events	Description
Agent Answer Remote ACD	When an agent answers a remote ACD call, a record is produced. When you have networked ACD (more than one ACD routing system networked together), local calls are calls routed through the same ACD routing system that the agent's extension is located, remote calls are calls routed through the other ACD routing system.
Agent Ringing ACD	This record is produced when the telephone rings with an ACD call.
Interactive Contact Center Queue Set DND Request	This record is produced when the agent set the queue in DND.
Interactive Contact Center Queue Set DND	A record is produced when the supervisor puts a queue in DND and when the MiContact Center Business system puts a queue in DND. In YourSite Explorer > Queues > Business Hours tab, you set the hours of operation for the business. The MiContact Center Business system reads these hours of operation and will put this queue in DND during off hours.
Interactive Contact Center Queue Remove DND Request	This record is produced when the agent removed the queue from DND.
Interactive Contact Center Queue Remove DND	A record is produced when the supervisor removes the queue from DND and when the Mi Contact Center Business system removes the queue from DND. In YourSite Explorer > Queues > Business Hours tab, you set the hours of operation for the business. The MiContact Center Business system reads these hours of operation and will remove this queue from DND during business hours.
Interactive Contact Center Agent Login Request	This record is produced when the agent logged on.
Interactive Contact Center Agent Login	This record is produced when the supervisor logged on the agent.
Interactive Contact Center Agent Logout Request	This record is produced when the agent logged off.
Interactive Contact Center Agent Logout	This record is produced when the supervisor logged off the agent.

Table 14.1:ACD information provided by Agent event tab (Continued) (Sheet 5 of 5)

Agent events	Description
Interactive Contact Center Set MKB with Reason Code Request	This record is produced when the agent sets himself as Make Busy.
Interactive Contact Center Set MKB with Reason Code	This record is produced when the supervisor sets the agent in Make Busy.
Interactive Contact Center Remove MKB Request	This record is produced when the agent sets himself in Make Busy.
Interactive Contact Center Remove MKB	This record is produced when the supervisor removes the agent from Make Busy.
Interactive Contact Center Set DND Request	This record is produced when the agent sets himself as DND.
Interactive Contact Center Remove DND	This record is produced when the supervisor removes the agent from DND.
Interactive Contact Center Sync Queue	This record is produced when Interactive Contact Center queues are synchronized to match the ACD routing system queues. In YourSite > Configuration > Queue, under Interactive Contact Center options, you can select this queue to be synchronized with the ACD routing system data each night. That means that the information in MiContact Center Business will be changed to reflect what is programmed on the ACD routing system.
Interactive Contact Center Sync Agent Group	This record is produced when Interactive Contact Center agent groups are synchronized to match the ACD routing system queues.
Interactive Contact Center Sync Agent	This record is produced when Interactive Contact Center agents are synchronized to match the ACD routing system queues.
Interactive Contact Center Sync Started	This record is produced when the synchronization between the MiContact Center Business database and the ACD routing system is started.
Interactive Contact Center Sync Finished	This record is produced when the synchronization between the MiContact Center Business database and the ACD routing system is finished.

Queue events criteria for searches

When performing a queue events search, you can search on the following criteria:

- Agent group statistics
- Queue statistics (ACD path and Ring Group)

- Date

The Queue events tab has the following search criteria:

Queue information

The Queue information box specifies the ACD queue or agent group used in the search. When you type an ACD queue or agent group number, the search results contain records specific to that ACD queue or agent group.

Queue event

When you select all three queue event check boxes (Agent Group statistics, Queue statistics, Date), the search results contain records for all of the agent groups and queues, and all of the ACD routing system refresh cycles. The ACD routing system performs a re-synchronization and generates a refresh record every time it notices the date or hour has changed (once an hour).

Agent information

NOTE: Not applicable to Ring Groups

The Agent information boxes specify the range of values for the Agents Available statistic used in the search. For example, if you select a range of 5 to 10, the search results contain records for all of the calls during periods when 5 to 10 agents were logged on to the ACD, but not in Make Busy or Do Not Disturb.

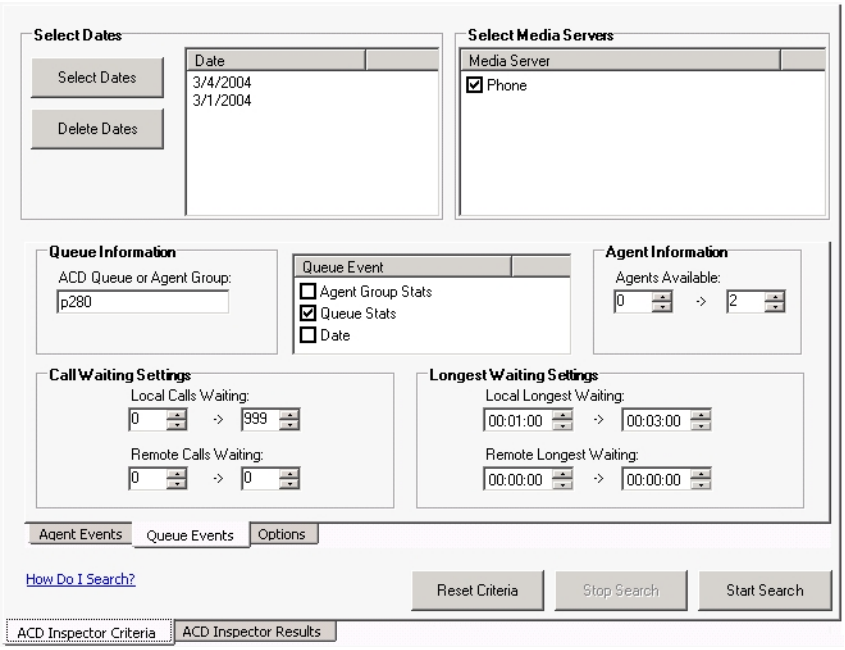
Calls waiting/Longest waiting settings

NOTE: Not applicable to Ring Groups

The Calls waiting settings and Longest waiting settings boxes specify ranges of values for the Calls waiting and Longest waiting statistics. For example, selecting a range from 10 to 999 in the Calls waiting box produces all of the records for calls received during periods when more than 10 callers waited in queue.

The Queue events tab displays the queue event criteria used in the search. (See the following figure.)

Figure 14.3: ACD search criteria - Queue events tab



Option events criteria for searches

The Option events tab displays the ACD routing system refresh records, error, and information criteria used in the search. (See the following figure.)

The Option events tab has the following search criteria:

Time ranges

The Time ranges boxes specify the time interval used for the search. The time interval applies to searches on agent and queue events.

Exception records

MiContact Center Data Collection Service tags ACD routing system records that contain errors with an E (ACD routing system 1) or e (ACD routing system 2). Under Exception records, you select the Error records check box to include these records in the search output.

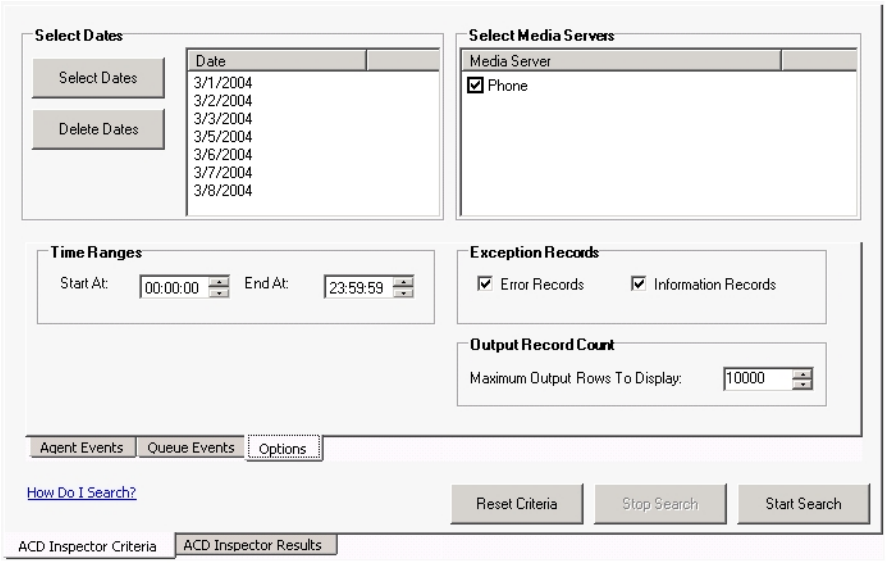
MiContact Center Data Collection Service writes a log record to the data stream upon start up. It tags the log record with an I to indicate it is an information record. You select the Information records check box to include log records in the search output. ACD Inspector displays the error and information search result records on the Exception records tab.

In contact centers that have two ACD routing systems, MiContact Center Data Collection Service tags records from the second ACD routing system with an S. The Com ports used by your ACD routing systems are specified in YourSite Explorer under Media Servers > Data collection.

Output record count

The Output record count specifies the maximum number of rows of records to display.

Figure 14.4: ACD search criteria - Option events tab



Running agent events searches

NOTE: When you run a search on Agent Answer ACD, type the Agent ID but do not type the agent's extension. Once answered, an ACD call is not pegged as an extension but is pegged as ACD. You will get no data if you type the agent's extension.

The following procedure describes how to run an Agent events search to find all of the records of when agent 2005 was on ACD and used Set Make Busy.

To run an Agent events search

1. In Contact Center Client, click **Tools > Inspectors > ACD Inspector**.
   The**Agent events** tab of the **ACD Inspector criteria** tab opens.
2. Click **Select dates** and select March 3, 2004 to March 5, 2004.
3. Under **Select media servers**, **Phone** is preselected.

   NOTE: When you run a search on Agent answer ACD, type the Agent ID but do not type the agent's extension. Once answered, an ACD call is not pegged as an extension but is pegged as ACD. You will get no data if you type the agent's extension
4. You can find the Agent ID by selecting **YourSite > Configuration > Agent login > Agent login**. The Agent ID is located under the Agent login ID heading. Ensure you select the Agent ID associated with the Phone media server.
5. Under **Agent information**, type the Agent ID, 2005.
6. Under **Agent events**, if you are not selecting all events, clear **Select all**.
7. Select the **Agent event(s)** you want to search on, in this case, **Agent answer ACD**, **Set Make Busy**, and **Remove Make Busy**.
8. You can leave the **ACD queue** blank.
9. Click **Start search**.

   The ACD Inspector results - Agent events tab opens.

Agent events search results

This section describes the records produced when you run searches in ACD Inspector. The following table describes the ACD information provided by the Agent events tab. The Agent events tab displays the ACD activity and the Make Busy activity for agent 2005. (See the following figure.)

Figure 14.5: ACD search results - Agent events tab

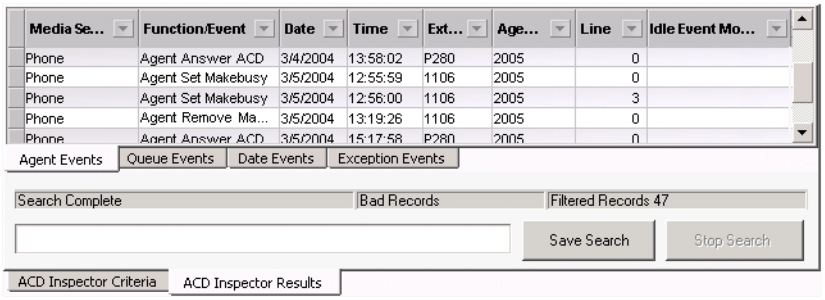


Table 14.2: Agent events result information (Sheet 1 of 2)

Column heading	Description
Media server	The Media server box identifies the ACD routing system (with or without MiTAI) that produced the event record.

Table 14.2: Agent events result information (Continued) (Sheet 2 of 2)

Column heading	Description
Function/Event	The Function/Event box displays the criteria for which you searched - in this case Agent answer ACD, Agent set Make Busy, Agent remove Make Busy.
Date	The Date box displays the date of the event record (month/day/year).
Time	The Time box displays the time the event occurred.
Extension Queue ID	The Extension Queue ID displays the Extension or ACD queue used for the call. The Extension Agent ID column contains the extensions when a search involves the extension (such as Make Busy). It contains Queue IDs when no extension information is requested (such as Agent Answer ACD).
Agent ID	The Agent ID box displays the agent number for the agent involved in the call.
Line	The Line number box displays the telephone line the agent used to pick up or originate the call.
Idle Event Modifier	The Idle Event Modifier box indicates when the agent is idle.

Narrowing an Agent events search

You can use the Options tab in conjunction with the Agent events search or the Queue events search. Using the Options tab, you narrow down the time frame for either search.

You can run an Agent events search to find all of the records for a specific agent who was on ACD and when that agent used Set Make Busy. Then you narrow the search with the Options tab to search between 9:00 A.M. and 11:00 A.M. only. The ACD Inspector results on the Agent events tab display the ACD activity and the Make Busy activity for agent 2005 between 9:00 A.M. and 11:00 A.M. (See the following figure.)

To run an Agent events/Options events search

1. In Contact Center Client, click **Tools > Data mining > ACD Inspector**.
   The **Agent events** tab of the **ACD Inspector criteria** tab opens.
2. Click **Select dates** and select March 3, 2014 to March 5, 2014.
3. The **Media server** field is automatically populated.

   NOTE: When you run a search on Agent answer ACD, type the Agent ID but do not type the agent's extension. Once answered, an ACD call is not pegged as an extension but is pegged as ACD. You will get no data if you type the agent's extension.
4. Under **Agent information**, type the Agent ID, 2005.

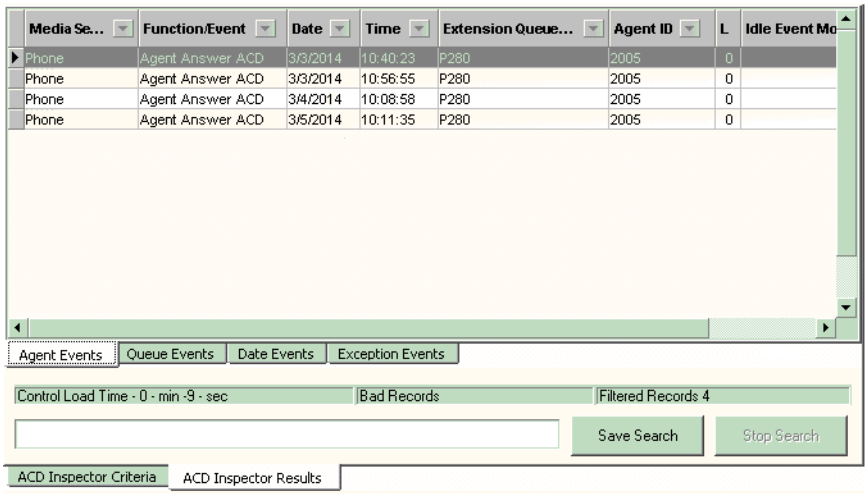
5. Under **Agent events**, if you will are not selecting all events, clear **Select all**.
6. Select the **Agent event(s)** you want to search on, in this case, **Agent answer ACD**, **Set Make Busy**, and **Remove Make Busy**.

   You can leave the ACD queue blank.
7. Click the **Options** tab.
8. Under **Time ranges**, select the **Start at** and **End at** times to define the Agent events search parameters.

   In this example, the start time is 9:00 A.M. and the end time is 11:00 A.M.
9. Click **Start search**.

   The ACD Inspector results - Agent events tab opens.

Figure 14.6: ACD search results - Agent events tab



Running queue events searches

You can run a Queue events search to determine when you had too few queue members available to answer calls for a particular queue. You search for a maximum of two queue members and local calls that waited between one and three minutes.

NOTE: The following example represents an ACD path queue event search.

To run a Queue events search

1. In Contact Center Client, click **Tools > Inspectors > ACD Inspector**.
   The **Agent events** tab of the **ACD Inspector criteria** tab opens.
2. Click the **Queue events** tab.
3. Click **Select dates** and select March 1, 2004 and March 4, 2004.
4. Under **Select media servers, Phone** is preselected.
5. Under **Queue information**, type the ACD Queue, p280.
6. Under **Queue event**, select **Queue stats**.

7. Under **Agent information**, type 0-2 queue members.

   NOTE: Not applicable to Ring Groups

   In this example, you want to know when you have only two queue members scheduled to answer the queue.
8. Under **Calls waiting setting**, select 0-999 Local calls waiting.

   NOTE: Not applicable to Ring Groups

   In this example, you want to know the number of calls waiting on the ACD routing system to which your queue member is connected. If you have only one ACD routing system, you do not have any remote calls waiting.
9. Under **Longest waiting settings**, select 1-3 minutes.

   NOTE: Not applicable to Ring Groups

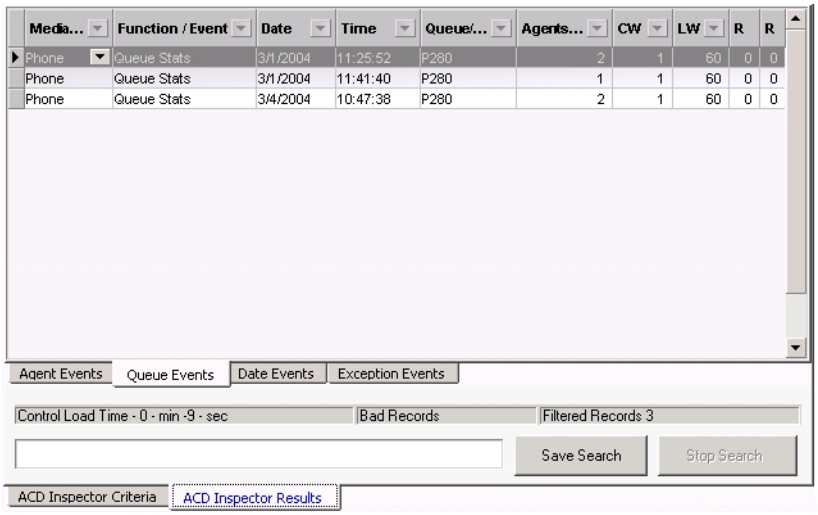
   In this example, you want to know the number of local calls that waited between 1-3 minutes. You think waiting up to a minute is acceptable, so you did not search for calls less than a minute. If you have only one ACD routing system, you do not search for the remote longest waiting.
10. Click **Start search**.

    The ACD Inspector results - Agent events tab opens.
11. Click the **Queue events** tab.

Queue events search results

The Queue events tab displays the number of calls that waited between one and three minutes (one call), when there were a maximum of two queue members available, for the dates selected, for queue 280. (See the following figure.)

Figure 14.7: ACD search results - Queue events tab



The following table describes the ACD information provided by the Queue events tab for ACD paths.

Table 14.3: Queue events search result information - ACD paths

Column heading	Description
Media server	Identifies the ACD routing system that produced the event record
Function/Event	Indicates whether the event record is for a queue or an agent group
Date	Displays the date of the event record (month/day/year)
Time	Displays the time the event occurred
Queue/Agent group	Displays the queue or agent group number
Agents available	Displays the current number of queue members logged on to the ACD system, who are not in Make Busy or Do Not Disturb
CW (Number of local calls waiting)	Displays the number of local callers waiting for an available queue member
LW (Longest local call waiting)	The LW box displays the wait time for the caller waiting the longest in queue for an available queue member
Rem CW (Number of remote calls waiting)	When you have networked ACD (more than one ACD routing system networked together), the Rem CW box displays the number of remote callers waiting for an available queue member
Rem LW (Longest remote call waiting)	When you have networked ACD (more than one ACD routing system networked together), the Rem LW box displays the wait time for the caller waiting the longest in a remote queue for an available queue member

The following figure describes the ACD information provided by the Queue events tab for Ring Groups.

Table 14.4: Queue events search result information - Ring Groups (Sheet 1 of 2)

Column heading	Description
Media server	Identifies the ACD routing system that produced the event record
Function/Event	Indicates the specific event, as defined in (See the following table)
Date	Displays the date of the event record (month/day/year)
Time	Displays the time the event occurred

Table 14.4: Queue events search result information - Ring Groups (Continued) (Sheet 2 of 2)

Column heading	Description
Queue/Agent group	Displays the queue on which the event took place
Agents available	Not applicable to Ring Groups
CW (Number of local calls waiting)	Not applicable to Ring Groups
LW (Longest local call waiting)	Not applicable to Ring Groups
Rem CW (Number of remote calls waiting)	Not applicable to Ring Groups
Rem LW (Longest remote call waiting)	Not applicable to Ring Groups

The following table describes Function/Events column information for Ring Groups.

Table 14.5: Function/Event column description - Ring Groups

Column heading	Description
CallAnswered	Indicates the call was answered by a queue member
CallDistributed	Indicates the call was distributed to a queue member
CallOverflowed	Indicates the call was sent to an alternate answer point, such as another queue or voicemail

Narrowing a Queue events search

You use the Options tab in conjunction with the Agent events search or the Queue events search. Using the Options tab, you can narrow down the time frame for either search.

You can run a Queue events search to find when you have too few queue members available to answer calls for a particular queue. You search for a maximum of two queue members and local calls that waited between one and three minutes. Then you narrow the search with the Options tab to search between 9:00 A.M. and 11:00 A.M. only.

NOTE: The following example represents narrowing an ACD path queue event search.

To run a Queue events/Options events search

1. In Contact Center Client, click **Tools > Inspectors > ACD Inspector**.
   The **Agent events** tab of the **ACD Inspector criteria** tab opens.
2. Click the **Queue events** tab.
3. Click **Select dates** and select March 1, 2004 to March 4, 2004.
4. Under **Select media servers, Phone** is preselected.
5. Under **Queue information**, type the ACD Queue, p280.
6. Under **Queue event**, select **Queue stats**.
7. Under **Agent information**, type 0-2.

NOTE: Not applicable to Ring Groups

In this example, you want to know when you have only two queue members scheduled to answer the queue.

8. Under **Calls waiting setting**, select 0-999 Local calls waiting.

   NOTE: Not applicable to Ring Groups

   In this example, you want to know the number of calls waiting on the ACD routing system to which your queue member is connected. If you have only one ACD routing system, you do not have any remote calls waiting.

9. Under **Longest waiting settings**, select 1-3 minutes.

   NOTE: Not applicable to Ring Groups

   In this example, you want to know the number of local calls that waited between 1-3 minutes. You think waiting up to a minute is acceptable, so you did not search for calls less than a minute. If you have only one ACD routing system, you do not search for the remote longest waiting.

10. Click the **Option** tab.

11. Under **Time ranges**, select the **Start at** and **End at** times with which to narrow the Agent events search.

    In this example, the start time is 9:00 A.M. and the end time is 11:00 A.M.

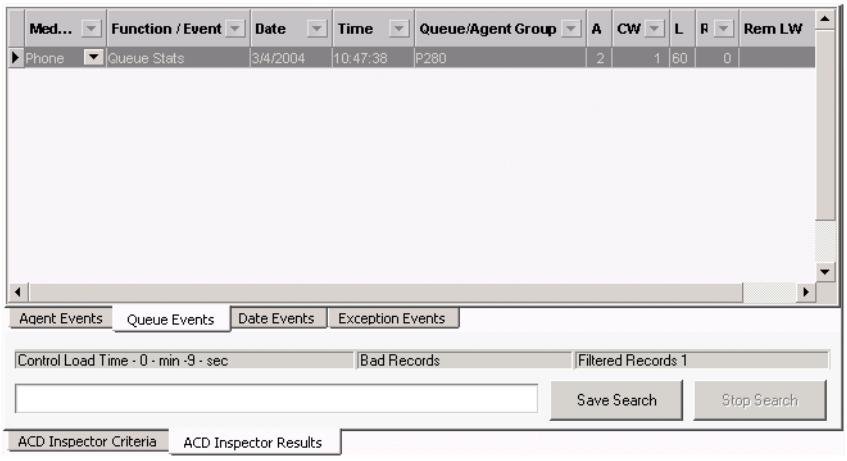
12. Click **Start search**.

    The ACD Inspector results - Agent events tab opens.

13. Click the **Queue events** tab.

The Queue events tab displays the number of calls that waited between one and three minutes, when there were a maximum of two queue members available, for the dates selected, between 9:00 A.M. and 11:00 A.M. for queue 280. There was only one call that waited between one and three minutes in the selected time frame and queue. (See the following figure.)

Figure 14.8: ACD search results - Queue events tab



Running wild card queue events searches

When performing searches on the Queue Events tab, you can enter a P800 under Queue information and the search will produce records involving Queue 800 only. Alternatively, you can run wild card searches. When you perform wild card searches, you use * to represent the wild card. For example, if you enter '*00' under Queue information on the Queue events tab, the search will produce records for all of the Queues or Agent groups that end in '00' (for example, 200, 300).

NOTE: The following example represents an ACD path wild card queue event search.

To run a wild card Queue events search, where all of the queues end in '00'.

1. In Contact Center Client, click **Tools > Inspectors > ACD Inspector**.
   The **Agent events** tab of the **ACD Inspector criteria** tab opens.
2. Click the **Queue events** tab.
3. Click **Select dates** and select February 9, 2004 and February 10, 2004.
4. Under **Select media servers, Phone** is preselected.
5. Under **Queue information**, type ***00**.

   In this example, you are searching for all of the queues that end in '00'.
6. Under **Queue event**, select **Queue stats**.
7. Under **Agent information**, type 0-2.

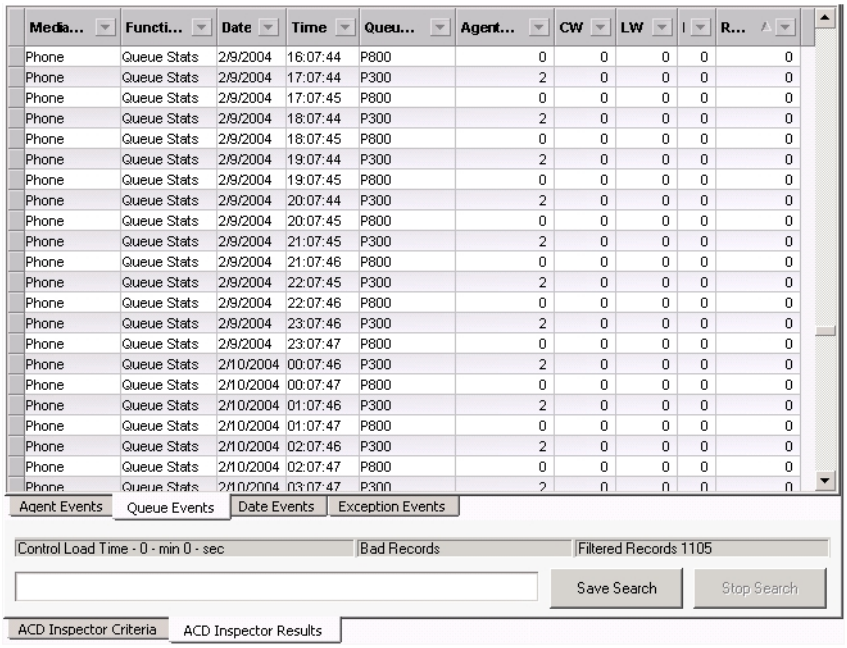
   In this example, you want to know when you have only two queue members scheduled to answer the queue.
8. Under **Calls waiting setting**, select 0-999 Local calls waiting.

   In this example, you want to know the number of calls waiting on the ACD routing system to which your queue member is connected. If you have only one ACD routing system, you do not have any remote calls waiting.
9. Under **Longest waiting settings**, select 1-3 minutes.
10. In this example, you want to know the number of local calls that waited between 1-3 minutes. You think waiting up to a minute is acceptable, so you did not search for calls less than a minute. If you have only one ACD routing system, you do not search for the remote longest waiting.
11. Click **Start search**.

    The ACD Inspector results - Agent events tab opens.
12. Click the **Queue events** tab.

    See the following figure.

Figure 14.9: ACD Wild card search results - Queue events tab



Wild card queue events search results

The Queue events tab displays the Queue statistics when there were a maximum of two queue members available, for the dates selected, for all of the queues that end in '00'. The Queue statistic in this case are the records of the ACD routing system performing re-synchronization. A refresh record is produced every time the system notices the date or hour has changed (once an hour).

Running searches for error and information records

Using the Options tab, you can run a search for error and information records. The error messages are records of sequence errors. The information records are records of when the Collector restarts.

To run an exception events search

1. Click the **ACD Inspector criteria** tab.
2. Click the **Options** tab.
3. Click **Select dates** and select a date.
4. Under **Select media servers, Phone** is preselected.
5. Under **Time ranges**, type the Start at and End at times.
6. Under **Exception records** ensure the **Error records** and/or **Information records** check boxes are selected.
7. Under **Output record count**, select the maximum number of records you want to display.
8. Click **Start search**.

   The ACD Inspector results - Agent events tab opens.
9. Click the **Exception events** tab.

Exception events search results

The following table describes the ACD information provided by the Exception events tab.

Table 14.6: Exception event result information

Column Heading	Description
Media server	The Media server box identifies the ACD routing system (with or without MiTAI) application that produced the event record.
Record	The Function/Event box displays refresh records. The refresh event signifies the start of a new cycle of group and queue statistics.

SMDR Inspector

SMDR Inspector searches through SMDR data to find specific contact center events. For example, suppose you receive a complaint from a caller who waited 16 minutes in queue for a customer service agent, sometime between 1:00 P.M. and 1:30 P.M. sometime last week. In a single session, you can search through data from multiple days to find a specific event. The search follows a wild card format. Your specifications do not have to be exact. You can make the search as inclusive or exclusive as you wish. The results are placed in an easy-to-interpret grid that can be printed or saved to file. You can verify that your reports are valid by conducting searches against raw telephone system data.

The search result tabs consist of the following:

- SMDR search results
- Exception results

Running searches in SMDR Inspector

When you run a search, SMDR Inspector searches through the raw telephone system data on the local hard drive. Each search requires the following information:

Select dates/Delete dates

The Select dates button specifies the date range within which you want to search. The Delete dates button deletes days within the range you selected. The date is displayed month first, then day, then year.

Select media servers

The Select media servers check boxes specify the origin of the data used in the search. Currently you You can search perform searches on telephone activity only. In the future, you will be able to search on email and chat phone activity.

In addition to the date and media server parameters, SMDR Inspector has the following search criteria tabs:

- Call parties
- Call types
- Options

Call parties criteria for searches

The Call parties criteria helps you to find call events such as, what calls an agent received (Called party), what calls an agent made (Calling party), or what extension the call was transferred to (Third party). (See the following figure.)

The Call parties tab search options are as follows.

Digits dialed

The Digits dialed box specifies the queue number of the queue that picks up the call (for inbound calls). The ANI digits box specifies the area code and telephone number for an inbound call. The search results contain records that match the data the user typed in the ANI field.

The DNIS digits box specifies the phone number the caller dialed. The DNIS could be product specific or it could specify demographic variables or marketing targets.

The Account Code box specifies the Account Code number used in the search. Agents enter Account Code numbers to tag inbound and outbound calls.

Outbound calls

The Outbound calls box specifies telephone number the agent dials (for outbound calls).

Call parties

The Calling party box specifies the extension or agent number (for an outbound call) or the trunk number (for an inbound call) used in the search.

The Called party box specifies the answering extension or the trunk number (for an outbound call) used in the search.

The Third party box searches for call records on the extension number used in a transfer.

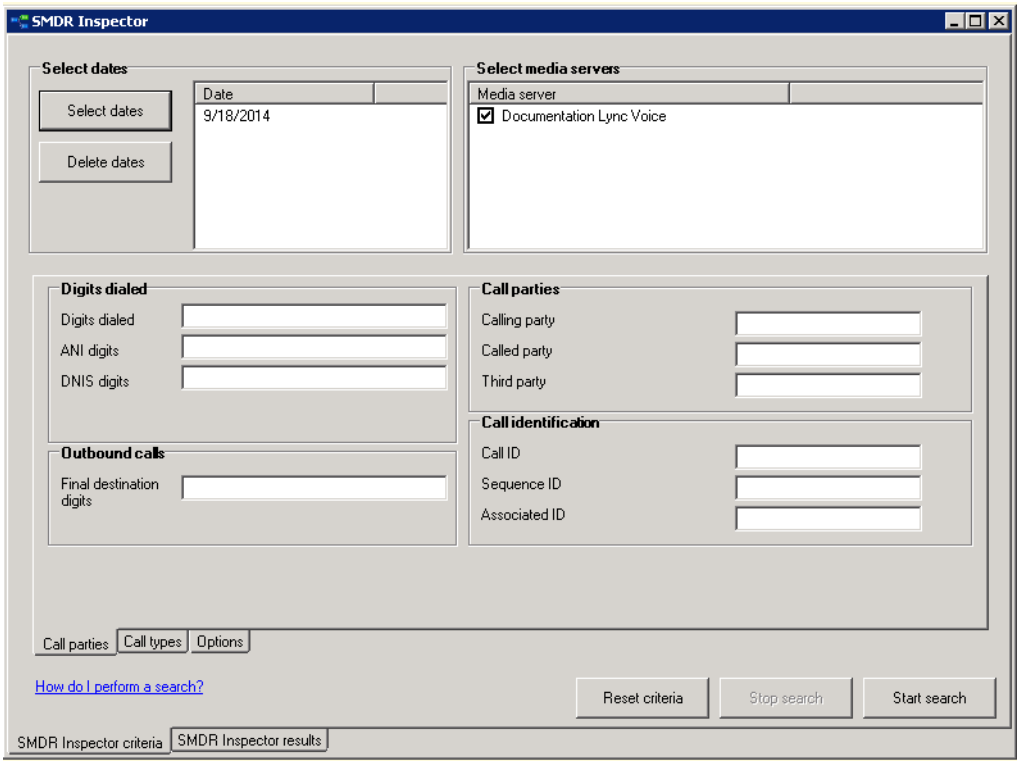
Call identification

The Call identification box specifies the Mitel call IDs assigned to a call segment.

The Sequence ID box specifies the sequence number assigned to the call record by the telephone system.

The Associated ID box specifies the number attached to associated data records of the call assigned by the telephone system.

Figure 14.10: SMDR search criteria - Call parties tab



Call types criteria for searches

The Call types tab displays the types of calls the agent receives, for example, ACD or Non ACD, abandoned, interflowed, requeued, unavailable, or outbound calls. (See the following figure.)

The Call types tab search options are as follows.

Call types

The *Call types* check boxes specify one or more categories of calls used in the search. The telephone system generates an Unavailable (Queue unavailable calls) event record when a caller dials a queue and the queue is not available (in DND) or there are no agents logged on to handle the call.

Answer supervision

The *Answer supervision* check box searches for instances where calls were answered by the called party. If you have answer supervision and you make an outbound call but the called party does not answer (you hang up) then an SMDR record is generated with no duration. If you do not have answer supervision then no SMDR record is generated at all.

Busy call

The *Busy call* check box searches for call records on queues or extensions the caller dials but finds busy.

Error by caller

The *Error by caller* check box searches for call records on numbers the caller dials that are not recognized by the telephone system.

TAFAS answered

The *TAFAS Answered* check box searches for call records that involve calls manually picked up by agents at alternate extensions. In a TAFAS answered call, an employee hears another employee's phone ring and dials a number to pick up the call.

Internal call

The *Internal call* check box searches for call records on calls between employees that do not involve trunks.

Blank

The *Blank* check box searches for call records that have no data in the Call completion box. That is, when the check box is selected, the search output contains records where there is nothing recorded in the Call completion box.

Attendant involved

The *Attendant involved* options specify whether or not call records for calls involving an automated attendant are used in the search.

Transfer/Conference

The *Transfer/Conference* check box searches for records on transferred or conferenced calls.

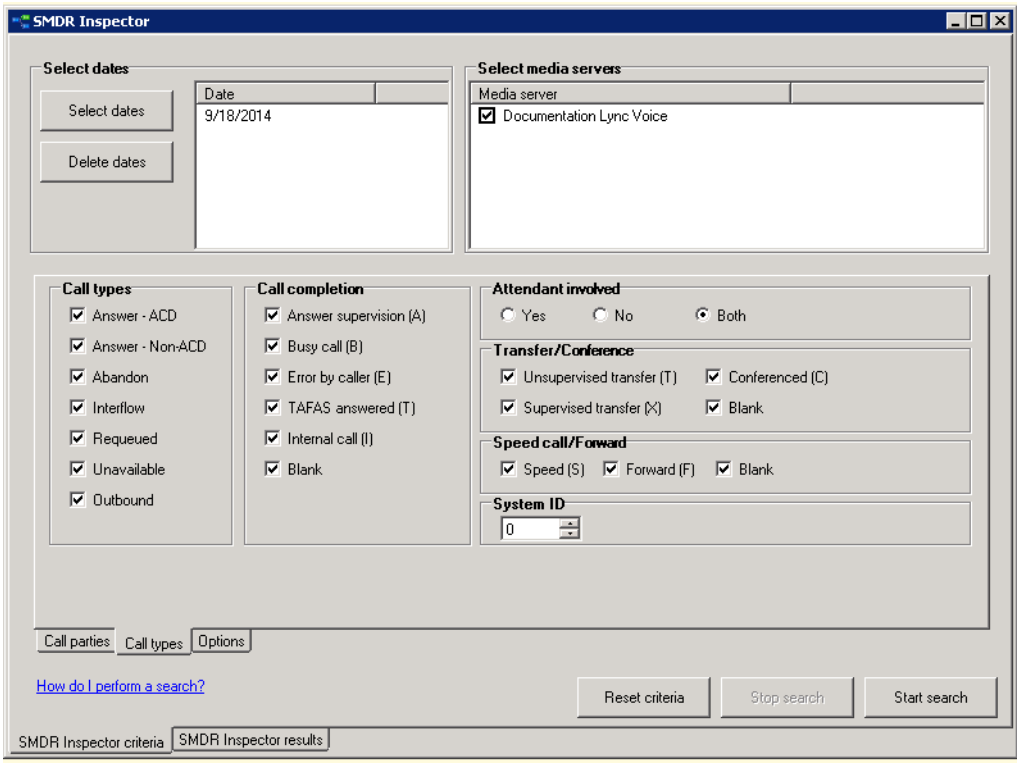
Speed call/Forward

The *Speed call/Forward* check boxes search for call records involving a speed dial and/or conference function. When the Blank check box is selected, the search output contains records where there is nothing recorded in the Speed or Fwd check boxes.

System ID

The *System ID* check box searches for call records that pertain to a specific telephone system. In a multi-site enterprise, you program each telephone system with a 3-digit system ID number. You can distinguish records by their system ID number. The telephone system appends it to all of the SMDR records.

Figure 14.11: SMDR search criteria - Call types tab



Options criteria for searches

When you click Tools > Inspectors > SMDR Inspector, the Options tab opens. The Option criteria work in conjunction with the Call parties criteria and the Call types criteria to narrow down the search. (See the following figure.)

The Options tab search options are as follows.

Time ranges

The Time ranges boxes specify the time interval used for the search.

Call duration

The Call duration boxes specify a range of values for the Call duration statistic used in the search.

Time to answer

The Time to answer boxes specify a range of values for the Time to answer statistic used in the search. For example, if you select a time to answer of 240 to 999 seconds, the search records include calls that were answered by an agent after waiting at least 240 seconds to be answered.

Exception records

The MiContact Center Data Collection Service tags telephone system records that contain errors with an *E* (telephone system 1) or e (telephone system 2). You select the Error records check box to include these records in the search output.

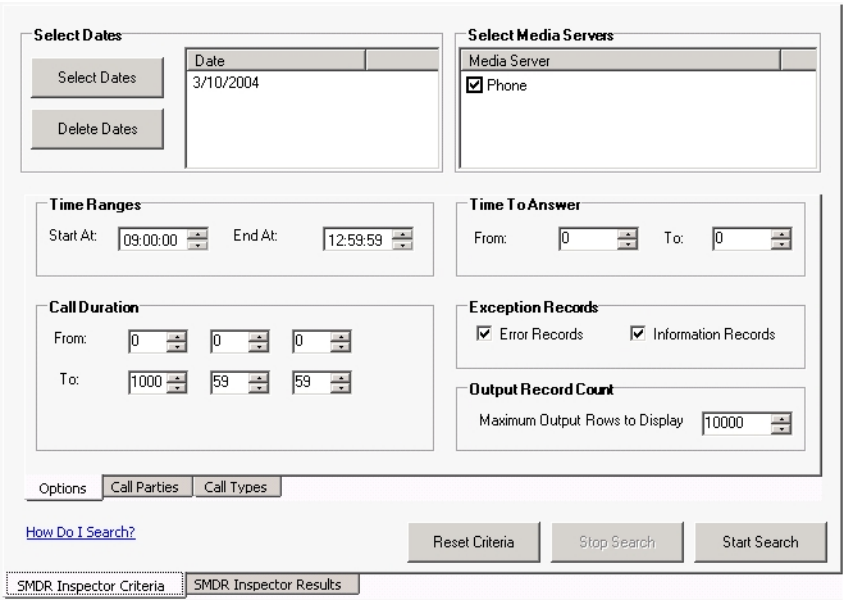
The MiContact Center Data Collection Service writes a log record to the data stream upon start up. It tags the log record with an *I* to indicate it is an information record. You select the Information records check box to include log records in the search output.ACD Inspector displays the error and information search result records on the Exception Records tab.

In businesses with two telephone systems, the MiContact Center Data Collection Service tags records from the second telephone system with an *S*. You specify the Com ports used by your telephone systems on the Data collection tab in YourSite Configuration.

Output record count

The Output record count specifies the maximum number of rows of records to display.

Figure 14.12: SMDR search criteria - Options tab



SMDR search results information

The SMDR Search results tab shows the search results for Call parties, Call types, and Options searches. The following table describes the SMDR information provided by the SMDR Search results tab.

Table 14.7:SMDR search results information (Sheet 1 of 7)

Column heading	Description
Media server	The Media server box identifies the source of the event record.
Start time	The Start time of a call is reported in hours and minutes in either a 12- or 24-hour format. If a 12-hour clock is used, the letter *P* indicates P.M. (HH:mmp)
Date	The Date box displays the date of the event record (month/day/year).
Total duration	The duration of a call is reported in hours, minutes and seconds (hh:mm:ss). Leading zeros are output (Maximum time = 99 hours, 59 minutes, 59 seconds). If the call duration exceeds 100 hours, a call duration of 99 hours, 99 minutes, 99 seconds will be recorded.

Table 14.7:SMDR search results information (Continued) (Sheet 2 of 7)

Column heading	Description
Calling party	The Calling party is the identity of the party that/who originated the call. It may be a station, an attendant, or an incoming trunk, as described below: (a) Station number as Calling party (cccc). A station number (extension number or agent ID) may be one to four digits (0-9, *, #) which are left-justified (that is, no leading zeros). (b) Attendant as Calling party (ATTm). Calls originated by an attendant that do not involve a third party are reported as a calling party by ATT, followed by the console number. When the console number is in the range of 10 through 99, the format is modified to be ATmm. If an attendant calls an outside party on behalf of a station or trunk, that station or trunk is reported as the caller but the attendant flag symbol [*] is shown in the Attendant was Involved box. (c) Trunk number as Calling party (Tnnn or Xnnn). When the originating party is an incoming CO trunk, *Tnnn* is shown on the record, where *nnn* is the number of the trunk. If the trunk number is less than three digits long, it is left-padded with zeros. If the extended digit length option is enabled, the trunk number *nnnn* may be up to four digits long, left-justified and without leading zeros. When the originating party is an incoming non-CO trunk, *Xnnn* is shown in the trunks record. The *T* or *X* ensures that CO trunks and CO Attendant trunks can be distinguished from tie trunks. The trunk number is the trunk ID specified during customer data entry in the Trunk Assignment form.
Attendant flag	This 1-digit box contains an asterisk [*] when a call is assisted by, or initially answered by, an attendant. This flag will not be shown if a call is transferred to an attendant.

Table 14.7:SMDR search results information (Continued) (Sheet 3 of 7)

Column heading	Description
Time to answer (Time to Ans)	This is the number of seconds from the time an incoming external call rings the destination until the call is answered. If a call is never answered, this box displays three asterisk [***]. Leading zeros are output and the box remains at 999 when an overflow is reached. If the Call Distribution (MCD) feature package is installed, and the MCD report transfers option is enabled, this box contains the total time to answer regardless of the number of times the call is rerouted. This box does not apply to Internal SMDR. **NOTE:** Time to answer does not include the duration the request waits in queue outside of regular business hours.
Digits dialed	External SMDR External SMDR records the digits dialed on the outgoing trunk. A maximum of 26 digits is recorded. This number is reduced to 20 when the Report Meter Pulses option is selected in CDE. This box does not include the trunk group access code on outgoing calls. The digits recorded are the actual digits outpulsed on the trunk after digit modification has been performed. On incoming calls, the digits dialed in on the trunk are recorded. The digits dialed field contains the digits the telephone system used to route the call. For an incoming call this could be the extension or the path to which the call is being routed. For outgoing calls this is the number the caller dialed. When more than 26/20 digits are dialed, the remaining digits are ignored. If the MCD option is enabled, each device is listed whenever the call is rerouted, rather than the last device as in non-MCD loads. To reflect the MCD option, the Digits dialed on the Trunk box displays dd1 ddd2 ddd3. Internal SMDR Internal SMDR records the digits dialed on an internal line. Up to 26 digits are recorded.

Table 14.7:SMDR search results information (Continued) (Sheet 4 of 7)

Column heading	Description
Call completion flag	External SMDR (Outgoing calls) This reports the completion status of an outgoing call in so far as the telephone system is able to determine it. When an outgoing call fails toll-deny checking and is dropped, this box contains a *T*. When the trunk group is programmed to receive *Answer Supervision* and a supervision is received, an *A* is reported. When the trunk group is programmed for *Toll Reversal* and a supervision is received, a *T* is reported. External SMDR (Incoming calls) The telephone system can monitor the outcome of a call and can provide a comprehensive report on call completion. When the station or hunt group to which a call is directed is busy, a *B* is recorded. When an incoming trunk accesses an invalid number and receives reorder tone, an *E* is reported. An *E* is also reported for incomplete calls. A *T* is reported if the incoming trunk is answered with Trunk Answer From Any Station (TAFAS) and if an outgoing trunk call is toll denied, or if the call is Pickup answered. When an incoming call is forwarded by an attendant to a busy station, a *B* is shown in the call completion status box, the number called is shown as the third party, and the Attendant is shown as the called party. Internal SMDR An I indicates that an internal call was completed. Speed Call or Call forward flags (S or F) This box contains an *S* when the number is speed dialed, and an *F* when an external call is forwarded through the external call forward feature If Internal SMDR is enabled, an *F* is also recorded when an internal call is forwarded through the call forward feature. However, for internal calls the Third Party box does not contain the number of the station that initiated the call forward feature. The Third Party box is left blank because the Digit dialed box identifies the station that has call forward enabled.

Table 14.7:SMDR search results information (Continued) (Sheet 5 of 7)

Column heading	Description
Speed call forward	The Speed call/Forward check boxes search for call records involving a speed dial and/or conference function. When the Blank check box is selected, the search output contains records where there is nothing recorded in the Speed or Fwd check boxes.
Called party	A Called party can be a station number, an attendant, or for outgoing calls, the outgoing trunk number. The Called party output format is identical to that used for the Calling party. See *Calling party*. For incoming calls to an attendant, the called party is recorded as the attendant unless the attendant transfers a call to a station. For direct-in-lines, it would be the station number. On outgoing calls handled by an attendant, the called party would be the outgoing trunk's ID.
Transfer/Conference call (Trans Conf)	This box identifies calls involving three or more parties. It contains a *T* for supervised transfers, *X* for unsupervised transfers (that is, transfer in to busy reports a *T*, transfer in to ringing reports an *X*), and a *C* for 3-way interactions or conferences.
Third party	The Third party box contains the number of the station to which a trunk call has been transferred. When several transfers take place during a trunk call, the first party is the only one reported, as long as MCD Report transfers = *No*, and Record transfers = *No*. If an external call is made to a station whose call forwarding is set to an external number, the Third party box contains the number of the station that initiated the call forward feature. For internal calls, the Third Party box is left blank because the Digit dialed box identifies the station that has external call forward enabled.
Account Code	Enabling the report Account Codes option in the SMDR Options Assignment form allows an Account Code of two to 12 digits to be recorded here, if one is used to make a call. Leading zeros are reported if they are entered.

Table 14.7:SMDR search results information (Continued) (Sheet 6 of 7)

Column heading	Description
Route optimization flag	At the starting and end nodes of a network call a flag will be shown in this box if route optimization has taken place. A route optimized call involves two trunks to the same party: the pre-optimization trunk and the post-optimization trunk. An SMDR record will be produced for both trunks, which will be distinguished by a lower case *r* for the pre-optimization trunk, and an upper case *R* for the post-optimization trunk. Route optimization is available with the MSDN/DPNSS Voice IV feature package only.
ANI/DNIS	ANI/DNIS digits are recorded in this box. ANI and DINS numbers can be up to 10 digits in length, and are recorded for incoming calls on ANI/DNIS trunks. COS option ANI/DNIS reporting must be enabled.
System identifier	This optional 3-digit box may contain values from *000* to *999*. *000* indicates that no identifier has been entered. In the absence of a System identifier, a Node identifier is printed (when programmed). When more than one node identifier exists, the first one on the programmed list is printed. When both a System ID and a Node ID are programmed, the System ID takes precedence. Programming of System Identifiers and Node Identifiers is described in the Customer data entry volume.
Call ID	The Call ID box specifies the call number to which the record relates.
Call ID seq	The Sequence ID box specifies the sequence number assigned to the call record.
Assoc call ID	The Associated ID box specifies the number attached to associated data records of the call.

Table 14.7:SMDR search results information (Continued) (Sheet 7 of 7)

Column heading	Description
System ID	This optional 3-digit box may contain values from *000* to *999*. *000* indicates that no identifier has been entered. In the absence of a System identifier, a Node identifier is printed (when programmed). When more than one node identifier exists, the first one on the programmed list is printed. When both a System ID and a Node ID are programmed, the System ID takes precedence. Programming of System Identifiers and Node Identifiers is described in the Customer data entry volume.
Record	See *"SMDR record boxes"*.

SMDR record boxes

This section describes the SMDR search output records available.

The telephone system records SMDR data in table format. The following table provides information used to interpret the SMDR Inspector search output. It summarizes the SMDR record boxes and provides the meaning of the symbols used.

Table 14.8: Summary of boxes in SMDR records (Sheet 1 of 4)

Name	Format	Definition	Notes
Date	mm/dd	mm = Month dd = Day	mm = 01 - 12 dd = 01 - 31
Start time	hh:mmp	hh = Hours mm = Minutes p = pm	hh = 00 - 12 or 00 - 23 mm = 00 - 59 p = P.M. (12-hour clock)
Duration of call	hh:mm:ss	hh:mm:ss = duration in hours:minutes:seconds	hh = 00 - 99 mm = 00 - 99 ss = 00 - 99 hhhh hh hh = 0000 - 9999 mm = 00 - 99 ss = 00 - 99
	hhhh:mm:ss	hhhh:mm:ss = duration in hours:minutes:seconds	

Table 14.8: Summary of boxes in SMDR records (Continued) (Sheet 2 of 4)

Name	Format	Definition	Notes
Calling party	pppp	cccc = Extension # Tnnn = Trunk # (CO) Xnnn = Trunk # (non-CO) ATTm = Attendant	c = 0 - 9, *, # nnn = 000 - 999 m = Console # (ATmm for Attendant 00 - 99) c = 0 - 9, *, # nnnn = 0000 - 9999 mm = Console #
	ppppppp	ccccccc = Extension # Tnnnn = Trunk # (CO) Xnnnn = Trunk # (non-CO) ATTmm = Attendant	
Attendant	f	* = Attendant -- = Attendant not involved	Attendant answered or initiated the call, then transferred it to an extension
Time to answer	ttt	ttt = time in seconds (000 - 999) *** = Call unanswered) *** = Call unanswered	Leading zeros output. Incoming calls only.
Digits dialed on the trunk	xx...x x...x y...y or Tx...x y...y (Network Format)	Up to 26 (20 if metering) digits dialed on the trunk Network Format: up to 26 digits (20 if metering) in total	x = 0 - 9, *, # y = 0 - 9, *, # x...x = Node ID & Extension # (up to 14 digits); y...y = actual digits dialed y...y = actual digits dialed Tx...x = Node ID & Trunk #
Call completion status	h	A = Answer supervision B = Called party busy E = Caller error I = Internal call R = re-queue call T = Toll-denied, TAFAS answered, or Pickup answered	Outgoing Incoming Direct/Dial-in Incoming/Dial-in incoming Incoming/Outgoing

Table 14.8: Summary of boxes in SMDR records (Continued) (Sheet 3 of 4)

Name	Format	Definition	Notes
Speed call or Call fwd flags	S or F	S = Number was Speed called F = External call forwarded through External call fwd feature or internal call forwarded through Call forward feature	Outgoing
Called party	qqqq	cccc = Extension # Tnnn = Trunk # (CO) Xnnn = Trunk # (non-CO) ATTm = Attendant	c = 0 - 9, *, # nnn = Range specified in telephone system form programming m = Console # (ATmm for Attendant 00 - 99)
	qqqqqqq	ccccccc = Extension # Tnnnn = Trunk # (CO) Xnnnn = Trunk # (non-CO) ATTmm = Attendant	c = 0 - 9, *, # nnnn = 0000 - 9999 mm = Console #
Transfer/ Conference call	K	T = Supervised transfer X = Unsupervised transfer C = 3-Way or Conference R = re-queue call U = Path unavailable I = Interflow	U and I only apply to ACD TELEMARKETER® 2000.
Third party	rrrr rrrrrrr	cccc = Extension # cccccccc = Extension #	c = 0 - 9, *, # c = 0 - 9, *, #
Account Code (opt.)	aa....a	Length of 2 to 12 digits	a = 0 - 9, space-filled
Route optimization flag (opt.)	s	r = pre-optimization trunk R = post-optimization trunk - = Space (no route optimization)	

Table 14.8: Summary of boxes in SMDR records (Continued) (Sheet 4 of 4)

Name	Format	Definition	Notes
System identifier (optional)	iii	Entered by System ID	i = 0 - 9 iii = 000 - 999 000 = No code entered In the absence of a System ID, a Node ID is printed (if programmed). When both System ID and Node ID are programmed, System ID takes precedence.
ANI/DNIS	xx...xxxxxxx	Format: -aaaaaaaaaa-ddddddd ddd - = blank a = ANIS digit d = DNIS digit Extended digit length format: -aaaaaaaaaa-ddddddd	For Extended digit length format only the 7 right most DNIS digits are recorded.

Running call parties searches

You run a Call parties search to find out who/what phone numbers an extension called within a selected date range.

To run a Call parties search

1. Click the **SMDR Inspector criteria** tab.
   The Options tab opens.
2. Click the **Call parties** tab.
3. Click **Select dates** and select the dates for which to run the search, for example, September 27, 2004 to October 07, 2004.
4. Under **Select media servers**, select the MiVoice Analytics server, for example, 3300 ICP.
5. Under **Call parties**, type the Called Calling party, for example, agent ID 2005 extension 1104.
6. Click **Start search**.

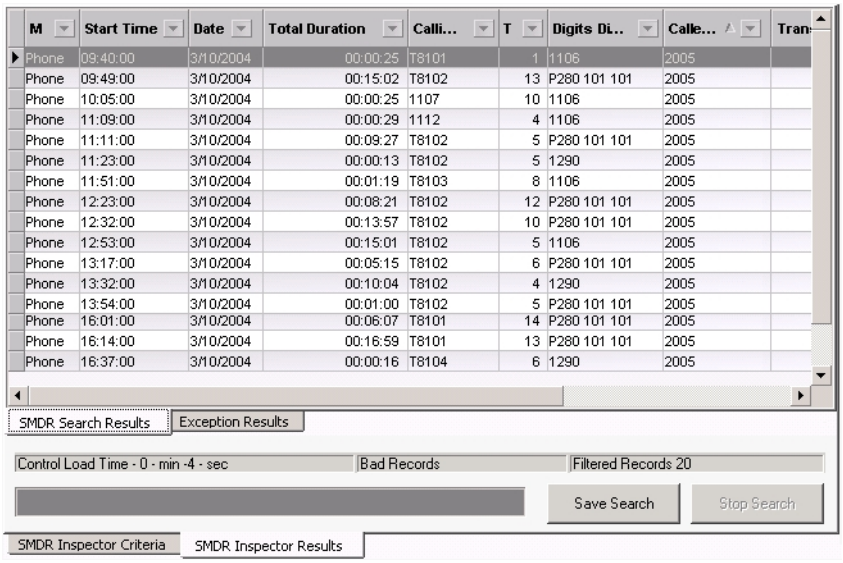
   The SMDR Inspector results - SMDR Search results window screen opens.

Call parties search results

The SMDR Search results tab displays the results of who extension 1104 called agent 2005. The agent's extension is 1106. He answers calls that come to queue 280 and dial zeros (which is extension

1290Calling Party). On line one of the results, an outside call dialed the agent's extensionextension 1104 called 592-2122 (Digits dialed). On line twofive, the agent answered a call from extension 1104 checked his queue voice mail (P28070). On line threesix, we see that extension 1107 1104 called the agent. On line four, we see that extension 1112 called his extension1124. (See the following figure.)

Figure 14.13: SMDR search results tab - Call parties search



Running call types searches

You run a Call types search when you want to narrow down the a Call parties search. Previously, If you have completed a Call parties search for all calls made by an extension, for agent 2005 (Call parties tab). Now a selected date range, you want to can now narrow the search to include only Answer Non ACD call types. outbound calls.

To run a Call types search

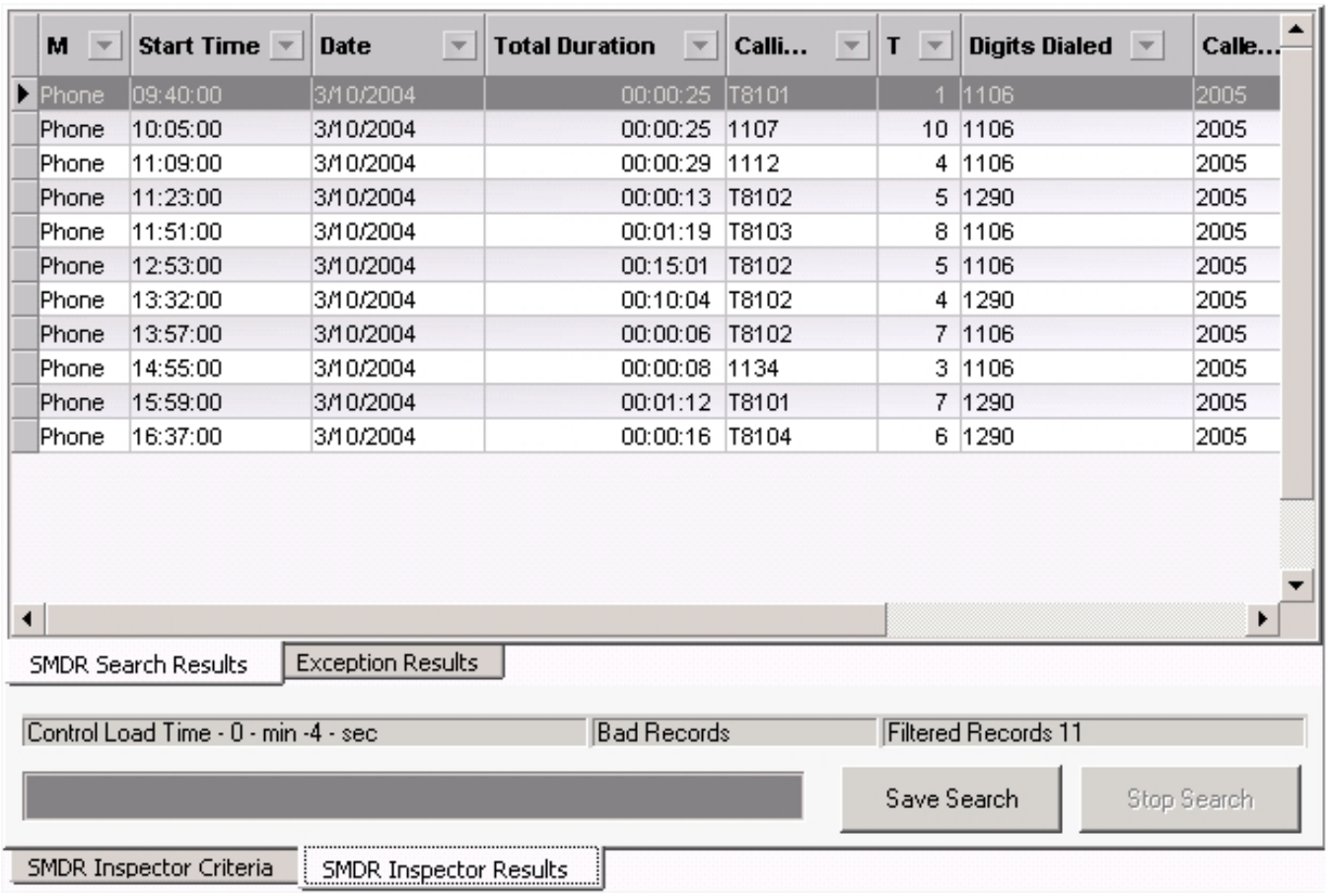
1. Click the **SMDR Inspector criteria** tab.
   The Options tab opens.
2. Click the **Call parties** tab.
3. Click **Select dates** and select March 10, 2004.
4. Under **Select media servers, Phone** is preselected.
5. Click **Select dates** and select the dates on which to run the search, for example, September 27, 2004 to October 7, 2004.
6. Under **Select media servers**, select the MiVoice Analytics server, for example, 3300 ICP.
7. Under **Call parties**, type the Called Calling party, for example, agent ID 2005 extension 1104.
8. Click the **Call types** tab.
9. Under **Call types**, clear the check boxes for all of the criteria but Answer Non ACD Outbound.
10. Click **Start search**.

    The SMDR Inspector results - SMDR Search results window screen opens.

Call types search results

The SMDR search results tab displays the call parties/call type results. All of the Non ACD calls received by agent 2005 on March 10, 2004 are displayed. They included external and internal calls where the caller dialed the agent's extension (1106), and all of the dial zero calls. (ACD calls are calls that are sent through the queue.)

Figure 14.14: SMDR search results - Call types search



Running option searches

You run Option searches to further narrow down Call types and Call parties searches. Previously, you ran a Call parties search for agent 2005 and then a Call types search to include only Answer Non ACD calls. Now you want to search for Answer Non ACD calls for agent 2005 that occurred between 9:00 A.M. and 1:00 P.M.

To run an Options search

1. Click the **SMDR Inspector criteria** tab.
2. The **Call parties** tab opens.
3. Click **Select dates** and select March 10, 2004.
4. The **Media server** field is automatically populated.

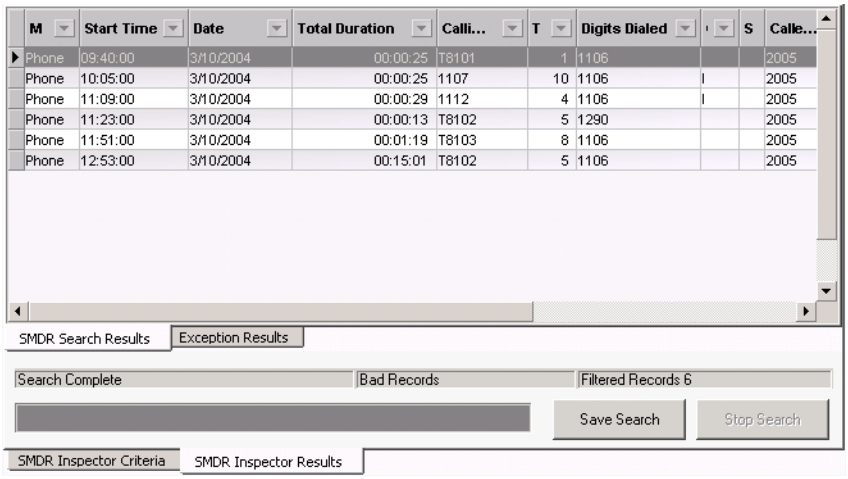
5. Under **Call parties**, type the Called party, agent ID 2005.
6. Click the **Call types** tab.
7. Under **Call types**, clear the check boxes for all of the criteria but **Answer Non ACD**.
8. Click the **Options** tab.
9. Under **Time ranges**, after the **Start At** time, type 9:00:00.
10. Under **Time ranges**, after the **End At** time, type 12:59:59.
11. Click **Start search**.

    The SMDR Inspector results - SMDR Search results window opens.

Options search results

The SMDR search results tab displays the call parties/call type/options results. All of the Non ACD calls received by agent 2005 on March 10, 2004 between 9:00 A.M. and 1:00 P.M. are displayed. They included external and internal calls where the caller dialed the agent's extension (1106), and all of the dial zero calls. (ACD calls are calls that are sent through the queue.) (See the following figure.)

Figure 14.15: SMDR Search result - Options search



Running searches for error and information records

Using the Option tab you can run a search for error and information records. The error messages are records of sequence errors. The information records are records of when the Collector restarts.

Previously, you ran a Call parties search for agent 2005, and then a Call types to include Answer Non ACD that occurred between 9:00 A.M. and 1:00 P.M.

To run an Exception event search

1. Click the SMDR Inspector criteria tab.
   The **options** tab opens.
2. Click the **Call parties** tab.
3. Click **Select dates** and select March 10, 2004.

4. Under **Select media servers**, **Phone** is preselected.
5. Under **Call parties**, type the Called Calling party, agent ID 2005.
6. Click the **Call types** tab.
7. Under **Call types**, clear the check boxes for all of thecriteria but Answer Non ACD.
8. Click the **Options** tab.
9. Under **Time ranges**, after the Start At time, type 9:00:00.
10. Under **Time ranges**, after the End At time, type 12:59:00.
11. Under **Exceptions**, select the **Error records** and **Information records**.
12. Click **Start search**.

    The SMDR Inspector results - SMDR Search results window opens.

Exception search results

There was an information record produced every five minutes. Either the alarm is set incorrectly (the system thinks it should be receiving data because the business hours indicate the business is open) or the connection has died. The Exception results tab displays error and information records. (See the following figure.)

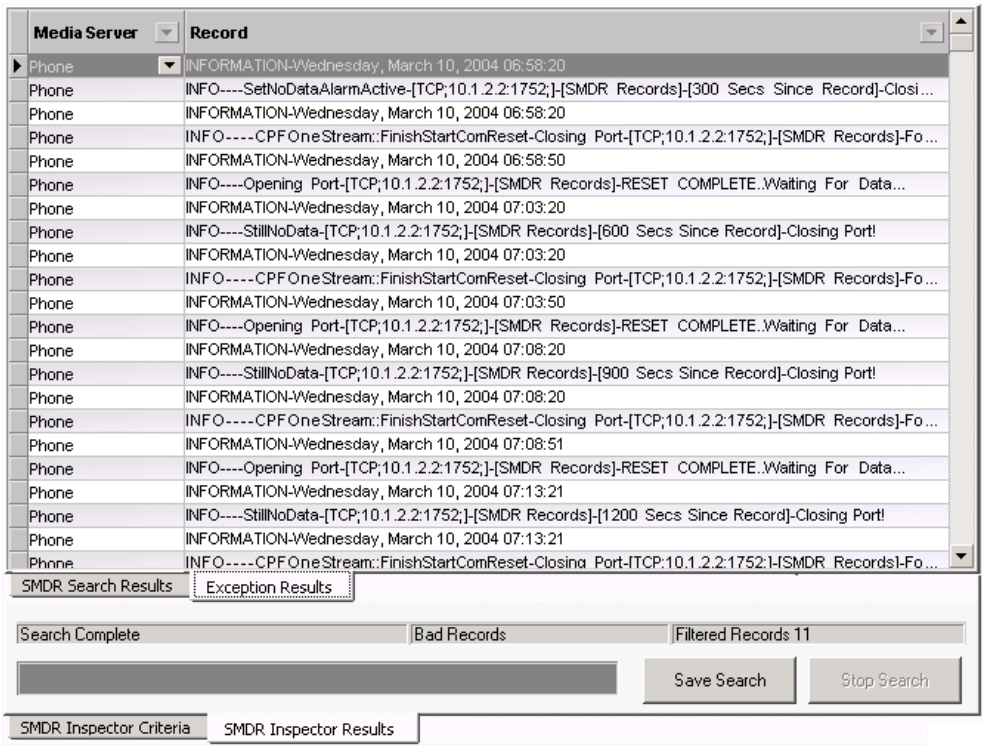
The Exception search has the following results information:

Media server

The Media server box identifies the source of the event record.

Record

The Data record box displays detailed information about the exception record.



SMDR search results - Exception results tab

Wild card searches

NOTE:

- To search for a string of numbers within a digits dialed string, enclose the string of numbers in parenthesis, such as '8905'. The search will produce only records that include *8905* only in the digits dialed string.
- To search for records where the calling, called or third party involved a trunk (BOTH T and X in one search), put a C in the calling, called or third party box.

When performing searches on the Queue Events tab, you can enter a P800 under Queue information and the search will produce records involving Queue 800 only. Alternatively, you can run wild card searches. When you perform wild card searches, you use * to represent the wild card. For example, if you enter '*00' under Queue information on the Queue events tab, the search will produce records for all of the Queues or Agent groups that end in '00' (for example, 200, 300).

Exporting search results

You can save the ACD Inspector andSMDR Inspector search results in the following formats:

- HTML
- Microsoft Excel
- XML
- Text

To export the search results

1. Click **Save search**.
   The Inspector Search Results Export window opens.
2. Select the format in which you want the search results saved: **HTML**, **Microsoft Excel**, **Microsoft Access**, **XML**, or **Text**.
3. Click **Next**.
4. Click the ellipses to select the location where you wantto save the file.
5. After **File name**, type the file name.
6. Click **Save**.
7. Click **Next**.
8. Click **Next** to confirm the format in which you want to save the file and the location of the file.

   A window opens with the message 'Inspector Search Results export to [export type] complete.'
9. Click **OK**.
10. Click **Finish**.

    A window opens with the message 'Would you like to view/open this file now?'
11. If you want to view the file immediately, click **Yes**.

    The file opens.

Installing MiContact Center Business on VMware

This section provides detailed instructions on deploying VMware Ready .ova virtual machines preloaded with MiContact Center Business. Pre-loaded .ova virtual machines enhance the speed and ease of installing and deploying MiContact Center Business. The applications are pre-loaded on a Windows Server 2016 operating system, configured with SQL Server Express 2016 and all other prerequisites so the installation setup can be run with minimal configuration changes required.

OVA file specifications

The following table lists the default hardware specifications for the OVA files when shipped.

Table 15.1:vApp hardware specifications

vApp	Virtual CPUs	CPU Reservation	RAM (GB)	RAM Reservation	Hard Disk Space (GB)
Small	2	2000 Mhz	8	8192 MB	120
Medium	4	4000 Mhz	16	16384 MB	120
Large	8	8000 Mhz	32	32768 MB	120

NOTE: The values shown in the above table describe the hardware specifications for the vApp when shipped. After deployment, you can edit the virtual machine settings so that there are more or less CPU and RAM resources allocated, as necessary. The applications to which you have access are dependent on your licensing options.

For optimum performance, it is recommended that the following power management settings be set for MiContact Center Business .ova files:

- On your VMware vSphere host, the CPU Power Management Policies should be set to High Performance.
- On your client, the Windows Power Option should be set to High Performance.

Installation overview

Installing the MiContact Center Business or MiContact Center Business and MiVoice Call Recording vApp is a two-step process. First you must deploy the MiContact Center Business or MiContact Center Business and MiVoice Call Recording Server, which is an .ova virtual machine that is installed on a supported

VMware server. Once the virtual machine has been deployed, there are several post-deployment installation and configuration steps that must be completed to get your business up and running. These include:

- Licensing the virtual machine's copy of Windows Server 2016
- Creating the administrator account credentials for the server
- Configuring a computer name and IP address for the server
- Installing MiContact Center Business
- Licensing MiContact Center Business
- For MiContact Center Business
  - Configure media servers
  - Synchronize the telephone system(s) with the YourSite database
- For MiVoice Call Recording
  - Adjust settings in MiVoice Call Recording Network Config application

The following sections detail how to deploy MiContact Center Business MiVoice Analytics .ova virtual machines and the post-deployment installation and configuration changes required for all applications.

Virtual machine download

To download the MiContact Center Business virtual machine

1. Log on to the Enterprise Server with a Windows administrator account.
2. The account must have full administrative privileges.
3. Ensure all of the Windows programs are closed.
4. Using a web browser browse to https://www.mitel.com.
5. Click **Login**.
6. Type your Mitel Connect **Username** and **Password** and click **Login**.
7. Click **Downloads**.
8. Under **Title**, click **MiContact Center**.
9. Click the link of version you want to download and the Knowledge Base Article is displayed. Occasionally, due to browser incompatibility, the link will not respond. If this happens, right-click the link and select **Open in new tab**.
10. In the **Knowledge Base Article**, click the link of version you want to download.
11. Click the link for the **MiCC OVA** file you want to download.

    The Disclaimer appears.
12. To download your software:
    - Click I Agree **[Download using Software Download Manager (Recommended)]** to download using the Software Download Manager.
    - Click I Agree **[Download using HTTP]** to download using your browser.

    NOTE: If you click I Disagree, you are unable to download the software.
13. If you are downloading with the Software Download Manager, select the destination for the download and click **Save**. When the file finishes downloading, click **Launch**.

14. If you are downloading using HTTP, depending upon the options presented in your browser, choose to save or run the installation file.

Enterprise Server deployment and installation on VMware

This section includes detailed instructions on how to deploy your MiContact Center Business or MiContact Center Business and MiVoice Call Recording vApp and all of the post-deployment installation and configuration changes required to get your contact center up and running.

Before running the deployment

Before deploying either MiContact Center Business on a VMware server, you must have configured your VMware server accordingly. For details on installing and configuring your VMware server(s), please consult your VMware documentation.

In order to deploy either or MiContact Center Business and MiVoice Call Recording MiVoice Analytics .ova file, you must have installed and configured vSphere Client.

MiContact Center Business virtual machines require that both a Small business configuration of MiVoice Business and MiVoice Border Gateway be previously configured before deploying MiContact Center Business.

NOTE: Please refer to the *MiContact Center Business and MiVoice Analytics System Engineering Guide* for a list of supported VMware vSphere versions.

Deploying MiContact Center Business virtual machines

To deploy MiContact Center Business virtual machines

1. In vSphere Client, click **File > Deploy OVF Template**.
2. After **Deploy from a file or URL**, click **Browse** and navigate to the location to which you downloaded the file.
3. Click **Next**.
4. Verify the .ova template details and click **Next**.
5. Review the End User License Agreement and click **Accept**.
6. Click **Next**.
7. Type a name for the deployed template.
8. Click **Next**.
9. Select the type of configuration: **Small**, **Medium**, or **Large**.
10. Click **Next**.
11. If you are using vCenter, under **Inventory Location**, select the data center to which you want to deploy the image.
12. Click **Next**.

13. If you have more than one host or a cluster, on the Host/Cluster window, specify the host/cluster IP address.
14. Click **Next**.
15. If you have more than one datastore, select the datastore in which to store the virtual machine files from the list.
16. Click **Next**.
17. Select the type of disk formatting you will use: **Thick** or **Thin**.

    For more information regarding thick and thin disk formatting, see the *Mitel Virtual Appliance Deployment Solutions Guide*.
18. Map the networks.
19. Click **Next**.
20. Verify the .ova template options and click **Finish**.

    VMware will deploy your virtual machine.

Post-deployment installation and configuration

This section details all of the post-deployment installation and configuration instructions required to make MiContact Center Business operational once you have deployed your .ova virtual machine.

Installing and configuring MiContact Center Business

To install and configure MiContact Center Business

1. From vSphere Client, power on and launch the newly created virtual machine.
   Windows will begin setting up your computer, then reboot, and then finish setting up your computer.
2. On the **Settings** screen, select **Country or Region**, **App language**, and **Keyboard layout**.
3. Click **Next**.
4. Enter the Microsoft Windows product key.
5. Click **Next**.
6. Review the Microsoft Windows license terms and select **Accept**.
7. When prompted to enter the Administrator password, enter and reenter the password.
8. Click **Finish**.
9. On the login screen, log in as an Administrator.

   The Initial Configuration Tasks window opens.
10. Under **Provide Computer information**, click **Configure networking** and configure an IP address for the server.
11. Click **OK**.
12. Under **Provide Computer information**, click **Provide computer name and domain**, give the computer a meaningful name, and, optionally, join a domain.

13. Click **OK**.
14. Under **Activate Windows**, click **Activate Windows**.
15. Under **MiContact Center**, click **Install MiContact Center**.
16. Click **Deploy Enterprise Server**.
17. Review the product announcements and click **Next**.
18. Select the installation path and click **Next**.
19. On the Product Registration window, the wizard prompts you to select one of the following licensing options, then click **Next**.

NOTE: To ensure you are able to register online, any firewalls and proxies must be configured to allow traffic over port 80 to IP address 142.46.199.66.

- If an active Internet connection is available and you can access the license server, you must register online. Select **I would like to register now**. The license key will be provided over the phone or by email by Mitel during the purchasing and registration process. After License key, paste the entire license key. You must submit your registration information to Mitel and implement your license files within thirty days to complete your software registration
- If you do not have access to the Internet or if you cannot access our license server, select **I would like to register later**. Selecting this option will install a temporary demo license. To obtain the licensing key, customers can contact their approved vendor. Certified channel technicians can contact Mitel Technical Support.

20. Select the features and click **Next**.
21. Configure the IP Address, language, country, and time zone.
22. Click **Next**.
23. Select the SQL Server instance and credentials.
24. Click **Next**.
25. Enter the Administrator account password and select the method of authentication.
26. Click **Next**.
27. The installation begins.
28. Click **Finish**.
29. Log on to YourSite Explorer.
30. Add and configure your media servers.
31. Configure the YourSite database using synchronization.

    NOTE: Before running synchronization, you must either disable Windows Firewall or add appgw.exe to the firewall exclusion list.

Real-time Monitors

The Enterprise Server continuously updates the real-time applications with gateway data and simultaneously updates connected clients through Transmission Control Protocol-Internet Protocol (TCP/IP). Real-time monitors are automatically updated to reflect device and device group changes made in YourSite Explorer. Supervisors and agents are provided with point-and-click access to real-time performance statistics for their contact center, enabling them to identify issues in contact center performance and see who is available to answer or assist with calls.

The real-time applications include Contact Center Client, Ignite (WEB), and WallBoarder. In Contact Center Client and Ignite (WEB), supervisors and agents can view real-time voice statistics and the phone availability of contact center agents and employees. In contact centers that have the Multimedia Contact Center optional application, supervisors and agents can view real-time voice, email, chat, SMS, and open media statistics. WallBoarder displays text messages and contact center statistics on one or more Spectrum Light Emitting Diode (LED) reader boards (wall signs). WallBoarder administration details are included in the *MiContact Center Business Installation and Administration Guide*.

Call recordings are initiated in Contact Center Client and are appended to specific Lifecycle reports.

In addition to real-time monitors, Contact Center Client includes the following application areas:

- **Interactive Contact Center**
  Using Interactive Contact Center, you can control the availability of agents and ACD queues. Agents can log themselves on or off, and place themselves in or remove themselves from Make Busy or Do Not Disturb.
  See *"Interactive Contact Center"*.
- **Auditor**
  Using Auditor, supervisors can view the historical real-time events that occurred on a particular date, in the sequence they occurred, at your own pace.
  See *"Auditor"*.
- **Management Console**
  Using Management Console, System Administrators can restart services, administer the database, and perform maintenance functions.
  System administration is described in the MiContact Center Business Installation and Administration Guide.
- **Data-mining**
  The ACD Inspector searches for agent and ACD queue event records. The SMDR Inspector searches through SMDR data to find specific contact center events.
  Data mining is described in the MiContact Center Business Installation and Administration Guide.
- **Contact Center Chat**
  Contact Center Client provides instant messaging capabilities for employees. Contact Center Chat provides the online chat presence of employees, including Online, Offline, and Away. Employees can view the availability and presence of other employees before they transfer calls or send online chat messages. With Microsoft Skype for Business Server, Contact Center Chat integrates with Skype for Business to provide enhanced presence.
  See *"Using Contact Center Chat"*.

The following applications and features reside in Contact Center Client:

- **Interactive Visual Queue**

Interactive Visual Queue is an optional application that enables agents to monitor calls within queues, move calls from busy queues to less active queues, and call back abandoned callers.
See *"Interactive Visual Queue"*.

- **Contact Center PhoneSet Manager and Contact Center Softphone**
  Contact Center PhoneSet Manager and Contact Center Softphone are optional applications that enable employees to use their desktop computers as IP-based phones.
  See *"Contact Center PhoneSet Manager and Contact Center Softphone"*.
- **Contact Center Screen Pop**
  Contact Center Screen Pop is an optional application that launches applications or webpages. In addition, it enables agents to automatically receive caller and account information via pop-ups on their computer monitors every time they receive calls.
  Contact Center Screen Pop configuration and details are included in the MiContact Center Business Installation and Administration Guide.
- **Contact Center Chat with Skype for Business**
  With the addition of Microsoft Skype for Business Server, employees and supervisors use Skype for Business as their default instant messaging client. The presence of all company employees is natively delivered in Contact Center Client. Contact center employees can view the presence of both internal and external contacts to determine if they are available to communicate. In addition to Available, Offline, and Away, employees see In a Meeting, Busy, In a call, Do Not Disturb, Be Right Back, and other presence indicators.
  See *"Using Contact Center Chat with Skype for Business"*.

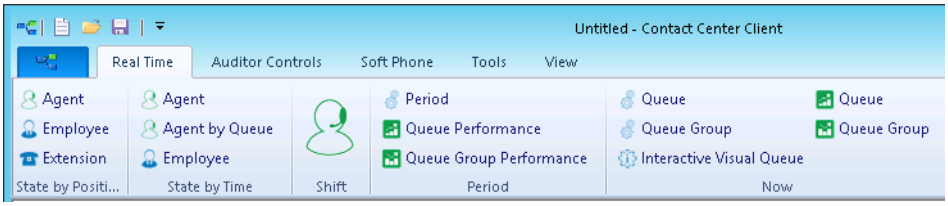
Contact Center Client

NOTE:

- Your ability to view real-time monitors and devices in Contact Center Client is dependent on administrative security settings.
- An employee must be a member of an employee group in order for you to view the employee on the employee group monitors in Contact Center Client. A queue must be a member of a queue group in order for you to view the queue on the queue group monitors in Contact Center Client.
- The number of employees extensions logged on at any time must be consistent with your software license.

Contact Center Client uses ribbons for device and monitor control. (See the following figure.)

Figure 16.1: Contact Center Client ribbon



Some tabs that display in the ribbon are dependent upon which monitor is active. These are referred to as context sensitive tabs. When you enable context sensitivity for monitors, the associated context sensitive tab for the active monitor automatically becomes the active tab. See the following table for a list of the associated context sensitive tabs for each monitor. See the following figure for an example of context

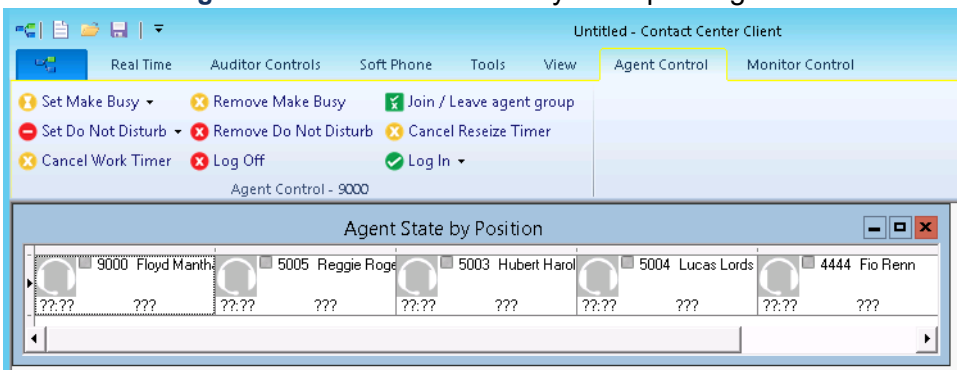
sensitivity enabled for the Agent State by Position monitor. Note that the Agent and Monitor Control tabs display in the ribbon.

NOTE: The options that display in the Contact Center Client ribbon are dependent upon your individual security settings. Options which you are not given access to will not display.

Table 16.1: Context sensitivity options display per monitor

Monitor	Associated context sensitive tabs
Agent State by Position	Agent and Monitor Control tabs
Extension State by Position	Extension and Monitor Control tabs **NOTE:** When an agent is logged into an extension, the context sensitivity tab displays 'Agent Control'. When no agent is logged into the extension, the context sensitivity tab displays 'Extension Control'.
Extension Now	Monitor Options tab
Agent State by Time	Agent and Monitor Control tabs
Agent State by Time for Queue	Agent and Monitor Control tabs
Employee State by Time	Employee and Monitor Control tabs
Agent Shift	Agent and Monitor Control tabs
Queue by Period	Monitor Options tab
Queue Now	Monitor Options tab
Queue Group Now	Monitor Options tab
Queue Performance	Chart Options tab
Queue Group Performance	Chart Options tab
Queue	Chart Options tab
Queue Group	Chart Options tab
Interactive Visual Queue	n/a **NOTE:** Context sensitivity is not supported for the Interactive Visual Queue monitor

Figure 16.2: Context sensitivity example - Agent Control tab



Starting Contact Center Client

You start Contact Center Client to access real-time functionality.Supervisors and agents can view real-time voice statistics. In contact centers that have the optional Multimedia Contact Center application, supervisors and agents can view real-time voice, email, chat, SMS, and open media statistics. After starting Contact Center Client, you can choose to minimize it to either the system tray or the taskbar, depending on your operating system.

NOTE: Launching client-side desktop applications from the task bar causes them to bypass the MiContact Center Updater Service process. To ensure successful updates from the Enterprise Server, after an upgrade close all client-side applications for 15 minutes or reopen them from the Start menu/Start screen.

To start Contact Center Client

1. Open **Contact Center Client**.
2. If prompted, type your **Username** and **Password** and verify the **Enterprise Server IP** address.
3. If you use Secure Socket Layer, select **SSL**.
4. Optionally, select **Remember my credentials**.
5. Click **Login**.

To display Contact Center Client in the taskbar

1. In Contact Center Client, click the **File** tab.
2. Click **Options**.
3. Clear the **Hide when minimized** check box and click **OK**.

   Contact Center Client, when minimized, will display in the taskbar.
4. To save the profile, click **File > Save as**.
5. Type a **Name** for the profile and click **OK**.

   The profile is saved and will automatically be applied each time you open Contact Center Client. When your System Administrator changes device settings (such as changes to naming or associations between devices), they will be automatically reflected in your Contact Center Client user profile.

Configuring Contact Center Client options

You can customize the Contact Center Client user interface and real-time monitor device control and display options by accessing the Options menu.

To configure Contact Center Client options

1. In the ribbon, click the **File** tab.
2. Click **Options**.

   The Options window displays.
   See the following figure.
3. Under **User interface display**, select a **Toolbar style**, **Real-time icon** type, **Background** color, **Page size**, and whether you want to hide Contact Center Client when the window is minimized.
4. Select **Context Sensitivity** for **Monitors** if you want the context sensitive tab to automatically become the active tab when you select a monitor.

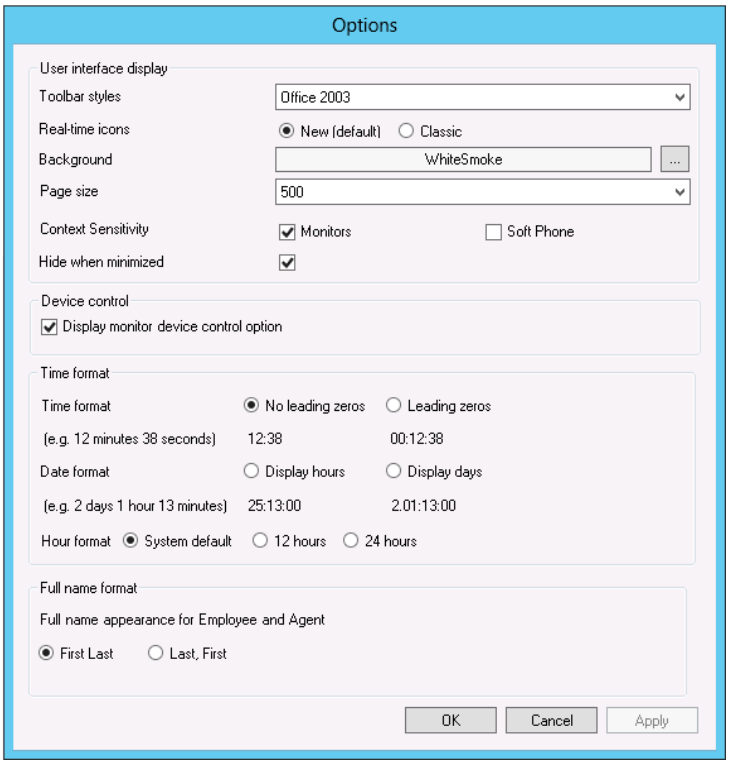
   NOTE: Monitor context sensitivity is enabled by default.
5. Select **Context Sensitivity** for **Soft phone** if you want the soft phone tab to automatically become the active tab when a call is received.

   If the Soft phone toolbar is floating, context sensitivity does not apply. Soft phone context sensitivity is disabled by default.
6. Select the **Display monitor device control option** check box if you want to be able to see the option for monitor control when you right-click cells in a real-time monitor.

   NOTE: Monitor control enables you to simultaneously control all of the agents on a monitor and is only available if you have appropriate permissions.
7. Configure **Time format** options.

   The options you select will display in the real-time monitor cells.
8. Under **Full name format**, select how you want agent and employee first and last names to display in real-time monitors.
9. Click **OK**.

Figure 16.3: Contact Center Client options



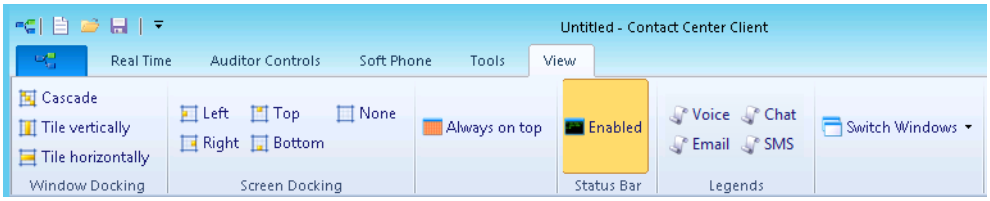
Adjusting the Contact Center Client view

You can adjust the way you view Contact Center Client features on your desktop.

To adjust the view

1. Click **View** in the Contact Center Client ribbon.
   The View options ribbon opens.
   See the following figure.

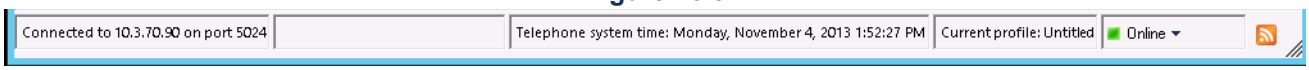
Figure 16.4: View options ribbon



2. To change the way monitors display inside Contact Center Client, select from the options in the **Window Docking** column.
3. To adjust the position of the Contact Center Client window on your desktop, select from the options in the **Screen Docking** column.
4. If you want Contact Center Client to always display on top of other applications on your desktop, click **Always on top**.
5. Enable the **Status Bar** if you want the status bar to be visible at the bottom of the Contact Center Client window.

See the following figure.

Figure 16.5: Status bar



6. To open Voice, Email, Chat, or SMS legends, select from the options in the **Legends** column.

Employee and Agent states

NOTE:

- If Contact Center Client becomes disconnected from the server, upon re-connection the following states will automatically be synchronized with the server.

The following table lists the employee states and their corresponding icons.

The following table lists the agent states and their corresponding icons.

Table 16.2: Employee states (Sheet 1 of 3)

Term	Icon	Meaning
Ringing		An ACD interaction ringing on the employee, waiting to be handled
ACD		An employee handling an ACD interaction
ACD Hold		An employee who has placed an ACD interaction on hold
Idle		An employee logged on and waiting to receive an interaction
Non ACD		An employee involved in an incoming Non ACD interaction or employee-originated voice interaction
Non ACD Hold		An employee who has placed a Non ACD voice interaction on hold
Outbound		An employee on an outgoing voice interaction

Table 16.2: Employee states (Continued) (Sheet 2 of 3)

Term	Icon	Meaning
Outbound Hold		An employee who has placed an outgoing voice interaction on hold
Do Not Disturb		An employee who has activated Do Not Disturb and is not available to receive any ACD or Non ACD interactions
Make Busy		An employee who is not available to receive ACD interactions but can receive transferred interactions and voice interactions dialed directly to the employee This icon also displays when an agent is in the Reseize Timer state. When voice agents fail to answer a voice interaction, agents are placed in Make Busy (Reseize Timer) This icon also displays when an external hot desk agent is in the Reseize Timer state
System Make Busy		An employee that the system has put into a state where they cannot receive ACD contacts. For example, if an employee is offered a communication and does not answer, they will be put into System Make Busy for a predetermined length of time.
Work Timer		An employee who is completing post-contact work, such as paperwork, and is unavailable to receive interactions of that media type
Logged Off		An employee not currently logged in to any queue

Table 16.2: Employee states (Continued) (Sheet 3 of 3)

Term	Icon	Meaning
Logged In Not Present		An employee logged in but not present in any of their agent groups, and employees not present in a media type across all groups.
Unavailable		An employee who has not generated any activity since Mi Contact Center Business was started

Table 16.3: Agent states (Sheet 1 of 3)

Term	Voice	Email	Chat	SMS	Meaning
Ringing					An ACD interaction ringing on an agent, waiting to be handled
ACD					An agent handling an ACD interaction
ACD Hold					An agent who has placed an ACD interaction on hold
Idle					An agent logged on and waiting to receive an interaction
Non ACD		-	-	-	An agent involved in an incoming Non ACD interaction or agent-originated voice interaction
Non ACD Hold		-	-	-	An agent who has placed a Non ACD voice interaction on hold
Outbound		-	-	-	An agent on an outgoing voice interaction

Table 16.3: Agent states (Continued) (Sheet 2 of 3)

Term	Voice	Email	Chat	SMS	Meaning
Outbound Hold		-	-	-	An agent who has placed an outgoing voice interaction on hold
Do Not Disturb					An agent who has activated Do Not Disturb and is not available to receive any ACD or Non ACD voice interactions
Make Busy					An agent who is not available to receive ACD interactions but can receive transferred interactions and voice interactions dialed directly to the agent This icon also displays when an external hot desk agent is in the Reseize Timer state
System Make Busy					An employee that the system has put into a state where they cannot receive ACD contacts. For example, if an employee is offered a communication and does not answer, they will be put into System Make Busy for a predetermined length of time.

Table 16.3: Agent states (Continued) (Sheet 3 of 3)

Term	Voice	Email	Chat	SMS	Meaning
Work Timer					An agent who is completing post-contact work, such as paperwork, and is unavailable to receive interactions of that media type
Unknown					An agent who has not generated any activity since Mi Contact Center Business was started
Logged Off					An agent not currently logged in to any queue
Logged In Not Present					An agent logged in but not present to any of their agent groups, and agents not present to a media type across all groups

Extension states

NOTE:

- If your Contact Center Client becomes disconnected from the server, upon re-connection the extension states will automatically be synchronized with the server.
- If an agent is logged into the extension, agent state icons will display. See *"Employee and Agent states"*.

The following table lists the extension states and their corresponding icons.

Table 16.4: Extension states (Sheet 1 of 3)

Term	Icon	Meaning
Ringing		Call is ringing on the extension and waiting to be handled

Table 16.4: Extension states (Continued) (Sheet 2 of 3)

Term	Icon	Meaning
Idle		Extension is waiting to receive a call
Non ACD		Extension is involved in an incoming call or an internal extension-originated call
Non ACD Hold		Extension has placed an incoming call or an internal extension-originated call on hold
Outbound Call		Extension is on an outgoing call
Outbound Hold		Extension has placed an outgoing call on hold
Forwarded to		Extension has set all incoming calls to be forwarded to an alternate answer point
Camp on		Extension is on a call and an incoming call is camped on (waiting to be answered)
Off Hook		Extension's phone is off the hook, so cannot receive calls
Do Not Disturb		Extension has activated Do Not Disturb and is not available to receive calls
Logged Off		Extension is not currently logged on and is unavailable to take calls
Logged In Not Present		Extension is removed from its Ring Groups

Table 16.4: Extension states (Continued) (Sheet 3 of 3)

Term	Icon	Meaning
Unknown		Extension has not generated any activity since MiVoice Analytics was started

Understanding Contact Center Client features

Contact Center Client has agent, queue, queue chart, and call note monitors. For information on adding and viewing call notes, see *"Adding call notes to a call"*.

You can perform the following tasks on the monitors by either right-clicking within the monitor or selecting options via the Contact Center Client ribbon:

- Call recording
- Open monitors
- Dock monitors
- Add and remove device IDs
- Sort monitor devices
- Rearrange cells
- Set monitor dimensions
- Freeze and unfreeze columns
- Hide and show columns
- Filter device variables
- Set alarms
- Clear alarms
- Define monitor styles
- Group data
- Print monitors
- Arrange windows
- Modify the view
- Build marquee monitors to broadcast statistics and messages
- Chat online with other employees

Contact Center Client options

The following options apply to real-time monitors.

Call recording

On the Agent State by Time, Agent State by Position, Agent State by Queue by Time, and Extension by Position monitors, the Call recording option enables you to start, stop, and restart call recording at any time during a call. See *"Recording calls"*.

Clear alarms

The Clear alarms command clears any current performance variable threshold alarms.

Set alarms

The Set alarms command specifies performance thresholds for queues, extensions, and agents.

Add/Remove devices

The Add/Remove devices command adds or removes devices or device groups from the monitor. If you add agents, they are added to the bottom of the monitor.

Set table dimensions

On the Agent State by Position, Extension State by Position, and Employee State by Position monitors, the Set table dimensions command adds or deletes columns or rows. If you delete devices, they are deleted them from the lower-right side of the monitor.

Size table to frame

On all monitors, the Size table to frame command adjusts the table to fit within the frame

Sort monitor

On the Agent State by Position, Extension State by Position, and Employee State by Position monitors, the Sort monitor by Agent ID, name, state, or extension command sorts agents by Agent ID, name, state and time in state, or extension.

Note that you cannot drag and drop devices between monitors.

Filter device variables

On the Extension Now, Agent Shift, Queue by Period, and Queue Now monitors the Filter device variables command filters the data based on conditions you specify and displays a subset of data on the monitor.

General

On all monitors, under Properties, the General option specifies the monitor name and enables the horizontal and vertical scroll bars.

On the queue monitors, you can also enable grouping.

On the extension, agent, and employee monitors you can also display tool tips, display a pattern upon failover, and display instant messaging online presence indicators.

On the Agent and Employee State by Time monitors, you can also sort logged off agents by the longest logged off first.

Print monitor

The Print monitor command prints the current monitor.

Enable grouping

Under Properties, the Enable grouping option displays a grouping panel to which users can drag columns. The grouping order determines the order in which the rows display. The Enable grouping option affects all monitors that contain columns.

Row settings

Under Properties > Layout, the Row settings option specifies the background color and font color of rows, and the font type and text alignment.

Row alternate settings

Under Properties > Layout, the Row alternate settings option specifies the background color and font color of alternate rows, and the font type and text alignment.

Column settings

Under Properties > Layout, the Column settings option specifies the background color and font color of columns, and the font type and text alignment.

Column dimensions

Under Properties > Layout, the Column dimensions option specifies the column height and width.

Column order

Under Properties > Layout, the Column order option hides or displays individual columns, and specifies the order of columns across the monitor.

Monitor style

Under Properties > Layout, the Monitor style option specifies styles and skins (sets of styles) for the monitor, and the Card design option specifies how information is displayed in the cells of extension, agent, and employee monitors.

Cascade

When you right-click a monitor tab, under Windows, the Cascade command distributes active monitors down and across the Contact Center Client window.

Tile vertically

When you right-click a monitor tab, under Windows, the Tile vertically command distributes active monitors across the Contact Center Client window.

Tile horizontally

When you right-click a monitor tab, under Windows, the Tile horizontally command distributes active monitors down the Contact Center Client window.

Dock Contact Center Client

When you right-click a monitor tab, under Windows, the Dock Contact Center Client command docks Contact Center Client at the top, bottom, left, or right of your desktop.

Always on top

When you right-click a monitor tab, under Windows, and select the Always on top command, Contact Center Client always displays on your desktop on top of all other open applications.

View

The View command hides or displays the main menu, status bar, real-time monitors, voice, email, chat, SMS, and open media legends.

Diagnostics monitor

The log and error monitors are accessed via Contact Center Client.

To access log and error monitors

1. Click **Tools** in the Contact Center Client ribbon.
2. Click either **Log Monitor** or **Error Monitor**, depending on what kind of log information you want to review.

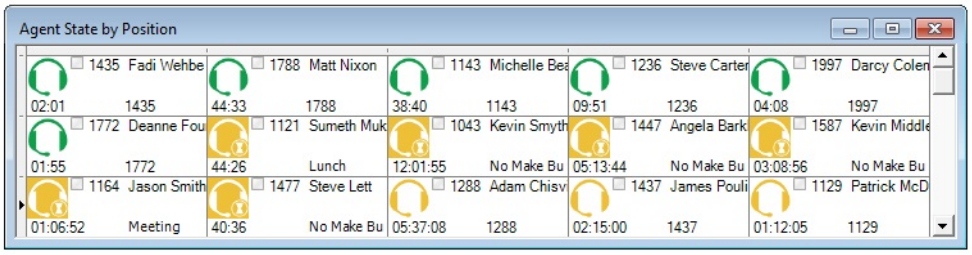
   See the following figure

Diagnostics Monitor

Viewing agent availability

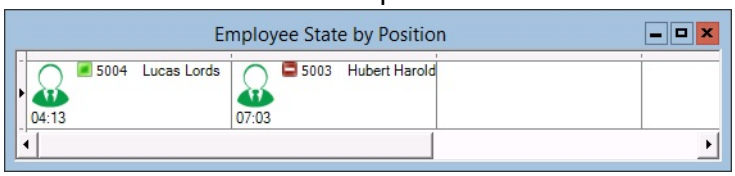
Contact Center Client provides instant messaging capabilities for both supervisors and agents and is typically used by contact center employees. Contact Center Chat provides the online chat presence of contact center employees, including Online, Offline, and Away. On the agent, employee, and extension monitors, agents can view the availability and presence of other contact center employees before they transfer calls or send online chat messages. (See the following figure.) If an agent cell in a monitor is grayed out, the phone is not connected to the network and considered out of service. The out of service state applies to phones that are not connected to the network, remote agents and employees that have lost their Internet connection, phones that are physically disconnected or malfunctioning, or employees that are not logged into their soft phone.

Figure 16.6: Agent State by Position - viewing agent availability and online presence



With the addition of Microsoft Skype for Business Server, agents and supervisors use Skype for Business Client as their default instant messaging client. The presence of all company employees is natively delivered in Contact Center Client. Contact center employees can view the presence of both internal and external contacts to determine if they are available to communicate. In addition to Available, Offline, and Away, employees see In a Meeting, Busy, In a call, Do Not Disturb, Be Right Back, and other presence indicators. (See the following figure.)

Figure 16.7: Employee State by Position - viewing employee availability and enhanced presence



The following monitors display agent activities:

- Agent State by Position

- Employee State by Position
- Extension State by Position
- Agent State by Time
- Employee State by Time
- Agent Shift

Extension, Agent, and Employee State by Position

The Extension, Agent, and Employee State by Position monitors provide real-time information in cells that you can arrange to mirror your floor plan: you can view extensions, agents, or employees by their physical position in your contact center. In addition, these monitors enable you to view the current status of general business extensions. Card designs enable you to customize the information displayed in the cells. See *"Customizing the information displayed on position and time monitors"*.

Agents can join multiple agent groups and therefore answer for multiple queues. However, each agent has only one ID and displays in a single cell of each applicable monitor. The agent activity that displays in the monitor cell reflects their current overriding action.

When you first open a monitor, you can select a card design:

- The Classic card displays the agent state, time in the state, presence, agent/employee name, agent login ID/employee ID, and extension number (or queue name for voice agents on ACD or on ACD Hold).
- The Caller ID card displays the caller name and number (ANI), the number the caller/employee dials for incoming/outgoing calls, the state, time in the state, presence, agent/employee name, agent login ID/employee ID, and extension number (or queue name for voice agents on ACD or on ACD Hold).
- Custom cards you create and share display customized extension/agent/employee and/or caller information

Caller ID information is displayed when

- Extensions, Agents, and employees are in the following real-time states: ACD, ACD Hold, Ringing, Non ACD, Non ACD Hold, Out, and Out Hold Time
- Extensions are in the following real-time states: Inbound and Outbound

You can set alarms for all real-time statistics and for caller ID information, such as the caller name and number.

NOTE: Before you can select the Caller ID card on the Add devices window of monitors, you must make the card available. To do so, right-click an open monitor, select the Caller ID card under Properties, Layout > Card design and click Apply.

In a fault tolerant setup, if a network outage occurs the cells in the agent, employee, and extension monitors display a crisscrossed pattern to identify agents who have homed to their secondary controllers.

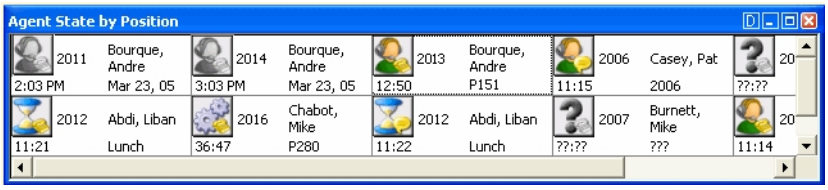
If an agent cell in a monitor is grayed out, the phone is not connected to the network and considered out of service. The out of service state applies to phones that are not connected to the network, remote agents and employees that have lost their Internet connection, phones that are physically disconnected or malfunctioning, or employees that are not logged into their soft phone.

Viewing the activities of agents who can log on to multiple voice queues

In the following figure, the Agent State by Position monitor shows three cells for Andre Bourque, each with a different agent ID. The first two cells show Andre logged off of the telephone system. The third cell

shows Andre's current state. Andre is logged on to Queue 151 using Agent ID 2013. He has been on an ACD call for 12 minutes and 50 seconds.

Figure 16.8: Agent State by Position - viewing multiple agent IDs



Agents can log on to the telephone system using only one agent ID at a time. If your agents have multiple voice IDs (and therefore multiple cells) the Agent State by Position monitor becomes cluttered.

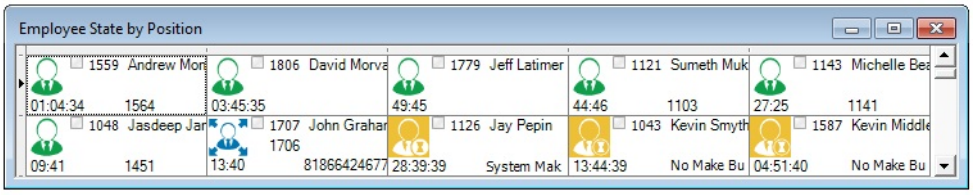
If you have agents who are cross trained to answer calls for different departments (and log in and out of various voice queues) the telephone system requires you assign the agents multiple IDs. You can use the Agent State by Position monitor to view the activities of each department. You create an Agent State by Position monitor for each department. When you arrange the cells for the agents in the same order for each department, you can easily compare the activities of one department with another.

Viewing the current logged on states of agents who log on to multiple queues

If you have voice agents who are cross trained to answer calls for different departments (and log in and out of several queues) the telephone system requires you assign the agents multiple IDs. If a voice agent has multiple agent IDs and you want to view the agent's current logged on state only, you use the Employee State by Position monitor.

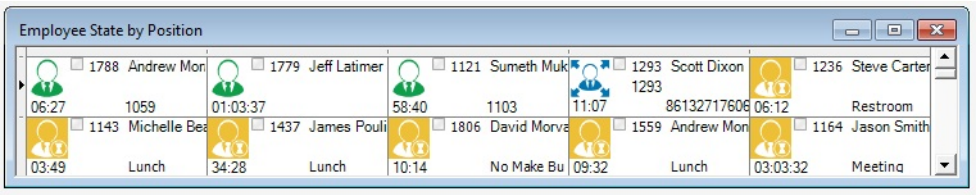
To view the monitor, you open the Employee State by Position monitor and select employees to add to the monitor. The monitor shows one cell for Andrew, listing his current state and agent ID. (See the following figure.)

Figure 16.9: Employee State by Position - viewing the ID to which the agent is logged on



Andrew is currently logged on to Extension 1564 using Agent ID 1559. Sometime later you notice Andrew is logged on to Extension 1059 using Agent ID 1788. (See the following figure.)

Figure 16.10: Employee State by Position



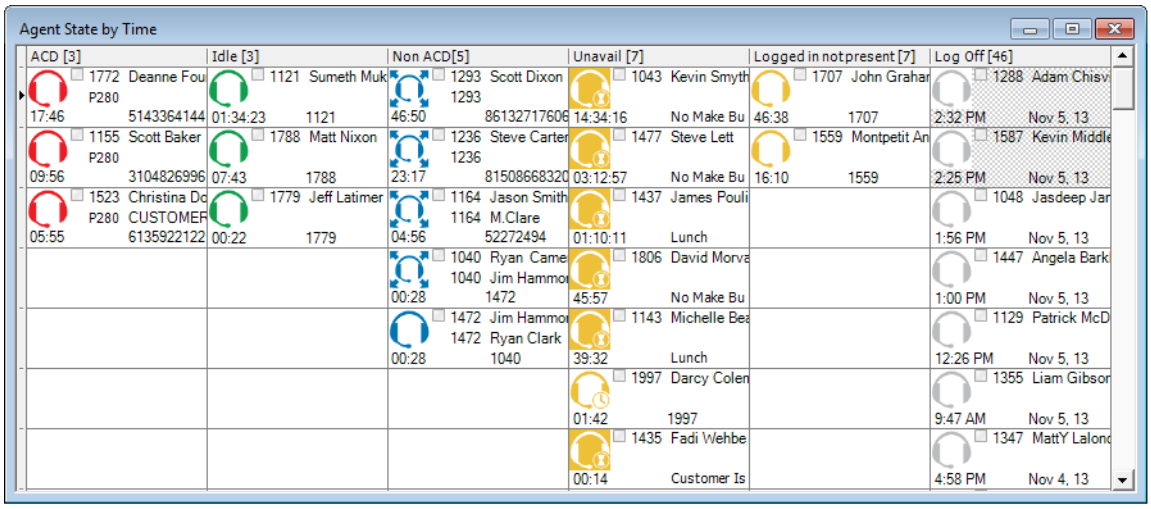
Agent State and Employee State by Time

The Agent State by Time and Employee State by Time monitors provide real-time agent information under ACD, Idle, Non ACD, Unavailable, and Logged Off column headings. They display the same real-time information as that of the Extension State by Position, Agent State by Position, and Employee State by Position monitors. See *"Extension, Agent, and Employee State by Position"*.

If an agent is in an email, chat, or SMS agent state, the monitors display the queue number to which the agent is logged on. Each column lists agents in order of time in state. You can specify which columns of agent statistics are displayed, and the order in which they are displayed. You can sort logged off agents by the longest logged off first. (See the following figure.)

If you have agents who are cross trained to answer calls for different departments (and log in and out of various voice queues) the ACD routing system requires you assign the agents multiple IDs. You use the Employee State by Time monitor to view the activities of voice agents with multiple agent IDs. See *"Viewing the current logged on states of agents who log on to multiple queues"*.

Figure 16.11: Agent State by Time



The following table lists the Agent State by Time and Employee State by Time column headings and their associated agent states.

Table 16.5: Agent State by Time and Employee State by Time column headings (Sheet 1 of 2)

Category	Associated agent states
ACD	includes agents in ACD and agents in ACD Hold
Idle	includes agents in the Idle state
Non ACD	includes agents in Non ACD, in Non ACD Hold, Outbound agents, and Outbound Hold agents
Unavailable	includes agents in Do Not Disturb, Make Busy, Work Timer, Reseize Timer, and Unknown
Logged in not present	includes agents logged in but not present to any of their agent groups, and agents not present to a media type across all groups

Table 16.5: Agent State by Time and Employee State by Time column headings (Continued) (Sheet 2 of

Category	Associated agent states
Log Off	includes agents in the Logged Off and Offline (Ignite, WEB) states

Agent State by Time for Queue

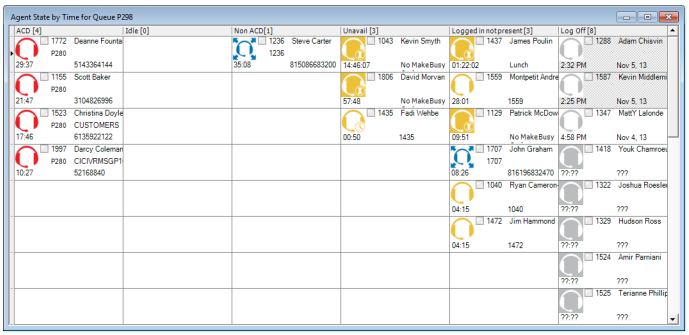
The Agent State by Time for Queue monitor is a Contact Center Client real-time monitor designed specifically for contact centers using Agent Group Presence functionality. However, the Agent State by Time for Queue monitor is available for all media server types.

The Agent State by Time for Queue monitor is accessed from the Real Time tab in Contact Center Client and displays all agents configured in a specific queue and agents who are on ACD calls, idle, on Non ACD calls, unavailable, logged on to the system (but not present in the queue being monitored), and logged off. (See the following figure).

NOTE:

- Virtual queue groups are shown under the Virtual queue groups section of the Agent State by Time for Queue monitor. Any Agent State by Time for Queue monitors that are monitoring virtual queues are marked in the title as (virtual).
- The Agent State by Time for Queue monitor does not support viewing Ring Groups.

Figure 16.12: Agent State by Time for Queue



The following table lists the Agent State by Time and Employee State by Time column headings and their associated agent states.

Table 16.6: Agent State by Time for Queue column headings (Sheet 1 of 2)

Category	Associated agent states
ACD	includes agents in ACD and agents in ACD Hold
Idle	includes agents in the Idle state
Non ACD	includes agents in Non ACD, in Non ACD Hold, Outbound agents, and Outbound Hold agents
Unavailable	includes agents in Do Not Disturb, Make Busy, and Work Timer, and Reseize Timer

Table 16.6: Agent State by Time for Queue column headings (Continued) (Sheet 2 of 2)

Category	Associated agent states
Logged in not present	includes agents logged in but not present to any of their agent groups, and agents not present to a media type across all groups
Log Off	includes agents in the Logged Off, Unknown, and Offline (Ignite, WEB) states

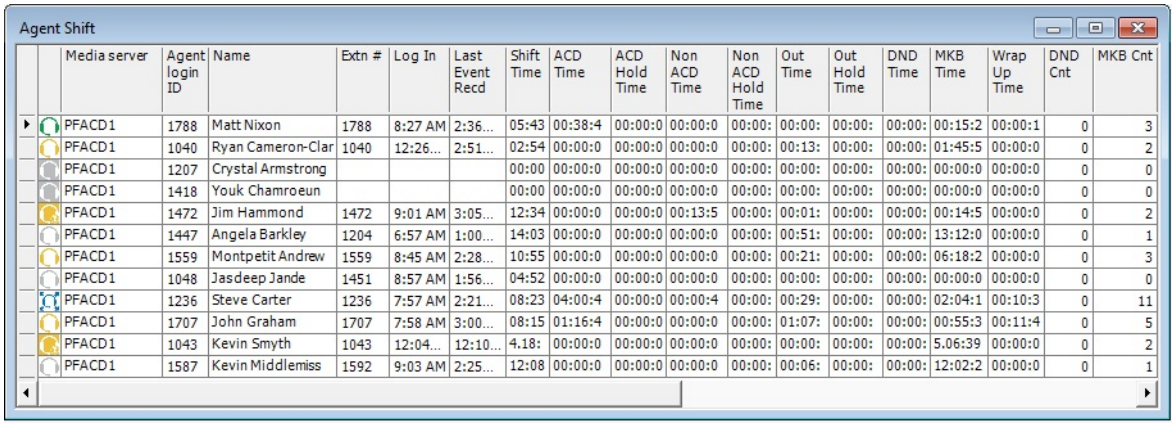
To view the Agent State by Time for Queue monitor

1. In the Contact Center Client ribbon, click the Real Time tab.
2. In the State by Time column on the ribbon, click Agent by Queue.
3. Select the queues to monitor. You can optionally sort members in either ascending or descending order.
4. Click OK.

Agent Shift

The Agent Shift monitor provides running totals of statistics on individual agents for the day. You can specify which columns of statistics are displayed, rearrange columns, and sort individual columns in ascending or descending order. (See the following figure.)

Figure 16.13: Agent Shift



	Media server	Agent login ID	Name	Extn #	Log In	Last Event Recd	Shift Time	ACD Time	ACD Hold Time	Non ACD Time	Non ACD Hold Time	Out Time	Out Hold Time	DND Time	MKB Time	Wrap Up Time	DND Cnt	MKB Cnt
▸	PFACD1	1788	Matt Nixon	1788	8:27 AM	2:36...	05:43	00:38:4	00:00:0	00:00:0	00:00:	00:00:	00:00:	00:00:	00:15:2	00:00:1	0	3
	PFACD1	1040	Ryan Cameron-Clar	1040	12:26...	2:51...	02:54	00:00:0	00:00:0	00:00:0	00:00:	00:13:	00:00:	00:00:	01:45:5	00:00:0	0	2
	PFACD1	1207	Crystal Armstrong				00:00	00:00:0	00:00:0	00:00:0	00:00:	00:00:	00:00:	00:00:	00:00:0	00:00:0	0	0
	PFACD1	1418	Youk Chamroeun				00:00	00:00:0	00:00:0	00:00:0	00:00:	00:00:	00:00:	00:00:	00:00:0	00:00:0	0	0
	PFACD1	1472	Jim Hammond	1472	9:01 AM	3:05...	12:34	00:00:0	00:00:0	00:13:5	00:00:	00:01:	00:00:	00:00:	00:14:5	00:00:0	0	2
	PFACD1	1447	Angela Barkley	1204	6:57 AM	1:00...	14:03	00:00:0	00:00:0	00:00:0	00:00:	00:51:	00:00:	00:00:	13:12:0	00:00:0	0	1
	PFACD1	1559	Montpetit Andrew	1559	8:45 AM	2:28...	10:55	00:00:0	00:00:0	00:00:0	00:00:	00:21:	00:00:	00:00:	06:18:2	00:00:0	0	3
	PFACD1	1048	Jasdeep Jande	1451	8:57 AM	1:56...	04:52	00:00:0	00:00:0	00:00:0	00:00:	00:00:	00:00:	00:00:	00:00:0	00:00:0	0	0
	PFACD1	1236	Steve Carter	1236	7:57 AM	2:21...	08:23	04:00:4	00:00:0	00:00:4	00:00:	00:29:	00:00:	00:00:	02:04:1	00:10:3	0	11
	PFACD1	1707	John Graham	1707	7:58 AM	3:00...	08:15	01:16:4	00:00:0	00:00:0	00:00:	01:07:	00:00:	00:00:	00:55:3	00:11:4	0	5
	PFACD1	1043	Kevin Smyth	1043	12:04...	12:10...	4.18:	00:00:0	00:00:0	00:00:0	00:00:	00:00:	00:00:	00:00:	5.06:39	00:00:0	0	2
	PFACD1	1587	Kevin Middlemiss	1592	9:03 AM	2:25...	12:08	00:00:0	00:00:0	00:00:0	00:00:	00:06:	00:00:	00:00:	12:02:2	00:00:0	0	1

Agent Shift column heading definitions

The following table describes the Agent Shift column headings.

Table 16.7: Agent Shift column headings (Sheet 1 of 4)

Term	Abbreviated Name	Meaning
Agent State		The agent's media type and current state

Table 16.7: Agent Shift column headings (Continued) (Sheet 2 of 4)

Term	Abbreviated Name	Meaning
Media Server	Media Server	The media server to which the agent is associated
Agent Shift Name	Name	The name of the agent being monitored
Agent login ID	Agent login ID	The login ID of the agent being monitored
Extension Number	Extn #	The extension where the agent logged in (voice only)
Logged On	Log In	The most recent time the agent logged in
Last Event Received	Last Event Recd	The most recent time an agent event occurred
Shift Time	Shift Time	The total elapsed time logged for the agent, calculated based on the difference between log in and last event received
ACD Time	ACD Time	The duration of ACD interactions handled, from agent pickup to completion (not including hold time)
ACD Hold Time	ACD Hold Time	The duration of time ACD interactions spent on hold
Non ACD Time	Non ACD Time	The duration of Non ACD interactions handled, from agent pickup to completion (not including hold time) (voice only)
Non ACD Hold Time	Non ACD Hold Time	The duration of time Non ACD interactions spent on hold
Outbound Time	Out Time	The duration of time agents spent handling outbound calls (voice only)
Outbound Hold Time	Out Hold Time	The duration of time outbound calls spent on hold, for agents (voice only)
Do Not Disturb Time	DND Time	The duration of time the agent entered the Do Not Disturb State

Table 16.7: Agent Shift column headings (Continued) (Sheet 3 of 4)

Term	Abbreviated Name	Meaning
Make Busy Time	MKB Time	The number of times the agent entered the Make Busy state
Wrap Up Time	Wrap Up Time	The duration of time where Wrap Up Time was the overriding state for the agent. Wrap up time does not include any time spent making or taking interactions during the wrap up timer.
Do Not Disturb Count	DND Cnt	The number of times the agent entered the Do Not Disturb state
Make Busy Count	MKB Cnt	The number of times the agent entered the Make Busy state
ACD Count	ACD Cnt	The number of ACD interactions handled by the agent
Short ACD Count	Shrt ACD Cnt	The number of ACD interactions handled by the agent where the handle time was less than the Short Handle parameter
Non ACD Count	Non ACD Cnt	The number of Non ACD interactions handled by the agent (voice only)
Hold ACD Count	Hold ACD Cnt	The number of times ACD interactions were placed on hold (voice only)
Non ACD Hold Count	Non ACD Hold Cnt	The number of times Non ACD interactions were placed on hold
Outbound Count	Out Cnt	The number of outbound calls made by the agent (voice only)
Outbound Hold Count	Out Hold Cnt	The number of times outbound calls were placed on hold (voice only)
Contacts Per Hour	Contacts Per Hour	The total ACD interaction count minus the ACD short handle count, divided by the shift time for the agent

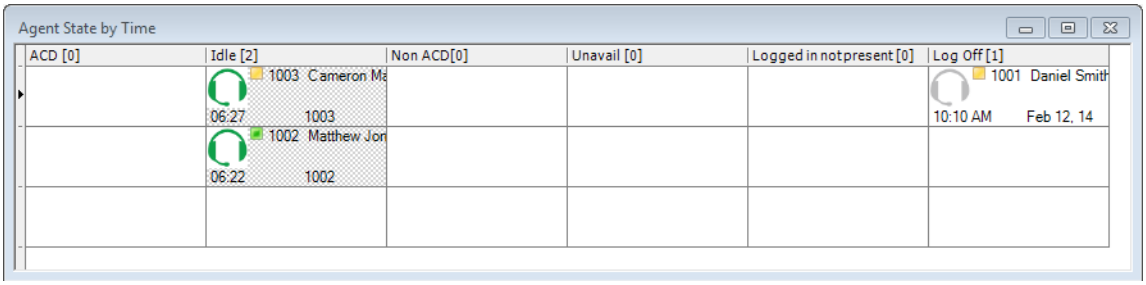
Table 16.7: Agent Shift column headings (Continued) (Sheet 4 of 4)

Term	Abbreviated Name	Meaning
On Failover	On failover	Indicates whether the primary media server is offline and has failed over to the secondary media server (voice only)
Agent Unavailable Percent	Agt Unavail %	The percentage of shift time for which the agent was unavailable to receive interactions
Logged In Not Present Time	Logged In Not Present Time	The duration of time the agent was logged into but not present to any of their agent groups, and the duration of time the agent was not present in a media type across all groups
Average Handle	Avg Hndl	The average amount of time the agent spent handling ACD interactions (ACD Time divided by ACD Count, excluding ACD Hold Time)
Occupancy	Occp	The duration of time the agent spent processing interactions, including ringing time

Viewing Agent and Extension Availability and Resiliency

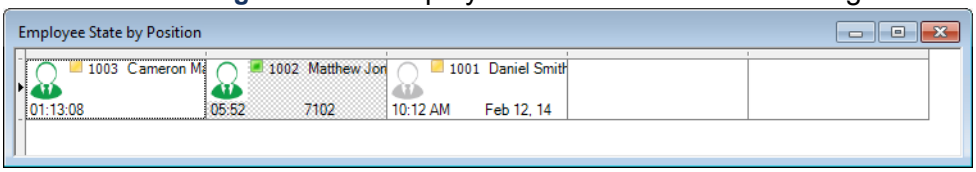
Contact Center Client's Agent, Employee, and Extension real-time monitors provide a visual indication if agents fail over to a resilient media server. In an Agent monitor (Agent State by Position, Agent State by Time, and Agent State by Queue by Time), if an agent fails over to the secondary voice media server, a cross-hatch pattern displays in the agent's cell in the monitor. (See the following figure.)

Figure 16.14: Agent monitor with failed over agents



In an Employee monitor (Employee State by Position and Employee State by Time), if an employee's agent fails over to the secondary voice media server, a cross-hatch pattern displays in the employee's cell in the monitor. (See the following figure.)

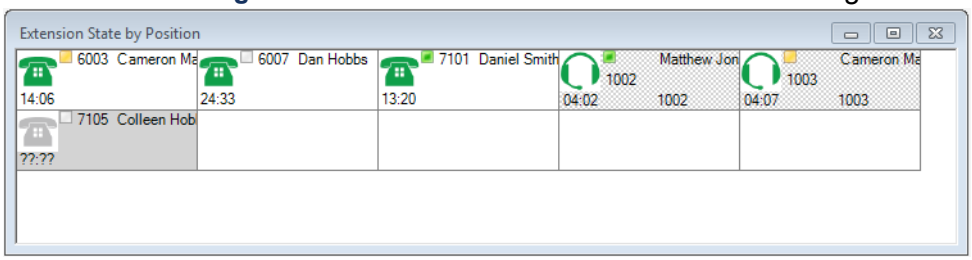
Figure 16.15: Employee monitor with failed over agents



In an Extension monitor, if a logged in agent who is associated to an extension fails over to the secondary voice media server, then a cross-hatch pattern is applied to the agent's associated extension in the extension monitor. (See the following figure.)

NOTE: Extensions that fail over to the secondary voice media server do not have a cross-hatch pattern applied to their cell.

Figure 16.16: Extension monitor with failed over agents



Modifying visual indicator settings for agents failing over

By default, monitors are configured to display a pattern if agents fail over to a secondary media server. This setting is optional, however, and can be disabled on a monitor-by-monitor basis.

The following procedures explain how to

- Disable visual indicators for agents failing over
- Enable visual indicators for agents failing over

To disable visual indicators for agents failing over

1. Right-click in an open monitor and select **Properties**.
2. In the **General** tab, clear **Display pattern when on failover**.
3. Click **OK**.

To enable visual indicators for agents failing over

1. Right-click in an open monitor and select **Properties**.
2. In the **General** tab, select **Display pattern when on failover**.
3. Click **OK**.

Viewing extensions availability

In your business, you may be monitoring

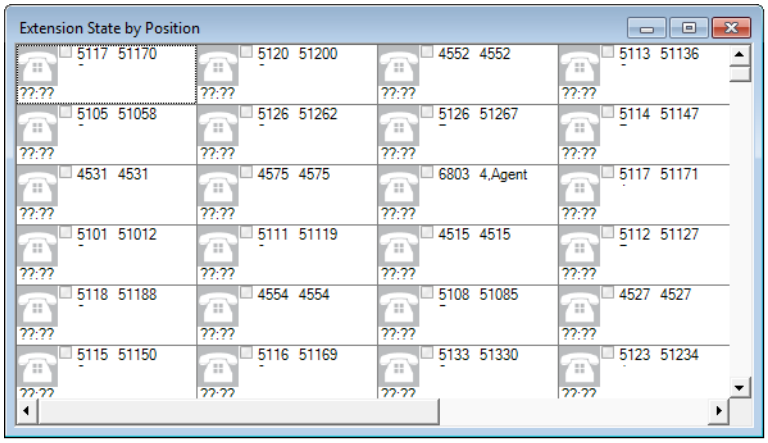
- Traditional or hot desking ACD agents who sit at different desks each day and who log on using their agent ID
- General business, traditional extensions (non-contact center employees) who sit at the same desks each day, are assigned their own desk phone extensions, and do not log on to their phones (their phones are programmed with their personal settings and are always active)

- General business, hot desking extensions (non-contact center employees) who log on to any phone in the enterprise with a virtual extension configured with their personal settings. When the employee logs on the extension becomes active. When the employee logs off of the extension it goes out of service. (See the following figure.)

The following monitors are available for viewing extensions:

- Extension State by Position
- Extension Now

Figure 16.17: Extension State by Position



You can set up your real-time monitor profile to include two or more Extension by Position monitors: one with cells that are arranged to show the whereabouts of agents employees in your contact center, and another that shows the status of general business extensions: active/inactive, inbound/outbound.

The Extension State by Position monitor shows the state of agents who are not logged into the system. You can use the Extension State by Position monitor to view the Non ACD activity of employees and the current state of general business extensions.

When a phone is out of service, the extension and employee cells in real-time monitors are grayed out. The out of service state applies to phones that are not connected to the network, remote employees that have lost their Internet connection, phones that are physically disconnected or malfunctioning, or employees that are not logged into their soft phone.

Extension Inbound

Extension Inbound refers to a general business extension on an inbound call.

Extension Outbound

Extension Outbound refers to a general business extension on an outbound call.

General business active extension

General business active extension refers to a Mitel desk phone/Contact Center PhoneSet Manager/Contact Center Softphone that is live with no ACD agents logged on (active extension), or an extension to which a general business hot desking user is logged on. The user is an active extension not logged on to any ACD queue.

General business inactive extension

General business inactive extension refers to a Mitel desk phone that has been unplugged or is damaged, or a soft phone that is not running because the computer is turned off or Contact Center Client is not

running, or a hot desking extension to which nobody is logged onan extension that is not active because the computer is turned off or Contact Center Client is not running.

Traditional or hot desking ACD agents who sit at different desks each day

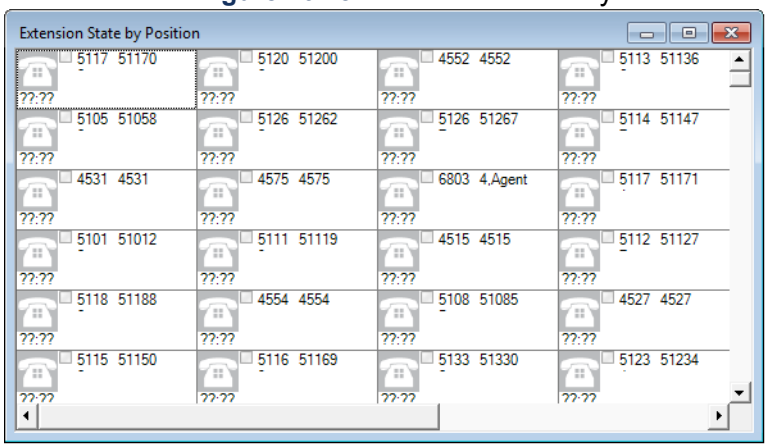
If you have traditional or hot desking ACD agents who sit at different desks each day, you use the Extension State by Position monitor to view where they are sitting in the contact center. After you add Registration Directory Numbers (RDNs)/desk phone extensions to the monitor, you can arrange the cells to match the layout of your contact center.

When nobody is logged on to a particular extension, the monitor cell displays the General business active icon and the phone set RDN ID. When an agent logs on to the desk phone, the monitor cell displays the ACD agent status, (which can include information such as the time in state, queue reporting number, and Make Busy status), the agent ID, the agent name, and the RDN (at the bottom of the cell). Depending on the agent's current state you may see additional information, such as the time in state, queue reporting number, or Make Busy status. If the Caller ID card design is selected, you will also see the caller name and phone number. (See the following figure.)

If you would prefer that Extension State by Position monitor cells be blank when there are no agents logged on to the telephone system, you can right-click the monitor, select Properties, and clear the Enable the general business view check box.

If an agent cell in a monitor is grayed out, the phone is not connected to the network and considered out of service. The out of service state applies to phones that are not connected to the network, remote agents or employees that have lost their Internet connection, phones that are physically disconnected or malfunctioning, or employees that are not logged into their soft phone.

Figure 16.18: Extension State by Position



General business, traditional extensions who sit at the same desks each day

If you have general business, traditional extensions who sit at the same desks each day, you use the Extension State by Position monitor to view where they are sitting in the contact center. After you add their extensions to the monitor, you can arrange the cells to match the layout of your business, or arrange them alphabetically or by department.

When a general business employee is in Idle, the cell for the employee's phone extension in the Extension State by Position monitor displays the employee's name and extension number, and the General business active icon. When the employee is on an incoming/outgoing call, the cell displays the Extension Inbound/Extension Outbound icon, the employee's name and extension number, and the time in state. If the Caller ID card design is selected, you will also see the caller name and phone number. Either card

enables you to readily determine the online and phone availability of general business subject matter experts.

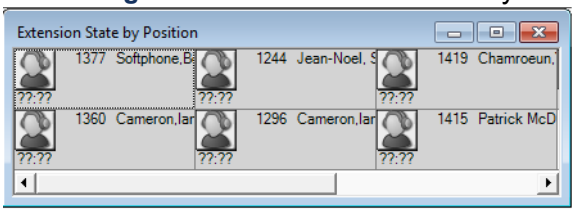
If you prefer that Extension State by Position monitor cells be blank when there are no agents logged on to the system, you can right-click the monitor, select Properties, and clear the Enable the general business view check box.

General business hot desking employees who sit at different desks each day

General business, hot desking extensions can log on to any phone in the enterprise and access their personal settings. When adding extensions to the Extension State by Position monitor, you can arrange them alphabetically or by department.

When an employee is logged on, the monitor cell displays the General business active icon, icon and the employee's name and extension. When the employee is on an incoming/outgoing call, the cell displays the Extension Inbound/Extension Outbound icon and the time in state. If the Caller ID card design is selected, you will also see the caller name and phone number. When the employee logs off, the monitor cell is grayed out (inactive). (See the following figure.)

Figure 16.19: Extension State by Position

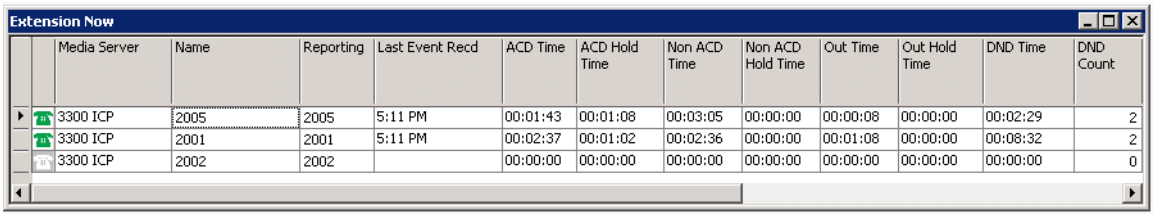


Extension Now

The Extension Now monitor enables supervisors to view extension statistics in real time. The Extension Now monitor provides visibility to extensions. If an agent logs out of an extension displayed in this monitor, the extension will go out of service and will not be updated in real time. In the Extension Now monitor, you can specify which columns of statistics are displayed, rearrange columns, and sort individual columns in ascending or descending order. (See the following figure.)

NOTE: Extensions must be licensed to display statistics.

Figure 16.20: Extension Now monitor



Extension Now column heading definitions

The following table indicates the current status of the extension and describes the real-time and over-the-business-day Extension Now extension statistics.

Table 16.8: Extension Now extension statistic column headings (Sheet 1 of 2)

Term	Meaning
Media Server	The extension's media server
Name	The extension name
Reporting	The extension's reporting number **NOTE:** The extension reporting number is also its dialable number.
Last Event Recd	The most recent time an extension event occurred
ACD Time	The duration of ACD(Ring Group) interactions handled, from extension pickup to completion (not including hold time)
ACD Hold Time	The duration of time ACD(Ring Group) interactions spent on hold
Non ACD Time	The duration of Non ACD interactions handled, from extension pickup to completion (not including hold time)
Non ACD Hold Time	The total time for Non ACD calls put on hold
Out Time	The number of outbound calls made by the extension
Out Hold Time	The duration of time outbound calls spent on hold for extensions
DND Time	The duration of time where Do Not Disturb was the overriding state for the extension
DND Cnt	The number of times the extension entered the Do Not Disturb state
ACD Cnt	The total number of ACD(Ring Group) calls answered by the extension
Shrt ACD Cnt	The total number of ACD(Ring Group) calls answered by the extension that lasted less than the Short Handle parameter
ACD Hold Cnt	The number of times the extension put ACD(Ring Group) calls on hold
Non ACD Cnt	The total number of Non ACD calls answered by the extension
Non ACD Hold Cnt	The number of times Non ACD calls were put on hold
Out Cnt	The total number of outgoing calls the extension made
Out Hold Cnt	The total number of times the extension put outgoing calls on hold
Calls Per Hour	The average number of incoming ACD calls answered by the extension per hour since the extension was logged in
On Failover	Indicates whether or not the extension has failed over to the secondary media server
Not Present Time	The duration of time the extension was in service but not present in a Ring Group

Table 16.8: Extension Now extension statistic column headings (Continued) (Sheet 2 of 2)

Term	Meaning
Avg Handl	The average amount of time the extension spent handling ACD interactions (ACD Time divided by ACD Count, excluding ACD Hold Time)
Occp	The total time the extension spent in an occupied state (occupied state excludes idle time)

Viewing queue statistics

NOTE: If an agent fails to answer an ACD call after X seconds or X rings or refuses a voice interaction, the agent is placed in Reseize Timer state instead of System Make Busy state. This default behavior can be reset to place agents into System Make Busy state rather than the Reseize Timer state. The system then re-queues the call, in the same queue, and offers it to the next available agent.

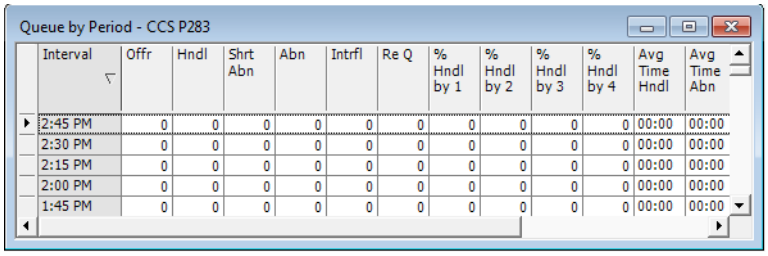
The following monitors display queue statistics:

- Queue by Period
- Queue Now
- Queue Group Now

Queue by Period

The Queue by Period monitor collates queue statistics by 15-minute intervals over a 24-hour period. The monitor refreshes each time there is a change in a statistic and each 15-minute interval. The Queue by Period monitor always displays the current 15 minute interval at the top of the monitor. You can specify which columns of statistics are displayed, rearrange columns, and sort individual columns in ascending or descending order. (See the following figure.)

Figure 16.21: Queue by Period



Queue by Period column heading definitions

The following table describes the Queue by Period column headings.

NOTE: Statistics that do not support Ring Groups display as '0'.

Table 16.9: Queue by Period column headings (Sheet 1 of 4)

Term	Abbreviated Name	Meaning
Interval time	Interval	The 15 minute interval of time

Table 16.9: Queue by Period column headings (Continued) (Sheet 2 of 4)

Term	Abbreviated Name	Meaning
Offered	Offr	The total number of calls offered to the queue during the 15-minute interval
Handled	Hndl	The total number of calls answered by members during the 15-minute interval
Short Abandoned	Shrt Abn	During the 15-minute interval, the total number of calls abandoned before the short abandon time configured against the queue in YourSite Explorer
Abandoned	Abn	The total number of calls abandoned during the 15-minute interval before being answered by members
Interflowed	Intrfl	The total number of calls interflowed during the 15-minute interval
Requeued	Re Q	The total number of calls re-queued during the 15- minute interval **NOTE:** This statistic displays information for ACD paths only. Statistics for Ring Groups display as '0'.
% Handled by 1-4	% Hndl by 1-4	A count of all of the calls answered by the first, second, third, and fourth answer points during the 15-minute interval **NOTE:** This statistic displays information for ACD paths only. Statistics for Ring Groups display as '0'.

Table 16.9: Queue by Period column headings (Continued) (Sheet 3 of 4)

Term	Abbreviated Name	Meaning
#Handled by 1-4	# Hndl by 1-4	The number of calls answered by the first, second, third, and fourth answer points during the 15-minute interval **NOTE:** This statistic displays information for ACD paths only. Statistics for Ring Groups display as '0'.
Total Conversation Time	Ttl Conv Time	The total time members spent talking to callers during the 15-minute interval
Average Conversation Time	Avg Conv time	The average time members spent talking to callers during the 15-minute interval
Average Time to Handle	Avg Time Hndl	The average amount of time callers waited in queue before members answered their calls during the 15-minute interval
Average Time to Abandon	Avg Time Abn	The average amount of time callers waited in queue during the 15-minute interval before they abandoned their calls
Average Time to Interflow	Avg Time Intrfl	The average amount of time callers waiting in queue during the 15-minute interval before being interflowed
Service Level % Today	Scv Lvl % Tday	During the 15-minute interval, the percentage of calls answered within the Service Level Time specified for the queue
% Handled	% Hndl	During the 15-minute interval, the percentage of calls answered compared to the total number of calls offered to the ACD queue for the day

Table 16.9: Queue by Period column headings (Continued) (Sheet 4 of 4)

Term	Abbreviated Name	Meaning
Wrap Up	Wrap Up	The total time the agent spent in the Work Timer state during the 15-minute interval **NOTE:** This statistic displays information for ACD paths only. Statistics for Ring Groups display as '0'.
Make Busy	Make Busy	The total time the agent spent in the Make Busy state during the 15-minute interval **NOTE:** This statistic displays information for ACD paths only. Statistics for Ring Groups display as '0'.
Occupancy	Occp	The total time the queue members spent in an occupied state during the 15-minute interval (occupied state excludes idle time)

Queue Now and Queue Group Now

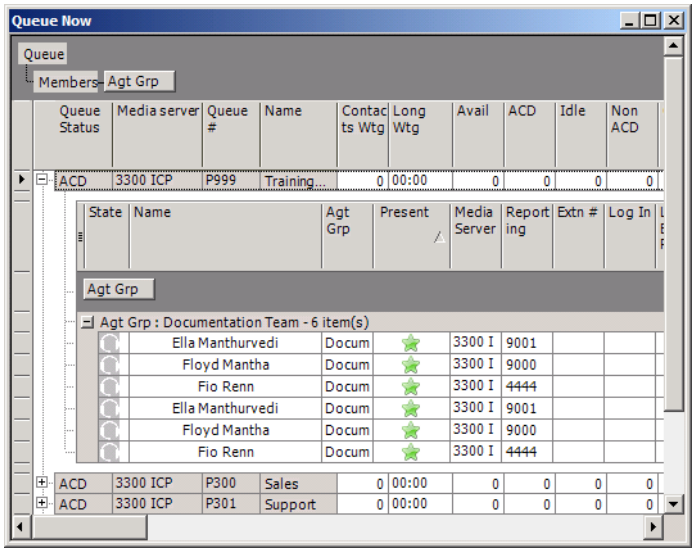
The Queue Now monitor enables supervisors to view queue statistics in real time, as well as expand individual queues in the monitor to view statistics on each queue's associated member agents or extensions. When you expand the Queue Now monitor to display the Name column, the monitor also displays member presence in the queue. Presence is indicated by a colored star in the Present column. A green star indicates the member is present in the queue. A gray star indicates the member is not present in the queue. A gray row indicates that the member is not logged in (for agents and hot desk users) or out of service (for extensions).

The Queue Group Now monitor enables supervisors to view aggregated statistics for Reporting, Virtual, and Unified queue groups in real-time, as well as expand individual queue groups in the monitor to view statistics for the queue group's associated queues.

On the Queue Now monitor, you can specify which columns of statistics are displayed, rearrange columns, and sort individual columns in ascending or descending order. You can expand a queue and view statistics on the members associated with the queue. (See the following figure.)

NOTE: Prior to Version 7.1, Queue Now monitors displayed the agent groups belonging to the queues with agent group statistics. As of Version 7.1, this functionality has been removed. Instead, queue members are grouped by agent group.

Figure 16.22: Queue Now



NOTE:

- Contact Center Client updates Longest Waiting statistics every fifteen seconds, or more frequently as records are received from the ACD routing system.
- If the ACD routing system has not updated MiContact Center Business with real-time statistics for Contacts Waiting and Agents Available within the last 90 seconds, question marks display in place of these statistics.
- Agents present in the queue and idle whose extensions are ringing are included in 'Available' statistics. Agents whose extensions are ringing are not included in Unavailable statistics.
- The Average Handling Time is the Average interaction Time plus the Average Hold Time. If the call is put on hold, transferred, or conferenced, these times are added to the Average Handling time value.
- If an agent fails to answer an ACD call after X seconds or X rings or refuses a voice interaction, the agent is placed in Reseize Timer state instead of System Make Busy state. This default behavior can be reset to place agents into System Make Busy state rather than the Reseize Timer state. The system then re-queues the call, in the same queue, and offers it to the next available agent.
- The abandoned media column in the Interactive Visual Queue monitor displays all abandoned calls. The abandoned column in the Queue Now monitor does not include short abandons as abandoned calls. Because of this difference, you may notice discrepancies between the abandoned call information in these two monitors.
- Statistics that do not support Ring Groups display as '0'.

Queue Now and Queue Group Now column heading definitions

The following table describes the real-time and over-the-business-day Queue Now and Queue Group Now queue and queue group statistics.

NOTE: Statistics that do not support Ring Groups display as '0'.

Table 16.10: Queue Now and Queue Group Now queue statistic column headings (Sheet 1 of 9)

Term	Abbreviated Name	Meaning
Queue Status	Queue Status	The current status of the queue—either Open, Do Not Disturb (DND) or Closed. Open indicates that the queue is available to queue calls. Closed indicates that the queue is not available to queue calls. This is because it is outside of Business Hours or because of a Queue Control Plan condition. Do Not Disturb indicates that the queue has been closed manually using the Set DND command. If the queue also meets the criteria above for a Closed queue, the status will show Closed instead of Do Not Disturb. If licensed for IVR Routing, an additional queue status, Offline, is available. Offline indicates that IVR Routing failed to receive a real-time status from the queue after a set period of time.
Queue Number	Queue #	The queue's reporting number
Queue Group Number	Queue Group #	The queue group reporting number (Queue Group Now only)
Media Server	Media Server	The queue’s media server
Queue Name	Name	The queue or queue group name
Contacts Waiting	Contacts Wtg	The current number of interactions in queue waiting for a member to become available, including those listening to silence, music, or recorded announcements
Longest Waiting	Long Wtg	The current duration, in minutes and seconds, of the interaction waiting the longest in queue or queue group

Table 16.10: Queue Now and Queue Group Now queue statistic column headings (Continued) (Sheet 2 of

Term	Abbreviated Name	Meaning
Available (Queue Now) Agents Available (Queue Group Now)	Avail Agts Avail	The total number of members logged in and not in Do Not Disturb, Make Busy, Work Timer, Ringing, Reseize Timer, Unknown, and Offline (Ignite, WEB) **NOTE:** This statistic updates only when members are present to the queue
ACD	ACD	The current number of members handling ACD interactions **NOTE:** This statistic updates only when members are present to the queue
Idle	Idle	The current number of members logged on and ready to receive interactions **NOTE:** This statistic updates only when members are present to the queue
Non ACD	Non ACD	The current number of members handling Non ACD calls (voice only) **NOTE:** This statistic updates only when members are present to the queue
Outbound	Out	The current number of members on outgoing calls (voice only) **NOTE:** This statistic updates only when members are present to the queue
Unavailable	Unavail	The current number of members in Do Not Disturb, Make Busy, Work Timer, or Unknown
Offered	Off	The total number of interactions offered to the queue / queue group

Table 16.10: Queue Now and Queue Group Now queue statistic column headings (Continued) (Sheet 3 of

Term	Abbreviated Name	Meaning
Handled	Hndl	The total number of ACD interactions handled by members
Abandoned	Abn	The total number of interactions abandoned before being answered by members **NOTE:** Abandoned does not peg short abandons as abandoned interactions in the Queue Now monitor. The Abandoned column in the Interactive Visual Queue monitor displays all abandoned interactions. Because of this difference, you may notice discrepancies between the abandoned call information in these two monitors.
Interflowed	Intrfl	The total number of ACD interactions interflowed. Interflow is a mechanism that directs an interaction waiting in queue to another answer point. **NOTE:** If an interaction waiting in queue is redirected before the queue's short abandon time has elapsed, the queue is pegged with a Queue Unavailable count rather than an Interflowed count. In order for the Interflowed peg to occur, the redirection must occur after the short abandon time has elapsed.
Requeued	Re Q	The total number of ACD interactions requeued **NOTE:** This statistic displays information for ACD paths only. Statistics for Ring Groups display as '0'.
Average Time to Handle	Avg Time Hndl	The average time it takes for the interaction to be taken out of queue by a member

Table 16.10: Queue Now and Queue Group Now queue statistic column headings (Continued) (Sheet 4 of

Term	Abbreviated Name	Meaning
Average Time to Abandon	Avg Time Abn	The current average amount of time customers wait in queue before abandoning interactions
Average Conversation Time	Avg Conv Time	The current average time members spent communicating with interactions
Service Level %	Svc Lvl %	For a queue, this is the percentage of interactions handled within the queue's Service Level Time value over the day For a queue group, this is the lowest percentage of interactions handled within the queue's Service Level Time value over the day across all queues
% Handled	% Hndl	For a queue, this is the percentage of interactions handled compared to the total number of interactions offered to the queue for the day For a queue group, this is the lowest percentage of interactions handled compared to the total number of interactions offered to the queue for the day across all queues
% Handled by 1-4	% Hndl by 1-4	For a queue, this is the percentage of all of the interactions answered by the first, second, third, and fourth agent groups For a queue group, this is the highest percentage of all of the interactions answered by the first, second, third, and fourth agent groups **NOTE:** This statistic displays information for ACD paths only. Statistics for Ring Groups display as '0'.

Table 16.10: Queue Now and Queue Group Now queue statistic column headings (Continued) (Sheet 5 of

Term	Abbreviated Name	Meaning
Total Conversation Time	Ttl Conv Time	The current total time members spend talking to callers
Total Queue Unavailable	Ttl Q Unavail	The total number of times during the day that interactions are rerouted because the queue is in Do Not Disturb or has no members logged in
Current Queue Unavailable	Curr Q Unavail	The current number of interactions are rerouted because no members are logged in or the queue is in Do Not Disturb. Once the queue becomes available, this value resets to 0
Offered Last Hour	Offr Last Hour	The total number of interactions offered to the queue during the last hour of business
Time to Handle Last Hour	Time Hndl Last Hour	The time interactions waited in queue during the last hour of business before being handled by a member
% Handled Last Hour	% Hndl Last Hour	For a queue, this is the percentage of interactions handled in the last hour of business, compared to the total number of interactions offered to the ACD queue for the day For a queue group, this is the lowest percentage of interactions handled in the last hour of business, compared to the total number of interactions offered to the ACD queue for the day

Table 16.10: Queue Now and Queue Group Now queue statistic column headings (Continued) (Sheet 6 of

Term	Abbreviated Name	Meaning
Service Level % Last Hour	Svc Lvl % Last Hour	For a queue, this is the percentage of interactions answered or picked within your Service Level Time value in the last hour For a queue group, this is the lowest percentage of interactions answered or picked within your Service Level Time value in the last hour
Handled Last Hour	Hndl Last Hour	The total number of interactions handled by members during the last hour of business
Abandoned Last Hour	Abn Last Hour	The total number of interactions abandoned during the last hour of business
Interflowed Last Hour	Intrfl Last Hour	The total number of interactions interflowed during the last hour of business. Interflow is a mechanism that directs an interaction waiting in queue to another answer point
Unavailable Last Hour	Unavail Last Hour	The total number of times, in the last hour of business, interactions were rerouted because the queue they tried to access was in Do Not Disturb or had no members logged in See Current Queue Unavailable
Average Handling Time Last Hour	Avg Hndl Last Hour	The average duration of interactions from member pick up to client hang up (including hold time) during the last hour of business
Offered Last 15 Minutes	Offr Last 15 Min	The total number of interactions offered to the queue in the last 15 minutes of business
Time to Handle Last 15 Minutes	Time Hndl Last 15 Min	The time interactions waited in queue during the last 15 minutes of business before being handled by a member

Table 16.10: Queue Now and Queue Group Now queue statistic column headings (Continued) (Sheet 7 of

Term	Abbreviated Name	Meaning
% Handled Last 15 Minutes	% Hndl Last 15 Min	For a queue, the percentage of interactions answered in the last 15 minutes of business, compared to the total number of interactions offered to the ACD queue for the day For a queue group, the lowest percentage of interactions answered in the last 15 minutes of business, compared to the total number of interactions offered to the ACD queue for the day
Service Level % Last 15 Minutes	Svc Lvl % Last 15 Min	For a queue, this is the percentage of interactions answered or picked within your Service Level Time value in the last 15 minutes of business For a queue group, this is the lowest percentage of interactions answered or picked within your Service Level Time value in the last 15 minutes of business
Handled Last 15 Minutes	Hndl Last 15 Min	The total number of interactions handled by members during the last 15 minutes of business
Abandoned Last 15 Minutes	Abn Last 15 Min	The total number of interactions abandoned during the last 15 minutes of business
Interflowed Last 15 Minutes	Intrfl Last 15 Min	The total number of interactions interflowed during the last 15 minutes of business. Interflow is a mechanism that directs an interaction waiting in queue to another answer point.

Table 16.10: Queue Now and Queue Group Now queue statistic column headings (Continued) (Sheet 8 of

Term	Abbreviated Name	Meaning
Unavailable Last 15 Minutes	Unavail Last 15 Min	The total number of times, in the last 15 minutes of business, interactions were rerouted because the queue they tried to access was in Do Not Disturb or had no agents logged in See Current Queue Unavailable
Average Handling Time Last 15 Minutes	Avg Hndl Last 15 Min	The average handling duration of interactions from interaction pickup to interaction completion, including hold time, during the last 15 minutes of business
% Abandoned	% Abn	For a queue, this is the percentage of interactions that were abandoned (% Abandoned = Interactions Abandoned ÷ Interactions Offered) For a queue group, this is the highest percentage of interactions that were abandoned (% Abandoned = Interactions Abandoned ÷ Interactions Offered)
% Abandoned Last Hour	% Abn Last Hour	For a queue, this is the percentage of interactions that were abandoned in the last hour of business For a queue group, this is the highest percentage of interactions that were abandoned in the last hour of business
% Abandoned Last 15 Minutes	% Abn Last 15 Min	For a queue, this is the percentage of interactions that were abandoned in the last 15 minutes of business For a queue group, this is the highest percentage of interactions that were abandoned in the last 15 minutes of business

Table 16.10: Queue Now and Queue Group Now queue statistic column headings (Continued) (Sheet 9 of

Term	Abbreviated Name	Meaning
Wrap Up	Wrap Up	The total time that agents spent in the Work Timer state **NOTE:** This statistic displays information for ACD paths only. Statistics for Ring Groups display as '0'.
Make Busy	Make Busy	The total time that agents spent in the Make Busy state **NOTE:** This statistic displays information for ACD paths only. Statistics for Ring Groups display as '0'.
Occupancy	Occp	The total time that members spent in an occupied state (occupied state excludes idle time)
# Handled by 1-4	# Hndl by 1-4	The number of interactions answered by the first, second, third, and fourth agent groups **NOTE:** This statistic displays information for ACD paths only. Statistics for Ring Groups display as '0'.
Logged Out	Logged out	The number of members associated with the queue but not logged in to the system **NOTE:** For Ring Groups, this statistic displays either the number of extensions out of service or hot desk users logged out.
Members Not Present	Not Present	The number of members that are logged into the ACD routing system, but not present in the queue being monitored

The following table describes the real-time and over-the-business-day Queue Now and Queue Group Now member statistics.

NOTE: Some statistics in the Queue Now monitor display in the Queue Group Now monitor as member statistics.

Table 16.11: Queue Now and Queue Group Now member statistic column headings (Sheet 1 of 3)

Term	Meaning
State	The queue member's agent or extensionstate (Queue Now only) For a list of agent and extensionstates, see and .
Name	The name of the member being monitored. The icon beside the name indicates the media type the member handles
Present	Indicates whether the member is present in the queue Presence is indicated by a colored star. A green star indicates the agent or extensionis present in the queue. A gray star indicates the agent is not present in the queue
Media Server	The media server to which the member is associated
Reporting	The reporting number of the member being monitored.
Extn #	The base extension where the member logged in (voice agentor hot desk user only)
Log In	The first login of the member's shift. **NOTE:** This statistic displays information for ACD path members only and is not calculated for Ring Group members.
Last Event Recd	The most recent time a member event occurred
Shift Time	The total elapsed time logged for the member, calculated based on the difference between log in and last event received **NOTE:** This statistic displays information for ACD path members only and is not calculated for Ring Group members.
DND Time	The duration of time where Do Not Disturb was the overriding state for the member
MKB Time	The duration of time where Make Busy was the overriding state for the member **NOTE:** This statistic displays information for ACD paths only. Statistics for Ring Groups display as '0'.

Table 16.11: Queue Now and Queue Group Now member statistic column headings (Continued) (Sheet 2

Term	Meaning
Wrap Up Time	The duration of time where Wrap Up Time was the overriding state for the member. Wrap up time does not include any time spent making or taking interactions during the wrap up timer. **NOTE:** This statistic displays information for ACD paths only. Statistics for Ring Groups display as '0'.
ACD Time	The duration of ACD interactions handled, from member pickup to completion (not including hold time)
Hold ACD Time	The duration of time ACD interactions spent on hold
Non ACD Time	The duration of Non ACD interactions handled, from member pickup to completion (not including hold time) (voice only)
Hold Non ACD Time	The duration of time Non ACD interactions spent on hold
Out Time	The duration of time members spent handling outbound calls (voice only)
Out Hold Time	The duration of time outbound calls spent on hold, for members (voice only)
DND Cnt	The number of times the member entered the Do Not Disturb state
MKB Cnt	The number of times the member entered the Make Busy state **NOTE:** This statistic displays information for ACD paths only. Statistics for Ring Groups display as '0'.
ACD Cnt	The number of ACD interactions handled by the member
Shrt ACD Cnt	The number of ACD interactions handled by the member where the handle time was less than the Short Handle parameter
Hold ACD Cnt	The number of times ACD interactions were placed on hold (voice only)
Non ACD Cnt	The number of Non ACD interactions handled by the member (voice only)

Table 16.11: Queue Now and Queue Group Now member statistic column headings (Continued) (Sheet 3

Term	Meaning
Hold Non ACD Cnt	The number of times Non ACD interactions were placed on hold
Out Cnt	The number of outbound calls made by the member (voice only)
Out Hold Cnt	The number of times outbound calls were placed on hold (voice only)
Avg Handl	The average amount of time queue members spent handling ACD interactions (ACD Time divided by ACD Count, excluding ACD Hold Time)
Agt Grp	The agent group to which the agent belongs **NOTE:** This statistic displays information for ACD paths only. Statistics for Ring Groups display as '0'.
Occupancy	The duration of time the member spent processing interactions
Contacts per Hour	The total ACD interaction count minus the ACD short handle count, divided by the shift time for the member
On failover	Indicates whether the primary media server is offline and has failed over to the secondary media server (voice only)
Unavail%	The percentage of time for the shift that the member was in Do Not Disturb, Make Busy, and Work Timer states
Not Present Time	The duration of time the member was logged into but not present in an agent groupor Ring Group
External handle time	The duration of time the member spent handling external calls (voice only)
External inbound cnt	The number of incoming external calls (voice only)
External outbound cnt	The number of outgoing external calls (voice only)

Viewing queue chart statistics

The following charts display queue statistics:

- Queue Now
- Queue Group Now
- Queue Performance by Period
- Queue Group Performance by Period

Queue Now and Queue Group Now

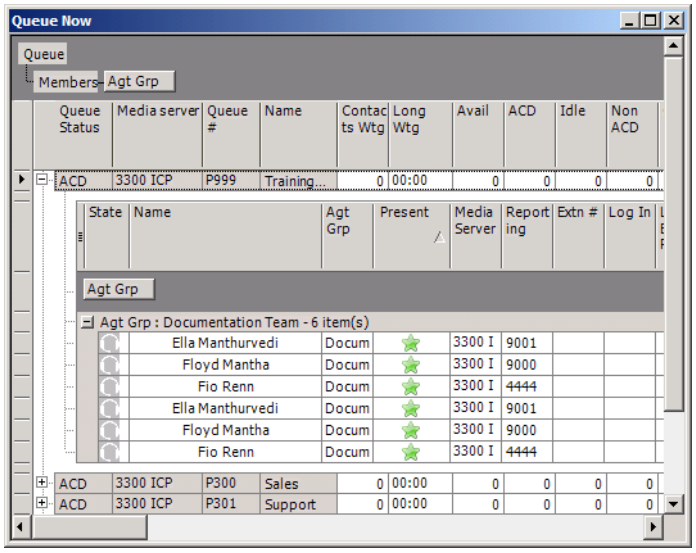
The Queue Now monitor enables supervisors to view queue statistics in real time, as well as expand individual queues in the monitor to view statistics on each queue's associated member agents or extensions. When you expand the Queue Now monitor to display the Name column, the monitor also displays member presence in the queue. Presence is indicated by a colored star in the Present column. A green star indicates the member is present in the queue. A gray star indicates the member is not present in the queue. A gray row indicates that the member is not logged in (for agents and hot desk users) or out of service (for extensions).

The Queue Group Now monitor enables supervisors to view aggregated statistics for Reporting, Virtual, and Unified queue groups in real-time, as well as expand individual queue groups in the monitor to view statistics for the queue group's associated queues.

On the Queue Now monitor, you can specify which columns of statistics are displayed, rearrange columns, and sort individual columns in ascending or descending order. You can expand a queue and view statistics on the members associated with the queue. (See the following figure.)

NOTE: Prior to Version 7.1, Queue Now monitors displayed the agent groups belonging to the queues with agent group statistics. As of Version 7.1, this functionality has been removed. Instead, queue members are grouped by agent group.

Figure 16.23: Queue Now



NOTE:

- Contact Center Client updates Longest Waiting statistics every fifteen seconds, or more frequently as records are received from the ACD routing system.
- If the ACD routing system has not updated MiContact Center Business with real-time statistics for Contacts Waiting and Agents Available within the last 90 seconds, question marks display in place of these statistics.

- Agents present in the queue and idle whose extensions are ringing are included in 'Available' statistics. Agents whose extensions are ringing are not included in Unavailable statistics.
- The Average Handling Time is the Average interaction Time plus the Average Hold Time. If the call is put on hold, transferred, or conferenced, these times are added to the Average Handling time value.
- If an agent fails to answer an ACD call after X seconds or X rings or refuses a voice interaction, the agent is placed in Reseize Timer state instead of System Make Busy state. This default behavior can be reset to place agents into System Make Busy state rather than the Reseize Timer state. The system then re-queues the call, in the same queue, and offers it to the next available agent.
- The abandoned media column in the Interactive Visual Queue monitor displays all abandoned calls. The abandoned column in the Queue Now monitor does not include short abandons as abandoned calls. Because of this difference, you may notice discrepancies between the abandoned call information in these two monitors.
- Statistics that do not support Ring Groups display as '0'.

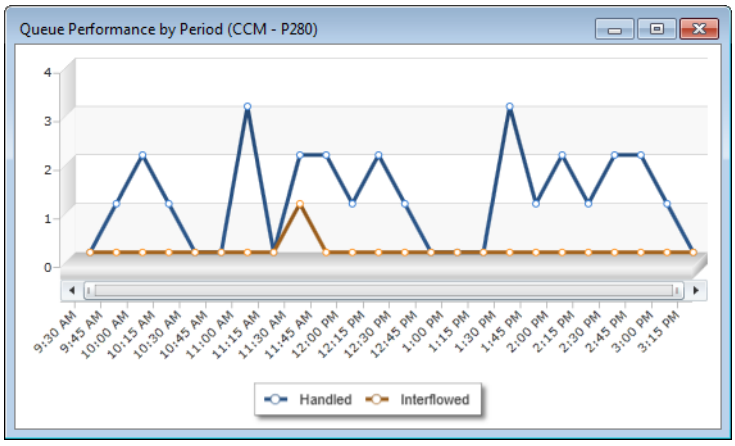
Queue Performance by Period and Queue Group Performance by Period

The Queue Performance by Period and Queue Group Performance by Period charts offer visual representations of Queue and Queue Group Performance by Period statistics, grouped by the type of statistic displayed. Three different series of statistics are available to view in charts:

- **Integer**—displays numerically-based real-time statistics
- **Percentage**—displays percentage-based statistics
- **Time**—displays time-based statistics

The following figure displays a Queue Performance by Period chart displaying the default statistics of the Integer series.

Figure 16.24: Queue Performance by Period chart



The Integer series shows the following statistics across 15 minute intervals for queues or queue groups:

- Handled (Default)
- Interflowed (Default)
- Offered
- Short Abandoned
- Abandoned
- Requeue

- # Handled by 1-4

The Percentage series shows the following statistics across 15 minute intervals for queues or queue groups, by default:

- % Handled by 1-4
- Service Level % Today
- % Handled

The Time series show the following statistics across 15 minute intervals for queues or queue groups, by default:

- Average Time to Handle
- Average Time to Abandon
- Average Time to Interflow
- Ttl Talk Time
- Average Talk Time
- Total work timer minutes
- Total make busy minutes
- Total occupancy minutes

For more information for the definitions of these statistics, see *"Queue by Period column heading definitions"*.

NOTE: The following statistics are for ACD path voice queues only and will not display information for Ring Groups:

- Requeue
- # Handled by 1, 2, 3, 4
- % Handled by 1, 2, 3, 4
- Total work timer minutes
- Total make busy minutes

Navigating charts

You can zoom in and out of charts to change how the data is displayed in the chart, expanding or compressing the displayed data. If the range of data displayed exceeds the boundary of the chart window in Contact Center Client, you can use the horizontal scroll bar to move back and forth across the displayed data.

To zoom in on a chart

1. Hold your mouse over the edge of the horizontal scroll bar until the cursor turns into a double-arrow (<->) icon.
2. Click and drag the edge of the horizontal scroll bar towards the opposite side of the scroll bar.

   The chart zooms in and the horizontal scroll bar shrinks in size.

NOTE: To undo the zoom function, click **Zoom Out**.

To zoom out of a chart

1. Hold your mouse over the edge of the horizontal scroll bar until the cursor turns into a double-arrow (<->) icon.
2. Click and drag the edge of the horizontal scroll bar and drag to zoom out.

To show the entire chart in the window

- If you are zoomed in, in the chart window click **Show All**.

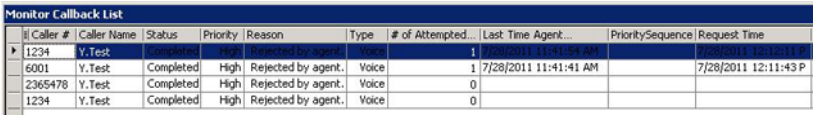
To scroll across the chart

- Click and drag the horizontal scroll bar in the direction you wish to scroll the chart.

Viewing callback lists with the Global callback monitor

When licensed for IVR, the Global callback monitor enables you to monitor callback states in real time and displays the callbacks currently available. Using the Global callback monitor, you can requeue and delete callbacks. (See the following figure.)

Figure 16.25: Global callback monitor



To access the global callback monitor

1. Click the **Real Time** tab in the Contact Center Client ribbon.
2. Click the **Callbacks** icon.

   The Monitor Callback List displays.
   The following table describes the Global callback monitor column headings.

Table 16.12: Global callback column headings (Sheet 1 of 2)

Column heading	Definition
Caller number	the phone number provided by the caller
Caller name	the name of the caller
Status	the state of the callback — new request, in progress, requeued, completed, unknown
Priority	the importance level of the callback. Callback priority levels are: • Voice — Normal • Web — Normal • Caller abandoned — Low
Type	the type of callback — voice, web, or caller abandoned
Reason	lists why the callback is in a particular status
Attempted Calls to Agent	the number of times the callback was offered to an agent in queue
Last Time Agent Attempted	the last time the agent attempted the callback
Request Time	the specific time at which the callback is scheduled to be processed; this field is populated when the callback is requeued
Time Received	the specific time the caller submitted the callback request

Table 16.12: Global callback column headings (Continued) (Sheet 2 of 2)

Column heading	Definition
Web IP Address	the IP address of the caller who submitted the callback request
Last Attempted Call to Client	the specific time the last callback attempt to the caller was made
Attempted Calls to Client	the number of times the callback was attempted
Client Available From	the earliest time the caller is available to receive the callback
Client Available To	the latest time the caller is available to receive the callback
ANI	the phone number of the caller
DNIS	the phone number the caller dialed
Dialable	the dialable number of the device that will handle the callback
Device Name	the name of the device that will handle the callback
Device Type	the type of device that will handle the callback — agent,or queue, or extension
Recorded Message	contains a hyperlink to the voice callback .wav file left by the caller
Area	the province/state or other area the call originated from
Country	the country the call originated from
Endpoint	the endpoint attempting to perform the callback
Region	the region the call originated from

Managing callbacks in the Global Callback monitor

The Global callback monitor enables users to requeue, reject, and delete callbacks within the monitor. Requeued callbacks are re-entered into their queue. Rejected callback are removed from the queue are will not be offered to employees. Deleted callbacks are removed from the monitor, but are not removed from the system.

Users can also adjust a callback's priority. Callback priority determines the order of which callbacks will be offered to agents. Callbacks are offered to agents in order of their priority and then by the longest waiting callback of that priority. For example, High priority callbacks are offered before Normal priority call-backs, even if the Normal priority callbacks have been in queue longer.

The following procedures explain how to:

- Requeue a callback
- Reject a callback
- Delete a callback
- Change a callback's priority

To requeue a callback

1. Right-click a callback and select **Requeue**.
2. Select **Yes**.

To reject a callback

1. Right-click a callback and select **Reject**.
2. Select **Yes**.

To delete a callback

1. Right-click a callback and select **Delete**.
2. Select **Yes**.

To change a callback's priority

- Right-click a callback and select **Change priority > [priority level]**.

Viewing ports

NOTE:

- You can monitor port states in real time and view currently executing workflows.
- You can select the ports you want to monitor individually or by hunt group.
- You can remove ports from Do Not Disturb.

The Port Status monitor displays port information.

Port status monitor

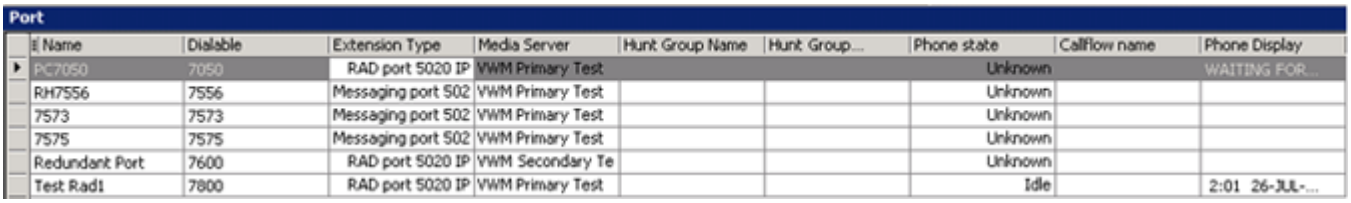
The Port Status monitor enables you to monitor port states in real time and displays the workflows that are currently executing on ports. Using the Port Status monitor, you can take ports out of Do Not Disturb and playback historical port events in Auditor mode. (See the following figure.)

To access the port status monitor

1. Click the **Real Time** tab in the Contact Center Client ribbon.
2. Click the **Ports** icon.

   The Port status monitor displays.

Figure 16.26: Port status monitor



The following table describes the Port Status monitor column headings.

Table 16.13: Port Status column headings (Sheet 1 of 2)

Column heading	Definition
Name	the name of the port
Dialable	the port's dialable number
Extension Type	the type the extension — RAD, messaging, callback, or UPiQ

Table 16.13: Port Status column headings (Continued) (Sheet 2 of 2)

Column heading	Definition
Media Server	the media server to which the port is associated
Hunt Group Name	the name of the hunt group the port is associated with. A port can be associated with more than one hunt group
Hunt Group Dialable	the dialable number of the hunt group
Phone state	the state of the phone — idle, dialing, talking, ringing, or unknown
Workflow name	the name of the executing workflow
Phone Display	displays the MiAUDIO state (that is displayed on the phone)
ANI	the phone number of the caller
DNIS	the phone number dialed by the caller
Redirect	the number of the device the call was directed from

Viewing webpages

While using Contact Center Client, you can view webpages using the Web browser monitor.

To view a webpage within Contact Center Client

1. Click the **Real Time** tab in the Contact Center Client ribbon.
2. Click the **Web** icon.

   The Web Browser Properties window opens.
3. After **Monitor title**, type a name for the monitor.
4. After **Start URL**, type the address of the website to view.

   NOTE: The website address must begin with http:// or you will not be able to view the monitor.
5. Optionally, select a value for the Web Browser **Refresh Rate**.
6. Click **OK**.

Viewing historical real-time events with Auditor

Using Auditor you can view historical, multimedia real-time events, at your own pace. Auditor makes it easy for you to analyze when and why past service problems occurred. By understanding the series of events you can prevent such issues from recurring.

For example, you notice that on July 15 you have 12 interactions abandon between 10:00 AM and 10:15 AM. You can review the interactions and the agents' actions on that date for that time period with Auditor. Did all of the interactions arrive at the same time? Did all of the agents go on break at the same time? If

all of the interactions arrived at once, you need to schedule more people. If all of the agents went on break at the same time, you need to adjust their break schedule.

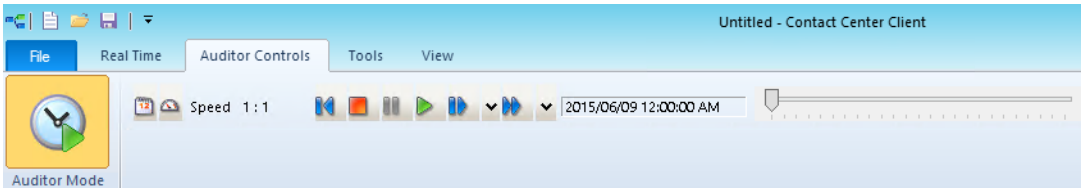
Using Auditor you can also track when employees log on and log off the system. It is easy to determine if any of the employees consistently start late or finish early.

With Auditor, you can use existing profiles, including alarm thresholds, when viewing past days run in real time.

Your access to Auditor is determined by administrator-set security roles.

The first toolbar consists of real-time monitors that provide information on agent availability, queue statistics, and graphic displays on queues. (See the following figure.)

Figure 16.27: Auditor toolbar



Auditor icons

Using Auditor's second toolbar you select the date of the historical real-time events that you want to view and the speed at which to play the events. The icons are described in the following table.

Table 16.14: Auditor Icons (Sheet 1 of 3)

Icon	Term	Meaning
	Calendar	You can select the date of the historical real-time events that you want to view by clicking the calendar.
	Speed of audit	The Speed of audit is expressed as a ratio of real-time to play speed. You can select the speed from a list of ratios that opens when you click the clock: 1:1, 1:2, 1:5, 1:10, 1:30, 1:60, and 1:120. If you select the ratio1:1, it will take you one second to view one second of the past day. If you select 1:60, it will take you one second to view one minute of the past day.
	Rewind	If you click Rewind when the play is stopped, you jump back to the beginning of the day.

Table 16.14: Auditor Icons (Continued) (Sheet 2 of 3)

Icon	Term	Meaning
	Stop	You can stop the real-time historical events from playing, and jump back to the beginning of the day, by clicking Stop.
	Pause	You can pause the real-time historical events by clicking Pause.
	Play	You can play the real-time historical events by clicking Play.
	Step forward	You can select the increment (in seconds) you will advance from a list that opens when you click the down arrow to the right of Step forward: 1 sec, 2 sec, 5 sec, 10 sec, 15 sec, 30 sec, and 45 sec. If you select 30 seconds, then when the play is stopped, you can step forward in 30 second increments each time you click Step forward. When you reach the end of data for that day, you will automatically jump to the end of the day.
	Jump forward	You can select the increment (in minutes) you will advance from a list that opens when you click the down arrow to the right of Jump forward: 1 min, 2 min, 5 min, 10 min, 15 min, 30 min, and 60 min. If you select 10 minutes, then when the play is stopped, you can jump forward in 10 minute increments each time you click Jump forward. When you reach the end of data for that day, you will automatically jump to the end of the day.

Table 16.14: Auditor Icons (Continued) (Sheet 3 of 3)

Icon	Term	Meaning
	Slider	As you view the events of the day, the slider indicates the time at which the events occurred. The length of the slider represents the length of the day for which you are viewing historical real-time events.

Starting and using Auditor

You start Contact Center Client to gain access to Auditor functionality.

To view historical real-time events, you must

1. Start Contact Center Client.
2. Open the grids in which you want to view historical events.
3. Start Auditor.

NOTE: If you are using the Contact Center Client marquee, Contact Center PhoneSet Manager, Contact Center Softphone, or Interactive Visual Queue applications (which function in real time only), open Auditor in another instance of Contact Center Client.

To start and use Auditor

1. In the Contact Center Client ribbon, click **Auditor Controls**.
2. Click **Auditor Mode** in the toolbar ribbon.

   The Auditor toolbar displays.
3. Click the calendar icon and select a date.

   The date displays on the left of the slider.
4. Click the speed icon and select the speed of the audit.

   The speed of the audit, expressed as a ratio of real time to play speed, displays on the right of the speed icon.
5. Move the slider to select the time of day at which you want to start monitoring.
6. Click the play button to play the real-time events of the selected date.

   The historical real-time events play at the speed you selected.

Viewing and customizing real-time monitors

NOTE:

- Contact Center Client has a tabbed interface for managing and arranging windows. You can dock themonitors, displaying them on overlapping tabbed panels to maximize real estate. This enables you to readily navigate between monitors.

- You can save threshold settings and display characteristics you define for monitors. When you click File > Save, Contact Center Client saves all open monitors under one profile name. You can click File > Open to open another profile, or File > New to create a new profile.

Opening monitors

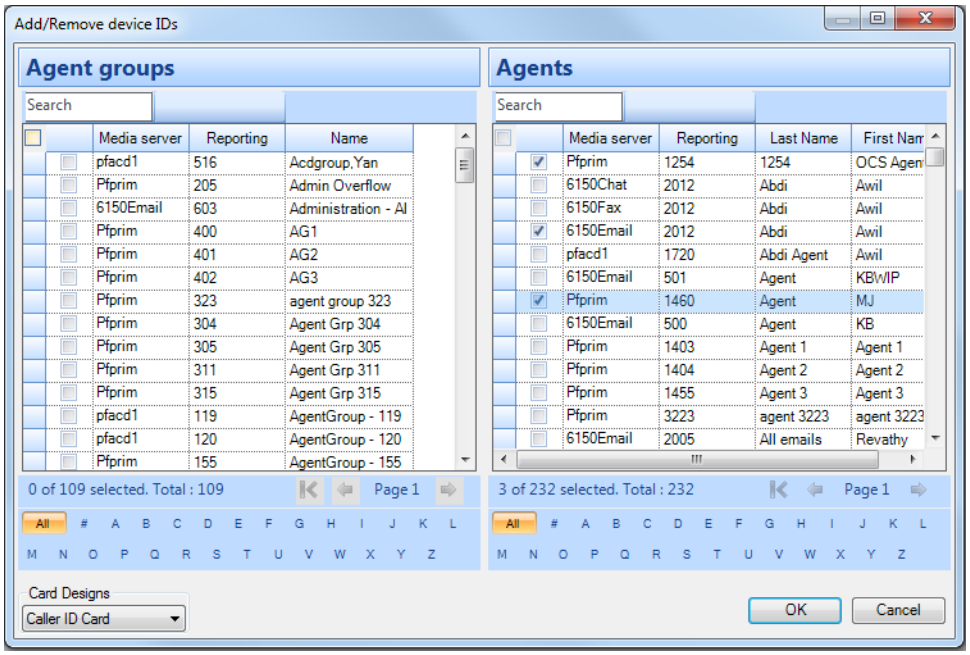
To open a monitor in Contact Center Client

1. In the Contact Center Client ribbon, click **Real time** to view the Contact Center Client monitor icons.
2. In the **State by Position** column on the ribbon, click **Agent**.

   This selects the Agent State by Position monitor and the Add/Remove device IDs window opens. See the following figure.
3. Under **Agent groups**, select agent groups to monitor and/or under Agents, select agents to monitor.
4. Under **Card designs**, select a card design.

   Card designs specify the information displayed on extension, agent, and employee monitors.
5. Click **OK**.

Figure 16.28: Add/Remove devices



Docking monitors

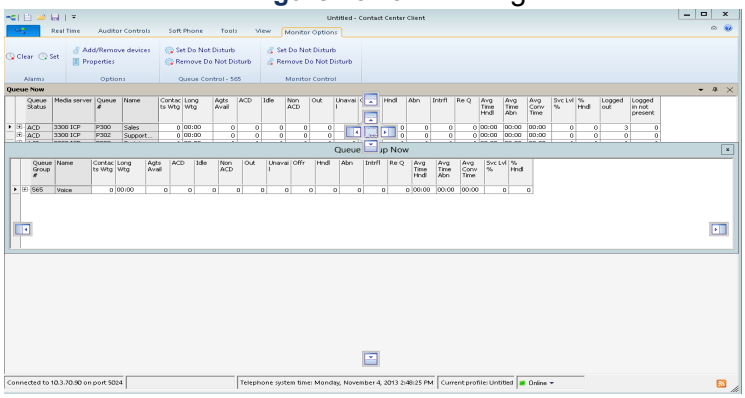
You can dock monitors and readily navigate between them. You can dock a monitor to the top, bottom, left, or right of another monitor. Alternatively, you can dock a monitor on the top, bottom, left, or right side of the Contact Center Client window. You can dock monitors on top of one another, displaying them on overlapping tabbed panels to maximize real estate.

To dock a monitor on top of another monitor

1. Right-click the title bar of an open monitor and select **Dock**.
2. Repeat step 1 for all open monitors.

Click the title bar of a monitor and drag the monitor on top of a second monitor placing your cursor in the center of the four-headed arrow that displays.
See the following figure.

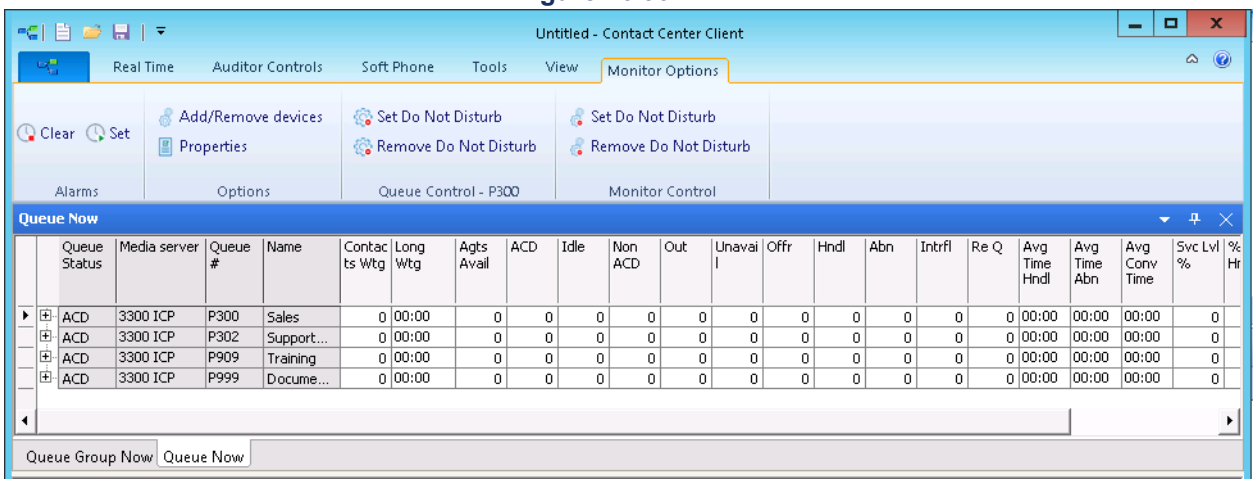
Figure 16.29: Docking monitors



3. Release the mouse button.

   Your monitors are displayed on overlapping tabbed panels.
   See the following figure.

Figure 16.30: Docked monitor



Adding and removing devices

You can add and remove devices from all of the Contact Center Client monitors except for the chart monitors.

To add devices to the bottom of a monitor

1. Right-click an open monitor and click **Add/Remove devices**.
2. Under **Agent/Employee/Queue groups**, select additional agent, employee, or queue groups to add to the monitor, or under **Agents/Employees/Queues**, select additional agents, employees, or queues to add to the monitor.
3. Click **OK**.

   On the State by Position monitors a blank row of cells separates the original agents from those you just added. To remove the blank row you must sort the monitor.
   See *"Sorting monitor devices"*.

To remove devices from a monitor

1. Right-click an open monitor and click **Add/Remove** devices.
2. Under **Agents/Employees/Queues**, clear the check boxes of the agents, employees, or queues to be removed.
3. Click **OK**.

NOTE: You can alternatively add and remove devices via the Monitor Options tab in the Contact Center Client ribbon for the Queue by Period, Queue Now, and Queue Group Now monitors.

Sorting monitor devices

When you select devices to display on a monitor, you can specify the devices be sorted by media server (on agent monitors only), ID or name (alphabetically) in ascending or descending order. When the monitor opens, the devices display in the order you selected.

To sort the devices displayed on a monitor

- In the left pane of the **Add/Remove devices** window, click **Media server** to sort the members by media server, click **Name** to sort the members alphabetically, or click **Reporting** to sort the members by ID, in either ascending or descending order.

You can sort information by state, name, or agent ID, or extension on the State by;Position monitors.

To sort agents or employees by state

- Right-click a monitor and click **Sort monitor > By state**.

If you sort agents by state, Contact Center Client displays the agents by state and time in state across the monitor in the following order:

- Ringing
- ACD
- ACD Hold
- Idle
- Non ACD
- Non ACD Hold
- Outbound
- Outbound Hold
- Do Not Disturb
- Make Busy
- System Make Busy
- Work Timer
- Unknown
- Logged Off

To sort agents or employees by name

- Right-click a monitor and click **Sort monitor > By name**.

To sort agents or employees by agent ID

- Right-click a monitor and click **Sort monitor > By agent ID**.

To sort agents or employees by extension

- Right-click a monitor and click **Sort monitor > By extension**.

Rearranging cells

You can rearrange cells on the State by Position monitors.

To rearrange cells

- On an open monitor, drag a cell to a different position on the monitor.

You can rearrange columns on the Agent Shift, Queue by Period, Queue Now, and Queue Group Now monitors.

To rearrange columns

1. Right-click an open monitor and click **Properties**.
2. Click the **Layout** folder.
3. Click **Column** order.
4. Click a column header and click the up or down arrow key to change the position of the column relative to other columns on the monitor.

NOTE: You can alternatively rearrange cells via the Monitor Options tab in the Contact Center Client ribbon for the Queue by Period, Queue Now, and Queue Group Now monitors.

Setting monitor dimensions

You can specify the numbers of rows and columns of cells to display on the State by Position monitors.

To set table dimensions

1. Right-click a monitor and click **Set table dimensions**.
2. After **Columns**, type a number.
3. After **Rows**, type a number.
4. Click **OK**.

   Columns or rows are added or deleted from the monitor. You can redistribute the cells using a drag-and-drop operation.

To size the table to fit the frame

- Right-click in any real-time monitor and select **Size table to frame**.

Hiding monitor columns

On the Agent Shift, Queue by Period, Queue Now, and Queue Group Now monitors, you can hide specific columns of statistics.

To hide columns

1. Right-click an open monitor and click **Properties**.
2. Click the **Layout** folder.
3. Click **Column** order.
4. In the **Visible** column, clear the check boxes of the columns you want to hide from view.

NOTE: You can alternatively hide monitor columns via the Monitor Options tab in the Contact Center Client ribbon for the Queue by Period, Queue Now, and Queue Group Now monitors.

Filtering device variables

On the Queue Now, Agent Shift, Queue by Period, and Queue Group Now monitors, you can filter specific device variables. For example, on the Queue by Period monitor, you could filter the Calls Offered variable and display statistics for the intervals during which the queue was offered five or more calls.

To filter device variables

1. Right-click a monitor and click **Filter device variables**.
2. Click **Filter data to show**, select a variable, select an operand, and type a number.
3. Click **OK**.

   A subset of the data is displayed based on the conditions defined in the filter.

Configuring chart characteristics

Individual charts have a range of configurable characteristics and options that enable users to customize their chart display.

You can right-click charts to access the following options or select them via the Chart Options tab:

- Change the chart types
- Configure the legend
- Configure the color scheme
- Define queue chart properties
- Enable points labels
- Modify Properties

Changing chart type

Contact Center Client enables you to configure the type of chart, either column or line, used for your Queue and Queue Group Performance by Period charts.

Queue and Queue Group Now charts display as bar charts.

1. Right-click on an open By Period chart and click **Chart Type**.
2. Select the type of chart you want your chart to display.

   NOTE: Alternatively, you can change the chart type by selecting an open By Period chart, and choosing **Column** or **Line** from the drop-down list beside **Type** in the Chart Options tab.

Configuring the legend

You can choose if your chart has a legend, as well as configure where the legend displays.

To configure the legend

1. Right-click on an open queue chart and click **Legend box**.
2. Select or deselect **Enabled** to either display or remove the legend.
3. Right-click on an open queue chart and click **Legend box**.
4. Click **Left**, **Top**, **Right**, or **Bottom** to determine where you want the legend box to display.

NOTE: Alternatively, you can configure the legend by selecting an open queue monitor and accessing options from the **Legend** section of the **Chart Options** ribbon.

Configuring the color scheme

You can select the color scheme for the chart.

To configure the color scheme for a chart

1. Right-click on an open queue chart and click **Color**.
2. Select the color scheme you want to apply to the chart from the list.

NOTE: Alternatively, you can configure the color scheme by selecting an open queue chart and selecting color options from the drop-down list beside **Color** in the **Chart Options** ribbon.

Defining queue chart properties

Under Chart properties, you can select general chart characteristics, such as colors and stacked effects. You can define series characteristics, such as the type of chart, the fill properties, and the shape of the bars. In addition, you can define y axis characteristics.

To define queue chart properties

1. Right-click an open queue monitor and click **Chart properties**.
2. On the **General** tab, specify general chart characteristics (colors, effects, and 3D).
3. Click the **Series** tab.
4. Specify series characteristics (chart style, fill style, bar type, and border style).
5. Click the **Y Axis** tab.
6. Specify axis scale characteristics, label characteristics, and the width and color of the axis line.
7. Click **OK**.

NOTE: Alternatively, you can configure queue chart properties by selecting an open queue monitor and clicking **Properties** located in the **Chart Options** ribbon.

Enabling point labels

You can enable labels for each point in your chart.

To enable point labels

- Right-click on an open queue chart and click **Points labels**.

NOTE: Alternatively, you can enable point labels by selecting an open queue chart and clicking **Enabled** in the **Points Label** section of the **Chart Options** ribbon.

Modifying Properties

Properties controls the way chart data displays. Under Properties, you can

- Specify the queue chart title
- Highlight statistics
- Configure 2D and 3D displays
- Animate charts
- Select call statistics to display
- Create and modify Constant lines

NOTE: You can either right-click an open queue chart to modify properties or select an open queue chart and choose options via the Properties section of the Chart Options tab.

Specifying the queue chart title

Under Properties, you can specify the title of the queue chart.

To specify the queue chart title

1. Right-click on an open queue chart and click **Properties**.
2. After **Monitor title**, select and delete the old chart title and type a new name for the queue chart.
3. Click **OK**.

Highlighting statistics

Under Properties, you can enable the highlight feature. When the highlight feature is enabled, and when you move your cursor over a bar representing a specific call statistic, that bar is highlighted and the other bars, representing other call statistics, are dimmed.

To highlight statistics

1. Right-click on an open queue chart and click **Properties**.
2. Expand the **Chart properties** tree and click **General**.
3. Select the **Highlight** check box.
4. Click **OK**.

Configuring 2D or 3D chart displays

Under Properties, you can configure whether your chart displays bars in 2D or 3D. By default, your charts display in 3D.

1. Right-click on an open queue chart and click **Properties**.
2. Expand the **Chart properties** tree and click **General**.
3. Select the **3D** check box to enable or disable 3D charts.
4. Click **OK**.

Animating charts

Under Properties, you can enable the animated feature. When the animated feature is enabled, changes to chart values actively display. The animated feature is disabled by default.

CAUTION: Enabling the animated feature will result in additional CPU load on the affected workstation.

To animate charts

1. Right-click on an open queue chart and click **Properties**.
2. Expand the **Chart properties** tree and click **General**.
3. Select the **Animated** check box.
4. Click **OK**.

Selecting call statistics to display

Under Properties, you can select call statistics to display. For example, you can add Calls Waiting, Agents Available, Idle, and Requeued statistics to the Queue Group Now (Integer) chart.

To select call statistics to display

1. Right-click on an open queue chart and click **Properties**.
2. Expand the **Chart properties** tree and click **Series data**.
3. Select the **Series data type** radio button to define the types of data visible in the chart.
   - Integer
   - Percentage
   - Time
4. If you are selecting call statistics for a Queue or Queue Group Performance by Period chart, click **Time Interval**. Select the radio button for the interval you want to use and set the time.
5. Under **Visible**, select the check box of the data you want to add to the chart.
6. Alternatively, under **Visible**, clear the check box of the data you want to remove from the chart.
7. Click **OK**.

Creating and modifying Constant lines

Under Properties, you can configure Constant lines. Constant lines are horizontal lines you configure to display across your chart at set values on the Y-axis, enabling you to clearly see how the data being displayed in the chart meets with desired values.

To create Constant lines

1. Right-click on an open queue chart and click **Properties**.
2. Click **Chart properties**.
3. Click **Constant lines**.
4. Click **Add**.
5. Click in the **Color** box to choose a color.

   NOTE: The default constant line color is red.
6. After **Text**, type the name you want to display beside the constant line in the chart.
7. After **Value**, type the value you want the constant line to mark.
8. After **Width**, select the thickness of the line.
9. Click **OK**.

   The Constant line will be added to the list of active Constant lines.

To modify a Constant line

1. Select the Constant line you want to modify and click **Edit**.
2. After **Text**, type the name you want to display beside the Constant line in the chart.
3. After **Value**, type the value you want the Constant line to mark.
4. After **Width**, select the thickness of the line.
5. Click **OK**.

To delete a Constant line

- Select the Constant line you want to delete and click **Delete**.

Setting alarms

You can define alarms to alert you to significant changes in contact center activity. Using the alarms, you specify performance thresholds for contact center elements, such as queues and agents, and customize the visual, auditory, or email delivery of alarms. If any availability or performance issues arise, your alarms deliver a notification enabling you to instantly change agent and queue availability to adjust to unplanned call volumes.

Client alarms are specific to each computer. To notify you that performance thresholds are not being met, you can configure alarms so that

- Monitor cells and statistics change color.
- A pop-up notification appears on your desktop.
- A sound prompt, such as a beep or .wav file, plays.
- You are notified by email.
- Contact Center Client appears on top of all open applications.

To configure alarms for real-time monitors

1. Determine whether you want to monitor all extensions, or some extensions.
2. Add performance variables to monitor.
3. Specify alarm threshold .

Adding performance thresholds

To add performance thresholds so you can monitor alarms

1. Right-click a monitor and click **Set alarms**.
   Alternatively, select an open monitor and click Set alarms in the Alarms column, found in the Monitor or Chart Options tab in the Contact Center Client ribbon.
   The Set alarms window appears.

NOTE: You can select the **Apply the alarm thresholds to all devices displayed on the monitor** check box to apply the threshold settings for performance variables across all queues or agents. Alternately, you can select **Apply the alarm thresholds to a specific list of devices** to apply the threshold settings for a performance variables to a list of queues or agents.

2. Under **Devices**, select one or more queues or agents or select the **Select all** check box to select all queues or agents.
3. In the **Performance variables** list, select a variable.
4. Under **Alarm Thresholds**, click **Add threshold** and type a value for the upper boundary of the threshold.

   The lower boundary cannot be modified. The lower boundary of the next threshold is always slightly greater than the upper boundary of the previous threshold.
5. Click **OK**.

Specifying performance threshold colors

To configure performance threshold colors

1. For the alarm threshold for which you want to specify colors, under **Background**, click the arrow.
   A color palate appears.
2. Select a color.

3. Under **Font color**, click the arrow.

   A color palate appears.
4. Select the font color for the alarm threshold.
5. Click **OK**.

Specifying threshold notification

You can configure performance threshold sound and pop-up window notifications

To configure performance threshold sound notification

1. For the alarm threshold for which you want to be notified by a sound, under **Sound**, select the check box.
   The Sound window opens.
2. Specify the alarm triggering properties.
3. Specify the sound you want played when the alarm is triggered.
4. Click **Save**.

To configure performance threshold pop-up window notification

1. For the alarm threshold for which you want to be notified by a pop-up window, under **Pop-up**, select the check box.
   The Pop-up window opens.
2. After **Duration**, type the number of seconds you want the pop-up alarm to be displayed when threshold conditions are satisfied.
3. If you want to display the pop-up alarm on top of all of the other applications, select the **Keep this message visible on mouse over** check box.
4. Optionally, click the **Format font** button to specify font attributes for the pop-up alarm message.
5. In the text box, type the message for the performance threshold and click the **Add a variable** button to insert performance variables. (for example, type CW P001 = <calls waiting variable>).
6. Click **Save**.

To specify that Contact Center Client opens on top of all other applications when a performance threshold is satisfied

- For the alarm threshold for which you want to be notified, under **Bring to front**, select the check box.

To configure performance threshold email notification

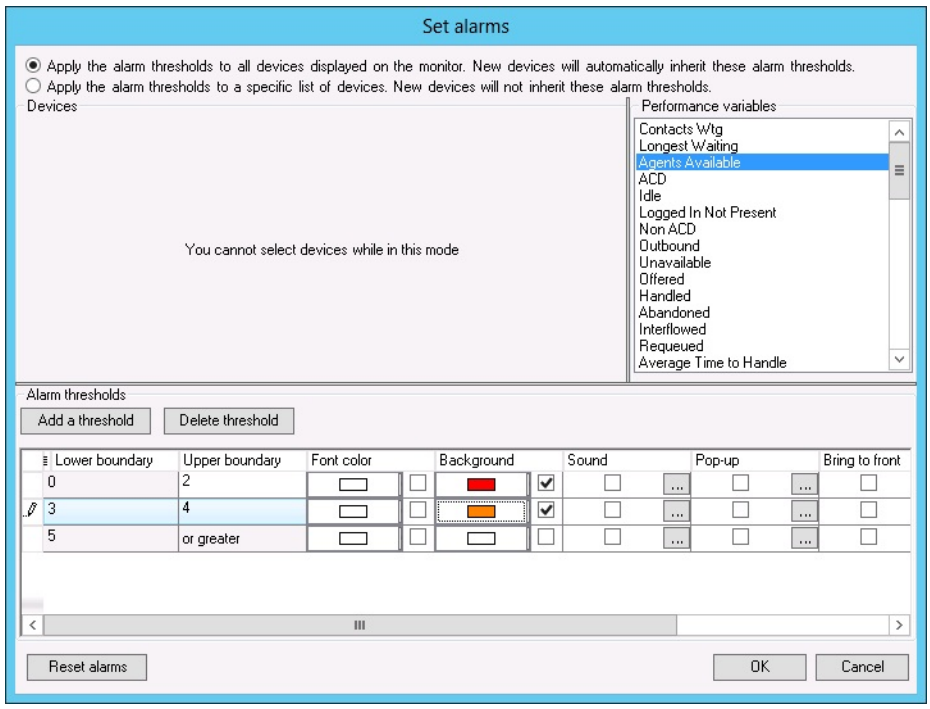
1. For the alarm threshold for which you want to be notified, or notify others by email, under **Email**, select the check box.
   The Email window opens.
2. After **Distribution**, specify which contacts are to be notified by email when threshold conditions are satisfied.
3. After **Subject**, type the subject of the email to be sent (for example, type Calls Wtg in Sales Queue 1 >10!).
4. In the message box, type the body of the email.
5. Click **Save**.

Consider the threshold programming in the following figure. When the number of agents available in the technical support queue is between 0 and 2, the cell housing the Agents Available statistic is red. When the number of agents available is between 3 and 4, the cell turns orange. When the number of agents available is 5 or greater, the cell turns white. In addition, audible alarms and pop-up alarms display.

To clear any current client alarms in Contact Center Client

- Right-click the monitor and click Clear alarms.

Figure 16.31: Set alarms window



Customizing the information displayed on position and time monitors

On the agent, employee, and extension by position and by time monitors, real-time information is displayed in cells (cards). You can select from available card designs, or customize cards to display specific information.

When you first open an agent, employee, and extension monitor, you can select a card design on the Add/Remove device IDs window:

- The Classic card displays the agent state, time in the state, presence, agent/employee name, and agent login ID/employee ID, and extension number (or queue name for voice agents on ACD or on ACD Hold)) and presence.
- The Caller ID card displays the caller name and number (ANI), the number the caller/employee dials for incoming/outgoing calls, the state, time in the state, presence, agent/employee name, agent login ID/employee ID, and extension number (or queue name for voice agents on ACD or on ACD Hold.
- Custom cards you create and share

The Caller ID card is the default card design. You can use this card design, or select the Classic card or a customized card. You can create new card designs or copy existing card designs and modify them. For example, you can add or remove text and variables from cards and rearrange the information displayed.

You can share card designs with other employees. When you select a card design for an agent, employee, or extension monitor, it is applied to all monitors of that type.

Selecting and customizing card designs

To select a card design

1. Right-click an open position or time monitor and click **Properties**.
2. Click **Layout > Card design**.
3. Under **Design name**, select a card design.
4. Click **OK**.

To customize cards for position and time monitors

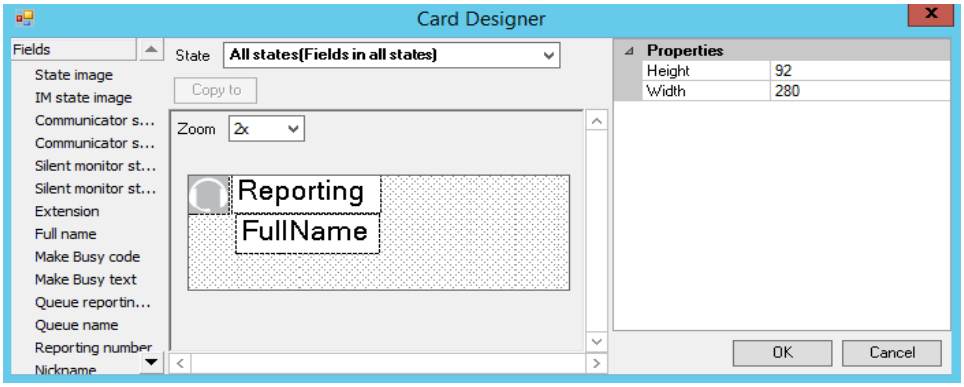
1. Under **Card design**,
   - If you want to create a card design, click **New**.
   - If you want to edit an existing card design, select a card design and click **Edit**.
   - If you want to create a card design based on the Classic card, select it and click **Copy**.
2. On the **New card design** window, type the name of the new card design.
3. If you want to share the design with other agents, select **Share design**.
4. Click **OK**.
5. Select the card and click **Edit**.

   See the following figure.
6. After **State**, select a state for the card design.

   You can use the same card design for all states or you can customize cards for specific states, such as ACD, Idle, Make Busy, and Unknown.
7. Under **Fields**, select a field type and drag and drop it to the card design.
8. If you want to resize the field, click the field and use your pointer to move or resize the field.
9. If you want to change the properties for a field, click the field and change the properties in the right pane of Card Designer.
10. If you want to change the size of the card design preview, after **Zoom**, select a different magnification value from the list.
11. Add additional fields to the card.
12. Select **Copy** to if you want to copy the current design to the card of a different state.
13. Click **OK**.

    The new card design appears on the Card design list.
14. Click **OK**.

Figure 16.32: Card design window



Defining monitor styles

You can customize the appearance of individual monitor elements. For example, you can configure the font size and color of column headings or apply a skin of predefined colors and font attributes to the entire monitor.

To customize the appearance of monitor elements

1. Right-click an open monitor and click **Properties**.
2. Click **General > General settings**.
3. If you want to change the title of the monitor, after **Title**, type a name.
4. If you want to scroll horizontally on the monitor, select the **Enable horizontal scroll bars** check box.
5. If you want to scroll vertically on the monitor, select the **Enable vertical scroll bars** check box.
6. If you want to group monitor headings, select the **Enable grouping** check box.
7. If you want to apply a skin to the monitor, click **Layout > Monitor style**.
8. Click **Load style** and select a skin.
9. Otherwise, under **Properties**, manually configure the column settings, column font, row settings, and row-alternate settings.
10. Click **OK**.

Adding text to card designs

You can use a text box to add custom text to a card.

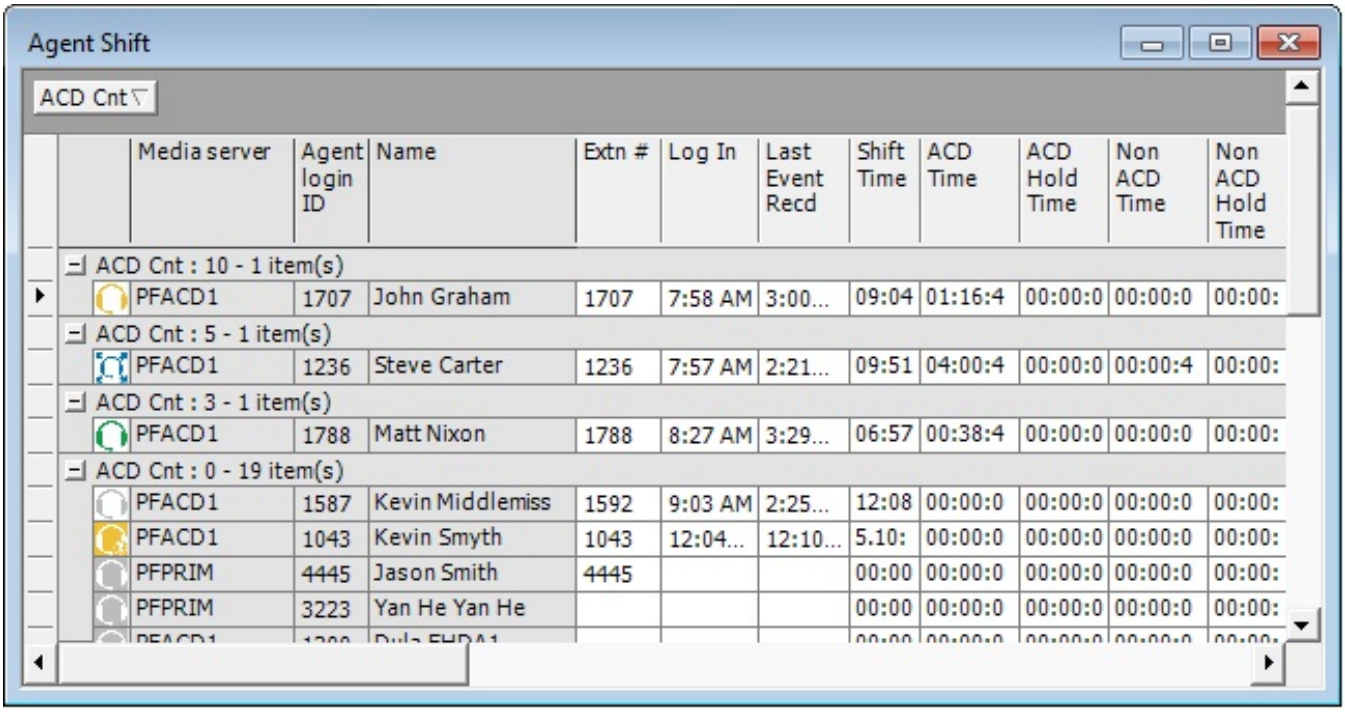
To edit text that you have added to a card

1. Select the text box.
   Properties appear on the right.
2. Under **Properties**, in the box to the right of **Text**, type the text to be added to the card.
3. Click **OK**.
4. Click **OK**.

Grouping data

You can group rows of data in the Queue Now monitor, and other monitors that contain columns. For example, you can group the data by the ACD count statistic and readily see which agents handled the most calls, and which agents handled the least calls, as illustrated in the following figure.

Figure 16.33: Enable grouping



The Enable grouping option displays a grouping panel to which users drag columns. The grouping order determines the order in which the rows display.

To enable grouping

1. Right-click an open monitor and click **Properties**.
2. Select the **Enable grouping** check box.
3. Click **OK**.

   The monitor displays a grouping panel.
4. Drag a column heading to the panel to group by the column heading.

Building marquee monitors

You can build a marquee monitors to broadcast real-time statistics and messages and alarm on real-time contact center performance statistics. With marquee monitors and wall-mounted marquee displays, such as LCD monitors or LED reader boards, you can offer your supervisors and agents access to important contact center performance metrics.

To build a marquee monitor, you must

- Specify styles for the marquee monitor.
- Configure marquee text and variables.

Configuring marquee monitor styles

To specify attributes for the marquee background

1. Click the **Marquee** icon.
   The Configure marquee window appears.
2. Click **Add message**.

   The Add message window displays.
3. Type a name for the message.
4. Under **Position**, select **Top**, **Right**, **Left**, **Center**, or **Bottom** to specify how the message is to be displayed on the marquee.
5. Click **Format marquee**.

   The Format marquee window appears.
6. After **Background color**, select a color for the background.
7. After **Cell color**, select a color for the marquee cells.
8. After **Cell size**, specify a value for the size of the marquee cells.
9. After **Cell spacing**, select a value for the space between marquee cells.
10. To specify the marquee text font type and color, click **Format font**.

    The Font window displays.
11. Select font attributes.
12. Click **OK**.
13. If you want the message and the background of the message to be displayed using pixels, select the **Matrix style** check box.
14. Click **OK**.
15. Click **OK**.

    The marquee displays.

    NOTE: You must configure marquee text and variables. See *"Configuring marquee text and variables"*.

Configuring marquee text and variables

To configure text and variables for the marquee

1. Right-click the marquee and click **Configure marquee**.
   The Configure marquee window displays.
2. In the **Message editor** text box, type a message to display on the marquee (for example, type Calls Wtg =).
3. Under **Message editor**, click the **Add variable** button.

   The Add/Edit variable window displays.
4. Click **Add**.

   The Configure variable window displays.

5. Under **Variable types**, click the monitor type to which the variable applies.
6. Under **Variables**, click a variable.

   NOTE: The following queue variables will not supply information for Ring Groups:
   - % Handled by 1, 2, 3, 4
   - Dial Out of queue
   - Requeued

   NOTE: The Extension variable is available in the list, when you add this variable, this will be displayed blank in the marquee as extensions are not reported on a SIP platform.
7. Under **Devices**, select the check box of a device.
8. Under **Thresholds**, click **Add threshold** and specify a value for the upper boundary of the first threshold.
9. Click **OK**.
10. For the threshold, under **Variable**, select a color to be displayed in the marquee message string.
11. For the threshold, under **Message**, select a color for the text that will precede the variable in the marquee text string.
12. After **Type a name for the variable**, type a name.
13. Click **OK**.
14. On the **Configure marquee** window, in the **Message editor** text box, position your pointer where you want to add the variable.
15. You can add variables at the beginning, middle, or end of message strings.
16. On the **Add/Edit variable** window, double-click the variable to add it to the message string.

    Click the **Add** variable button.
    The **Add/Edit** variable window displays.
17. Click the **Configure transition effects** button and select the check boxes for the transition effects to be included.
18. Click **OK**.

    The marquee displays, showing the text you typed and a real-time value for the performance variable. You can define additional thresholds for the performance variable, and add additional variables to the marquee.

Using Contact Center Chat

Contact Center Client provides instant messaging capabilities for both supervisors and agents and is typically used by contact center employees only. Contact Center Chat provides the online chat presence of contact center employees, including Online, Offline, and Away. Agents can view the availability and presence of other contact center employees before they transfer calls or send online chat messages.

Using Contact Center Chat, you can communicate essential information to one or more agents, agent groups, or supervisors quickly and securely. You can coach agents and send timely messages, such as asking an agent to delay going on break when it is busy.

NOTE:

- You must have a security role that does not restrict you from gaining access to Contact Center Chat.
- You must log on to Contact Center Client in order to send and receive online messages.
- When you receive a message it is displayed immediately on top of all open windows.

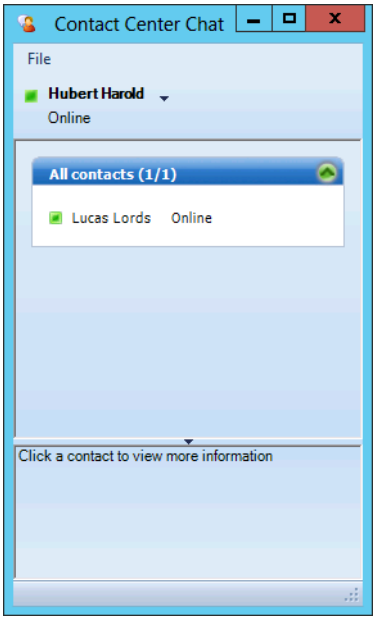
Sending a Contact Center Chat message

On an extension, agent, or employee monitor you can right-click an agent's cell and click Send instant message to send an online message to the agent.

To send a chat message

1. Double-click your presence indicator in Contact Center Client's Status Bar.
   Contact Center Chat opens. (See the following figure.)

Figure 16.34: Contact Center Chat



2. Right-click a contact and select **Send an instant message**.

   Alternatively, double-click the contact.
   The Conversation window opens.
3. Type a message.
4. Click **Send**.

To send a chat message while viewing an extension, agent, or employee monitor

1. Right-click a cell in an open monitor and click **Send instant message**. Alternatively, double-click the presence indicator in the extension, agent, or employee's cell in the monitor.
   The Conversation window displays.
2. Type a message.
3. Click **Send**.

Adding someone to an interaction

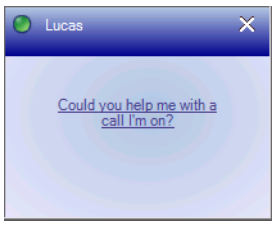
To add someone to an interaction

1. On the **Conversation** window, click the **Add Participants** button to join this **conversation** icon.
2. Double-click a contact to add the contact to the interaction.
3. Click **Send**.

Responding to a Contact Center Chat message

Agents and supervisors can receive Contact Center Chat messages only if they are logged on to Contact Center Client. When someone sends a Contact Center Chat message to you, the Conversation window opens and a desktop notification appears in the bottom-right of your monitor. The desktop notification shows the name and presence of the employee contacting you and their message. The following figure illustrates a chat notification.

Figure 16.35: Desktop Chat notification



To respond to a chat message

1. Type a message.
2. Click **Send**.

   Contact Center Chat sends your response to all chat session participants.

Using Contact Center Chat with Skype for Business

With the addition of Microsoft Skype for Business Server agents and supervisors use Skype for Business as their default instant messaging client. The presence of all company employees is natively delivered in Contact Center Client. Contact center employees can view the presence of both internal and external contacts to determine if they are available to communicate. In addition to Available, Offline, and Away, employees see In a Meeting, Busy, In a call, Do Not Disturb, Be Right Back, and other Skype for Business presence indicators.

NOTE: In order to use Contact Center Chat with Skype for Business, you must enable Contact Center Chat and have Skype for Business open and running.

If an agent views an employee on a real-time monitor and notes the employee is online, the agent can right-click the employee and send an instant message.

The following table provides details on the presence indicators that are available when Contact Center Client is used in conjunction with Skype for Business Client and Contact Center Chat with Skype for Business.

Table 16.15: Skype for Business presence indicator icons (Sheet 1 of 2)

2013 Presence Icon (Large)	2013 Presence Icon (Small)	Status Text	Description
		Available	The contact is online and can participate in interactions. Users can manually set this status, but the next automatic state change will override this setting.
		Busy	The contact is available, but is engaged by another activity. Busy contacts will not be routed ACD calls, but may receive Non ACD calls. Possible activities include the following: **In a Call**—the contact is in a phone, voice, or video interaction. **In a Meeting**—the Outlook calendar shows that the contact has a scheduled meeting. Users can manually set this status.
		Do Not Disturb	The contact is engaged by another activity and is unavailable. Contacts in Do Not Disturb will neither receive ACD or Non ACD calls. Users can manually set this status.

Table 16.15: Skype for Business presence indicator icons (Continued) (Sheet 2 of 2)

2013 Presence Icon (Large)	2013 Presence Icon (Small)	Status Text	Description
		Away / Inactive Be Right Back OffWork	The contact is likely unavailable. Possible reasons include the following: The contact's computer has been idle for more than the away time period setting (5 minutes by default). **NOTE:** By default, the transition from Available to Inactive occurs after 5 minutes. Then, after five more minutes, the status changes to Away if there is still no activity on the computer. *The contact's Outlook calendar or Out of Office Assistant indicates that they are out of the office.* *The contact is temporarily unavailable* **NOTE:** As soon as activity is detected on the contact's computer, Ignite automatically resets the presence status to the appropriate state. *The contact has locked their computer.* *The contact has manually set their presence to Away or Be Right Back.* *Users can manually set this status.* **NOTE:** When a user manually sets themselves as Away, they are still available to receive calls, such as from a transfer.
		Offline	The contact is not available. Possible reasons for this include the following: The contact has manually set their presence status to Appear Offline. The contact has not signed into Skype for Business. The contact has blocked you from seeing their presence status. Skype for Business is not running on the contact's computer.
		Presence unknown	Skype for Business cannot determine the status of the contact. This status is typically displayed because the contact's presence status is unavailable to Skype for Business, such as for a contact who is part of an organization that is not a federated partner.

Sending an instant message

On an agent or employee monitor, you can right-click an agent or employee's cell and click Send instant message to send an online message to the agent or employee. You can also send instant messages

using Microsoft Skype for Business. Using Skype for Business, you can send instant messages to individuals or multiple contacts. After initiating an interaction, you can invite additional contacts to the interaction. For instruction in using Skype for Business, consult your Microsoft Skype for Business documentation.

NOTE: Supervisors send instant messages to contacts or groups of contacts using Contact Center Client.

To send an instant message while viewing agents on an extension, agent, or employee monitor

- Right-click a cell in an open monitor and click **Send instant message**.
  A Skype for Business Conversation window opens.

Hot desking profile settings

When an agent is configured as a Mitel hot desking agent, the agent can sit at any extension on the network and log on to the extension. After the agent is logged on, the agent takes control of the extension. The agent's Contact Center Client and soft phone real-time profile settings are available. Any previous associations with the extension are taken out of service. When an agent logs off, the agent disconnects from the extension and the default settings for the extension are restored automatically.

WARNING: If an external hot desk agent is using a personal phone to handle calls, incoming calls that are not answered could reach their personal voicemail.

Posting feedback and viewing our forums

Mitel has partnered with UserVoice, a third-party service, to host customer suggestions on https://micontactcenter.uservoice.com. When you post an idea to our feedback forum, others will be able to subscribe to it and make comments.

Our forums enable you to send feedback directly to the people building the product. While we cannot comment on every suggestion, feedback is analyzed and considered for future releases.

NOTE: Please do not use the forums to submit product defects. To submit product defects, please contact your administrator or dealer.

Feedback can also be submitted directly to Mitel without posting the suggestion on the forums. For more general feedback, you can also provide a rating of your experience with MiContact Center Business.

NOTE: Please do not use feedback for requesting customer assistance. For assistance with MiContact Center Business, please contact your dealer or Mitel Customer Support.

To post feedback and view our forums

1. In YourSite Explorer, click **File > Feedback**.
2. Click **Got an idea? Tell us**.

   or
   Access the following URL: https://micontactcenter.uservoice.com.

To submit feedback directly

1. In YourSite Explorer, click **File > Feedback**.
2. Click **Contact Us**.

To rate your Mitel experience

1. In YourSite Explorer, click **File > Feedback**.
2. Click **Rate us**.

Accessing real-time information with Ignite (WEB)

Ignite (WEB) enables real-time monitoring of employees, agents, queues, and callback requests. The Ignite (WEB) real-time monitors do not duplicate those available in Contact Center Client but, instead, offer a succinct set of the most essential statistics in the highly accessible online format of Ignite (WEB).

The following real-time monitors are available in Ignite (WEB):

- Employee State
- Agent State
- Queue Now
- Callback Requests

To access the real-time monitors in Ignite (WEB)

1. In Ignite (WEB), click **Dashboards**.
2. Click the down arrow and select the dashboard from the list that contains the monitor you want to display.

NOTE:

- Alarms are not supported for real-time monitors in Ignite (WEB).
- Access to real-time monitors is determined by administrator-set security roles.

To learn how to add and configure settings for real-time monitors in Ignite (WEB), see *"Configuring Ignite (WEB) dashboards"*.

Monitoring employee state in Ignite (WEB)

The Employee State monitor available in Ignite (WEB) enables you to view activity and, if enabled for Interactive Contact Center, adjust presence for individual employees in your contact center.

You can view the following real-time employee information:

- Employee name, reporting number, and avatar
- ACD availability and state (with colored state icon)
- Busy duration for the day
- Do Not Disturb duration for the day
- Number of interactions handled for the day (voice, email, chat, SMS, open media as applicable)
- Date/Time of first login
- Total shift duration

NOTE: Only one employee at a time can display in the Employee State monitor but you canoptionally add several employee monitors to a dashboard to access information for multiple employees.

The Employee State monitor in Ignite (WEB) is accessible from your Ignite (WEB) Dashboard, To learn how to add and configure settings for the Employee State monitor in Ignite (WEB), see *"Configuring Ignite (WEB) dashboards"*.

Monitoring agent state in Ignite (WEB)

The Agent State monitor available in Ignite (WEB) enables you to view the real-time state of agents in your contact center and, if enabled for Interactive Contact Center, adjust agent presence.

Each column lists agents in order of time in state, with the longest in state at the top. For example, the agent at the top of the Idle column is the next longest idle agent and should receive the next inbound interaction.

The following table lists and describes real-time agent state information that displays in the Agent State monitor in Ignite (WEB).

Table 16.16: Agent State monitor statistics - Ignite (WEB)

STATISTIC	DESCRIPTION
ACD	includes agents in ACD and ACD Hold
Idle	includes agents who are available for ACD but currently not handling any interactions
Non ACD	includes agents in Non ACD, Non ACD Hold, Outbound, and Outbound Hold
Unavailable	includes agents in Do Not Disturb, Busy, Work Timer, and Reseize Timer
Not Present	includes agents who are logged in as an agent but not present in any agent groups
Offline	includes agents who are logged in as an ACD agent

The Agent State monitor in Ignite (WEB) is accessible from your Ignite (WEB) Dashboard, To learn how to add and configure settings for the Agent State monitor in Ignite (WEB), see *"Configuring Ignite (WEB) dashboards"*.

Monitoring queues in Ignite (WEB)

The Queue Now monitor available in Ignite (WEB) enables supervisors to view queue or queue group statistics and a summary of current agent states for each queue or queue group in real time.

Queue statistics include Offered, Service Level %, Interactions Waiting, Requeued, and Longest Waiting. Handled, Interflowed, and Abandoned counts can also be accessed by hovering over ‘Offered’ for each queue or queue group.

The following table lists and describes queue statistics that display in the Queue Now monitor in Ignite (WEB).

Table 16.17: Queue Now monitor statistics - Ignite (WEB) (Sheet 1 of 2)

STATISTIC	DESCRIPTION
Offered	the total number of interactions offered to the queue or queue group

Table 16.17: Queue Now monitor statistics - Ignite (WEB) (Continued) (Sheet 2 of 2)

STATISTIC	DESCRIPTION
Service Level %	for a queue, this is the percentage of interactions handled within the queue's Service Level Time value over the day for a queue group, this is the lowest percentage of interactions handled within the queue's Service Level Time value over the day across all queues
Contacts Waiting	the current number of interactions in queue waiting for a member to become available, including those listening to silence, music, or recorded announcements
Requeued	the total number of ACD interactions requeued **NOTE:** This statistic displays information for ACD paths only. Statistics for Ring Groups display as '0'
Longest Waiting	the current duration, in minutes and seconds, of the interaction waiting the longest in queue or queue group
Handled	the total number of ACD interactions handled by members
Interflowed	the total number of ACD interactions interflowed interflow is a mechanism that directs an interaction waiting in queue to another answer point **NOTE:** If an interaction waiting in queue is redirected before the queue's short abandoned time has elapsed, the queue is pegged with a Queue Unavailable count rather than an interflowed count. In order for the Interflowed peg to occur, the redirection must occur after the short abandoned time has elapsed
Abandoned	the total number of interactions abandoned before being answered by members **NOTE:** Abandoned does not peg short abandons as abandoned interactions in the Queue Now monitor. The Abandoned column in the Interactive Visual Queue monitor displays all abandoned interactions. Because of this difference, you may notice discrepancies between the abandoned call information in these two monitors

The current number of agents, by state, also displays for each queue or queue group for the following agent states:

- **Idle**: includes agents who are available for ACD but not currently handling any interactions
- **ACD**: includes agents in ACD and ACD Hold
- **Non-ACD**: includes agents in Non ACD, Non ACD Hold, Outbound, and Outbound Hold
- **Unavailable**: includes agents in Do Not Disturb, Busy, and Work Timer

The Queue Now monitor in Ignite (WEB) is accessible from your Ignite (WEB) Dashboard, To learn how to add and configure settings for the Queue Now monitor in Ignite (WEB), see *"Configuring Ignite (WEB) dashboards"*.

Viewing and managing callbacks in Ignite (WEB)

When licensed for IVR, the Callback Requests monitor, available in Ignite (WEB), enables you to interact with callbacks and monitor their state in real time.

The Callback Requests monitor enables users to requeue, reject, and delete callbacks from within the monitor. Requeued callbacks are re-entered into their queue. Rejected callbacks are removed from the queue and will not be offered to employees. Deleted callbacks are removed from the monitor, but are not removed from the system.

To requeue, reject, or delete a callback

- In the row of the call you want to interact with, in the **Actions** column, left-click either **Requeue**, **Reject**, or **Delete**.

The following table lists and describes the statistics available in the Callback Requests monitor.

Table 16.18: Callback Requests monitor statistics - Ignite (WEB)

STATISTIC	DESCRIPTION
Name	the name of the caller
Number	the phone number provided by the caller
Status	the status of the callback
Offer At	the specific time the callback will be executed
Received	the specific time the caller submitted the callback request
Preferred Time	the time the caller is available to receive the callback (if the caller does not enter a preferred time, this column will be blank)
Destination	the queue, agent, and extension for which the callback is intended
# of Attempts	the number of times the callback has been attempted
Last Attempted	the specific time the last callback attempt to the caller was made
Actions	within this column, you can choose to requeue, reject, or delete a callback

The Callback Requests monitor in Ignite (WEB) is accessible from your Ignite (WEB) Dashboard, To learn how to add and configure settings for the Callback Requests monitor in Ignite (WEB), see *"Configuring Ignite (WEB) dashboards"*.

Forecasting

Forecasting is the basis of estimating required resources to handle a contact center's workload. Using historical data generated by the ACD routing system for both voice and other media types, forecasting allows you to adjust key modifiers to predict the number of agents required, by interval, to handle the predicted workload.

The Forecasting tool available in Contact Center Client and Workforce Scheduling enables users to quickly choose historical data from both voice and multimedia queues or queue groups to use in the forecast, providing average transaction traffic by day of week, by media, as well as by historic manned agents and handling statistics for user-selected intervals of time. Supervisors can create forecasts based on historic contact center volumes and manually adjust various modifiers to generate hypothetical or future anticipated traffic scenarios, optimizing the balance between the agents required to handle the anticipated traffic with the expected handling time, wrap up time and Service Level objectives. The Forecasting tool lets you adjust key statistics together with intra-day contact volumes rather than only daily statistics which provides a much more accurate output of agents required per interval. For example, you may have a situation where calls coming into your call center are more complex earlier in the day and/or earlier in the week creating a higher demand for agents to be available at these times. It is possible that handling time drops throughout the day and the demand for agents reduces, allowing for alternate options for agents such as off line work, team meetings or performance reviews.

Your ability to forecast is limited only by the available ACD routing data collected and available in your SQL database. For example you may choose to take the last few weeks to help predict the next few weeks or you could take the last year to help predict the average traffic per week, or you might want to only take the period of time in the past where you ran a particular campaign/season to anticipate the amount of traffic to expect for a similar upcoming campaign/season, etc. After you run a forecast, you could examine the data and make adjustments based on current or anticipated contact center conditions. You could then tweak the forecast as required.

NOTE: Ring Groups are not supported with Forecasting, either as queues or as a member of a reporting queue groups.

Forecasting terms

Conducting a forecast involves accurately estimating Time to Handle, Wrap Up Time, and Contacts Offered values. The following terms are used in forecasting resource requirements:

- **Service Level percent**
  Service Level Percent = Service Level Count ÷ ACD offered
  For calls and chats, the Service Level Percent is the number of interactions that are handled, abandoned, and interflowed before a defined threshold time (Service Level time), compared to the total number of Multimedia Contact Centers handled, abandoned, and interflowed. The Service Level Percent = (Handled + Abandoned (long) + Interflowed (long)) within the Service Level time ÷ Total (Handled + Abandoned (long) + Interflowed (long)).
  For email and SMS, the Service Level Percent is the number of interactions that are handled and interflowed before a defined threshold time (Service Level time), compared to the total number of interactions handled and interflowed. The Service Level Percent = (Handled + Interflowed (long)) within the Service Level time ÷ Total (Handled + Interflowed (long)).
- **Service Level time**

Service Level Time is the time used in calculating the Queue Service Objective. For example, your Queue Service Objective may require queue members to handle 80% of interactions within 120 seconds. 120 seconds is the Service Level Time. Queue Service Objectives, which includes Service Level Time, are specified for individual queues.

- **Wrap Up time**
  *Wrap Up Time*is a real-time and reporting statistic detailing the total time an agent spends in the Work Timer state. The Wrap Up Time is a standardized period. If an agent requires additional time to complete paperwork or online transactions, the agent can leave the ACD queue temporarily for this purpose.
- **Agent Efficiency percent**
  Agent Efficiency percent is the percentage of time agents spend on ACD interactions relative to the time agents are scheduled to work. Agent efficiency is calculated using a straight linear relationship. For example, 50% agent efficiency means that two more agents are required to handle the forecasted workload. An Agent efficiency percentage of 100 is unrealistic. Agents routinely take breaks, perform other Non ACD duties, make outgoing calls, and place themselves in Make Busy.
- **Contacts Offered**
  You can predict the queue member requirement for your Service Level percent and Service Level time targets by applying the Erlang C equation to the estimated Call Load and average ACD Handling Time.
- **Manned Agents**
  Manned Agents is the average number of agents who were logged on for the interval of time being forecasted.
- **Average Handle Time**
  Average Handle Time is the average time queue members spend handling interactions, and is determined by comparing the interaction duration to the number of interactions offered.

  NOTE:
  - The Average Handle Time in the Forecasting tool is calculated differently than the Average Handling Time in CCMWeb reports, which is determined by comparing interaction duration to the number of interactions answered.
  - The Daily Average Handle Time in the Forecasting tool is calculated from the interval rows in the forecast and may differ from the Average Handling Time for that day in contained in a report.
- **Time to Handle**
  Time to Handle is the average time calls wait in queue before being handled.
- **ACD Handling Time**
  ACD Handling time is the talk time plus the hold time. If a queue member calls a supervisor in search of more information (while the caller is on hold) and/or transfers or conferences the call, the system adds these times to the ACD Handling Time value.
- **Call Load**
  The term *Call Load* is to the combined effect of the number of interactions received by the ACD queue and their duration, or the calls offered x (average ACD Handling Time + average Wrap Up Time).

Forecasting tool

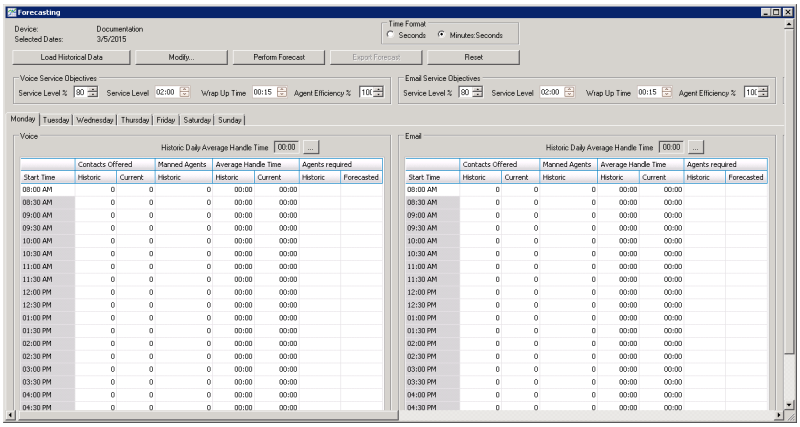
The Forecasting tool is accessed via Contact Center Client. If you are licensed for Workforce Scheduling, you can also access it in that application under the Tools tab. In order to access the Forecasting tool, your security role must have the 'May manage Forecasting' option enabled.

You use the Forecasting tool to create forecasts based on historical contact center traffic volumes. After loading historical data into the tool, you can perform 'what-if' scenarios and optimize the balance between the agents scheduled and your Service Level objectives.

The Forecasting tool offers a tabbed interface for viewing and setting historical data for each day of the week. If more than one media type has been included in the historical data, each day's tab will have a section for each media type included in the historic data. The forecast grid is divided into rows based on the interval time selected when loading historical data, enabling users to adjust statistics by 15, 30, or 60 minute intervals. The statistics have Historic and Current values, which display the original values from the loaded historical data and the current values after user modification respectively.

After a forecast has been performed, each day lists the agents required for each interval. The follwoing figure shows the Forecasting tool.

Figure 17.1: Forecasting window



To forecast resource requirements you

1. Load historical data.
   See *"Loading historical data"*.
2. Modify historical data if required.

   See *"Modifying historical data"*.
3. Perform a forecast.

   See *"Performing forecasts"*.
4. Export the forecast.

   See *"Exporting forecasts"*.

To access the Forecasting tool

1. Click **Tools** in the Contact Center Client ribbon.
2. In the **Data Mining** section, click **Forecasting**.

Loading historical data

When you load historical data, you include data from a queue or queue group over a historical period that best represents the contact center activity for the time period for which you are trying to forecast. You can select one or more specific dates and/or date ranges when loading historical data. You can select sequen-

tial or non-sequential dates (for example, Monday, Wednesday, and Friday) to use in the forecast. You can also exclude specific dates from within your date range.

NOTE:

- Users should identify and exclude any outliers or extreme values from the time period from which they are loading historical data, as these may give artificial values.
- Historical data for agents can be validated by comparing it to the queue and queue group by period reports for the same periods.
- Ring Groups are not supported with Forecasting, either as queues or as a member of a reporting queue groups.

The following procedure takes place in an open Forecasting tool window.

To load historical data

1. Click **Load historical data**.
   The Forecasting window opens.
2. Under **Queues** or **Queue groups**, click on the queue or queue groups you want to use as the source of historical data.

   NOTE: You can load historical data for a queue or queue group. If you are using the forecast to build a schedule, select historical data from the same queue group with which the schedule is associated. This data will best represent the agents required for your schedule.
3. If you want to include or exclude data from a specific date, under **Historical date(s) for the forecast**, select **Specific day** and then select a date.
4. If you want to include or exclude data from a date range, click **Date range** and specify a range of dates.
5. If you are including the data from the specified date(s), click **Include dates**.
6. If you are excluding the data from the specified date(s), click **Exclude dates**.
7. Repeat steps 3-6 until you have specified the date(s) or date range(s) from which you will derive your historical data.
8. After **Start hour** and **End hour**, select the time frame for historical data.
9. After **Interval**, select the schedule interval: 15, 30, or 60 minutes.

   The Interval value, in minutes, is the time increment by which the forecast will be displayed. It is recommended that you select an interval that matches the increments in which you schedule your employees. For example, if you schedule your employee shifts in 30 minute increments, select 30 minutes as the Interval value.
10. Click **Submit**.

Modifying historical data

After loading your historical data, you can modify the values of Contacts Offered and Average Handle Time to generate different forecast results based on the modified values. You can also modify values after performing forecasts to obtain different forecasts of required agents. The historical values for data are always displayed, regardless of modifications, for comparison.

Modifying Average Handle Time

You can modify the Average Handle Time value for an interval, a day, or several days simultaneously. When you select a modification to apply to a value, either the Historic or Current value, it is applied as the new Current value. You cannot change the Daily Average Handle Time, but you can use it to modify the Average Handle Time of other intervals.

The following procedures outline how to

- Modify the Average Handle Time parameter on the forecast grid
- Modify an interval's Average Handle Time parameter
- Modify the Average Handle Time parameter using the Historic Daily Average Handle Time parameter

The following procedures take place in an active Forecasting tool window.

To modify the Average Handle Time parameter on the forecast grid

1. Click **Modify... > Average Handle Time**.
   Alternatively, select an interval row, click the cell for Current Average Handle Time, and click the … button.
   See the following figure.
2. Under **Specify the Average Handle Time value(s)**, specify how you want to modify Average Handle Time:
   - Increase or decrease Average Handle Time by a specific number of seconds
   - Increase or decrease Average Handle Time by a specific percentage
   - Set the Average Handle Time to a specific number of seconds
3. Under **Apply the changes to the following data source**, specify if you want to have the modification applied to the original value or the current grid value.
4. Under **Apply to days**, select the days for which you want to modify Average Handle Time.
5. Under **Apply to media type**, select the media types for which you want to modify **Average Handle Time**.
6. Click **Apply**.

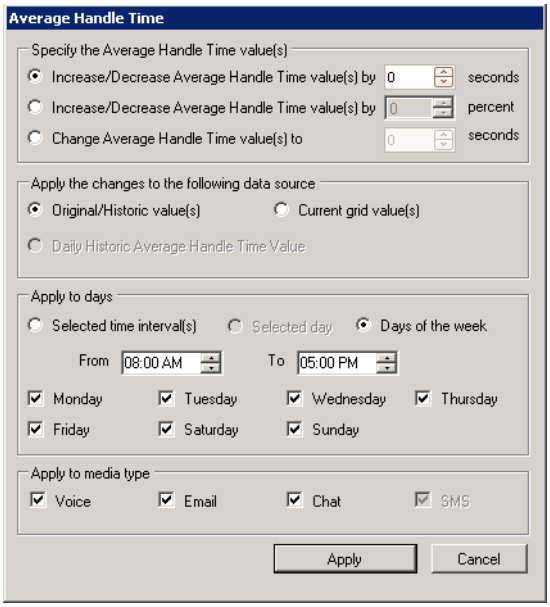
To modify an interval's Average Handle Time parameter

- Select an interval row, click the cell for **Current Average Handle Time**.
- Set the Average Handle Time parameter for the interval.

To modify the Average Handle Time parameter using the Historic Daily Average Handle Time parameter

1. Click the **…** button after Historic Daily Average Handle Time.
2. Under **Specify the Average Handle Time value(s)**, specify how you want to modify the Historic Daily Average Handle Time:
   - Increase or decrease Average Handle Time by a specific number of seconds
   - Increase or decrease Average Handle Time by a specific percentage
   - Set the Average Handle Time to a specific number of seconds
3. Under **Apply to days**, select the interval(s) for which you want to apply the modified Historic Daily Average Handle Time.
4. Click **Apply**.

Figure 17.2: Average Handle Time window



Modifying Contacts Offered

You can modify the Contacts Offered value for one or several time intervals simultaneously. When you select to modify a value, either Historic or Current, it is applied as the new Current value.

This section explains how to:

- Modify the Contacts Offered parameter on the forecast grid
- Modify an interval's Contact Offered parameter

The following procedures take place in an active Forecasting tool window.

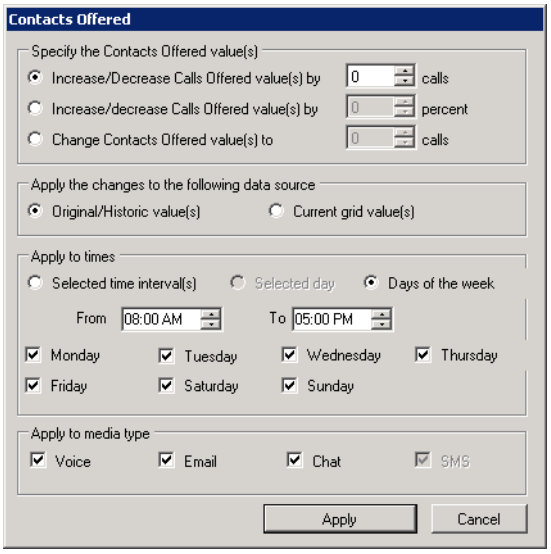
To modify the Contacts Offered parameter on the forecast grid

1. Click **Modify... > Contacts Offered**.
   See the following figure.
2. Under **Specify how you want to change the Contacts Offered value(s)**, specify how you want to modify Contacts Offered:
   - Increase or decrease Contacts Offered by a specific number of calls
   - Increase or decrease Contacts Offered by a specific percentage
   - Set the Contacts Offered to a specific number of call
3. Under **Apply the changes to the following data source**, specify if you want to modify the original value or the current grid value.
4. Under **Apply to times**, select the days and time interval for which you want to modify Contacts Offered.
5. Under **Apply to media type**, select the media types for which you want to modify Contacts Offered.
6. Click **Apply**.

To modify an interval's Contacts Offered parameter

1. Select an interval row, click the cell for **Current Contacts Offered**.
2. Set the Current Contacts parameter for the interval.

Figure 17.3: Contacts Offered window



Modifying the weekly total for Contacts Offered

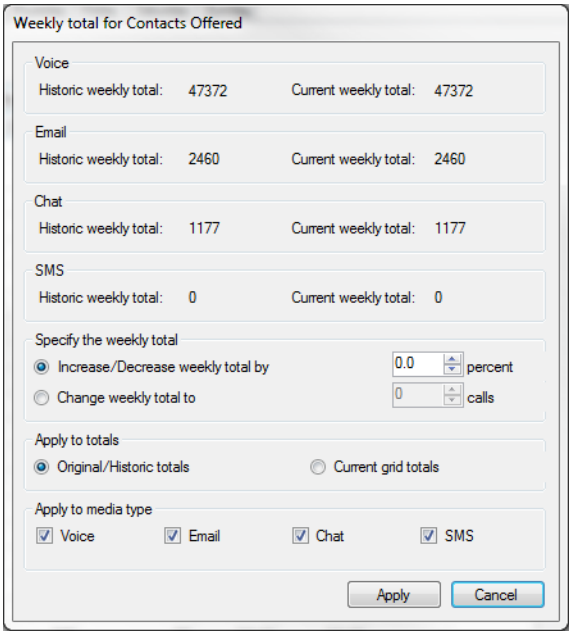
You can modify the Contacts Offered values for an entire week simultaneously. Modifying these values changes the number of Contacts Offered while maintaining the same proportion of calls across all time intervals. For example, if you increase the weekly total by 10 percent, an interval with 10 calls will change to 11. However, an interval with zero calls will remain zero.

The following procedure takes place in an active Forecasting tool window.

To modify the Contacts Offered parameter on the forecast grid

1. Click **Modify... > Weekly total**.
   See the following figure.
2. Under **Specify how you want to change the weekly total**, specify how you want to modify Contacts Offered over the week:
   - Increase or decrease the weekly total of Contacts Offered by a specific number of contacts
   - Set the weekly total of Contacts Offered to a specific number of contacts
3. Under **Apply to totals**, specify if you want to modify the original values or the current grid values.
4. Click **Apply**.

Figure 17.4: Weekly total for Contacts Offered window



Performing forecasts

When you perform a forecast, you receive the required agents based on both the historical and current values. If you adjust any of the values in your historical data, you must perform the forecast again.

NOTE: It is recommended that you save your forecast as an Excel file to preserve your settings to use or compare with the next forecast you make.

To run a forecast

1. Specify the Service Level %, Service Level Time, Wrap Up Time, and Agent Efficiency % you expect for the queue or queue group.
2. Click **Perform forecast**.

   You can perform what-if scenarios on the historical data using different Service objectives statistics until you are satisfied with the forecast.

Exporting forecasts

After performing a forecast, you can export it as a Microsoft Excel spreadsheetor export the forecast to Workforce Scheduling.

Saving forecasts as Excel files

After you generate forecast data you can export it to a Microsoft Excel .xlsx worksheet. If your forecast has different media types, each media type will have its own worksheet in the .xlsx file.

To export a forecast as an Excel file

1. Click **Export Forecast**.
2. Click **Microsoft Excel**.
3. Click **Export**.

The forecast opens in a Microsoft Excel spreadsheet you can modify and save.

Exporting forecasts to Workforce Scheduling

If you are licensed for Workforce Scheduling, after you generate forecast data, you can export it into a Workforce Scheduling schedule.

When scheduling for agents who handle a particular media type, it is recommended that you export forecasts that use solely data from that media type. For example, if you are forecasting based on historical data from an email queue, the forecast should be exported into a Workforce Scheduling schedule that only handles email ACD interactions.

To export a forecast into a Workforce Scheduling schedule

1. Click **Export Forecast**.
2. Select **Workforce**.
3. For each media type, select the schedule for which to apply the forecast.

   NOTE: Each media type must be exported to a different schedule.
4. Click **Export**.

Interactive Contact Center

Interactive Contact Center is a feature that enables supervisors to control the availability of agents, extensions, and queues, and enables agents to control their own availability.

Access to Interactive Contact Center abilities is determined by security role settings. Employees must be associated with the 'May control my real-time status in Interactive Contact Center' security role setting in order to change their state using applicable MiContact Center Business client applications.

Supervisors and Interactive Contact Center

Using Interactive Contact Center, supervisors can

- Control the availability of agents and ACD queues
- Log agents on and off of the system
- Have agents leave their agent groups and join other agent groups. Agent groups are assigned to queues so, in this way, agents can be moved from one queue to another as needed
- Have extensions leave their Ring Groups and join other Ring Groups
- Place agents in Make Busy
- Place agents in Do Not Disturb
- Place extensions into Do Not Disturb
- Place queues in Do Not Disturb
- Cancel Work Timer
- Cancel Reseize Timer

An employee's agent can be assigned to multiple agent groups, which can be associated to multiple queues. In order to move the agent from one queue to another queue, the supervisor has the agent leave one agent group and join another agent group.

Agents and Interactive Contact Center

Using Interactive Contact Center, agents can

- Log themselves on and off of the system
- Remove themselves from agent groups and place themselves into other agent groups. Agent groups are assigned to queues so, in this way, agents can move themselves from one queue to another as needed
- Place themselves in Make Busy
- Place themselves in Do Not Disturb

Every time agents leave their desks they must set themselves into either Make Busy or Do Not Disturb and apply the applicable reason code. This enables supervisors to track agents' Do Not Disturb and Make Busy activity in reports.

Employee and Agent control

Using Interactive Contact Center and Contact Center Client, you can control agents on the following monitors:

- Agent State by Position and Employee State by Position
- Agent State by Time and Employee State by Time
- Agent Shift

Agent control gives you control over individual agents. Monitor control gives you control over all of the agents on a monitor. All of the agents on the monitor are affected simultaneously by the action you take.

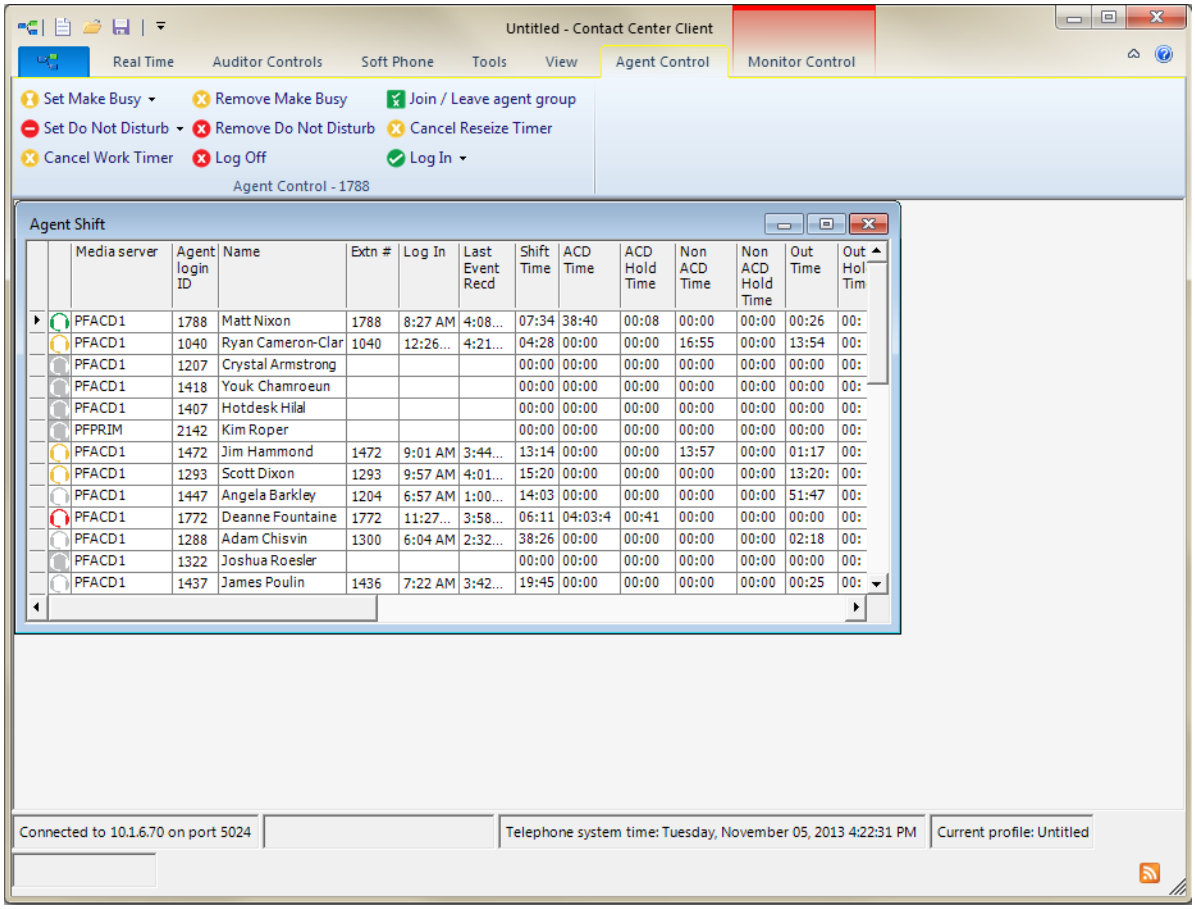
If you have Context Sensitivity enabled for monitors, the Agent Control and Monitor Control tabs display in the Contact Center Client ribbon when you have any of the above monitors open. You can perform actions using either a right-click and select method within the monitor or by selecting an agent or an empty cell (monitor control) and accessing the action menu in the Agent or Monitor Control tab views. (See the following figure.)

Using Interactive Contact Center and Ignite (WEB), you can control agents and employees in the following monitors:

- Employee State
- Agent State

NOTE: Context sensitivity and monitor control are not supported with Ignite (WEB). You can only alter the state for one employee or agent at a time.

Figure 18.1: Agent Shift - Agent Control tab options



Agents and Agent Group Presence

Agents can be assigned to multiple agent groups, which are associated with different queues. When agent groups are created, an employee's agents are assigned a default group presence, either Present or Absent. To handle interactions the employee can make themselves present in their agent groups using either Contact Center Client or Ignite.

It is important to note that agents may join or leave agent groups but not queues. Agents become absent from a queue indirectly if they leave all agent groups associated with that queue. An agent who is present in an agent group which is associated to all queues would be disassociated from all queues simultaneously if they became absent in their agent group

Hiding the Monitor control option

Interactive Contact Center enables you to manage the presence of all devices in a monitor using Monitor Device Control. If you do not want to use monitor control, you can hide this option so it is not accessible.

To hide the Monitor control option

1. In Contact Center Client, click **File > Options**.
2. Under **Device control**, clear the **Display monitor device control option** check box.
3. Click **OK**.

Logging on an agent - Contact Center Client

NOTE:

- An ACD Hot Desking Agent must enter an extension number each time the agents logs on to the ACD routing system using Interactive Contact Center. The agent cannot rely on the extension number last used when logging on. This is because the ACD data stream unifies the agent ID and the extension. After a Hot Desking Agent logs on or off of the ACD routing system using Interactive Contact Center, sometimes the Interactive Contact Center agent controls are not available to the agent for two to five minutes.
- You will be unable to log on an agent to the system if there are no available user licenses.
- If your contact center participates in the use of PINs, supervisors with the correct Class of Service do not require an agent's PIN to interactively log in a Hot Desking Agent.
- Depending on security roles and telephone switch settings, employees who are licensed as Advanced Supervisor or System Administrator may not be prompted to enter a PIN when logging into Interactive Contact Center, Softphone, or PhoneSet Manager.
- If a Hot Desking Agent logs into an extension that serves as the overflow point for a Ring Group, calls to that Ring Group will not be offered to the extension and will remain queued or ringing until abandoned or answered.
- Hot desking users logging into a Ring Group extension must also be a member of the Ring Group to ensure accurate reporting.

You log employee voice agents in and out in either an open Employee or Agent Monitor in Contact Center Client. Multimedia agents are not logged in with voice agents.

To log in an agent in an open Employee monitor

- Right-click the cell of an employee and click **Employee control > Log in > voice agent**. Alternatively, select the employee cell in an open monitor, click **Log** in from the **Employee Control** tab on the Contact Center Client ribbon, and select the voice agent.

  NOTE: When you log in an employee's voice agent, you must enter the extension for the agent. See the procedure below.

To log in an agent by extension in an open Employee monitor

1. Right-click the cell of an employee and click **Employee control > Log in > By extension**.
2. If the employee has multiple voice agents, select the agent to log in from the drop-down list.
3. Type the **Agent's extension**.
4. Click **OK**.

To log in an agent in an open Agent monitor

- Right-click the cell of a voice agent who is not logged into and click **Agent Control > Log in > voice agent**. Alternatively, select the agent cell in an open monitor and click **Log in** from the Contact Center Client ribbon.

  NOTE: When you log in a voice agent, you must enter the extension for the agent. See the procedure below.

To log in an agent by extension in an open Agent monitor

1. Right-click the cell of a voice agent and click **Agent control > Log in > By extension**.
2. If the employee has multiple voice agents, select the agent to log in from the drop-down list.
3. Type the **Agent's extension**.

4. Click **OK**.

Logging off an agent - Contact Center Client

You can log off an employee from all media in an Employee monitor or Agent monitor. Logging off an agent logs off the employee's voice agent and sets the employee's multimedia agents to Absent in all their agent groups. If the employee is logged into their soft phone in Contact Center Client, they will also be logged out of the soft phone.

The following procedures take place in either an open Employee monitor or an open Agent monitor in Contact Center Client.

To log off all of an employee's agents in an open Employee monitor

- Right-click the cell of an employee and click **Employee control > Log off**. Alternatively, select the employee cell in an open monitor and click **Log Off** from the **Employee Control** tab on the Contact Center Client ribbon.

To log off an agent in an open Agent monitor

NOTE: Logging off an employee's agent logs off all of the employee's agents simultaneously.

- Right-click the cell of an agent and click **Agent control > Log off**. Alternatively, select the agent cell in an open monitor and click **Log Off** from the **Agent Control** tab on the Contact Center Client ribbon.

To log off all employees' agents in an open Employee monitor

1. Right-click the monitor and click **Monitor control > Log off**.
   Alternatively, click the **Monitor Control** tab in the Contact Center Client ribbon and select **Log Off**.
2. Click **Yes**.

To log off all agents in an open Agent monitor

1. Right-click the monitor and click **Monitor control > Log off**.
   Alternatively, click the **Monitor Control** tab in the Contact Center Client ribbon and select **Log Off**.
2. Click **Yes**.

Logging on an agent - Ignite (WEB)

When you log on an agent in Ignite (WEB), you make them available to receive voice interactions.

The following procedure takes place in either an Agent State or Employee State monitor in Ignite (WEB).

To log on a voice agent

1. In the monitor, select the agent you want to log on.
2. Click **State > Available**.
3. Enter the agent's extension and PIN (if enabled) and click **Login**.

   NOTE: This step is not required if the agent is set to automatically log in when the 'Available' state is selected.

Logging off an agent - Ignite (WEB)

When you log off an agent in Ignite (WEB), you make them unavailable to receive all media interactions, including voice, email, chat, SMS, and open media.

The following procedure takes place in either an Agent State or Employee State monitor in Ignite (WEB).

To log off an agent

1. In the monitor, select the agent you want to log off.
2. Click **State > Offline**.

Joining and leaving agent groups - Contact Center Client

After logging into Contact Center Client, agents can use Interactive Contact Center to control their presence status in agent groups. Optionally, supervisors can use Interactive Contact Center to control the presence status of agents in specific agent groups.

NOTE:

- An agent's ACD hot desk line remains in service while they are logged in as an ACD hot desk user even if they are not present in any ACD groups and not receiving ACD calls.

To join an agent to or have an agent leave an agent group in an open Employee monitor

1. Right-click the cell of an employee and click **Employee control > Join/Leave Agent Group > [Agent]**.
   Alternatively, select the cell of an employee and in the **Employee Control** tab of the Contact Center Client ribbon, click **Join/Leave agent group > [Agent]**.
2. Select the agent group(s) to which you want the employee's agent(s) to join or deselect the agent group(s) to have the employee's agent(s) leave the agent groups.
3. Click **OK**.

To join an agent to or have an agent leave an agent group in an open Agent monitor

1. Right-click the cell of an agent who is logged on and click **Agent control > Join/Leave Agent Group**.
   Alternatively, select the cell of an agent and click **Join/Leave Agent Group** from the Agent Control tab in the Contact Center Client ribbon.
2. Select the agent group(s) to which you want the agent(s) to join or deselect the agent group(s) to which you want the agent(s) to leave.
3. Click **OK**.

Joining and leaving agent groups - Ignite (WEB)

After signing into Ignite (WEB) and logging into their phone, agents can use interactive Contact Center to control their presence in agent groups. Optionally, supervisors can use Interactive Contact Center to control the presence status of agents in specific agent groups from within the Agent and Employee State monitors in Ignite (WEB).

The following procedures take place in either an Agent State or Employee State monitor in Ignite (WEB).

To join an agent to an agent group

1. In the monitor, select the agent for which you want to modify agent group presence.
2. Click **Agent Groups**.
3. Hover over the agent group's avatar and select **Join All**.
4. Click **Update**.

To remove an agent from an agent group

1. In the monitor, select the agent for which you want to modify agent group presence.
2. Click **Agent Groups**.
3. Hover over the agent group's avatar and select **Leave All**.
4. Click **Update**.

To join an agent to or remove an agent from all agent groups

1. In the monitor, select the agent for which you want to modify agent group presence.
2. Click **Agent Groups**.
3. To join an agent to all agent groups, click **Join All > Update**.
4. To remove an agent from all agent groups, click **Leave All > Update**.

To make an agent available or unavailable to answer interactions of a specific media type

1. In the monitor, select the agent for which you want to modify agent group presence.
2. Click **Agent Groups**.
3. To become available to answer interactions of a specific media type, click the media icon in the agent group so the icon displays in blue.
4. To become unavailable to answer interactions of a specific media type, click the media icon in the agent group so the icon displays in grey.
5. Click **Update**.

Placing employees in Make Busy - Contact Center Client

NOTE: Employees in Work Timer can apply Busy/Make Busy or DND, but will remain in a Work Timer state until the Work Timer expires or is cancelled. If Classification Codes are required for the queue and the Work Timer expires without a Classification Code being entered, a **Non-Compliant** Classification Code will be applied to the call..

Placing employees into Make Busy places both employees and all of their agents into Make Busy.

The following procedures take place in either an open Employee monitor or an open Agent monitor in Contact Center Client.

To place an employee in an open Employee monitor in Make Busy

- Right-click the cell of an employee and click **Employee control > Set Make Busy >** reason code. Alternatively, select an empty cell in an open monitor and click **Set Employee Make Busy >** reason code from the **Employee Control** tab in the Contact Center Client ribbon.

To place all employees in an open Employee monitor in Make Busy

1. Right-click the monitor and click **Monitor control > Set Make Busy >** reason code. Alternatively, select an empty cell in an open monitor and click **Set Make Busy >** reason code from the **Monitor Control** tab in the Contact Center Client ribbon.
2. Click **Yes**.

To place an employee in an open Agent monitor in Make Busy

- Right-click the cell of an agent and click **Agent control > Set Employee Make Busy >** reason code. Alternatively, select the agent cell in an open monitor and click **Set Employee Make Busy >** reason code from the Agent Control tab in the Contact Center Client ribbon.

To place all employees in an open Agent monitor in Make Busy

1. Right-click the monitor and click **Monitor control > Set Employee Make Busy >** reason code. Alternatively, select an empty cell in an open monitor and click **Set Make Busy >** reason code from the **Monitor Control** tab in the Contact Center Client ribbon.
2. Click **Yes**.

Removing employees from Make Busy - Contact Center Client

Removing employees from Make Busy removes both employees and all of their agents from Make Busy.

The following procedures take place in either an open Employee monitor or an open Agent monitor in Contact Center Client.

To remove an employee in an open Employee monitor from Make Busy

- Right-click the cell of an employee whose agents are in Make Busy and click **Employee control > Remove Make Busy**. Alternatively, select an empty cell in an open monitor and click **Remove Make Busy** from the **Employee Control** tab in the Contact Center Client ribbon.

To remove all employees in an open Employee monitor from Make Busy

1. Right-click the cell of an employee who is in Make Busy and click **Monitor control > Remove Make Busy**. Alternatively, select an empty cell in an open monitor and click **Remove Make Busy** from the **Monitor Control** tab in the Contact Center Client ribbon.
2. Click **Yes**.

To remove an employee in an open Agent monitor from Make Busy

- Right-click the cell of an agent in Make Busy and click **Agent control > Remove Make Busy**. Alternatively, select the agent cell in an open monitor and click **Remove Make Busy** from the **Agent Control** tab in the Contact Center Client ribbon.

To remove all employees in an open Agent Monitor from Make Busy

1. Right-click the cell of an employee and click **Monitor control > Remove Make Busy**. Alternatively, select an empty cell in an open monitor and click **Remove Make Busy** from the Monitor Control tab in the Contact Center Client ribbon.
2. Click **Yes**.

Placing employees in Busy - Ignite (WEB)

NOTE: Employees in Work Timer can apply Busy/Make Busy or DND, but will remain in a Work Timer state until the Work Timer expires or is cancelled. If Classification Codes are required for the queue and the Work Timer expires without a Classification Code being entered, a **Non-Compliant** Classification Code will be applied to the call..

Placing an employee into Busy places them in Busy across all media types for which they answer interactions. While in Busy, they can receive transferred multimedia interactions, however, inbound multimedia interactions will not be routed to them. They can also receive Non ACD voice interactions and pick interactions waiting in queue.

The following procedure takes place in either an Agent State or Employee State monitor in Ignite (WEB).

To place an employee in Busy

1. In the monitor, select the employee you want to place in Busy.
2. Click **State > Busy…**.
3. Choose a Busy code.

Removing employees from Busy - Ignite (WEB)

Removing employees from Busy re-enables them to answer inbound multimedia interactions and ACD calls.

The following procedure takes place in either an Agent State or Employee State monitor in Ignite (WEB).

To remove an employee from Busy

1. In the monitor, select the employee you want to remove from Busy.
2. Under **State**, select an alternate state, or, click **X** button next to **Busy...** to remove the busy code.

NOTE: Select **Available** if you want to make them available to receive interactions.

Placing employees in Do Not Disturb - Contact Center Client

NOTE:

- If an agent on an ACD calls puts themselves into MKB or DND, Work Timer events are not received for that call.
- Employees in Work Timer can apply Busy/Make Busy or DND, but will remain in a Work Timer state until the Work Timer expires or is cancelled. If Classification Codes are required for the queue and the Work Timer expires without a Classification Code being entered, a **Non-Compliant** Classification Code will be applied to the call..

Placing employees into Do Not Disturb places employees and all of their agents into Do Not Disturb.

The following procedures take place in either an open Employee monitor or an open Agent monitor in Contact Center Client.

To place an employee in an open Employee monitor in Do Not Disturb

- Right-click the cell of an employee and click **Employee Control > Set Do Not Disturb >** reason code. Alternatively, select the employee cell in an open monitor and click **Set Employee Do Not Disturb >** reason code.

To place all employees in an open Employee Monitor in Do Not Disturb

1. Right-click the monitor and click **Monitor control > Set Do Not Disturb >** reason code. Alternatively, select an empty cell in an open monitor and click **Set Do Not Disturb** from the **Monitor Control** tab in the Contact Center Client ribbon.
2. Click **Yes**.

To place an employee in an open Agent monitor in Do Not Disturb

- Right-click the cell of an agent who is logged on and click **Agent control > Set Employee Do Not Disturb >** reason code. Alternatively, select the agent cell in an open monitor and click **Set Do Not Disturb >** reason code from the Agent Control tab in the Contact Center Client ribbon.

To place all employees in an open Agent monitor in Do Not Disturb

1. Right-click the monitor and click **Monitor control > Set Do Not Disturb >** reason code. Alternatively, select an empty cell in an open monitor and click **Set Do Not Disturb** from the Monitor Control tab in the Contact Center Client ribbon.
2. Click **Yes**.

Removing employees from Do Not Disturb - Contact Center Client

Removing employees from Do Not Disturb removes employees and all of their agents from Do Not Disturb.

The following procedures take place in either an open Employee monitor or an open Agent monitor in Contact Center Client.

To remove an employee in an open Employee monitor from Do Not Disturb

- Right-click the cell of an employee who is in Do Not Disturb and click **Employee control > Remove Do Not Disturb**. Alternatively, select the employee cell in and click **Remove Do Not Disturb** from the **Employee Control** tab in the Contact Center Client ribbon.

To remove all of a monitor's employees in an open Employee monitor from Do Not Disturb

- Right-click the monitor and click **Monitor control > Remove Do Not Disturb**. Alternatively, select an empty cell in an open monitor and click **Remove Do Not Disturb** from the **Monitor Control** tab in the Contact Center Client ribbon.

To remove an employee in an open Agent monitor from Do Not Disturb

- Right-click the cell of an agent who is in Do Not Disturb and click **Agent control > Remove Do Not Disturb**. Alternatively, select the agent cell in an open monitor and click **Remove Do Not Disturb** from the **Agent Control** tab in the Contact Center Client ribbon.

To remove all of a monitor's employees in an open Agent monitor from Do Not Disturb

- Right-click the monitor and click **Monitor control > Remove Do Not Disturb**. Alternatively, select an empty cell in an open monitor and click **Remove Do Not Disturb** from the **Monitor Control** tab in the Contact Center Client ribbon.

Placing employees in Do Not Disturb - Ignite (WEB)

NOTE: Employees in Work Timer can apply Busy/Make Busy or DND, but will remain in a Work Timer state until the Work Timer expires or is cancelled. If Classification Codes are required for the queue and the Work Timer expires without a Classification Code being entered, a **Non-Compliant** Classification Code will be applied to the call..

Placing an employee into Do Not Disturb places them in Do Not Disturb across all media types for which they answer interactions. While in Do Not Disturb, they are unable to receive inbound multimedia interactions and internal voice interactions, including transfers.

The following procedure takes place in either an Agent State or Employee State monitor in Ignite (WEB).

To place an employee in Do Not Disturb

1. In the monitor, select the employee you want to place in Do Not Disturb.
2. Under **State**, click **Do Not Disturb….**
3. Choose a DND code.

Removing employees from Do Not Disturb - Ignite (WEB)

Removing employees from Do Not Disturb re-enables them to receive interactions for all applicable media types.

The following procedure takes place in either an Agent State or Employee State monitor in Ignite (WEB).

To remove an employee from Do Not Disturb

1. In the monitor, select the employee you want to remove from Do Not Disturb.
2. Under **State**, select an alternate state, or, click **X** button next to **Do Not Disturb...** to remove the DND Reason code.

NOTE: Select **Available** if you want to make them available to receive interactions.

Canceling Work Timer for employees - Contact Center Client

NOTE: Employees in Work Timer can apply Busy/Make Busy or DND, but will remain in a Work Timer state until the Work Timer expires or is cancelled. If Classification Codes are required for the queue and the Work Timer expires without a Classification Code being entered, a **Non-Compliant** Classification Code will be applied to the call..

In an Employee monitor or Agent monitor, you can cancel Work Timer for one or more employees. The following procedures take place in either an open Employee monitor or an open Agent monitor in Contact Center Client.

To cancel Work Timer in an open Employee monitor

- Right-click the cell of an employee who is in Work Timer and click **Employee control > Cancel Work Timer**. Alternatively, select the employee cell in an open monitor and click **Cancel Work Timer** in the appropriate media section of the **Employee Control** tab in the Contact Center Client ribbon.

To cancel Work Timer for all employees in an open Employee monitor

- Right-click the monitor and click **Monitor control > Cancel Work Timer**. Alternatively, select an empty cell in an open monitor and click **Cancel Work Timer** in the media type's section of the **Monitor Control** tab in the Contact Center Client ribbon.

To cancel Work Timer for an employee in an open Agent monitor

- Right-click the cell of an agent who is in Work Timer and click **Agent control > Cancel Work Timer**. Alternatively, select the agent cell in an open monitor and click **Cancel Work Timer** from the **Agent Control** tab in the Contact Center Client ribbon.

To cancel Work Timer for all employees in an open Agent monitor

- Right-click the monitor and click **Monitor control > Cancel Work Timer**. Alternatively, select an empty cell in an open monitor and click **Cancel Work Timer** from the **Monitor Control** tab in the Contact Center Client ribbon.

Canceling Work Timer for employees - Ignite (WEB)

NOTE: Employees in Work Timer can apply Busy/Make Busy or DND, but will remain in a Work Timer state until the Work Timer expires or is cancelled. If Classification Codes are required for the queue and the Work Timer expires without a Classification Code being entered, a **Non-Compliant** Classification Code will be applied to the call..

The following procedure takes place in either an Agent State or Employee State monitor in Ignite (WEB).

To remove an employee from Work Timer

1. In the monitor, select the employee you want to remove from Work Timer.
2. Click **State** and select an alternate state.

NOTE: Select **Available** if you want to make them available to receive interactions.

Canceling the Reseize Timer for external hot desk agents

If an external hot desk user is unavailable and the ACD path attempts to deliver a call to them the ACD routing system will initiate the Reseize Timer, preventing further ACD call delivery attempts until the timer expires or is canceled by the agent or supervisor. Value settings for reseize timers are a minimum of four seconds, a default of 180 seconds, and a maximum of 60 minutes. These values are configured on the ACD routing system. When an agent is in the Reseize Timer state, the applicable real-time monitors in Contact Center Client display the Make Busy icon as well as text denoting the agent's current state as 'Reseize Timer'.

The following procedures take place in either an open Employee monitor or an open Agent monitor in Contact Center Client.

To cancel Reseize Timer for an employee's voice agent in an open Employee monitor

- Right-click the cell of an employee who is in Reseize Timer and click **Employee control > Cancel Reseize Timer**. Alternatively, select the employee cell in an open monitor and click **Cancel Reseize Timer** in the appropriate media section of the **Employee Control** tab in the Contact Center Client ribbon.

To cancel Reseize Timer for all employee voice agents in a monitor in an open Employee monitor

- Right-click the monitor and click **Monitor control > Cancel Reseize Timer**. Alternatively, select an empty cell in an open monitor and click **Cancel Reseize Timer** from the **Monitor Control** tab in the Contact Center Client ribbon.

To cancel Reseize Timer for an employee's voice agent in an open Agent monitor

- Right-click an agent who is in Reseize Timer and click **Agent control > Cancel Reseize Timer**. Alternatively, select the agent cell in an open monitor and click **Cancel Reseize Timer** in the appropriate media section of the **Agent Control** tab in the Contact Center Client ribbon.

To cancel all of the voice agents on a monitor in the Reseize Timer state in an open Agent monitor

- Right-click the monitor and click **Monitor control > Cancel Reseize Timer**. Alternatively, select an empty cell in an open monitor and click **Cancel Reseize Timer** from the **Monitor Control** tab in the Contact Center Client ribbon.

Extension Control

Using Interactive Contact Center and Contact Center Client, you can control extensions on the following monitors:

- Extension State by Position
- Extension Now

Extension Control gives you control over individual extensions. Monitor Control gives you control over all the extensions on a monitor. All of the extensions on the monitor are affected by the action you take. You can perform actions using either a right-click and select method within the monitor or by selecting an

extension or an empty cell (monitor control) and accessing the action menu in the Extension or Monitor Control tabs in the ribbon. (See the following figure.)

Figure 18.2: Extension State by Position – Extension Control tab

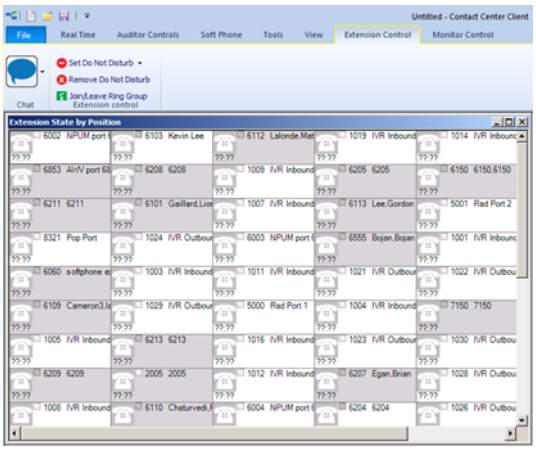
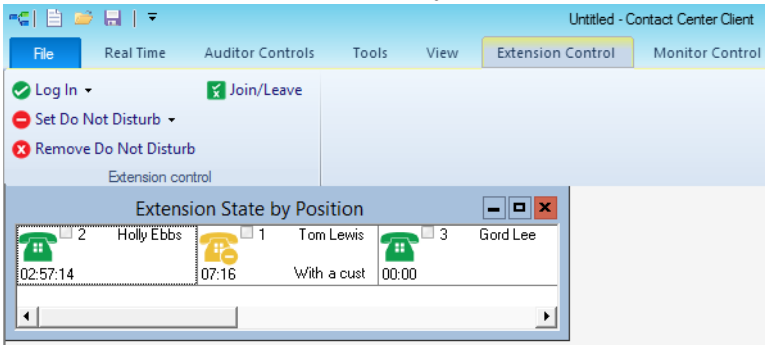


Figure 18.3: Extension State by Position – Extension Control tab



Ring Group presence

If you are licensed for Ring Groups, extensions can join and leave Ring Groups via Interactive Contact Center.

Extensions can be assigned to multiple Ring Groups. Within a Ring Group, an extension can be set to Present, enabling it to receive calls, or Absent, ensuring that calls are not offered to the extension. By default, extensions are set to Present. Supervisors can manually change the extension presence in Contact Center Client.

Joining and leaving Ring Groups

Interactive Contact Center can be used to control the presence of extensions in Ring Groups.

The following procedures take place in an open Extension monitor in Contact Center Client.

To join an extension to or remove an extension from a Ring Group

1. Right-click the cell of an extension and click **Extension control > Join/Leave**.
   Alternatively, select the cell of an extension and in the **Extension Control** tab of the **Contact Center Client** ribbon, click **Join/Leave**.

2. Select the Ring Group(s) to which you want the extension to join or deselect the Ring Group(s) to have the extension leave the Ring Group(s).
3. Click **OK**.

Placing an extension in Do Not Disturb

The following procedures take place in an open Extension monitor in Contact Center Client.

To place an extension in Do Not Disturb

- Right-click the cell of an extension and click **Extension control > Set Do Not Disturb > reason code**. Alternatively, select the Extension Control tab and select **Set Do Not Disturb > reason code**.

To place all extensions into Do Not Disturb in an open monitor

1. Right-click the cell of an extension and click **Monitor control > Set Do Not Disturb > reason code**. Alternatively, select the **Monitor Control** tab and select **Set Do Not Disturb > reason code**.
2. Click **Yes**.

Removing an extension from Do Not Disturb

The following procedures take place in an open Extension monitor in Contact Center Client.

To remove an extension from Do Not Disturb

- Right-click the cell of an extension in **Do Not Disturb** and click **Extension control > Remove Do Not Disturb**.
  Alternatively, select the **Extension Control** tab and select **Remove Do Not Disturb**.

To remove all extension from Do Not Disturb in an open monitor

- Right-click the cell of an extension and click **Monitor control > Remove Do Not Disturb**.
  Alternatively, select the **Extension Control** tab and select **Remove Do Not Disturb**.

Queue Control

You can manually place queues in or out of Do Not Disturb using the Queue Now monitor in Contact Center Client.

Queues can be automatically set to open and close or go in and out of Do Not Disturb using queue schedules and queue control plans. These are administrative settings. For more information see the *MiContact Center Business Installation and Administration Guide*.

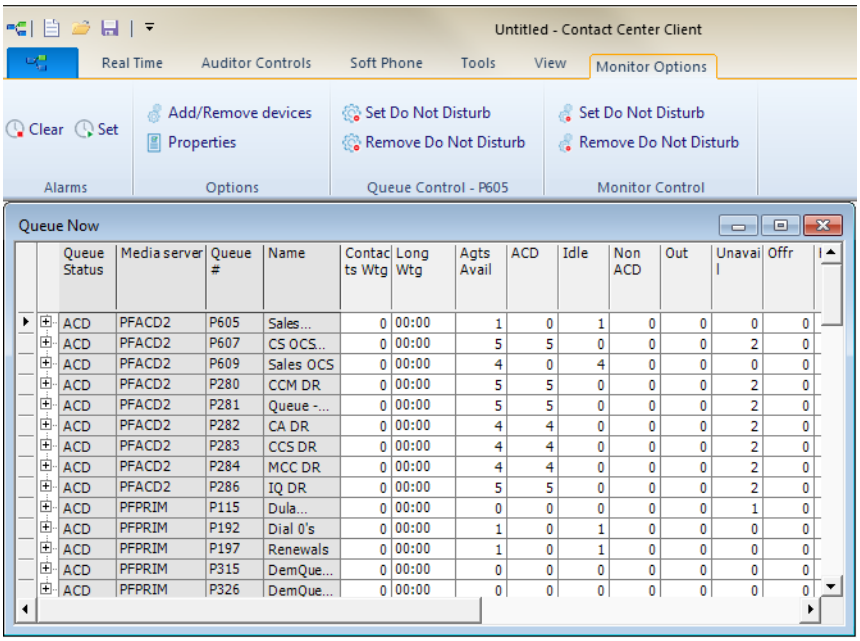
Manually controlling queues

Queue control enables you to control individual queues. Monitor control enables you to control all of the queues on a monitor.

The Monitor Options tab displays in the ribbon for the Queue Now monitor. You can perform actions using either a right-click and select method in the open monitor or by accessing the action menu in the Monitor Options ribbon. (See the following figure.)

NOTE: Manual queue control overrides administrative settings for queue schedules and queue control plans.

Figure 18.4: Queue Now monitor - Monitor Options tab



Placing queues in Do Not Disturb

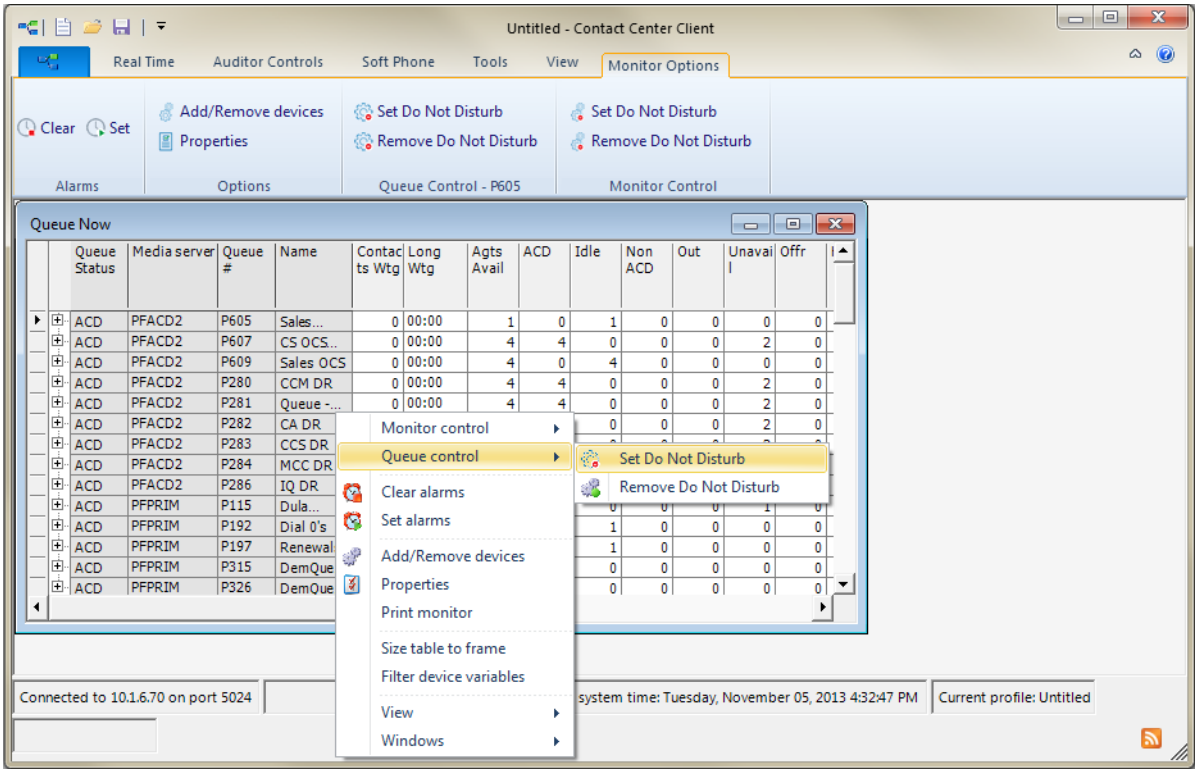
Using manual queue control, you can place queues in and remove queues from Do Not Disturb on the Queue Now monitor. A contact will not enter a queue that is in Do Not Disturb. Instead the contact is sent to an unavailable answer point if one is configured for the queue.

NOTE: Putting a Ring Group into Do Not Disturb removes the presence of all of its members.

To place a queue in Do Not Disturb

- Right-click the cell of an active queue and click **Queue control > Set Do Not Disturb**. Alternatively, select the queue in an open Queue Now monitor and click **Set Do Not Disturb** from the Monitor Option tab in the Contact Center Client ribbon.
  See the following figure.

Figure 18.5: Placing a queue in Do Not Disturb



To place all of the queues on a monitor in Do Not Disturb

- Right-click the monitor and click **Monitor control > Set Do Not Disturb**. Alternatively, select an open Queue Now monitor and click **Set Do Not Disturb** from the Monitor Option tab in the Contact Center Client ribbon.

Removing queues from Do Not Disturb

To remove a queue from Do Not Disturb

- Right-click the cell of a queue that is in Do Not Disturb and click **Queue control > Remove Do Not Disturb**. Alternatively, select the queue in an open Queue Now monitor and click **Remove Do Not Disturb** from the Monitor Option tab in the Contact Center Client ribbon.

To remove all of the queues on a monitor from Do Not Disturb

- Right-click the monitor and click **Monitor control > Remove Do Not Disturb**. Alternatively, select an open Queue Now monitor and click **Remove Do Not Disturb** from the Monitor Option tab in the Contact Center Client ribbon.

Interactive Visual Queue

Interactive Visual Queue is a Contact Center Client real-time monitor that enables supervisors to both monitor and control the content in contact center queues. With Interactive Visual Queue monitors open, supervisors can monitor the contents of queues and queue groups, easily move interactions between queues, assign interactions to agents, and proactively remove unwanted interactions from the queues.

Interactive Visual Queue includes a Queued media grid and an Abandoned media grid. In the Queued media grid, supervisors and agents can view calls within queues and then use a drag-and-drop operation to move calls from busy queues to less active queues. In the Abandoned media grid, supervisors can view abandoned call information, including the caller name, phone number, and time of the abandoned call. Agents can use the Abandoned media grid to call back abandoned callers.

Ring Groups are not supported with Interactive Visual Queue and any queue groups displayed in Interactive Visual Queue will not display calls in the Ring Group queues.

The following sections explain how to use Interactive Visual Queue to monitor call activity, redirect calls, manage abandoned calls, configure alarms, and view callback information. For information on using Interactive Visual Queue to manage multimedia interactions, see the *Multimedia Contact Center Installation and Deployment Guide*.

Accessing Interactive Visual Queue

You access Interactive Visual Queue by logging on to Contact Center Client and then opening the Real-time toolbar.

To open an Interactive Visual Queue monitor

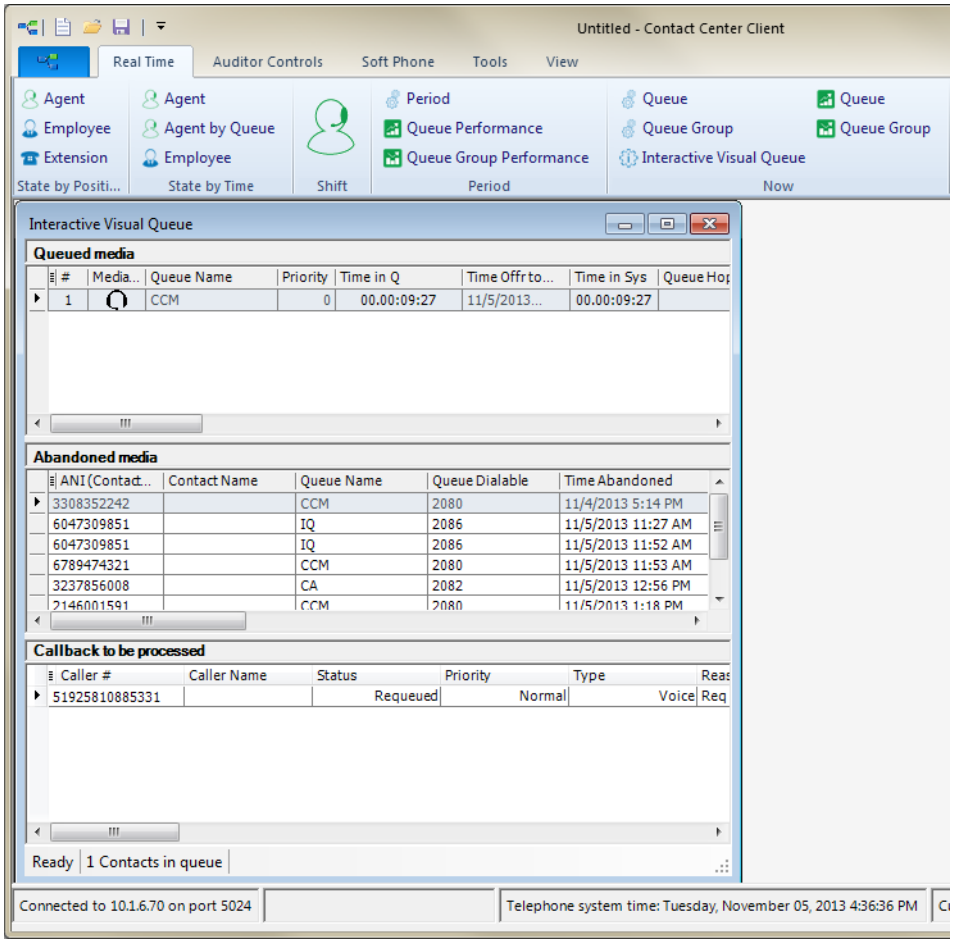
1. Log on to Contact Center Client.
2. In the Contact Center Client ribbon, click **Real time**.
3. Click **Interactive Visual Queue**.

   The Add/Remove device IDs window opens.
4. Select a queue from the Queues list and click **OK**.

   See the following figure.

   NOTE: Virtual queue groups are shown in the Queue groups list.

Figure 19.1: Interactive Visual Queue monitor



Interactive Visual Queue monitor grids

The Interactive Visual Queue monitor includes the Queued media grid and the Abandoned media grid. The Queued media grid lists the calls that are currently in the selected queues or queue groups. The Abandoned media grid lists abandoned calls. The calls are listed in order of priority and the columns can be sorted. You can configure the column headings and specify which columns are displayed. Depending on licensing, Interactive Visual Queue includes the Callback to be processed grid, which lists callbacks.

NOTE: The abandoned calls column in the Interactive Visual Queue monitor displays all abandoned calls except those abandoned while ringing an agentor extension. The abandoned column in the Queue Now monitor does not peg short abandons as abandoned calls, but does peg calls that are abandoned while ringing an agentor extension if they do not peg as a short abandon. Because of these differences, you may notice discrepancies between the abandoned call information in these two monitors.

The following list provides descriptions of the column headings available in the Queued media grid:

- *Position (#)* displays the answer position relative to other interactions in the queue
- *Media icon* displays the media type
- *Queue Name* is the name of the queue
- *Queue Dialable* displays:
  - Voice—the dialable number of the queue

  - Chat—Queue Auto Response User Name
  - Email—Email address of the queue
  - SMS--the dialable number of the queue

- *Priority* is the priority of the interaction in the queue (the lower the number, the higher the priority)
- *Time in Queue* is the interaction's total time in the current queue
- *Time Offered to System* is the time the interaction first entered the system
- *Time in System* is the interaction's total time in the system
- *Queue Hops* is the number of times an interaction has changed queues
- *ANI (Contact ID)* displays:
  - Voice—caller # / ANI
  - Chat—Chat email address from pre-chat form
  - Email—From email address
  - SMS—caller # / ANI
- *Subject* displays
  - Voice—blank
  - Chat—Chat subject from pre-chat form
  - Email—Email subject
  - SMS—blank
- *Is Callback* indicates if the queued media is a callback request (voice only)
- *Service level countdown* provides a countdown in seconds when the contact will exceed the target time to meet the service level
- *Contact Name* is the name associated with the contact (if available)
  - Voice—caller ID
  - Chat—Chat name from pre-chat form
  - Email—Email “From” name, if available
  - SMS—caller #
- *Time Offered to Queue* is the time the contact entered the current queue
- *DNIS (To Address)* displays
  - Voice—DNIS Number
  - Chat—blank
  - Email—receiver's email address
  - SMS—blank
- *To Name* displays
  - Voice—DNIS Name, if configured in YourSite Explorer for the associated DNIS number
  - Chat—blank
  - Email—Email “To” name, if available
  - SMS—blank
- *Collected Information* displays the single or series of collected results provided by IVR Routing. Collected information requires IVR Routing and, optionally, Remote Database Verification or CTI Developer Toolkit
- *Queue Reporting* is the queue’s reporting number

The following list provides descriptions of the column headings available in the Abandoned media grid:

- *ANI (Contact ID)* displays caller # / ANI
- *Contact Name* is the caller ID associated with the contact (if available)
- *Queue Name* is the name of the queue
- *Queue Dialable* displays the dialable number of the queue
- *Time Abandoned* is the time at which the contact abandoned the queue
- *Time Since Abandoned* is the elapsed time since the contact abandoned the queue
- *Last Callback Employee* is the employee name and employee ID associated with the most recent call-back attempt
- *Last Callback Time* is the time at which the most recent callback was attempted
- *Time Since Last Callback* is the elapsed time since the most recent callback attempt
- *Time Offered to Queue* is the time the contact entered the current queue
- *Time in Queue* is the contact's total time in the current queue
- *Time Offered to System* is the time the contact first entered the system
- *Time in System* is the contact's total time in the system
- *Queue Hops* is the number of times a contact has changed queues
- *Is Callback* indicates if the queued media is a callback request (voice only)
- *Service level countdown* provides a countdown in seconds when the interaction will exceed the target time to meet the service level
- *DNIS (To Address)* displays the DNIS number
- *To Name* displays the DNIS name, if configured in YourSite Explorer for the associated DNIS number
- *Subject* displays DNIS
- *Collected Information* displays the single or series of collected results provided by IVR Routing. Collected information requires IVR Routing, Verified Collected Digits and, optionally, Remote Database Verification or CTI Developer Toolkit
- *Queue Reporting* is the queue’s reporting number
- *Media icon* displays the media type

The following list provides descriptions of the column headings available in the Callback to be processed grid:

- *Caller #* displays the phone number provided by the contact
- *Caller Name* displays the contact’s name
- *Status* displays the state of the callback
  - New request
  - In progress
  - Requeued
  - Completed
  - Unknown
- *Priority* the importance level of the callback
  - Voice—Normal
  - Web—Normal
  - Abandoned—Low
- *Type* displays the type of callback

  - Voice
  - Web
  - Abandoned

- *Reason* displays the callback's reason for its current status
- *Attempted Calls to Agent* displays the number of times the agent attempted the callback
- *Last Time Agent Attempted* displays the last time the agent attempted the callback
- *Request Time* the specific time at which the callback is scheduled to be processed; this field is populated when the callback is requeued
- *Time Received* displays the specific time the caller submitted the callback request
- *Web IP Address* displays the IP address of the contact who submitted the callback request
- *Last Attempted Call To Client* displays the specific time the last callback attempt to the caller was made
- *Attempted Calls To Client* displays the number of times the callback was attempted
- *Client Available From* displays the earliest time the contact is available to receive the callback
- *Client Available To* displays the latest time the caller is available to receive the callback
- *ANI* displays the phone number of the caller
- *DNIS* displays the phone number the caller dialed
- *Dialable* displays the number of the device that will handle the callback
- *Device Name* displays the name of the device that will handle the callback
- *Device Type* displays the type of device that will handle the callback – extension,agent, or queue
- *Recorded* Message displays a hyperlink to the voice callback request .wav file left by the caller
- *Area* displays the state, province, or other area the call originated from
- *Country* displays the country the call originated from
- *Endpoint* displays the endpoint attempting to perform the callback
- *Region* displays the region the call originated from

Sorting contacts by columns

Monitor columns can be used to sort contacts in Interactive Visual Queue. You can only sort by one column in a grid at a time. By default, the Queued media grid is sorted by Position number. Sort preferences are preserved in your Contact Center Client profile.

To sort contacts by columns in the Interactive Visual Queue monitor

- Click on the column heading by which you want to sort.
  To reverse the sort order, click on the column again.

Redirecting calls

A call can move between queues automatically (interflow) or manually (redirection).

Interflow

You can configure queue settings on the telephone system to automatically move a call from one queue to another after a specific duration. For example, you can configure your system to move a call from Queue 1 to Queue 2 if the call has not been answered within 30 seconds. Interflow occurs without any user interaction.

Redirection

Using Interactive Visual Queue, you can manually redirect a call from a queue to another queue or a dialable number.

There are two ways a call can be removed from the system. If a call is moved more than 10 times, either by redirection or by interflow, the call is dropped from the system. You can see the current number of times a call has moved between queues in the Queue Hops column. A call will also be automatically removed from the system if its total time in the system exceeds 24 hours. The Total Time column lists the call's duration in the system.

You can manually redirect a call in the Queued media grid using the following methods:

- Drag and drop a call between queues
- Use the right-click menu to move a call between queues
- Use the right-click menu to send a call to a specific dialable number

You may notice that the first two methods perform the same action. However, the second method is convenient when queue monitor is maximized and you want to move a call without having to resize one or more monitors.

NOTE: If you right-click and redirect a call to a device other than a queue, the call will no longer be considered an ACD call for reporting purposes. If you redirect a call using either of the other two methods, the call remains an ACD call.

When you manually redirect (drag and drop) a call in Interactive Visual Queue, MiContact Center Business changes the way the call is pegged on the Queue Performance reports. If you redirect a call before the short abandon time set for the queue, the call is pegged as *Unavailable*. If you redirect a call after the short abandon time set for the queue, the call is pegged as *Interflowed*. An internal ACD call is pegged as *Abandoned* if the call is redirected at any time.

Redirecting calls between queues

To redirect a call from one queue to another queue using a drag-and-drop operation

1. In the Queued media grid, click anywhere in the row of the call you want to move.
2. Use a drag-and-drop operation to move the call from its original queue monitor to a new queue monitor.

To redirect a call from one queue to another queue using the menu

1. In the Queued media grid, right-click the row of the call you want to redirect and click **Send to**. A list of available queues appears.

   NOTE: You can select multiple rows to move multiple calls to a new queue.
2. Click the name of the queue to which you want to move the call.

Redirecting voice interactions to specific agents

You can transfer voice interactions in queue directly to agents who are available or in Make Busy/Overloaded states. Agents in Do Not Disturb cannot receive transferred interactions and will not appear in the list of available agents.

To redirect voice interactions to agents

1. In the Queued media grid, right-click the row of the interaction you want to redirect and click **Send to > Agent**.
   A list of available agents who can handle the voice interaction displays.
   NOTE: You can use the search button to locate a specific agent, either by name or reporting number.
2. Click the name of the agent to which you want to send the interaction.
3. Click **OK**.

Redirecting calls to specific numbers

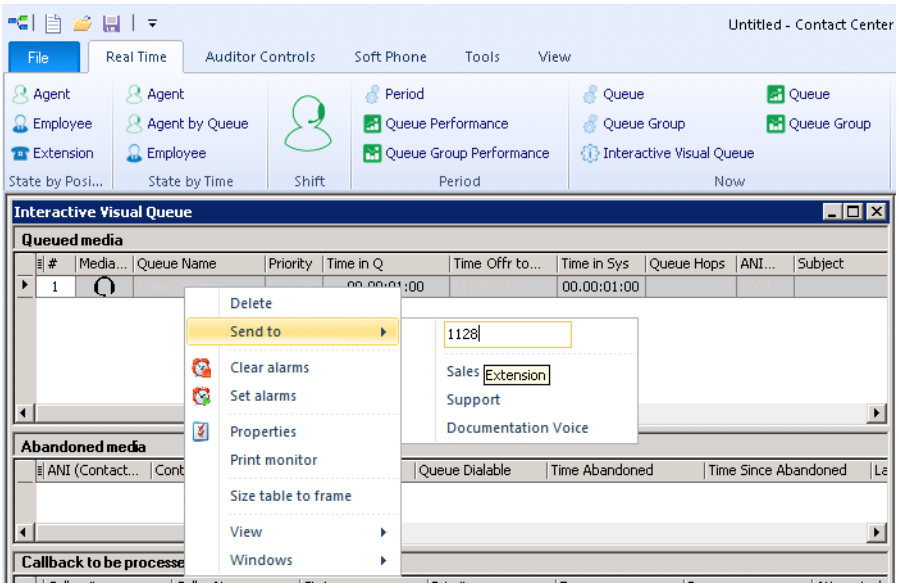
Using the Send to menu option, you can redirect calls in Interactive Visual Queue to any dialable number, including your own phone.

To redirect a call to a dialable number

1. In the Queued media grid, right-click the row of the call you want to redirect and click **Send to > [Extension]**.
   When you click [Extension], it changes to a text box.
2. Type a number in the text box and press **Enter**.

   See the following figure.
   NOTE: You cannot use the Extension option if you have multiple calls selected. Only one call can be sent to a dialable number at a time.

Figure 19.2: Redirecting a call to an extension



To redirect a call to your phone

1. In the Queued media grid, right-click the row of the call you want to redirect.
2. Click **Send to > Me**

   NOTE: This option is only available when you have Contact Center Softphone installed and configured on your computer.

Removing calls

To remove a call from Interactive Visual Queue

1. Right-click the row of the call you want to remove.
2. Click **Delete**.

   The call is removed from Interactive Visual Queue.

NOTE: Deleting a call from an Interactive Visual Queue monitor will not remove it from the actual queue. This will just cause Interactive Visual Queue to stop tracking the call.

Calling back abandoned callers

The Abandoned media grid displays abandoned call information and enables agents to call back abandoned callers.

NOTE:

- Abandoned call information is automatically deleted from the Abandoned media grid after 24 hours.
- Abandoned calls cannot be transferred to agents.

To call back an abandoned caller

1. Right-click the row of the abandoned call you want to call back, and select **Call** to automatically dial the abandoned caller.

   NOTE: Each time an agent attempts to call back an abandoned caller, their name and ID are attached to the call record and display in the Last callback employee column of the Abandoned media grid.
2. After you have contacted the abandoned caller, right-click the row associated with that call, and select **Delete** to remove the abandoned call record from the Abandoned media grid.

Configuring alarms

You set alarms on Interactive Visual Queue monitors similar to the way you set alarms on Contact Center Client monitors. The main difference is that some of the variables you can monitor, Caller Number, Caller Name, DNIS Number, DNIS Name, Collected Digits, and Collected Information, use a string for their value as opposed to a threshold boundary. For example, you can set an alarm that is triggered when a specific name appears in the Caller Name column.

The value you type for Caller Number or Caller Name alarms is a wildcard, which means the alarm will trigger if that value appears in any form. For example, if you configure a Caller Name alarm for the value *John*, the alarm will trigger for the values *John Smith*, *Johnathan*, *longjohn*, and so on.

To configure alarms:

1. Right-click an Interactive Visual Queue monitor and click **Set alarms**.
   The Set Alarms window appears.
2. Under **Performance variables**, select the variable you want to monitor.

   NOTE: You cannot set Alarm Thresholds for "Callback to be Processed" within the Interactive Visual Queue, but you can set them for "Queued Media" and "Abandoned Media".
3. Under **Alarm thresholds**, click Add value and select a boundary (or value) for the variable you selected as well as the alarm type(s) that will indicate when the variable exceeds those boundaries.

4. If you want to add further alarms for the variable, repeat step 3.
5. Click **OK** to save the alarms.

For more information on configuring monitor alarms, see *"Setting alarms"*.

Understanding call priority

Each queue has a default priority level. When a call enters the system for the first time, the call adopts the default priority of whichever queue it enters. If all calls in a queue have the same priority, the position of the calls are based on each call's total time in the current queue. If a queue contains calls that have multiple priority levels, higher priority calls will have a higher position in the queue than lower priority calls.

As long as a call remains in a queue, it maintains its priority. However, if a call moves from one queue to another queue, the call's priority may change, based on the method used to move the call.

When you redirect a call manually, the call always adopts the default priority level of the destination queue. For example, suppose Queue 1 has a priority of 1 and Queue 2 has a priority of 15. When a call first enters Queue 1, it has a priority of 1. However, if you manually move that call to Queue 2, using either a drag-and-drop operation or the right-click menu, the call priority lowers to 15. The rules work the same in reverse. If you manually move a priority 15 call from Queue 2 to Queue 1, the call priority increases to 1 when it enters Queue 1.

Calls interflowed automatically retain the original call priority, or adopt the priority of the new queue based on telephone system settings.

Viewing callback information in Interactive Visual Queue

When licensed for IVR, Interactive Visual Queue also provides the Callback to be processed grid, which displays all callbacks in the displayed queues in the Interactive Visual Queue monitor. Users can access the Callback to be processed grid to manage callbacks in queue. For more information, see *"Managing callbacks in Interactive Visual Queue callback monitors"*.

The following list provides descriptions of the column headings available in the Callback to be processed grid:

- *Caller #* displays the phone number provided by the contact
- *Caller Name* displays the contact's name
- *Status* displays the state of the callback
  - New request
  - In progress
  - Requeued
  - Completed
  - Unknown
- *Priority* the importance level of the callback.
  - Voice—Normal
  - Web—Normal
  - Abandoned—Low

- *Type* displays the type of callback
  - Voice
  - Web
  - Abandoned
- *Reason* displays the callback's reason for its current status
- *Attempted Calls to Agent* displays the number of times the agent attempted the callback
- *Last Time Agent Attempted* displays the last time the agent attempted the callback
- *Request time* displays the specific time at which the callback is scheduled to be processed; this field is populated when the callback is requeued
- *Time Received* displays the specific time the caller submitted the callback request
- *Web IP Address* displays the IP address of the contact who submitted the callback request.
- *Last Attempted Call To Client* displays the specific time the last callback attempt to the caller was made
- *Attempted Calls To Client* displays the number of times the callback was attempted
- *Client Available From* displays the earliest time the contact is available to receive the callback
- *Client Available To* displays the latest time the caller is available to receive the callback
- *ANI* displays the phone number of the caller
- *DNIS* displays the phone number the caller dialed
- *Dialable* displays the number of the device that will handle the callback
- *Device Name* displays the name of the device that will handle the callback
- *Device Type* displays the type of device that will handle the callback – extension,agent, or queue
- *Recorded Message* displays a hyperlink to the voice callback request .wav file left by the caller
- *Area* displays the state, province, or other area the call originated from
- *Country* displays the country the call originated from
- *Endpoint* displays the endpoint attempting to perform the callback
- *Region* displays the region the call originated from

Managing callbacks in Interactive Visual Queue callback monitors

Using Interactive Visual Queue's Callback to be processed grid, users can requeue, reject, and delete callbacks from monitors. Requeued callbacks are re-entered into their queue. Rejected callbacks are removed from the queue and will not be offered to employees. Deleted callbacks are removed from the current monitor, but are not removed from the system.

Users can also adjust a callback's priority. Callback priority determines the order of which callbacks will be offered to agents. Callbacks are offered to agents in order of their priority and then by the longest waiting callback of that priority. For example, High priority callbacks are offered before Normal priority callbacks, even if the Normal priority callbacks have been in queue longer.

The following procedures explain how to:

- Requeue a callback
- Reject a callback
- Delete a callback
- Change a callback's priority

To requeue a callback

1. Right-click a callback and select **Requeue**.
2. Select **Yes**.

To reject a callback

1. Right-click a callback and select **Reject**.
2. Select **Yes**.

To delete a callback

1. Right-click a callback and select **Delete**.
2. Select **Yes**.

To change a callback's priority

- Right-click a callback and select **Change priority > [priority level]**.

Contact Center Client

The Contact Center PhoneSet Manager and Contact Center Softphone applications are designed for provide employees with the 3300 ICP telephone system. They provide ACD agent functions and enable agents ability to use their desktop computers as IP-based phones. Contact Center PhoneSet Manager and Contact Center Softphone are designed for the 3300 ICP telephone system.

Using Contact Center PhoneSet Manager and Contact Center Softphone

Contact Center PhoneSet Manager and Contact Center Softphone enable agents to use their desktop computers as IP-based phones. Contact Center PhoneSet Manager automates Mitel IP phone sets from the computer desktop. An agent who uses Contact Center PhoneSet Manager has a headset connected to a desk phone. Contact Center Softphone provides complete phone set functionality from the computer desktop. A computer and wired or wireless USB headset deliver calls to the agent.

Starting Contact Center Client

NOTE: Launching client-side desktop applications from the task bar causes them to bypass the MiContact Center Updater Service process. To ensure successful updates from the Enterprise Server, after an upgrade close all client-side applications for 15 minutes or reopen them from the Start menu/Start screen.

You use Contact Center Client to access real-time monitors and functionality. Supervisors can view real-time voice, email, chat, SMS, and open media statistics. After starting Contact Center Client, supervisors can choose to minimize it to either the system tray or the taskbar.

To start Contact Center Client

1. Open **Contact Center Client**.
2. If prompted, type your **Username** and **Password** and verify the Enterprise Server IP address.
3. If you use Secure Socket Layer, select **SSL**.
4. Optionally, select **Remember my credentials**.
5. Click **Login**.

Setting up the soft phone

The functionality of Contact Center PhoneSet Manager and Contact Center Softphone is similar. For simplicity, we will use soft phone when referring to features and functionality common to both applications.

NOTE: Before you set up the soft phone on your client computer, ensure your network administrator has configured your soft phone as a 5020 IP phone on the telephone system.

To set up a client computer to use the soft phone

1. Consult your network administrator to confirm your soft phone extension number.
2. Ensure your headset is connected.

3. Configure sound and audio device properties.

   See *"Configuring sound and audio device properties"*.

NOTE: Contact Center Client's PhoneSet Manager function is not supported for use in conjunction with MiCollab SIP Softphone.

Configuring sound and audio device properties

To configure sound and audio device properties for Windows operating systems, you must set the PC speakers as the default audio device and adjust the volume of the PC speakers, headset speakers, and headset microphone.

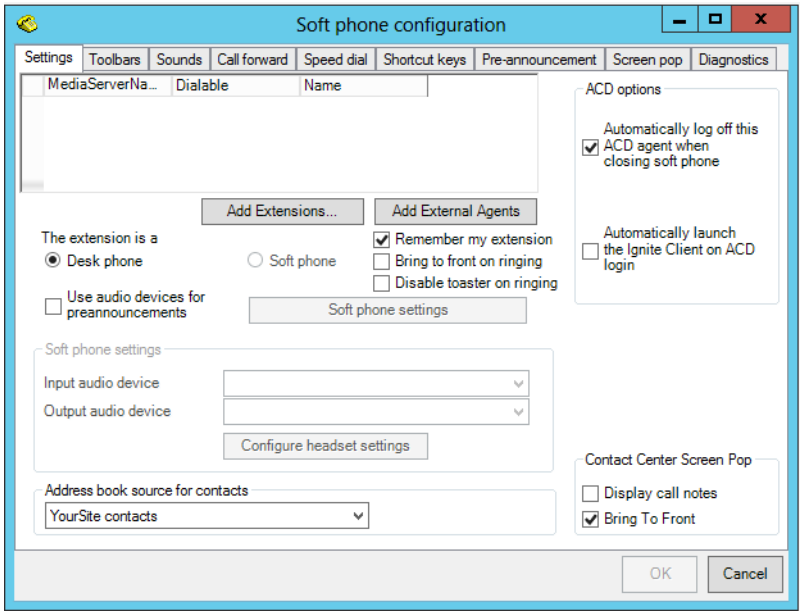
Opening the soft phone

To open the soft phone

1. In the **Contact Center Client** ribbon, click **Soft Phone**
2. Click the **Soft Phone** icon in the toolbar ribbon.

   The Soft phone configuration window opens.
   See the following figure.

Figure 20.1: Soft phone configuration window



3. Click **Add Extensions** to search and select from all internal standard extensions, hot desk extensions, and external hot desk user extensions.
4. Click **Add External Agents** to search and select from all external hot desk agent extensions.
5. Select your phone extension from the list of extensions.
6. If you have Contact Center PhoneSet Manager, click **Desk phone**. If you have Contact Center Softphone, click **Soft phone**.

7. If you want toTo log on automatically to the soft phone with your phone extension the next time you open the current profile, select the **Remember my extension** check box.

   You must save the current profile before you quit the soft phone for this option to work.
   If you are a hot desk user who participates in the use of PINs, the PIN login dialog box opens. If you are a hot desk user who does not participate in the use of PINs, go to step 10.

NOTE: When logging in as an External Hot Desking Agent or a hot desking user who is not set up to use a PIN login, if the PIN entry window displays, do not enter a PIN just click **Login**.

8. Type your **Login PIN**.

   If you want Contact Center Client to remember your Login PIN, select the Remember your credentials check box. This option is not available if your Contact Center Client profile is shared. Depending on their security role settings, employees may not be prompted to enter a PIN.

9. Click **Login**.

   NOTE: If the Login PIN you entered is invalid the login will fail and you will be asked to enter a valid Login PIN. If you exceed the configured number of failed login attempts, your PIN will lock and you will need to contact your System Administrator to reset your PIN.

10. If you want Contact Center Client to be the top-most window on ringing, select the **Bring to front on ringing** check box.

11. If you do not want the screen pop windows to display in Contact Center Client when calls are ringing on the desktop, select the **Disable toaster on ringing** check box.

12. If you selected Soft phone in step 6, under **Soft phone settings**, configure soft phone options.

    NOTE: For the relevant configuration information, contact your supervisor or system administrator.

13. After **Address book source for contacts**, select **YourSite contacts**.

    Contact Center PhoneSet Manager and Contact Center Softphone users can access YourSite database phone extensions or Global Address List phone numbers when they handle calls.

14. To automatically log off the agent from the telephone system when closing the soft phone, select the **Automatically log off this ACD agent when closing the soft phone** check box.

15. To automatically launch Ignite (DESKTOP) when logging into Contact Center Softphone or PhoneSet Manager, select the **Automatically launch the Ignite Client on ACD login** check box.

    NOTE: This option only applies to voice agents who use Ignite (DESKTOP) to handle multimedia interactions.

16. To synchronize online presence indicators with ACD agent states in real-time monitors, select the **Synchronize my Lync presence with myACD phone state** check box.

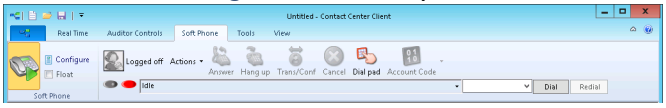
    When this option is selected an agent's state changes in sync with Skype for Business presence.

17. To display call notes in the soft phone and on the Call Notes monitor, select the **Display call notes** check box.

18. Click **OK**.

    The Contact Center Client window displays the Soft Phone, Phone and Functions toolbars. See the following figure.

Figure 20.2: Soft phone toolbars



19. If you want to be able to position the soft phone toolbar elsewhere on your desktop, enable the **Float** check box.
20. To move the soft phone toolbar, hover the mouse over the perforated line on the left-side of the toolbar until the four-headed arrow displays. Then click, drag, and drop it to the desired position on your desktop. To re-anchor the toolbar to the ribbon, drag and drop it into position under the ribbon.
21. If you want to modify the soft phone configuration, click the **Configuration** icon in the toolbar to reopen the Soft phone configuration window.

Changing soft phone IP addresses

If you are required to change the IP address for your soft phone, consult the following procedure:

1. In the **Contact Center Client ribbon**, click **Soft Phone**.
2. Click the **Soft Phone** icon in the toolbar ribbon.
3. In the **Soft phone configuration** window, click **Soft phone settings**.
4. After **Use IP address:** select the new IP address from the drop-down list and click **OK**.

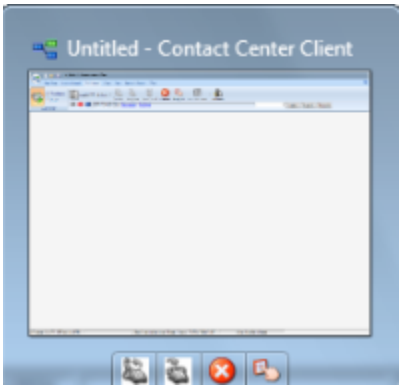
   NOTE: For information on what address to select, contact your supervisor or system administrator.
5. In the Soft Phone configuration window, under **'This extension is a'**, click **Desk phone** and then click **Soft phone**.

   NOTE: Clicking 'Desk phone' is required to unbind your soft phone from the previous IP address.
6. Click **OK**.
7. On the ribbon, click **Save**.

Thumbnail soft phone toolbar

The thumbnail soft phone toolbar enables agents to quickly perform soft phone actions when other applications are open on the desktop. The thumbnail toolbar gives agents access to Answer, Hang up, Cancel, and Dial functions and is particularly helpful when the Contact Center Client application is minimized and you want to perform a quick soft phone action. To see the toolbar options, hover over it with your mouse. (See the following figure.)

Figure 20.3: Thumbnail soft phone toolbar



NOTE:

- To enable the thumbnail soft phone toolbar, your Windows operating system must support Windows AERO functionality.
- Because of Windows limitations, this toolbar may not always display when Contact Center Client has focus on the desktop.

Logging on to the ACD

Agents can log on to the ACD in a number of ways, such as selecting the Superkey button in Contact Center Softphone, or using the agent control function in Interactive Contact Center.

We recommend that soft phone users who are hot desking agents log on to the ACD using the soft phone Actions menu. This enables the soft phone to identify agents.

NOTE: If you are an External Hot Desking Agent or a hot desking user who logged in internally, logged out, and then chose to log back in externally, you will not be able to log on with the soft phone Actions menu. In order to access this functionality, you must first close and reopen the soft phone toolbar.

To log a standard agent onto ACD

- On the soft phone Functions toolbar, click **Actions > Log on > Agents** and select an agent ID.

To log an external hot desking user onto ACD

- On the soft phone Functions toolbar, click **Actions > Log on > Hot Desking Users**.

To log an External Hot Desking Agent on to ACD

- On the soft phone Functions toolbar, click **Actions > Log on > Agent ID**.

NOTE: When a hot desk agent logs in to the ACD a user license is taken from the available licensing pool and when the agent logs out the license is released back to the licensing pool. Agents are notified upon login attempt if the number of concurrent logins exceeds the number of available user licenses. If there are no available user licenses the login attempt will fail.

Phone and Functions toolbars

The Phone toolbar displays your

- Extensions (gray oval buttons)
- Hold button (red oval button)
- Superkey button (blue oval button, for Contact Center Softphone only)
- Current phone state (Idle, Dialing, Talking)box with a down arrow that displays a call details window
- Dial box (field for dialing extensions or phone numbers)
- Dial button (Contact Center PhoneSet Manager only)
- Redial button (Contact Center Softphone only)
- Cancel button (Contact Center Softphone only)
- Message button (for retrieving voice mail messages, Contact Center Softphone only)

The Functions toolbar displays

- Your current ACD state (Logged On/Off, in Make Busy, in Do Not Disturb)
- The ACD actions currently available
- Telephony buttons

Phone functions

You can readily answer calls or forward them to extensions or phone numbers using the soft phone. You can select people from contact and speed dial lists, and perform the following actions: Redial (Contact Center Soft phone only), Transfer, Conference, Mute, Forward, Request help, Hold, Retrieve, Split, Swap, Camp on, Leave a message, Retrieve a message, Call me back, Hang up, and Cancel.

NOTE: External hot desk agents access the 'Answer' and 'Hang up' functions using their external device and not the soft phone toolbar.

The following table lists the soft phone telephony options and their corresponding meanings.

Table 20.1: Agent Extension actions (Sheet 1 of 3)

Icon		Meaning
	Account Code	tags a call with an Account Code
	Answer	answers a ringing call
	Auto answer	if enabled, answers a ringing call without you having to click Answer
	Call me back	notifies you as soon as the extension number you are trying to call is available
	Camp on	notifies an employee you are attempting to call with a series of audible beeps
	Cancel	terminates your connection to a caller
	Conference	connects three or more people together for an interaction
	Dial pad	enables you to dial a number using a keypad
	Forward	forwards a call to a phone number or extension
	Hang up	terminates a call

Table 20.1: Agent Extension actions (Continued) (Sheet 2 of 3)

Icon		Meaning
	Hold	places the current call on hold
	Leave a message	leaves a message waiting notification on an employee's extension
	Mute	if you have Contact Center Softphone, disables your microphone so you can consult privately with another employee while on a call
	Request help	calls an employee who can click Answer and listen to an in-progress call without the caller knowing
	Retrieve	picks up a call that is held or camped on to your extension
	Speed dial	enables you to make a call to a specified number with one mouse click
	Split	disconnects one person from a conference call
	Swap	swaps between the current and the held party
	Transfer	forwards an in-progress call to another answer point
	Transfer/Conference	places a caller on hold and makes a consultation call
	Volume	if you have Contact Center Softphone, adjusts the volume of your speakers and/or microphone

Table 20.1: Agent Extension actions (Continued) (Sheet 3 of 3)

Icon		Meaning
	Call Notes	enables you to view the notes associated with the current call and add notes. Call notes are supported for inbound calls only.

Customizing the soft phone

The following section describes how you can further customize your soft phone.

Selecting audio devices

To select audio devices

1. Click **Configure** next to the phone icon in the Soft Phone ribbon.
2. After **Input audio device**, select an audio device for your microphone.
3. After **Output audio device**, select an audio device for your speakers or headset.

   NOTE: You can configure the soft phone to use the “Default Communication Device” by selecting the option. When idle or during a call or while on hold, you can switch the audio device and the configured “Default Communication Device” temporarily changes to an available device, which is usually the “Default Audio Device”. After you switch back to the your audio device, it switches the “Default Communication Device” back to the configured device.
4. Click **OK**.

Specifying the address book source for contacts

To specify the address book the soft phone uses for contacts (the YourSite database.)

1. Right-click the Phone toolbar and click **Configure**.
2. After **Address book source for contacts**, select **YourSite contacts**.
3. Click **OK**.

Resizing toolbar buttons

To resize toolbar buttons

1. Right-click the Phone toolbar and click **Configure**.
2. Click the **Toolbars** tab.
3. After **Functions toolbar**, select a size for displaying the Functions toolbar buttons.
4. After **Phone toolbar**, select a size for displaying the Phone toolbar buttons.
5. Click **OK**.

Displaying, hiding, and retiring toolbar buttons

You can display telephony buttons, hide them so they appear on the Functions toolbar only when required, and retire them for actions you rarely perform, such as Camp on and Request help.

To display telephony buttons

1. Right-click the Phone toolbar and click **Configure**.
2. Click the **Toolbars** tab.
3. Under **Selected buttons**, select the check boxes of the telephony buttons you want to display.
4. Click **OK**.

To hide telephony buttons

1. Right-click the Phone toolbar and click **Configure**.
2. Click the **Toolbars** tab.
3. Under **Selected buttons**, clear the check boxes of the telephony buttons you want to hide from view.
4. Click **OK**.

To retire telephony buttons

1. Right-click the Phone toolbar and click **Configure**.
2. Click the **Toolbars** tab.
3. Under **Selected buttons**, select the telephony buttons you want to retire and click the left arrow to add these buttons to the Available buttons list.
4. Click **OK**.

To restore telephony buttons

1. Right-click the Phone toolbar and click **Configure**.
2. Click the **Toolbars** tab.
3. Under **Available buttons**, select the telephony buttons you want to restore and click the right arrow to add these buttons to the Selected buttons list.
4. Click **OK**.

Repositioning toolbar buttons

To specify the order in which telephony buttons appear

1. Right-click the Phone toolbar and click **Configure**.
2. Click the **Toolbars** tab.
3. Under **Selected buttons**, select a telephony button.
4. Click the up or down arrow to change the position of the button relative to other buttons on the Functions toolbar.
5. Click **OK**.

Configuring sounds and notifications

You can configure sounds for individual phone events for incoming calls, secondary incoming calls, and/or the digits dialed on your primary extension, or on all extensions. A primary incoming call is a call

you receive while you are in the idle active state and are available to take the call. A secondary incoming call is a call you receive while you are on a call on another extension and are not available to take the call.

Every time you receive a call a pop-up window notifies you the call has arrived. You can disable the pop-up notification.

To configure a sound for a phone event

1. Right-click the Phone toolbar and click **Configure**.
2. Click the **Sounds** tab.
3. Select the **Incoming calls**, **Secondary incoming calls**, and/or **Play sounds when dialing digits** check boxes.
4. After **Phone events**, select a phone event.
5. After **Sound file name**, click **Browse** and select a sound file.
6. If you want to play the sound file when the phone event occurs on any of your extensions, click Apply to all lines.
7. Click **OK**.

To disable the call arrival pop-up notification

1. Right-click the Phone toolbar and click **Configure**.
2. Click the **Sounds** tab.
3. Under **Phone events**, click a phone line.
4. Clear the **Display pop-up notification for incoming calls** check box.
5. Click **OK**.

Enabling and disabling Contact Center Screen Pop

Depending on administrative settings, Contact Center Screen Pop can launch applications or webpages when calls are received and enable agents to automatically receive caller and account information via pop-ups on their desktops for incoming calls.

When you enable or disable Contact Center Screen Pop, the settings you select determine Contact Center Screen Pop accessibility on a per-agent profile basis.

To enable or disable Contact Center Screen Pop

1. Click **Soft Phone > Configure**.
   The Soft phone configuration window opens.
2. Click the **Screen pop** tab.
3. To enable Contact Center Screen Pop, select the **Display Contact Center Screen Pop** check box.
4. To disable Contact Center Screen Pop, clear the **Display Contact Center Screen Pop** check box.
5. Click **OK**.

Making calls ring through your computer speakers

You can make calls ring through your computer speakers instead of your headset.

To make calls ring through your computer speakers

1. Right-click the Phone toolbar and click **Configure**.
2. Click the **Sounds** tab.
3. After **Play the rings sounds on** select the sound output device for your computer speakers.

Adjusting the volume of your speakers and microphone

If you have Contact Center Softphone, you can adjust the volume of your speakers and microphone.

To adjust the volume of your speakers

1. Right-click the Phone toolbar and click **Configure**.
2. Click the **Sounds** tab.
3. Adjust the volume by moving the speaker slider.

To adjust the volume of your microphone

1. Right-click the Phone toolbar and click **Configure**.
2. Click the **Sounds** tab.
3. Adjust the volume by moving the microphone slider.

Configuring call forward destinations

You can forward calls manually to pre-configured call forward destinations. In addition, you can configure and enable call forwarding so the telephone system forwards calls to other answer points when you are temporarily unavailable or away from the office. For example, you could specify all External call busy calls (external calls to your extension when you are unavailable) you receive be forwarded to a co-worker's extension. Rather than directing these calls to voice mail, the telephone system would forward these calls to your co-worker.

NOTE: MiContact Center Business and MiVoice Analytics Version 9.0 do not support Call Forward Always *from* Ring Groups. Call Forward Always *to* Ring Groups is supported.

To configure call forward destinations for calls you will forward manually

1. Right-click the Phone toolbar and click **Configure**.
2. Click the **Call forward** tab.
3. Under **Name**, type the name of the person to whom you will forward calls.
4. Under **Number**, type an extension or phone number (preceded by a number you dial to access an outside line).
5. Click **OK**.

To configure and enable call forward destinations for calls the telephone system will forward

NOTE: MiContact Center Business and MiVoice Analytics Version 9.0 do not support Call Forward Always *from* Ring Groups. Call Forward Always *to* Ring Groups is supported.

1. Right-click the Phone toolbar and click **Configure**.
2. Click the **Call forward** tab.
3. Specify the source for call forwarding.
4. Specify destinations for the following call types:

- All calls (all calls you receive)
- External call busy (external calls to your extension when you are unavailableon an extension inbound or extension outbound call)
- External call no answer (external calls to your extension that you do not answer)
- Internal call busy (internal calls to your extension when you are unavailableon an extension inbound or extension outbound call)
- Internal call no answer (internal calls to your extension that you do not answer)

5. To activate the call forwarding rules immediately, select the **Enabled** check boxes of the call forwarding types to be activated.
6. Click **OK**.

Configuring speed dial numbers

When you pre-configure speed dial numbers in Contact Center Softphone, these contacts are available in drop-down lists adjacent to the Speed dial, Trans/Conf, and Request help buttons on the Functions toolbar.

You can display a button for each speed dial number or display one button with a down arrow that lists all of the speed dial numbers you have configured. You can speed dial calls manually to pre-configured extensions and phone numbers.

To configure a speed dial number

1. Right-click the Phone toolbar and click **Configure**.
2. Click the **Speed dial** tab.
3. Under **Name**, type the name of the person to whom you will speed dial calls.
4. Under **Number**, type an extension or phone number (preceded by a number you dial to access an outside line).
5. Click **OK**.

Configuring shortcut keys

You can assign a shortcut key to a telephony function to perform it with a simple keystroke. This enables you to perform telephony functions while the soft phone is minimized or another application is currently selected.

To configure a shortcut key for a telephony function

1. Right-click the Phone toolbar and click **Configure**.
2. Click the **Shortcut keys** tab.
3. Under **Shortcut key**, select a telephony function.
4. Click the down arrow, select **Ctrl**, **Alt**, **Shift**, or **Win**, and select a keyboard number, letter, or function from the list.
5. Click **OK**.

Configuring pre-announcement messages

Agents who have Contact Center PhoneSet Manager or Contact Center Softphone can record introductions that are played to callers (for example, 'Hi. This is Paul Jones in Customer Support. Could you

please tell me your customer site key?') The introduction that is played is based on the queue the call arrives on and the time of day it is received. The recorded introduction provides customers with a consistent greeting and gives the agent extra time to retrieve customer information. You can stop pre-announcement messages at any time.

You can configure more than one pre-announcement rule. For each rule, you specify the conditions in which the soft phone will play a particular pre-announcement message. If one or more conditions is satisfied for a particular rule, the soft phone will play the associated pre-announcement message. You can order the rules on the Pre-announcement rules table to establish their priority. Pre-announcement rules are evaluated in the order shown in the table. If one pre-announcement rule is satisfied, the associated sound file is played and no other rules are evaluated.

To use pre-announcement messages with Contact Center PhoneSet Manager, you must have a Mitel ACD desk phone (for example, 5212) and a PCTI adaptor. The PCTI adaptor enables the audio being played from the agent PC and the audio from the agent desk phone to be mixed.

To connect a PCTI adapter to your computer for use with Contact Center PhoneSet Manager

1. Set the PCTI switch to **Both**.
2. Set the PCTI switch to **HeadSet**.
3. Plug the Mic/Audio cable of the headset into the appropriate Mic/Audio inputs on the PCTI adapter.
4. Unplug the handset from the deskphone and plug it into the handset plug on the PCTI adapter.
5. Plug the telephone input cable of the PCTI adapter into the telephone base.
6. Plug the computer input of the PCTI adapter into the appropriate Mic/Speaker inputs on the PC.

   NOTE: Ensure the headset is turned on, on the deskphone base.

To configure a pre-announcement rule for Contact Center PhoneSet Manager

1. Right-click the Phone toolbar and click **Configure**.
2. Under **This extension is a**, select **Desk phone**.
3. To use audio devices for pre-announcements, select **Use audio devices for pre-announcements** and specify the input and output audio device.
4. Click the **Pre-announcement** tab.
5. Click **Add rule**.

   The Add / Edit pre-announcement rule window opens.
6. Select the conditions that determine when the pre-announcement message will play.
7. Specify parameters for each condition.
8. Select or record a wave file to play when the above conditions are met.
9. Type a name for the pre-announcement rule.
10. If you want to hear ringing on your desk phone, select **Enable ringing sound in desk phone**.
11. Click **OK**.

To configure a pre-announcement rule for Contact Center Softphone

1. Right-click the Phone toolbar and click **Configure**.
2. Under **This extension is a**, select **Soft phone**.

3. Click the **Pre-announcement** tab.
4. Click **Add rule**.

   The Add / Edit pre-announcement rule window opens.
5. Select the conditions that determine when the pre-announcement message will play.
6. Specify parameters for each condition.
7. Select or record a wave file to play when the above conditions are met.
8. Type a name for the pre-announcement rule.
9. Click **OK**.

To re-order pre-announcement rules

1. Select a rule.
2. Click the up or down arrow to change the priority of the rule.
3. Click **OK**.

NOTE: You can alternately configure whisper announcements using agent workflows in IVR. See the *MiContact Center Business Installation and Administration Guide* for more information.

Making and terminating calls using Contact Center PhoneSet Manager

When you make calls, on the Functions toolbar you can readily select contacts you pre-configure in CCMWeb, or speed dial numbers you configure in Contact Center PhoneSet Manager. See *"Configuring speed dial numbers"* and *"Displaying, hiding, and retiring toolbar buttons"*.

You can dial any extension number or phone number. Contact Center PhoneSet Manager typically uses your primary extension to make calls. You can optionally select a different extension on the Phone toolbar to make calls.

Making calls

To dial by phone number or extension number using Contact Center PhoneSet Manager

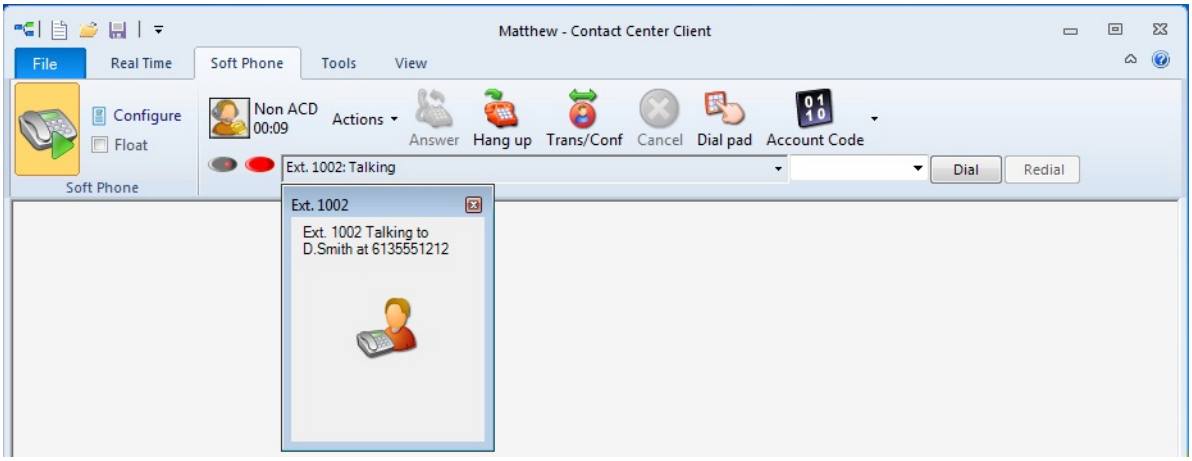
1. In the dial box, type an extension or phone number (preceded by a number you dial to access an outside line). Otherwise, click the down arrow adjacent to the dial box and type a number or extension on the dial pad.
2. Click **Dial**.
3. If you want To view the call details window, click the down arrow adjacent to the box that displays your current phone state.

   See the following figure.

To dial internally from a real-time monitor using Contact Center PhoneSet Manager

- From any real-time monitor, right-click an agent, employee, or extension cell and click **Call**.

Figure 20.4: Making a call



Making calls to your contacts

To make a call to an extension in your contact list

1. Click the arrow adjacent to the dial box and click the **Contacts** tab.
2. Select a contact in the list.
3. Click **Dial**.

Making calls using speed dial

To dial using speed dial

- Click **Speed dial** and select a name in the list.

Terminating calls

To terminate a call

- Click **Hang up**.

Forwarding and answering calls using Contact Center PhoneSet Manager

You can forward calls manually to pre-configured call forward destinations without having to speak to the caller first. In addition, you can configure and enable call forwarding so the telephone system forwards calls to other answer points when you are temporarily unavailable or away from the office. See *"Configuring call forward destinations"*.

If a call is ringing on your extension and you click the Forward button, the call will be forwarded to the default call forward destination configured in the telephone system. If you click the down arrow adjacent to the Forward button, you can select an extension or phone number for call forwarding.

Forwarding calls

When a call is ringing on your extension, to forward the call using Contact Center PhoneSet Manager

1. Click **Forward**.
2. In the dial box, type an extension or phone number (preceded by a number you dial to access an outside line). Otherwise, click the down arrow adjacent to the Forward button and select a contact.

3. Click **Dial**.

Answering calls

When an agent receives a call with Contact Center Softphone, detailed caller information is displayed on the desktop. (See the following figure.)Agents can choose to answer the call or forward it to another agent. Additionally, the display can provide access to call notes, which are notes an agent adds to the call before transferring it. See *"Adding call notes to a call"*.

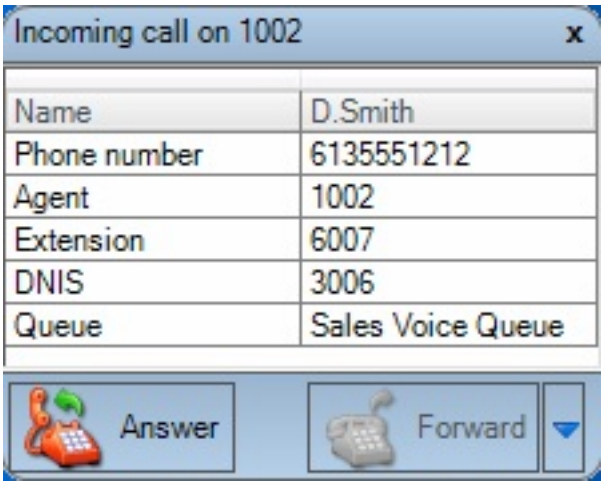
If configured and available the following information is provided in the soft phone display

- **Caller name**—name of the caller
- **ANI**—telephone number of the caller
- **DNIS**—telephone number the caller dials
- **DNIS name**—the name associated to the DNIS number in YourSite database
- **Agent ID**—agent who transferred the call
- **Extension**—extension from which the call was transferred
- **Queue**—queue from which the call originated
- **Collect Caller Entered Digits**—digits the caller enters for identification purposes, such as a customer site key
- **Customer Collected Information**—information collected from a third party OBDC database
- **Call notes**—notes added by an agent

  NOTE: Call notes are supported for inbound calls only.

You can answer calls by right-clicking the Contact Center Softphone system tray icon and selecting Answer, or by clicking the Answer toolbar button.

Figure 20.5: Contact Center Softphone display



To answer a call using Contact Center Softphone

- Click **Answer**.

Handling calls using Contact Center PhoneSet Manager

You can handle calls by right-clicking the Contact Center PhoneSet Manager system tray icon and selecting telephony functions, or by selecting telephony buttons on the Functions toolbar. The telephony

buttons available depend on the action you last performed. You can configure the toolbar buttons so they are always visible, or visible only when required. See *"Displaying, hiding, and retiring toolbar buttons"*.

When you pre-configure speed dial numbers in Contact Center PhoneSet Manager, these contacts are available in drop-down lists adjacent to the Speed dial, Trans/Conf, and Request help buttons on the Functions toolbar. See *"Configuring speed dial numbers"*.

Placing calls on hold

To place a call on hold

- Click **Hold** (red oval button).

Retrieving calls

You can retrieve a held call, or retrieve a call when a call is camped on to your extension.

When an agent is on a call and another caller camps on to their extension, the Retrieve button is enabled. When the agent presses the Retrieve button, they can talk to the held party. From that point on, the agent uses the Swap button to switch back and forth between the two callers (current and held parties).

To retrieve a call

- Click **Retrieve**.

Adding call notes to a call

When employees are speaking with customers, they can add notes to calls to share with other employees involved in the call. This ensures all employees have context on calls and know what information has been provided to customers upon call transfer.

When a call is being transferred to an employee, the soft phone display shows the most recent note associated with the call. When the employee answers the call, Contact Center Client appears on top of all other open applications and displays the Call Notes monitor. The monitor includes all of the call notes associated with the current call.

Employees can add notes each time a call is transferred, and employees on conference calls can add notes simultaneously. Each set of notes includes the employee's name and a date/time stamp. When an employee completes a call and answers a new call or closes the Call Notes monitor, all call note information is saved and included in the Lifecycle reports. Call notes are not preserved when a call is parked.

NOTE:

- Call notes are supported for inbound calls only.
- On the Soft phone configuration window, you can clear the Enable call notes check box to hide the Call Notes monitor and prevent call notes from being displayed. Optionally, you can enable the Bring to front check box to ensure call notes display on top of all other windows when calls are received.
- You must have Contact Center PhoneSet Manager or Contact Center Softphone open in order to view or add call notes.
- Time stamps are based on the 3300 ICP telephone system clock.

To add a call note

1. As a call is ringing on your extension, on the soft phone display click **Answer** to answer the call. Contact Center Client appears on top of all open applications and displays the Call Notes monitor.
2. After **Enter a new call note**, type a note.

   Call notes can include a maximum of 100 characters.

3. Click **Add**.

   The call note is added to the Call notes text box and is included in the soft phone display upon call transfer.

Transferring calls

You can perform a blind transfer or a supervised transfer.

To perform a blind transfer

1. While on a call, click **Trans/Conf**.
2. In the dial box, type an extension or phone number (preceded by a number you dial to access an outside line if required). Otherwise, click the down arrow adjacent to the Trans/Conf button and select a contact.
3. Click **Hang up**.

To perform a supervised transfer

1. While on a call, click **Trans/Conf**.
2. In the dial box, type an extension or phone number (preceded by a number you dial to access an outside line). Otherwise, click the down arrow adjacent to the Trans/Conf button and select a contact.

   The system places the caller on Hold.
3. Wait for the called party to answer. If you receive a busy signal or a voice mail greeting, click **Cancel** to return to the initial party. Otherwise, speak to the agent and identify the caller.
4. Click **Transfer** to transfer the call.

Conferencing calls

You can include up to eight people in a conference call. The following example illustrates a three-way conference call.

To set up a conference call

1. In the dial box, type an extension or phone number (preceded by a number you dial to access an outside line).
2. Click **Dial**.
3. After you speak with the person who answers, click **Trans/Conf** to add a person to an in-progress call.

   The system places the person on hold.
4. In the dial box, type an extension or phone number (preceded by a number you dial to access an outside line). Otherwise, click the down arrow adjacent to the Trans/Conf button and select a contact.
5. Click **Dial**.
6. Speak to the person who answers.
7. Click **Conference** to initiate a three-way conference call.

To split a conference call

1. Click **Split**.
   The last person you added to the conference call is placed on hold, and you can speak privately with the first person.

Consulting with people while on calls

To consult with a person while on a call

1. Click **Trans/Conf** to conference in the person.
   The system places the initial party on Hold.
2. In the dial box, type an extension or phone number (preceded by a number you dial to access an outside line). Otherwise, click the down arrow adjacent to the Trans/Conf button and select a contact.
3. Click **Dial**.
4. After you consult with the person, either click **Conference** to conference in the person, click **Cancel** to hang up on the person, click **Transfer** to transfer the call to the person, or click **Swap** to talk to the initial party.

Requesting help while on calls

To request help while on a call

1. Click **Request help**.
2. On the dial pad, type the extension number of the employee you want to call. Otherwise, click the down arrow adjacent to the Request help button and select a contact.
3. Click **Dial**.

   The system calls the employee. The employee can click Answer and listen in on the call without the caller knowing and can click Conference to join the interaction at any time.

Using Camp on

The Camp on feature is available when you make a call to an extension and receive a busy signal because the employee is already on a call. Camp on notifies the employee you are attempting to call with a series of audible beeps.

NOTE:

- Callers cannot camp on to your extension if you have call forwarding or voice mail configured on the extension.
- You cannot camp on to an extension that is in Make Busy or Do Not Disturb.

To camp on to an extension

1. In the dial box, type an extension number.
2. Click **Dial**.
3. If you receive a busy signal, click **Camp on**.

   The employee you called will hear a series of beeps and can click Retrieve to place the caller on hold and speak with you. After speaking with you, the employee can click Swap to return to the caller.

Leaving and retrieving messages

The Leave a message feature is available when you make a call to an extension that is idle or on a call. You must use the dial pad to type a number when you are retrieving a message.

To leave a message

1. In the dial box, type an extension number.
2. Click **Dial**.

3. If the employee does not answer, click **Leave a message**.

   The telephone system leaves a message waiting notification on the employee's extension and the Contact Center Client icon flashes red and white in the employee's system tray.

To retrieve a message

1. Click **Dial pad** and type the number configured in the telephone system for message retrieval.
2. Press **Enter**.

   The automated attendant will ask you for your password.
3. Type your password on the dial pad.
4. Follow the instructions provided by the automated attendant to retrieve the message.

NOTE: If agents leave Call me back messages you must use your physical phone set to retrieve the messages.

Using Call me back

The Call me back feature is available when you make a call to an extension that is idle or on a call. When you select the Call me back button, the telephone system monitors the called employee's other extension. When the employee's other extension returns to idle, your phone rings. If you pick up the call, the employee's phone will ring. If you do not pick up the call, the callback will expire.

To leave a callback message

1. In the dial box, type an extension number.
2. Click **Dial**.
3. If the employee does not answer, click **Call me back**.

   The telephone system monitors the called employee's extension. Your phone will rings when the called employee's other extension returns to the idle state.
4. When your phone rings, click **Answer** to pick up the call and speak with the employee.

Tagging calls with Account Codes

If your system is set up to use Account Codes, you can apply them during a call. Classification Codes are a type of Account Code, but differ in that you can apply them during or after a call. Classification Codes can only to be applied to ACD calls. If you are set up to use Account Codes, you are not necessarily also set up to use Classification Codes.

To tag an in-progress call with an Account Code or a Classification Code

- Click the down arrow adjacent to the **Account Code** button and select a traditional Account Code or a Classification Code.

After hanging up, while in Work Timer mode, you can tag calls with Classification Codes.

To tag a call, after hanging up, with a Classification Code

1. Click the down arrow adjacent to the **Account Code** button.
2. Select **After Call Classification** and select the appropriate Classification Code from the drop-down list.

Making and terminating calls using Contact Center PhoneSet Manager

When you make calls, on the Functions toolbar you can readily select contacts you pre-configure in CCMWeb, or speed dial numbers you configure in Contact Center PhoneSet Manager. See *"Configuring speed dial numbers"* and *"Displaying, hiding, and retiring toolbar buttons"*.

You can dial any extension number or phone number. Contact Center PhoneSet Manager typically uses your primary extension to make calls. You can optionally select a different extension on the Phone toolbar to make calls.

Making calls

To dial by phone number or extension number

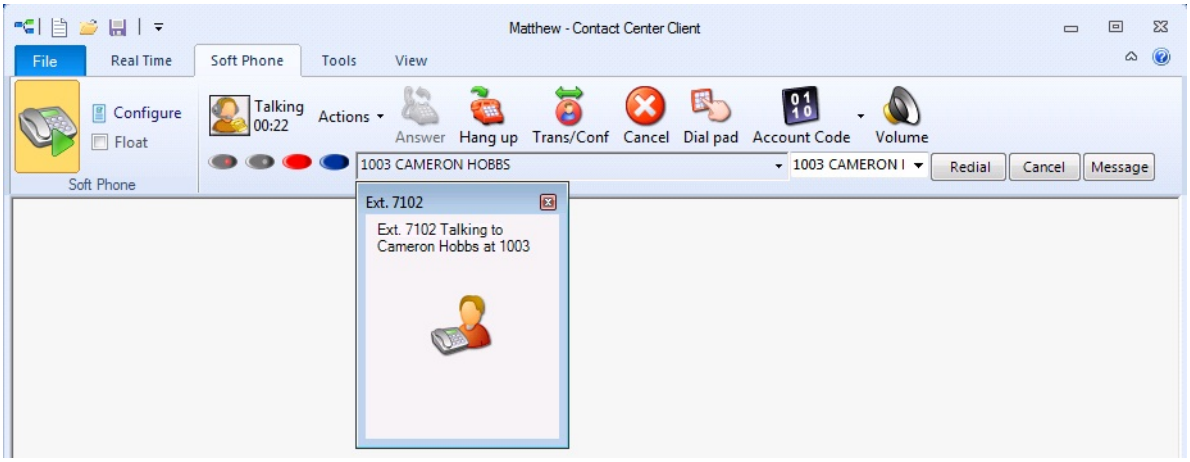
1. In the dial box, type an extension or phone number (preceded by a number you dial to access an outside line). Otherwise, click the down arrow adjacent to the dial box and type a number or extension on the dial pad.
2. If you want to view the call details window, click the down arrow adjacent to the box that displays your current phone state.

   See the following figure.

To dial internally from a real-time monitor

- From any real-time monitor, right-click an agent, employee, or extension cell and click **Call**.

Figure 20.6: Making a call



Making calls to your contacts

To make a call to an extension in your contact list

1. Click the arrow adjacent to the dial box and click the **Contacts** tab.
2. Double-click a contact in the list.

Making calls to contacts who have called you recently

To make a call to a contact who has called you recently

1. Click the arrow adjacent to the dial box and click the **Recent** tab.
2. Double-click a contact in the list.

Making calls using speed dial

To dial using speed dial

- Click **Speed dial** and select a name in the list.

Redialing numbers

To dial the contact who last called you

- Click **Speed dial** and select a name in the list.

Terminating calls

To terminate a call

- Click **Hang up**.
  Alternatively, on the Phone toolbar, click **Cancel**.

Forwarding and answering calls using Contact Center Softphone

You can forward calls manually to pre-configured call forward destinations without having to speak to the caller first. In addition, you can configure and enable call forwarding so the telephone system forwards calls to other answer points when you are temporarily unavailable or away from the officeinactive. See *"Configuring call forward destinations"*.

If a call is ringing on your extension and you click the Forward button, the call will be forwarded to the default call forward destination configured in the telephone system. If you click the down arrow adjacent to the Forward button, you can select an extension or phone number for call forwarding.

Forwarding calls

When a call is ringing on your extension, to forward the call

1. Click **Forward**.
2. In the dial box, type an extension or phone number (preceded by a number you dial to access an outside line). Otherwise, click the down arrow adjacent to the Forward button and select a contact.

Answering calls

When an agent receives a call with Contact Center Softphone, detailed caller information is displayed on the desktop. (See the following figure.)Agents can choose to answer the call or forward it to another agent. Additionally, the display can provide access to call notes, which are notes an agent adds to the call before transferring it. See *"Adding call notes to a call"*.

If configured and available the following information is provided in the soft phone display

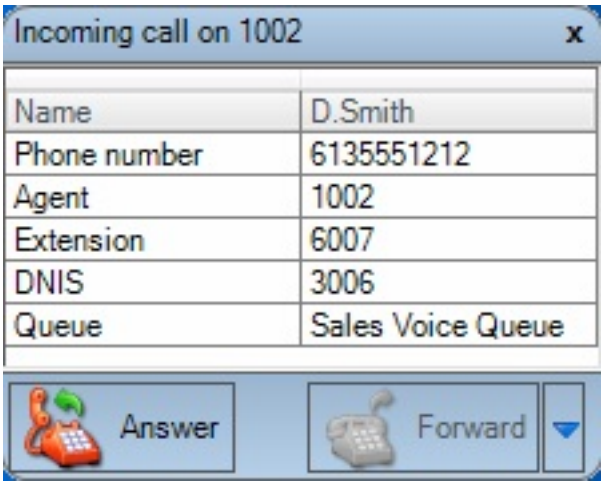
- **Caller name**—name of the caller
- **ANI**—telephone number of the caller
- **DNIS**—telephone number the caller dials
- **DNIS name**—the name associated to the DNIS number in YourSite database
- **Agent ID**—agent who transferred the call
- **Extension**—extension from which the call was transferred
- **Queue**—queue from which the call originated

- **Collect Caller Entered Digits**—digits the caller enters for identification purposes, such as a customer site key
- **Customer Collected Information**—information collected from a third party OBDC database
- **Call notes**—notes added by an agent

  NOTE: Call notes are supported for inbound calls only.

You can answer calls by right-clicking the Contact Center Softphone system tray icon and selecting Answer, or by clicking the Answer toolbar button.

Figure 20.7: Contact Center Softphone display



To answer a call using Contact Center Softphone

- Click **Answer**.

Handling calls using Contact Center Softphone

You can handle calls by right-clicking the Contact Center Softphone system tray icon and selecting telephony functions, or by selecting telephony buttons on the Functions toolbar. The telephony buttons available depend on the action you last performed. You can configure the toolbar buttons so they are always visible, or visible only when required. See *"Displaying, hiding, and retiring toolbar buttons"*.

When you pre-configure speed dial numbers in Contact Center Softphone, these contacts are available in drop-down lists adjacent to the Speed dial, Trans/Conf, and Request help buttons on the Functions toolbar. See *"Configuring speed dial numbers"*.

Placing calls on hold

To place a call on hold

- Click **Hold** (red oval button).

Retrieving calls

You can retrieve a held call, or retrieve a call when a call is camped on to your extension.

When an agent is on a call and another caller camps on to their extension, the Retrieve button is enabled. When the agent presses the Retrieve button, they can talk to the held party. From that point on, the agent uses the Swap button to switch back and forth between the two callers (current and held parties).

To retrieve a call

- Click **Retrieve**.

Using Mute

To use Mute

1. Click **Mute**.
   The system disables your microphone so you can consult privately with another employee.
2. To restore your microphone, click **Resume**.

Transferring calls

You can perform a blind transfer or a supervised transfer.

To perform a blind transfer

1. While on a call, click **Trans/Conf**.
2. In the dial box, type an extension or phone number (preceded by a number you dial to access an outside line if required). Otherwise, click the down arrow adjacent to the Trans/Conf button and select a contact.
3. Click **Hang up**.

To perform a supervised transfer

1. While on a call, click **Trans/Conf**.
2. In the dial box, type an extension or phone number (preceded by a number you dial to access an outside line). Otherwise, click the down arrow adjacent to the Trans/Conf button and select a contact.

   The system places the caller on Hold.
3. Wait for the called party to answer. If you receive a busy signal or a voice mail greeting, click **Cancel** to return to the initial party. Otherwise, speak to the agent and identify the caller.
4. Click **Transfer** to transfer the call.

Conferencing calls

You can include up to eight people in a conference call. The following example illustrates a three-way conference call.

To set up a conference call

1. In the dial box, type an extension or phone number (preceded by a number you dial to access an outside line).
2. Click **Dial**.
3. After you speak with the person who answers, click **Trans/Conf** to add a person to an in-progress call.

   The system places the person on hold.
4. In the dial box, type an extension or phone number (preceded by a number you dial to access an outside line). Otherwise, click the down arrow adjacent to the Trans/Conf button and select a contact.
5. Click **Dial**.
6. Speak to the person who answers.
7. Click **Conference** to initiate a three-way conference call.

To split a conference call

1. Click **Split**.
   The last person you added to the conference call is placed on hold, and you can speak privately with the first person.

Consulting with people while on calls

To consult with a person while on a call

1. Click **Trans/Conf** to conference in the person.
   The system places the initial party on Hold.
2. In the dial box, type an extension or phone number (preceded by a number you dial to access an outside line). Otherwise, click the down arrow adjacent to the Trans/Conf button and select a contact.
3. Click **Dial**.
4. After you consult with the person, either click **Conference** to conference in the person, click **Cancel** to hang up on the person, click **Transfer** to transfer the call to the person, or click **Swap** to talk to the initial party.

Requesting help while on calls

To request help while on a call

1. Click **Request help**.
2. On the dial pad, type the extension number of the employee you want to call. Otherwise, click the down arrow adjacent to the Request help button and select a contact.
3. Click **Dial**.

   The system calls the employee. The employee can click Answer and listen in on the call without the caller knowing and can click Conference to join the interaction at any time.

Using Camp on

The Camp on feature is available when you make a call to an extension and receive a busy signal because the employee is already on a call. Camp on notifies the employee you are attempting to call with a series of audible beeps.

NOTE:

- Callers cannot camp on to your extension if you have call forwarding or voice mail configured on the extension.
- You cannot camp on to an extension that is in Make Busy or Do Not Disturb.

To camp on to an extension

1. In the dial box, type an extension number.
2. Click **Dial**.
3. If you receive a busy signal, click **Camp on**.

   The employee you called will hear a series of beeps and can click Retrieve to place the caller on hold and speak with you. After speaking with you, the employee can click Swap to return to the caller.

Leaving and retrieving messages

The Leave a message feature is available when you make a call to an extension that is idle or on a call. You must use the dial pad to type a number when you are retrieving a message.

To leave a message

1. In the dial box, type an extension number.
2. Click **Dial**.
3. If the employee does not answer, click **Leave a message**.

   The telephone system leaves a message waiting notification on the employee's extension and the Contact Center Client icon flashes red and white in the employee's system tray.

To retrieve a message

1. Click **Dial pad** and type the number configured in the telephone system for message retrieval.
2. Press **Enter**.

   The automated attendant will ask you for your password.
3. Type your password on the dial pad.
4. Follow the instructions provided by the automated attendant to retrieve the message.

NOTE: If agents leave Call me back messages you must use your physical phone set to retrieve the messages.

Using Call me back

The Call me back feature is available when you make a call to an extension that is idle or on a call. When you select the Call me back button, the telephone system monitors the called employee's other extension. When the employee's other extension returns to idle, your phone rings. If you pick up the call, the employee's phone will ring. If you do not pick up the call, the callback will expire.

To leave a callback message

1. In the dial box, type an extension number.
2. Click **Dial**.
3. If the employee does not answer, click **Call me back**.

   The telephone system monitors the called employee's extension. Your phone will rings when the called employee's other extension returns to the idle state.
4. When your phone rings, click **Answer** to pick up the call and speak with the employee.

Tagging calls with Account Codes

If your system is set up to use Account Codes, you can apply them during a call. Classification Codes are a type of Account Code, but differ in that you can apply them during or after a call. Classification Codes can only to be applied to ACD calls. If you are set up to use Account Codes, you are not necessarily also set up to use Classification Codes.

To tag an in-progress call with an Account Code or a Classification Code

- Click the down arrow adjacent to the **Account Code** button and select a traditional Account Code or a Classification Code.

After hanging up, while in Work Timer mode, you can tag calls with Classification Codes.

To tag a call, after hanging up, with a Classification Code

1. Click the down arrow adjacent to the **Account Code** button.
2. Select **After Call Classification** and select the appropriate Classification Code from the drop-down list.

Controlling your availability

You can log yourself on or off, cancel Work Timer, cancel Reseize Timer, and place yourself in or remove yourself from Make Busy with reason or Do Not Disturb with reason using the soft phone.

To log on to the ACD

- Click **Actions > Log on** and select an agent ID.

To log off of the ACD

- Click **Actions > Log off**.

To set Make Busy with reason

- Click **Actions > Set Make Busy** and select a Make Busy Reason Code.

To remove Make Busy with reason

- Click **Actions > Remove Make Busy**.

To set Do Not Disturb with reason

- Click **Actions > Set Do Not Disturb** and select a Do Not Disturb Reason Code.

To remove Do Not Disturb

- Click **Actions > Remove Do Not Disturb**.

To cancel Work Timer

- Click **Actions > Cancel Work Timer**.

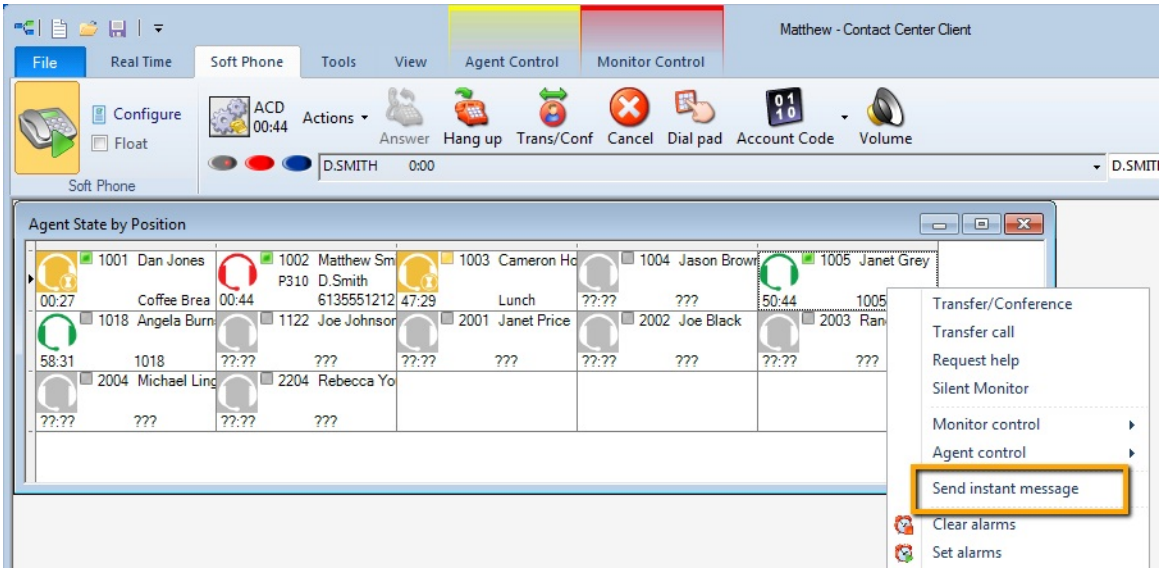
To cancel Reseize Timer

- Click **Actions > Cancel Reseize Timer**.

Making and handling calls using Contact Center Client

You can open an agent, employee or extension monitor, or the Queue Now monitor and either right-click an agent and select telephony functions or access telephony functions by selecting an agent and accessing the options in the Contact Center Client ribbon. For example, when you are on a call you can consult with an idle employee by right-clicking the employee's cell and clicking Transfer/Conference, or by sending the employee an instant message. (See the following figure.)

Figure 20.8: Consulting with a person while on call



Making calls

To call an agent using Contact Center Client

- Right-click the cell of an idle agent and click **Call**.

Alternatively:

1. Select an idle agent in an open monitor.
2. Click the **Softphone** button under the Extension Control tab in the Contact Center Client **Real Time** ribbon.
3. Choose the **Call** menu item.

Forwarding calls

If a call is ringing on your extension, to forward the call using Contact Center Client

- Right-click the cell of an idle agent and click **Forward**.

Answering calls

If a call is ringing on another agent's extension, to pick up the call using Contact Center Client

- Right-click the cell of the agent and click **Pick up**.

Adding call notes

When agents are speaking with customers, they can add notes to calls to share with other contact centeremployees involved in the call. This ensures agents and supervisors have context on calls and know what information has been provided to customers upon call transfer. If the call is transferred, call notes are preserved. Call notes are not preserved when calls are parked. See "Adding call notes to a call".

NOTE:

- Before adding call notes, ensure the 'Display call notes' option is enabled in the Softphone configuration window. This option is disabled by default.
- Call notes are supported for inbound calls only.

To add a call note

1. As a call is ringing on your extension, on the soft phone display click **Answer** to answer the call. Contact Center Client appears on top of all open applications and displays the Call Notes monitor.
2. After **Enter a new call note**, type a note.

   Call notes can include a maximum of 100 characters.
3. Click **Add**.

   The call note is added to the Call notes text box and is included in the soft phone display upon call transfer.

Recording calls

There are occasions when a user wants to temporarily stop recording a call for confidentiality reasons, or, if the call is not currently being recorded, the user may want to start recording if the interaction becomes hostile or sensitive in nature and a call record may be required. On the Agent State by Time, Agent State by Position, Agent State by Queue by Time, and Extension Now monitors, the Call recording option enables you to start, stop, and restart call recording at any time during a call, using MiVoice Call Recording functionality. Requirements for this on-demand call recording feature are Contact Center PhoneSet Manager or Contact Center Softphone, and the MiVoice Call Recording Connector .

To record a call

- Right-click the associated cell of an agent or extension and select **Call Recording > Start Recording**.

To stop recording a call

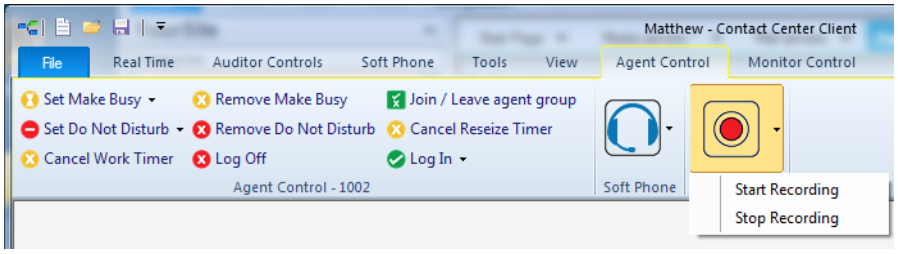
- To stop recording, right-click the cell and select **Call Recording > Stop Recording**.

Alternatively:

1. Select the cell of an agent or extension in a monitor whose call you want to record.
2. In the Contact Center Client **Real Time** ribbon, under the **Agent Control** tab, select **Start Recording** from the drop-down list in the **Call Recording** column.
3. To stop recording, select **Stop Recording** from the drop-down list in the **Call Recording** column.

   See the following figure.

Figure 20.9: Call recording



Silent monitoring calls

Silent monitoring is the process of listening to the voice interactions of internal or external calls between agents orextensions and callers. Silent monitoring enables you to track call handling techniques and determine where improvements can be made in individual performance. If required, supervisors can conference into the call they are silently monitoring to talk to the customer. For more information, see

"Conferencing calls" for Contact Center Softphone or see *"Conferencing calls"* for Contact Center PhoneSet Manager.

Silent monitoring is a MiVoice Business feature leveraged by MiContact Center Business. With MiVoice Business 7.0+, supervisors can select an agent or extension for silent monitoring at any time, but the monitoring does not begin until the agent or extension answers or makes a call. The monitoring is maintained so long as the agent or extension remains on the call. The supervisor hears everything the agent hears during the course of the call, including conferences and voicemail. If the agent moves to a call on another line, silent monitoring will follow the agent over to that line. Up to six supervisors can silently monitor an agent or extension. MiVoice Business 7.0+ also enables supervisors to coach agents on call. For more information, see *"Coaching agents on call with customers"*.

Silent Monitor can be accessed through Contact Center Client or, if programmed on your 3300 media server, through entering a Feature Access Code (FAC) on your phone or in MiCollab Client. For more information about silent monitor and its features and enhancements, consult your Mitel Mi Voice Business documentation.

NOTE:

- The monitoring extension and the extension being monitored must coexist on the same telephone system.
- The monitoring extension must be permitted by security role to interactively control other agents.
- The monitoring extension's soft phone toolbar must be open.

The following procedures explain how to

- Silently monitor a call using Contact Center Client
- Silently monitor a call using Contact Center Client and a Feature Access Code

The following procedures take place in an open real-time agent or extension monitor

To silently monitor a call using Contact Center Client

- Right-click the cell of an agent or extension and select **Silent Monitor**.

Alternatively:

1. Select the cell of an agent or extension in a monitor whose call you want to silent monitor.
2. In the Contact Center Client **Real Time** ribbon, under the**Agent Control** or **Extension Control** tab, click the **Softphone** button and click **Silent Monitor**.

   NOTE: If the telephone system settings are incorrect or the monitoring extension and the extension being monitored are on separate telephone systems, you will be unable to Silent monitor and will instead see 'Not Allowed' when you right-click the cell. If the extension you want to monitor is not currently on a call, you will see 'Waiting' when you right-click the cell.

To silently monitor a call using Contact Center Client and a Feature Access Code

1. In the dial box, type the **Feature Access Code** followed by the agent or extension number.
2. Click **Dial**.

Coaching agents and extensions on a call with customers

Supervisors can communicate with agents or extensions they are silently monitoring while they are on a call with a customer through Whisper Coach. Whisper Coach is a feature of silent monitor, enabling supervisors monitoring agents extensions to talk to the agent extension and coach them through their call, without letting the customer hear what the supervisor is saying. Supervisors can also coach agents extensions who are not actively handling a call. If required, supervisors can conference into an active call while

coaching to talk to the customer. For more information, see *"Conferencing calls"* for Contact Center Softphone or see *"Conferencing calls"* for Contact Center PhoneSet Manager.

Once a supervisor starts silent monitoring an agent, they have the option of toggling coaching on and off through their IP hardset or the Contact Center Softphone toolbar. Whisper Coach is not automatically disabled when the agent completes the call or switches to a different call. If the supervisor does not stop coaching, the Whisper Coach feature automatically activates the next time the agent makes or answers a call. Only one supervisor can whisper coach an agent at a time. A supervisor can also whisper coach another supervisor, including supervisors actively whisper coaching an agent. If a supervisor whisper coaches another supervisor who is coaching an agent, the supervisor will hear the coached supervisor and the agent, but only the coached supervisor will hear you.

For more information on Whisper Coach, consult your Mitel documentation.

The following procedures explain how to

- Whisper to an agent or extension that you are silent monitoring with Contact Center PhoneSet Manager
- Stop whispering to an agent or extension that you are silent monitoring with Contact Center PhoneSet Manager
- Whisper to an agent or extension that you are silent monitoring with Contact Center Softphone
- Stop whispering to an agent or extension that you are silent monitoring with Contact Center Softphone

To whisper to an agent or extension that you are silent monitoring with Contact Center PhoneSet Manager

- On your hardset, press **Coach On**.

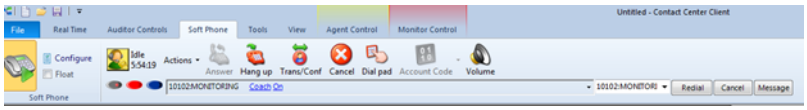
To stop whispering to an agent or extension that you are silent monitoring with Contact Center PhoneSet Manager

- On your hardset, press **Coach Off**.

To whisper to an agent or extension that you are silent monitoring with Contact Center Softphone

- In the **Softphone** toolbar, click **Coach On**.
  See the following figure.

Figure 20.10: Softphone coach on



To stop whispering to an agent or extension that you are silent monitoring with Contact Center Softphone

- In the **Softphone** toolbar, click **Coach Off**.

Transferring calls

To perform a blind transfer using Contact Center Client

- While on a call, right-click the cell of an idle agent active extension and click **Transfer call**.

Alternatively:

1. Select the cell of an idle agent in a monitor.
2. In the Contact Center Client **Real Time** ribbon, under the **Agent Control** tab, click the **Softphone** button and click **Transfer call**.

Consulting with employees while on calls

To consult with an employee while on a call using Contact Center Client

1. Right-click the cell of an idle agent and click **Transfer/Conference**.
   The system places the initial party on hold.
2. In the dial box, type an extension or phone number. Otherwise, click the down arrow adjacent to the Transfer/Conference button and select a contact.
3. Click **Dial**.
4. After you consult with the employee, either click **Conference** to conference in that person, click **Transfer** to transfer the call to the employee, click **Swap** to talk to the other party, or click **Cancel** to end the consultation call.

Requesting help while on calls

To request help while on a call using Contact Center Client

- Right-click the cell of an idle agent and click **Request help**.
  The system calls the employee. The employee can click Answer in the soft phone and listen in on the call without the caller knowing. The employee can click Conference in the soft phone to join the interaction at any time.

MiCollab and Ignite integration (DESKTOP)

NOTE: The MiCollab and Ignite integration described in this section only applies to Ignite (DESKTOP). Ignite (WEB) integrates with MiCollab for inbound and outbound call handling and supports supervised transfers and conferences from MiCollab Client. Users requiring the full range of MiCollab and Ignite integration features are recommended to use Desktop Ignite.

Ignite is a flexible, intuitive, and efficient tool for handling email, chat, and SMS interactions and for performing basic call handling. Ignite enables agents to handle multiple interactions simultaneously, see the agent groups of which they are members, receive screen pop notifications of incoming interactions, set Account Codes and Classification Codes, view personal performance statistics and those of the queues and queue groups for which they answer, affect personal state indicators, and be advised of the presence of other agents in their agent group(s).

In this integration, Ignite can be used for basic call handling. (See *"Handling calls in Ignite"*.) More sophisticated scenarios, such as supervised transfers and conferencing, require iCollab Client.Depending upon your gateway, you can deploy and integrate iCollab with Ignite. In this integration, Ignite can be used for call handling, but more sophisticated scenarios, such as Supervised Transfer or Conferencing, MiCollab Client is recommended. For instructions related to the voice handling abilities of the iCollab Client application, refer to the MiCollab Client documentation available on Mitel Online or via the Webhelp within the iCollab Client. For information on which gateways support iCollab , see the MiContact Center Business System Engineering Guide .

The MiCollab Client and Ignite integration offers Enterprise presence (Non ACD) and extended ACD presence indicators, informing co-workers of your real-time availability.

Contact Center Client is used as a supervisory tool in this integration, enabling real-time monitoring and alarming, forecasting, data mining, agent and ACD queue control, abandoned caller callbacks, and efficient call handling by moving items from busy to less active queues.

NOTE: MiCollab cannot initiate Silent Monitor or Whisper Coach. For this feature supervisors require either PhoneSet Manager, Contact Center Softphone, or a hard set Contact Center Client.

This chapter describes voice handling using Ignite and MiCollab Client. For information regarding handling email, chat, SMS, and open media interactions using Ignite, see the *Multimedia Contact Center Installation and Deployment Guide "Ignite"*.

For installation and configuration details, see the MiContact Center Business Installation and Administration Guide.

MiCollab and Ignite integration (WEB)

The MiCollab and Ignite integration described in this section only applies to Ignite (WEB). Ignite (WEB) integrates with MiCollab for inbound and outbound call handling and supports supervised transfers and conferences from MiCollab Client.

Ignite is a flexible, intuitive, and efficient tool for handling email, chat, and SMS interactions and for performing basic call handling. Ignite enables agents to handle multiple interactions simultaneously, see the agent groups of which they are members, receive screen pop notifications of incoming interactions, set Account Codes and Classification Codes, view personal performance statistics and those of the

queues and queue groups for which they answer, affect personal state indicators, and be advised of the presence of other agents in their agent group(s).

In this integration, Ignite can be used for basic call handling. (See *"Handling calls in Ignite"*.) More sophisticated scenarios, such as supervised transfers and conferencing, require iCollab Client.Depending upon your gateway, you can deploy and integrate iCollab with Ignite. In this integration, Ignite can be used for call handling, but more sophisticated scenarios, such as Supervised Transfer or Conferencing, MiCollab Client is recommended. For instructions related to the voice handling abilities of the iCollab Client application, refer to the MiCollab Client documentation available on Mitel Online or via the Webhelp within the iCollab Client. For information on which gateways support iCollab , see the MiContact Center Business System Engineering Guide .

Contact Center Client is used as a supervisory tool in this integration, enabling real-time monitoring and alarming, forecasting, data mining, agent and ACD queue control, abandoned caller callbacks, and efficient call handling by moving items from busy to less active queues.

MiCollab cannot initiate Silent Monitor or Whisper Coach. For this feature supervisors require either PhoneSet Manager, Contact Center Softphone, or a hard setContact Center Client.

This chapter describes voice handling using Ignite and MiCollab Client. For information regarding handling email, chat, SMS, and open mediainteractions using Ignite, see the Multimedia Contact Center Installation and Deployment Guide *"Ignite"*.

For installation and configuration details, see the *MiContact Center Business Installation and Administration Guide*.

MiCollab Basic and Ignite integration (DESKTOP)

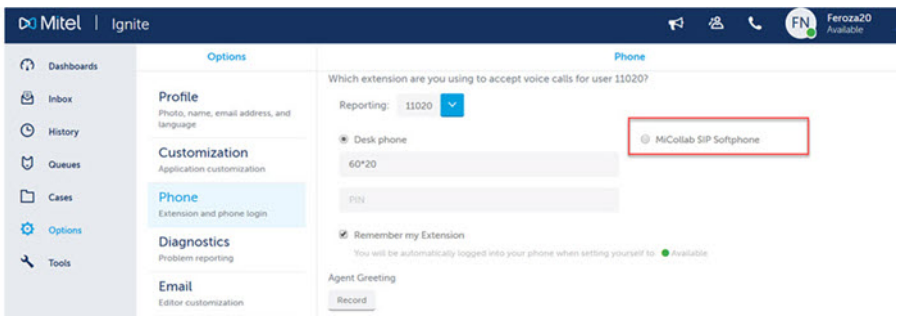
There are some features described in this chapter that do not apply for customers running the MiCollab Basic application. Refer to the following list of exceptions:

- Agents must use their deskphone for hot desking and cannot hot desk log in from MiCollab Client.
- Instant messaging is not supported.
- Extended ACD presence is not supported.

MiCollab Client and Ignite user interface (DESKTOP)

Ignite, when started, automatically docks to the MiCollab Client application, creating one client interface for voice and multimedia. (See the following figure.)

Figure 21.1: MiCollab Client and Ignite integration



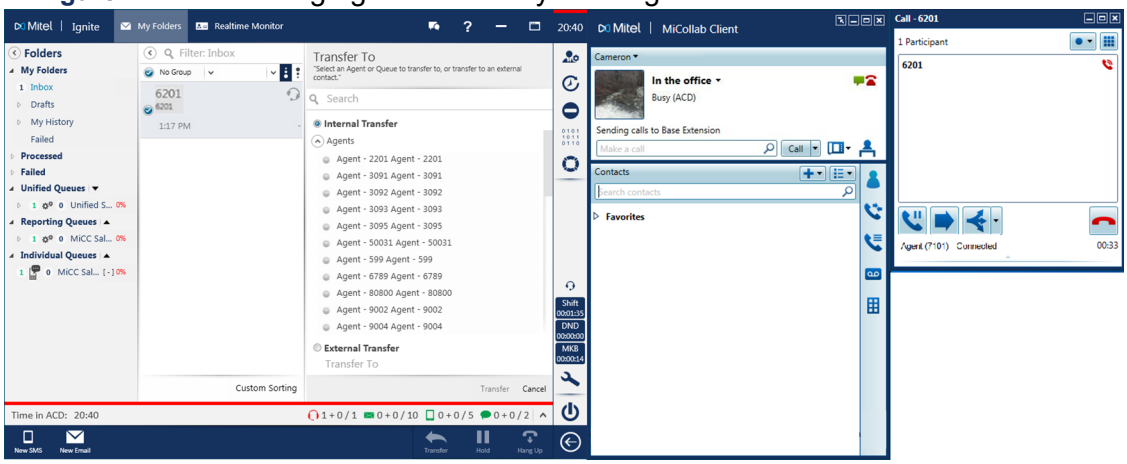
The MiCollab Client and Ignite integration offers you the flexibility to access as much or as little of the interface as needed in order to optimize desktop real estate.

For example, you can choose to collapse the main Ignite window and only access the Ignite Sidebar and MiCollab Client (recommended for voice-only agents) or expand the Ignite panes if you will also handle non-voice media. If you are transferring a call, it is beneficial to check recipient agent availability before transferring. (See the following figure.)

Given enough space on the screen, MiCollab Client automatically docks to the right of the Ignite window. If there is not enough space to the right, MiCollab Client docks to the left of the Ignite window. If the agent repositions the MiCollab Client on the desktop, Ignite will automatically re-dock to MiCollab Client in its new position.

You can minimize and restore the iCollab Client and Ignite applications independently or together. When both windows are full size, you can minimize the individual application. When the Ignite window is collapsed, minimizing the MiCollab Client window also minimizes Ignite.

Figure 21.2: Accessing agent availability in the Ignite Transfer window when transferring a call



Handling voice Interactions with the MiCollab Client and Ignite integration

The following table lists agent actions and the application in which they are performed.

Table 21.1: Agent actions by application (Sheet 1 of 3)

Agent action	MiCollab Client	Ignite (DESKTOP)	Ignite (WEB)
Voice ACD log on and log off	Yes	Yes	Yes
Set or remove Make Busy with Reason Code		Yes	Yes
Set or remove Do Not Disturb with Reason Code		Yes	Yes

Table 21.1: Agent actions by application (Continued) (Sheet 2 of 3)

Agent action	MiCollab Client	Ignite (DESKTOP)	Ignite (WEB)
Cancel Work Timer		Yes	Yes
Chat (IM)	Yes		
Join/Leave Agent Group		Yes	Yes
Answer	Yes	Yes	Yes
Auto Answer *	Yes		Yes
Hang Up	Yes	Yes	Yes
Conference	Yes		Yes
Merge			
Cancel	Yes		Yes
Account Code		Yes	Yes
Classification Code		Yes	Yes
Call me back	Yes		
Call forwarding	Yes		
Camp on	Yes		
Forward	Yes		
Leave a message	Yes		
Mute	Yes		
Retrieve	Yes		Yes
Split	Yes		
Silent Monitor	Yes		
Transfer (blind)	Yes	Yes	Yes
Transfer (supervised)	Yes		Yes
Transfer/Conf	Yes		Yes
Volume	Yes		
Dial Pad	Yes		Yes
Dial Contacts	Yes		Yes

Table 21.1: Agent actions by application (Continued) (Sheet 3 of 3)

Agent action	MiCollab Client	Ignite (DESKTOP)	Ignite (WEB)
ACD Hot desk login	x (with Mi Voice Business 6.0 SP3+) and with SIP		Yes

*For the auto answer feature to work for an agent using a deskphone, the deskphone must have an auto answer key appearance set and auto answer must be enabled in the agent's Class of Service. For an agent using a MiCollab softphone, auto answer must be enabled using the MiTAI browser.

The following features continue to be available in Contact Center Client (Contact Center Softphone or Contact Center PhoneSet Manager) but are not currently supported in the MiCollab Client and Ignite integration:

- Whisper Coach
- Custom ring tones
- Speed Dial
- Call notes
- External Hot Desking Agents

If these features are necessary to your business, you can continue to use Contact Center Softphone or Contact Center PhoneSet Manager but these applications do not support an integration with Ignite.

Agent state indicators

MiCollab Client displays Enterprise presence (Non ACD) and extended ACD presence.

Extended ACD presence displays in MiCollab Client for all agents who are members of the same agent group(s) as the logged in employee. These states are:

- Logged out
- Not available for ACD (not present in any agent groups)
- Available for ACD (logged in and idle)
- Busy <reason> (logged in and busy)
  - Busy – Outbound (making an outbound call)
  - Busy – ACD (receiving an ACD call)
  - Busy <Make Busy reason code name> (in MKB, including system MKB)
  - Busy – Non-ACD (receiving a Non ACD call, such as a consultation call (pre-transfer) or a direct call to their agent DN)
- Do Not Disturb - <DND reason code name> (logged in and in DND)
- Unknown – this indicator may display following an MiContact Center Enterprise Service restart

Agent state indicators enable you to determine agent availability and display in both MiCollab Client and Ignite. When transferring calls, you can check the agent state indicator to see if the receiving agent is available before completing the transfer.

NOTE: Ignite may remove voice agent presence if communication between the MiCollab Client and the MiCollab Client Server is lost. If this occurs, agents must manually reset presence once communication is restored.

Ignite displays the agent's overriding state and the time spent in that state. If the length of time exceeds 24 hours, Ignite displays by days:hours:minutes:seconds. See *"Getting started with Ignite (DESKTOP)"* for an example of the Ignite Sidebar interface.

Agent overriding states, and their associated colors, include:

- Ringing (Red)
- ACD (Red)
- ACD Hold (Red)
- Non-ACD/Outbound (Blue)
- Work Timer (Yellow)
- DND (Red)
- Make Busy (Yellow)
- Not present in any agent group (Yellow)
- Idle (Green)
- Unknown (Gray)
- Logged out (Gray)

MiCollab Client

Voice handling instructions for MiCollab Client are described in the MiCollab Client documentation available on Mitel Online or via the Web help within the MiCollab Client.

Logging into MiCollab Client

If you start Ignite before logging into MiCollab Client, you will be prompted to register and log in your voice agents in MiCollab Client before signing into Ignite. We recommend you start and log into MiCollab Client before starting and logging into Ignite.

To log into MiCollab Client as a Hot Desking Agent

1. Right click on the **Agent** in the **Active Calls** window.
2. Select **Hot-Desk In**.

   A new dialog window opens.
3. In the **Base DN** text box, enter your base extension.
4. If your business uses PINs, enter your PIN.
5. Click **Hot-Desk In**. Your hot desk agent is now logged in and your base extension is out of service.

   NOTE: By default, Ignite is configured to detect voice agent logout. If you are running Ignite and you exit MiCollab Client, your employee and all associated agents are signed out of Ignite.

Flexible Reporting

Flexible Reporting enables you to create customized reports. Access to Flexible Reporting is determined by your security role.

With Flexible Reporting you can:

- Use a wizard interface to create customized reports with existing statistics (column headings)
- Create custom calculations using expressions
- Select column headings to build custom reports
- Select only the columns you want to view
- Select like data for two or more device types and combine them in one report
- Arrange the columns in the order in which you want to view them
- Customize the names of statistics (column headings) so they are meaningful to your department, business, and industry
- Save the reports in Excel and .pdf formats

NOTE:

- Flexible reporting supports a maximum of 256 columns per report.
- Security role settings are not supported in Flexible Reporting.

Using Flexible Reporting

In Flexible Reporting you can

- Create new reports
- Modify standard MiContact Center Business report templates
- Modify existing Flexible Reporting report templates
- Design reports
- Manage your Flexible Reporting reports
- Run reports

Starting Flexible Reporting

NOTE: Launching client-side desktop applications from the task bar causes them to bypass the MiContact Center Updater Service process. To ensure successful updates from the Enterprise Server, after an upgrade close all client-side applications for 15 minutes or reopen them from the Start menu/Start screen.

To start Flexible Reporting

1. Open **Flexible Reporting**.
2. If prompted, type your **Username** and **Password** and verify the **Enterprise Server** IP address.
3. If you use Secure Socket Layer, select **SSL**.
4. Optionally, select **Remember my credentials**.
5. Click **Login**.

The Welcome to Flexible Reporting dialog box opens.

6. Select from: **Run a report**, **Create a new report**, **Redesign a standard report**, **Modify an existing report**, or **Do not show this dialog box again**.

   NOTE: The Created Language column for existing reports displays your current language preference.

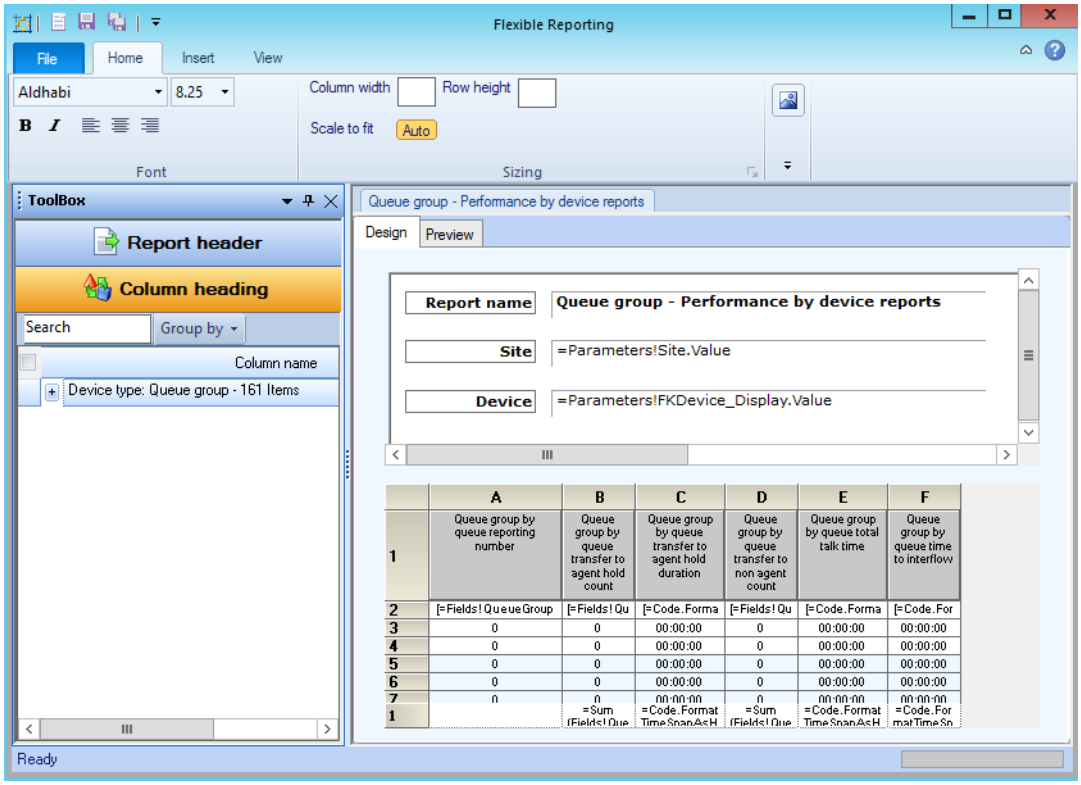
7. If you want to initiate a procedure, click **OK** and see the associated section in this chapter. Otherwise, close the dialog box.

Viewing the Flexible Reporting user interface

The Flexible Reporting user interface includes the following. (See the following figure.):

- Report Designer wizard
- Layout designer window
- Flexible Reporting button
- Ribbon
- Toolbox window

Figure 22.1: Flexible Reporting user interface



You can customize the position of the windows in the following ways:

- Dock to the left, right, top, or bottom of the user interface
- Float
- Hide
- Auto-hide

Report Designer wizard

Whether you are building a new report or modifying an existing report, the Report Designer wizard leads you through the following steps to select data for the report:

- Create a new report based on an existing one, or design a new report
- Select a report type
- Select the device types
- Select the statistics (column headings), and the order in which you want them displayed
- Specify the time frame options

Layout designer window

The layout designer window comprises two tabs: design and preview. The window displays the report header and data grid. You can perform the following functions in the layout designer window.

On the Design tab you can

- Add images to report headers
- Edit the report header titles
- Adjust the placement of the report header titles and values
- Remove report header titles and values
- Add existing or custom columns
- Move columns
- Delete columns
- Edit column heading names
- Specify column width and row height
- Specify row colors
- Freeze and unfreeze columns
- Save report templates

On the Preview tab you can

- Run and preview reports
- Save reports
- Export reports
- Print reports

The File tab

The File tab is a tab located in the upper left corner of the window. The following options are available from the Flexible Reporting button: New, Open, Save, Save As, Close, Feedback, About, Log Out, Exit, and Exit and Log Out.

Ribbon

The ribbon provides the same functionality as traditional toolbars. Use the tools on the ribbon to help you design your reports. The ribbon comprises the Home, Insert, and View tabs.

On the Home tab of the ribbon, you will find the tools to help you

- Change the font type, size, and style
- Select text justification

- Specify column width, auto-fit column width, and row height
- Change row colors

On the Insert tab of the ribbon, you will find the tools to help you

- Insert and remove images from the report header
- Select the report header titles to open in the report header
- Add existing or custom columns
- Remove columns
- Freeze and unfreeze columns
- View or modify expressions

On the View tab of the ribbon, you will find the tools to help you

- Show and hide the Toolbox window
- Manage reports

Toolbox window

The Toolbox window contains the following:

- **Report header**
  Report header is a list of report header titles that are currently not included in the report header. If the Report Header list is empty, all of the report header titles will be applied to the report. When report header titles are removed from a report they are shown in the Report headers list.
- **Column heading**
  Column heading displays a list of all of the column headings (for only those devices selected for the report) that are not currently included in the report grid. When you add a column heading to the report, it is removed from the list. Similarly, if you remove a column heading from the report, it displays in the Column headings list.

Creating new reports

Using the Report Designer wizard you can build new reports with existing column headings. Use the Report Designer wizard to select the data for the report.

NOTE: Reports generate in the language they were created in, regardless of the current employee language setting.

The Report Designer wizard guides you through the following steps:

- Select how you want to display the report data
- Select the device(s) on which you want to report
- Select the statistics (column headers) that will be shown in the report
- Select the time frames over which you want to run the report

To create a new report

1. Click **File > New** to launch the Report Designer wizard.
2. Click **Next**.
3. Click **Create a new report** and follow the steps in the wizard.

   At the end of the Report Designer wizard, the new report opens automatically on the Design tab.
4. Design the report.

See *"Designing reports"*.

5. Click **File > Save**.

Modifying standard MiContact Center Business report templates

Using the Report Designer wizard you can modify standard MiContact Center Business voice report templates. In the wizard, you can remove data (column headings) and add new data (additional devices and column headings).

You can modify the following standard reports in the Report Designer Wizard:

- Agent by Make Busy Code
- Agent Group by Make Busy Code
- Agent Group Performance by Period
- Agent Performance by Account Code
- Agent Performance by Period
- Agent Shift by Period
- DNIS Group Performance by Period
- DNIS Performance by Period
- Employee Group Performance by Employee
- Employee Performance by Agent ID
- Extension Group Performance by Period
- Extension Performance by Period
- Queue ANI by Area Code
- Queue Group Performance by Period
- Queue Group Performance by Queue
- Queue Performance by Account Code
- Queue Performance by Member
- Queue Performance by Period
- Trunk group Performance by Period

The Report Designer wizard guides you through the following steps:

- Select the report you want to modify from a list of standard MiContact Center Business reports
- Select the time frames over which you want to be able to run the report
  Choosing options on this page enables you to select time frames when submitting or previewing reports. The start and end times enable you to run the report for a specific time frame for each day in the report. For example, you can run the report for your hours of operation only, 8 A.M. to 6 P.M. The days of the week time frame enables you to run the report for specific days. For example, every Friday over the last two months.

To modify a standard MiContact Center Business report template

1. Click **File > New**.
2. Click **Next**.
3. Select the **Redesign a standard report** option and follow the steps in the wizard.

   At the end of the Report Designer wizard, the new report template opens automatically on the Design tab.

NOTE: On the Select an existing report template page of the wizard, under Filter by device type, select All devices if you want to see all available reports for all devices.

4. Design the report.

   See *"Designing reports"*.

5. Click **File > Save**.

Modifying existing Flexible Reporting report templates

To modify an existing Flexible Reporting report template

1. Click **File > Open**.
   The Reports List window opens, giving you access to all personal and shared Flexible Reporting reports.
2. Select the report you want to modify.
3. Click **Open**.

   NOTE:
   - If 'Do not show this dialog box again' was selected on the Welcome to Flexible Reporting dialog box, the report will open to whichever tab, Design or Preview, was open last.
   - Shared reports that have no owner will prompt you to optionally take ownership of the report when opened.

4. Modify the report.

   See *"Designing reports"*.

5. Click **File > Save** to save the changes to the report template.

   Click **File > Save As** to save the report as a new template.

6. If you want to run the report, click the **Preview** tab.

Designing reports

Using the options available on the ribbon, design the report by modifying the report header, columns, and rows.

NOTE:

- You can open and edit report templates you previously created in Flexible Reporting.
- When right-clicking a column to bring up the column's context menu, do not right-click the column header cell. This is an editable field and will not bring up the column context menu.

Adding images to report headers

To add an image to a report header

1. On the **Insert** tab of the ribbon, click the Insert button.
2. Select an image file and click **Open**.

   The image displays on the report header.

3. Drag the image to where you want it to be shown on the report header.

Deleting images on report headers

To delete an image

1. Select an image on the report header.
2. On the **Insert** tab of the ribbon, click the **Remove** button.

Editing report header titles

Report headers comprise titles and values. Edit the report header titles to customize the look of your reports.

You can edit the font type, size, and style of report header titles.

You can edit the titles of the following report headers:

- Report
- Site
- Device
- Date range
- Date created
- Created by

  NOTE: You cannot edit the report header values as these are driven by the options selected when the report is submitted.

To edit a report header title

1. Click a report header title.
2. Edit the text in the box.

Moving report header titles and values

You can drag and drop report header titles and values independently.

To move a report header title or value

- Drag and drop the report header title or value to where you want it to be shown on the report header.

Removing report header titles and values

All report header titles and values are shown on a report when it is first created. If you remove a report header title, the corresponding value will also be removed from the header. For example, if you remove the Date range title, the date range will not be shown on the report.

To remove a report header title and value

- On the **Insert** tab of the ribbon, click the **Header** button and deselect the check box of the report header title you want to remove. You can optionally drag and drop the report header title from the report to the Report header list.

  Report header titles removed from the report are shown in the Report header list in the Toolbox window.

Adding report header titles and values

To add a report header title and value to a report

- On the **Insert** tab of the ribbon, click the **Header** button and select the check box of the report header title you want to add. You can optionally drag and drop the report header title from the Report header list to the report.

Adding existing columns

To add an existing column

1. On the **Insert** tab of the ribbon, click **Add > Existing**.
   Optionally, right-click the report and select Insert column > Existing from the drop-down list.
   The Add columns window opens.
   NOTE: You can also drag and drop items from the Column heading list in the Toolbox window to add existing columns to your report.
2. Select the columns you want to add to the report.
3. Click **OK**.

Adding custom columns

You can add custom columns to create custom calculations using expressions or blank columns. The ability to create custom calculations using expressions enables you to further customize report data to suit your specific business needs. Blank columns can be used as spacers to make reports easier to read, or as placeholders for importing third-party data after a Flexible Reporting report has been generated.

NOTE:

- Adding columns containing custom calculations requires a thorough understanding of Microsoft Excel and regular expressions.
- We recommend you preview reports containing custom calculations in Flexible Reporting before saving the changes and generating the report in CCMWeb.

To add a column containing custom calculations

1. On the **Insert** tab of the ribbon, click **Add > Custom**.
   Optionally, right-click the report and select Insert column > Custom from the drop-down list.
   A blank column displays in the report.
2. Right-click a cell in the blank column and select **Expression**.

   The Edit expression window opens.
   NOTE: You cannot create calculations using expressions in a header cell.
3. Select an option in the **Options** list to view the associated **Item** list.
4. Select an item in the **Item** list to view the associated item **Description** and expression **Example**.
5. Double-click the item in the **Item** list to insert its expression into the **Expression** box.
6. Repeat steps 3 to 5 until the complete calculation is entered in the **Expression** box and click **OK**.

   The expression displays in row two of the blank column in the report.
7. If you want to edit the expression you created, right-click the cell and select **Expression** to return to the Edit expression window.

After adding a column containing custom calculations you can choose to view or modify the expression.

To view or modify an expression

1. Select the cell in the report, for which you want to view or modify the expression.
2. On the **Insert** tab of the ribbon, click **Expression**.

   Optionally, right-click the column and select Expression from the drop-down list.
   The Edit expression window opens.
3. Select an option in the **Options** list to view the associated **Item** list.
4. Select an item in the **Item** list to view the associated item **Description** and **Expression** example.
5. Double-click the item in the **Item** list to insert its expression into the **Expression** box.
6. Repeat steps 3 to 5 until the complete calculation is entered in the **Expression** box and click **OK**.

   The expression displays in row two of the blank column in the report.

You can restrict the number of decimal places that will display for results. As an example, setting the number of decimal places that will display for the Average Manned Agent statistic is described below.

To set the number of decimal places that display for results

1. In the **Design** view, right-click the **Average Manned Agent** column in the report and select **Expression** from the drop-down list.
2. Change the current value of **=Fields!AgentGroupEventAvgMannedAgents.Value to =FormatNumber(Fields!AgentGroupEventAvgMannedAgents.Value,1)**.
3. Click **OK**.
4. Click **Save**.

   The column is formatted to display one decimal place. To alter the number of decimal places displayed, enter the appropriate number in place of **1**.

To add a blank column

1. On the **Insert** tab of the ribbon, click **Add > Custom**.
   Optionally, right-click the report and select Insert column > Custom from the drop-down list.
   A blank column displays in the report.
2. Optionally, click the header cell of the blank column and type a name for the column.

Moving columns

To move a column

- On the report grid, drag and drop the column to where you want it on the grid.

Deleting columns

NOTE: Some statistics require specific columns to ensure a report is meaningful. These statistics are associated with the required columns and cannot be deleted on their own. For example, in by period reports, you cannot delete the interval; in by device reports, the reporting number cannot be deleted.

To delete a column

1. Click a column on the report grid.
2. On the **Insert** tab of the ribbon, click the **Remove** button.

   Optionally, right-click the column and select Delete column from the drop-down list.

Editing column heading names

You can edit the names of column headings so they are meaningful to your department, business, and industry. You can change the font type, size, and style as well as edit the text.

To edit a column heading name

1. Click a column heading on the report grid.
2. On the **Home** tab of the ribbon, use the font options to change
   - the font type, size, and style
   - the justification
3. Optionally, edit the name of the column heading.

   If, after renaming a column heading, you want to see the original column heading name, hover over the column heading. The original column heading name displays after Name.

Specifying column width

To specify the column width

1. Click a column.
2. On the **Home** tab of the ribbon, after **Column width**, type the width (in pixels).

   Optionally, right-click the column and select Column width from the drop-down list.

To auto-fit the column width

1. Click a column.
2. On the **Home** tab of the ribbon, after **Scale to fit**, click **Auto**.

   Optionally, right-click the column and select Auto-fit Column width from the drop-down list.

Specifying row height

You can specify a different row height for the header row than the body rows.

To specify the header row height

1. Click the header row.
2. On the **Home** tab of the ribbon, after **Row height**, type the height (in pixels).

To specify the body row height

1. Click a body row.
2. On the **Home** tab of the ribbon, after **Row height**, type the height (in pixels).

   Optionally, right-click the body row and select Row height from the drop-down list.
   All of the body rows will be the same height.

Specifying row colors

You can alternate row colors to make report data easier to read.

1. On the **Home** tab of the ribbon, select the primary and alternate colors.
2. After **Alt row count**, type the number of rows for each color.

Freezing columns

Frozen columns remain stationary when you scroll to view columns to the right.

To freeze a column heading

1. On the report grid, click the column to the right of the ones you want to freeze.
2. On the **Insert** tab of the ribbon, click the **Freeze column** button.

   Optionally, right-click the column and select Freeze column from the drop-down list.

Unfreezing columns

To unfreeze a column heading

1. On the report grid, click the column to the left of the frozen column.
2. On the **Insert** tab of the ribbon, click the **Unfreeze column** button.

   Optionally, right-click the column and select Unfreeze column from the drop-down list.

Managing your Flexible Reporting reports

You manage your Flexible Reporting reports on the My Reports window. My Reports gives you access to all of the reports you have created.

You can access all the reports you have created and all shared reports created by others, by clicking the File > Open.

NOTE: Shared reports that have no owner will prompt you to optionally take ownership of the report when opened.

In the My Reports window you can

- Change access properties: Shared or not Shared
- Rename reports
- Delete reports

Changing access properties

To change the access properties of a report

1. On the **View** tab of the ribbon, click **My reports**.
2. Select the report(s).
3. If you want to share the report(s), under **Shared**, select the check box. Otherwise, clear the check box and the report(s) will be available to you only.
4. Click **OK**.

Renaming reports

To rename a report

1. On the **View** tab of the ribbon, click **My reports**.
2. Select a report and click **Rename**.
3. Edit the name.
4. Click **OK**.

Deleting reports

You can only delete the reports you create.

To delete a report

1. On the **View** tab of the ribbon, click **My reports**.
   NOTE: You cannot delete a report that is open in Flexible Reporting.
2. Select the report(s) you want to delete and click **Delete**.
3. Click **Yes** to delete the selected report(s).
4. Click **OK**.

Running Flexible Reports

You can run Flexible Reporting reports in CCMWeb or in Flexible Reporting. However, you can schedule reports in CCMWeb only.

From CCMWeb, you can run Flexible Reporting reports on demand, or schedule them, the same way you run standard reports.

In Flexible Reporting you can run, save, and print reports on the Preview tab. After you run a report, printing options enable you to view the print layout, and configure page setup and printer properties.

NOTE:

- Flexible Reporting will run reports only when there is data to generate the report.
- If you run a report on the Preview tab and the report data is all zeros, ensure you selected a device on which to run the report. If you selected a device, ensure the selected time period is one that would have incurred activity.
- Custom reports created in Flexible Reporting can only be generated in the language that was used when they were created and saved.

Running reports in CCMWeb

To run an on-demand report in CCMWeb

- Hover over Reporter, select Flexible Reporting, and run the report.
  You will have access to all Flexible Reporting reports created by you and shared Flexible Reporting reports created by others.

NOTE: When a report supports more than one device type, click on each tab to select the devices on which you want to report.

To schedule a report in CCMWeb

1. Hover over **Reporter** and select **Scheduled Reports**.
2. If you want to create a new schedule, click **Next**. Otherwise, select an existing schedule and click **Manage schedule properties**.
3. Configure the schedule properties and distribution attributes.
4. Click **Add a report**.
5. Click **Flexible Reporting** and select a report to add to the schedule.

Running reports in Flexible Reporting

To run reports in Flexible Reporting

1. On the **Preview** tab, under **Devices**, select the device(s).
2. Specify the date and time parameters.
3. Click **Run report**.

   Flexible Reporting generates the report and displays it in the preview pane.

Saving templates and reports

In Flexible Reporting you can save

- **Templates**
  The report templates you create in Flexible Reporting are saved on the Enterprise Server so you can run them from Flexible Reporting and CCMWeb.

  NOTE: Report templates are not saved automatically. You must save your report template before you exit Flexible Reporting if you want to use it to run reports or modify the template later.
- **Reports**
  After you run a report in Flexible Reporting, you can save the output (report) on your computer or elsewhere on your network. Reports can be saved or, optionally, exported in Excel (.xsl and .xslx), Word (.doc), or .pdf formats.

To save a report template as a new document

1. Click the **File > Save As**.
2. After **File name**, type the name of the new template.

   NOTE: Only you can run and view reports you have created and designated as not shared. Shared reports can be run and viewed by others.
3. If you want to allow others to run the report, select the **Shared** check box.
4. Click **Save**.

To save modifications to a report template

- Click **File > Save**.

To export a report in Excel (.xsl or .xslx) format

- In the Preview window, above the generated report, click the **Save** button, select **Excel**, and specify the location to save the report in Excel (.xsl) format.
  Optionally, in the **View** tab of the ribbon, click the **Export report** button, select **Excel** (.xsl) or **Excel 2007** (.xslx) and specify the location to save the report in an Excel format.

To export a report in Word (.doc) format

- In the Preview window, above the generated report, click the **Save** button, select **Word**, and specify the location to save the report in Word (.doc) format.

To export a report in .pdf format

- In the Preview window, above the generated report, click the **Save** button, select **PDF**, and specify the location to save the report in .pdf format.
  Optionally, click the **Export report** button on the View tab of the ribbon, and select **PDF**, and specify the location to save the report in .pdf format.

Printing reports

To print a report you ran on the Preview tab

- On the Preview window toolbar, click the **Print** button.

Posting feedback and viewing our forums

Mitel has partnered with UserVoice, a third-party service, to host customer suggestions on https://micontactcenter.uservoice.com. When you post an idea to our feedback forum, others will be able to subscribe to it and make comments.

Our forums enable you to send feedback directly to the people building the product. While we cannot comment on every suggestion, feedback is analyzed and considered for future releases.

NOTE: Please do not use the forums to submit product defects. To submit product defects, please contact your administrator or dealer.

Feedback can also be submitted directly to Mitel without posting the suggestion on the forums. For more general feedback, you can also provide a rating of your experience with MiContact Center Business.

NOTE: Please do not use feedback for requesting customer assistance. For assistance with MiContact Center Business, please contact your dealer or Mitel Customer Support.

To post feedback and view our forums

1. In YourSite Explorer, click **File > Feedback**.
2. Click **Got an idea? Tell us**.

   or
   Access the following URL: https://micontactcenter.uservoice.com.

To submit feedback directly

1. In YourSite Explorer, click **File > Feedback**.
2. Click **Contact Us**.

To rate your Mitel experience

1. In YourSite Explorer, click **File > Feedback**.
2. Click **Rate us**.

Workforce Scheduling

Workforce Scheduling is an optional application that enables you to create employee schedules. Using historical data, Workforce Scheduling forecasts the number of employees required to meet your contact center's Service Level objectives.

NOTE: Access to Workforce Scheduling features is dependent on your administrative-set security role.

Using Workforce Scheduling in conjunction with MiContact Center Business, you can

- Customize schedules
- Forecast scheduling requirements
- Match an employee's skills to those skills required for jobs in each schedule
- View the distribution of employees across each schedule
- Print schedule reports

There are two optional applications that work in conjunction with Workforce Scheduling: Schedule Adherence and Employee Portal. For more information on these applications, see "Schedule Adherence" and *"Employee Portal"*.

Understanding Workforce Scheduling

Before you start using Workforce Scheduling read the following sections on how to

- View the Workforce Scheduling user interface
- Understand forecasting concepts
- Understand the Workforce Scheduling process

Viewing the Workforce Scheduling user interface

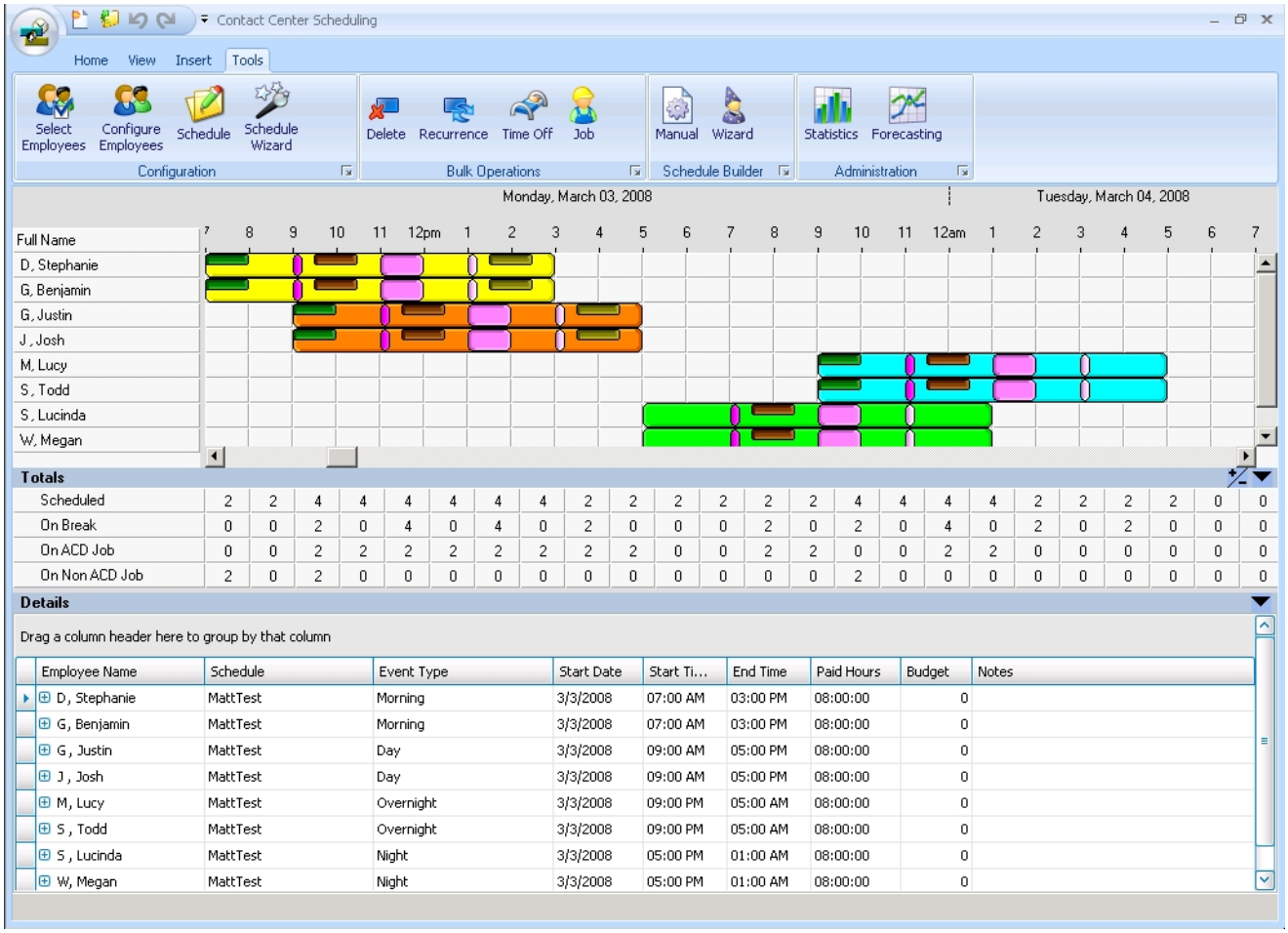
The following figure displays scheduling information, such as the employees who are scheduled, employee shift start and end times, the time interval shift totals, and the shift details for each employee.

NOTE: The Scheduling and Forecasting buttons in the Tools>Administration window are used to toggle between these two views.

The Workforce Scheduling user interface is comprised of the following panes:

- People pane
- Time bar pane
- Totals pane
- Schedule details pane

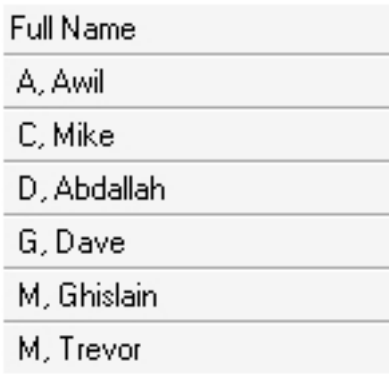
Figure 23.1: Scheduler window



People pane

The people pane is located in the upper-left portion of the scheduler window. The people pane lists the employees included in the schedules you are viewing. (See the following figure.)

Figure 23.2: People pane



Time bar pane

The time bar pane is located in the upper-right portion of the scheduler window. The time bar pane displays a time bar for each scheduled employee. Time bars display the shifts, breaks, jobs, time off, and unavailable periods for employees listed in the people pane. You can view the time bar pane in the following time intervals: 6 hours, 12 hours, 1 day, 2 days, 1 week, 2 weeks, and 1 month. (See the following figure.)

You can view previous or upcoming dates using the horizontal scroll bar under the time bar pane. If you reach the end of the month and want to view dates for the next month, you can click the arrow on the scroll bar to load the schedule for the next month (as indicated by the red square in the following image).

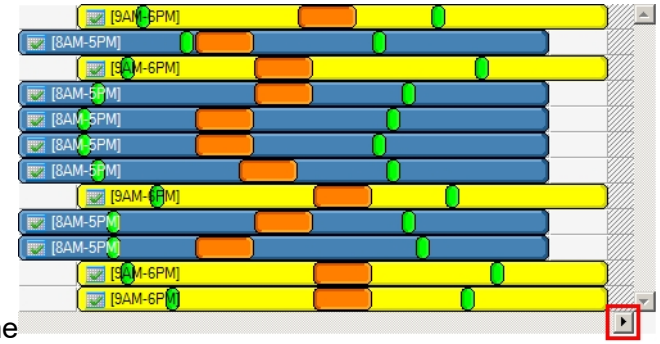


Figure 23.3: Time bar pane

Totals pane

The totals pane appears when you select event totals to view. The totals pane is located in the center of the scheduler window. Each value represents the total number of employees scheduled for an event. (See the following figure.)

Figure 23.4: Totals pane

Totals														
Scheduled	0	0	0	0	0	0	0	0	5	5	5	5	5	4
On Break	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On ACD Job	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On Non ACD Job	0	0	0	0	0	0	0	0	0	0	0	0	0	0
At Work	0	0	0	0	0	0	0	0	5	5	5	5	5	4
Over/Under	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Overtime	0	0	0	0	0	0	0	0	0	0	0	0	0	0

You can view the following event totals:

Forecasted

The *Forecasted* total displays after you apply a forecast to the schedule. This total represents the forecasted number of employees required to handle interaction requests and meet the Service Level objectives you specify. You can optionally adjust the Forecasted total in the totals pane. See "Modifying forecast totals in the event totals pane".

NOTE: When the user sets View to greater than 6 hours, each cell value in the Totals View is the maximum value of the composite 15-minute values. The Over/Under value displayed is also the maximum of the composite values. As a result, in this view, the displayed value for the Over/Under does not align with the value that would be obtained from adding the At Work and forecasted values.

Scheduled

The *Scheduled* total represents the number of employees scheduled for the time you are viewing.

On break

The *On break* total represents the number of employees scheduled for a break at a specific time.

On ACD Job

The *On ACD Job* total represents the number of employees scheduled to perform ACD work.

On Non ACD Job

The *On Non ACD Job* total represents the number of employees scheduled to perform Non ACD work.

At work

The *At work* total represents the number of employees scheduled to handle interaction requests.

Over/Under

The *Over/Under* total represents the difference between the number of employees at work compared to the number of employees forecasted. A value of 4 means 4 additional employees are working compared to the forecasted requirement. A value of (4) means 4 fewer employees are working compared to the forecasted requirement. When you book annual leave for employees, you can preview the result on shift coverage by using the over / under function, before updating changes.

Overtime

The *Overtime* total represents the number of employees scheduled to perform overtime work.

Schedule details pane

The schedule details pane is located at the bottom of the scheduler window. It displays details on scheduled employees. You can modify the start and end times of scheduled events in the schedule details pane. For example, you can adjust the length of a scheduled break. See *"Modifying event times and notes in the schedule details pane"*. (See the following figure.)

Figure 23.5: Schedule details pane

Details

Drag a column header here to group by that column

Employee Name	Schedule	Event Type	Start Date	Start Ti...	End Time	Paid Hours	Budget	Notes
M, Ghislain	6120 Training	Regular	2/22/2008	08:00 AM	05:00 PM	09:00:00	0	
D, Abdallah	6120 Training	Sales	2/22/2008	08:00 AM	04:00 PM	08:00:00	0	
G, Dave	6120 Training	Regular	2/22/2008	08:00 AM	05:00 PM	09:00:00	0	
A, Awil	6120 Training	Ssupport Weekday	2/22/2008	08:00 AM	10:00 PM	14:00:00	0	
M, Trevor		Mat Leave	2/22/2008	08:00 AM	06:00 PM	10:00:00	0	
C, Mike	6120 Training	Regular	2/22/2008	08:00 AM	01:00 PM	05:00:00	0	

You can sort the information in the schedule details pane by organizing the headings. The schedule details column headings are as follows:

- **Employee name**—the employee to which the specified time event is scheduled
- **Schedule**—the schedule to which the specified time event is scheduled
- **Event type**—the events to which the specified time event is scheduled
- **Start date**—the start date of each scheduled event. You can modify this parameter in the schedule details pane. Changes are immediately reflected in the time bar pane

- **Start time**—the start time of each scheduled event. You can modify this parameter in the schedule details pane. Changes are immediately reflected in the time bar pane
- **End time**—the end time of each scheduled event. You can modify this parameter in the schedule details pane. Changes are immediately reflected in the time bar pane
- **Paid hours**—the total number of paid hours for the scheduled shift
- **Budget**—the total cost of the scheduled shift
- **Notes**—the notes on scheduled events you enter in this field

Understanding forecasting concepts

Workforce Scheduling assists you in scheduling employees for work and holiday periods. It offers an integrated forecasting component that uses historical data to partially automate the scheduling process. Scheduling is not entirely automated. You may have to modify employee schedules and enter shift and employee variables manually after creating a schedule based on forecasted data.

You schedule employees so the number of incoming calls at any given time typically exceeds the number of employees currently available. This ensures callers experience a slight delay before employees answer their calls. The expected number of incoming calls forecasted for the time of day and day of the week influence scheduling decisions when trying to find the right balance between call volume and available staff.

For information on accessing historical data to assist when making schedules, see *"Expecting forecasts to workforce scheduling"*.

For information on forecasting variables and how to improve forecasting accuracy, see *"Step#3 Forecast the Call Load"*.

For information on Service Level variables and how to calculate the Service Level Percent, see *"Understanding the Service Level"*.

Understanding the Workforce Scheduling process

Employees, agent IDs, agent groups, queues, queue groups, overtime types, time off types, holidays, and skills are configured by the System Administrator in YourSite Explorer. After these devices are configured, you must decide if you will use forecasted data to build your schedules. When you build a schedule in Workforce Scheduling using forecasted data, we recommend you associate the schedule with the queue group you will use to perform the forecast. You must ensure that the employees you want to schedule are associated with the queue group you associate to the schedule. You can optionally associate a schedule to a queue group with different employees, which can be useful for scheduling a new group of employees based on the forecasted data of other employees.

As soon as you start Workforce Scheduling, you can begin creating your schedules. After you log in, you are asked to create or select a schedule. You create a schedule by assigning it a name. If you are using a forecast to build the schedule, you associate the schedule with a queue group.

After you create the schedule, you configure schedule parameters, such as shifts, breaks, jobs, and scheduling preferences/options for each employee.

You can automate the schedule building process with the Schedule Builder tool. It helps you quickly build a schedule, with or without a forecast. If you build schedules using forecasted data, we recommend you use Schedule Builder. Alternately, you can build a schedule manually. This involves inserting or removing events (shifts, breaks, jobs, time off, unavailable periods) and making events recur. You can manually

build a schedule based on forecast totals in the Totals pane. After you build a schedule using Schedule Builder, you may need to make a few adjustments.

Workforce Scheduling and your contact center

Using Workforce Scheduling, you can schedule your employees to best suit your contact center needs. You can

- Customize schedules for your contact center groups
- Forecast scheduling requirements
- Match employee skills to the skills required for each schedule
- View the distribution of employees across schedules
- Print schedule reports

For information on scheduling considerations, and how to calculate the Shrinkage Factor and optimize scheduling, see *"Step #5 Schedule agents"*.

Using Workforce Scheduling, you can create schedules for your contact center using a variety of options. Depending on your contact center, some options may be more suitable than others. To help your company use Workforce Scheduling most effectively, we have created configuration scenarios that describe how to implement Workforce Scheduling, based on the type of scheduling used in your contact center.

Each Workforce Scheduling configuration scenario provides a description of the scheduling method and an example of contact centers that typically use that method. Each scenario also provides some tips on how to configure Workforce Scheduling for each style of scheduling. The scenarios include the following scheduling configurations:

- Assigned shift
- Availability
- Rotational
- Forecast

Assigned shift-based scheduling configuration scenario

The assigned shift scheduling method uses fixed shifts staffed by employees who are permanently assigned to specific shifts. Contact centers that use assigned shift scheduling have consistent call volumes. Employees are primarily full-time staff and are guaranteed a specific number of hours of employment per week. Typically, you plan a schedule three to six months in advance with assigned shift scheduling.

Contact centers ideal for assigned shift scheduling

Assigned shift scheduling is best suited to contact centers that have a steady and predictable call volume, such as a contact center that runs a conventional nine to five operations. Examples of contact centers that use assigned shift scheduling include banks and government offices.

To configure Workforce Scheduling for an assigned shift scheduling environment

- Create fixed shifts
- Use shift names that describe a shift's purpose, such as '9 to 5 shift' or '1st shift'
- Use mass recurrence to repeat scheduled events for multiple weeks

- Configure employee hours using shift assignment by day of week

Availability-based scheduling configuration scenario

The availability scheduling method uses fixed shifts, but unlike assigned shift scheduling, the employees that work a given shift are not permanently attached to that shift. Contact centers that use availability scheduling fill shifts using a pool of employees.

A contact center supervisor sets staff availability based on day of week and time of day. When staffing a shift, the supervisor can assign any employee who is listed as available for that date and time to the shift. Typically, you plan a schedule two to four weeks in advance when you use availability scheduling.

Contact centers ideal for availability scheduling

Availability scheduling is best suited to contact centers driven by shifts, such as hotels or companies that focus on catalog sales. These contact centers have a specific number of shifts that can be filled by any qualified employees who are available. This type of schedule is frequently used with contact centers that operate 24/7.

To configure Workforce Scheduling for an availability scheduling environment

- Primarily use fixed shifts, but do not assign employees to specific shifts
- Assign employees all of the possible shifts they can work
- Set employee availability by day of week and time of day
- Use filters to assign the best employee available for a shift, based on skill set, seniority, or personal priority number

Rotational-based scheduling configuration scenario

The rotational scheduling method consists of two or more unique schedules that recur at defined intervals. For example, if a contact center rotates four schedules, the week one schedule repeats in week five, week nine, and so on. The rotational scheduling method enables contact center schedules to be consistent in the long-term, while allowing shifts to vary from week to week.

Contact centers ideal for rotational scheduling

Rotational scheduling is best suited to contact centers that require specific employees to cover unique periods of time, such as medical clinics that are open on weekends. If each contact center employee is required to work one weekend a month, a rotational schedule can ensure an even distribution of weekend work for each employee.

To configure Workforce Scheduling for a rotational scheduling environment

- Primarily use assigned shifts with defined employees. The staff changes from one schedule rotation to the next ensure fair coverage on nights, weekends, and holidays
- Recur the shifts multiple times based on the number of rotations
- Manually track and adjust which employees are assigned to each rotation; Workforce Scheduling does not create a balanced schedule so you will need to make changes if you want to ensure the schedule is fair
- Optionally use rotational scheduling in conjunction with other schedule types. For example, create a schedule that uses the assigned shift method to cover Monday to Friday shifts and a second schedule that uses the rotational shift method to cover shifts such as weekends or holidays

Forecast-based scheduling configuration scenario

The forecast scheduling method references historical data to create schedules. Contact centers that use forecast scheduling have call volumes that can change considerably over relatively short periods of time, resulting in inconsistent scheduling.

Forecast scheduling provides more flexibility than other scheduling methods since shifts are not defined. A contact center that uses forecast scheduling does not have a fixed staff or fixed hours, as both change based on the expected call volume. Typically, you plan a schedule one to two weeks in advance with forecast scheduling.

Contact centers ideal for forecast scheduling

Forecast scheduling is best suited to contact centers driven by call volume, such as companies that focus on sales campaigns, promotions, or seasonal sales.

To configure Workforce Scheduling for a forecast scheduling environment

- Generate historical data specific to the type of event you are scheduling (for example, to create a schedule for a winter sales campaign, use historical data from a previous winter campaign)
- Create shifts with flexible start and end times to provide Schedule Builder with the greatest number of options when populating the shifts with employees
- Remember that shift variables, such as start/end times and breaks, will vary for employees on a day-to-day basis
- Due to the variety of shift start and end times, create breaks based on the Time to qualify variable
- Do not configure availability or shift assignment

Selecting a scheduling method

You can build schedules in Workforce Scheduling:

- Using a forecast
- Manually

The setup you require depends on the scheduling method you choose. If you incorporate forecast data when you build a schedule, you must build the schedule using Schedule Builder.

Scheduling using forecast data

When you use forecast data to build a schedule, you can apply historical data from any queue or queue group to the schedule. It is recommended to use historical data from the queue group with which the schedule is associated. Forecast data is simply the number of required agents. It can be used in schedules which are not associated with a queue or queue group.

Before you build a schedule using a forecast, as a best practice, we recommend you associate your schedule with a queue group. You should also ensure that the employees to be scheduled are associated with this queue group.

Ensure your System Administrator

1. Associates the agent IDs with an agent group.
2. Associates the agent group with a queue.

3. Associates the queue with the queue group (that you will associate with the schedule).

   Instructions for configuration and association of agents, agent groups, queues, and queue groups are located in the *MiContact Center Business Installation and Administration Guide* .

Scheduling manually

You have the most flexibility when you build a schedule manually. However, this can be time consuming if you must schedule a large number of employees or if you must create a schedule covering a long time period where shift assignments do not recur. You can also use manual scheduling to tweak schedules you build with Schedule Builder. See *"Creating and adjusting schedules manually"*.

Schedule setup and customization

In order to build a schedule in Workforce Scheduling, whether you build your schedule with forecasting or you build it manually, you must perform the following tasks to set up and customize your schedule:

1. Start Workforce Scheduling.
2. Configure schedule options.
3. Configure shifts, breaks, and jobs.
4. Assign shifts to schedules.
5. Assign shifts to employees.
6. Specify scheduling preferences/options for each employee in the schedule.
7. Specify schedule warnings.

Starting Workforce Scheduling on a client computer

To log on to Workforce Scheduling

1. Open **Workforce Scheduling**.
   The Login window appears.
2. If prompted, type your **Username** and **Password** and verify the Enterprise Server IP address.
3. If you use Secure Socket Layer, select **SSL**.
4. Optionally, select **Remember my credentials**.
5. Click **Login**.

   The first time you log on, or if you have not created any schedules, the scheduler window displays.
   See *"Configuring schedule options"*.
   Otherwise, if schedules exist, the Load schedule window displays.
   See *"Loading schedules"*.

Configuring schedule options

NOTE:

- If you associate a schedule with a queue group, only those employees included in the selected queue group can be configured in the schedule. (Agents are members of agent groups, which are associated with queues that are members of queue groups.)
- If you do not associate a schedule with a queue group, you can schedule any employee whose profile enables you to schedule them in Workforce Scheduling.

Before you can build a schedule, either manually or using Schedule Builder, you must create a new schedule.

On the New Schedule window, you must:

- Name the schedule
- Associate the schedule with a queue or queue group (optional)
- Add employees to the schedule
- Configure business hours for the schedule
- Activate/Deactivate the schedule

You can create new schedules and configure all Workforce Scheduling options using the Schedule wizard. Optionally, use the Schedule tool to add, delete, rename, and activate/deactivate schedules. Within the Schedule configuration window, you can click Apply at any time to apply changes to the schedule without closing the Schedule configuration window.

Configuring scheduling options using the Schedule wizard

You can create new schedules and configure all Workforce Scheduling options using the Schedule wizard.

To configure scheduling options using the Schedule wizard

1. Click the **Configuration** tab.
2. In the **Schedules group**, click **Schedule wizard**.
3. Follow the steps in the Schedule wizard to configure schedules, business hours, employees, fixed/variable shifts, fixed/variable breaks and jobs, and fixed/variable shift assignments.
4. Click **Finish**.

Creating schedules

To create a schedule

1. On the Application menu or ribbon, click **New schedule**.
2. After **Schedule name**, type a name for the schedule.
3. Under **Employee association**, select either **All employees**, **Employees associated with this queue group only**, or **Employees associated with this queue only**.
   - If you select Employees associated with this queue group, select a queue group from the list.
   - If you select Employees associated with this queue, select a queue from the list.
4. If this schedule will be an active schedule, select the **This schedule is active** check box. Otherwise, select the **This schedule is used for planning purposes only** check box.
5. Click **OK**.
6. Select the check boxes of the employees to add to the schedule.

7. Click **OK**.

Adding employees to schedules

Schedules that contain fewer than 100 employees are easiest to manage. Each employee should belong to one active schedule only. However, if employees belong to more than one schedule, you can still view the shifts for which they are scheduled.

To add an employee to a schedule

1. Click the **Configuration** tab.
2. In the **Schedules group**, click **Select employees**.
3. After **Schedule**, select a schedule.
4. If you want to group employees in the list by supervisor, select the **Group by supervisor** check box.
5. Select the check boxes of the employees to add to the schedule.
6. Click **OK**.

Configuring business hours for schedules

You can specify different business hours for each schedule. By default, you are warned if you try to schedule shifts outside business hours.

To configure the business hours of a schedule

1. Click the **Configuration** tab.
2. In the **Schedules** group, click **Schedule**.
3. In the left pane, select **Schedules**.
4. Under **Schedules**, select the schedule to modify.
5. After **First day of the schedule week**, specify the day that the schedule will begin.
6. After **Annual calendar start date**, specify the date the calendar year begins.

   The information in this field is used to calculate annual minimum and maximum hours for employees. January 1st is the default date.
7. Specify business hours for the schedule.
   - If you want to schedule employees 24 hours a day, seven days a week, under Business hours, click **Open 24/7**.
   - After **Open**, select the check boxes of the days of the week to schedule.
   - After **From**, specify the start times for each day of the week to schedule.
   - After **To**, specify the end times for each day of the week to schedule.
8. Click **OK**.

Renaming schedules

You can rename a schedule without losing any information associated with the schedule.

To rename a schedule

1. Click the **Configuration** tab.
2. In the **Schedules** group, click **Schedule**.

3. Under **Schedules**, select the schedule to rename.
4. Click **Rename**.
5. After **Name**, type a new name for the schedule.
6. Click **Rename**.
7. Click **OK**.

Deleting schedules

CAUTION: Deleting a schedule deletes all of the information associated with that schedule. This cannot be undone.

To delete a schedule

1. Click the **Configuration** tab.
2. In the **Schedules** group, click **Schedule**.
3. Under **Schedules**, select the schedule to delete.
4. Click **Delete**.
5. Click **Yes**.
6. Click **OK**.

Activating / De-activating schedules

You can activate or deactivate a schedule at any time. Deactivating schedules is useful for performing 'what-if' scenarios, for seasonal schedules, and for retaining schedules to be used at a later time.

To activate or deactivate a schedule

1. Click **File=>Activate**.
   The Activate / Deactivate Schedule dialog box opens.
2. Select the schedule that you want to activate / deactivate.

   You can load multiple active schedules. However, if you load an inactive schedule, all other schedules close.
3. Click **Activate** to activate an inactive schedule or **Deactivate** to deactivate an active schedule.
4. Click **Close**.

Configuring shifts

A shift represents work hours on a given day for an employee. You can assign shifts to specific employees for any day of the week. You can create several shifts for one or more schedules. There are two types of shifts: fixed shifts and variable shifts. Fixed shifts have a fixed start time and duration. Variable shifts are based on the following shift variables:

Typical hours—the number of work hours for the shift

Minimum hours—the minimum number of hours for the shift

Maximum hours—the maximum number of hours for the shift

Minimum start—the time of day after which the shift must start

Maximum start—the time of day by which the shift must start

Color—the color in which the shift appears in the time bar pane.

You configure the following shift options using the Schedule tool:

- Add fixed shifts
- Add variable shifts
- Rename shifts
- Delete shifts

Adding fixed shifts

To add a fixed shift

1. Click the **Configuration** tab.
2. In the **Schedules** group, click **Schedule**.
3. In the left pane, click **Shifts**.
4. In the right pane, click the **Fixed Shifts** tab.
5. In the right pane, click **Add**.
6. After **Name**, type a name for the fixed shift.
7. Click **Create**.
8. Under **Start time**, type the start time of the fixed shift.
9. Under **Duration**, type the duration of the fixed shift.
10. Under **Color**, select a color for the fixed shift.
11. Click **OK**.

Adding variable shifts

To add a variable shift

1. Click the **Configuration** tab.
2. In the **Schedules** group, click **Schedule**.
3. In the left pane, click **Shifts**.
4. In the right pane, click the **Variable Shifts** tab.
5. In the right pane, click **Add**.
6. After **Name**, type a name for the variable shift.
7. Click **Create**.
8. Under **Minimum hours**, type the minimum number of hours in a day you can schedule the shift.
9. Under **Typical hours**, type the typical number of hours in a day you can schedule the shift.
10. Under **Maximum hours**, type the maximum number of hours in a day you can schedule the shift.
11. Under **Minimum start**, type the time of day after which the shift must start.
12. Under **Maximum start**, type the time of day by which the shift must start.

13. Under **Color**, select a color for the variable shift.
14. Click **OK**.

Renaming shifts

You can rename fixed/variable shifts without losing any information associated with the shifts.

To rename a shift

1. Click the **Configuration** tab.
2. In the **Schedules** group, click **Schedule**.
3. Click the **Shifts** tab.
4. If you want to rename a fixed shift, click the **Fixed shifts** tab. Otherwise, to rename a variable shift, click the **Variable shifts** tab.
5. Under **Name**, click the name of the shift to rename.
6. Type a new name for the shift.
7. Click **OK**.

Deleting shifts

CAUTION: Deleting a shift deletes all of the instances of that shift, including those inserted in schedules.

To delete a shift

1. Click the **Configuration** tab.
2. In the **Schedules** group, click **Schedule**.
3. Click the **Shifts** tab.
4. If you want to delete a fixed shift, click the **Fixed shifts** tab. Otherwise, to delete a variable shift, click the **Variable shifts** tab.
5. Under **Name**, select the shift to delete.
6. Click **Delete**.
7. Click **Yes**.

Configuring breaks

You configure the following break options using the Schedule tool:

- Add fixed breaks
- Add variable breaks
- Rename breaks
- Delete breaks

Examples of common breaks are morning break, lunch, afternoon break, and dinner break.

Adding fixed breaks

To add a fixed break

1. Click the **Configuration** tab.
2. In the **Schedules** group, click **Schedule**.
3. In the left pane, click **Breaks**.
4. In the right pane, click the **Fixed Breaks** tab.
5. Click **Add**.
6. After **Name**, type a name for the break.
7. Click **Create**.
8. If the break is a paid break, enable the check box under **Is paid**.
9. Under **Time into Shift**, type the time from the beginning of the shift at which the break must start.
10. Under **Duration**, type the amount of time allotted for the break.
11. Under **Color**, select a color for the break.
12. Click **Ok**.

Adding variable breaks

To add a variable break

1. Click the **Configuration** tab.
2. In the **Schedules** group, click **Schedule**.
3. In the left pane, click **Breaks**.
4. In the right pane, click the **Variable Breaks** tab.
5. Click **Add**.
6. After **Name**, type a name for the variable break.
7. Click **Create**.
8. Under **Duration**, type the amount of time allotted for the break.
9. If the break is a paid break, select the check box under **Paid**.
10. Under **Time to qualify**, type the minimum duration of a shift before you can schedule the break.
11. Under **Must start time into shift**, type the amount of time from the beginning of the shift that employees must work before they are entitled to the break.
12. Under **Must end time into shift**, type the amount of time from the beginning of the shift by which employees must complete the break.
13. Under **Minimum time** before end of shift, type the amount of time before the end of the shift that the break must end.
14. Under **Color**, select a color for the shift.
15. Click **OK**.

Renaming breaks

You can rename a break without losing any information associated with the break.

To rename a break

1. Click the **Configuration** tab.
2. In the **Schedules** group, click **Schedule**.
3. In the left pane, click **Breaks**.
4. If you want to rename a fixed break, in the left pane, click the **Fixed Breaks** tab. Otherwise, to rename a variable break, click the **Variable Breaks** tab.
5. Under **Name**, click the name of the break to rename.
6. Type a new name for the break.
7. Click **OK**.

Deleting breaks

CAUTION: Deleting a break deletes all of the instances of the break, including those inserted in schedules.

To delete a break

1. Click the **Configuration** tab.
2. In the **Schedules** group, click **Schedule**.
3. If you want to delete a fixed break, in the left pane, click **Fixed shifts**. Otherwise, to delete a variable break, click **Variable shifts**.
4. Click the **Breaks** tab.
5. Under **Name**, select the name of the break to delete.
6. Click **Delete**.
7. Click **Yes**.
8. Click **OK**.

Configuring jobs

Use jobs in a schedule to differentiate the Non ACD tasks that employees perform. You create jobs for a specific shift. If the job requires a specific set of skills, you can associate skills to jobs. After you associate skills to jobs, you can compare the skill (and skill level) of the employees to the skill required to perform a job. This will ensure the employees you schedule have the appropriate skills for their assigned jobs.

You configure the following job options using the Schedule tool:

- Add fixed jobs
- Add variable jobs
- Rename jobs
- Delete jobs

Adding fixed jobs

To add a job for a fixed shift

1. Click the **Configuration** tab.
2. In the **Schedules** group, click **Schedule**.
3. In the left pane, click **Jobs**.
4. In the right pane, click the **Fixed Jobs** tab.
5. Click **Add**.
6. After **Name**, type the name of the job.
7. Click **Create**.
8. If the job involves work on ACD calls, ensure the check box under **Is ACD** is selected.
9. Under **Time into Shift**, type the time from the beginning of the shift at which the job must start
10. Under **Duration**, type the duration of the job.
11. Under **Color**, select a color for the job.
12. Click **OK**.

Adding variable jobs

To add a job for a variable shift

1. Click the **Configuration** tab.
2. In the **Schedules** group, click **Schedule**.
3. In the left pane, click **Jobs**.
4. In the right pane, click the **Variable Jobs** tab.
5. Click **Add**.
6. After **Name**, type the name of the job.
7. Click **Create**.
8. If the job involves work on ACD calls, ensure the check box under **Is ACD** is selected.
9. Under **Color**, select a color for the job.
10. Click **OK**.

Renaming jobs

You can rename a job without losing any information associated with the job.

To rename a job

1. Click the **Configuration** tab.
2. In the **Schedules** group, click **Schedule**.
3. In the left pane, click **Jobs**.

4. If you want to rename a fixed job, click the **Fixed Jobs**. Otherwise, to rename a variable job, click the **Variable Jobs** tab.
5. Under **Name**, click the name of the job to rename.
6. Type a new name for the job.
7. Click **OK**.

Deleting jobs

CAUTION: Deleting a job deletes all of the instances of the job, including where it is inserted in schedules.

To delete a job

1. Click the **Configuration** tab.
2. In the **Schedules** group, click **Schedule**.
3. In the left pane, click **Jobs**.
4. If you want to delete a fixed job, click the **Fixed Jobs**. Otherwise, to delete a variable job, click the **Variable Jobs** tab.
5. Under **Name**, select the name of the job to delete.
6. Click **Delete**.
7. Click **Yes**.

Adding breaks or jobs to shifts

To add a break or a job to a shift

1. Click the **Configuration** tab.
2. In the **Schedules** group, click **Schedule**.
3. Click **Assignments**.
4. In the right pane, click the **Breaks and Jobs** tab.
5. Under **Shifts**, select the shift for which you will add shifts to.
6. Under **Breaks**, select the break to add to a shift.
7. Click **>** to assign the break to the shift.
8. Under **Jobs**, select the job to add to a shift.
9. Click **>** to assign the job to the shift.
10. Click **OK**.

Removing breaks and jobs from shifts

To remove a break or a job from a shift

1. Click the **Configuration** tab.
2. In the **Schedules** group, click **Schedule**.
3. Click **Assignments**.

4. In the right pane, click the **Breaks and Jobs** tab.
5. Under **Shifts**, select the shift for which you will remove breaks/jobs from.
6. Under **Breaks**, select the break to remove from the shift.
7. Click **<** to remove the break from the shift.
8. Under **Jobs**, select the job to remove from the shift.
9. Click **<** to remove the job from the shift.
10. Repeat steps 5-9 to remove additional breaks and/or jobs from shifts.
11. Click **OK**.

Assigning shifts to schedules

NOTE: Schedule Builder uses the shifts you assign, combined with the employees' availability and shift assignment, to schedule shifts (or variations of them).

To assign shifts to schedules

1. Click the **Configuration** tab.
2. In the **Schedules** group, click **Schedule**.
3. In the left pane, click **Assignments**.
4. In the right pane, click the **Shifts** tab.
5. Under **Schedules**, select the schedule to which you will add shifts.
6. Under **Fixed Shifts**, select the fixed shift to add to the schedule.
7. Click **>** to assign the shift to the schedule.
8. Under **Variable Shifts**, select the variable shift to add to the schedule.
9. Click **>** to assign the shift to the schedule.
10. Repeat steps 6-9 for each shift you want to add to a schedule.
11. Click **OK**.

Assigning shifts to employees

To assign a shift to an employee

1. Click the **Configuration** tab.
2. In the **Schedules** group, click **Configure employees**.
3. In the left pane, under **Schedules**, select the schedule containing the employee(s) to which you will assign shifts.
4. Under **Employees**, select the employee to which you will add shifts.
5. Under **Shift Assignment**, select the check boxes of the shifts that will be available to this employee.
6. Repeat steps 4-6 for each employee to which you will assign shifts.

7. Click **OK**.

Configuring event display preferences

To make events easy to identify at a glance, you can specify how you want to display the scheduled events.

You can specify the following event display preferences:

- **Time bar content display—** provides descriptions, notes, or icons for scheduled events in the time bar pane
- **Smallest scheduling interval—** the smallest increment with which you insert events into the time bar pane
- **Default shift color—** the color for all of the shifts in the time bar pane. To override the default shift color, see *"Configuring shifts"*.
- **Default break color—** the color for all of the breaks in the time bar pane. To override the default break color, see *"Renamig breaks"*.
- **Default job color—** the color for all of the jobs in the time bar pane. To override the default job color, see *"Configuring jobs"*.
- **Default time off color—** the color for all of the time off types in the time bar pane. Your System Administrator is responsible for setting and changing the default time-off color.
- **Unavailable color—** the color for unavailable periods in the time bar pane
- **Tool tip display—** provides event information in tool tips on the time bar pane. The tool tip appears as a series of brackets depending on the information criteria you select
- **Time display—** the time format of the time bar pane. For example, 3 o'clock in the afternoon appears as 3 P.M. if you select *12 Hours*, or 15 if you select *24 Hours*

Configuring the time bar display

You can select from the following three time bar display options:

- **Icon—** refers to the icons of the scheduled shifts, time off events, and unavailable periods in the time bar pane
- **Type name—** refers to the names of the scheduled jobs in the time bar pane
- **Type notes—** refers to the notes of the scheduled jobs in the time bar pane

To specify how events display in the time bar

1. On the application menu, click **Preferences**.
2. Click the **Display** tab.
3. Under **Time bar content**, select the time bar content to display for Shifts, Jobs, Breaks, Time off, and Unavailable periods.
4. Click **OK** to save and close the Preferences window.

Configuring the smallest scheduling time interval

By default, events are snapped to the time bar grid in 30 minute increments. However, you can adjust the snap-to-grid interval to 5, 15, 30, or 60 minutes. Set the smallest scheduling time interval to the minimum number of minutes you want to insert events into a schedule. For example, if you select 15 minutes as

the smallest scheduling interval, you cannot insert events for an employee in increments smaller than 15 minutes.

The default scheduling interval is 15 minutes, which we recommend, as changing this to a smaller interval will increase the amount of time it takes for Schedule Builder to build schedules.

To configure the smallest scheduling time interval

1. On the application menu, click **Preferences**.
2. Click the **General** tab.
3. Under **Scheduling preferences**, after **Smallest scheduling interval**, select the snap-to-grid time interval.
4. If you want to prevent the user from manually making any change that would trigger a warning, select the **Warnings are hard limits for the user** check box.
5. Click **OK** to save and close the Preferences window.

Preventing users from manually making changes that trigger warnings

You can configure Workforce Scheduling to prevent users from making changes that trigger warnings.

To prevent users from manually making changes that trigger warnings

1. On the application menu, click **Preferences**.
2. Click the **General** tab.
3. Select the **Warnings are hard limits for the user** check box.
4. Click **OK** to save and close the Preferences window.

Configuring the default colors on the time bar

To configure the default colors used for events on the time bar

1. On the application menu, click **Preferences**.
2. Click the **Display** tab.
3. Under **Default Timebar Colors**, after **Default Shift Color**, select a color.
4. Repeat step 3 for **Default Break Color**, **Default Job Color**, **Default Time Off Color**, and **Unavailable Color**.
5. Click **OK** to save and close Preferences window.

Configuring the time format

There are two time formats you can select from: the 24 hour international format or the 12 hour format which uses A.M. and P.M. to indicate morning and afternoon. For example, 3 o'clock in the afternoon appears as 15 if you select the 24 hour time format or 3 P.M. if you select the 12 hour time format.

To configure the time format

1. On the application menu, click **Preferences**.
2. Click the **General** tab.
3. After **Hour Format**, select either **12 Hours** or **24 Hours**.
4. Click **OK**.

Configuring tool tip display

You can specify the following information in tool tips for shifts, jobs, breaks, time off events, unavailable periods, and shadow events:

- **Schedule name—** provides the name of the schedule in which the event appears.
- **Is recurring** —displays if the event recurs.
- **Type—** provides the name of the event.
- **Type name—** states if the event is a shift, job, break, time off event, unavailable period, or shadow event.
- **Start/End Time—** provides the start and end time of the event.
- **Event Notes—** provides any notes from the detail grid for the event.

To configure the tool tip display

1. On the application menu, click **Preferences**.
2. Click the **Display** tab.
3. Under **Tooltip Display**, select the check boxes for the tool tips to display.
4. Click **OK**.

Configuring warnings

Warnings notify you when you try to schedule events outside of your scheduling parameters.

You can set the following warnings:

- Schedule warnings
- Shift warnings
- Break warnings
- Job warnings
- Overtime warnings
- Time Off warnings
- Employee scheduling warnings
- Schedule Builder warnings
- Employee selection warnings

To configure warnings

1. On the application menu, click **Preferences**.
2. Click the **Warnings** tab.
3. Ensure the check boxes of the warnings you want to configure are selected.

   See the following table.
4. Click **OK**.

Table 23.1: Warnings (Sheet 1 of 2)

Warning	Description
Scheduling work on company holidays	notifies you when events are scheduled on company holidays
Scheduling work outside business hours	notifies you when you try to schedule events outside of your contact center's business hours
When scheduling outside employee's availability	notifies you when you try to schedule employees who are not available at the specified time
Violates Length of Service Qualifications	notifies you when an employee has worked fewer or more months required to qualify for a specific type of time off
Exceeds accrued hours	notifies you when an employee is scheduled for more time off hours than is available to that employee at that time
Exceeds Maximum Scheduling Limit	notifies you when an employee is scheduled for more time off hours than specified for that type of time off
Less than Minimum Scheduling Limit	notifies you when an employee is scheduled for fewer time off hours than specified for that type of time off
Employee does not have required skills	notifies you when an employee does not have the required skills for the job for which they are scheduled
Exceeds Daily Maximum Work Hours	notifies you when an employee is scheduled for more hours in a day than defined by the parameter for that shift
Below Daily Minimum Work Hours	notifies you when an employee is scheduled for fewer hours in a day than defined by the parameter for that shift
Exceeds Weekly Maximum Work Hours	notifies you when an employee is scheduled for more hours in a week than defined by the parameter for that shift
Below Weekly Minimum Work Hours	notifies you when an employee is scheduled for fewer hours in a week than defined by the parameter for that shift
Exceeds Yearly Maximum Work Hours	notifies when an employee is scheduled for more than the annual maximum hours required
Below Yearly Minimum Work Hours	notifies you when an employee is scheduled for less than the annual minimum hours required

Table 23.1: Warnings (Continued) (Sheet 2 of 2)

Warning	Description
Start time outside of specified range	notifies you when an employee's shift is scheduled to start before (minimum) or after (maximum) the parameters defined for that shift
Within Minimum Time Between Shifts	notifies you when an employee is scheduled to start another shift too soon following the one previously completed
Below hours worked to qualify	notifies you when an employee is scheduled for a break before working enough hours after the last break in that shift to qualify for another break
Starting before earliest start time	notifies you when an employee is scheduled for the first break in a shift before a break can be taken
Ending after latest end time	notifies you when an employee is scheduled for the last break in a shift after a break can be taken
Removing an employee from a schedule	notifies you when you attempt to delete an employee from the schedule
Accepting a generated schedule	notifies you when you attempt to save a schedule you have built
Scheduled shift will cause overtime	notifies you when a shift qualifies an employee for overtime

Forecasting data for schedules

After setting up and customizing your schedule, if you are building a schedule from forecasted data, you must run the Forecasting tool and export the forecast into your schedule before you can select this option in the schedule builder or schedule builder wizard.

For information on the Forecasting tool, see *"Forecasting tool"*.

To access the Forecasting tool

1. Click **Tools** in the **Workforce Scheduling** ribbon.
2. In the **Data Mining** section, click **Forecasting**.

Schedule creation

You can create and customize schedules in Workforce Scheduling using specific parameters that suit the needs of your contact center. You can build schedules manually or with the Schedule Builder tool. Schedule Builder automates the schedule building process. It uses pre-defined employee and schedule options to create schedules. See *"Schedule setup and customization"*.

Schedule Builder helps you build a schedule with or without forecast data. If you are building a schedule with forecast data, you must export the forecast data into your schedule before running the Schedule Builder if you want to build a schedule with forecast data. See *"Forecasting data for schedules"*.

You can also use manual scheduling to modify schedules you build with Schedule Builder. See *"Creating and adjusting schedules manually"*.

NOTE: After you generate a schedule with Schedule Builder, you must accept or reject schedule changes before you can generate another schedule.

Schedule Builder uses the following parameters to create a schedule automatically:

- Date/time range
- Shifts
- Breaks
- Forecast data
- Business hours
- Employees
- Employee scheduling preferences
- Scheduling options
- Shift options
- Schedule algorithm options

Building schedules with Schedule Builder

NOTE: After you generate a schedule with Schedule Builder, you must accept or reject schedule changes before you can generate another schedule.

To build a schedule with Schedule Builder

1. Click the **Tools** tab
2. In the Schedule Builder group, click **Manual**.
3. Under **Schedule name**, select a schedule.
4. Specify the scheduling parameters on each tab of the Schedule Builder tool.
5. Click **Build**.

   A dialog box appears reminding you that changes to the schedule will not be committed to the database until you click Accept Schedule.
6. Click **OK**.

   The Accept Schedule and Reject Schedule buttons appear in the toolbar.
7. Verify the schedule.
8. Make any required modifications manually.
9. Click **Accept schedule** to save the new schedule.

   NOTE:

   – After you click Accept Schedule, the schedule is live in the database and the Accept Schedule button disappears. If you click Reject Schedule, the automatically generated schedule and any manual modifications are deleted from the schedule. See *"Creating and adjusting schedules manually"*.

- If there are any conflicts, a dialog box appears stating the number of conflicts. You cannot save a schedule with conflicts. Click Yes to delete the conflicts and accept the schedule, or click No to adjust the schedule. When you have resolved the conflicts, click Accept Schedule again to save the schedule.

Configuring the date and time range

To configure the date and time range for a schedule using Schedule Builder

1. In **Schedule Builder**, click the **General** tab.
2. Under **Dates and times**, on the **Date / Time** tab, select the date range of the schedule.
3. Under **Time**, select either **Use business hours**, **24/7**, or **Custom**.
4. If you selected **Custom** in the previous step, select the time the schedule starts and ends each day.
5. If you want to exclude dates from the schedule, click the **Exclusion** tab.
6. Hold down **CTRL** and then click the dates to exclude.

Scheduling shifts

To schedule shifts using Schedule Builder

1. In **Schedule Builder**, click the **General** tab.
2. Under **Schedule/Optimize**, select the **Shifts** check box.
3. Under **Event selection**, on the **Shift selection**tab, select the check boxes of the shifts to add to the schedule.
4. Click the **Shift**, **Break**, & **Job options** tab.
5. Under **Shift options**, specify how shifts will be distributed.
   - If you want to count existing shifts when determining the number of employees to be scheduled, select the **The Schedule Builder counts existing shifts when determining the number of employees which must be scheduled** check box.
   - If you want to optimize existing unlocked shifts, select the **Allow Schedule Builder to optimize existing unlocked shifts** check box.
   - If you want to optimize existing locked shifts, select the **Allow Schedule Builder to optimize existing locked shifts** check box.
   - If you want to schedule unassigned shifts for times when there are not enough employees available to satisfy the scheduling requirements, select the **Generate unassigned shifts when not enough employees are available to satisfy the schedule requirements** check box.
   - If you want to ignore employee shifts assignments when building the schedule, select the **Ignore employee shift assignments** check box.

Scheduling jobs

To schedule jobs using Schedule Builder

1. In **Schedule Builder**, click the **General** tab.
2. Under **Schedule/Optimize**, select the **Fixed Jobs** check box.
3. Under **Event selection**, on the **Fixed Job selection** tab, select the check boxes of the job types to add to the schedule.

4. Click the **Shift**, **Break**, & **Job options** tab.
5. Under **Schedule fixed jobs on**, select the check boxes of the job types to apply shifts.

Generating schedules with forecast data

To build a schedule with forecast data using Schedule Builder

1. In **Schedule Builder**, click the **General** tab.
2. Under **Schedule Builder method**, after **Method**, select **Forecasted** data.
3. If you want fewer employees scheduled than are forecasted, move the slider towards **Under-schedule**.
4. If you want more employees scheduled than are forecasted, move the slider towards **Overschedule**.
5. If you want to adjust the number of forecasted employees, next to **Increase/decrease the number of forecasted employees by**, enter a number.

Generating schedules without forecast data

To build a schedule without forecast data using Schedule Builder

1. In **Schedule Builder**, click the **General** tab.
2. Under **Schedule Builder method**, after **Method**, select **Explicit requirements**.
3. After **Number of employees to schedule**, enter a number.
4. If you want fewer employees scheduled than are forecasted, move the slider towards **Under-schedule**.
5. If you want more employees scheduled than are forecasted, move the slider towards **Overschedule**.

Generating schedules for your entire workforce

To build a schedule for your entire workforce using Schedule Builder, regardless of employee availability

1. In **Schedule Builder**, click the **General** tab.
2. Under **Schedule Builder method**, after **Method**, select **Entire workforce**.
3. If you want to enable employee filtering, select the **Enable employee filtering** check box.

Selecting employees

To select the employees you want to schedule using Schedule Builder

1. In **Schedule Builder**, click the **Employee filtering** tab.
2. If you want to filter employees by agent group, under **Agent group**, select the check boxes of the agent groups to schedule.
3. If you want to filter employees by their skills, under **Skill**, select the check boxes of the required skills. Otherwise, skip to step 6.
4. Under the list of available skills, select an operand.
   - If the employees must have a skill level greater or equal to the skill level required, select **>=**.
   - If the employees must have a skill level lower or equal to the skill level required, select **<=**.
   - If the employees must have a skill level exactly equal to the skill level required, select **=**.

5. If you want to filter employees by name, under **Select employees with this name**, type an employee's name.
6. If you want to select specific employees, under **Selected employees**, select the check boxes of the employees to schedule.
7. Click the **Employee sorting** tab.

   NOTE: You must configure the employee payroll information in order to select the seniority and pay rate parameters.
8. If you want to prioritize how shifts are distributed to employees, select the **Use employee sorting** check box, and select the criteria with which to sort employees.
9. If you want to assign or edit employee priority numbers, under **Employee priority**, select an employee.
10. Under **Priority**, type a personal priority number.
11. Click the **Overrides** tab.
12. If you want to override employee work hour preferences, under **Work hours**, select the check boxes to override daily work hours, weekly work hours, and the minimum time between shifts.
13. If you want to override employee availability, under **Availability**, select the check boxes to override employee availability and unavailable events currently applied to the schedule.
14. If you want to override scheduled time off, under **Time off**, select the **Override time off events currently applied to the schedule** check box.
15. If you want to override an employee's skills required to do the fixed job, under **Fixed Jobs**, select the **Override an employee's skills required to do the fixed job**.

Configuring scheduling options

To configure schedule options Schedule Builder uses to create a schedule

1. In **Schedule Builder**, click the **Advanced options** tab.
2. Under **Schedule algorithm performance**, specify the settings Schedule Builder will use to build the schedule.
3. If you want to optimize break distribution, under **Optimization types**, select the **Optimize break distribution** check box.
4. If you want to optimize shift placement, select the **Optimize shift placement** check box.
5. If you want to optimize shift size, select the **Optimize shift size** check box.
6. If you want to balance the distribution of employee shifts over the week, select the **Balance over the week** check box.

   Selecting this option ensures that Schedule Builder does not completely fill the requirements of the first few days of the schedule and understaff employee requirements by the end of the week.

Creating and adjusting schedules manually

You can create entire schedules manually. However, if you must schedule a large number of employees it can be quite complicated and time consuming. Schedule Builder automates the process and builds

schedules for you. You can manually adjust schedules created with Schedule Builder. You can create and adjust schedules manually in the following ways:

- Load a schedule
- Populate a schedule with events
- Drop insert an event
- Drag insert an event
- Recur an event
- Mass recur an event
- Mass delete an event
- Mass apply time off
- Modify a forecast total
- Modify event times or notes

Loading schedules

NOTE: Your access rights determine which schedules you can view, modify, or manage.

To load a schedule

1. Click **File > Load schedules**.
2. Select the schedule(s) to load.
3. If you want to load all active schedules, select the **Select all active schedules** check box.
4. Click **Load**.

Populating schedules with events

NOTE:

- Your access rights determine which schedules you can view, modify, or manage.
- For ease of use and accuracy when inserting events, select a schedule view of less than 1 week (View > Schedule View) prior to insertion.

You can manually insert the following events into a schedule:

- Shifts
- Breaks
- Jobs
- Time off
- Unavailable periods

You can insert events in a schedule by either dropping or dragging them on an employee's time line on the time bar pane. You can optionally drop insert breaks or jobs into already existing fixed shifts. Drop inserting events is most useful for fixed events, as the duration of the shift is predefined. Drag inserting events is most useful for variable shifts, as the duration can vary depending on the defined parameters for a specific event.

NOTE: To accommodate for last minute scheduling changes, you can optionally schedule time off and unavailable events in the middle of scheduled shifts or schedule a shift in the middle of time off and unavailable events.

Drop inserting events

To drop insert an event

1. Click the **Insert** tab.
2. Click **Drop**.
3. Under **Event**, select the event to add to the schedule.
4. Under **Schedule**, select the schedule to add events to.
5. Under **Event name**, select the name of the event to add to the schedule.
6. On the time bar pane, click the employee's time line to insert the event.

   The event is added to the schedule.
7. Repeat steps 3-6 for every event to add to the schedule.

Drag inserting events

NOTE: Drag insert is not available in the 1 month schedule view.

To drag insert an event

1. Click the **Insert** tab.
2. Click **Drag**.
3. Under **Event**, select the event to add to the schedule.
4. Under **Schedule**, select the schedule to add events to.
5. Under **Event name**, select the name of the event to add to the schedule.
6. On the time bar pane, click the employee's time line and drag the cursor from the start time to the end of the event.
7. Repeat steps 3-6 for every event to add to the schedule.

Recurring events

You can recur shifts, time off, and unavailable events.

To make an event recur

1. On the time bar pane, on the employee's time line, right-click the event to recur.
2. Click **Recurring**.
3. Click **Daily**, **Weekly**, or **Monthly recurring**.
4. Specify the pattern and range of the recurrence.
5. Click **OK**.

Mass recurring events

You can use the Mass recurrence wizard to create multiple recurrences for several events automatically. The wizard allows you to mass recur shifts, time off, and unavailable periods based on either a daily or weekly template.

NOTE: Manual or mass deletion is required to remove the generated events.

To mass recur events

1. Click the **Tools** tab.
2. In the **Bulk operations** group, click **Recurrence**.

   The Mass Recurrence wizard opens.
3. Click **Next**.
4. Follow the steps in the wizard to specify the parameters of the events to mass recur.
5. Click **Finish**.
6. Click **Yes**.

Mass deleting events

You can delete one or more scheduled events (shifts, time off periods, unavailable periods, breaks, and jobs) at a time with the Mass delete option. Only the selected events are deleted from the schedules.

To mass delete scheduled events

1. Click the **Tools** tab.
2. In the **Bulk operations** group, click **Delete**.
3. Specify the date range affected, event types to delete, and the schedules to delete events from.
4. Click **OK**.

Mass applying time off

You can apply time off to any or all agents in a schedule simultaneously.

To mass apply time off

1. Click the **Tools** tab.
2. In the **Bulk Operations** group, click **Time Off**.

   The Timeoff Mass Insert dialog box opens.
3. Select a schedule from the **Schedules** drop-down list.
4. Hold down **CTRL** and then click the agents to which you want to apply the time off type. If you want to select all agents, click **Select All**.
5. Under **Time off**, select the time off type from the list.
6. Select the start and end dates, days of the week, and start and end times for the time off type.
7. After selecting the time off time, select **Mark remaining periods of the day as unavailable** if you want the hours outside of the start and end times to be unavailable for scheduling.
8. Click **OK**.

Modifying forecast totals in the event totals pane

If you build schedules with forecast data, you can adjust the forecast totals on the event totals pane. On the events totals pane, you can change forecast totals in time intervals as small as 15 minutes. The schedule view you select determines the time interval of the forecast totals. See *"Changing the time interval of the time bar pane"*.

For example, if you select the 8 hour schedule view, you can change the forecast data in 15 minute intervals. However, if you select the 1 day schedule view, you can change the forecast data in 1 hour time intervals. When you change the forecast data in an interval larger than 15 minutes and then change the view to smaller intervals, you will notice that the change applies to each of the smaller intervals.

NOTE: Schedule Builder uses the latest forecast data to calculate the number of employees required.

To change the forecast totals in the events totals pane

1. After **Totals**, click **+**.
2. Select the **Forecast** check box and the check boxes of any other event totals to view.
3. Click **-**.
4. Click the **View** tab.
5. Under **Schedule view**, select a time interval.

   See "Schedule views and corresponding event total".
6. Click the **+** before **Forecasted** to expand the forecast tree.

   The event totals for the loaded schedules appear.

   NOTE: You can use the Tab key to select cells to the right, and the Shift+Tab keys to select cells to the left.
7. Click a cell in the forecast event total grid and type the new forecast total for this time interval.

Modifying event times and notes in the schedule details pane

The changes you make to event start times and end times in the schedule details pane are immediately reflected in the time bar pane.

To modify the start and end times of events in the schedule details pane

1. On the schedule **Details** pane, click the **Start Time** or **End Time** of an event.
2. Type the new time.

   The new time is immediately reflected in the time bar pane.
3. Repeat for any other event times to modify.

To modify the start and end times of events in the time bar pane

1. Click the **Insert** tab.
2. Click **Select**.
3. On the time bar pane, select the event to modify.
4. Drag and drop the event to adjust its start and end times.

   The new time is immediately reflected in the time bar pane.
5. Repeat for any other event times to modify.

To add/edit a note for a scheduled employee

1. On the schedule **Details** pane, click the note field for an employee.
2. Click the **...** button.

   The Notes editor appears.
3. Type/edit a note.
4. Click **OK**.

Schedule distribution

You can specify viewing preferences, specify access rights to schedules, and run and print reports.

Viewing schedules

You can specify how you view the time bar pane. Use the scroll bar to view other days and times in the schedule. If you reach the end of the month and want to view dates for the next month, you can click the arrow on the scroll bar to load the schedule for the next month. By default, events you insert into a schedule are snapped to the grid in 30 minute increments.

To view a specific date

1. From any tab in Workforce Scheduling, click **Select date**.
2. Click the date to view.

   The time bar will display the date you selected to view.

Viewing scheduled events

You select how event time bars appear in **File > Preferences**. You can isolate shifts, time off, and unavailability to view them separately in the time bar pane. You must view breaks and jobs with shifts. You cannot isolate breaks and jobs in the time bar pane. See *"Configuring event display preferences"*. You can select what information displays in the Tooltip in Preferences. For more information, see *"Configuring tool tip display"*.

If employees belong to more than one schedule and you are viewing only one of the schedules to which the employees belong, any events scheduled in the other schedule will appear as a shadow event (gray bar) in the time bar view. Shadow events will not display for inactive schedules.

To view shifts

- On the **View** tab, in the **Show/Hide** group, select the **Shift** check box.

To view jobs

- On the **View** tab, in the **Show/Hide** group, select the **Job** check box.

To view breaks

- On the **View** tab, in the **Show/Hide** group, select the **Break** check box.

To view time off

- On the **View** tab, in the **Show/Hide** group, select the **Time off** check box.

To view unavailable periods

- On the **View** tab, in the **Show/Hide** group, select the **Unavailable** check box.

To view shadow events

- On the **View** tab, in the **Show/Hide** group, select the **Shadow** check box.

Changing the time interval of the time bar pane

You can view schedules in the time bar pane over 8 hour, 12 hour, 1 day, 2 day, 1 week, 2 week, or 1 month time intervals. The default view is the 12 hour view.

To change the time interval in the time bar pane to one week

1. Click the **View** tab.
2. In the **View options** group, under **Schedule view**, select the interval to view.
3. Optionally, under **Group view**, select **Supervisor** to group employees in the time bar pane by schedule.

Viewing event totals

Event totals represent the total number of employees for an event. You can view event totals in 15 minute, 30 minute, 1 hour, 4 hour, or 1 day time intervals. The following table displays the event total time intervals that correspond to the schedule views.

Table 23.2: Schedule views and corresponding event total time intervals

Schedule view	Event totals time interval
8 hour	15 minute
12 hour	30 minute
1 day	1 hour
2 day	4 hour
1 week	1 day
2 week	1 day
1 month	1 day

You can select from the following event totals:

Forecast—appears only after you have applied a forecast to a schedule. This total represents the number of employees required to meet your specified Service Level objectives.

Scheduled—represents the number of employees scheduled at that time

Over/Under—represents the excess (over) or inadequate (under) number of employees scheduled when compared to the number of employees forecasted.

On Break—represents the number of employees scheduled for a break at a certain time

ACD Jobs—represents the number of employees scheduled to perform ACD jobs

Non ACD Jobs—represents the number of employees scheduled to perform Non ACD jobs

At work—represents the number of employees scheduled to handle interaction requests

Overtime—represents the number of employees scheduled for overtime

To view event totals

1. In the **Totals** pane, click **+**.
2. Select the check boxes of the event totals to view.
3. Click **-**.

   The totals pane appears with the event totals you selected.

Viewing schedule details

To group information in the schedule details pane

- On the schedule details pane, drag and drop the column header to organize to the **Drag a column header here to group by that column** area on the window.

To sort information in the schedule details pane alphabetically

- On the schedule details pane, click the header of the column to sort alphabetically.

To filter information in the schedule details pane

1. On the schedule details pane, click the arrow on a column header.
2. Select the filter criteria.

Synchronizing views

You can synchronize the people pane, time bar pane, and totals pane with the order of the information in the schedule details pane. Once you have organized the details of your schedules (sorting, filtering, and grouping) in the schedule details pane, synchronize views to reflect the order you have selected. For information on how to sort, filter, or group schedule details, see *"Viewing schedule details"*.

To synchronize views

1. Click the **View** tab.
2. Select the **Synchronize time bar view with details view** check box.
3. Optionally, select the **Vertical scrolling** check box.

Running Workforce Scheduling reports

The Workforce Scheduling reports are produced in Microsoft Excel format. You run and print the following Workforce Scheduling reports from CCMWeb. For more information, see the Reports Guide appropriate to your Mi Contact Center Business licensing level.

You can produce on-demand reports and scheduled reports for the following reports:

- Detailed Schedule by Employee with Totals
- Schedule by Employee by Time Off by Day of Week
- Employee Configuration
- Summary Schedule by Employee
- Schedule Coverage Totals by Type
- Work Hours Summary Schedule by Employee

Workforce Scheduling reports are found in CCMWeb, under **Reporter > Workforce Scheduling > Schedules**.

Schedule Adherence

Mitel Schedule Adherence is an optional application that works in conjunction with MiContact Center Business and Workforce Scheduling. Schedule Adherence resides in the Contact Center Client real-time monitors and enables you to view the real-time state of contact center employees scheduled in Workforce Scheduling. Schedule Adherence compares the current activities of employees to the configured

schedule and alerts you in real time when employees are out of adherence. Employees are considered out of adherence if they are early or late for their scheduled events or if they are not performing scheduled events.

Once you have configured a schedule in Workforce Scheduling, you

- Configure adherence preferences in Workforce Scheduling
- View adherence monitors in Contact Center Client
- Set adherence alarms on the Employee State by Position/Time monitors (optional)
- Run reports on employee adherence to scheduled events

Configuring adherence preference

You can configure adherence thresholds for shifts, breaks, and jobs. You can set parameters for each event type to suit the needs of your business. You select employee states and assign them to relevant events and specify event time tolerance levels. You can optionally configure groups of employee states and then associate them to relevant employee events.

NOTE:

- Schedule Adherence will handle two or more overlapping adherence thresholds in one of the following ways. If only one of the events is valid for the current employee state, that event will be used. If more than one event is valid for the current employee state, the first event, using start time, will be used.
- If no states are specified for an event type, all states will be considered in adherence.

Configuring adherence parameters

To configure adherence parameters

1. In Workforce Scheduling, click the **Configuration** tab.
2. In the **Adherence group**, click **Adherence Configuration**.

   The Adherence Parameters window opens.
3. In the left pane, expand the event type list and select the event to which you want to add relevant adherence states.
4. Under **Event start tolerance (hh:mm)** , specify the times before and after which an employee state will be reported on as out of adherence.
5. Under **Event end tolerance (hh:mm)**, specify the times before and after which an employee state will be reported on as out of adherence.
6. Under **Available states**, select the states which are relevant for the specified event type and click **>** to move the state to the **Assigned states** list.
7. Repeat the above steps for each event type for which you want to configure adherence parameters.
8. Click **OK**.

Configuring state groups

To configure a state group

1. In Workforce Scheduling, click the **Configuration** tab.
2. In the **Adherence group**, click **State groups**.

   The State groups window opens.

3. Click **Add**.
4. Type a name for the state group and click **Create**.
5. Under **Available states**, select the states that are relevant for the state group and click **>** to move the state to the **Assigned states** list.
6. Repeat steps 2-5 for each state group you want to configure.
7. Click **OK**.

Viewing adherence monitors in Contact Center Client

Schedule Adherence includes two Contact Center Client monitors that enable you to monitor employee adherence to schedules in real time. The Schedule Adherence monitors alarm on employees who are not adhering to schedules based on the thresholds you specify in Workforce Scheduling and the alarms you configure in Contact Center Client. You can optionally set adherence alarms on the Employee State by Position/Time monitors.

Adherence Detail Grid monitor

The Adherence Detail Grid monitor displays employee scheduled events, expected states, and event totals. It enables you to easily compare expected employee states and actual employee states in real time.

There are three levels to the Adherence Detail Grid monitor. The first level provides a high level overview of employee adherence. The second level has two grids. The first lists all of the embedded events (breaks and jobs) for the shift and the associated adherence information. The second grid lists the out of adherence record for the shift. The final level has only one grid, which represents the out of adherence record for the embedded events.

The following table provides column heading definitions for the Adherence Detail Grid monitor.

Table 23.3: Adherence Detail Grid monitor headings (Sheet 1 of 2)

Heading	Definition
Employee	the name of the employee being monitored
Is in Adherence	the check box is enabled when the employee is adhering to the schedule
Scheduled	the type of event (shift, break, or job) the employee is performing, whether in or out of adherence
Expected States	the employee states that are relevant for the type of scheduled event the employee is scheduled to perform
Actual State	the current employee state. If this is one of the expected states, the employee is adhering to the schedule

Table 23.3: Adherence Detail Grid monitor headings (Continued) (Sheet 2 of 2)

Heading	Definition
Scheduled Start	the time at which the employee is scheduled to start the scheduled event
Actual Start	the time at which the employee started the scheduled event. This column may be blank if the employee has not come into adherence for the scheduled event
Scheduled End	the time at which the scheduled event is to end
Current Out Of Adherence	the amount of time the employee has been out of adherence since the last scheduled event, minus any tolerances configured. This column will be blank if the employee is adhering to the schedule
Total Out Of Adherence	the total amount of time the employee has been out of adherence for all scheduled events for the current shift
Shift Time	the duration of time the employee has been working the current shift
% Out Of Adherence	the percent of time the employee has been out of adherence for the elapsed portion of the scheduled shift
Shift	the name of the shift for which the employee is scheduled
Embedded	the name of the embedded event type (break or job)
Start	the time at which the employee went out of adherence
End	the time at which the employee came back into adherence

You can set alarms on the Adherence Grid monitor to alarm on employee adherence. For example, in an adherence grid monitor, you could set an alarm on the Scheduled variable and set the value to Unscheduled and have it display as red text, enabling you to clearly see when an employee is not adhering to the shift as expected.

You can alarm on the following performance variables in the adherence detail grid monitor:

- Out of adherence
- Scheduled

  NOTE: To alarm for when the employee is in Time off or Unavailable states, set the value to Unscheduled.
- Expected states

- Actual state
- Actual start
- Current Out of Adherence
- Total Out of adherence
- Shift time
- % Out of adherence

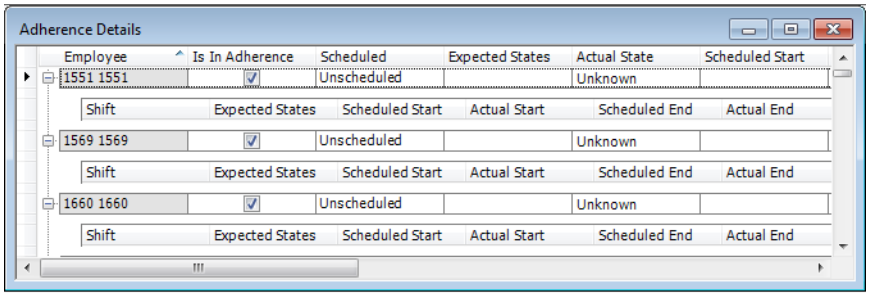
To open the Adherence Detail Grid monitor

1. Click the **Real Time** tab in the Contact Center Client ribbon.
2. From the drop-down arrow in the **Adherence** column, select **Detail Grid**.

   The Add/Remove device IDs window opens.
3. Select the **Employees** or **Schedules** for which you want to review Adherence.
4. Click **OK**.

   The Adherence Details monitor opens.
   See the following figure.

Figure 23.6: Adherence Detail Grid monitor



To alarm on schedule adherence in an Adherence Detail Grid monitor

1. Right-click anywhere in the monitor and click **Set alarms**.
2. Under **Performance variables**, select the variable you want to monitor.
3. Under **Alarm thresholds**, click **Add** and select a value for that variable you selected as well as the alarm notification options that will indicate when the variable exceeds those boundaries.

   For more information on configuring monitor alarms, see *"Setting alarms"*.
4. If you want to add further alarms for the variable, repeat step 3.
5. If you want to add an alarm for another variable, repeat steps 2-5.
6. Click **OK** to save the alarms.

Adherence Timebars monitor

The Adherence Timebars monitor provides a schedule time bar, based on the employee time bar and event colors configured in Workforce Scheduling, for each employee's scheduled events. The current time is identified by a green line on the employee time bar and past events are shaded purple.

You can set alarms on the Adherence Grid monitor to alarm on employee adherence. The following performance variables can be alarmed on in the adherence timebars monitor:

- Shift out of adherence

- Break out of adherence
- Job out of adherence

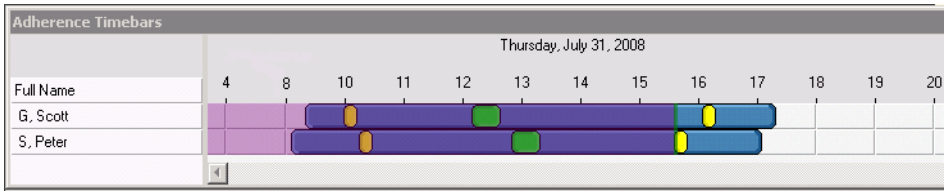
To open the Adherence Timebar monitor

1. Click the **Real Time** tab in the Contact Center Client ribbon.
2. From the drop-down arrow in the **Adherence** column, select **Timebars**.

   The Add/Remove device IDs window opens.
3. Under **Schedules**, select a schedule to include in the monitor or under **Employees**, select the employees to monitor.
4. Click **OK**.

   The Adherence Timebars monitor opens.
   See the following figure.

Figure 23.7: Adherence Timebars monitor



To alarm on schedule adherence in an Adherence Timebar monitor

1. Right-click anywhere in the monitor and click **Set alarms**.
2. Under **Performance variables**, select the variable you want to monitor.
3. Under **Alarm thresholds**, click **Add** and select a value for that variable you selected as well as the alarm notification options that will indicate when the variable exceeds those boundaries.

   For more information on configuring monitor alarms, see *"Setting alarms"*.
4. If you want to add further alarms for the variable, repeat step 3.
5. If you want to add an alarm for another variable, repeat steps 2-5.
6. Click **OK** to save the alarms.

Employee State by Position/Time monitors

You can alarm on employees who are not adhering to schedules on the Employee State by Position/Time monitors using the Out of adherence performance variable. This variable measures the duration of time an employee is out of adherence, enabling more targeted alarming on the time and degrees for which an employee is out of adherence.

To set an adherence alarm on the Employee State by Position/Time monitors

1. Right-click an Employee State by Position/Time monitor and click **Set Alarms**.

   NOTE: You can select the Apply the alarm thresholds to all devices displayed on the monitor option to apply the threshold settings for performance variables across all employees. Alternatively, you can select Apply the alarm thresholds to a specific list of devices to apply the threshold settings for performance variables to a list of employees.
2. If you selected **Apply the alarm thresholds to a specific list of devices**, under **Devices**, select the employee(s) to which you want to apply the alarm thresholds.

3. Under **Performance variables**, select **Out of adherence**.
4. Under **Alarm threshold**, click **Add** and specify the boundary for alarming and set the options for the background color, font color, sound, pop-up, bring to front, and email.
5. To add an additional threshold for alarming, repeat step 4.
6. Click **OK**.

Alarming on schedule adherence

Supervisors can set alarms on adherence monitors in Contact Center Client to alarm on employee adherence by configuring an alarm in Contact Center Client using the Scheduled Performance Variable set to a specific value (such as unscheduled).

For example, in an adherence grid monitor, you could set an alarm on the Scheduled variable and set the value to Unscheduled and have it display as red, enabling you to clearly see when an employee is not adhering to the shift as expected.

You can alarm on the following performance variables in the adherence detail grid monitor:

- Out of adherence
- Scheduled
- Expected states
- Actual state
- Actual start
- Current Out of Adherence
- Total out of adherence
- Shift time
- % out of adherence

You can alarm on the following performance variables in the adherence timebars monitor:

1. Shift Out of adherence
2. Break Out of adherence
3. Job Out of adherence

To alarm on schedule adherence

1. Right-click anywhere in the monitor and click Set alarms.
2. Under Performance variables, select the variable you want to monitor.
3. Under Alarm thresholds, click Add and select a value for that variable you selected as well as the alarm type(s) that will indicate when the variable exceeds those boundaries.
4. For more information on configuring monitor alarms, see *"Setting alarms"*.
5. If you want to add further alarms for the variable, repeat step 3.
6. If you want to add an alarm for another variable, repeat steps 2-5.
7. Click OK to save the alarms.

Running Schedule Adherence reports

The Schedule Adherence reports are produced in Microsoft Excel format. You run and print the following Schedule Adherence reports from CCMWeb. For more information, see the Reports Guide appropriate to your MiContact Center Business licensing level.

You can produce on-demand reports and scheduled reports for the following reports:

- Employee and Employee Group Adherence Trace
- Employee Group Time Out of Adherence by Employee by Day of Week
- Employee Group Time Out of Adherence by Day of Month
- Employee Group Adherence by Period

Schedule Adherence reports are found in CCMWeb, under**Reporter > Workforce Scheduling > Schedule Adherence**.

Employee Portal

Mitel Employee Portal enables employees to view and trade shifts online and request changes to schedules for time off, shifts, and availability. Employee Portal enables schedulers to view employee requests, perform what-if scenarios, quickly approve or deny requests, and automatically update schedules.

Access to Employee Portal features is dependent on your administrative-set security roles.

Employee Portal and employees

Using Employee Portal, employees can

- View their currently scheduled shifts and the shifts of other employees who share their schedule
- View messages from supervisors and employees and receive updates about the status of their requests on the home page
- Offer shifts to the bulletin board for other employees to take or trade
- Remove shifts from the bulletin board
- Propose to take shifts from the bulletin board
- Propose to trade shifts from the bulletin board
- Accept or reject employee proposals to take or trade your shift
- Request time off
- Request changes to your availability

The Employee Portal home page provides links to the bulletin board, view and offer your scheduled shifts for take or trade, view your pending offers, request time off, and request availability changes. Any Employee Portal alerts that require your attention also display on the home page. These include

- You have approved shift requests
- You have denied shift requests
- You have shift requests pending supervisor approval
- You have shift proposals pending your acceptance
- You have shift proposals pending acceptance or that have been rejected
- You have time off requests pending supervisor approval

- You have notes regarding your availability

If a home page alert is red, it requires your attention. Click View to view the alert and any employee or supervisor notes in detail.

Starting Employee Portal

To start Employee Portal

1. Open **Employee Portal**.
2. Type your **Username** and **Password**.
3. Click **Login**.

Creating a desktop shortcut to Employee Portal

To create a desktop shortcut to Employee Portal

1. Open **Employee Portal**.
2. Type your **Username** and **Password**.
3. Click **Login**.
4. Drag and drop the Employee Portal web address from the address bar to your computer desktop.

Viewing currently scheduled shifts

To view your currently scheduled shifts

1. In Employee Portal, click **My shifts**.
2. If you want to view shifts starting on a specific calendar day, select the start date from the calendar.
3. Optionally, to view the break and job details for a specific shift, under **Details**, click **Select**.

Viewing the shifts of other employees in your schedule

You can view the shifts for other employees in your schedule to help you determine potential shift swaps.

To view the shifts of other employees in your schedule

1. Click **My Schedules**.
2. To view shifts starting on a specific day, select the start date from the calendar.
3. Click **Select** next to the employee for which you want to view the shift.

   The break and job details for the shift display below.

Offering shifts for other employees to take or trade

You can offer shifts to the bulletin board for other employees to take or trade. You can remove shifts from the bulletin board at any time as long as no employees have proposed to take or trade the shift. Shifts that have already begun cannot be posted to the bulletin board for other employees to take or trade.

To offer a shift for other employees to take or trade

1. Click **Offer my shifts**.
2. Next to the shift you want to offer for other employees to take or trade, click **Select**.

   The shift details display.

3. Click **Continue**.
4. Optionally, type a note to accompany your offer.
5. Click **Submit**.

Removing shifts from the bulletin board

You can remove shifts from the bulletin board at any time as long as no employees have proposed to take or trade the shift. If a proposal has been made, you will need to reject it first before you can remove the shift from the bulletin board.

To remove a shift from the bulletin board

1. Click **My pending offers**.
2. Next to the shift you want to remove from the bulletin board, click **Select**.

   The shift details display.
3. Click **Continue**.

   The shift offer is removed from the bulletin board.

Proposing to take shifts

To propose to take a shift

1. Click **Bulletin board**.
2. Next to the shift you want to take, click **Select**.

   The shift details display.
3. Click **Continue**.
4. Click **Next**.
5. Optionally, add a note to accompany your proposal.
6. Click **Next**.
7. Click **Submit**.

Proposing to trade shifts

To propose to trade a shift

1. Click **Bulletin board**.
2. Next to the shift you want to take, click **Select**.

   The shift details display.
3. Next to the shift you want to propose for trade, click **Select**.
4. Optionally, add a note to accompany your proposal.
5. Click **Next**.
6. Click **Submit**.

Accept or reject an employee proposal to take or trade your shift

To accept or reject an employee proposal to take or trade your shift

1. On the Employee Portal home page, next to **You have <#> shift proposals pending your acceptance**, click **View**.
   The Proposals window displays.
2. Next to the proposal you want to view, click **Select**.

   The proposal details display with any relevant employee notes.
3. Click **Accept** to accept the proposed shift change. Otherwise, click **Reject** to reject the proposed shift change.

Requesting time off

To request time off

1. Click **Request time off**.
   The Request time off window displays, including a list of any time off you have already scheduled.
2. Click **Request time off**.
3. Select a time off type from the list.
4. Click **Next**.
5. Specify the time off start and end times.
6. Click **Next**.
7. Optionally, add a note to accompany the time off request.
8. Click **Next**.

   The time off request summary displays.
9. Click **Submit**.

Requesting availability changes

NOTE: You can click Clear request at any time to reset the Request availability change window to your currently configured availability.

To request an availability change

1. Click **Request availability change**.
   The Request availability change window displays with your current availability.
2. If you need to change existing availability, under **Update current availability**, select a day of the week and click **Remove**. Otherwise, continue to step 3.
3. Under **Change availability**, specify the dates and times you are available to work.
   - After **Day of week**, specify the day of week you are available.
   - If you are only available during certain hours, select**Part of the day,** and specify the times at which you are available.
   - If you are available to work at any time during the day, select **Full day**.
4. Click **Add** to add the new availability to the request.

5. You can optionally select a currently configured availability day or time in the **Update current availability list** and click **Remove** to remove it from the list.

   NOTE: The Add button is for adding new availability to the Update current availability list only and not for replacing specific dates and times from the currently configured availability list.
6. Optionally, under **Employee note**, add a note to accompany your request.
7. Click **Accept**.

   The Confirm availability change window displays.
8. Specify the date that your requested availability will take effect.
9. Click **Submit**.

Employee Portal and Supervisors

Using Employee Portal, supervisors can
- View employee scheduling requests
- Preview the effect of approving or denying employee shift change requests
- Approve or deny employee proposals to take or trade shifts
- Approve or deny employee requests for time off
- Approve or deny employee requests for availability changes

Handling employee scheduling requests

NOTE: If you attempt to approve an employee's request for time off for a period where a schedule has yet to be built, time off will not be decremented properly and the time off will be entered as an unavailable event in the schedule.

To view, approve, or deny employee scheduling requests
1. Open **Workforce Scheduling**.
2. Log on to Workforce Scheduling.
3. Load an active schedule.
4. Click the **Employee Portal** tab.
5. Click the **Request mode** icon.
6. In the details pane, click the **Shift changes**,**Time off**, and **Availability** tabs to view any employee scheduling requests pending your approval.
7. Next to **Approve**, click the **+** to view the scheduling request details.
8. If you are viewing the Shift change tab, click **View timebar** to view the scheduled shift.
9. In the Employee requests group, click **Preview** to view the effect of approving the request.
10. In the Employee requests group,
    - Click **Approve** to approve the request.
    - Click **Deny** to deny the request.

    The schedule is automatically updated and employees are notified of the schedule request status.

Running Employee Portal reports

The Employee Portal reports are produced in Microsoft Excel format. You run and print the following Employee Portal reports from CCMWeb. For more information, see the Reports Guide appropriate to your MiContact Center Business licensing level.

The following reports are available with Employee Portal:

- Employee Portal Availability Requests
- Employee Portal Time Off Requests
- Employee Portal Shift Requests
- Employee Portal Shift Change Status

Employee Portal reports are found in the CCMWeb, under**Reporter > Workforce Scheduling > Employee Portal**.

Posting feedback and viewing our forums

Mitel has partnered with UserVoice, a third-party service, to host customer suggestions on https://micontactcenter.uservoice.com. When you post an idea to our feedback forum, others will be able to subscribe to it and make comments.

Our forums enable you to send feedback directly to the people building the product. While we cannot comment on every suggestion, feedback is analyzed and considered for future releases.

NOTE: Please do not use the forums to submit product defects. To submit product defects, please contact your administrator or dealer.

Feedback can also be submitted directly to Mitel without posting the suggestion on the forums. For more general feedback, you can also provide a rating of your experience with MiContact Center Business.

NOTE: Please do not use feedback for requesting customer assistance. For assistance with MiContact Center Business, please contact your dealer or Mitel Customer Support.

To post feedback and view our forums

1. In YourSite Explorer, click **File > Feedback**.
2. Click **Got an idea? Tell us**.

   or
   Access the following URL: https://micontactcenter.uservoice.com.

To submit feedback directly

1. In YourSite Explorer, click **File > Feedback**.
2. Click **Contact Us**.

To rate your Mitel experience

1. In YourSite Explorer, click **File > Feedback**.
2. Click **Rate us**.

Managing a Multimedia Contact Center

Mitel Multimedia Contact Center enables contact centers to handle email, chat, SMS, and open media interactions from customers. Agents handle voice, email, chat, SMS, and open media interactions using Ignite.

Within Ignite, agents and supervisors can monitor contact center activity and interactively manage interactions. Supervisors can monitor and interact with contacts and employees using Contact Center Client, Interactive Contact Center, and Interactive Visual Queue.

Multimedia interactions are routed using workflows, created using a visual, intuitive interface. Also included in Multimedia Contact Center is a Contact Us page that can be used by contact center website administrators to add live wait time statistics to their corporate website page, enabling customers to select their preferred communication method based on media type availability. Multimedia reports and charts provide valuable information by summarizing agent, employee, queue, and contact center performance.

To know more about how to manage a multimedia Contact Center, see *Multimedia Contact Center Installation and Deployment Guide*.

System Administrators - Installing, configuring, and maintaining a multimedia contact center

System Administrators are responsible for upgrading their contact center to the latest release and for configuring all devices to ensure the business can run smoothly and efficiently.

MiContact Center version 7.0 introduced a new multimedia contact center product that eases configuration. Routing of contacts is optimized through the use of visual workflows. Visual workflow configuration presents contact routing elements in an intuitive user interface. Using a drag and drop process, workflows can be customized to suit the individual needs of your contact center.

NOTE:

- As a best practice, system administrators should always apply the latest Windows component updates are to all servers and client machines. For more information on updating Windows products, consult Microsoft documentation.
- For MiContact Center Business/MiVoice Analytics, the enterprise server should not be installed on a publicly accessible network.

Fax and Historical SMS limitations

In Version 8.1, fax is supported as an email media type. However, when you upgrade to Version 8.1, if you need access to historical fax reports, you must generate such reports prior to upgrading as you will not be able to do so afterward.

Incoming fax capability can be implemented in Version 8.1 by using email attachments for fax delivery. For more information, see the Mitel Knowledge Base article located here: http://micc.mitel.com/kb/KnowledgebaseArticle51941.aspx

SMS is supported in 8.0+. Historical SMS data from a pre-8.0 instance of Multimedia Contact Center will be available after an upgrade because in previous versions SMS was treated as email.

Upgrading your multimedia contact center to MiContact Center Business version 9.2

The following versions are supported for upgrade to Version .9.2

- Version 8.1.x
- Version 8.0.x
- Version 7.1.3.3

When upgrading from MiContact Center version 7.x or 8.x to MiContact Center Business version 9.2 cases are automatically created for emails (beginning with the most recent email and ending with the oldest email). Emails that are associated to a particular customer interaction are grouped within a single case to consolidate information.

In addition, contact information based on historic emails is added to the MiContact Center Business database. For MiContact Center version 8.1 customers who implemented the Omni Channel Tech Preview cases are also created for SMS and Chat during an upgrade to MiContact Center Business version 9.2.

Upgrading - A simplified process

Version 7.0 introduced Simplified Configuration, a tool designed to ease the upgrade process and limit manual intervention while ensuring your existing configuration of agents, employees, and queues remains intact.

Simplified Configuration reduces Multimedia Contact Center setup time significantly but requires that the voice only portion of the system be configured first. The voice organization is used by Simplified Configuration as a template for enabling multimedia functionality.

The Simplified Configuration process creates Unified Queue Groups, which are used to organize queue and agent groups by the service for which they answer contacts. For example, a Unified Queue Group for the Sales department would contain only those queue and agent groups that handle Sales related contacts, either by email, chat, SMS, or open media. Unified Queue Groups are based on a service group, not on the media type handled. Unified Queue Groups can contain queues of any supported media type. Agent groups can contain agents of any supported media type.

NOTE: The Simplified Configuration feature is not available in the Version 8.0+ installer. Using this feature decreases the time spent upgrading and simplifies multimedia device configuration by auto-creating devices based on the current setup for voice. Upgrading from Version 6.0.3.0 to Version 7.1 before upgrading to Version 8.0+ enables you to take advantage of the Simplified Configuration option in the Version 7.1 installer.

Upgrade scenarios

This section of the guide describes upgrading from either a voice-only contact center or a contact center that is enabled for both voice and multimedia.

Upgrade methods

You can choose to either upgrade directly onto your current system or provision a new server and upgrade in a side by side fashion.

Direct upgrades

Direct upgrades are supported when upgrading from Version 7.0.x, or 7.1.x, or 8.0.x to Version 8.1.

Due to the significant architectural changes introduced in Version 7.0, we strongly recommend using a side by side migration method when upgrading from Version 6.0.3.0 to Version 7.1. This will help ensure a smooth transition as well as reducing setup time and minimizing downtime during and following the upgrade.

If you choose to upgrade on top of an existing Version 6.0.3.0 server, please note the following:

In a direct upgrade, Version 7.1 is installed onto your existing Version 6.0.3.0 server. This method

In a direct upgrade, there are post-upgrade steps that must be completed before you will regain full Multimedia Contact Center functionality. Multimedia Contact Center functionality is lost while you configure your new email settings. See *"Creating mail servers"* and *"Configuring the email media server"* for more information. If your contact center hosted chat configuration files on your corporate web server, you must enable chat to use them. See *"Hosting chat files on your corporate web server"* for more information.

If you currently use Multimedia Contact Center and choose to upgrade using your existing Version 6.0.3.0 server, you will be given the choice during the upgrade to either migrate your existing multimedia configuration or program the new multimedia portion of the software manually. Programming the multimedia software manually enables you to take advantage of the configuration options included with Version 7.1.

Side by side Migration

In a side by side migration, a new Enterprise Server is created, separate from the current production Enterprise Server. This recommended practice facilitates thorough testing and staged client updates and supports rollback, if required, by retaining the old platform.

A side by side migration carries the lowest level of risk in upgrading but may require purchasing additional hardware depending on your current configuration.

Additional licensing is not required when running a second Enterprise Server for the purposes of migration or to create a sandbox environment. To mitigate risk, consult a certified technician before configuring a second server. Once a license has been migrated, support will be provided for the latest release only. Support will not be provided for the older server with the previous release or the sandbox server.

A side by side migration is strongly recommended when upgrading an environment that currently uses voice and other media types. With a direct upgrade, Multimedia Contact Center functionality is lost while you configure your new email settings. In a side by side migration, where you install the new version on a new server, this situation is mitigated. There is only a temporary loss of functionality when you move your live data from the old system to the new system.

In a side by side upgrade, contact centers must implement a new version 8.1 Chat or Contact Us configuration using the new files in version 8.1 and add their previous chat and Contact Us settings to the 8.1 files. For information on Chat and Contact Us configuration, see *"Enabling chat"* and *"Enabling Contact Us"*.

After restoring the configuration backup to the new server, data collection, synchronization, and voice contact control on the production PBXs begins. This ensures a minimal gap in reporting data. If the data directory is copied and the database restored outside of business hours, there is no reporting data gap.

Synchronization is enabled and changes to the telephone system will be reflected in both the new and production servers after the maintenance cycle or upon completion of a manual summarization. If write back is enabled, settings take effect on the other server only after synchronization is complete.

We recommend testing your new configuration by creating a test email queue, a test chat queue, a test SMS queue, and a test agent on the new server and validating that email, chat, SMS, and open media are being correctly routed to queues and agents. Run reports to verify accuracy. Confirm that email aliases or distribution groups and URL redirects for chat have been correctly implemented.

In a side by side migration, once the new server is installed and all of the devices configured we recommend you then proceed to upgrade one client and ensure the system is functioning correctly before upgrading all other clients. If you choose to upgrade on top of your current system, the clients are automatically updated during the upgrade process.

Consider the following notes regarding a side by side migration:

- By default, MiVoice Business supports three ACD and three SMDR connections to the same PBX. The existing system and the new system use one ACD and one SMDR connection each. When migrating servers, data collection will resume on the new server upon restoration of the configuration backup. As a result, two connections to the SMDR and ACD ports will be used until one of the servers has been decommissioned. Ensure the number of connected devices to these ports does not exceed three per IP port.

  NOTE: MiVoice Business supports 3 ICP connections by default, but the number of supported ICP connections can be increased. Exceeding the number of supported connections will impact the collection of data on the server.
- When using voice contact control through MiContact Center Business for business hours queues may be closed by the new server if business hours are reconfigured. To ensure no voice contact control is performed until testing or migration, stop the MiContact Center Business MiTAI Proxy Server service on the Enterprise Server.
- You must ensure queue schedules are identical on both systems.
- Reporting discrepancies can occur due to differences between software versions or if data collection is interrupted.
- IVR Routing services must be shut off on the new server until you are ready to switch over or assign new ports.

For more information, see https://mitel.custhelp.com/app/answers/answer_view/a_id/1011100/loc/en_US.

Multimedia Contact Center backup and restore recommendations

We recommend backing up Enterprise Server data on a regular basis as a preventive measure in case of events that could cause loss of data and necessitate system restoration. The frequency of backups depends on how important the data is to your business. If losing one week of data is acceptable, then backing up once a week is sufficient. If losing more than one day of data is unacceptable, then a daily backup strategy should be implemented.

NOTE: We strongly recommend storing backup files in a location outside of the Enterprise Server in order to maintain essential data in the case of a hardware failure or catastrophic event.

The following data files must be considered:

- **YourSite Database configuration data files** – These files contain all device configuration for your contact center (including IVR Routing and Multimedia Contact Center workflows and prompts) and are backed up automatically during nightly maintenance. They are located in the SQL Server database as part of the CCMData files. During nightly maintenance, the data is backed up as an .xml file and retained for the last 30 days, enabling you to restore a previous configuration if necessary. You can

also backup configuration data manually using the Backup and Restore Wizard in Contact Center Client.

- **Raw data files** – These files contain all raw data from the media servers, including ACD and SMDR historical data and a flat file multimedia repository for all media, excluding voice. The multimedia repository stores multimedia messages and SMS and chat transcripts. These files are not backed up during nightly maintenance and must be backed up manually using your corporate backup solution.
- **Reply template data files** – These files include the packaged responses for email, chat, SMS, and open media. The reply template data files from the default folder and all user-specified folders are backed up automatically during nightly maintenance. Reply template data files are also included in manual backups using the Backup and Restore Wizard in Contact Center Client.
- **SQL Server data files (CCMData and CCMStatisticalData)** – The data that is stored in the SQL Server database is not automatically backed up during nightly maintenance. Consult Microsoft documentation for more information regarding backup and restore processes.

Following is a list of folders and locations for data that should be backed up using your corporate backup solution. Suggested backup tools include Symantec Backup Exec and Microsoft System Center Data Protection Manager:

- **Configuration backups:** <drive>:\Program Files (x86)\Mitel\MiContact Center Business\BackupFiles
  This folder contains the nightly .xml backups of configuration data and IVR Routing and Multimedia Contact Center workflows and prompts that are created during nightly maintenance.
- **Raw data:** <drive>:\Program Files (x86)\Mitel\MiContact Center Business\DataDirectory
  This folder stores all raw data from the media servers. Using this data you can re-summarize your raw data to enable reporting. This folder also contains the multimedia repository for all media, excluding voice.

To restore your system with the backed up data, you must stop the MiContact Center Business services and use the backup tools to restore the folders that you previously backed up. After these folders have been restored, restart the MiContact Center Business services. For more information, see *"Restoring telephone system and configuration data"*.

Pre-upgrade notes and planning

Version 9.2 is supported for use with 64-bit server-side and client-side Operating Systems.

Some manual device configuration is requiredfor those devices that were introduced in version 7.0 and version 8.1. We recommend you gather the following information before beginning the upgrade process:

- Mail server name
- IMAP port information for the mail server
- Email username and password for each mail server
- SMTP Server for email replies
- Chat URL (the public URL used to request a chat)
- Twilio SMS phone numbers, Account SID, and Account Authentication for SMS media servers
- Interflow configuration if required
- Customized in business or out of business auto-acknowledgment messages

CRM 2007 is not supported with version 9.1. If workflows contain Execute activities that point to CRM 2007, the preinstall checker will stop the upgrade. Microsoft CRM 2011 and 2013 are supported for use with Mi Contact Center Business version 9.1.

Prior to upgrading, we recommend you consider the following regarding chat:

- Choose the corporate web pages on which you want the Contact Us page to display
  - Determine what service(s), contact information, and business hours to display
  - Determine whether a chat request from this page needs to route to a specific queue
  - Customize the page to suit the look and feel of your current website
- Before upgrading, integrate the chat request(s) and/or the Contact Us page onto your corporate website. We recommend setting up a temporary chat unavailable page, as chat will be unavailable during the upgrade.

Hardware and software server and client specifications

For information regarding hardware and software server and client specifications, and for information regarding virtualization support, see the *MiContact Center Business and MiVoice Analytics System Engineering Guide* .

Upgrading a voice-only system

When upgrading a voice-only system, your current voice organization forms the basis for adding multimedia. The employees, queues, and agent groups within your voice organization are extended to handle multimedia.– in version 7.0 and 7.1 this includes email and chat. Support for SMS was added in version 8.1.

Employees handling inbound interactions for each service organization can be enabled to handle email, chat, SMS, and open media. Agent groups handling interactions for a service organization can be expanded to handle email, chat, SMS, and open media for the same service. Each voice queue representing a service organization will be contained within a Unified Queue Group to which email, chat, SMS, and open media queues are added. The Unified Queue Groups represent each service organization and route any media inbound interaction intended for that particular service.

NOTE: Unified Queue Groups are optional. You can alternatively use standard queue groups, depending on your business organization and needs.

The following steps must be followed to successfully upgrade a voice-only system:

1. Adhere to all pre-upgrade planning notes.
   See *"Pre-upgrade notes and planning"*.
2. Ensure all hardware and software specifications are met for the server and clients.

   See the *MiContact Center Business and MiVoice Analytics System Engineering Guide* for specification details.
3. Migrate SQL databases. (Side by side migration method only)

   See *"Migrating SQL databases"*.
4. Back up telephone system and configuration data.

   See *"Backing up telephone system and configuration data"*.
5. Install MiContact Center Business version 9.2 on the Enterprise Server.

   See *"Enterprise Server installation"*.
6. Restore telephone system and configuration data.

   See *"Restoring telephone system and configuration data"*.

7. Configure the multimedia system: Create mail servers, add email media servers, add chat media servers, add SMS media servers, enable employees for multimedia, define employee Workload, add agent groups and set default login agent group presence, add multimedia queues, create queue groups, modify default inbound, response, and Inqueue workflows, and convert to visual workflow routing.

   See *"Configuring a multimedia system"*.
8. Install client applications on employee desktops.

   See *"Installing client applications"*.

Migrating SQL databases

Please note that this section relates only to a side by side migration upgrade method.

Before upgrading, we recommend migrating the SQL databases, CCMdata and CCMStatisticalData, to the new server. By doing so, the installation configuration wizard will update the database schema when the new software version is installed.

Migrating the SQL databases enables you to preserve your previous reporting data. If you do not migrate the SQL databases, a new database will be created to which you can copy over the raw data, restore the database from the backup files, and, then, re-summarize the data. However, the data you will be re-summarizing will be for the current configuration so the reporting data may not match that of your previous system.

The two most common methods for migrating SQL databases are:

- Dropping the database files from the SQL instance and making a physical copy of the .mdf and .ldf files
- Using SQL Server Management tools to generate backup files or scripts

See the applicable Microsoft documentation for more information on migrating SQL databases.

To migrate SQL databases

1. Copy the SQL database .mdf and .ldf files or use MS SQL Server Management tools to make backup files or scripts.
2. Provision a new SQL server or new instance of SQL server.
3. Restore the SQL databases to the new SQL server or instance of SQL server.

Backing up telephone system and configuration data

Before installing the new version of software on the designated new server, you must back up telephone system and configuration data on the old Enterprise Server. If you are installing on top of an existing Enterprise Server, store the backup files in a location outside of the Enterprise Server in order to maintain essential data in the case of a hardware failure or catastrophic event.

The Enterprise Server configuration backup includes configuration items such as employees, agents, agent groups, queues, and security roles.

NOTE: You must be licensed as a System Administrator to back up telephone system and configuration data.

To back up telephone system and configuration data

1. In **Contact Center Client**, click **Tools > Management**.
2. In **Management Console**, click **Configuration** > **Back up/Restore configuration data**.
3. Select **Back up** and click **Next**.

4. Next to **Save**, click the drop-down button and select **Save as**.
5. Select a location to save the file and click **Save**.
6. Close the **View Downloads** window and, in the **Backup and Restore Wizard**, click Finish.

   A .zip file is created that contains an XML file with the entire configuration. The file size will vary depending on the amount of data that needs to be backed up, but will typically be between 1 and 20 MB. This .zip file name contains the date on which the file was created. For example, a backup file created on June 24, 2015 will contain '20150624'.

Enterprise Server installation

Install version 9.2 on the existing Enterprise Server (direct upgrade) or on the designated Enterprise Server (side by side upgrade). See the 'Enterprise Server installation' section in the *MiContact Center Business Installation and Administration Guide*.

Restoring telephone system and configuration data

After installing the new version of software on the existing Enterprise Server (direct upgrade) or on the designated Enterprise Server (side by side upgrade), restore the previously backed-up data from the location where it was stored (direct upgrade) or from the old server to the new server (side by side upgrade).
NOTE: *Remote restores are not supported.*

To restore telephone system and configuration data

1. In **Contact Center Client**, click **Tools > Management**.
2. In **Management Console**, click **Configuration > Back up/Restore configuration data** .
3. Select **Restore**.
4. To restore a file from the server backup directory, select **from the server backup directory**, select a file, and click **Next**.
5. To restore a file saved to another location, select **from this file > Browse**, open the backup file, and click **Next**.
6. When prompted to restart Contact Center Client, click **Yes**.
7. Optionally, you can synchronize the Enterprise Server's IP address and computer name after restoring data. Do so by selecting the appropriate check box and entering the Enterprise Server's IP address in the field provided.

After restoring a backup, check the IP addresses configured in YourSite Explorer and the computer names associated to all media servers to ensure the local media servers are set to the local server nameand remote collectors are also set correctly.

Configuring a multimedia system

To enable your voice-only contact center to handle other media types, you must configure devices and components within YourSite Explorer in the following order:

1. Create mail servers
2. Add email media servers
3. Add chat media servers

4. Add SMS media servers
5. Add open media media servers
6. Enable employees for multimedia
7. Define employee Workload
8. Add agent groups and set default login agent group presence
9. Add multimedia queues
10. Create queue groups
11. Modify default inbound, response, and Inqueue workflows
12. Convert to visual workflow routing

Creating mail servers

Email media servers require one or more mail servers to be configured. A mail server is used to receive and send mails to the corporate mail server and defines the IMAP connection to a single email account. Email aliases or distribution groups, depending on the mail server type, are used to associate multiple email addresses for the contact center to a single email account. This minimizes the number of mail servers required.

After creating a mail server, we recommend using the test button to verify both the SMTP and mail server are connected.

For more information and configuration details, see *"Integrating Multimedia Contact Center with mail"*.

Adding Email media servers

Media servers must be created for each media type supported by your contact center. Optionally, each media server is assigned a default Inbound workflow that you configure to route inbound interactions to designated endpoints.

For media server configuration details, see *"Adding email to Multimedia Contact Center"*.

Adding Chat media servers

Media servers must be created for each media type supported by your contact center. Each media server is assigned a default Inbound workflow that you configure to route inbound interactions to designated endpoints.

Chat media servers require the chat server URL and auto-response username to be specified. The chat server URL is the public URL invoked when a customer requests a chat. When a chat server URL is configured, the system performs an auto test to determine if the URL redirect is properly configured.

For more information and configuration details, see *"Adding chat to Multimedia Contact Center"*.

Adding SMS media servers

Media servers must be created for each media type supported by your contact center. Each media server is assigned a default Inbound workflow that you configure to route inbound interactions to designated endpoints.

To send and receive SMS interactions, SMS media servers require an SMS Gateway Provider. Multimedia Contact Center supports Twilio as an SMS Gateway Provider. You must have a Twilio account to add SMS handling capabilities to Multimedia Contact Center.

For more information on integrating with an SMS Gateway Provider, see *"Integrating Multimedia Contact Center with an SMS Gateway Provider"*. For information on configuring an SMS media server, see *"Adding SMS to Multimedia Contact Center"*.

Enabling employees for multimedia

You enable employees for multimedia by assigning the appropriate licensing and adding multimedia capabilities to existing voice-only employees.

For additional information and configuration details, see *"Adding multimedia capabilities to employees"*.

To enable employees for multimedia

1. Use the multi-select method to select the employees who will be upgraded to Multimedia Contact Center licensing.
2. Click the **General** tab and enable employees for the media their agents will support.

   Additional agents are created for the media specified. The agent uses the same name and reporting number as the employee.
   Agents that are newly created in the Employee device page will only be added to the employee's agent group if the employee's agent groups are enabled for the relevant media type and the Unified Queue Group Wizard is used.
3. Click **Save**.

Defining employee workload

A Workload descriptor, which determines the number and type of media interactions that can be pushed to an agent at any one time, must be assigned to each employee. If needed, refer to the notes regarding contact priority and Smart Algorithms that you were advised to make in the pre-upgrade notes and planning section of this document as a guide when defining Workloads.

During the upgrade, default Workloads are created and assigned to existing employees who are licensed for Multimedia Contact Center. Newly created employees must have Workloads manually assigned to them. You can also choose to create customized Workloads and assign them to employees, rather than using the included, default Workloads.

For information on defining employee Workload, see *"Managing Employee Workload"*. For information on configuring Workloads, see *"Configuring Workload"*.

Adding agent groups

No additional agent groups are required to enable voice-only employees for multimedia. As part of Simplified Configuration, existing voice agent groups are automatically enabled for multimedia during the upgrade, if the Unified Queue Group Wizard is used.

If you have agents who handle non-voice media interactions only, you will need to add agent groups accordingly.

You add agent groups and then associate employees to these groups.

Agent group presence, previously only available to voice agents, is now also available for multimedia agents. Agents and supervisors can adjust a member’s presence in an agent group. By default, on login,

agents are present in all of their agent groups. You can adjust this setting in the Agent group device page of YourSite Explorer. See *"Managing agent group membership, presence, and skill level"*.

For more information and configuration details, see *"Adding agent groups"* in the *"Configuring your multimedia contact center"* section of this guide.

Adding multimedia queues

When you create a multimedia queue, it is automatically associated to the existing media server for that media type.

If you use the Unified Queue Group Wizard, you do not need to add multimedia queues. Voice queues will be used by the Unified Queue Group Wizard as the basis for creating Unified queue groups that will handle all inbound interactions for a service group.

For more information and configuration details, see *"Adding multimedia queues"* in the 'Configuring your multimedia contact center' section of this guide.

Creating queue groups

Administrators can group queues for common purposes. There are three kinds of queue groups available: Reporting, Mitel Virtual, and Unified Queue Groups.

Unified Queue Groups are used to enable the media queues for a service organization to be grouped together. They are called ‘Unified’ Queue Groups because they unify a group of media queues, for example, email, chat, SMS, and open media, that handle interactions for a service group (i.e., Sales or Customer Support) within a business.

The Unified Queue Group wizard uses current voice queues to represent the service groups that will be expanded to handle multimedia. The System Administrator is asked to select voice queues and the media types that are to be enabled in the organization. The wizard then uses the voice queue name and reporting ID to create media queues, with the same name and reporting ID, and groups them into a Unified Queue Group. Each media queue is assigned a default Inqueue workflow.

NOTE:

- Unified Queue Groups are restricted to one media queue for each type of media.
- Individual queue priorities are used to specify the priority for media and queue routing. The default priority assigned is 64.
- Default Inqueue workflows have four levels of offer to agent group activities (to support multiple overflow conditions). The wizard populates the default Inqueue workflows with the same agent group order used by the voice queue member of the Unified Queue Group.
- Unified Queue Groups are optional. If you choose not to use them, then you must create individual email, chat, SMS, and open media queues and enable agent groups for multimedia.

For more information and configuration details, see *"Adding queue groups"*.

Modifying default Inbound, Response, and Inqueue workflows

NOTE: There is no default email response workflow.

During the upgrade, a default response workflow is assigned to relevant media servers. Default Inqueue workflows are assigned to each media queue. You can choose whether to enable default Inbound workflows on the Media Server configuration page in YourSite Explorer.

The default workflows must be modified after the upgrade, as follows:

- Typical Inbound workflow modifications include:
  - Emails: modifying the email address and destination queues
  - Chat: modifying the queue ID and destination queues
  - SMS: No modifications are required, but queue ID and destination queues can be modified
- Typical Response workflow modifications include:
  - Sending chat transcripts to clients
- Typical Inqueue workflow modifications include:
  - Associating the handling agent groups to the queue
  - Customizing the auto-acknowledgment messages

For more information, see *"Multimedia Contact Center default workflows"*.

Converting to visual workflow routing

When upgrading from version 6.0.3.0 to version 7.1, you have the option of converting to visual workflow routing. Visual workflow routing directs incoming interactions to queues and agent groups via routing rules, which are determined by Inbound and Inqueue workflows.

The first step in converting to visual workflow routing is enabling inbound routing for your media servers. Enabling inbound routing associates the appropriate default Inbound workflow to the server. Administrators can modify these default workflows to suit the contact center's needs.

The following explains how to convert to visual workflow routing by enabling the Inbound Routing tab on YourSite Explorer's Media Servers page. For more information on working with visual workflows and applying routing rules to interactions, see:

- *"Multimedia routing using visual workflows"*
- *"Multimedia Contact Center default workflows"*

NOTE: If version 6.0.3.0 customers upgrading to a version 7.1 system do not convert to visual workflow routing via the following procedure, multimedia interactions will continue to route directly to queues without routing rules applied through Inbound workflows. In cases where inbound interactions have multiple addresses in the To and/or CC fields, the interaction will only be routed by the first address in the To field.

To apply inbound routing rules to interactions

1. Select **Multimedia > Media servers** and select the media server.
2. Click the **Inbound** tab.

   The default Inbound workflow will be applied to your media server.

   NOTE: If you do not want to convert to visual workflow routing, do not save the media server.

Installing client applications

Before performing client installations, ensure the hardware and software requirements are met. See the *MiContact Center Business and MiVoice Analytics System Engineering Guide* for specification details.

Running the Client Role Selector and installing Ignite (DESKTOP)

The MiContact Center Business client installation includes the Client Role Selector. Within the Client Role Selector, you choose the applications and components of MiContact Center Business that you want to install on the desktop. In order to install Ignite (DESKTOP), an application that enables employees to

handle multimedia interactions, you must select it from the list of available options in the Client Role Selector window.

Upgrading a system that currently includes voice and multimedia

This section describes upgrading an existing voice and multimedia contact center to version 9.2.

Installation options

In Version 6.0.3.0, service groups are organized using unique agent groups per media type. As of Version 7.0, Unified Queue Groups can be created for each service organization. Unified Queue Groups can contain queues for each media type and a single agent group assigned to all of the queues. During the upgrade this reorganization does not happen automatically.

At the beginning of the upgrade from Version 6.0.3.0 to Version 7.1, the install wizard offers the option of the recommended normal upgrade or manually creating your Multimedia Contact Center Version 7.1 configuration from scratch. Read further to learn about the advantages of each choice.

If you select the recommended normal upgrade option, the installation wizard will not attempt to create new agent IDs, agent groups, and queues. Such configuration must be done following the upgrade. The advantage of choosing manual configuration is that it enables you to use the Simplified Configuration tool. Simplified Configuration eases the configuration process by creating blended queues and agent groups around each service group. It uses the already existing voice system as a base from which to enable multimedia. After the Simplified Configuration process is complete, each service group in the organization will have a Unified Queue Group that contains the media queues supporting the service group and a blended agent group(s) containing all of the employees who provide support for the service group. If another media type is required for a service group, another media queue can be added to the Unified Queue Group and the employees who are members of the agent group can be enabled for the additional media type.

CAUTION: We do not recommend manually upgrading as doing so requires devices to be reconfigured. If you choose to upgrade manually instead of auto-upgrading, your existing devices will be designated as historical and you will need to create new ones.

If you select to manually configure your Multimedia Contact Center, all of your existing devices will be designated as historical. New agent devices, agent groups, and queues will be auto-created to align as well as possible with your pre-existing configuration settings and routing behavior. After the upgrade it may be necessary to adjust device configuration, for example, you may want to consolidate agent groups or create Unified Queue Groups, to better align with the new model of Multimedia Contact Center. The advantage of choosing auto-upgrade is that it is faster than the manual upgrade. If you want to re-enable your system quickly to minimize downtime and do more refined configuration later, then this may be the best choice for you.

NOTE: The Simplified Configuration feature is only applicable to upgrades from Version 6.0.3.0.

Addition of default workflows

During the upgrade, Response and Inqueue workflows are added. Optionally, Inbound workflows can be enabled on the email media server device configuration page in YourSite Explorer. Inqueue workflows control the routing of queued contacts to agents. The database conversion installs default Inqueue workflows for each queue. By default, each Inqueue workflow supports one primary, three overflow, and one interflow group (to be used if the overflow groups fail to route). Whenever possible, workflow data is

auto-filled to reduce the upgrade effort. To avoid the need to reconfigure Inbound workflows, the existing routing configuration that media servers use to route to queues is applied.

Maintaining historical data

During the upgrade from Version 6.0.3.0 to Version 7.1, all pre-existing multimedia media servers are designated as historical. All queues, agent groups, and agents associated to the multimedia media servers are, consequently, also designated as historical.

The Summarize process has been modified to regenerate data for historical agents if the employee associated to the agents remains licensed for Multimedia Contact Center. This ensures all pertinent historical agent records continue to be accessible.

- During the upgrade, device reporting numbers may change. For example, if you choose the auto-upgrade option, similar groups will be automatically aligned, potentially altering their reporting numbers. This will affect your report data interpretation.
- After upgrading to Version 7.1, all multimedia reports will be generated from the new devices on the active media servers. If you want to run pre-upgrade multimedia reports, their data must be generated from the historical media servers. You cannot consolidate historical and new data into a single report.

Migrating the email repository

To enable archived email searches following the upgrade, you must migrate your old emails by copying the Multimedia Contact Center Exchange Repository from the old system to the flat file repository on your new system.

NOTE: This section is only applicable if you are upgrading from Version 6.0.3.0.

To migrate the email repository

1. Navigate to C:\Program Files (x86)\Mitel\Mi Contact Center Business\DataDirectory, create two folders, and name them 'Originals' and 'Replies'.
2. Within Outlook, access the MCC Exchange repository and drag and drop (copy) the mail contents from FoldersPublic FoldersCyberAEDRepositoryOriginals and FoldersPublic FoldersCyberAEDRepositoryReplies into the matching folders you created in step 1.
3. After the contents have been copied over, stop and start the MiContact Center Storage service.
4. Stopping and starting the Storage Service initiates the Repository Conversion tool. The Repository Conversion tool enables email compatibility with the updated Multimedia Contact Center search tool. The Conversion Tool converts and moves all mail items to two new folders: 'ProcessedOriginal' and 'ProcessedReply', for original and reply items respectively. After the conversion is complete, the items are moved to the 'SearchStorage' folder. You can delete the 'ProcessedOriginal' and 'ProcessedReply' folders after confirming all Exchange repository items have been successfully moved to the search repository.

Migrating the email repository can be quite time consuming. Depending on the number of items being moved, this process may take several hours. Migration must take place after the upgrade is finished as the C:\Program Files (x86)\Mitel and SearchStorage folders must be created before the migration can occur. You will be able to run Multimedia Contact Center while migrating the email repository. Any historical data that resides in Exchange will not be accessible from Ignite for searching purposes until the migration is complete.

Migrating the email repository breaks the link with real-time data. If you use preferred agent settings to route email, any contacts from before the upgrade will not retain their preferred agent history. To associate an agent with a reply, a manual search of SMDR records will be required.

Upgrade process recommendations

The following steps must be followed to successfully upgrade an existing voice and multimedia system:

1. Adhere to all pre-upgrade planning notes.
   See *"Pre-upgrade notes and planning"*.
2. Ensure all hardware and software specifications are met for the server and clients.

   See the *MiContact Center Business and MiVoice Analytics System Engineering Guide* for specification details.
3. Migrate SQL databases. (Side by side migration method only)

   See *"Migrating SQL databases"*.
4. Back up telephone system and configuration data.

   See *"Backing up telephone system and configuration data"*.
5. Install Mi Contact Center Business version 9.2 on the Enterprise Server.

   See *"Enterprise Server installation"*.
6. Restore telephone system and configuration data.

   See *"Restoring telephone system and configuration data"*.
7. Migrate existing emails from SearchStorage to Elasticsearch.

   See *"Migrating existing emails from SearchStorage to Elasticsearch"*.
8. Configure devices.

   See *"Configuring devices"*.
9. Install client applications on employee desktops.

   See *"Installing client applications"*.

CPU utilization when migrating multimedia messages to Elasticsearch

During upgrades, the installer migrates in-queue and in-progress multimedia messages to Elasticsearch. This migration uses a large share of the processor resources and, as such, may adversely affect system stability for Remote Desktop Sessions. After the migration process is complete, the installation continues and processor resources return to normal consumption levels.

NOTE: If system monitoring or management systems are configured to alarm on high resource utilization, a false flag may present during upgrades.

After installation is complete, multimedia interactions continue to be processed in the background and placed into the Elasticsearch archive. Multimedia messages are not searchable via Ignite until the message has been archived. Messages are archived, beginning with the most recent interactions, at a rate of approximately 8000 items per hour. The processing rate depends on your processor, available system resources, and number of historical multimedia interactions to be migrated.

Migration speed can be decreased if the server is under high load and you want to prioritize production operations. Migration speed should only be decreased if the system is in a high performance production environment and there is no immediate need to search older archived items. Default settings should provide appropriate performance for the majority of multimedia implementations. For information regarding modifying migration speed, see the following Mitel Knowledge Base article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1002083/loc/en_US.

Migrating SQL databases

Please note that this section relates only to a side by side migration upgrade method.

Before upgrading, we recommend migrating the SQL database to the new server. By doing so, the installation configuration wizard will update the database schema when the new version of software is installed.

Migrating the SQL databases enables you to preserve your previous reporting data. If you do not migrate the SQL databases, a new database will be created to which you can copy over the raw data, restore the database from the backup files, and, then, re-summarize the data. However, the data you will be re-summarizing will be for the current configuration so the reporting data may not match that of your previous system.

The two most common methods for migrating SQL databases are:

- Dropping the database files from the SQL instance and making a physical copy of the .mdf and .ldf files
- Using SQL Server Management tools to generate backup files or scripts

See the applicable Microsoft documentation for more information on migrating SQL databases.

To migrate SQL databases

1. Copy the SQL database .mdf and .ldf files or use MS SQL Server Management tools to make backup files or scripts.
   The SQL databases are CCMData and CCMStatisticalData.
2. Provision a new SQL server or new instance of SQL server.
3. Restore the SQL databases to the new SQL server or instance of SQL server.

Backing up telephone system and configuration data

Before installing the new version of software on the designated new server, you must back up telephone system and configuration data on the old Enterprise Server. If you are installing on top of an existing Enterprise Server, store the backup files in a location outside of the Enterprise Server in order to maintain essential data in the case of a hardware failure or catastrophic event.

The Enterprise Server configuration backup includes configuration items such as employees, agents, agent groups, queues, and security roles.

NOTE: You must be licensed as a System Administrator to back up telephone system and configuration data.

To back up telephone system and configuration data

1. In **Contact Center Client**, click **Tools > Management**.
2. In **Management Console**, click **Configuration > Back up/Restore configuration data**.
3. Select **Back up** and click **Next**.
4. Next to **Save**, click the drop-down button and select **Save as**.
5. Select a location to save the file and click **Save**.
6. Close the **View Downloads** window and, in the **Backup and Restore Wizard**, click **Finish**.

   A .zip file is created within which is an XML file that contains the entire configuration. The file size will vary depending on the amount of data that needs to be backed up, but will typically be between 1 and 20 MB. This .zip file name contains the date on which the file was created. For example, a backup file created on June 24, 2015 will contain ‘20150624’.

Enterprise Server installation

Install version 9.2 on the existing Enterprise Server (direct upgrade) or on the designated Enterprise Server (side by side upgrade). See the 'Enterprise Server installation' section in the *MiContact Center Business Installation and Administration Guide*.

Restoring telephone system and configuration data

After installing the new version of software on the existing Enterprise Server (direct upgrade) or on the designated Enterprise Server (side by side upgrade), restore the previously backed-up data from the location where it was stored (direct upgrade) or from the old server to the new server (side by side upgrade).
NOTE: *Remote restores are not supported.*

To restore telephone system and configuration data

1. In **Contact Center Client**, click **Tools > Management**.
2. In **Management Console**, click **Configuration > Back up/Restore configuration data** .
3. Select **Restore**.
4. To restore a file from the server backup directory, select **from the server backup directory**, select a file, and click **Next**.
5. To restore a file saved to another location, select **from this file > Browse**, open the backup file, and click **Next**.
6. When prompted to restart Contact Center Client, click **Yes**.
7. Optionally, you can synchronize the Enterprise Server's IP address and computer name after restoring data. Do so by selecting the appropriate check box and entering the Enterprise Server's IP address in the field provided.

After restoring a backup, check the IP addresses configured in YourSite Explorer and the computer names associated to all media servers to ensure the local media servers are set to the local server nameand remote collectors are also set correctly.

Migrating existing emails from SearchStorage to Elasticsearch

In a side by side migration upgrade from 7.x, after restoring the backup on the new server, you must run a migration tool to migrate existing emails from the old SearchStorage directory to Elasticsearch on the newly installed version 9.2 Enterprise Server.

To migrate existing interactions in a side by side upgrade scenario

1. On the 8.0+ Enterprise Server, in Windows, navigate to **Services**.
2. Right-click **MiContact Center Storage** and click **Stop**.
3. On the 7.x Enterprise Server, copy all .msg files from the **SearchStorage** location in **CCM\DataDirectory**.
4. On the 8.0+ Enterprise Server, paste them in the new **SearchStorage** location (set during installation).
5. Launch the command prompt.
6. Run the following command: **cd "<drive>:\Program Files (x86)\Mitel\MiContact Center\Services\StorageServices\ElasticsearchMigration"**, replacing <drive> with the appropriate drive chosen during installation.

7. Run the command **StorageService.ElasticsearchMigration.exe /r**.
8. When the message **Migration finished for storage directory** appears, close the command prompt.
9. Navigate to **Services**.
10. Right-click **MiContact Center Storage** and click **Start**.

Configuring devices

After upgrading the Enterprise Server, some manual device configuration is required to make your version 9.2 multimedia contact center fully functional.

NOTE: Whether you need to perform each of the following procedures depends on the version of MiContact Center Business software you are upgrading from and your multimedia settings prior to upgrade. All procedures are included here but may not all apply to your specific upgrade.

1. Create mail servers
2. Configure Email media server
3. Configure Chat media server
4. Configure SMS media server
5. Configure Open Media media server
6. Configure employees
7. Define employee Workload
8. Configure queues
9. Configure queue groups
10. Set default login agent group presence
11. Modify default inbound, response, and Inqueue workflows
12. Convert to visual workflow routing

Creating mail servers

Email media servers require one or more mail servers to be configured. A mail server is used to receive and send mails to the corporate mail server and defines the IMAP connection to a single email account. Email aliases or distribution groups, depending on the mail server type, are used to associate multiple email addresses for the contact center to a single email account. This minimizes the number of mail servers required.

After creating a mail server, we recommend using the test button to verify both the incoming and outgoing connections are functioning as expected.

When email servers are copied over during the upgrade, they retain the SMTP information for outbound mails, if it was configured in the previous system.

For more information and configuration details, see *"Integrating Multimedia Contact Center with mail servers"*.

Configuring the Email media server

For more information and configuration details, see *"Adding email to Multimedia Contact Center"*.

Configuring the Chat media server

For more information and configuration details, see *"Adding chat to Multimedia Contact Center"*.

Configuring the SMS media server

SMS media servers will be made historical during an upgrade from version 7.0 or version 7.1. MultiTech SMS modems are not supported in version 8.0+. Historical SMS media servers and their data will be available for reporting, post upgrade. Pre-8.0 SMS messages will be migrated and treated as emails.

If you are upgrading from pre-version 8.0, you must add a new SMS media server, add SMS handling capabilities to employee and agent groups, and add new SMS queues. In version 8.0+, SMS media servers require an SMS Gateway Provider. As of version 8.0, Multimedia Contact Center supports Twilio as an SMS Gateway Provider. You must have a Twilio account to add SMS handling capabilities to Multimedia Contact Center.

For more information on integrating with an SMS Gateway Provider, see *"Integrating Multimedia Contact Center with an SMS Gateway Provider"*. For information on configuring an SMS media server, see *"Adding SMS to Multimedia Contact Center"*.

Configuring employees

Employees can only have one agent for each of the types of multimedia supported by the contact center. In addition, employees handling multimedia interactions must have the appropriate licensing.

NOTE: Historical multimedia agents associated with employees can only be seen and deleted from YourSite > Agents.

For information and configuration details, see *"Adding multimedia capabilities to employees"*.

Defining employee Workload

For information on defining employee Workload, see *"Managing Employee Workload"*.

For information on configuring Workloads, see *"Configuring Workload"*.

Configuring queues

When you create a multimedia queue, it is automatically associated to the existing media server for that media type.

For more information and configuration details, see *"Adding multimedia queues"*.

Configuring queue groups

Administrators can group queues for common purposes. There are three kinds of queue groups available: Reporting, Mitel Virtual, and Unified Queue Groups.

Unified Queue Groups are optional but are beneficial in organizing media types for each service organization within your business and are a preferred method of multimedia queue configuration.

For more information and configuration details, see *"Adding queue groups"*.

Setting default login agent group presence

Agents and supervisors can adjust a member's presence in an agent group. By default, on login, agents are present in all of their agent groups. You can adjust this setting in the Agent group device page of YourSite Explorer. See *"Managing agent group membership, presence, and skill level"*.

Modifying default Inbound, Response, and Inqueue workflows

NOTE: There is no default email response workflow.

During the upgrade, a default response workflow is assigned to relevant media servers. Default Inqueue workflows are assigned to each media queue. You can choose whether to enable default Inbound workflows on the email media server device configuration page in YourSite Explorer.

The default workflows must be modified after the upgrade, as follows:

- Typical Inbound workflow modifications include:
  - Emails: modifying the email address and destination queues
  - Chat: modifying the queue ID and destination queues
  - SMS: No modifications required, but queue ID and destination queues can be modified
- Typical Response workflow modifications include:
  - Sending chat transcripts to clients
- Typical Inqueue workflow modifications include:
  - Associating the handling agent groups to the queue
  - Customizing the auto-acknowledgement messages

Default upgrade settings use an Offer to Agent activity to select the next available agent. If you require preferred agent support, then you must replace the Offer to Agent activity with an Offer to Preferred Agent activity in the Inqueue workflow.

For more information, see *"Multimedia Contact Center default workflows"*.

Converting to visual workflow routing

When upgrading from Version 6.0.3.0 to Version 7.1, you have the option of converting to visual workflow routing. Visual workflow routing directs incoming contacts to queues and agent groups via routing rules, which are determined by Inbound and Inqueue workflows.

The first step in converting to visual workflow routing is enabling inbound routing for your media servers. Enabling inbound routing associates the appropriate default Inbound workflow to the server. Administrators can modify these default workflows to suit the contact center's needs.

The following explains how to convert to visual workflow routing by enabling the Inbound Routing tab on YourSite Explorer's Media Servers page. For more information on working with visual workflows and applying routing rules to contacts, see:

- *"Multimedia routing using visual workflows"*.
- *"Multimedia Contact Center default workflows"*.

NOTE: If Version 6.0.3.0 customers upgrading to a Version 7.1 system do not convert to visual workflow routing via the following procedure, multimedia contacts will continue to route directly to queues without routing rules applied through Inbound workflows. In cases where inbound contacts have multiple addresses in the To and/or CC fields, the contact will only be routed by the first address in the To field.

To apply inbound routing rules to contacts

1. Select **Multimedia > Media servers** and select the media server.
2. Click the **Inbound** tab.

   The default Inbound workflow will be applied to your media server.

   NOTE: If you do not want to convert to visual workflow routing, do not save the media server.

Installing client applications

Before performing client installations, ensure the hardware and software requirements are met. See the *MiContact Center Business and MiVoice Analytics System Engineering Guide* for specification details.

Running the Client Role Selector and installing Ignite (DESKTOP)

The MiContact Center Business client installation includes the Client Role Selector. Within the Client Role Selector, you choose the applications and components of MiContact Center Business that you want to install on the desktop. Ignite enables employees to handle multimedia interactions. If you want to install Ignite (DESKTOP);on the client desktop, select it from the list of available options in the Client Role Selector window.

Removing Multimedia Contact Center WebChat Server software

If chat was supported in your Version 6.0.3.0 Multimedia Contact Center environment, remove the WebChat Server software that was previously installed on the corporate Web server.

Bringing the system online

NOTE: This section is only applicable if you are upgrading from Version 6.0.3.0.

Create a test email queue, a test chat queue, a test SMS;queue, and a test agent on the new server and validate that email, chat, SMS, and open media are being correctly routed to queues and agents. Run reports to verify accuracy. Confirm that email aliases or distribution groups and URL redirects for chat have been correctly implemented.

Before moving to the new system, advise agents to complete all outstanding items on the old system. Advise agents to empty their public folders.

When moving email addresses from your old server to the new server, we recommend you enable email addresses one at a time, beginning with those that experience the lowest traffic.

Mail-disable the email address from the existing public folder. Add the address as an alias or distribution group to the generic email address inbox that your mail server is pulling from in the Version 8.1 environment. Continue with this process until all email addresses have been enabled in the new system.

NOTE: When you mail-disable the email address in the public folder, mails will not be delivered and mail senders will receive an undeliverable message until the email address has been created in the new system as an alias or distribution group.

Optionally, you can similarly migrate the chat items. We recommend you do so in a staggered fashion by only exposing the request to chat from the corporate Web page for a specific service group. We also recommend that, during migration, you add a maintenance message that explains chat is temporarily unavailable.

Deploy the updated corporate Web pages with the Contact Us page on the corporate website. Remove the chat temporary unavailable page.

Disable the old system and instruct agents to log onto the new system.

Exchange Server migration recommendations

NOTE: This section is only applicable if you are upgrading from Version 6.0.3.0.

Support is provided for migrating the Exchange repository to the new flat file repository. This migration is expected to take a significant amount of time and is dependent on the amount of data to be migrated. This migration can occur after the new system is operational. After migrating to the flat file repository, stopping and restarting the Storage Service is required and will tag new entries for the search tool.

NOTE: Due to Windows' limitations, you will be unable to migrate emails whose file names exceed 260 characters.

Migrating data will break the link with real-time data and preferred agent status for any contacts from before the upgrade will be lost. The migrated data will be fully indexed and searchable. To associate an agent to a reply will require a manual search of SMDR records.

There are several possible, existing Exchange Server deployment scenarios to consider when upgrading. The high level upgrade steps are similar regardless of the version of Exchange currently being used. See the following table for a description of four possible migration scenarios.

NOTE: For minimum downtime, we recommend migrating email addresses after all installation and configuration is complete. In that way, when you mail-disable the public folders and add email addresses, as aliases or distribution groups, agents will be already be configured and prepared to answer emails in the new system.

Table 24.1: Exchange Server migration recommendations (Sheet 1 of 2)

Exchange Server deployment scenario	During migration	Post-upgrade
Exchange is installed on its own server and is not collocated with MiContact Center Business. This Exchange Server is only used to host public folders for the Multimedia Contact Center.	Leave the Exchange Server intact.	Decommission the Exchange Server. It is no longer required. The public folder structure can be migrated to any other public folder store using public folder replication.
Exchange is installed on its own server and is not collocated with MiContact Center Business. This Exchange Server is used for corporate and Multimedia Contact Center data.	Leave the Exchange Server intact.	Leave the Exchange Server intact for corporate use.

Table 24.1: Exchange Server migration recommendations (Continued) (Sheet 2 of 2)

Exchange Server deployment scenario	During migration	Post-upgrade
Exchange is collocated with MiContact Center Business and is only used to host Multimedia Contact Center data.	A new server should be built for MiContact Center Business Version 7.1. The Exchange Server should be left intact with MiContact Center Business installed as a part of the rollback plan.	Decommission the Exchange Server. It is no longer required. The public folder structure can be migrated to any other public folder store using public folder replication. Uninstall the MiContact Center Business software.
Exchange is collocated with MiContact Center Business and is used for corporate and Multimedia Contact Center data.	A new server should be built for MiContact Center Business Version 7.1. The Exchange Server should be left intact with MiContact Center Business installed as a part of the rollback plan.	Leave the Exchange Server intact for corporate use. Uninstall the MiContact Center Business software.

High-level migration steps for the Exchange Server are as follows:

- Stop and disable the Mi Contact Center Business Services on the Exchange Server (Setup and Objects service).
- Create a new mailbox on the mail server that is going to host the new Multimedia Contact Center mail-boxes.
- Use a primary SMTP address that does not match any of the queue's SMTP addresses.
- Using the Exchange Public Folder Management Tool, mail-disable all of the Queue Public Folders.

NOTE: When you mail-disable email addresses in the public folder, mails will not be delivered and mail senders will receive an undeliverable message until the email addresses have been created in the new system as an alias or distribution group. We recommend you disable email addresses one at a time to minimize disruption.

Create a distribution group containing email addresses used to route to queues.

Distribution Groups are recommended in order to associate multiple email addresses to a single mailbox. It may take up to 15 minutes before the email addresses are available.

Enable the IMAP service and set it to automatic startup on the CAS server that is servicing the new mailbox.

Configuring your multimedia contact center

Multimedia Contact Center is configured in the YourSite Explorer application in the Multimedia tab, which contains the relevant MiContact Center Business devices for Multimedia Contact Center.

YourSite Explorer configuration notes and tips

For ease of use and efficiency, YourSite Explorer uses standard Windows CTRL and Shift button conventions for selecting multiple objects.

NOTE:

- Only one set of pending configuration changes can be saved at any time. If another user saves changes to the same element of YourSite Explorer that you are updating, you receive an error message when attempting to save your changes. In these instances you must refresh YourSite Explorer after the other user's changes have been saved. You may then re-enter and save your changes. We recommend you save your configuration changes frequently, in order to avoid losing work.
- YourSite Explorer enables you to have multiple device tabs open simultaneously. As a best practice, we recommend you only have the device tabs open that you are currently using.
- When you configure numbers for groups in YourSite Explorer, use numerical characters only, such as 1 (for Queue Group 1). Do not insert symbols, such as a star [*] or pound sign [#], in the number.
- If you attempt to add a device or device group to YourSite Explorer that is already in the database, the system notifies you that the device or device group is already present. When you add a series of devices or device groups to YourSite, such as Queues 5001 to 5005, if the system detects you have already added Queue 5002, then it will not add Queue 5002 or any subsequent queues in the series (that is, Queues 5003 to 5005) to the database.

For detailed information regarding YourSite Explorer, consult the *"Configuration"*.

Applying changes to multiple devices at a time

Administrators can apply a change to multiple devices at a time using the multi-select feature. This feature saves administrators from having to apply the same change to multiple devices of the same type.

To apply changes to multiple devices at a time

1. Click **Multimedia** and select the device.
2. Select multiple devices by holding **CTRL** or **Shift** and clicking the devices.
3. Select the configuration changes.

   NOTE: Only information common across devices of the same type can be changed in one action.
4. Click **Save**.

Viewing devices by category or type

Administrators can selectively view devices by category or type by applying filters to the device page. For example, administrators can view only the contact center's Email Inbound workflows by applying the Email Inbound filter to the Workflows page.

Multiple filters can be applied at a time, enabling administrators to selectively view devices by multiple categories or types. For example, administrators can view only Email, Chat, SMS, or Open Media variables by applying these filters to the Variables page.

The following devices may be viewed by category or type

- Queues
- Subroutines
- Variables
- Workflows

To view variables by category or type

1. Click **Multimedia** and select the device.
2. After **Filter**, select a device category or type from the drop-down list.

NOTE: Filters remain in place until a category is deselected. Selecting 'None' removes all filters.

Organizing devices by shared criteria

Organizing devices by shared criteria will group devices for ease of identification and configuration. For example, grouping media servers by Site will, in the device pane, group all media servers associated to a site. After selecting grouped devices, administrators can change information common to those devices in one action. See *"Applying changes to multiple devices at a time"*.

In Multimedia Contact Center, administrators can organize the following devices by criteria

- Agents
- Employees
- Media servers

To organize a device type by criteria

1. Click **Multimedia** and select the device to group.
2. Click **Group by** and select an organizing criterion or criteria.

NOTE: Additional grouping criteria are nested under the original criterion selected.

To remove organizing criteria

1. Click **Multimedia** and select the device.
2. Click **Group by** and deselect the criteria to remove.

NOTE: To remove all grouping criteria, ensure no criteria remain selected under **Group by**.

Required information

To configure Multimedia Contact Center, you require the following information:

- Mail server name
- IMAP port information for mail server
- Email username and password
- SMTP Server for email replies
- Chat server URL (the public URL used to request chat)
- SMS gateway provider account
- Interflow configuration

For multimedia queues, interflow is conducted by the Interflow activity in Inqueue workflows. See *"Routing interactions with the Interflow activity"*.

- Customized auto-acknowledgment messages
  Multimedia Contact Center default workflows contain a number of default auto-acknowledgment messages. For an overview of the default workflows and their messages that may need to be modified to suit your contact center's needs, see *"Multimedia Contact Center default workflows"*.

Configuring multimedia enterprise settings

The Enterprise Server is the computer on which MiContact Center Business is installed. When programming the enterprise, you configure Enterprise Server general settings, some maintenance services, and email alarms, as well as settings for Contact Center Screen Pop andMultimedia Contact Center.

Configuration steps specific to Multimedia Contact Center include:

- Configuring email settings
- Configuring the Multimedia storage path

For more information concerning non-multimedia enterprise settings, see the *"Configuring enterprise settings"*.

Configuring email settings

You configure email alarms so you are notified by email about Enterprise Server and real-time performance issues. You must have configured a mail server before configuring your email settings. See *"Adding mail servers"*.

To configure email alarms

1. Click **YourSite > Enterprise**.
2. Click the **Email settings** tab.
3. After **Mail Server Address**, click the **Browse** button.
4. Select a mail server and click **OK.**
5. After **Email notification interval minutes**, select the interval (in minutes) that the Enterprise will check for alarms and send out email notifications.

   NOTE: Notifications of critical alarms are sent immediately after the issue is detected.
6. After **Send Enterprise Server alarms to the following address(es)**, type the email address of the employee(s) who will receive the email notification.

   Separate multiple email addresses with commas.
7. Click **Save**.

Adding sites

A site is an office location with one or more media servers. It can be the office where the Enterprise Server is installed or a branch office.

Your site structure determines how you view statistics and reports. When you add a site, you add the name of the site and the time zone. By making each site distinct, you can restrict user access to sites. For

more information on restricting user access, see "Configuring security roles". The site's language determines the default language setting for new employees associated to it.

Administrators can limit whether or not the Make Busy and Do Not Disturb reason codes used by employees are visible in communication tools such as MiCollaband Microsoft Skype for Business.

Administrators can also enable agent greeting and whisper announcement functionality for all agents in the site. Agents record messages from Ignite (DESKTOP) and assign them to specific queues, so that they are played on each incoming ACD call. The Agent Greeting feature enables agents to record messages (as .wav files) that play automatically to callers when the agent answers an inbound ACD call. The greeting can provide a consistent experience for each caller and free the agent from having to repeat the same introductory phrase for every call. For information on configuring agent greeting workflows, see "Configuring the Record Agent Greeting workflow" and *"Configuring agent workflow settings"*.

Administrators can also restrict the site's use of Contact Center Client's Chat Integration, which enables employees to chat with each other in Contact Center Client. Prior to version 7.0, there was an option to use Microsoft Skype for Business as the default chat client instead of Contact Center Chat. In version 7.0 and greater, YourSite Explorer automatically detects if you have Microsoft Skype for Business Server and enables it as the default chat client. If your contact center is a mixed environment where some users have Skype for Business and others do not, you may want to use Contact Center Chat to ensure all employees can communicate. For information on using Contact Center Chat in an environment with Skype for Business on some systems, see the following Mitel Knowledge Base article:https://mitel.custhelp.com/app/answers/answer_view/a_id/1000736/loc/en_US

o add a site

1. Click **Multimedia> Site**.
2. Click **Add**.
3. After **Site Name**, type the name of the site.
4. After **Time Zone**, select the time zone and closest location from the drop-down list.
5. After **Site Language**, select the site language from the drop-down list.
6. After **Default Server**, click the **Browse** button.
7. Select a server and click **OK**.
8. If you want Make Busy and Do Not Disturb reason codes to display in communication tools, select **Display Make Busy and DND Reason Codes in Communication Tools**.
9. To enable agent greeting and whisper announcement functionality for the site, check **Enable Agent Greetings**.

   The system displays an information message advising you to ensure that the appropriate Class of Service options are configured for agents on the MiVoice Business PBX.
10. To disable Contact Center Client Chat Integration, clear **Chat Enabled**.
11. Click **Save**.

Configuring the Multimedia storage path

During installation you select the multimedia storage path, which sets the email storage location. The storage path can be either local drive or a network drive (UNC path). The Local administrator account set during installation must have read/write permission to that path. Once specified, the following folder structure will be created within the storage path:

\<SiteKey>\<Year>\<Month>\

Year and Month folders are named numerically to correspond to the year and month of the stored messages and transcripts. If you used the default storage path, the folder structure is <drive>:\Program Files (x86)\Mitel\MiContact Center\DataDirectory\SearchStorage\<SiteKey>\ <Year>\<Month>\.

NOTE:

- Chat and SMS transcripts are stored in the Elasticsearch index, at <drive>:\Program Files (x86)\Mitel\MiContact Center\Database\Elasticsearch\. For more information on Elasticsearch, see the *MiContact Center Business and MiVoice Analytics System Engineering Guide*.
- The \<SiteKey>\<Year>\<Month> folders are only added the first time an email is indexed during the corresponding year and month.

The multimedia storage path can be changed to store new messages in a different location. Old files must be copied to the new location manually. For instructions on changing the multimedia storage path, see the following Mitel Knowledge Base article:
https://mitel.custhelp.com/app/answers/answer_view/a_id/1000794/loc/en_US.

Certain email .msg files can be deleted from the email storage location to free up disk space. While Ignite will return deleted .msg files in search results, attachment viewing will be limited and embedded images will not display. For information, see the following Mitel Knowledge Base article:
https://mitel.custhelp.com/app/answers/answer_view/a_id/1013096/loc/en_US.

Enabling a new multimedia contact center

You must configure the following enterprise-level items before you can configure your devices.

1. Create mail servers.
   Mail servers will need to be created for your email media server. They are used to receive and send mails to the corporate mail server. It is recommended that email aliases or distribution groups, depending on your mail server type, be used to map multiple email accounts to a single email account as this will reduce the number of mail servers that need to be configured.
   See *"Adding mail servers"*.
2. Create media servers.

   Media servers will need to be created for each media supported by the contact center. Email media servers require one or more mail servers to be specified. Chat media servers require the chat server URL. SMS media servers require an integration with Twilio, a third-party SMS gateway service provider.
   See *"Adding email to Multimedia Contact Center"* and *"Adding Chat to Multimedia Contact Center"* and *"Adding SMS to Multimedia Contact Center"*.

The order for configuring your multimedia devices depends on whether or not the administrator is creating multimedia queues using the Unified Queue Group wizard. The Unified Queue Group wizard enables rapid configuration of new multimedia queues linked with existing voice queues. If a contact center does not intend to have their multimedia queues mirror voice queues, they can be added manually. For detailed information on configuring individual Multimedia Contact Center devices, see *"Multimedia Contact Center device configuration"*.

If you are creating your multimedia queues using the Unified Queue Group wizard, configure your devices in the following order:

1. Create Workloads.
   Workloads determine the number and type of media interactions that can be pushed to an agent at any one time.
   See *"Configuring Workload"*.
2. Upgrade employees.

   Employees must be assigned the appropriate Multimedia Contact Center licensing, Workloads, and the media types they can handle.
   See *"Adding multimedia capabilities to employees"*.
3. Create Unified Queue Groups from the voice queues with the Unified Queue Group wizard to represent the service groups in the organization.

   See *"Adding queue groups"*.
4. Modify default Inbound, Response, and Inqueue workflows.

   The default workflows included with Multimedia Contact Center require additional configuration to customize them for your contact center.
   See *"Multimedia Contact Center default workflows"*.
5. Configure agent groups for default Agent Group Presence.

   See *"Adding agent groups"*.

If you are not using the Unified Queue Group wizard to create your multimedia queues, configure your devices in the following order:

1. Create Workloads.
   See *"Configuring Workload"*.
2. Upgrade employees.

   Employees must be assigned the appropriate Multimedia Contact Center licensing, Workloads, and the media types they can handle.
   See *"Adding multimedia capabilities to employees"*.
3. Configure agent groups and set default presence.

   See *"Adding agent groups"*.
4. Create multimedia queues.

   Multimedia queues can be created individually on a queue-by-queue basis or created as parts of a Unified Queue Group.
   See *"Adding multimedia queues"*.
   See *"Adding queue groups"*.
5. Create Unified Queue Groups or queue groups to tie queues representing the same service groups in the organization together.

   See *"Adding queue groups"*.
6. Modify Inbound, Response, and Inqueue workflows.

   The default workflows included with Multimedia Contact Center require additional configuration to customize them for your contact center.
   See *"Multimedia Contact Center default workflows"*.

Multimedia Contact Center device configuration

Devices in Multimedia Contact Center can be configured using three different methods:

- **Quick Setup**—Quick Setup enables administrators to add ranges of employees with identical settings. See the *"Configuring devices and device groups using Quick Setup"*.
- **.csv files**—YourSite Explorer can add new devices by importing device setting information using comma-separated value (.csv) files. See the *"Configuring devices using .csv files"*.
- **Manually**—Devices can be added one-by-one without automated assistance or importing.

Integrating Multimedia Contact Center with mail servers

NOTE: Email routing to blind-copied queues is not supported.

Multimedia Contact Center integrates with mail servers using SMTP and IMAP or EWS connections.

NOTE: SMTP, IMAP or EWS connections through web proxies are not supported.

The following servers are considered to be supported infrastructures for Multimedia Contact Center routing:

- Exchange Server
- Exchange Online (Office 365)
- Google Apps for Business
- IBM Domino
- BlueHost

NOTE: For Office365 user accounts created in October 2020 and later, Basic Authentication is disabled by default. Currently, MiContact Center Business supports only Basic Authentication. Therefore, if Office365 is used as an email server, Basic Authentication must be manually enabled.

Verified versions for mail servers are described in the *MiContact Center Business and MiVoice Analytics System Engineering Guide* :

Multimedia Contact Center supports IMAP providers that use non-empty Namespace as mail servers. For information on the general requirements for mail servers, see *"Mail server requirements"*.

We recommend configuring a single mail server connection with outgoing and incoming connections.

On the mail server, administrators must first configure a master email account to receive the email messages that Multimedia Contact Center copies. For these configuration procedures, please consult the appropriate third-party documentation. See also the Knowledge Base article appropriate to the server, listed below.

We recommend that, in addition to configuring a single, master email account to receive incoming messages for Multimedia Contact Center to copy, administrators configure aliases or, in the case of Exchange, distribution groups for the different multimedia service groups receiving ACD emails. For Exchange Server users, we recommend that the master email account from which Multimedia Contact Center copies emails is not the Domain Administrator account, due to Windows Security restrictions. An inbound workflow should route emails from this master account to service groups in the contact center, based on the 'To' addresses to which emails were sent. For example, administrators can create a master email account called 'MyCompany@domain.com', and create aliases or distribution groups for the contact center's service groups.

NOTE: Using aliases or distribution groups ensures that emails sent to multiple addresses in the contact center generate a single case number. If, instead of using aliases or distribution groups, email addresses

are associated to different mail servers, a single email sent to these addresses will have different case numbers.

We recommend that the master account's address is discrete from email aliases and distribution groups, and is not associated to any queues. For information on configuring your mail server with an email account and aliases or distribution groups, consult the following Mitel Knowledge Base article appropriate to the server.

- **Exchange Server 2007** – https://mitel.custhelp.com/app/answers/answer_view/a_id/1000717/loc/en_US
- **Exchange Server 2010** – https://mitel.custhelp.com/app/answers/answer_view/a_id/1000718/loc/en_US
- **Exchange Server 2013** – https://mitel.custhelp.com/app/answers/answer_view/a_id/1000717/loc/en_US
- **Exchange Online** – https://mitel.custhelp.com/app/answers/answer_view/a_id/1000713/loc/en_US
- **Google Apps for Business** – https://mitel.custhelp.com/app/answers/answer_view/a_id/1000712/loc/en_US
- **IBM Domino** – https://mitel.custhelp.com/app/answers/answer_view/a_id/1000743/loc/en_US

NOTE: For Exchange Server users, Multimedia Contact Center requires that the master account has Send As permissions to the distribution groups. See *"Specifying Send As permissions in Active Directory"*.

For information on configuring email workflows to route based on specific addresses, see *"Default Email Inbound workflow"* and *"Routing contacts with the To activity"*.

Once the contact center's email client is connected to a supported server and an email account for the contact center is created, administrators can configure the mail server's outgoing and incoming settings in YourSite Explorer.

NOTE: Multimedia Contact Center supports the Exchange Web Services (EWS) protocol. The EWS protocol is supported only on Microsoft Exchange and Microsoft Office 365 and on the following servers:

- Microsoft Exchange 2007 and all service packs
- Microsoft Exchange 2010 and all service packs
- Microsoft Exchange 2013 and all service packs
- Microsoft Exchange 2016 and all service packs
- Microsoft Office 365 online servers

NOTE: Mitel is not responsible for any folder size restrictions on mail servers. If there are file size restrictions on your mail server, it is strongly recommended that the Processed folder created during Multimedia Contact Center mail server configuration be exempted from those restrictions or else routing functionality may be affected.

Note that, occasionally, mail servers incorrectly mark valid emails as spam. We recommend that administrators periodically check their mail servers' spam folder to avoid losing important contacts.

For information on migrating from one mail server to a new mail server, see the following Mitel Knowledge Base article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1000737/loc/en_US.

The following procedures tell administrators how to

- Add a mail server to Multimedia Contact Center
- Configure SMTP connections to Multimedia Contact Center
- Configure IMAP connections to Multimedia Contact Center
- Configure EWS connections to Multimedia Contact Center

- Delete a mail server from Multimedia Contact Center

NOTE: Integrating Multimedia Contact Center with mail servers requires SMTP and IMAP or EWS server names and port information. Administrators must retrieve and enable this information before configuring SMTP and IMAP or EWS connections to Multimedia Contact Center. See the Knowledge Base article, listed above, appropriate to the server.

Adding mail servers

To add a mail server

- Click **YourSite > Mail servers > Add**.

After adding the mail server, you must configure SMTP connections to MiContact Center Business.

Configuring SMTP connections to Multimedia Contact Center

The following configurations take place in **Multimedia > Mail servers > Outgoing**.

Configuring an SMTP connection enables Multimedia Contact Center to send outgoing mail through a contact center's email server. The following explains how to configure an SMTP connection between Multimedia Contact Center and email servers. The outgoing settings you configure are applied to any email your system sends, such as server alarms, reports, and outgoing email interactions to customers.

For information on locating the required information from the contact center's email server, consult the following Mitel Knowledge Base article appropriate to the server.

- **Exchange Server 2007** – https://mitel.custhelp.com/app/answers/answer_view/a_id/1000717/loc/en_US
- **Exchange Server 2010** – https://mitel.custhelp.com/app/answers/answer_view/a_id/1000718/loc/en_US
- **Exchange Server 2013** – https://mitel.custhelp.com/app/answers/answer_view/a_id/1000719/loc/en_US
- **Exchange Online** – https://mitel.custhelp.com/app/answers/answer_view/a_id/1000713/loc/en_US
- **Google Apps for Business** – https://mitel.custhelp.com/app/answers/answer_view/a_id/1000712/loc/en_US
- **IBM Domino** – https://mitel.custhelp.com/app/answers/answer_view/a_id/1000743/loc/en_US

Configuring an SMTP connection requires you to

- Add the mail server to YourSite Explorer
  If the mail server has not already been added, see *"Adding mail servers"*.
- Specify the server information for outgoing emails
  See the KB article appropriate to the media server, listed above
- Specify the email account's 'From' name and address
- Specify the email account's aliases.
- If required by the SMTP server, request logon credentials to send outgoing mail
- Test the server's SMTP socket connection to Multimedia Contact Center

  NOTE: To test the connection, administrators must have an email address configured for them in the Employees page. This email address receives notification of whether the test was successful.

To specify the server information for outgoing emails

1. After **SMTP Server**, type the server's IP address or name.
2. Select the **Use SSL** check box if the server uses Secure Sockets Layer.

3. After **SMTP Port**, type the server's SMTP port number.

   NOTE:
   - Google Apps for Business' port 465 is not supported.
   - When using EWS, port 443 is frequently used.

4. After **Connection Timeout**, type how many seconds the system has to connect to the server before timing out.

To specify the email account's 'From' name and address

1. After **From Name**, type the name that appears on outgoing mail.
   For example, 'XYZ Company Sales'.
2. After **From Email Address**, type the email address that appears on outgoing mail.

   For example, 'xyzsales@email.com'.

   NOTE: This must be a valid email address. Add a queue email address that agents will select as the 'From' address in email responses and outbound emails, if this queue is not configured as an 'Alias' for the mail server.

To specify the email account's aliases.

1. After **Aliases**, click the **Browse** button.

   NOTE:
   - Include all queue email addresses that agents will select as the 'From' address in email responses and outbound emails, if these queues are not configured as the 'From Email Address' for the mail server.
   - Failure to include all aliases will impact the ability of the Transfer activity to route inbound emails to all queues when using the <<DestinationQueues>> variable. For more information, see *"Routing contacts with the Transfer activity"*.

2. Type the mail server's alias and click **Add**.

   NOTE: An alias can only be associated to a single mail server.
3. If you want to associate additional aliases for the mail server, for each additional alias, type the alias and click **Add**.
4. Click **Ok**

To request logon credentials to send outgoing mail

1. Select the **SMTP Authentication Required** check box.
2. Enter the **Username**, **Password**, and, in the case of Exchange, **Domain** information for the server's email account.

   NOTE: If you use Google's 2-step verification, enter the password specific to Multimedia Contact Center.
3. Click **Save**.

To test the server's SMTP socket connection to Multimedia Contact Center

- Click **Test Outgoing Mail**. If an error message is received, verify that the Outgoing Server, User, and Logon information is entered accurately. To troubleshoot, the default installation location for verbose logs is C:\Users\<current user>\Documents\CCMLogs\YourSiteExplorer.txt.

Configuring IMAP connections to Multimedia Contact Center

The following configurations take place in **Multimedia > Mail servers > Incoming**.

IMAP connections enable Multimedia Contact Center to retrieve messages from a specified account on a mail server and define the folder from which Multimedia Contact Center retrieves messages. The following explains how to configure an IMAP connection between Multimedia Contact Center and a mail server.

For information on locating the required information from the contact center's email server, consult the following Mitel Knowledge Base article appropriate to the server.

- **Exchange Server 2007** – https://mitel.custhelp.com/app/answers/answer_view/a_id/1000717/loc/en_US
- **Exchange Server 2010** – https://mitel.custhelp.com/app/answers/answer_view/a_id/1000718/loc/en_US
- **Exchange Server 2013** – https://mitel.custhelp.com/app/answers/answer_view/a_id/1000719/loc/en_US
- **Exchange Online** – https://mitel.custhelp.com/app/answers/answer_view/a_id/1000713/loc/en_US
- **Google Apps for Business** – https://mitel.custhelp.com/app/answers/answer_view/a_id/1000712/loc/en_US
- **IBM Domino** – https://mitel.custhelp.com/app/answers/answer_view/a_id/1000743/loc/en_US

Configuring IMAP connections requires administrators to

- Enable incoming server settings in YourSite Explorer
- Specify the server information for incoming emails
- Specify the email account's username and password
- Test the server's IMAP connection to Multimedia Contact Center

NOTE:

- If you have not added a mail server in YourSite Explorer or configured its SMTP settings, see *"Adding mail servers"*, and *"Configuring SMTP connections to Multimedia Contact Center"*.
- If you are editing information for an existing server, select the media server and click the 'Incoming' tab.

To enable incoming server settings in YourSite Explorer

1. Select the mail server and click the **Incoming** tab.
2. Select the **Enable Incoming Server Settings** check box.

To specify the server information for incoming emails

1. Select the **Use TLS** check box if the server uses Transport Layer Security.
2. After **Incoming Server**, type the server's IP address or name.
3. After **Incoming Port**, type the server's IMAP port number.
4. After **Connection Timeout**, type how many seconds the system has to connect to the server before timing out.
5. After **Incoming Folder**, specify the email account folder from which Multimedia Contact Center retrieves email.

   NOTE: If the system should retrieve email from the Inbox, leave this setting as the default. If the system should retrieve email from a subfolder of the Inbox, specify the folder name. Multimedia

Contact Center can retrieve email from a single folder only. Ensure emails to aliases and distribution groups are also routed to this folder.

To specify the email account's username and password

NOTE: Specifying the email account's username and password authenticates Multimedia Contact Center to the mail server

1. Select the **Same as Outgoing Server** check box if the email account logon information is shared between the SMTP and incoming server.
2. If the logon information for the email account is discrete, enter the **Username**, **Password**, and **Domain** information required to receive mail.
3. Click **Save**.

To test the server's IMAP connection to Multimedia Contact Center

- Click **Test Incoming Connection**. If an error message is received, verify that the Incoming Server and Logon information is entered accurately. To troubleshoot, the default installation location for verbose logs is C:\Users\<current user>\Documents\CCMLogs\YourSite Explorer.txt.

Deleting mail servers

CAUTION: Deleting a mail server prevents emails dependent on the server from routing, including

- Multimedia Contact Center email routing
- Report distribution
- Error reporting

Before deleting the mail server, we recommend first disassociating it from the email media server several days in advance. This allows pending emails to clear the system before the mail server is deleted. See *"Disassociating mail servers from email media servers"* for more information.

To delete a mail server

1. Click **YourSite > Mail servers**.
2. Select the mail server and click **Delete**.
3. When prompted, click **OK**.
4. Click **Save**.

Specifying Send As permissions in Active Directory

For Exchange Server users, the master account from which Multimedia Contact Center retrieves emails requires Send As permissions for the applicable distribution groups.

Before specifying Send As permissions, ensure that

- A master account has been created in Exchange. This is the account from which Multimedia Contact Center will retrieve emails
- SMTP and IMAP or EWS connections to Multimedia Contact Center are configured
- Distribution groups are created for the contact center's service groups

To specify Send As permissions in Exchange

1. In Windows, open Active Directory and select **Users and Computers**.
2. Right-click the distribution group and select **Properties**.
3. Select the **Security** tab and click **Add**.

NOTE: If the Security tab does not display, go to **View** and select **Advanced features**.

4. Add the master account created in Exchange.
5. Under **Permissions**, after **Send As**, select the **Allow** check box.
6. Click **Apply** and then **OK**.
7. Repeat these steps for all applicable distribution groups.

Specifying Send As permission using PowerShell

For Exchange Online users, the master account from which Multimedia Contact Center retrieves emails requires Send As permission for the applicable distribution groups.

Before specifying Send As permissions, ensure that

- A master account has been created in Exchange Online. This is the account from which Multimedia Contact Center will retrieve emails.
- SMTP and IMAP or EWS connections to Multimedia Contact Center are configured.
- Distribution groups are created for the contact center's service groups.

To specify Send As permission for a distribution group using PowerShell

1. In Windows, open **PowerShell**.
2. To create the PowerShell connection to the remote Exchange Online, run the following credentials:

   $LiveCred = Get-Credential
   $Session = New-PSSession -ConfigurationName Microsoft.Exchange - ConnectionUri https://ps.outlook.com/powershell/ -Credential $LiveCred -AuthenticationBasic -AllowRedirection
   Import-PSSession $Session
3. Enter the credentials for the Exchange Online administrator.
4. To add the Send As permission to the list

   Add-RecipientPermission -Identity distributiongroup@example.com -Trustee mailbox@example.com -AccessRights SendAs

   NOTE: Identify corresponds to the distribution group. Trustee corresponds to the mailbox.
5. Repeat Step 3 for each distribution group.

Mail server requirements

Contact centers using mail servers other than Exchange Server, Exchange Online, or Google Apps for Business must confirm that

- The mail server supports IMAP version 4
- The mail server can maintain a reliable connection to the Enterprise Server

In addition, we recommend that

- The mail account from which Multimedia Contact Center retrieves emails supports aliases.

  NOTE: To simplify deployment, we recommend administrators configure a single email account from which Multimedia Contact Center retrieves contacts, and configure additional email addresses as aliases to this account. For more information, see *"Integrating Multimedia Contact Center with mail servers"*.

Multimedia Contact Center supports non-empty Namespace IMAP providers. For information on configuring a mail server, other than Exchange Online, Google Apps for Business, or Exchange Server, consult

the following Mitel Knowledge Base article:
https://mitel.custhelp.com/app/answers/answer_view/a_id/1002584/loc/en_US.

NOTE: IMAP or SMTP connections through web proxies are not supported.

For a list of supported Exchange versions, see the *MiContact Center Business and MiVoice Analytics System Engineering Guide*.

Integrating Multimedia Contact Center with an SMS Gateway Provider

Multimedia Contact Center integrates with the third party SMS gateway provider Twilio to support SMS routing. With Twilio, Multimedia Contact Center supports long codes (60 SMS messages per minute per mobile number). Short codes are unsupported. Mi Contact Center Business does not support Multimedia Messaging Service (MMS). You must have an account with Twilio to handle SMS messages with Multimedia Contact Center.

To ensure SMS interactions route to the Enterprise Server, for each SMS number associated to your Twilio account, you must set the Request URL to the following: http://twimlets.com/echo?Twiml=%3CResponse%3E%3C%2FResponse%3E&. Consult your SMS gateway service provider documentation for information on configuring your account.

SMS gateway provider SMS phone numbers are added to Multimedia Contact Center as a part of configuring SMS media servers.

Multiple SMS numbers from an SMS gateway service provider can be added to your SMS media server. Do the following to add Multiple SMS numbers:

1. Go to **General** tab > **SMS Media Server**.
2. Click the SMS Provider and on the list page select the multiple numbers you want add.
3. Click **OK**.

When adding Twilio SMS phone numbers to your SMS media server, you require, in addition to the SMS phone number, the Twilio Account SID and the Account Authentication Token. For more information, see *"Adding SMS to Multimedia Contact Center"*.

A single SMS number can be used with multiple queues, provided the SMS Inbound workflow is modified to route SMS messages through a method other than by the <<DestinationQueues>> variable, such as with an Ask activity. For more information on the default SMS workflow, see *"Default SMS Inbound workflow"*.

Adding media types to Multimedia Contact Center

Adding media types to Multimedia Contact Center applies Inbound, Inqueue, and Response routing rules to email, chat, SMS, and open media interactions, directing them to the agents best suited to respond.

Administrators add media types to Multimedia Contact Center by adding and configuring media servers in YourSite Explorer. Media servers are accessed via the Multimedia tab. Multimedia Contact Center supports one media server for each type of multimedia. When a multimedia media server is added to YourSite Explorer, that media type becomes unavailable in the Add drop-down list in the Media Server tab. If you want to add a new media server of that type, you must either delete the current media server of that type or make it historical.

NOTE: When adding media servers, administrators must indicate if the contact center operates over midnight. If not, reporting over midnight may not be accurate, and agent shifts are closed after the last

agent events before midnight. For more information, see *"Extending reporting and agent shifts over midnight"*.

For information on configuring specific media types see

- *"Adding email to Multimedia Contact Center"*
- *"Adding chat to Multimedia Contact Center"*
- *"Adding SMS to Multimedia Contact Center"*
- *"Adding Open Media to Multimedia Contact Center"*

For information on configuration options shared among media types, see

- *"Deleting multimedia media servers"*
- *"Applying inbound routing rules to contacts"*
- *"Configuring Advanced options for media servers"*
- *"Extending reporting over midnight"*
- *"Specifying when Make Busy and Do Not Disturb timers begin"*
- *"Configuring response templates for email and chat"*
- *"Enabling Conversation Detail reporting"*

Deleting multimedia media servers

When an administrator deletes a multimedia media server, all data associated with the media server and all devices configured and associated to that media server are deleted. Employee agent IDs for that media type are deleted and removed from their agent groups. Queues are deleted and removed from their associated queue groups. Multimedia workflows are not deleted but Inbound and Response workflows are disassociated from the deleted media server and Inqueue workflows are disassociated from the deleted queues.

To delete a multimedia media server

1. Click **Multimedia > Media servers**.
2. Select the media server you want to delete and click **Delete**.
3. Click **OK**.

Applying inbound routing rules to interactions

Adding media requires administrators to apply routing rules to inbound interactions retrieved from media servers. The Inbound Routing tab enables administrators to view and modify the workflows and activities defining inbound routing rules.

New media servers are associated to the appropriate default workflows. For example, when an administrator adds an email media server, the system automatically associates the Default Email Inbound workflow to it. Administrators can customize these default workflows to suit the contact center's needs. The workflow displaying on a media server's Inbound Routing tab is associated to that media server.

For more information on working with visual workflows and applying routing rules to interactions, see

- *"Multimedia routing using visual workflows"*.
- *"Multimedia Contact Center default workflows"*.

Applying response routing rules to interactions

Response routing determines how the system handles completed interactions. For example, chat response workflows can mail interaction transcripts to customers, post-chat. Email response workflows can send customers surveys after email exchanges or supervisors copies of agent email responses. SMS response workflows can store the transcript of an SMS interaction and the handling agent in a CRM database. Open media response workflows could send SMS messages with promotional codes or provide a web link for customized deals or recommendations.

Response routing is configured via Response workflows, located on the Response Routing tab of the media server.

New chat media servers are associated to a default Response workflow. Administrators can customize this workflow to suit the contact center's needs. For more information on the Default Chat Response workflow, see *"Default Chat Response workflow"*.

Default Response workflows are not provided for email or SMS media servers. Administrators must create these workflows.

NOTE:

- Variables in Response workflows/subroutines are based on the agent's reply, not the customer's original interaction. For example, in Inbound and Inqueue workflows/subroutines the <<From>> variable populates with the customer's sending address. The <<To>> variable populates with the queue's address.
- If you have a valid email response workflow and the **Validate** workflow option is selected, the workflow executes every time an email response is sent in Ignite.
- Email content inserted via the <<Body>> variable in the Email activity is limited to 2MB. After 2 MB, content inserted via the <<Body>> variable is truncated.

For more information on working with visual workflows and applying routing rules to interactions, see

- *"Multimedia routing using visual workflows"*.
- *"Multimedia Contact Center default workflows"*.

Configuring Advanced options for media servers

NOTE: For information on configuring advanced options specific to email, chat, SMS, or open media media servers, see *"Configuring Advanced options for email media servers"*, *"Configuring Advanced options for chat media servers"*, and *"Configuring Advanced options for SMS media servers"*

Configuring Advanced media server options enables administrators to

- Disable alarm reporting for the media server
- Configure intervals for generating queue statistics (for real-time purposes)
- Enable or disable previews of contacts

The following configurations take place in **Multimedia > Media servers**.

To disable alarm reporting for the media server

1. Select the media server and click the **Advanced** tab.
2. Deselect **Enabled for alarms**.
3. Click **Save**.

To configure intervals for generating queue statistics

NOTE: This option determines, for real-time purposes, how frequently the system generates a queue statistics record.

1. Select the media server and click the **Advanced** tab.
2. To generate a new queue statistics record as statistics change, select **Report on Change**.
3. To generate a new queue statistics record every minute, select **Report Every 60 Seconds**.
4. Click **Save**.

To enable or disable previews of interactions

NOTE: The option enables administrators to control whether agents can preview interactions that are in queue or ringing in the Inbox.

1. Select the media server and click the **Advanced** tab.
2. To enable agents to preview messages, select **Allow agent preview**.
3. Click **Save**.

Extending reporting and agent shifts over midnight

Administrators at contact centers operating over midnight should select 'This enterprise operates 24 hours a day' for the media server. This option provides more accurate reporting over midnight and determines when and how agent shifts are opened and closed after midnight.

If this option is selected, the system automatically closes and re-opens agent shifts at midnight. All agents remain logged into the system. Agent shift reporting is uninterrupted over this period.

If this option is not selected, the system closes agent shifts after the last agent event before midnight. The system re-opens agent shifts after the first agent event after midnight. All agents remain logged into the system. Agent shift reporting is not extended between the time agent shifts close and the time they re-open.

NOTE: Contact centers operating over midnight and rebooting their servers overnight should consult the following Mitel Knowledge Base article, to enable agents to retain their states post-reboot: https://mitel.custhelp.com/app/answers/answer_view/a_id/1000594/loc/en_US.

To extend reporting and agent shifts over midnight

1. Select **Multimedia > Media servers**.
2. Select the media server and click the **Data Summary Options** tab.
3. Select **This enterprise operates 24 hours a day**.
4. Click **Save**.

Specifying when Make Busy and Do Not Disturb timers begin

Agents can enter Make Busy (MKB) or Do Not Disturb (DND) while handling interactions to ensure that, once they are finished, they are not offered another message. By default, the real-time MKB and DND timers begin after the message is handled and agents do not appear in MKB or DND until this time. This enables agents to take scheduled breaks while remaining in adherence.

Administrators can set the MKB and DND timers to begin as soon as the agent enters MKB or DND.

To specify when the MKB and DND timer begins

1. Select **Multimedia > Media servers**.
2. Select the media server and click the **Data Summary Options** tab.

3. To start MKB and DND when the agent ends the interaction, select **Reset Make Busy and Do Not Disturb time after conversation ends**.
4. To start MKB and DND duration when the agent enters either state, deselect **Reset Make Busy and Do Not Disturb time after conversation ends**.

Configuring Reply templates for email, chat, SMS, and open media

Administrators can configure templates to be applied to email, chat, SMS, and open media responses. Reply templates enable efficient and uniform responses to common questions and requests.

Email templates must be in .msg or .txt format, and .msg email templates may contain images. Do not copy content containing images in .msg files directly from Outlook. Save this content as .msg files in the Reply Templates folder and leverage from there. Chat and SMS templates must be in .txt format.

Administrators store templates in either the default template folder created during installation, or in a folder on a network share. A network share is required if agents are permitted to create and modify templates and therefore must access them.

The default Reply Templates folder created during installation is located at <installation drive>:\<installation folder>\Templates\ReplyTemplates. This folder contains the subfolders Email, Chat, and SMS in which there are sample templates for the corresponding media type.

If agents are permitted to create and modify templates, administrators must create a folder in network share to house the sample templates. We recommend that you create a folder structure to organize the templates by media type and area of business. By default, the server points to the default Reply Template folder created during installation. The administrator must ensure that media servers point to the folder that they created on network share instead of the default Reply template folder.

To point the media server to a folder on a network share, complete the following procedure.

NOTE: Everyone' and/or 'Users' permissions are required for the folder in which the reply templates are stored. If the you have permissions for the reply template files, but do not have permissions to folder in which the reply templates are stored, YourSite Explorer displays an error.

If templates are housed on a network share, you must perform the following:

- Configure identity settings for the CCMWa, MCCWa, and MiCCSDK web applications
- Configure security permissions for CCMWa, MCCWa, and MiCCSDK
- Point the media server to a network share folder

To configure identity settings for the CCMWa, MCCWa, and MiCCSDK web applications

1. On the **Enterprise Server**, navigate to **Internet Information Services (IIS) Manager**.
2. Under **Connections**, select **Application Pools**.
3. Right-click **CCMWa** and select **Advanced Settings….**
4. Under **Process Model**, for **Identity** click the … button.
5. Select **Custom account**: and click **Set….**
6. On the **Set Credentials** window, enter the Windows credentials for the identity under which the MiContact Center Business Configuration Manager service runs and click **OK**.

NOTE:

- You can retrieve this identity by navigating to Windows' Services list.
- Domain names must be included in the username. E.g. Domain\Username

7. Click **OK**.
8. In the **Advanced Settings** window, under **Process Model**, set the value for **Load User Profile** to **True**.
9. Click **OK**.
10. Repeat the above steps for **MCCWa, and MiccSDK**.

To configure security permissions for CCMWa, MCCWa, and MiccSDK

1. On the **Enterprise Server**, navigate to **Internet Information Services (IIS) Manager**.
2. Under **Connections**, expand **Sites > Default Web Site**.
3. Right-click **CCMWa** and select **Edit Permissions....**
4. Click the **Security** tab and, for **Users**, set 'Allow' for the following permissions only:
   - Read & execute
   - List folder contents
   - Read
5. Repeat the above steps for MCCWa and MiccSDK.

To point the media server to a network share folder

1. Click **YourSite > Media servers**, and select the **Advanced**tab.
2. Under **Reply template**, click the **Browse** button.

   Alternatively, enter the path in the **Location** field and click the **Browse** button. This redirects the Browse dialog to the specified path.
3. Navigate to the network folder housing the templates and click **OK**. Alternatively, type the network share folder path in the **Location** field.

   NOTE:
   - Only network share folder paths are supported. For example, the folder path should look like \\ServerName\SharedFolderName. Standard paths are not supported.
   - To point the server back towards the default folder, delete the network share path.
4. Click **Save**.

Enabling Conversation Detail reporting

NOTE:

- Conversation Detail reporting is available for email, chat, SMS, and open media only. Multimedia Trace reports provide commensurate data on voice, email, chat, SMS, and open media.
- After enabling Conversation Detail reporting, data must be summarized for the applicable date ranges.

Conversation Detail reports illustrate, by device, how interactions transition through your system and provide a high-level view of how customer interactions were handled. For more information on Conversation Detail reporting, see the reports guide appropriate to your MiContact Center Business licensing level.

To populate Conversation Detail reports with data, you must enable Conversation Detail reporting for the media server.

To enable Conversation Detail reporting

1. Select **Multimedia > Media servers**.
2. Select the media server and click the **Data Summary Options** tab.
3. Select **Conversation detail reporting**.
4. Click **Save**.

Adding email to Multimedia Contact Center

Adding email enables Multimedia Contact Center to retrieve a contact center's email from an email server and route interactions to the appropriate queues and agents. To see supported mail servers and mail server requirements, see *"Integrating Multimedia Contact Center with mail servers"* and *"Mail server requirements"*.

Administrators can add only a single email media server to YourSite Explorer. Before deleting an existing media server, see *"Deleting multimedia media servers"* for important information.

NOTE: Administrators must configure SMTP and IMAP or EWS connections to Multimedia Contact Center before adding email. See the appropriate sections of this guide for relevant information and procedures.

To add email to Multimedia Contact Center, administrators must

- Add an email media server to YourSite Explorer
- Specify the media server's name and site
- Apply inbound routing rules to contacts retrieved from the email server
- Associate mail servers to the email media server, to begin routing

See below for the corresponding procedures. To disassociate mail servers from the email media server, see *"Disassociating mail servers from email media servers"*.

Optionally, administrators can

- Create Response workflows
  See *"Applying response routing rules to interactions"*.
- Specify Data Summary Options, such as indicating that the contact center operates 24 hours a day
  See *"Extending reporting and agent shifts over midnight"*.
- Specify advanced configuration options for handling email, such as customizing case and ticket number information in email subject lines
  See *"Configuring Advanced options for email media servers"*.

To add an email media server to YourSite Explorer

- Click the **Multimedia** tab and select **Media servers > Add > Email**.

To specify the media server's name and site

1. Select the email media server and click the **General** tab.
2. Type a **Name** to identify the server for management and reporting purposes.

   NOTE: The Media Server ID field is populated with a unique number after the media server is saved.
3. After **Site**, click the **Browse** button and select the media server's location.

   To add a new site, see *"Adding sites"*.
4. Click **Save**.

To apply inbound routing rules to contacts retrieved from the email server

- See *"Applying inbound routing rules to interactions"*.

To associate mail servers to the email media server

1. On the **General** tab, after **Mail Server(s)**, click the **Browse** button.
2. Select any email accounts to associate to Multimedia Contact Center and click **OK**.

   NOTE: All outgoing email is sent through these accounts, and the system retrieves emails from the accounts' associated Inboxes.
3. Click **Save**.

Configuring Advanced options for email media servers

Configuring Advanced email options enables administrators to

- Customize case and ticket number information in email subject lines

  NOTE: Using aliases or distribution groups ensures that an email sent to two contact center addresses will share the same case number. A single email sent to addresses on different mail servers will generate different case numbers. For more information, see *"Integrating Multimedia Contact Center with mail servers"*.
- Remove case and ticket numbers from email subject lines

The following configurations take place in **Multimedia > Media servers**.

To customize case and ticket number information in email subject lines

NOTE:

- This option must be enabled for preferred agent routing to function. See *"Routing contacts with the Offer to Preferred Agent activity"*.
- This option must be enabled to search contact history by case in Ignite.

1. Select the media server and click the **Advanced** tab.
2. Deselect **Disable auto case and ticket number generation**.
3. After **Case Prefix:**, specify the prefix identifying case numbers.
4. After **Ticket Prefix:**, specify the prefix identifying ticket numbers.
5. Click **Save**.

To remove case and ticket numbers from email subject lines

1. Select the media server and click the **Advanced** tab.
2. Select **Disable auto case and ticket number generation**.
3. Click **Save**.

Disassociating mail servers from email media servers

If administrators intend to delete a mail server, we recommend first disassociating it from the email media server several days in advance. This allows pending emails to clear the system, before the mail server is deleted.

To disassociate a mail server from an email media server

1. Click **YourSite > Media servers** and select the email media server.
2. On the **General** tab, after **Mail Server(s)**, click the **Browse** button.
3. Select the check boxes beside the mail servers to be disassociated from the email media server.

4. Click **OK**.
5. Click **Save**.

Adding chat to Multimedia Contact Center

NOTE: If you are using Contact Center Messenger Chat, for more information see *"Adding Contact Center Messenger to Multimedia Contact Center"*.

Adding chat enables Multimedia Contact Center to route chat sessions to the appropriate queues and agents. The chat media server resides as a service within the CCMWa web application, which is used to manage chat sessions and is automatically installed on the Enterprise Server at http://<Enterprise Server>/CCMWa (visible in a chat server's 'Internal URL for chat root' field).

To offer chat, the chat media server requires that a reverse proxy be set up to offer CCMWa from the Enterprise Server to the contact center's web server. A chat media server can be added and configured and be tested internally without a reverse proxy by using the Internal URL for chat root as the External URL for chat root, but it will not be available for a contact center's customers. For information on offering chat, setting up reverse proxies, and configuring chat request and chat session settings, see *"Enabling chat"*. For information on setting up CCMWa with a reverse proxy, see *"Publishing Chat and Contact Us to the Internet using reverse proxies"*.

CCMWa is made available from the Enterprise Server to the contact center's web server through a reverse proxy. Before adding the chat media server to Multimedia Contact Center, you must have first set up the reverse proxy for http://<enterprise server>/CCMWa. This external-facing URL must be entered in the 'External URL for chat root' field, which validates the URL and confirms that the reverse proxy has been applied correctly. Valid URLs are confirmed with a green checkmark icon. Invalid URLs are indicated with a red X icon. URLs that the system cannot confirm are marked with a question mark icon.

To add chat to Multimedia Contact Center, administrators must

- Add a chat media server
- Specify information for the chat media server, including name, site, URL, and auto response username
- Modify the Default Inbound Chat workflows
  See *"Applying inbound routing rules to interactions"*.
- Modify the Default Response routing rules to Chat
  See *"Applying response routing rules to interactions"*.

Optionally, administrators can

- Make the chat media server historical
- Specify Data Summary options
  See *"Extending reporting and agent shifts over midnight"* and *"Specifying when Make Busy and Do Not Disturb timers begin"*.
- Specify advanced configuration options for chat servers, such as enabling alarms and configuring reporting intervals for queues
  See *"Configuring Advanced options for chat media servers"*.

To add a chat media server

- Click the **Multimedia** tab and select **Media servers > Add > Chat**.

  NOTE: Default Inbound and Response Chat workflows are assigned to the server. Modify these workflows to specify routing rules for the contact center. See *"Default Chat Inbound workflow"* and *"Default Chat Response workflow"*.

To specify the chat media server's name, site, external URL for chat root, Auto Response Username, and configure default workflow email activities

1. After **Name**, type the name of the media server.

   NOTE: To distinguish between the various types of media for management and reporting purposes, you must give each media server a unique name when setting up your site.
2. After **Site**, click the **Browse** button to select the site where the chat server resides.

   To add a site, see *"Adding sites"*.
3. Enter the **External URL for chat root**.

   The External URL for chat root is the URL used with the reverse proxy to make chat externally available. Valid URLs are confirmed with a green checkmark icon. Invalid URLs are indicated with a red X icon. URLs that the system cannot confirm are marked with a question mark icon.

   NOTE: The Invalid URL icon may display until a complete and valid URL is entered.
4. After **Auto Response Username**, enter the name to be used for sending automated messages to contacts.
5. Click the Inbound Routing tab and add an SMTP and To: email address destination for all email activities in the workflow.

   See *"Sending emails with the Email activity"*.
6. Click the **Response Routing** tab.
7. Right-click the **Email** activity and select **Edit SMTP server**.
8. Select a mail server and click **OK**.
9. Click **Save**.

To make a chat server historical

1. Select a Chat media server and click the **General** tab.
2. Click **Make historical**.
3. Click **Save**.

Configuring Advanced options for chat media servers

Configuring Advanced chat options enables administrators to

- Choose to use employees' nicknames in chat interactions.

  NOTE: By default, employees are identified by their first name (as configured in the Employee device page in YourSite Explorer) in chat sessions. If employees have nicknames associated with them in their Employees entry, these can be used instead.
- Set the amount of time a closed chat session can remain idle before being terminated

  NOTE: If customers accidentally exit the browser or close the chat window, this configuration determines how long they have to return to the live chat session. Customers can re-access the session by returning to the business site and re-entering the chat request.
- Change the reply template location from the default
  For more information on reply templates, see *"Configuring response templates for email and chat"*.

The following configuration takes place in **Multimedia > Media servers**.

To use employee nicknames in chat interaction public interactions

1. Select the chat media server and click the **Advanced** tab.
2. Select the **Use agent nickname for public interaction** check box.

   Employee nicknames are configured in Multimedia > Employees in the Profile tab.
3. Click **Save**.

To configure how long closed chat sessions remain idle before being terminated

NOTE: If customers accidentally exit the browser or close the chat window, this configuration determines how long they have to return to the live chat session. Customers can re-access the session by returning to the business site and re-entering the chat request

1. Select the chat media server and click the **Advanced** tab.
2. After **Terminate closed chat sessions that are idle for longer than the specified minutes**, set the number of minutes.

NOTE: For **Contact Center Messenger Chat** media server, you can set the number of minutes to 0 which specifies the session is **disabled** or to 10 minutes or higher.

3. Click **Save**.

To change the location of the reply templates

1. Select the chat media server and click the **Advanced** tab.
2. After **Location**, click the **Browse** button.
3. Select the folder and click **OK**.

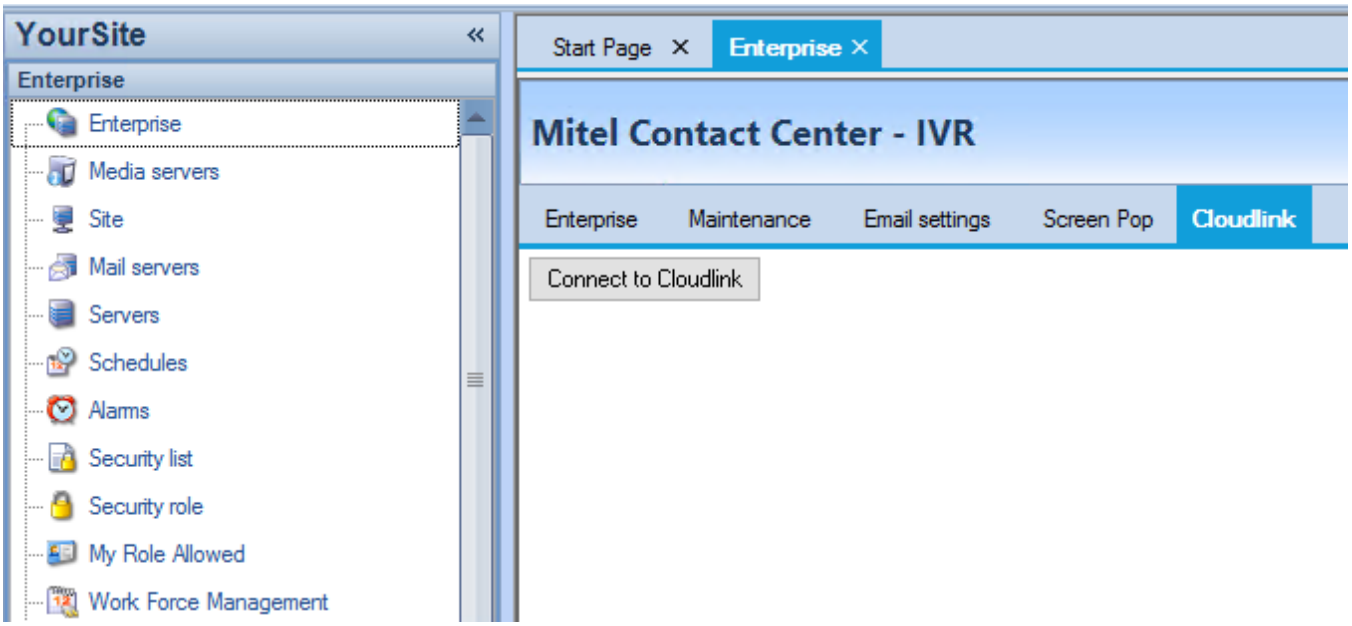
   NOTE: The reply template folder must be located on a UNC (Universal Naming Convention) path, also known as a shared network path.

Configuring Contact Center Messenger in YourSite Explorer

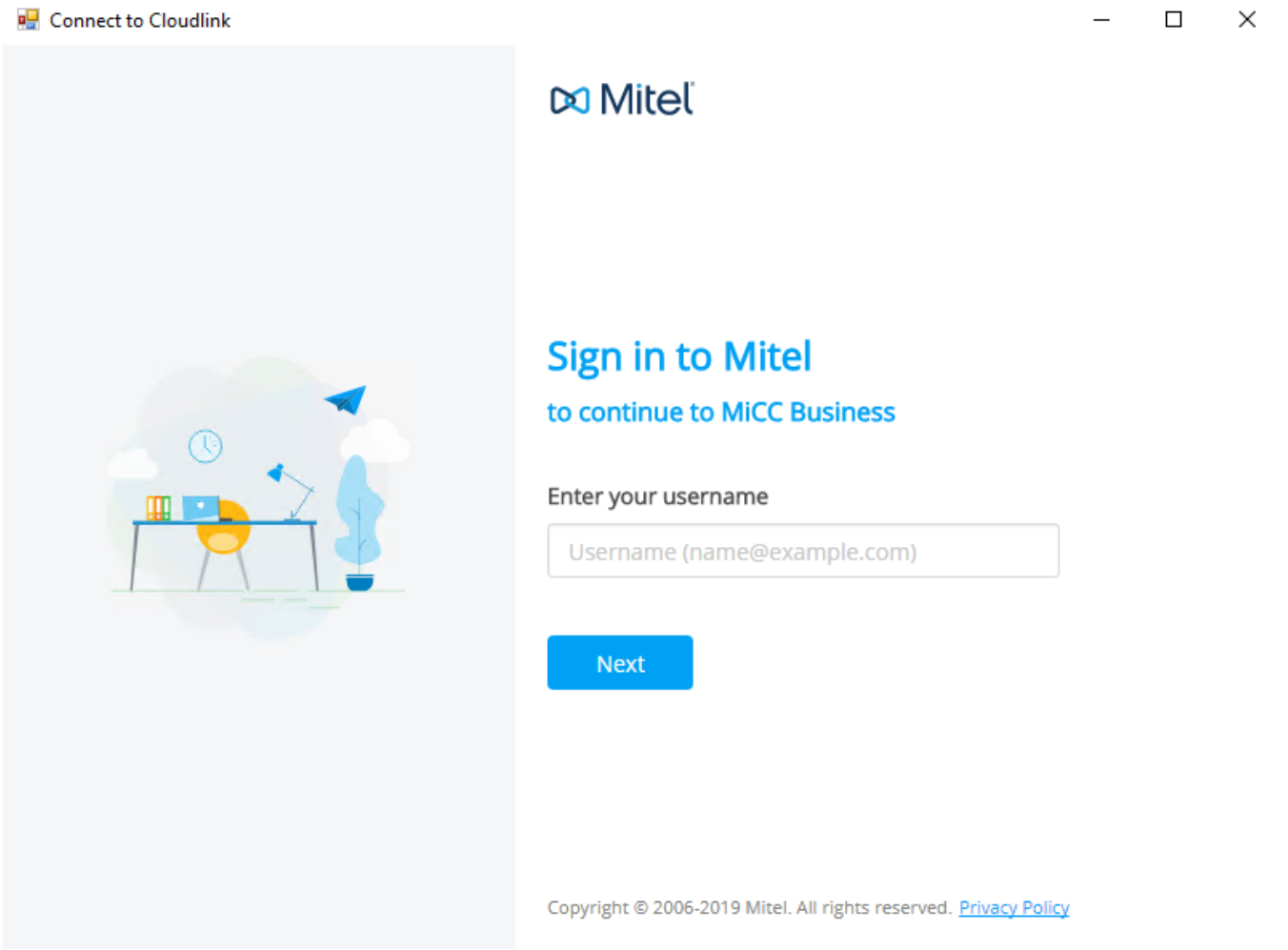
To use Contact Center Messenger, you must complete the configuration process as described below:

Connecting CloudLink

1. In **YourSite Explorer**, go to **Enterprise** and select the **CloudLink** tab.
2. Click the **Connectto CloudLink** button.



3. The Cloudlink log-in page is displayed.



4. Enter the **username** and **password** and click the **log in** button.

   NOTE: If the log in fails, the system displays an error message.
5. On successful log in, the YourSite Explorer displays the **Disconnect** button.

NOTE: The **Disconnect** is not displayed in the following scenarios:
- If you provide the wrong credentials.
- If you click the **Cancel** button in the Cloudlink log in page before entering the credentials.

Configuring Contact Center Messenger Media Server

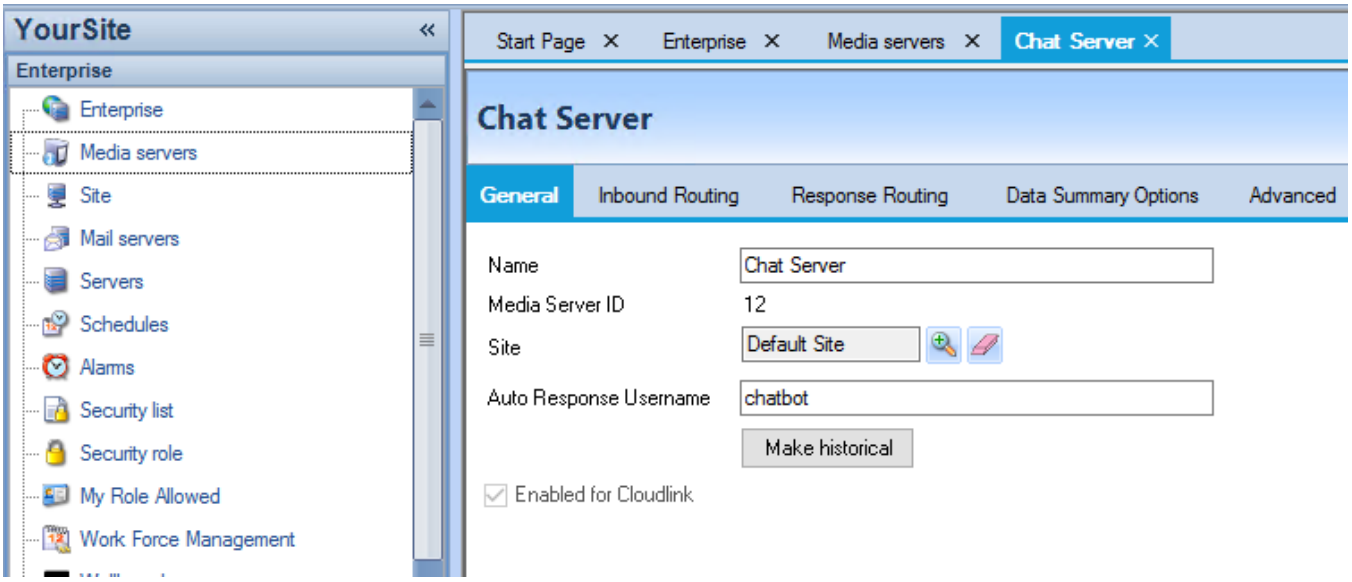
After integrating Cloudlink with chat, the **Chat media server** user interface must be modified.

NOTE: Users must have a valid email address before enabling the Contact Center Messenger Media Server.

Creating new CloudLink Chat Media Server

To enable a Contact Center Messenger Media Server, do the following:

1. In **YourSite Explorer**, go to **Media servers** and create a new chat media server.
   For more information on adding a chat media server, see *MultimediaContactCenter Installation and Deployment Guide*.
2. Select the **Enabled for CloudLink** check box to enable chat media for CloudLink.
3. Click **Save** to save your changes.



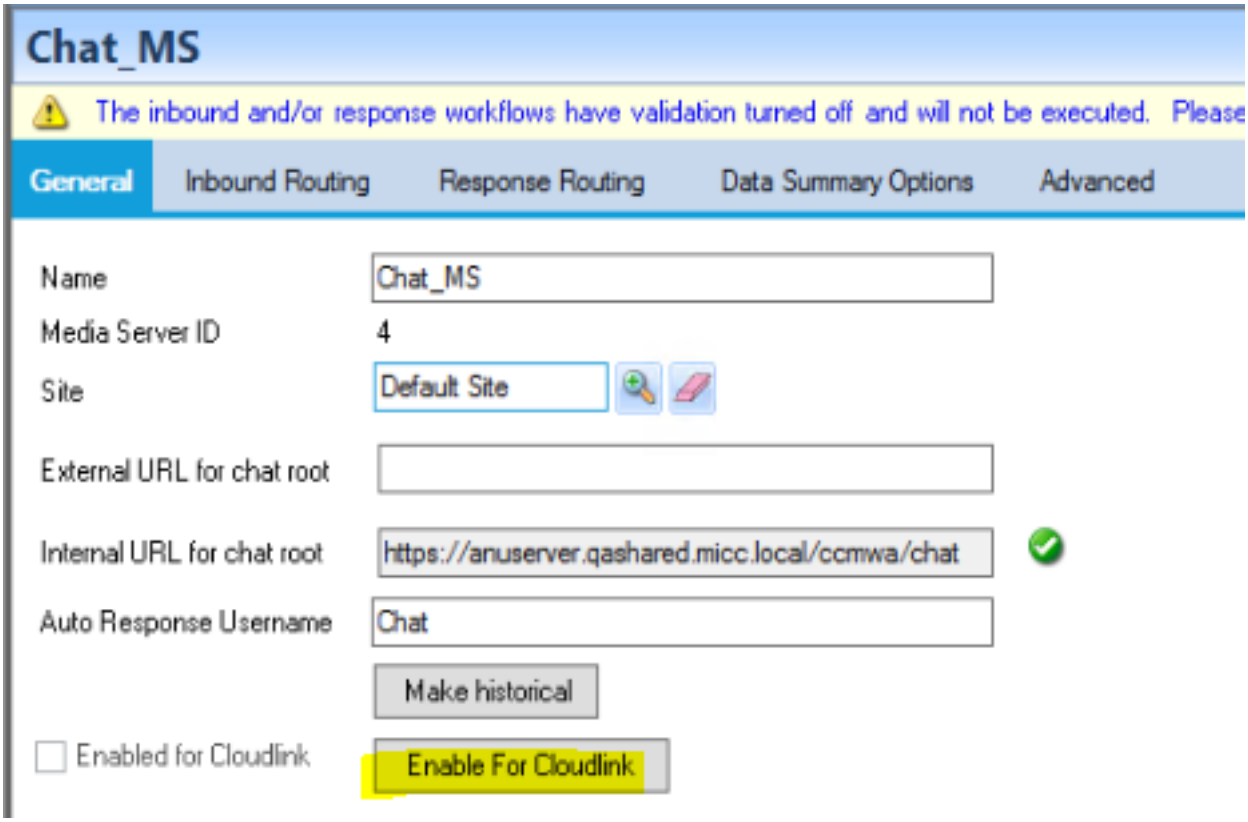
After the **Enabled for CloudLink** check box is selected, the **External URL for Chat root** and **Internal URL for chat root** fields are not displayed. These fields are displayed only when the Enabled for CloudLink check box is cleared.

NOTE:

- The ***Enabled for CloudLink*** check box is grayed out after you save the chat media server configuration.
- Once the Contact Center Messenger is enabled, the existing CCMWa chat media server stops functioning.

Enabling Cloudlink for an existing CCMWa chat media server

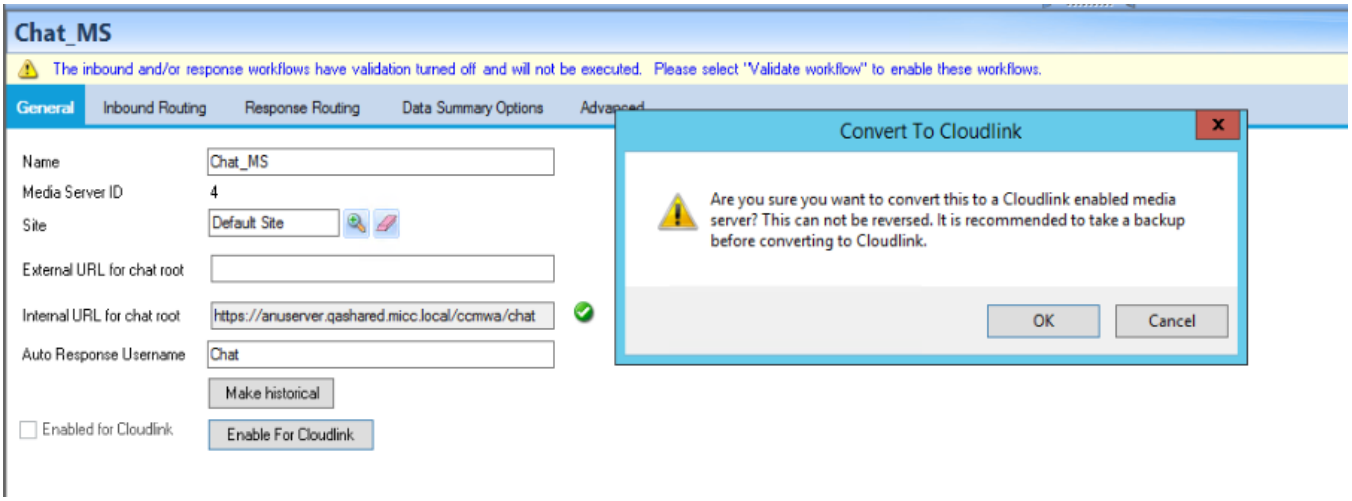
The administrator can enable Cloudlink for an existing CCMWa chat media server. The administrator can use the **Enable For Cloudlink** button, which is available when MiCC-B is connected to Cloudlink to convert the existing CCMWa chat media server to Cloudlink chat media server.



Following is the procedure for an administrator to convert CCMWa Chat media server to Cloudlink Chat media server:

1. In YourSite Explorer, go to **Media servers** > **Chat Media Server**.
2. Click the **Enable For Cloudlink** button. A pop-up is displayed for the administrator to confirm conversion of the existing CCMWa chat media server to Cloudlink chat media server.

NOTE: The Enable For Cloudlink button is available only if MiCC-B is connected to Cloudlink.

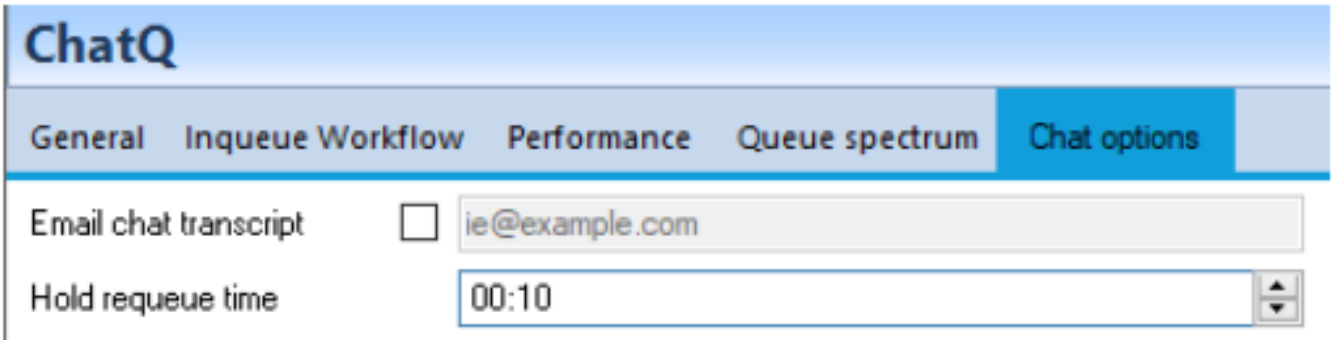


3. Click **OK** to confirm.

   YourSite Explorer checks the CCMWa for active chats in the IVR, and chats in queue, in an inbox, or on hold.
   YourSite Explorer terminates the process if there are any active chats in the IVR, or chats in a queue, in an inbox, or on hold. The administrator is notified that the active chats must be cleared before the conversion can be processed.
   After the chats are cleared, YSE converts the media server, queues associated with the media server, and the employees who have active real time agents associated with the media server.
   After completion of the process, a pop-up dialog opens confirming that the existing CCMWa chat media server is converted to Cloudlink chat media server.

Configuring Chat Queue

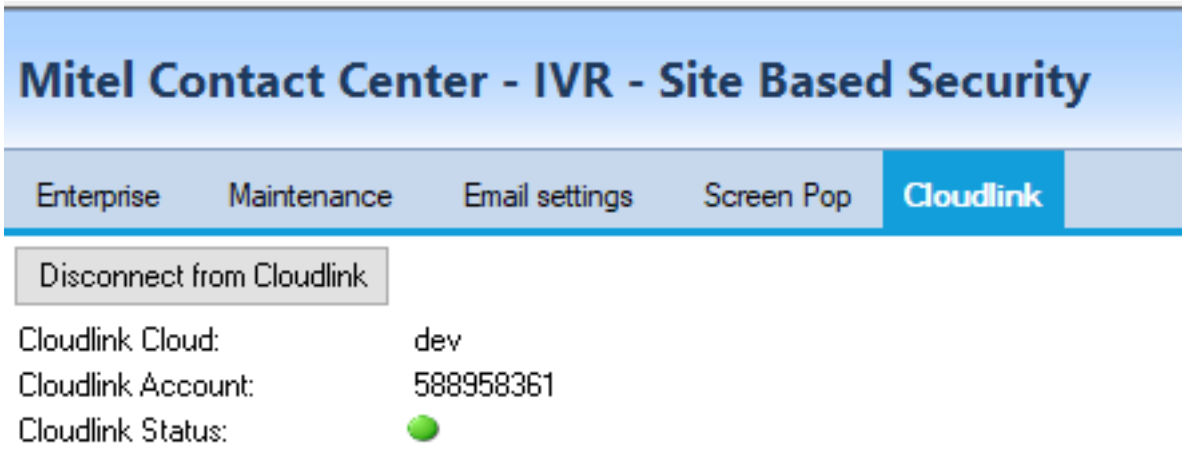
After the new chat media server is created in YourSite Explorer and the chat media is enabled for Cloudlink, the **External URL for Chat root** and **Internal URL for chat root** fields **disappear** from the **Chat options** tab.



Disconnecting Cloudlink

After successful log in of the Client in the CloudLink platform, YourSite explorer displays **Disconnect from CloudLink** button.

Click the **Disconnect from CloudLink** button to terminate the connection between the CloudLink platform and the MiCC-B. The CloudLink Client is logged out and CloudLink features are disabled for all the users.



After CloudLink is successfully disconnected, the CloudLink tab again displays **Connect from CloudLink** button.

Adding SMS to Multimedia Contact Center

Adding SMS enables Multimedia Contact Center to route SMS interactions to a contact center's SMS numbers to the appropriate queues and agents. The SMS media server integrates with a third-party SMS gateway service provider to enable SMS interactions.

Administrators may add only a single SMS media server to YourSite Explorer. Before deleting an existing media server, see *"Deleting multimedia media servers"* for important information.

Optionally, SMS handling for agents in Ignite can be modified through editing JavaScript files. See *"Configuring the agent configuration JavaScript file"*.

NOTE: SMS media servers require a Twilio account. For more information, see *"Integrating Multimedia Contact Center with an SMS Gateway Provider"*.

To add SMS to Multimedia Contact Center, administrators must

- Add an SMS media server to YourSite Explorer
  See the procedures below.
- Specify the media server's connection to an SMS gateway services provider
  See the procedures below.
- Apply inbound routing rules to interactions retrieved from the email server.
  See "*"Applying inbound routing rules to contacts"*.

Optionally, administrators can

- Create Response workflows
  See *"Applying response routing rules to contacts"*.
- Specify advanced configuration options for handling SMS, such as enabling alarms and configuring reporting intervals for queues.
  See *"Configuring Advanced options for media servers"* and see *"Configuring Advanced options for SMS media servers"*.
- Specify Data Summary options, such as indicating that the contact center operates 24 hours a day.

See *"Extending reporting and agent shifts over midnight"*,*"Specifying when Make Busy and Do Not Disturb timers begin"*, and *"Enabling Conversation Detail reporting"*.

The following procedures explain how to

- Add an SMS media server
- Specify information for an SMS media server
- Add an SMS Provider
- Modify an SMS Provider
- Remove an SMS Provider
- Make an SMS media server historical

The following configuration takes place in Multimedia > Media servers.

To add an SMS media server

- Click **Add > SMS**.

  NOTE: Default Inbound are assigned to the server. Modify these workflows to specify routing rules for the contact center. See *"Default SMS Inbound workflow"*.

To specify information for an SMS media server

1. Type the **Name** of the media server.

   NOTE: The media server ID field is populated with a unique number after the media server is saved.
2. After **Site**, click the **Browse** button to select the site where the SMS server resides.
3. Click **Save**.

To add an SMS Provider

1. In the **General** tab, after **SMS Provider**, click the **Browse** icon.
2. Click **Add**.
3. Enter a **Name** for the **SMS Provider**.
4. Enter the **PhoneNumber** (including country code) for the Twilio SMS phone number.

   NOTE: You must include country and area code
5. If this SMS number handles inbound SMS interactions, set **Retrieve incoming SMS messages** to **True**.
6. If this SMS number only sends outbound SMS messages, set **Retrieve incoming SMS messages** to **False**.
7. Enter your Twilio **AccountSid**.
8. Enter your Twilio **Authentication Token**,
9. After **Days to Search**, set how many days back Twilio will check for new SMS interactions.

   The recommended default is 3.
10. After **Messages/page**, set how many pages of messages MiContact Center Business downloads when checking for new messages.

    The recommended default is 25.
11. Click **Save**.
12. Repeat steps 2-11 for each additional SMS Provider you want to add to your SMS media server.

13. For each SMS Provider that you are adding, confirm that its checkbox is selected.
14. Click **OK**.
15. Click **Save**.

To modify an SMS Provider

1. In the **General** tab, after **SMS Provider**, click the **Browse** icon.
2. Select the **SMS Provider** and click **Edit**.
3. Modify the settings.
4. Click **Save**.
5. Click **OK**.
6. Click **Save**.

To remove an SMS Provider

1. In the **General** tab, after SMS Provider, click the **Browse** button.
2. Clear the checkbox beside the **SMS Provider**.
3. Click **OK**.
4. Click **Save**.

To make an SMS media server historical

1. Select an SMS media server and click the General tab.
2. Click **Make historical**.
3. Click **Save**.

Configuring Advanced options for SMS media servers

Configuring Advanced SMS options enables administrators to

- Set the amount of time an SMS session can remain idle before being terminated.

  NOTE: This configuration determines how long a customer or agent cannot participate in an SMS session before the system ends the SMS session. Customers can continue their SMS interactions with an agent by sending a new SMS interaction to the contact center.
- Change the reply template location from the default
  For more information on reply templates, see *"Configuring response templates for email, chat, SMS, and open media"*.

The following configuration takes place in Multimedia > Media servers.

To set the amount of time an SMS session can remain idle before being terminated

1. Select the **SMS media server** and click the **Advanced** tab.
2. After **Terminate SMS sessions idle for longer than the specified minutes**, set the amount of time an SMS session can remain idle.
3. Click **Save**.

To change the location of the reply templates

1. Select the SMS media server and click the **Advanced** tab.
2. After **Location**, click the **Browse** button.

3. Select the folder and click **OK**.

   NOTE: The reply template folder must be located on a UNC (Universal Naming Convention) path, also known as a shared network path.

4. Click **Save**.

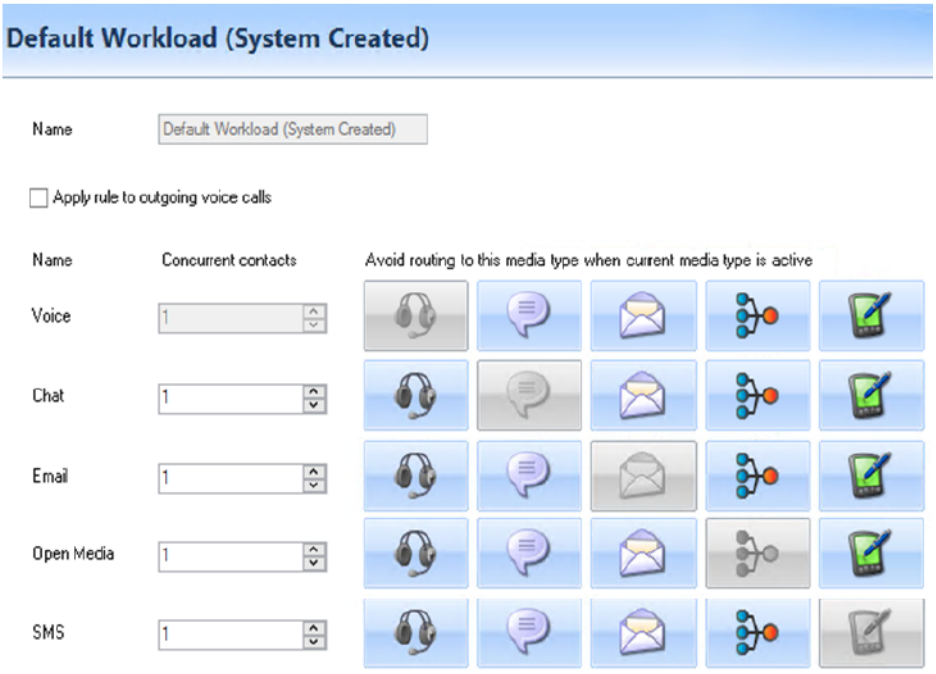
Configuring Workload

Employees handling multimedia interactions must be associated with a Workload. Workload determine the number and type of media interactions that can be pushed to an agent at any one time. When employees become licensed for Multimedia Contact Center, they are automatically assigned the default Workload, which allows concurrent handling of 1 interaction from each media type.

When an employee reaches their maximum Workload for a media type, their agent is put into Make Busy with the Overloaded reason code. When an employee is Overloaded, the employee will not be offered inbound interactions for that media type. This state is automatically removed when they are no longer at their maximum Workload. Employees in Ignite who have reached their maximum concurrent interactions in one type of media are still able to pick interactions from the corresponding media's queues and receive transfers from other agents.

A default Workload is provided with Multimedia Contact Center. The default Workload can be modified, but not deleted. The following figure shows the default Workload.

Figure 24.1: Default Workload



Administrators can create Workloads and assign them to employees as necessary. There are two areas of configuration required for Workloads for each media type:

- **Concurrent contacts:** This column of drop-down menus allows an administrator to set how many interactions of each type of media an employee can handle concurrently.
- **Avoid routing to this media type when current media type is active:** This matrix enables administrators to prevent certain media types from being offered to employees when they are handling a higher

priority of media. When an employee is handling a media that filters another kind of media, the employee's agents for the blocked media are set into Make Busy. The disallowing of media is reciprocal, so that if Chat is disabled when handling Voice, then Voice would be disabled when handling Chat.

NOTE:

- Agents can still pick and receive transferred interactions of the disallowed media type.
- If you do not want agents to receive multiple ringing interactions of different media types, configure this option

The following configuration takes place in Multimedia > WorkLoad.

The following procedures explain how to:

- Create a new Workload
- Modify an existing Workload
- Delete a Workload

NOTE: We recommend disassociating a Workload from all employees before deleting it.

To create a new Workload

1. Click **Add**.
2. Type a **Name** for the Workload.
3. To apply the Workload to outgoing voice calls, select **Apply rule to outgoing voice calls**.
4. For each media type, under **Concurrent contacts**, select the maximum number of connections of that media type that can be handled concurrently.
5. For each media type, click the icons of the media you do not want employees to concurrently handle when handling that type of media.
6. Click **Save**.

To modify an existing Workload

1. Select a **Workload**
2. When you are done modifying the Workload, click **Save**.

To delete a Workload

1. Select a Workload and click **Delete**.
2. Click **OK**.

Adding multimedia capabilities to employees

Contact center employees handing multimedia must be licensed for Multimedia Contact Center.

Administrators can add multimedia capabilities to employees on an employee-by-employee basis, or they can select a number of existing employees and add multimedia capabilities to multiple employees at the same time.

For more information on employee licensing or for instructions on creating new employees in YourSite Explorer, consult the *"Adding employees"*.

The following sections explain

- Licensing requirements for employee multimedia capabilities

- How to configure Multimedia Contact Center employee licensing
- How to assign employee Workload
- How to manage the media types an employee can handle
- How to restrict supervisors from seeing all the queues

Licensing requirements for employee multimedia capabilities

Employees consume a Multimedia Agent license when they are enabled to handle email, chat, or SMS. Employees handling multiple multimedia types do not consume additional Multimedia Agent licenses. Removing an employee's ability to handle multimedia unlicenses the employee. For information on enabling employees to handle multimedia types, see *"Managing the media types an employee can handle"*.

Employees licensed as Advanced supervisors or System Administrators may search Ignite's entire repository. This includes Ignite's In Progress folder (DESKTOP), which enables supervisors to see interactions currently in agent Inboxes. This search capability does not require Multimedia Contact Center licensing. However, to view and search interactions in queue using Ignite, employees must have a Multimedia Contact Center license and multimedia agents assigned to the queue.

Managing the media types an employee can handle

Employees handle media through their associated agents. The General tab of an employee contains buttons representing each media type that has a configured media server. When a button is selected, an agent of that media type is automatically created and associated to the employee. The following table contains an explanation of which buttons correspond to which media type.

Table 24.2: Media Buttons (Sheet 1 of 2)

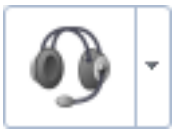
MEDIA TYPE	MEDIA BUTTON
Voice	
Chat	
Email	
SMS	

Table 24.2: Media Buttons (Continued) (Sheet 2 of 2)

MEDIA TYPE	MEDIA BUTTON
Open Media	

NOTE: Employees must be licensed to handle non-voice media. See *"Configuring employee licensing"*and *"Licensing requirements for employee multimedia capabilities"*.

When you remove the employee's ability to handle non-voicemedia, the employee's agents are made historical. Historical agents are disabled for real-time monitoring and data collection. If the employee is re-enabled to handle thatnon-voice media, then their agent will be made active again. Multimedia agents can be deleted to be removed entirely from the system.

NOTE: Failover media servers for voice agents must be configured on your telephone system and synchronized into YourSite Explorer. Workgroup does not support Contact Center resiliency. You cannot program failover media servers for ACD agents and extensions.

The following procedures explain how to:

- Enable an employee to handle voice media
- Edit an employee's voice agent
- Enable an employee's voice agent for external hot desking
- Enable an employee to handle voice media using an existing agent
- Remove a voice agent from an employee
- Enable an employee to handle multimedia
- Remove an employee's ability to handle multimedia
- Delete a multimedia agent

The following configuration takes place in YourSite > Employees.

To enable an employee to handle voice media

1. Select an employeeand click the **General** tab.
2. Under **Devices**, click the **Voice** button

   A voice agent and extension are automatically created for the employee.
   By default, the extension type is voice softphone, which emulates a 5020 IP set.
   For information on configuring extensions for employees, see *Managing employee extensions and Account Codes for employees*
   By default, the extension reporting number/dialable is populated with the employee's business phone.
3. Optionally, change the agent's **First name**.
4. Optionally, change the agent's **Last name**.
5. Optionally, after **Agent login ID**, enter the reporting number for the voice agent.
6. After **Media server**, click the **Browse** button.
7. Select a media server and click **OK**.
8. If you want to disable real-time monitoring and data collection for this agent, select **Disable real-time monitoring and data collection on this device**.

9. If a 3300 media server was selected, after **COS**, select a Class of Service from the list.
10. If a 3300 media server was selected, optionally, after **COR**, select a Class of Restriction from the list.
11. Select a media server and click **OK**.
12. Click **Save**.
13. Click **Save**.

To edit an employee's voice agent

1. Select an employee and click the **General** tab.
2. Under **Devices**, click the down arrow beside the Voice button and click **<agent ID>** > **Edit**.
3. Edit the agent's fields.
4. Click **Save**.
5. Click **Save**.

To enable an employee's voice agent for external hot desking

1. Select an employee and click the **General** tab.
2. Under **Devices**, click the down arrow beside the Voice button and click <agent ID> > **Edit**.
3. Select **External hot desk user enabled**.
4. After **External dialing prefix**, type the dialing prefix for the device to which calls will be routed.
5. After **External dialing number**, type the dialing number for the device to which calls will be routed.
6. Click **Save**.
7. Click **Save**.

To enable an employee to handle voice media using an existing agent

1. Select an employee and click the **General** tab.
2. Under **Devices**, click the down arrow beside the **Voice** button and click **Associate existing voice agent**.
3. Select an unassigned agent and click **OK**.
4. Click **Save**.

To remove a voice agent from an employee

1. Select an employee and click the **General** tab.
2. Click the down arrow beside the **Voice** icon and click <agent ID> > **Delete**.
3. Select the delete option:
   - **Make the device historical**—sets the agent as historical, but leaves it associated to this employee
   - **Disassociate the device**—disassociates the agent so it can be used with another employee
   - **Remove the device from the system**—deletes the agent
4. Click **OK**.
5. Click **Save**.

To enable an employee to handle multimedia

1. Select an employee.
2. Under **Devices**, click the media button to select which media this employee can handle.
3. Click **Save**.

To remove an employee's ability to handle multimedia

1. Select an employee.
2. Under **Devices**, click the enabled media button.
3. Click **Save**.

To delete a multimedia agent

1. Select an employee.
2. Click the down arrow beside the media button and click **Delete**.
3. Click **Save**.

Managing Employee Workload

Employees handling multimedia interactions must be associated with a Workload. Workloads determine the number and type of media interactions that can be pushed to an agent at any one time. When employees become licensed for Multimedia Contact Center, they are automatically assigned the default Workload, which allows concurrent handling of 1 interaction from each media type. For more information on Workloads, see *"Configuring Workload"*.

The following configuration takes place in YourSite > Employee.

The following procedures explain how to:

- Associate a Workload to an employee
- Associate a new Workload to an employee
- Edit an existing Workload
- Delete a Workload

  NOTE: We recommend disassociating a Workload from all employees before deleting it.

To associate a Workload to an employee

1. Select an employee and click the **Advanced** tab.
2. After **Workload Descriptor**, click the **Browse** button.
3. Select a **Workload**.

   Alternatively, if you want to create a new Workload to associate to the employee, click **Add**.
4. Click **OK**.
5. Click **Save**.

To associate a new Workload to an employee

1. Select an employee and click the **Advanced** tab.
2. After **Workload Descriptor**, click the **Browse** button.
3. Click **Add**.
4. Type a **Name** for the Workload.

5. To apply the Workload to outgoing voice calls, select **Apply rule to outgoing voice calls**.
6. For each media type, under **Concurrent contacts**, select the maximum number of connections of that media type that can be handled concurrently.
7. For each media type, click the icons of the media you do not want employees to concurrently handle when handling that type of media.

   NOTE: If you do not want agents to receive multiple ringing interactions of different media types, configure this option.
8. Click **Save**.

To edit an existing Workload

1. Select an employee and click the **Advanced** tab.
2. After **Workload Descriptor**, click the **Browse** button.
3. Select a Workload and click **Edit**.
4. When you are done modifying the Workload, click **Save**.

To delete a Workload

1. Select an employee and click the **Advanced** tab.
2. After **Workload Descriptor**, click the **Browse** button.
3. Click **Delete**.
4. Click **OK**.

Setting permissions for supervisors to view queues

By default a supervisor can view all queues. However, for security reasons there can be the need to restrict a supervisor from viewing all queues.

NOTE:

- An Administrator with "System Administrator " or "Advanced" license can restrict viewing of queues by setting permissions for viewing queues.
- This restriction can be applied only to employees with "Supervisor" license.

1. Select an employee and click the **Advanced** tab.
2. Clear the **May see all queues** check box.

   By default this check box is selected.
3. Click **OK**.
4. Click **Save**.

NOTE:

- If the **May see all queues** check box is not selected for a supervisor, then in Web Ignite, the supervisor can view only the queued interactions, historical interactions, and cases that the supervisor is associated with.
- It is strongly recommended to program at least one supervisor who can see all queues so that outbound interactions that could not be sent or have bounced will be detected when the agent is not available to handle.

Adding employee groups

After adding employees, you add employee groups and associate employees to these groups. Employee groups enable you to report on specific groups of employees.

If you intend to use security roles to restrict employees from elements of Ignite, it is recommended that you create employee groups whose membership duplicates that of your agent groups. For more information on Multimedia Contact Center and security roles, see *"Multimedia Contact Center security settings"*.

The following procedures explain how to:

- Add an employee group
- Associate an employee with an employee group
- Remove an employee from an employee group

To add an employee group

1. Click **Multimedia > Employee groups**.
2. Click **Add**.
3. Type the employee group's **Name**.
4. Type the **Employee group ID**.
5. Click **Save**.

To associate an employee with an employee group

1. Click **Multimedia > Employee groups**.
2. Select an employee group from the list.
3. On the **Membership** tab, under **Available** members, select an employee and click > to move the employee to the **Selected members** list.
4. Click **Save**.

To remove an employee from an employee group

1. Click **Multimedia > Employee groups**.
2. Select an employee group from the list.
3. On the **Membership** tab, under **Selected members**, select an employee and click < to move the employee to the **Available members** list.
4. Click **Save**.

Adding voice agent IDs

Agent IDs enable employees to handle different media and to be reported on and tracked in real time. When an administrator enables an employee to handle a type of media, the employee has an agent ID of that media type automatically created. A contact center employee can have multiple voice agent IDs, but requires a unique agent ID for each of the other media types (email, chat, SMS, and open media) that they handle.

Voice and multimedia agent IDs are added in the Employee section of Multimedia Contact Center. To add different media agent IDs to an employee, see *"Managing the media types an employee can handle"*. Voice agents can be created in the Agent section of Multimedia Contact Center, but it is recommended to create agents within the Employee section. The Agent section also enables administrators to delete

agent IDs. Deleting an active multimedia agent removes an employee's capabilities to handle the corresponding media. Historical multimedia IDs can only be deleted in the Agent section.

In Multimedia Contact Center > Agents, administrators

- Add voice agent IDs
- Delete agent IDs
- Associate unassociated voice agent IDs to employees
- Specify 3300 ICP Class of Service, Class of Restriction, and Failover media server options for voice agent IDs
- Enable a voice agent for external hot desking

To add a voice agent ID

1. Click **Multimedia > Agents**.
2. Click **Add**.
3. If you want to associate the new voice agent ID to an employee, click the Browse button after Employee.

   Selecting an employee will automatically fill in the First name and Last name fields with the employee's name.
4. Type the voice agent ID's **First name**.
5. Type the voice agent ID's **Last name**.
6. After **Agent login ID**, enter the reporting number for the voice agent ID.
7. After **Media Server**, click the browse button.
8. Select a media server and click **OK**.
9. Click **Save**.

NOTE: The **Disable real-time monitoring and data collection on this device** check box is automatically selected if the employee that is associated to this agent has their licensing attribute set to 'None'.

To configure 3300 ICP options for a voice agent ID

1. Click **Multimedia > Agents**.
2. Select an agent from the list.
3. Under **3300 ICP Options**, after **COS**, select a Class of Service from the list.
4. After **COR**, select a Class of Restriction from the list.
5. After **Failover media server**, click the **Browse** button.
6. Select a failover media server from the list and click **OK**.

   Workgroup does not support Contact Center resiliency. You cannot program failover media servers for ACD agents and extensions.
7. Click **Save**.

To enable a voice agent for external hot desking

1. Click **Multimedia > Agents**.
2. Select an agent from the list.
3. Select **External hot desk user enabled**.

4. After **External dialing prefix**, type the dialing prefix for the device to which calls will be routed.
5. After **External dialing number**, type the dialing number for the device to which calls will be routed.
6. Click **Save**.

To delete an agent ID

1. Click **Multimedia > Agents**.
2. Select an agent.
3. Click **Delete**.
4. Click **OK**.

To associate an unassociated voice agent to an employee

1. Click **Multimedia > Agents**.
2. Select an unassociated voice agent ID.
3. After **Employee**, the **Browse** button.
4. Select an employee and click **OK**.
5. Click **Save**.

Adding agent groups

Administrators must add agent groups to the YourSite database and associate employees to these agent groups. An employee and their agents can be associated to more than one agent group.

When agent groups are created, an employee's agents are assigned a default group presence, either Present or Absent. Employees whose agents' default presence is Absent will be set in the Logged In Not Present Agent state when they join their agent group. To handle that media type, the employee must change their agent state manually in Ignite or Contact Center Client. Employees whose agents' default presence is Present will be set in the Idle Agent state when they join their agent group. For details about Agent States, see *"Employee and Agent state indicators"*.

If you are upgrading to Multimedia Contact Center version 8.1, agent groups can be modified automatically through the Unified Queue Group Wizard to support new types of media. The Unified Queue Group Wizard, located in the Queue device page in YourSite Explorer, if selected, updates agent groups that are associated to selected voice queues and adds the ability for these agent groups to also handle, for example, chat and email queues. For more information on the Unified Queue Group Wizard, see *"Adding a Unified queue group"*.

NOTE:

- If an administrator attempts to add a group to YourSite that is already in the database the system notifies the administrator that the group is already present. When an administrator adds a series of groups to YourSite, such as Queue Groups 1 to 5, if the system detects the administrator has already added Queue Group 3, then it will not add Queue Group 3 or any subsequent queues in the series (that is, Queue Group 4 or 5) to the database.
- Deleting an agent group that is currently the last member of a voice or multimedia queue will invalidate that queue. Deleting an agent group that is associated to an activity in an Inqueue workflow will create a validation error. The queue will not be able to be saved until another agent group is associated to it. It is recommended that you disassociate agent groups from queues and their associated Inqueue workflows before deleting the agent group.

- Workgroup does not support Contact Center resiliency. You cannot program failover media servers for ACD agents and extensions.

To set up an agent group, administrators must:

- Add an agent group
- Manage agent group membership, presence, and skill level
- Specify agent group options for the 3300 ICP media server

The following procedures explain how to:

- Add an agent group
- Disable monitoring and device collection for an agent group
- Specify if the agent group uses skills

The following configuration takes place in Multimedia > Agent groups.

To add an agent group

1. In Agent groups, click **Add**.
2. Type a **Name** for the agent group.
3. Type a **Reporting number** for the agent group.
4. Select the media type(s) the agent group will handle.

   See the following table.

Table 24.3: Media icons

Media Type	Media Icon
Voice	
Chat	
Email	
SMS	
Open Media	

5. If you select voice media, select the voice media server and click **OK**.

NOTE: If this agent group is not handling voice interactions, then this option will not be available.

6. Click **Save**.

To disable monitoring and device collection for an agent group

1. Select an agent group.
2. Select **Disable real-time monitoring and data collection on this device**.
3. Click **Save**.

To specify if the agent group uses skills

1. Select an agent group
2. Select **The group uses skills**.
3. Click **Save**.

Managing agent group membership, presence, and skill level

After configuring an agent group, administrators must associate employees to the agent groups and specify the default presence for each of the employee's agent IDs for the media types the agent is configured to handle. If the agent group uses skills, skill levels must be set for each employee. Skill levels range from 1, which is the most skilled, to 255, which is the least skilled. The skill level assigned to the employee is applied to each media the employee is capable of handling.

Some employees may have multiple voice agents associated to them. When these are added to an agent group, they are highlighted in yellow. Administrators can select which of an employee's voice agents are in the agent group. It is recommended that an employee only have one voice agent associated to an agent group.

The following procedures explain how to

- Add employees to an agent group
- Specify which of an employee's multiple voice agents are in an agent group
- Specify a member's default presence in an agent group
- Specify a member's skill level
- Edit a member employee
- Remove a member from an agent group

The following configuration takes place in Multimedia > Agent groups.

To add employees to an agent group

1. Select an agent group and click the **Membership** tab.
2. To add employees to the agent group, click **Add**.
3. Select the employees to add to the agent group and click **OK**.
4. Click **Save**.

To specify which of an employee's multiple voice agents are in an agent group

1. Select an agent group and click the **Membership** tab.
2. Under **Selected members**, select the employee with multiple voice agents.
3. Click **Voice agent options**.
4. Select the voice agent to be present in this agent group and click **OK**.

5. Click **Save**.

To specify a member's default presence in the agent group

1. Select an agent group and click the **Membership** tab.
2. In the **Default <media type> Presence** column of the member's row, click the cell and select the default presence.
   - **Absent**—the employee's agent ID will be put into the Logged in Not Present agent state when they join the agent group.
   - **Present**— the employee's agent ID will be put into Idle when they join the agent group.
3. Repeat Step 2 for each media type the member can handle in the agent group.
4. Click **Save**.

To specify a member's skill level

1. Select an agent group and click the **Membership** tab.
2. In the **Skill level** column of the member's row, select a skill level from the drop-down list.
3. Click **Save**.

To edit a member employee

1. Select an agent group and click the **Membership** tab.
2. Select an employee and click **Edit**.

   For information on configuring employees, see the *"Adding employees"*.
3. When you are done editing the employee, click **Save**.

To remove a member

1. Select an agent group and click the **Membership** tab.
2. Select a member and click **Delete**.
3. Click **Save**.

Specifying 3300 ICP options for agent groups

The following configuration takes place in Multimedia > Agent groups

To specify 3300 ICP options for an agent group

1. Select an agent group from the list.
2. On the **3300 ICP options** tab, if you want to change your Skill Group ID, after Skill Group ID, enter a new ID.
3. Click **Browse** and select a failover media server.

   Workgroup does not support Contact Center resiliency. You cannot program failover media servers for ACD agents and extensions.
4. Specify if the agent group uses skills and if calls are to be queued to the agent group when no agents are logged in.
5. Click **Save**.

Adding multimedia queues

When you create a multimedia queue, it is automatically associated to the existing media server for that type of media. Your multimedia media servers must already be configured before you can add a multimedia queue of that media type.

When adding a queue, administrators must

- Configure general multimedia queue settings
- Configure multimedia queue membership and routing
- Configure multimedia queue performance settings
- Configure queue spectrum settings for multimedia queues

Depending on the media type, administrators must also

- Configure email options
  - Apply signatures to email queues
- Configure chat options
- Configure SMS options
- Configure open media options

To add a multimedia queue

1. Click **Multimedia > Queues**.
2. Click **Add** and select **<media type> Queue**.

Configuring general settings for multimedia queues

When configuring general information for multimedia queues, administrators configure the basic settings for the queue that are required to be configured before the queue can be saved.

NOTE: For email queues not automatically requeuing interactions on agent logout, emails are put on hold until the agent logs back in and removes hold. Once the hold requeue time expires, interactions are requeued whether the agent is logged in or not.

To configure general settings for a multimedia queue

1. Select a queue and click the **General** tab.
2. Type a **Name** for the queue.
3. Type a **Reporting number** for the queue.

   NOTE: For Unified queue groups, when the reporting number is the same for all queues in the group, the queue ID must be entered in this field instead of the queue reporting number.
4. The **Members** field is auto-populated after an agent group has been added as a destination to the Inqueue workflow. Clicking the link opens the applicable agent group page, enabling you to make changes or view the configuration.
5. For **Email queues**, after Email address, click the **Browse** button.
6. Type the queue's email address and click **Add**.

   The Email queue's email address identifies the queue to which the system will route the email. The email address can correspond to an email address included in a mail server distribution list or it can be internal to the Multimedia Contact Center. For information on configuring mail servers, see *"Integrating Multimedia Contact Center with mail servers"*.

NOTE:

- We do not recommend assigning the same email address to multiple queues.
- Using the <<DestinationQueues>> variable for routing with the Transfer activity requires email queues to have an associated email address. For more information on the <<DestinationQueues>> variable, see *"Routing contacts with the Transfer activity"*.
- If you use the <<DestinationQueues>> variable for routing with the Transfer activity and have multiple queues associated to the same email address, the system routes emails to the first configured queue only. We do not recommend assigning the same email address to multiple queues.
- For agents to select queue email addresses as the 'From' address in email responses and outbound emails, the addresses must be associated to a mail server which is associated to the media server for the queue. Administrators must configure primary and secondary queue email addresses as either the mail server's 'From Email Address' or 'Alias'. See *"Configuring SMTP connections to Multimedia Contact Center"*.
- An Email queue can be saved without an email address added, in which case the queue uses the SMTP email address assigned to the mail server as the "from" email address. To ensure proper response functionality, however, an email address must be set for the Email queue.
- If the queue email address uses an alias, ensure that the alias has been added to the mail server. An alias can be used with only one queue. For more information about adding aliases to the mail server, see *"Configuring SMTP connections to Multimedia Contact Center"*.

7. If you want to associate additional email addresses to the email queue, for each additional email address, type the address and click **Add**.

   Alternatively, to import all of the email addresses and aliases associated to the mail servers associated to your enterprise, click **Pull From Mail Server(s)**.
   The first email address in the list is always considered the primary email address for the queue that is used as the From address when an agent responds to an email address in this queue. Each subsequent email address is considered an alternative email address.
   You can adjust the order of the email addresses by selecting an address and clicking the Up and Down buttons.
8. Click **Ok**.
9. For Chat queues, type a **Username**.

   The Chat queue's auto response username is used with workflow activities that provide automated responses to interactions in queue.
10. For SMS queues, type a **Phone number**.

    SMS numbers must not use dashes or parentheses and must include both a country and area code. SMS queues can only have one SMS phone number associated to them. An SMS;number can be used for multiple queues, with some restrictions. For more information, see *"Integrating Multimedia Contact Center with an SMS Gateway Provider".*
11. If you do not want the queue to be viewed in Contact Center Client and Ignite, select **Disable real-time monitoring and data collection on this device**.
12. Click **Save**.

To edit an email queue's email addresses

1. Select an email queue and click the **General** tab.
2. After **Email address**, click **Browse**.

3. To add an email address to the queue, enter the email address and click **Add**.
4. To change the order of email addresses, select an email address and click the **Up** or **Down** buttons.

   The first email address is the queue's primary email address.
5. To remove an email address, select the email address and click **Remove**.
6. Click **OK**.
7. Click **Save**.

Configuring multimedia queue membership and routing

When a queue is created, a copy of the Default Inqueue email, chat, SMS, or open media workflow is created and assigned to the queue. In each of the Offer to Agent Group activities in these workflows, the handling agent groups must be specified. An agent group can only be associated with one Offer to Agent Group activity in an Inqueue workflow. For more information on configuring Offer to Agent Group activities, see *"Routing contacts with the Offer to Agent Group activity"*.

If your default Inqueue workflow uses Email activities as auto responses, you will need to specify the SMTP servers as well. The default email messages assigned to Email activities in the Inqueue workflow should be reviewed and customized as required. After assigning agent groups in the Inqueue workflow, administrators can review them in the General tab. Agent groups are listed, in the order from the Inqueue workflow, in the Members field. Administrators can click the name of the agent group to open that agent group's page in YourSite Explorer.

Once you have configured your Inqueue workflow, you must enable validation for the workflow. Validation prevents workflows with invalid or incomplete configuration from being used.

If you have an existing Inqueue workflow you would like to use for routing, you can assign it to the queue from Workflows. For information on assigning Inqueue workflows to queues, *"Associating workflows to queues"*.

For more information about the Default Inqueue workflows, see *"Multimedia Contact Center default workflows"*.

The following procedures explain how to:

- Set which agent group handles interactions
- Enable workflow validation
- Set the SMTP servers in an Email activity
- Prevent overflow on the final Offer to Agent Group activity

The following procedures take place in Multimedia > Queues.

To set which agent group handles interactions

1. Select a queue and click the **Inqueue workflow** tab.
2. Right-click on the **Offer to Primary Agent Group** activity and select **Agent group**.
3. Select the agent group who will handle this queue and click **OK**.
4. For each subsequent Offer to Agent Group activity in the workflow, repeat steps 2-3 to set all of the answering agent groups.
5. Click **Save**.

To enable workflow validation

1. Select a queue and click the **Inqueue workflow** tab.
2. In the **Properties pane**, select **Validate workflow**.
3. Click **Save**

To set the SMTP servers in an Email activity

1. Select a queue and click the **Inqueue workflow** tab.
2. Right-click on the Email activity and select **Edit SMTP Server**.
3. Select a SMTP server and click **OK.**
4. Click **Save**.

To prevent overflow on the final Offer to Agent Group activity

1. Select a queue and click the **Inqueue workflow** tab.
2. Select the final Offer to **Agent Group activity**.
3. In the **Properties pane**, select **Do Not Allow Overflow**.
4. Set the **Overflow Time** to **0:00:00**.
5. Click **Save**.

Configuring multimedia queue performance settings

When configuring a multimedia queue, administrators set the priority of the queue, the queue's business hours, the Queue Work Timer options, set the Service Level objectives, and set the queue handling times. Note that Multimedia Queue Work Timer functions independently of Class of Service Work Timer. Queue Work Timer options enable queues to change their Work Timer duration to be different than the Class of Service Work Timer.

The following procedures explain how to:

- Set queue priority
- Configure the business hours for a queue
- Apply the business hours to all queues on the same media server
- Configure the Queue Work Timer options
- Set the queue service level objectives
- Set the queue handling times
- Enable and Disable Auto Answer

To set the priority level for the queue

1. Select a queue and click the **Performance** tab.
2. After **Priority**, select the priority level for the queue.

   The highest priority level is 1. The lowest priority level is 64.
3. Click **Save**.

To configure the business hours for a queue.

1. Select a queue and click the **Performance** tab.
2. After **Business-hour schedule**, click the **Browse** button.
3. Select a schedule and click **OK**.

4. If you want to restrict the production of real-time statistics and reports to only during business hours, select **Generate statistics and reports only within business hours**.
5. Click **Save**.

To apply the business hours to all queues on the same media server

1. Select a queue and in the ribbon, click the **Queue Tools** tab.
2. Select **Apply business hours to all**.

To configure the Queue Work Timer options

1. Select a queue and click the **Performance** tab.
2. If you want to add Contact Center Work Timer to handling time in reports, select **Include Queue Work Timer as part of handling time**.

   NOTE: When 'Include queue work timer as part of handling time' is enabled, the ACD handling time durations for reporting purposes span from ACD pick up to the end of the Work Timer time.

   When this option is disabled, the ACD handling time duration spans from ACD pick up to hang up.
3. To enable the queue for Work Timer, select **Use Queue Work Timer** and set the duration of Queue Work Timer.

   The default duration is 00:05:00.
4. Click **Save**.

To set the queue service level objectives

1. Select a queue and click the **Performance** tab.
2. Specify the **Service Level goal** and **Service Level time** for the queue.
3. Click **Save**.

To set the queue handling times

1. Select a queue and click the **Performance** tab.
2. After **Short handle less than**, type the duration that will define a call as a short handle call.

   For example, type 3 to define a short handle call as one that lasts less than 3 seconds. Short talk calls are included in call statistics.
3. After **Short abandon less than**, type the duration that will define an abandoned call as 'Abandoned (Short)'.

   For example, type 5 to define a short abandon call as one that is abandoned in less than 5 seconds.

   NOTE: Short abandon less than' is not applicable for Email queues.
4. Click **Save**

To enable Auto Answer for Agents

1. Select a queue and click the **Performance** tab.
2. Select the **Agent Auto Answer** check box.

   This check box is cleared by default.
3. Click **Save**.

NOTE:

- If the ***Agent Auto Answer*** *check box is selected, the* ***Accept*** button is not displayed in Web Ignite because the incoming conversation is auto answered.

- The Agent Auto Answer option can be enabled for voice, chat, email, sms, and, open media queue types, but not for the Ring Groups.

Configuring queue spectrum settings for queues

Queue spectrum reports provide valuable information on how emails are dispersed in your contact center. You configure thresholds for answer, abandon, interflow, handle, and ringing thresholds for queues in YourSite Explorer. The answer, abandon, interflow, and talk statistics will be distributed across the queue spectrum reports in the time intervals you specify.

The following procedures explain how to:

- Configure queue spectrum settings for a queue
- Apply queue spectrum settings to all queues on the same media server

The following procedures take place in Multimedia > Queues.

To configure queue spectrum settings for a queue

1. Select a queue and click the **Queue Spectrum** tab.
2. Select the spectrum value(s) you want to include in reports and specify thresholds for each.
3. Click **Save**.

To apply queue spectrum settings to all queues on the same media server

1. Select a queue and in the ribbon, click the **Queue Tools** tab.
2. Select **Apply queue spectrum to all**.

Configuring email options for multimedia queues

The Email options tab contains email queue-specific options. The Email options tab enables you to control if email interactions in the Ignite inbox are requeued when the agent logs out of Ignite, how long interactions can remain on hold for before being requeued, and whether or not agents can select the From address of the email response to interactions. The Email options tab also contains options for email signatures. For information on configuring email signatures, see *"Applying signatures to email queues"*.

NOTE: For email queues not automatically requeuing interactions on agent logout, emails are put on hold until the agent logs back in and removes hold. Once the hold requeue time expires, interactions are requeued whether the agent is logged in or not.

The following procedures explain how to:

- Set whether email interactions in the Inbox requeue on employee logout
- Set how long an email interaction can be on hold before being requeued
- Enable agents to pick the From address on responses

To set whether email interactions in the Inbox requeue on employee logout

1. Select a queue and click the **Email options** tab.
2. To requeue email interactions on employee logout select the **Requeue on logout** checkbox.
3. To keep email interactions on employee logout, deselect the **Requeue on logout** checkbox.
4. Click **Save**.

To set how long an interaction can remain on hold or in the Inbox after logout before being requeued

NOTE: When the 'Minutes an interaction can be on hold before being requeued' timer expires, the interaction is returned to the queue as the longest waiting interaction and the employee (if logged into Ignite) is

put into System Make Busy. For emails, any text the agent entered is visible to the agent who handles the requeued interaction.

1. Select a queue and click the **Email options** tab.
2. Under **Requeue options**, enter the number of **Minutes a contact can be on hold before being requeued**.

   NOTE: Once the 'Minutes an interaction can be on hold before being requeued' timer expires, interactions are requeued whether the agent is logged in or not.
3. Click **Save**.

To enable agents to pick the From address on responses

1. Select a queue and click the **Email options** tab.
2. Select **Allow Pick From Address**.
3. Click **Save**.

Applying signatures to email queues

NOTE:

- Do not copy signatures containing images in .msg files directly from Outlook. Save these signatures as .msg files in the Reply Templates folder and leverage from there.
- The size of email signatures contributes to email file size. By default, the maximum file size for emails, including attachments, signatures, and images, is 25 MB.
- Email queue signatures are limited to 150 000 characters. To increase this number, consult the following Knowledge Base article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1000752/loc/en_US.
- Email queue signatures are not inserted in workflow automatic email responses.

Administrators can apply signatures to email queues. These signatures are automatically inserted into agent email responses. Signatures are configured and applied on a queue-by-queue basis. Queue signatures enable custom signatures to be deployed uniformly across the responses of agents answering for the queue.

Email signatures must be in .msg or .txt format. .msg signatures can contain images. Unsupported file types cannot be saved to the queue.

Administrators can either store signature files in the default Reply Template folder location created on the server during installation, or they can move the Reply Templates folder to a network share. Using the Reply Templates folder ensures that signature files are included in database backups. A network share is required for signatures to be created and modified on client computersor remote servers. If the network drive is unavailable to the server, the queue signature is not automatically inserted in agent replies. However, agents can manually insert signatures in their responses from the Reply Templates folder.

The default Reply Templates folder location is

- <installation drive>:\<installation folder>\CCM\Templates\ReplyTemplates\Email.

Administrators must ensure that media servers are pointed to the Reply Templates folder and that queues are pointed to the signature file in that folder. By default, media servers point to the Reply Templates folder. To point the media server to a Reply Templates folder housed on a network share, see *"Configuring Reply templates for email, chat, SMS, and open media"*.

If agents are permitted to use personalized signatures, they must use response templates configured for that purpose. Administrators must configure the templates for agents to apply as signatures. See *"Configuring Reply templates for email, chat, SMS, and open media"*.

The following procedure explains how to

- Apply signatures to email queues
- Disable or remove signatures on email queues

To apply signatures to email queues

1. Select a queue and click the **Email options** tab.
2. Select **Enable Email Signature**.
3. Click the **Browse** button and navigate to the folder housing the signatures.

   NOTE: This folder must the same folder to which the media server points.
4. Select the email signature file and click **Open**.

   NOTE: Reply templates only in .msg and .txt files can be inserted into the Email Signature field.
5. Click **Save**.

To disable or remove signatures on email queues

1. Select a queue and click the **Email options** tab.
2. To disable the signature, deselect **Enable Email Signature**.
3. To remove the signature, click **Clear**.
4. Click **Save**.

Configuring chat options for multimedia queues

The following procedures explain how to:

- Set the queue hold requeue time

  NOTE: Once the hold requeue time expires, interactions are requeued whether the agent is logged in or not
- Configure chat queue transcript options

The chat options tab for chat queues enables you to email chat transcripts to interactions as a part of the Chat Response workflow and view the internal and external URL for that specific chat queue.

A queue's internal URL has the queue's GUID built into the URL, removing the potential need for customers to select the queue they want from the chat request page and, if the Inbound workflow is configured to route based on queue IDs, automatically identify the destination queue so that customers are routed directly to the appropriate queue. There are two fields for chat URLs, the external URL for Queue and the internal URL for Queue. The internal URL for Queue is the Public URL used internally by the system <Enterprise Server>/chat/GUID. The external URL for Queue is the Public URL used externally with the reverse proxy applied and is the URL to link interactions to specific queues.

The following procedures take place in Multimedia > Queues.

To set the queue hold requeue time

1. Select a queue and click the **Chat options** tab.
2. Under **Requeue options**, set the **Hold requeue time**.

NOTE: Once the hold requeue time expires, interactions are requeued whether the agent is logged in or not

3. Click **Save**.

To configure chat queue transcript options

1. Select a chat queue and click the **Chat options** tab.
2. Select **Email chat transcript**.
3. Type the email address that will sends the transcript.

   NOTE: The email address must be your SMTP server's main address or an alias. For more information on SMTP servers, see *"Configuring SMTP connections to Multimedia Contact Center"*.
4. Click **Save**.

Configuring SMS options for multimedia queues

The SMS options tab for SMS queues enables you to set how long interactions remain on hold before being requeued.

The following procedures explain how to

- Set the hold requeue timeout time

To set the hold requeue timeout time

1. Select an SMS queue and click the **SMS options** tab.
2. Set the **Hold requeue timeout** time.
3. Click **Save**.

Setting a multimedia queue as historical

Multimedia queues can be set as historical, disabling real-time monitoring and data collection for the queue. Historical multimedia queues retain their data for reporting, as well as any emails or transcripts, but cannot handle interactions and are removed from Contact Center Client and Ignite. Emails and transcripts associated to the queues will still be visible in the History folder in Ignite. Historical chat queues cannot be linked to directly and will not appear in the default chat request form.

To set a queue as historical or to reactivate a historical queue

1. Select a queue and click the **General** tab.
2. If you are setting the queue as historical, select **Disable real-time monitoring and data collection on this device**.
3. If you are reactivating the queue, clear **Disable real-time monitoring and data collection on this device**.
4. Click **Save**.

Deleting a multimedia queue

Emails and transcripts from a deleted queue will still be visible in Ignite, but will not have a queue associated to them. Emails and transcripts will not be associated to a new queue that matches the configuration of the deleted queue.

To delete a queue

1. Click **Multimedia > Queues**.
2. Select a queue and click **Delete**.
3. Click **OK**.

Adding queue groups

Administrators can group queues for common purposes. There are three kinds of queue groups available:

- **Reporting**—groups queues together for reporting and viewing their activities in real-time
- **Mitel Virtual**—groups queues across telephone switches that load balance ACD calls between multiple queues
- **Unified Queue Group**—groups queues of different media types that handle interactions for the same service group in a contact center

Adding Reporting queue groups

Reporting queue groups enable administrators to run reports on activities for the grouped queues and view queue group activities in real-time.

The following procedures explain how to:

- Add a Reporting queue group
- Associate a queue to a Reporting queue group
- Remove a queue from a Reporting queue group

To add a Reporting queue group

1. Click **Multimedia > Queue** groups.
2. Click **Add > Reporting**.
3. Type a **Name**.
4. Type a **Reporting number**.
5. Click **Save**.

To associate a queue to a Reporting queue group

1. Click **Multimedia > Queue groups**.
2. Select a Reporting queue group from the list.
3. On the **Membership** tab, under **Available members**, select a queue and click > to move the queue to the **Selected members** list.
4. Click **Save**.

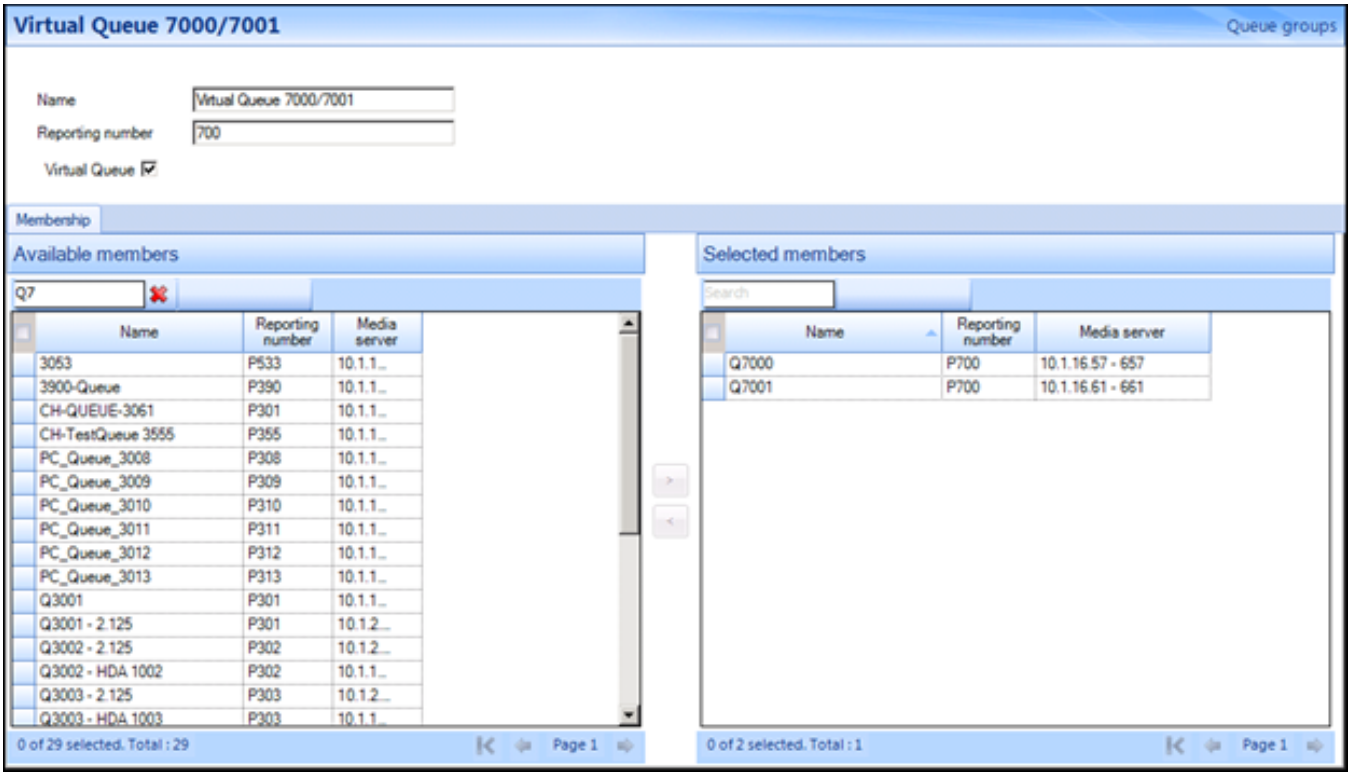
To remove a queue from a Reporting queue group

1. Click **Multimedia > Queue groups**.
2. Select a Reporting queue group from the list.
3. On the **Membership** tab, under **Selected members**, select a queue and click < to move the queue to the **Available members** list.
4. Click **Save**.

Adding Virtual queue groups

Virtual queue groups are comprised of two or more queues across one or more telephone switches that all send ACD voice interactions to the same pool of agent groups, balancing loads across queues. Queues within a virtual queue group must have the same reporting numbers, the same agent groups, and different dialable numbers. For example, in the following figure, the virtual queue group is made from two queues on two different telephone systems:

- **PBX 1**: Queue 7000: reporting number P700, dialable 7000 on PBX1, queue 700, 701, 702 assigned
- **PBX 2**: Queue 7001: reporting number P700, dialable 7001 on PBX2, queue 700, 701, 702 Assigned



Virtual queue group

Virtual queue groups provide the ability to merge multiple queues into a single visual representation in Interactive Visual Queue and provide callers with an accurate position in queue through the Updated Position in Queue service.

NOTE: Although Virtual queue groups are added and configured under Queue Groups in YourSite Explorer, a virtual queue group is treated as a singular entity.

The following procedures explain how to:

- Add a Virtual queue group
- Associate queues to a Virtual queue group
- Remove queues from a Virtual queue group

To add a Virtual queue group

1. Click **Multimedia > Queue groups**.
2. Click **Add > Mitel Virtual**.
3. Type a **Name**.

4. Type a **Reporting number**.
5. Click **Save**.

To associate queues to a Virtual queue group

1. Click **Multimedia > Queue groups**.
2. Select a Virtual queue group from the list.
3. On the **Membership** tab, under **Available members**, select a queue and click > to move the queue to the **Selected members** list.

   Repeat as necessary.
4. Click Save.

To remove queues from a Virtual queue group

1. Click **Multimedia > Queue groups**.
2. Select a Virtual queue group from the list.
3. On the **Membership** tab, under **Selected members**, select a queue and click < to move the queue to the **Available members** list.

   Repeat as necessary.
4. Click **Save**.

Adding Unified queue groups

Unified queue groups are used to consolidate a group of queues of different media types that handle interactions for the same service organization within a contact center, such as sales or support. A Unified queue group can only have one queue for each of the media types it supports. Individual queue priorities are used within a Unified queue group to specify the priority of the media types and queues for handling. The queues within a Unified queue group can be viewed together in Ignite.

Unified queue groups can be created using a wizard or may be created manually. The Unified Queue Group wizard takes an existing voice queue and then uses its configuration settings to input information into new multimedia queues. The wizard also enables all agent groups associated with the voice queue to support the multimedia type selected during queue creation.

NOTE:

- The Unified Queue Group Wizard does not create new agents for employees belonging to the associated agent groups. Employees must be enabled to handle new media types manually. See *"Managing the media types an employee can handle"*.
- Employees already enabled to handle the new queues' media types will be set as Present in their agent groups for those media types. For information on changing the default presence, see *"Managing agent group membership, presence, and skill level"*.
- A default queue priority of 64 is assigned to queues created by the Unified Queue Group Wizard. These may be altered after the wizard has finished.
- Business hours are copied over from the business hours configured for the voice queue. Default automated responses for business hours are provided for multimedia.
- The wizard will populate the Offer to Agent Groups activities in the default Inqueue workflows with the same agent group order used by the voice queue member of the Unified queue group.

When manually creating a Unified queue group, administrators can create new queues to associate with the Unified queue group. When you create these new queues, they are automatically assigned the name

and reporting number of the existing Unified queue group. Users manually creating a Unified queue group can also associate existing queues to a Unified queue group. Virtual queue groups may be associated to the voice media of a Unified queue group.If an administrator disables a media type for a Unified queue group, the associated queue will become historical.

The following procedures explain how to:

- Add a Unified queue group using the Unified Queue Group Wizard
- Add a Unified queue group
- Associate new queues to the Unified queue group
- Associate an existing queue to the Unified queue group
- Associating an existing virtual queue group to the Unified queue group
- Replace an associated queue with a new queue
- Replace an associated queue with an existing queue
- Remove a media type from a Unified queue group and set the associated queue as historical

To add a Unified queue group using the Unified Queue Group Wizard

1. Click **Multimedia > Queues**.
2. Select the voice queue(s) for which you want to create a Unified queue group(s).
3. In the **Queue Tools** tab of the ribbon, click **Create unified queue group**.
4. Click the icons for the multimedia queues you want to create.

   See the following table.

Table 24.4: Unified Queue Group Wizard media icons

Media Type	Media Icon
Chat	
Email	
SMS	
Open Media	

5. If you want to create a corresponding reporting queue group, select **Create reporting queue group** and type a **Reporting number**.
6. Click **Create**.

7. Click **Save**.

To add a Unified queue group

1. Click **Multimedia > Queue groups**.
2. Click **Add > Unified**.
3. Type a **Name**.
4. Type a **Reporting number**.
5. Click **Save**.

To associate new queues to the Unified queue group

1. Click **Multimedia > Queue groups** and select a Unified queue group.
2. Click on the media type icons to select which media types the queue group can handle.

   A queue configuration window opens.
   For instructions on configuring an email, chat, SMS, or open media queue, see *"Adding multimedia queues"*.
   See the following table.

   NOTE:

   – Queue Inqueue workflows cannot be configured when adding new queues as members of Unified queue groups. Inqueue workflows for new queues must be configured in YourSite > Queues after the Unified queue group is saved.
   – By default, new queues added this way will use the name of the Unified queue group and the reporting number.

Table 24.5: Unified queue group media type icons (Sheet 1 of 2)

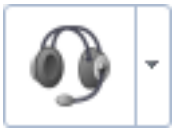
Media Type	Icon
Voice	
Chat	
Email	
SMS	

Table 24.5: Unified queue group media type icons (Continued) (Sheet 2 of 2)

Media Type	Icon
Open Media	

3. When you are done configuring the new queue, click **Save**.
4. Repeat steps 2 and 3 for each media type you want the Unified queue group to handle.
5. Click **Save**.

To associate an existing queue to the Unified queue group

1. Click **Multimedia > Queue** groups and select a Unified queue group.
2. Click the down arrow button beside the media type icon and click **Associate existing <media type> queue**.
3. Select a queue and click **OK**.
4. Click **Save**.

To associate an existing virtual queue group to the Unified queue group

1. Click **Multimedia > Queue groups** and select a Unified queue group.
2. Click the down arrow button beside the voice media icon and click **Associate existing Virtual queue group**.
3. Select a virtual queue group and click **OK**.
4. Click **Save**.

To replace an associated queue with a new queue

1. Click **Multimedia > Queue groups** and select a Unified queue group.
2. Click the down arrow button beside the media type icon and click **Replace with new <media type> queue**, click on the media type icons to select which media types the queue group can handle.

   A queue configuration window opens.
   For instructions on configuring an email, chat, SMS, or open media queue, see *"Adding multimedia queues"*.

   NOTE:

   – Queue Inqueue workflows cannot be configured when adding new queues as members of Unified queue groups. Inqueue workflows for new queues must be configured in YourSite > Queues after the Unified queue group is saved.
   – By default, new queues added this way will use the name of the Unified queue group and the reporting number.
3. When you are done configuring the new queue, click **Save**.
4. Click **Save**.

To replace an associated queue with an existing queue

1. Click **Multimedia > Queue groups** and select a Unified queue group.
2. Click the down arrow button beside the media type icon and click **Replace with existing <media type> queue**.
3. Select a queue and click **OK**.
4. Click **Save**.

To remove a media type from a Unified queue group and set the associated queue as historical

1. Click **Multimedia > Queue groups** and select a Unified queue group.
2. Click on a selected media type icon.
3. Click **Save**.

Configuring Holidays

You configure holiday options in the Holidays section of Multimedia Contact Center for the dates that affect your contact center operations. In Multimedia Contact Center, Holidays are used in the Schedule activity. For more information on the Schedule activity, see *"Routing interactions with the Schedule activity"*. Multimedia Contact Center includes default holidays for the USA, UK, and Canada.

To enable an existing holiday

1. In YourSite Explorer, click **Multimedia > Holidays**.
2. From the list of holidays, select the holiday you want to enable.
3. Select **This holiday is a company holiday. Notify me if I attempt to schedule an employee on this day**.
4. Click **Save**.

To add a new holiday

1. In YourSite Explorer, click **Multimedia > Holidays**.
2. Click **Add**.
3. After **Name**, type the name of the holiday.
4. If you wish to enable this holiday immediately, select **This is a company holiday. Notify me if I attempt to schedule an employee on this day**.
5. Specify the pattern of the holiday
   - If the holiday always falls on the same day of the month, select **Every** and specify the month and date the holiday falls on.
   - If the holiday has a pattern of falling on a certain day, week, and month, select **The** and specify the pattern, day of week, and month.
   - If the holiday is a calculated holiday, such as Good Friday or Easter Monday, select **Calculated holiday** and specify the holiday.
6. Click **Save**.

To delete a holiday

1. Select the holiday you want to delete from the holidays list.
2. Click **Delete**.
3. Click **OK**.

Configuring business hour schedules

Multimedia Contact Center performs certain tasks during business hours and other tasks after hours. For example, the system can send auto-response messages to interactions received after hours, informing customers that the contact center is closed and to expect a response during business hours. Applying a business hours schedule to workflows tells the system when to send this message.

Multimedia Contact Center ships with a default 24/7 business hour schedule and a default Monday to Friday 9:00 AM to 5:00 PM business hour schedule. Administrators can

- Modify the default business hours schedules
- Create new business hour schedules
- Manage business hour schedule exclusion lists to omit days from schedules, such as national holidays.
- Apply business hour schedules to workflows

Modifying default business hour schedules

Administrators can modify the default 24/7 and default Monday to Friday 9:00 AM to 5:00 PM business hour schedule to suit their business' needs.

To modify a default business hours schedule

1. Click **YourSite > Schedules** and select a default schedule.
2. Type a new **Name** for the schedule. For example, 'Monday to Friday 8:00 AM to 6:00 PM'.
3. To apply a **Schedule exclusion list**, click the **Browse** button, select an exclusion list and click **OK**.

   NOTE: To create a schedule exclusion list, or to edit an existing schedule exclusion list, see *"Managing schedule exclusion lists"*.
4. Specify the business day **Start time** and **End time** for each day of the week.
5. Select the **Disable for day** check box for each day the business is closed.
6. Click **Save**.

Creating new business hour schedules

Administrators can create new business hour schedules to apply to Multimedia Contact Center devices and to use in workflows.

To create a new business hour schedule

1. Click **YourSite > Schedules > Add**.
2. Type a **Name** for the new schedule.
3. To apply a **Schedule exclusion list**, click the **Browse** button, select an exclusion list and click **OK**.

   NOTE: To create a schedule exclusion list, or to edit an existing schedule exclusion list, see *"Managing schedule exclusion lists"*.
4. Specify the business day **Start time** and **End time** for each day of the week.

5. Select the **Disable for day** check box for each day the business is closed.
6. Click **Save**.

Managing schedule exclusion lists

The following configurations take place in YourSite > Schedules.

Managing schedule exclusion lists enables administrators to omit days from business hour schedules. For example, administrators can use a schedule exclusion list to omit national holidays from a business' yearly schedule.

The following procedures tell you how to

- Create and apply new exclusion lists to schedules
- Apply existing exclusion lists to schedules
- Remove exclusion lists from schedules
- Edit and remove dates from schedule exclusion lists
- Delete exclusion lists from YourSite Explorer

To create and apply a new exclusion list to a schedule

1. Select the schedule and click **Manage schedule exclusion list**.
2. Type a **Name** for the exclusion list.

NOTE: To create a new list for a schedule with an exclusion list already applied to it, click **Add** and follow step 2 onward.

3. Select the dates to exclude from the schedule and click **Save**.
4. To apply the exclusion list to the selected schedule, click **Apply**. Otherwise, close the schedule exclusion list designer window.
5. On the ribbon, click **Save**.

To apply an existing exclusion list to a schedule

1. Select the schedule and, after **Schedule exclusion list**, click **Browse**.
2. Select a schedule exclusion list and click **OK**
3. Click **Save**.

To edit and remove dates from an exclusion list

1. Select a schedule with an exclusion list applied to it and click **Manage Schedule exclusion list**.
2. Click **Edit**.
3. To add new dates, select them from the calendar.
4. To remove dates, select the dates from the list and click **Remove**.
5. To remove all dates, click **Clear**.
6. Click **Save**.
7. To apply these changes to the schedule, click **Apply**.
8. On the ribbon, click **Save**.

To delete an exclusion list from YourSite Explorer

1. Select a schedule that has the exclusion list to be deleted and click **Manage Schedule exclusion list**.

   NOTE: If deleting exclusion lists as part of clean-up, select any schedule with an exclusion list applied to it and follow these steps.
2. From the drop-down list, select the exclusion list you want to delete and click **Delete**.
3. Close the schedule exclusion list designer and, on the ribbon, click **Save**.

Applying business hour schedules to workflows

Administrators can apply business hour schedules to workflows via the Schedule activity.

For example, an administrator applies a Monday to Friday, 7:00 AM to 7:00 PM business hour to a Schedule activity in a Chat Inqueue workflow. Chat messages arriving after hours follow the 'After Hours' branch. This branch is configured to send an automatic response informing customers of the contact center's business hours and to expect a reply during that time.

To apply business hour schedules to workflows, see *"Routing interactions with the schedule activity"*.

Configuring security roles

You create security roles if you want to restrict employees from specific devices and MiContact Center Business application areas that their licensing would enable them to access.

NOTE: In order for you to assign security roles, your account must be associated with a security role that has 'May manage security' enabled.

MiContact Center Business has two default security settings, Local administrator and Enterprise administrator. These settings provide employees full access to all MiContact Center Business applications (to which the contact center and employees are licensed) and devices, and allow Write Back for synchronization.

Employee access to applications is limited by their security role and their licensing. An employee's security role defines the application areas an employee can access and licensing limits what applications an employee can access. For example, an employee with the Enterprise administrator security role but no supervisor license would not be able to access YourSite Explorer.

When you install MiContact Center Business, a default user is created. This ensures there is at least one account with which you can access YourSite Explorer.

The default user name and password are:

- Username: _admin
- Password: _password
- Security Role: Local Administrator

Security roles have two components:

Basic—Basic security controls user access to specific areas of MiContact Center Business, Flexible Reporting, Workforce Scheduling and Schedule Adherence.

Advanced—Advanced security controls user access to customized lists of devices, real-time monitors, profiles, reports, sites, and users.

For detailed information regarding creating and applying security roles and creating security lists, see the *"Security roles"*.

Multimedia Contact Center security settings

Many of the features in Multimedia Contact Center are advanced; administrators may want to restrict their multimedia employees from having access to select devices or applications. Employees using Ignite for Multimedia Contact Center require several specific security role settings to control their access to parts of the Ignite.

Security roles can be applied to restrict which devices agent can view in Ignite, so that they are limited to both handling and viewing only the queues associated to their agent group. Employees can be restricted from controlling their Agent Group Presence, so their presence in agent groups can be entirely controlled by the system. Employees can be restricted from picking interactions out of queue. Employees can be restricted from transferring interactions from the queue and their Inbox. Employees can be restricted from marking interactions as Junk. Employees can also be restricted from accessing Ignite.

NOTE: Users currently logged on are not affected by changes to their associated role until the next time they log on.

To restrict access to Ignite, disable the following Basic security option:

- May access Contact Center Client/Ignite

To restrict the devices an employee can view in Ignite, enable the following Advanced security options:

- May view real-time information on devices contained in this list only <device list>.
  The device list must contain the following members:
  - All the queue groups that contain queues the employee handles
  - All the agent groups to which the employee has agents
  - Employee groups that mirror the composition of the agent groups' employee membership

To restrict control of presence in Ignite, such as Join and Leave, disable the following Advanced security option:

- May control my real-time presence status in Interactive Contact Center

To restrict the ability to pick interactions out of queue, disable the following Basic security option

- May Pick/Pick & Reply Interactions

To restrict the ability to transfer interactions from the queue and Inbox, disable the following Basic security option

- May Transfer Interactions

To restrict the ability to mark interactions as Junk, disable the following Basic security option

- May Junk Interactions

To restrict access to Ignite, disable the following Basic security option

- May access Contact Center Client/Ignite

Configuring Multimedia Contact Center web features

Multimedia Contact Center includes web applications and features that require configuration by qualified web administrators and IT personnel to ensure successful deployment. These features consist of:

- Chat
  For information on offering chat through your corporate website, see *"Enabling chat"*.
- Contact Us
  For information on offering Contact Us through your corporate website, see *"Enabling Contact Us"*.

The following is the suggested order of configuration for Multimedia Contact Center web features.

To set up Multimedia Contact Center web features

1. Configure chat media servers.
   See *"Adding chat to Multimedia Contact Center"*.
2. Configure chat queues.

   See *"Adding multimedia queues"*.
3. Add reverse proxy.

   Reverse proxies enable /CCMWa to be published as a part of your corporate website.
   See *"Publishing Chat and Contact Us to the Internet using reverse proxies"*.
4. Add SSL (optional)

   See *"Publishing Chat and Contact Us to the Internet with SSL"*.
5. Update chat media server with external URL for chat root.

   See *"Adding chat to Multimedia Contact Center"*.
6. Configure chat customizations.

   See *"Enabling chat"*
7. Configure Contact Us.

   See *"Enabling Contact Us"*.

For information on troubleshooting the deployment of Multimedia Contact Center web features, see *"Troubleshooting Multimedia Contact Center web features"*.

Multimedia Contact Center proficiency requirements

Contact centers are responsible for the deployment of Multimedia Contact Center web features on their corporate web servers. You must have web administrator and IT personnel with knowledge of the following to deploy and customize Chat and Contact Us:

- IT administrator proficiencies for Chat and Contact Us deployment
  - Reverse proxy configuration
  - Network and Firewall configuration and troubleshooting
  - End-to-End SSL deployment (optional)
- Basic web proficiencies for Chat customization
  - JavaScript: Manipulating JavaScript file with a list of variables
  - HTML: Adding URL link to corporate web site

    NOTE: These are the minimum proficiencies required. More complicated integrations will require more enhanced skills.
- Basic web proficiencies for Contact Us customization
  - JavaScript: Manipulating JavaScript file with a list of variables
  - HTML: Add a JavaScript call to a corporate website
  - CSS: Ability to integrate complex CSS file to integrate with corporate website.

Publishing Chat and Contact Us to the Internet using reverse proxies

Chat can be published to the internet using reverse proxies, either with or without SSL. Multimedia Contact Center only supports End-to-End SSL deployments. For more information, see the *MiContact Center Business and MiVoice Analytics System Engineering Guide*.

Chat and Contact Us both use CCMWa, a web application installed on the Enterprise Server at http://<Enterprise Server IP Address>/CCMWa to route interactions to your queues. Using a reverse proxy enables requests to your corporate website to be served from CCMWa through your corporate website, proxying requests through the web server to CCMWa on the Enterprise Server.

Setting up a reverse proxy requires setting up Inbound and Outbound routing rules on your web server. The Inbound rule configures the directory on the web server that routes the requests to the Enterprise Server. The Outbound rule modifies the responses from the Enterprise Server to match the corporate website URL format.

For example, if http://www.contactcenter.com/Chat was configured as the directory that reverse proxies http://<enterprise server>/CCMWa/chat, then when a customer arrives on http://www.contact-center.com/Chat, the web server makes the request to http://<enterprise server>/CCMWa/chat on the customer's behalf. The Enterprise Server's response is then sent back to the web server which then publishes it to the customer as if it had been generated by the corporate web server.

The method for configuring a reverse proxy depends on if your organizational web server is an Apache or an IIS web server. The Mitel MiContact Center Knowledge Base contains guidelines for reverse proxy deployment:

- IIS web servers: http://micc.mitel.com/kb/KnowledgebaseArticle52451.aspx
- Apache web servers: https://mitel.custhelp.com/app/answers/answer_view/a_id/1007039/loc/en_US

Publishing Chat and Contact Us to the Internet with SSL

Multimedia Contact Center Chat and Contact Us support SSL on both IIS and Apache web servers in an End-to-End SSL deployment. Due to the variance in possible deployment models for End-To-End SSL and the unique configurations of different corporate websites, it is the responsibility of contact centers to determine how to best configure their own End-to-End SSL deployments. See the *MiContact Center Business and MiVoice Analytics System Engineering Guide* for more information on the supported SSL deployment.

Enabling chat

The first step in enabling chat is deciding how to provide access to chat. You must determine how chat will be offered within your corporate website and published to the Internet as well as how your interactions access offered chat services.

During the installation of Multimedia Contact Center, the chat server CCMWa (Internal URL http://<enterprise server>/ccmwa) and the customer-facing chat request form (default URL http://<enterprise server>/ccmwa/chat) are installed on the Enterprise Server. Individual queues include an Internal URL for direct access to them: http://<enterprise server>/CCMWa/chat/<queue GUID>. The configuration and customization of your chat request forms are handled in a single JavaScript file, chat.public.config.js.

NOTE: As of version 9.2, it is recommended to use the chat files on the Enterprise Server rather than hosting them on your corporate web server. For more information, see *"Hosting chat files on your corporate web server"*.

Enabling chat takes place in five steps:

1. **Determine how to offer chat to contacts**.
   Multimedia contacts to select a queue to which their chat will be submitted, through a queue-specific chat request form, through activities in an Inbound workflow, or through a user-made chat request page.
   For more information, see *"Determining how to offer chat"*
2. **Publish chat to the Internet with reverse proxies**.

   Reverse proxies enable /CCMWa to be published as a part of your corporate website.
   For more information, see *"Publishing Chat and Contact Us to the internet using a reverse proxy"*.
3. **Customize your chat request forms**.

   Chat request forms can be customized in chat.public.config.js to display corporate branding, show and hide different form properties, and display avatars in chat sessions.
   For more information on customizing your chat request forms, see *"Customizing public-facing chat"*.
4. **(Optional) Customize Ignite chat and SMS agent options**.

   Agent options for handling chat and SMS messages can be configured to change Ignite handling options and display avatars in chat sessions. For more information on customizing your agent chat and SMS session in Ignite, see *"Customizing Ignite chat and SMS agent options"*.
5. **Integrating chat with your website**.

   You must determine how chat is offered through your website so that your contacts can access it. For suggestions on how to integrate chat with your corporate website, see *"Offering chat through your corporate website"*.

Determining how to offer chat

When setting up chat, administrators and IT administrators must decide how their contact center is going to use the customer-facing chat page to offer chat to their interactions. The customer-facing chat page can be modified to integrate with your organization's website standards. All inbound chats must route through the chat media server's Inbound workflow without exception. By default, this workflow is set to route chat requests using the queue selected by the customer in the chat request form.

There are four options for offering chats to your contact center:

- By the root chat request form
- By the queue chat queue form
- By the Inbound workflow
- By a user-created chat request form

NOTE: Multimedia Contact Center's chat request forms do not support Internet Explorer's Compatibility View.

Each of these methods requires the configuration of a reverse proxy between the Enterprise Server and your corporate website. For more information, see *"Publishing Chat and Contact Us to the internet using a reverse proxy"*.

All four methods for offering chat can be used when offering chat through the Contact Us sample contact page. For more information on using Contact Us, see *"Enabling Contact Us"*.

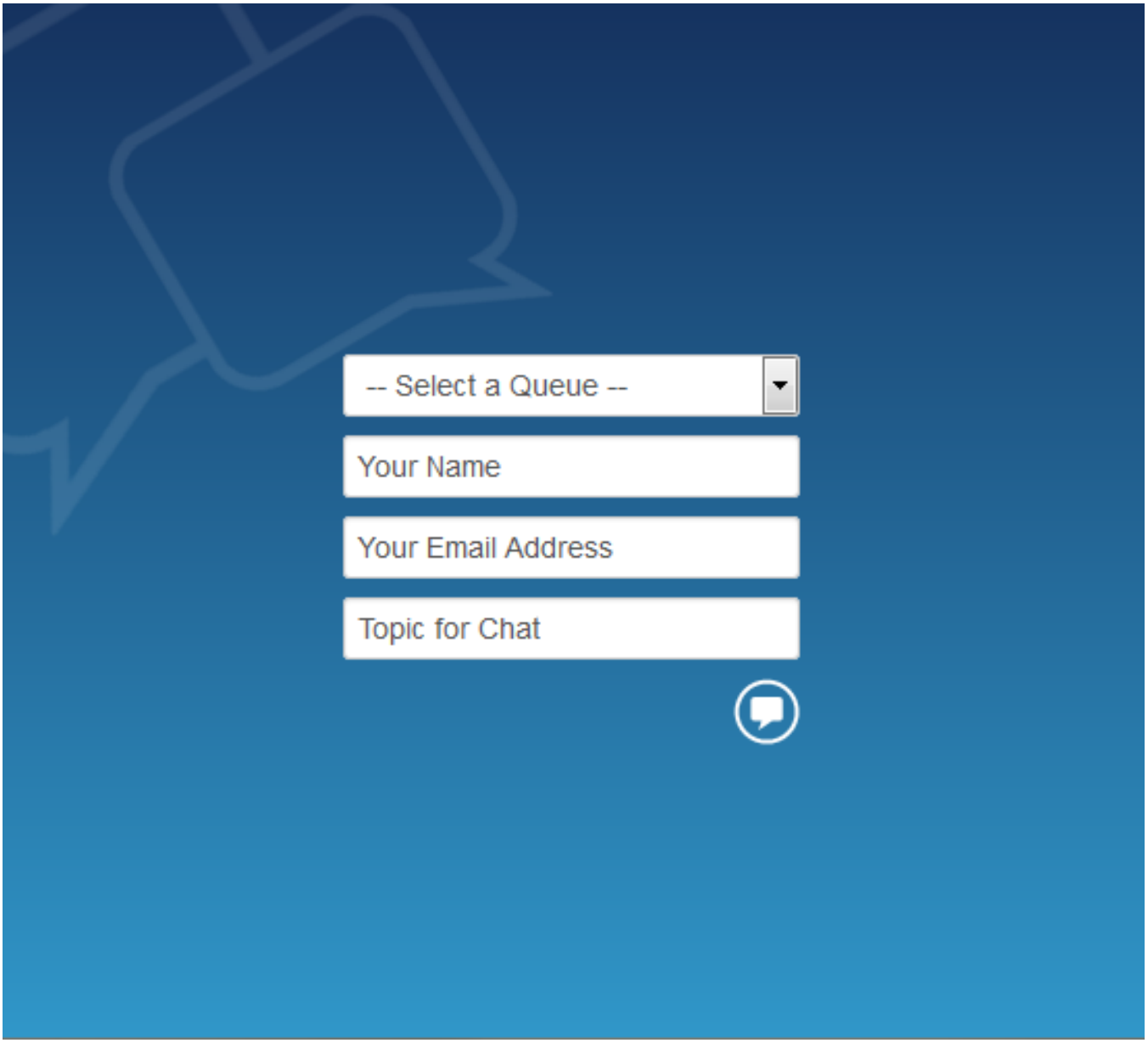
Offering chat by the root chat request form

The default CCMWa/chat root chat request form offers interactions the ability to choose the queue destination for their chat request from all chat queues configured by a contact center. When an interaction selects a queue, by default, the root chat request form loads the queue chat request form for that queue, displaying the Estimated Wait Time for the queue. Other queue statistics can be optionally used as well. For more information, see *"Configuring the public-facing Chat.Config JavaScript file"*.

After filling out the chat request form, interactions are routed through the default Inbound workflow using the selected queue. The following figure shows the chat request form. When an interaction selects a queue from the automatically populated drop-down list of your contact center's chat queues, they are routed through the default Inbound workflow using the selected queue.

The root chat request form is accessible from http://<enterprise server>/ccmwa/chat. If you want to offer it in another supported language, the format is http://<enterprise server>/ccmwa/<language designator>/chat. For more information, see *"Offering chat in different languages"*.

Figure 24.2: Root chat request form



Offering chat by the queue chat request form

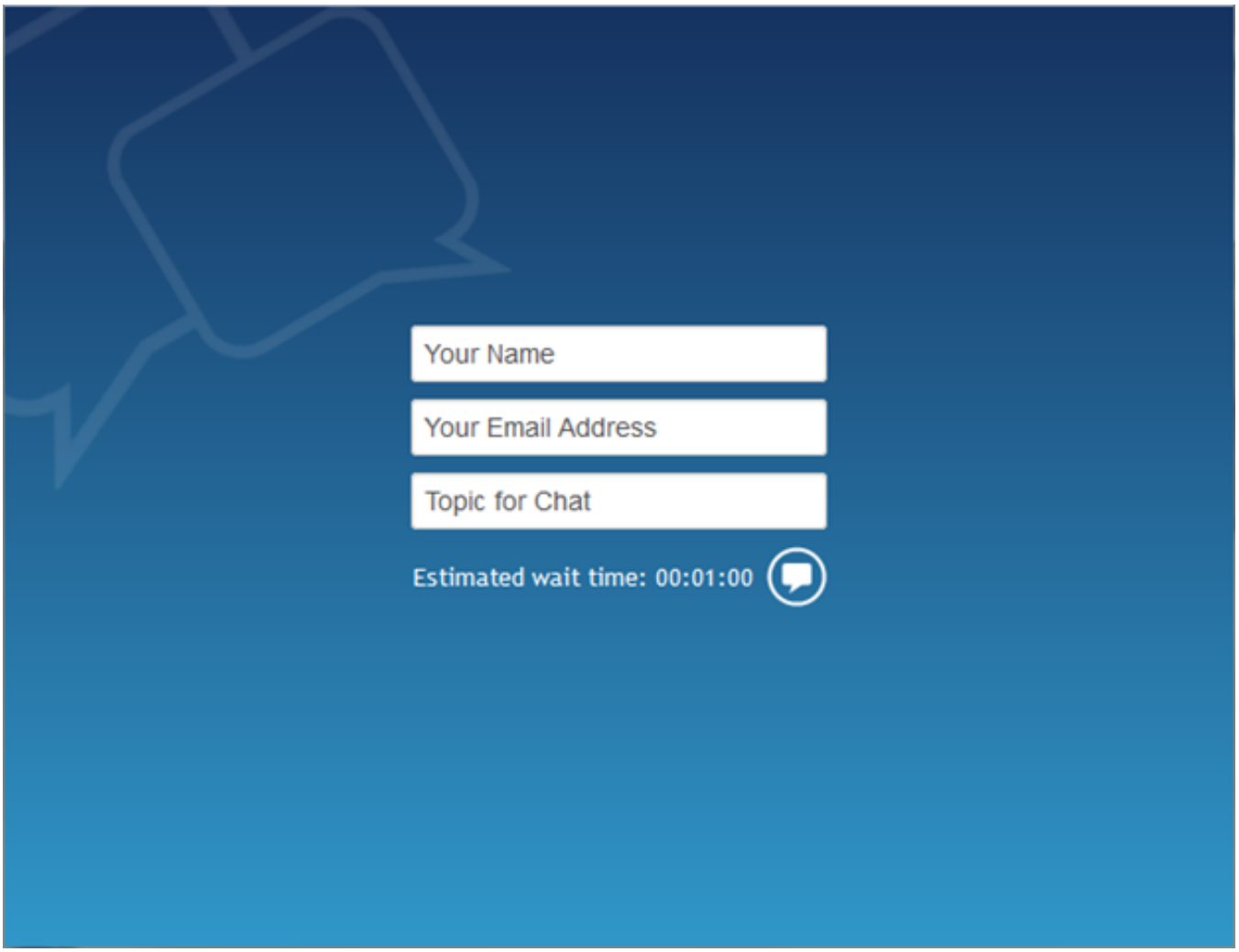
If a contact center has multiple contact webpages for specific products or services, the contact center may want to link to specific chat queues when offering chat. Chat queues have their own internal and external URL that can be used to take interactions directly to a version of the chat request form that has the queue pre-selected. The following figure shows the chat request form for a chat queue. The Estimated Wait Time for the queue is also displayed in the chat request form. Other queue statistics can be optionally added as well. For more information, see *"Configuring the public-facing chat JavaScript file"*.

After filling out the chat request form, interactions are automatically routed through the Inbound workflow by the queue ID and transferred to the appropriate queue.

A queue's chat request form is accessible from http://<enterprise server>/ccmwa/chat/<queue GUID>. Chat queue URLs are available from the chat queue's entry in YourSite Explorer. If you want to offer it in

another supported language, the format is http://<enterprise server>/ccmwa/<language designator>/chat/<queue GUID>. For more information, see *"Offering chat in different languages"*.

Figure 24.3: Queue chat request form



Offering chat by Inbound workflow

As an alternative to offering chat to contacts by a chat request form or by links to specific chat queues, contacts can be routed or route themselves to their destination queues using activities such as Ask or Compare Variables in an Inbound workflow. For example, a general chat queue could be created and the external URL could be used to present chat to contacts. Once the customer is in the Inbound workflow, Ask activities could be used to pose questions to the customer and route them based on the answers. When using the chat queue URL, the drop-down queue selection field is removed from the chat request form.

To offer a chat request form with no drop-down for queue selection, simply use any of the external URLs for one of your queues and do not route by queue ID in the Inbound workflow. For more information about Inbound workflows, see *"Applying inbound routing rules to interactions"*. To remove any queue statistics for your selected queue, update your chat request form to exclude those features. For more information, see *"Configuring the public-facing chat JavaScript file"*.

For more information on chat Inbound workflows, see *"Default Chat Inbound workflow"*. For information on chat request forms for queues, see *"Offering chat by the queue chat request form"*.

Offering chat by a user-created chat form

For contact centers with advanced web development resources, Multimedia Contact Center supports user-created request or authentication pages. These chat request pages must submit name and email to chat, and, optionally, a topic, which are populated into chat when the user-made request page submits a chat request.

User-created chat request or authentication pages require advanced web development resources. For more information on the requirements for user-made chat request forms, see the following Knowledge Base article: http://micc.mitel.com/kb/KnowledgebaseArticle52373.aspx.

Customizing chat

Chat is customized through configuring JavaScript file settings. You can configure the public-facing chat request pages and the chat experience of your customers as well as the chat experience of agents and supervisors using Ignite.

Chat is customized through the configuration of three different JavaScript files:

- chat.public.config.js
  See *"Customizing public-facing chat"*.
- chat.agent.config.js
  See *"Customizing Ignite chat and SMS agent options"*.
- chat.supervisor.config.js
  See *"Customizing Ignite chat and SMS agent options"*.

Multimedia Contact Center maintains three default version of these files:

- Chat.ui.public.config.DEFAULT.js
- Chat.ui.agent.config.DEFAULT.js
- Chat.ui.supervisor.config.DEFAULT.js

During upgrades, these default files update the chat customization files with any new fields and populates them with the default values. On every start/restart of the CCMWa application on the Enterprise Server, if the customization files are not found, they are recreated automatically from the default files.

CAUTION: Do not make any changes to the default chat configuration files.

NOTE:

- If you are hosting your chat configuration files on your corporate web server, they will not be automatically updated during an upgrade and must be manually upgraded.
- Chat configuration must be consistent for the fields shared between the different JavaScript files used to customize chat. If you want to use a default public Gravatar image for a queue, for example, you must ensure that the same image is set in both chat.public.config.js and chat.agent.config.js.

Customizing public-facing chat

Multimedia Contact Center enables contact centers to customize both the contact-facing and agent-facing chat experience.

Public customizations add options to the chat request form as well as providing avatar options for contacts chatting with contact center agents. For information on customizing contact-facing chat options, see "Customizing chat request forms and chat sessions".

Agent-facing customizations modify chat and SMS handling options in Ignite and provide avatar options for agents handling chat and SMS options. For information on customizing agent-facing chat options, see *"Customizing Ignite chat and SMS agent options"*.

NOTE: Chat configuration must be consistent for the fields shared between the different JavaScript files used to customize chat. If you want to use a default public Gravatar image for a queue, for example, you must ensure that the same image is set in both chat.public.config.js and chat.agent.config.js.

Customizing chat request forms and chat sessions

Chat request forms and chat sessions can be customized to match your organizational style and provide different options to contacts. You can customize your chat offering at the contact center level and at the level of individual queues. Chat options are configured using a single JavaScript file, chat.public.config.js, that contains a series of JavaScript variables and properties. This file is hosted in CCMWa's folder on the Enterprise Server (<drive>\Program Files (x86)\Mitel\MiContact Center\Website\CCMWa\Scripts\).

You can make the following customizations to your chat request forms and chat sessions:

- Show or hide Estimated Wait Time, Number of Available Agents, Number of Idle Agents, Number of Chats Waiting, and Business Hours queue statistics
- Enable chats to be submitted after hours
- Enable chat requests to be submitted when the queue is closed or unavailable
- Enable chats to be submitted when there are no available agents
- Enable Gravatar avatars
- Add a corporate logo and customize its placement on the chat request form
- Provide a description for the queue that appears both on the chat request form and in the browser title bar
- Change both the background color and if it displays as a solid color or a gradient
- Show or hide the topic field, make topics mandatory, and set specific topic choices
- Set up Gravatar avatars for contacts
- Configure queue closed messages
- Configure the LumaThreshold for light or dark icons

To customize chat request forms

- Configure the chat JavaScript file.
  See *"Configuring the public-facing Chat.Config JavaScript file"*.

NOTE: If you customized your chat request form in version 7.0, your customizations will not be retained after an upgrade to version 8.1. For more information, see *"Updating chat customization from Version 7.0 to Version "*.

Configuring the public-facing chat JavaScript file

Configuration settings for chat request forms are controlled through a single JavaScript file, chat.public.config.js, which can be found at <drive>:\Program Files (x86)\Mitel\MiContact Center\Website\CCMWa\Scripts.

chat.public.config.js settings can be grouped into three categories:

- **Global settings**—control chat request form settings and options. These settings are applied universally across chat request forms or are required to enable features at a queue level. The following table outlines the global fields.
- **Queue settings**—control chat request form settings for the queue as well as chat session settings for queues. Queue settings are configured in both DefaultConfig and ChatQueues sections of chat.public.config.js. DefaultConfig settings are applied to all queues while ChatQueues settings,

available in the advanced version of the Chat.Config file, are applied to individual specific queues. The following table outlines DefaultConfig and ChatQueues settings.

- **Logging and connection settings**—provide troubleshooting options as well as set connection retry limits. The following table details the fields available for logging and connection settings.

When adding field values based on the following tables, ensure that they use correct JavaScript formatting and punctuation. If you configure your customized chat request forms using the basic chat.public.config.js and later decide that you want to customize the chat request form for individual queues, you can add the ChatQueues fields to your chat.public.config.js file using a text editor.

Table 24.6: Global settings fields (Sheet 1 of 4)

Field name	Field value	Field Description
EnableEstimateWaitTime	True or False	This field controls whether or not Estimated Wait Time is available to all chat request forms. If set to False, the Estimated Wait Time statistic does not display in any chat request form. If set to True, the value configured under ShowEstimatedWaitTime determines if Estimated Wait Time displays or not.
EnableNumberOfAvailableAgents	True or False	This field controls whether or not Number of Available Agents is available to all chat request forms. If set to False, the Number of Available Agents statistic does not display in any chat request form. If set to True, the value configured under ShowNumberOfAvailableAgents determines if Number of Available Agents displays or not.

Table 24.6: Global settings fields (Continued) (Sheet 2 of 4)

Field name	Field value	Field Description
EnableNumberOfIdleAgents	True or False	This field controls whether or not Number of Idle Agents is available to all chat request forms. If set to False, the Number of Idle Agents statistic does not display in any chat request form. If set to True, the value configured under ShowNumberOfIdleAgents determines if Number of Idle Agents displays or not.
EnableNumberOfChatsWaiting	True or False	This field controls whether or not Number of Chats Waiting is available to all chat request forms. If set to False, the Number of Chats Waiting statistic does not display in any chat request form. If set to True, the value configured under ShowNumberOfChatsWaiting determines if Number of Chats Waiting displays or not
EnableBusinessHours	True or False	This field controls whether or not queue business hours are available to all chat request forms when the queue is outside of business hours. If set to False, no business hours display for the queue when outside business hours. If set to True, the value configured under ShowBusinessHours determines if business hours display or not.

Table 24.6: Global settings fields (Continued) (Sheet 3 of 4)

Field name	Field value	Field Description
EnableQueuingWhenNoAgents Login	True or False	This field controls whether or not contacts can submit chat requests when no agents are available. If set to False, no chat requests can be submitted when no agents are logged in. If set to True, the value configured under AllowQueuingWhenNoAgentsLogin determines if chat requests can be submitted when no agents are logged in.
EnableQueuingInAfterHours	True or False	This field controls whether or not contacts can submit chat requests outside of business hours If set to False, no chat requests can be submitted outside of business hours. If set to True, the value configured under AllowQueuingInAfterHours determines if chat requests can be submitted when no agents are logged in.
EnablePublicGravatar	True or False	This field controls whether or not public users will use avatars provided through Gravatar. If set to True, Chat sessions will use any Public Gravatar user image associated to the email addresses used in the chat session. If set to False, no Public Gravatar user images will be used in the chat session. **NOTE:** This field must have the same value in chat.public.config.js, chat.agent.config.js, and chat.supervisor.config.js.

Table 24.6: Global settings fields (Continued) (Sheet 4 of 4)

Field name	Field value	Field Description
EnableAgentGravatar	True or False	This field controls whether or not Chat will use Gravatar for Agents. If set to True, Chat sessions will use any Gravatar user image associated to the email addresses used in the chat session or the image configured with DefaultAgentGravatarUrl. If set to False, no agent Gravatar user images will be used in the chat session. **NOTE:** This field must have the same value in chat.public.config.js, chat.agent.config.js, and chat.supervisor.config.js.

Table 24.7: Queue setting fields (Sheet 1 of 6)

Field name	Field Value	Field description
Enabled	True or False	This field enables or disables this configuration record. If you set to False, the queue's chat form will use the values from the default file in <drive>\Program Files (x86)\Mitel\MiContact Center\WebSites\CCMWa\Scripts\ Chat.ui.public.config.DEFAULT.js.
QueueId (ChatQueues only)	The queue's GUID, such as '26F1A5C3-DD2C-45FF-BE75-2BC7B85012D0'	The GUID for the chat queue to which you want the associated settings to apply. You can use YourSite Explorer to obtain a queue's GUID. See *"Obtaining Queue GUIDs"*.
LogoImgPath	The path to the logo's image file	The path to the image file containing your organization's logo. Logo files should be located in the following folder: <InstallDir>\MiContact Center\WebSites\CCMWa\Content\images\logo\ and must be set in the JavaScript file as /CCMWa/images/<image_file>.gif . **NOTE:** It is recommended that you keep a copy of your logo image file in a separate location to prevent your logo from being lost during an upgrade or installation in the future.

Table 24.7: Queue setting fields (Continued) (Sheet 2 of 6)

Field name	Field Value	Field description
ShowLogo	True or False	If set to True, the Logo image file specified in LogoImgPath will display in the chat request form. If set to False, the Logo image file specified in LogoImgPath will not display in the chat request form.
QueueLabel	The text you want to display as the queue's label, such as 'Sales Chat'	The queue label is text that will render both on the chat request form and in the title bar of the browser window title bar
ShowQueueLabel	True or False	If set to True, the QueueLabel will display on the chat request form If set to False, the QueueLabel will not display on the chat request form.
AppendQueueLabelToPageTitle	True or False	If set to True, the QueueLabel value is added to the html document title for the page the chat is hosted in. If set to False, the QueueLabel value is not added to the html document title.
FormatPrechatLogoToForm	True or False	This field controls where the logo, if a logo is used, displays. If set to True, the logo is formatted to be centered to the form fields on the chat request form and match the width of the fields (approximately 220 px). If set to False, the logo will display statically in the top left corner of the page and its size will not be modified.
Gradient	True or False	This field controls whether or not the background uses a gradient or solid color. If set to True, the values in GradientStartColor and GradientEndColor are used to render a gradient background. If set to False, the value in GradientStartColor is used to render a solid background.
GradientStartColor	The color's value, such as '#000000'	The start color for the background's gradient or the solid color used for the background **NOTE:** Depending on the background color selected, the fonts and buttons/icons will automatically render in a dark or light form based on the background color implemented for optimal legibility.
GradientEndColor	The color's value, such as '#000000'	The end color for a gradient background

Table 24.7: Queue setting fields (Continued) (Sheet 3 of 6)

Field name	Field Value	Field description
ShowEstimatedWaitTime	True or False	Shows or hides the Estimated Wait Time statistic on the chat form. **NOTE:** EnableEstimatedWaitTime must be set to True.
ShowNumberOfAvailableAgents	True or False	Shows or hides the Number of Available Agents statistic on the chat request form. If set to True and there are no available agents, a message stating that 'No agents are available to answer this request' displays in place of the queue statistic. **NOTE:** EnableNumberOfAvailableAgents must be set to True.
ShowNumberOfIdleAgents	True or False	Shows or hides the Number of Idle Agents statistic on the chat request form. **NOTE:** EnableNumberOfIdleAgents must be set to True.
ShowNumberOfChatsWaiting	True or False	Shows or hides the Number of Chats Waiting statistic on the chat request form. **NOTE:** EnableNumberOfChatsWaiting must be set to True.
ShowBusinessHours	True or False	Shows or hides the queue business hours on the chat request form. **NOTE:** EnableBusinessHours must be set to True.
AllowQueuingWhenNoAgentsLogin	True or False	If set to True, chat requests can be submitted when there are no agents logged in. If set to False, when there are not agents logged in, contacts cannot submit chat requests and receive the message 'No agents are available to answer this request'. **NOTE:** EnableQueuingWhenNoAgentsLogin must be set to True.
AllowQueuingInAfterHours	True or False	If set to True, chat requests can be submitted outside of the queue's business hours. If set to False, contacts are unable to submit chat requests to a queue outside of its business hours and receive a message which states 'The office is now closed, please contact us during our office hours.' and lists the business hours for the queue
ShowTopic	True or False	Show/hide the topic form field on the chat request form
RequireTopic	True or False	If set to True, a topic is required for a chat request to be made. If set to False, contacts may optionally enter or select a topic.

Table 24.7: Queue setting fields (Continued) (Sheet 4 of 6)

Field name	Field Value	Field description
Topic	Null or the text you want to display as the topic(s)	If set to null, the Topic field display as a freeform field. If a single value is entered, the Topic field appears as a static, non-editable value. If a comma separated list is entered, the Topic field appears as a drop-down list of selectable topics.
DefaultPublicGravatarURL	URL of image	This field is used to set the Default Public Gravatar image to be used for contacts without Gravatar accounts in chat sessions. This image must be hosted on a public website. Images being used for the Default Public Gravatar image must meet the following requirements: • It must be publicly available • It must be accessible via HTTP or HTTPS on ports 80 and 443 • It must be a .jpg, .jpeg, .gif, or .png image file • It must not include a querystring
DefaultAgentGravatarURL	URL of image	This field is used to set the Gravatar image to be used for all agents in all chat sessions. The image must be hosted on a public website. Images being used for the Gravatar image must meet the following requirements: • It must be publicly available • It must be accessible via HTTP or HTTPS on ports 80 and 443 • It must be a .jpg, .jpeg, .gif, or .png image file • It must not include a querystring.
UseDefaultPublicGravatarForAllPublicUsers	True or False	This field is used to determine whether or not all contacts will use the default Gravatar image. If set to True, all public users will use the image set in DefaultPublicGravatarURL. If set to False, users will only use the Default Public Gravatar if they have no Gravatar associated to their email address.
UseDefaultAgentGravatarForAllAgents	True or False	This field is used to determine whether or not all users will use the default Gravatar image. If set to True, all agents will use the image set in DefaultAgentGravatarURL (or DefaultSupervisorGravatarURL). If set to False, users will only use the Default Agent Gravatar (or Default Supervisor Gravatar) if they have no Gravatar associated to their email address.

Table 24.7: Queue setting fields (Continued) (Sheet 5 of 6)

Field name	Field Value	Field description
GravatarSize	The size, in pixels, of the Gravatar image	This field is used to set the size of the Gravatar, in pixels.
DisableChatRequestIfQueueisNotOpen	True or False	This field controls whether or not chat requests can be submitted when the queue is not available. If set to True, chat requests cannot be submitted when the queue is closed or unavailable. If set to False, chat requests can be submitted when the queue is closed or unavailable.
OutOfBusinessHoursMsg	The text you want to display as the Out of Business Hour message	The text entered in this field displays as the Out of Business Hour message. **NOTE:** ShowBusinessHours must be set to True
QueueStatusDNDMsg	The text you want to display when the queue is in Do Not Disturb	The text entered in this field displays when the queue is in Do Not Disturb.
QueueStatusOutOfServiceMsg	The text you want to display as the Status Out of Service	The text entered in this field displays when the queue is Out of Service.
UsePrechatArea	True or False	This field controls whether or not chat uses the default chat request form. If this field is set to True, the chat will use the default chat request form. If this field is set to False, the chat will use the user-created chat request form specified under PrechatDataFromUrl For more information on configuring user-made chat request pages, see the following KB article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1000792/loc/en_US.
PrechatDataFromUrl	URL or False	If UsePrechatArea is set to False, this field sets the URL of the user-created Prechat form. For more information on configuring user-made chat request pages, see the following KB article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1000792/loc/en_US.

Table 24.7: Queue setting fields (Continued) (Sheet 6 of 6)

Field name	Field Value	Field description
LumaThreshold	The luma threshold value	This determines the threshold to determine, based on the luma of the background color, whether or not to use dark or light icons. If the luma value is equal to or greater than the specified luma threshold value, then dark icons will be used. If the luma value is less than the luma threshold value, light icons will be used.

Table 24.8: Logging and connection fields (Sheet 1 of 2)

Field name	Field value	Field description
ChatClientSidelogging	True or False	This field controls whether or not a log for chat is available in the client's browser. If set to False, there is no client-side log created. If set to True, a client-side log is created. **NOTE:** This field must have the same value in chat.public.config.js, chat.agent.config.js, and chat.supervisor.config.js.
MobileDeviceConnectionRetryLimit	The number of connections	This field controls how many times a mobile device can attempt to connect to chat. **NOTE:** This field must have the same value in chat.public.config.js, chat.agent.config.js, and chat.supervisor.config.js.
ConnectionRetryLimit	The number of connections	This field controls how many times a desktop device can attempt to connect to chat. **NOTE:** This field must have the same value in chat.public.config.js, chat.agent.config.js, and chat.supervisor.config.js.

Table 24.8: Logging and connection fields (Continued) (Sheet 2 of 2)

Field name	Field value	Field description
ConnectionRetryIterationCount	The count limit	This field sets the number of times a device can attempt to connect before prompting the user that it is unable to connect and that a refresh will occur. **NOTE:** This field must have the same value in chat.public.config.js, chat.agent.config.js, and chat.supervisor.config.js.

The following procedures outline how to

- Set up public-facing chat settings using chat.public.config.js
- Add ChatQueues fields to the chat.public.config.js file

To set up public-facing chat settings using chat.public.config.js

1. Navigate to **<drive>\Program Files (x86)\Mitel\MiContact Center\Website\CCMWa\Scripts**
2. Open **chat.public.config.js** in a text editor.
3. Customize your chat request form settings.

   For a description of the settings and their fields, see the above tables.
4. Save and close the editor.

To add ChatQueues to chat.public.config.js

1. In YourSite Explorer, obtain the queue IDs of the chat queues for which you want to customize settings.
   For more information, see *"Obtaining Queue GUIDs"*.
2. Open your copy of **chat.public.config.js** file in a text editor.
3. Locate **ChatQueues: [ ]** and copy and paste the following fields within ChatQueues's brackets:

```
    {
    Enabled: true,
    QueueId: '',
    LogoImgPath: '',
    ShowLogo: false,
    QueueLabel: '',
    ShowQueueLabel: false,
    AppendQueueLabelToPageTitle: true,
    FormatPrechatLogoToForm: false,
    Gradient: true,
    GradientStartColor: '#000000',
    GradientEndColor: '#444460',
    ShowEstimatedWaitTime: true,
```

```
    ShowNumberOfAvailableAgents: false,
    ShowNumberOfIdleAgents: false,
    ShowNumberOfChatsWaiting: false,
    ShowBusinessHours: true,
    AllowQueuingWhenNoAgentsLogin: true,
    AllowQueuingInAfterHours: false,
    ShowTopic: true,
    RequireTopic: true,
    Topic: null,
    DefaultPublicGravatarURL:'',
    DefaultAgentGravatarURL:'',
    UseDefaultPublicGravatarForAllPublicUsers: false,
    UseDefaultAgentGravatarForAllAgents: false,
    GravatarSize: 32,
    DisableChatRequestIfQueueisNotOpen: true,
    OutOfBusinessHoursMsg: 'Sorry but we are currently closed. Please contact
    us during regular business hours.',
    QueueStatusDNDMsg: 'Sorry but we are currently unavailable. Please try
    again later.',
    QueueStatusOutOfServiceMsg: 'Sorry but we are currently unavailable.
    Please try again later',
    UsePrechatArea: true,
    PrechatDataFromUrl: false,
    LumaThreshold:140
    },
```

4. Customize the chat queue settings.
5. For each chat queue's chat request form you want to customize, add the above fields.

   See the following figure for the proper formatting.

Figure 24.4: DefaultConfig with ChatQueues fields

```
window.chatUIOptions = {
    EnableEstimatedWaitTime: true,
    EnableNumberOfAvailableAgents: false,
    EnableNumberOfIdleAgents: false,
    EnableNumberOfChatsWaiting: false,
    EnableBusinessHours: true,
    EnableQueuingWhenNoAgentsLogin: true,
    EnablePublicGravatar: true,
    DefaultConfig: {
        Enabled: true,
        LogoImgPath: '',
        ShowLogo: false,
        QueueLabel: '',
        ShowQueueLabel: false,
        AppendQueueLabelToPageTitle: true,
        FormatPrechatLogoToForm: false,
        Gradient: true,
        GradientStartColor: '#000000',
        GradientEndColor: '#444460',
        ShowEstimatedWaitTime: true,
        ShowNumberOfAvailableAgents: false,
        ShowNumberOfIdleAgents: false,
        ShowNumberOfChatsWaiting: false,
        ShowBusinessHours: true,
        AllowQueuingWhenNoAgentsLogin: true,
        ShowTopic: true,
        RequireTopic: true,
        Topic: null,
        DefaultPublicGravatarURL: encodeURIComponent(baseUrl + '/content/images/gravatar/defaultpublic.png'),
        UseDefaultPublicGravatarForAllPublicUsers: false,
        GravatarSize: 32,
        DisableChatRequestIfQueueisNotOpen: true,
        OutOfBussinessHoursMsg: 'Sorry but we are currently closed. Please contact us during regular bussiness hours.',
        QueueStatusDNDMsg: 'Sorry but we are currently unavailable. Please try again later.',
        QueueStatusOutOfServiceMsg: 'Sorry but we are currently unavailable. Please try again later',
        UsePrechatArea: true,
        PrechatDataFromUrl: false
    },
    ChatQueues: [
        {
            Enabled: true,
            QueueId: "26F1A5C3-DD2C-45FF-BE75-2BC7B85012D0",
            LogoImgPath: '/CCMWa/Content/images/demo/WickedTixLogo_NEW.png',
            ShowLogo: true,
            QueueLabel: 'Music Sales (Mon-Fri 8-5)',
            ShowQueueLabel: true,
            AppendQueueLabelToPageTitle: true,
            FormatPrechatLogoToForm: true,
            Gradient: true,
            GradientStartColor: '#36743C',
            GradientEndColor: '#408A47',
            ShowEstimatedWaitTime: true,
            ShowNumberOfAvailableAgents: false,
            ShowNumberOfIdleAgents: false,
            ShowNumberOfChatsWaiting: false,
            ShowBusinessHours: true,
            AllowQueuingWhenNoAgentsLogin: true,
            ShowTopic: true,
            RequireTopic: true,
            Topic: null,
            DefaultPublicGravatarURL: encodeURIComponent(baseUrl + '/content/images/gravatar/defaultpublic.png'),
            UseDefaultPublicGravatarForAllPublicUsers: false,
            GravatarSize: 32,
            DisableChatRequestIfQueueisNotOpen: true,
            OutOfBussinessHoursMsg: 'Sorry but we are currently closed. Please contact us during regular bussiness hours.',
            QueueStatusDNDMsg: 'Sorry but we are currently unavailable. Please try again later.',
            QueueStatusOutOfServiceMsg: 'Sorry but we are currently unavailable. Please try again later',
            UsePrechatArea: true,
            PrechatDataFromUrl: false
        }
    ]
};
```

6. Save and close the text editor.

Hosting chat files on your corporate web server

With enhancements to chat in version 8.1, it is no longer recommended to host chat files on your corporate web server. By default, version 8.1 will use the configuration on the Enterprise Server. It is recommended that you change your configuration to use chat.public.config.js located on the Enterprise Server.

If you do continue to maintain chat files in your corporate website's file directory, you must manually update it with new fields and settings after every upgrade and you must enable Web.config to use an externally hosted file.

For information on hosting chat files on your Enterprise Server and referencing hosted chat with Contact Us, consult the version 9.2 *Multimedia Contact Center Installation and Deployment Guide* available at edocs.mitel.com.

To enabled externally hosted chat files

1. Navigate to **<drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\CCMWa**.
2. Open Web.config in an editor.
3. Locate **UseCcmwaHostedChatPublicClientConfig** and set it to **false**.
4. Save and close the editor.

Updating chat customization from version 7.0 to version 8.1

Customizations to chat done in version 7.0 within Index.cshtml must be added to the chat.public.config.js to preserve them in version 7.1 and greater.

If you changed the background color in version 7.0, make note of the colors used in the theme Background and theme Background Color css classes in the Chat.public.css file and add them to GradientStartColor and GradientEndColor in chat.public.config.js as appropriate after the upgrade.

If you added a logo, copy your logo image file to the <drive>\Program Files (x86)\Mitel\MiContact Center\WebSites\CCMWa\CCMWa\Content\images\logo\ and configure the LogoImgPath, ShowLogo, and FormatPrechatLogoToForm fields in chat.public.config.js.

For information on configuring your customization in chat.public.config.js, see *"Configuring the chat JavaScript file"*.

Customizing Ignite chat and SMS agent options

Multimedia Contact Center enables contact centers to optionally modify how Ignite enables agents to handle chat and SMS sessions in a single JavaScript file. Contact centers can also set agent avatar options for agents in this file.

You can make the following customizations to chat and SMS sessions in Ignite:

- Configure avatar settings for agents
- Configure whether or not CTRL+Enter sends a message or enters a carriage return
- Configure whether or not clicking End Your Chat ends a chat or SMS session or first prompts agents to confirm the ending of their session
- Choose to enable agents to view chats that they have not accepted or have not been offered to them
- Configure icon theme

NOTE: If you modify the default handling, it is your responsibility to inform agents of changed handling behavior.

To customize Ignite chat and SMS sessions

- Configure the agent and supervisor configuration JavaScript files.
  See *"Configuring the agent and supervisor configuration JavaScript file"*.

Configuring the agent and supervisor configuration JavaScript files

Configuration settings for agent chat and SMS sessions in Ignite are controlled through two JavaScript files located in <drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\CCMWa\Scripts\:

- chat.agent.config.js
- chat.supervisor.config.js

Chat.agent.config.js controls agent settings in Ignite. chat.supervisor.config.js controls how chat displays in Contact Center Client when a supervisor is previewing a chat session.

chat.agent.config.js and chat.supervisor.config.js settings can be grouped into three categories:

- **Global settings**—control agent handling behavior of chat and SMS in Ignite. These settings are applied universally or are required to enable features at a queue level. The following table outlines the global fields.
- **Queue settings**—are controlled in DefaultConfig and ChatQueues. These two sections share the same fields. DefaultConfig fields apply the default settings for queues while ChatQueues fields are applied to individual specific queues. The following table outlines DefaultConfig and ChatQueues settings.
- **Logging and connection settings**—provide troubleshooting options as well as enable connection limits for devices. The following table outlines the logging and connection settings.

When adding field values based on the following tables, ensure that they use correct JavaScript formatting and punctuation.

Table 24.9: Global setting fields (Sheet 1 of 3)

Field name	Field value	Field Description
EnableAgentGravatar	True or False	This field controls whether or not Chat will use Gravatar for Agents. If set to True, Chat sessions will use any Gravatar user image associated to the email addresses used in the chat session or the image configured with DefaultAgentGravatarUrl. If set to False, no agent Gravatar user images will be used in the chat session. **NOTE:** This field must have the same value in chat.public.config.js, chat.agent.config.js, and chat.supervisor.config.js.

Table 24.9: Global setting fields (Continued) (Sheet 2 of 3)

Field name	Field value	Field Description
EnableSupervisorGravatar	True or False	This field controls whether or not Chat will use Gravatar for Agents. If set to True, Chat sessions will use any Gravatar user image associated to the email addresses used in the chat session or the image configured with DefaultAgentGravatarUrl. If set to False, no agent Gravatar user images will be used in the chat session. **NOTE:** This field must have the same value in chat.public.config.js, chat.agent.config.js, and chat.supervisor.config.js.
EnablePublicGravatar	True or False	This field controls whether or not Chat will use Public Gravatar for agents. If set to True, Chat sessions will use any Public Gravatar user image associated to the email addresses used in the chat session or the image configured with DefaultAgentGravatarUrl. If set to False, no Public Gravatar user images will be used in the chat session. **NOTE:** This field must have the same value in chat.public.config.js, chat.agent.config.js, and chat.supervisor.config.js.
UseCtrlEnterForGlobalSend	True or False	This field controls whether or not CTRL+Enter enters a carriage return or sends a message in Ignite. If set to True, in a Chat or SMS session in Ignite, pressing CTRL+Enter sends a message and pressing Enter adds a carriage return. If set to False, CTRL+Enter will add a carriage return and Enter will send a message.

Table 24.9: Global setting fields (Continued) (Sheet 3 of 3)

Field name	Field value	Field Description
EnableAgentPromptForEndConversation	True or False	This field controls whether or not agents will be prompted to confirm the closing of a chat or SMS session. If set to True, when the End Your Chat button is pressed, agents will be prompted to confirm that they want to close the current chat or SMS session. If set to False, when the End Your Chat button is pressed, the chat or SMS session closes.
EnableSupervisorPromoptForEndConversation	True or False	This field controls whether or not agents will be prompted to confirm the closing of a chat or SMS session. If set to True, when the End Your Chat button is pressed, agents will be prompted to confirm that they want to close the current chat or SMS session. If set to False, when the End Your Chat button is pressed, the chat or SMS session closes.

Table 24.10: DefaultConfig and ChatQueues fields (Sheet 1 of 4)

Field name	Field value	Field Description
Enabled	True or False	This field enables or disables this configuration record. If you set to False, the queue's chat form will use the values from the default file in <drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\CCMWa\Scripts\ Chat.ui.agent.config.DEFAULT.js or Chat.ui.supervisor.config.DEFAULT.js.

Table 24.10: DefaultConfig and ChatQueues fields (Continued) (Sheet 2 of 4)

Field name	Field value	Field Description
QueueId (ChatQueues only)	The queue's GUID, such as '26F1A5C3- DD2C-45FFBE75-2BC7B85012 D0'	The GUID for the chat queue to which you want the associated settings to apply. You can use YourSite Explorer to obtain a queue's GUID. See *"Obtaining Queue GUIDs"*.
DefaultAgentGravatarURL	URL of image	This field is used to set the Gravatar image to be used for all agents in all chat sessions. The image must be hosted on a public website. Images being used for the Gravatar image must meet the following requirements: • It must be publicly available • It must be accessible via HTTP or HTTPS on ports 80 and 443 • It must be a .jpg, .jpeg, .gif, or .png image file • It must not include a querys-tring.
DefaultSupervisorGravatarURL	URL of image	This field is used to set the Gravatar image to be used for all agents in all chat sessions. The image must be hosted on a public website. Images being used for the Gravatar image must meet the following requirements: • It must be publicly available • It must be accessible via HTTP or HTTPS on ports 80 and 443 • It must be a .jpg, .jpeg, .gif, or .png image file • It must not include a querys-tring.

Table 24.10: DefaultConfig and ChatQueues fields (Continued) (Sheet 3 of 4)

Field name	Field value	Field Description
UseDefaultAgentGravatarForAllAgents	True or False	This field is used to set whether or not all users will use the default Gravatar image. If set to True, all agents will use the image set in DefaultAgentGravatarURL (or DefaultSupervisorGravatarURL). If set to False, users will only use the Default Agent Gravatar (or Default Supervisor Gravatar) if they have no Gravatar associated to their email address.
UseDefaultSupervisorGravatarForAllSupervisors	True or False	This field is used to set whether or not all users will use the default Gravatar image. If set to True, all agents will use the image set in DefaultAgentGravatarURL (or DefaultSupervisorGravatarURL). If set to False, users will only use the Default Agent Gravatar (or Default Supervisor Gravatar) if they have no Gravatar associated to their email address.
UseDefaultPublicGravatarForAllPublicUsers	True or False	This field is used to set whether or not all contacts will use the default Gravatar image. If set to True, all public users will use the image set in DefaultPublicGravatarURL. If set to False, users will only use the Default Public Gravatar if they have no Gravatar associated to their email address.
GravatarSize	The size, in pixels, of the Gravatar image	This field is used to set the size of the Gravatar, in pixels.

Table 24.10: DefaultConfig and ChatQueues fields (Continued) (Sheet 4 of 4)

Field name	Field value	Field Description
PeekModeAllowed	True or False	This field controls whether or not agents can view chats that they have not accepted or have not been offered.
IconTheme	Light or Dark	IconTheme determines if the icons appear as light or dark, to better suit the selected background color. The IconTheme value can be Light or Dark.

Table 24.11: Logging and connection fields (Sheet 1 of 2)

Field name	Field value	Field Description
ChatClientSidelogging	True or False	This field controls whether or not a log for chat is available in the client's browser. If set to False, there is no client-side log created. If set to True, a client-side is created. **NOTE:** This field must have the same value in chat.public.config.js, chat.agent.config.js, and chat.supervisor.config.js.
MobileDeviceConnectionRetryLimit	The number of connection attempts	This field controls how many times a mobile device can attempt to connect to chat. **NOTE:** This field must have the same value in chat.public.config.js, chat.agent.config.js, and chat.supervisor.config.js.
ConnectionRetryLimit	The number of connection attempts	This field controls how many times a desktop device can attempt to connect to chat **NOTE:** This field must have the same value in chat.public.config.js, chat.agent.config.js, and chat.supervisor.config.js.

Table 24.11: Logging and connection fields (Continued) (Sheet 2 of 2)

Field name	Field value	Field Description
ConnectionRetryIterationCount	The count limit	This field sets the number of times a device can attempt to connect before prompting the user that it is unable to connect and that a refresh will occur. **NOTE:** This field must have the same value in chat.public.config.js, chat.agent.config.js, and chat.supervisor.config.js.

After customizing your agent chat and SMS sessions, your changes will be applied to Ignite.

The following procedures outline how to:

- Set the agent chat and SMS settings using chat.agent.config.js
- Add ChatQueues fields to chat.agent.config.js
- Set the supervisor settings using chat.supervisor.config.js
- Add ChatQueues fields to chat.supervisor.config.js

chat.supervisor.config.js must have the same settings configured as chat.agent.config.js. For agent-specific fields such as DefaultAgentGravatarURL, add the value to the supervisor-specific equivalent, such as DefaultSupervisorGravatarURL.

To set the agent chat and SMS settings using chat.agent.config.js

1. On the Enterprise Server, navigate to <drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\Ccmwa\Scripts.
2. Open **chat.agent.config.js** in a text editor.
3. Customize your agent chat settings.

   For a description of the settings and their fields, see the above tables.
4. Save and close the editor.

To add ChatQueues fields to chat.agent.config.js

1. In YourSite Explorer, obtain the queue IDs of the chat queues for which you want to customize settings.
   For more information, see *"Obtaining Queue GUIDs"*.
2. Open chat.agent.config.js in a text editor.
3. Locate ChatQueues:[ ] and copy and paste the following fields within ChatQueues's brackets.

   See the following figure for the proper formatting.

```
{
Enabled: true,
QueueId: '',
DefaultAgentGravatarURL:
encodeURIComponent(window.ccmwa.shared.getCCMWaBaseUrl() +
'/content/images/gravatar/defaultagent.png'),
```

```
    UseDefaultAgentGravatarForAllAgents: false,
    GravatarSize: 32,
    PeekModeAllowed: true,
    IconTheme: 'Dark'
    },
```

```
window.chat.agentUI.Options = {
    EnablePublicGravatar: true,
    UseCtrlEnterForGlobalSend: false,
    EnableAgentPromptForEndConversation: true,
    DefaultConfig: {
        Enabled: true,
        DefaultAgentGravatarURL: encodeURIComponent(window.ccmwa.shared.getCCMWaBaseUrl() +
'/content/images/gravatar/defaultagent.png'),
        UseDefaultAgentGravatarForAllAgents: false,
        GravatarSize: 32,
        PeekModeAllowed: true,
        IconTheme: 'Dark'

    },
    ChatQueues: [
                {
                        Enabled: true,
                        QueueId: "de0e53e2-4df4-4f48-90e2-76de4c0f513a",
                        DefaultAgentGravatarURL: encodeURIComponent(window.ccmwa.shared.getCCMWaBaseUrl() +
'/content/images/gravatar/defaultagent.png'),
                        UseDefaultAgentGravatarForAllAgents: false,
                        GravatarSize: 32,
                        PeekModeAllowed: true,
                        IconTheme: 'Dark'
                }
        ]
};
```

chat.agent.config.js formatting

4. Customize your ChatQueues field settings.

   For a description of the settings and their fields, see the above table.
5. For each additional queue you want to configure agent Ignite settings for, repeat steps 2-3.
6. Save and close the text editor.

To set the supervisor settings using chat.supervisor.config.js

1. On the Enterprise Server, navigate to <drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\Ccmwa\Scripts.
2. Open **chat.supervisor.config.js** in a text editor.
3. Customize your supervisor chat settings.

   For a description of the settings and their fields, see the above tables.
4. Save and close the editor.

To add ChatQueues fields to chat.supervisor.config.js

1. In YourSite Explorer, obtain the queue IDs of the chat queues for which you want to customize settings.
   For more information, see *"Obtaining Queue GUIDs"*.
2. Open **chat.supervisor.config.js** in a text editor.

3. Locate ChatQueues:[ ] and copy and paste the following fields within ChatQueues's brackets.

   See the following figure for the proper formatting.

```
    {
    Enabled: true,
    QueueId: '',
    DefaultSupervisorGravatarURL:'',
    DefaultPublicGravatarURL: '',
    UseDefaultSupervisorGravatarForAllSupervisors: false,
    UseDefaultPublicGravatarForAllPublicUsers: false,
    GravatarSize: 32,
    PeekModeAllowed: true,
    IconTheme: 'Dark'
    },
```

Figure 24.5: chat.supervisor.config.js formatting

```
window.chat.supervisorUI.Options = {
    EnableSupervisorGravatar: true,
    EnablePublicGravatar: true,
    UseCtrlEnterForGlobalSend: false,
    EnableSupervisorPromptForEndConversation: true,
    DefaultConfig: {
        Enabled: true,
        DefaultSupervisorGravatarURL:'',
        DefaultPublicGravatarURL: '',
        UseDefaultSupervisorGravatarForAllSupervisors: false,
        UseDefaultPublicGravatarForAllPublicUsers: false,
        GravatarSize: 32,
        PeekModeAllowed: true,
        IconTheme: 'Dark'
    },
    ChatQueues: [
                {
                Enabled: true,
                QueueId: '',
                DefaultSupervisorGravatarURL:'',
                DefaultPublicGravatarURL: '',
                UseDefaultSupervisorGravatarForAllSupervisors: false,
                UseDefaultPublicGravatarForAllPublicUsers: false,
                GravatarSize: 32,
                PeekModeAllowed: true,
                IconTheme: 'Dark'
                }
        ]
};
```

4. Customize your ChatQueues field settings.

   For a description of the settings and their fields, see the above table.

5. For each additional queue you want to configure agent Ignite settings for, repeat steps 3-4.

6. Save and close the text editor.

Offering chat through your corporate website

A contact center can offer chat through a number of means on their corporate website. Some suggested methods for offering chat include:

- Offering chat via a basic hyperlink
  See *"Offering chat via a basic hyperlink"*.
- Offering chat via a containing page
  See *"Offering chat in a containing page in your own site"*.
- Offering chat via a pop-up window
  See *"Offering chat in a pop-up window"*.

Multimedia Contact Center includes sample files demonstrating these suggested methods. Samples can be found in <drive>:\Program Files (x86)\Mitel\MiContact Center\Support\BasicSamples.

Offering chat via a basic hyperlink

In this method, a link is offered to the default CCMWa/chat on the Enterprise Server. Contacts clicking the link open the chat request page. With this method, you link to the default reverse proxied chat application on CCMWa.

NOTE: If a subdomain is being used to access chat, such as chat.example.com, consult the following Mitel Knowledge Base article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1013097/loc/en_US.

The following HTML is an example of offering chat to a specific queue via a basic hyperlink in a page in your own website.

```
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title>Basic Chat</title>
</head>
<body>
<a
href="http://localhost:8082/ccmwa/en-CA/chat/26F1A5C3-DD2C-45FF-BE75-2BC
7B85012D0">chat now</a>
</body>
</html>
```

Offering chat in a containing page in your own site

In this method, the CCMWa/Chat is rendered within an HTML page on your own site. This can be done by rendering CCMWa/Chat within the body of the page or within a container on the page.

For an example of chat embedded within the body of a webpage, with usable HTML and JavaScript, see chat.basic.embedAsPage.html in <drive>:\Program Files (x86)\Mitel\MiContact Center\Support\BasicSamples. Adjust as needed to match your storage of scripts and chat queue GUIDs.

For an example of chat embedded within the body of a webpage as a widget, with usable HTML and JavaScript, see chat.basic.embedAsWidget.html in the Samples folder at <drive>:\Program Files (x86)\Mitel\MiContact Center\Support\BasicSamples. Adjust as needed to match your storage of scripts and chat queue GUIDs.

NOTE: If you use these HTML, do not modify the variable names for queueId or targetContainer. Do not modify the name or value of the hdr variable. Doing so will cause issues for rendering the chat session.

Offering chat in a pop-up window

Chat can be offered through a pop-up window. For an example of how to offer chat in a pop-up window, see chat.basic.popup.html in the Samples folder at <drive>:\Program Files (x86)\Mitel\MiContact Center\Support\BasicSamples. Adjust as needed to match your storage of scripts and chat queue GUIDs.

Offering chat in different languages

Different language versions of the chat request form can be accessed by adding the language designator between /CCMWa/ and /chat. For example, the French Canadian chat request form would be accessed through http://<enterprise server>/ccmwa/fr-CA/chat. The following table contains a list of the different supported languages and the corresponding designator.

Table 24.12: Language designators

Language	Designators
Simplified Chinese	zh-CN
Dutch	nl-NL
English (US)	en-US
English (UK)	en-GB
French (Canadian)	fr-CA
French (France)	fr-FR
German	de-DE
Italian	it-IT
Norwegian	nb-NO
Portuguese (Brazilian)	pt-BR
Russian	ru-RU
Spanish (Latin American)	es-CL
Spanish (Spain)	es-ES
Swedish	sv-SE
Welsh	cy-GB

Enabling Contact Us

Contact Us is Multimedia Contact Center's contact tool for contact center corporate websites, presenting access to queues grouped by business lines. Designed to integrate into existing corporate websites, Contact Us can be customized to reflect an organization's specific service groups or business lines and their corresponding queues. Like chat, Contact Us uses CCMWa, a web application installed on the Enterprise Server at http://<Enterprise Server IP Address>/CCMWa to route interactions to your multimedia queues.

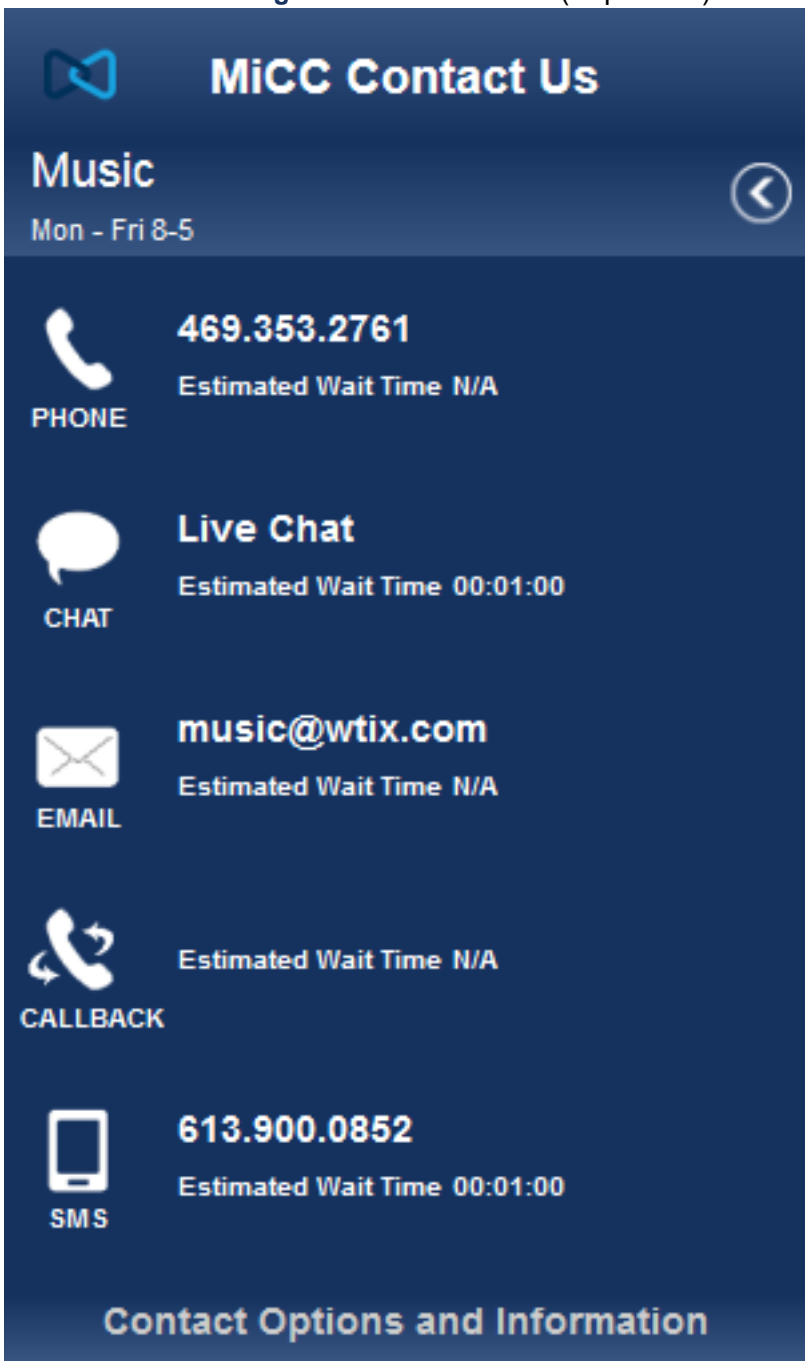
The WickedTix sample website included with Multimedia Contact Center showcases an integration of Contact Us within a corporate website. For more information, see *"Corporate Website Example: WickedTix"*. There is also a basic sample website included called BasicSamples, focusing on basic Chat and Contact Us integrations, available in the Samples folder at <drive>:\Program Files (x86)\Mitel\MiContact Center\Support\BasicSamples.

The following figure displays Contact Us. By default, all the business lines display as collapsed, showing only the business line name and hours. The footer of Contact Us contains a link that can be configured to send customers to relevant information concerning the contact center.

Figure 24.6: Contact Us

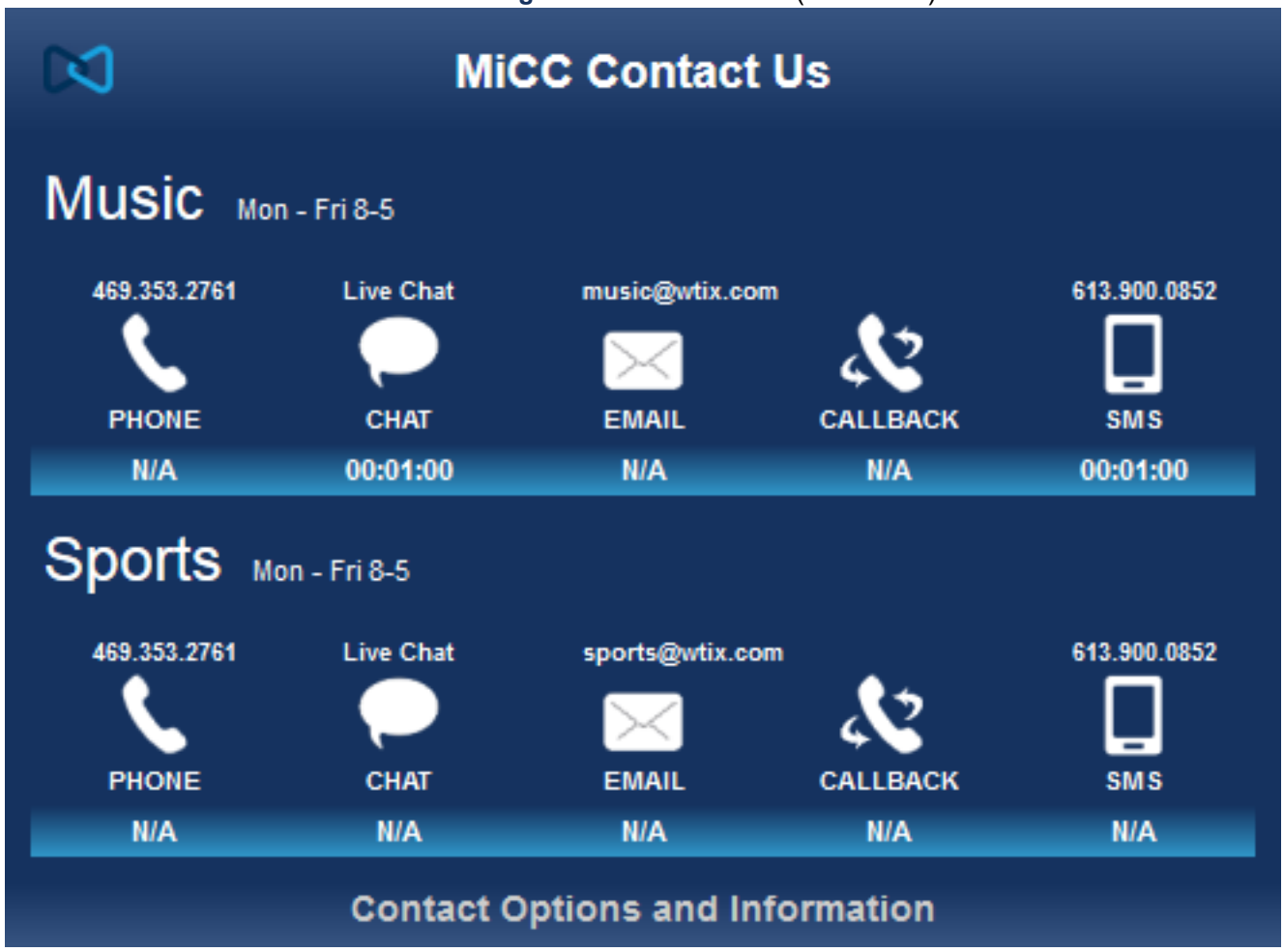
When clicked, a business line expands to display the queues configured with it. You can configure the specific contact information for each queue so that customers can contact the business line by that media type. (See the following figure.)

Figure 24.7: Contact Us (Expanded)



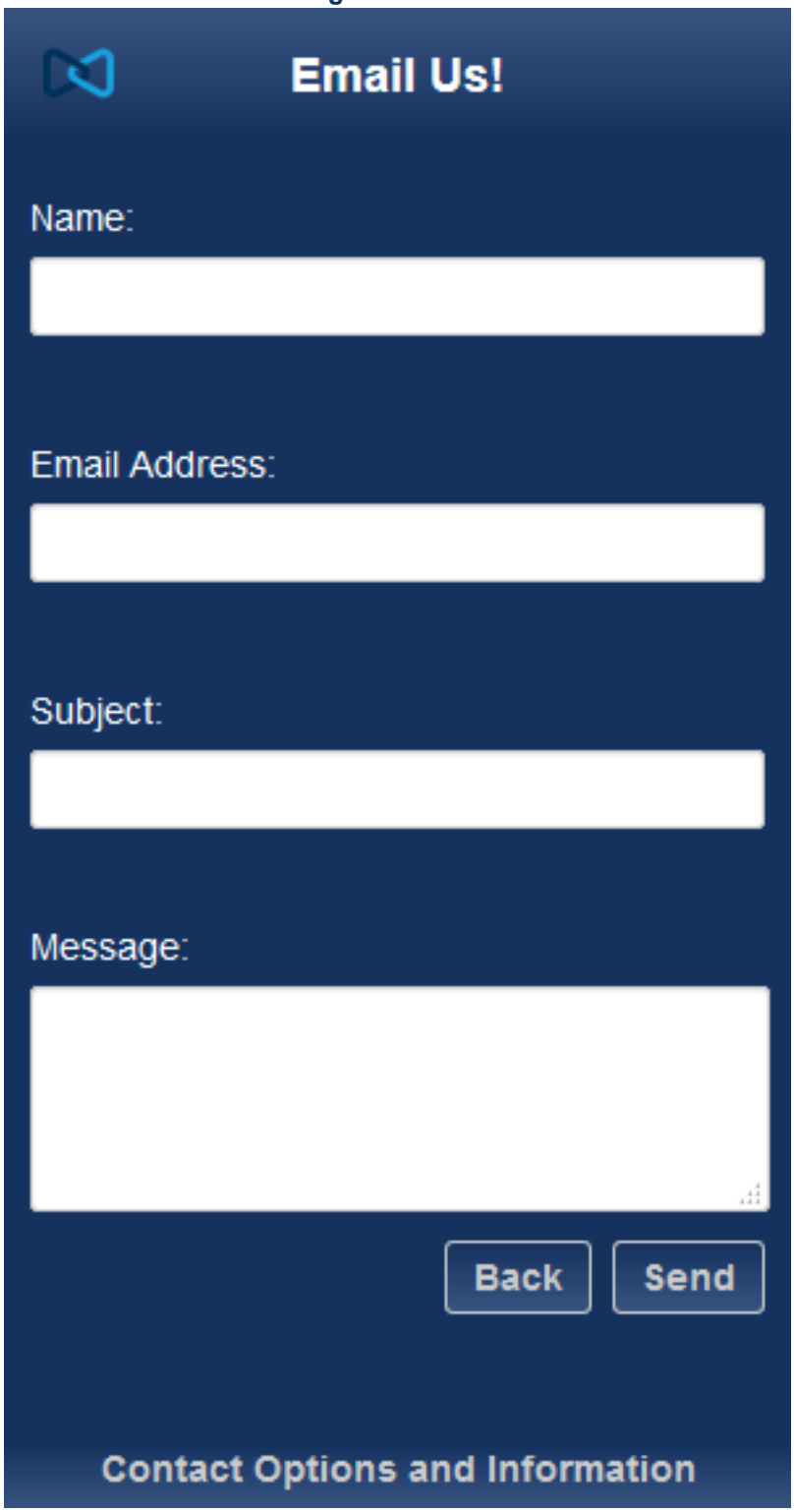
Contact Us can also be configured to use a horizontal display of business lines and their queues. (See the following figure.)

Figure 24.8: Contact Us (horizontal)



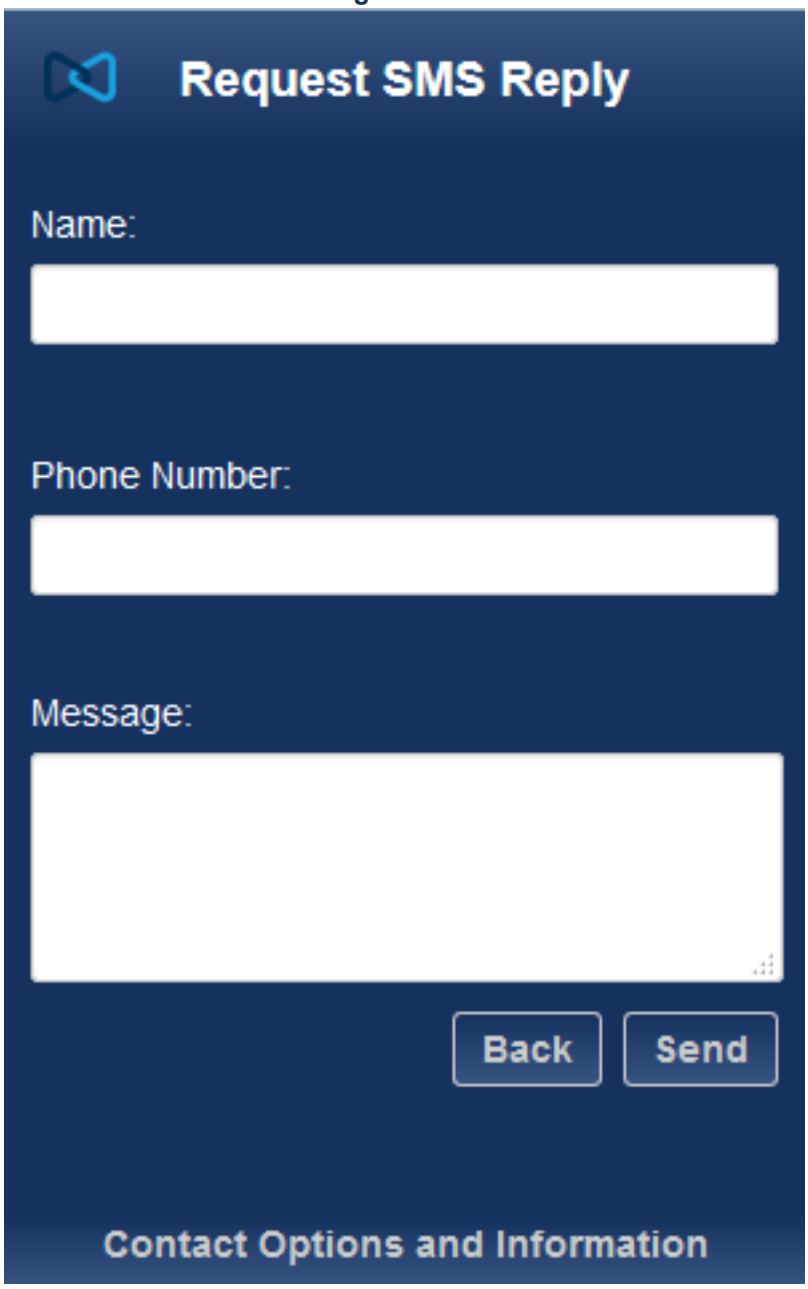
In Contact Us, each queue media icon can be configured to launch a contact session. Icons can be disabled and greyed out or hidden if that media type is not applicable to a business line. Clicking the phone icon will make a call if the device is able to make calls. Clicking an email icon will either launch an email form (see the following figure) or, if the customer is using a mobile device, it will open the phone's email application with the icon's configured email address in the To: field.

Figure 24.9: Email Us form



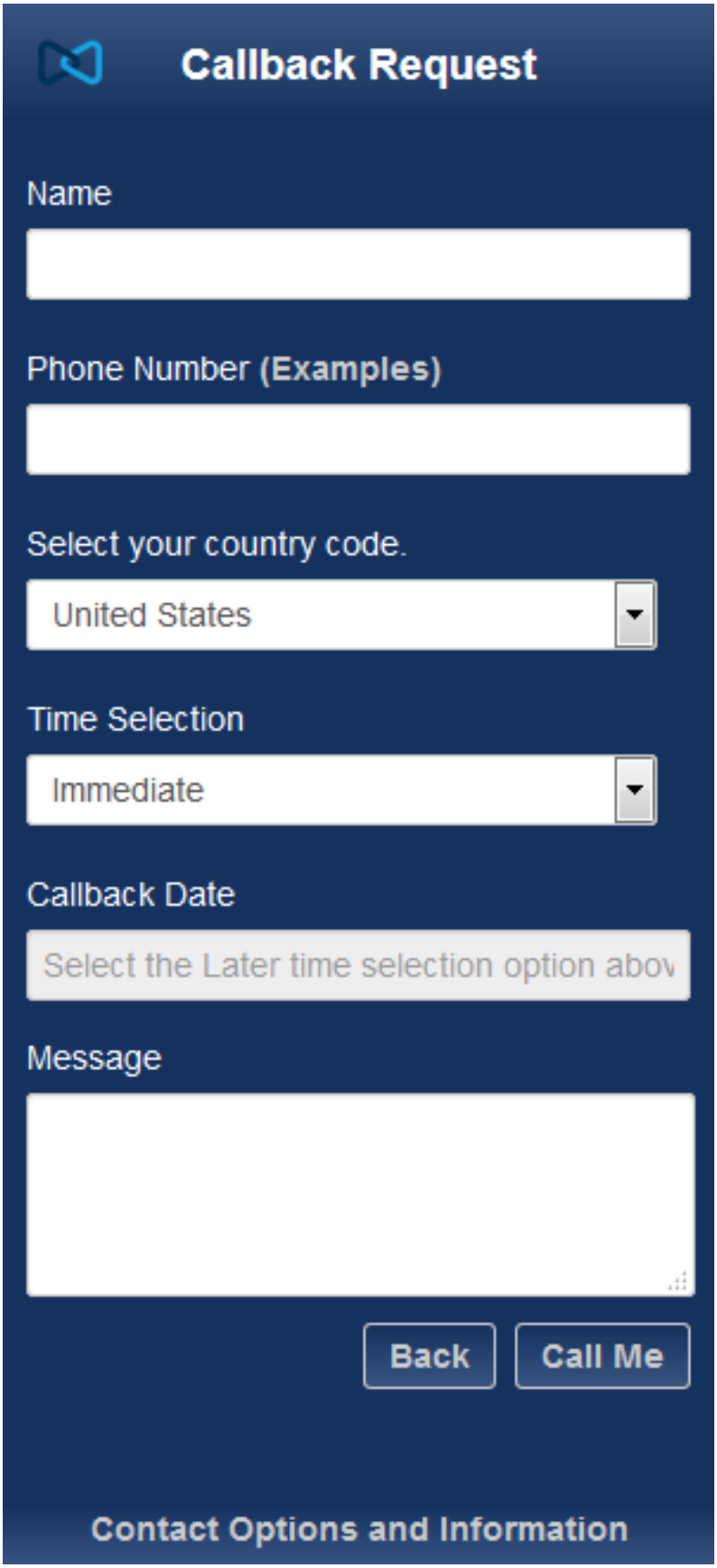
Clicking a chat icon launches a chat session with the configured chat queue. Clicking an SMS icon launches an SMS form (see the following figure) or, if the customer is using a mobile device, it will open the phone's SMS application with the icon's configured SMS number. When the customer clicks Send on the form, an SMS will be send to the queue by Contact Us with the customer's number.

Figure 24.10: SMS form



If the contact center is licensed for IVR, the web callback icon can be configured to submit callback requests for customers. When clicked, a web callback request form is opened for customers to fill in callback details and submit a callback request. See the following figure shows the options in the web callback form. For more information on web callbacks, see the *MiContact Center Business Installation and Administration Guide* .

Figure 24.11: Web callback


Callback Request
Name
Phone Number (Examples)
Select your country code.
United States
Time Selection
Immediate
Callback Date
Select the Later time selection option abov
Message
Back
Call Me
Contact Options and Information

Determining how to offer Contact Us

When implementing Contact Us, you must determine how you want to offer Contact Us. Contact Us is a flexible tool that can be offered to contact center customers in multiple separate instances, as either a standalone webpage in a corporate website or as an integration within an existing webpage. Depending on the method for integrating Contact Us, you will be required to configure different Contact Us files and decide how to host them.

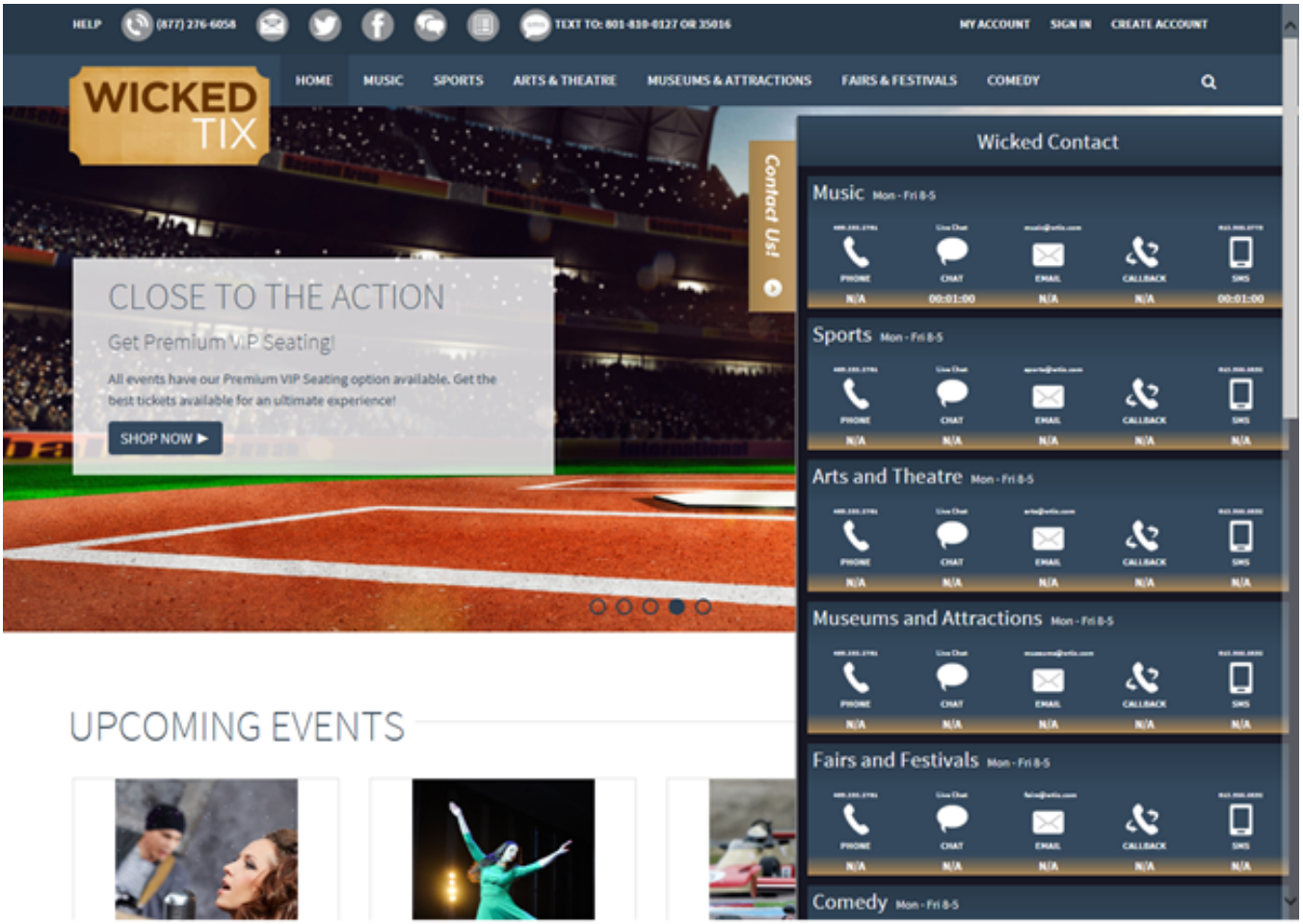
Contact Us has several samples available to help guide decisions on how to offer Contact Us. For basic deployments, see the files available within <drive>:\Program Files (x86)\Mitel\MiContact Center\Support\BasicSamples. These include a sample file showing Contact Us as a standalone webpage and a file showing Contact Us embedded as a slider. For an example of a more integrated deployment of Contact Us, Multimedia Contact Center includes a sample website, WickedTix, which provides an example implementation of Contact Us. WickedTix files are available in <drive>:\Program Files (x86)\Mitel\MiContact Center\Support\WickedTix. For more information on WickedTix, see *"Corporate Website Example: WickedTix"*.

Corporate Website Example: WickedTix

WickedTix is an example corporate webpage integrated with Multimedia Contact Center. Contact Us has been added as a slider on the right side of the page. The following figure shows the webpage with the Contact Us tab. When clicked, it expands and offers customers the contact options for the company. The following figure shows the expanded slider. WickedTix can be found at <drive>:\Program Files (x86)\Mitel\MiContact Center\Support\WickedTix.

The main WickedTix landing page shows Contact Us integrated in the horizontal mode within a targeted container within the page. Other pages in the site integrate Contact Us using the vertical layout, auto-centering it within the viewable area of the page. The following figure shows WickedTix with Contact Us expanded.

Figure 24.12: WickedTix with open slider



Implementing Contact Us

After having decided how to offer Contact Us, Contact Us can be configured and implemented. Contact Us is implemented using a single script reference to render it and another to configure the queues and media types. Additional customization can be made using a CSS stylesheet.

To implement Contact Us

1. Configure your business lines and queues for Contact Us.
   Contact Us uses a JavaScript file, contactus.config.js, to manage business line and queue information.
   Configurations can be reused if you want to show the same contact options on multiple pages (or a single configuration referenced in a header/footer, for example). A separate configuration file is required for any alternate configurations you want to render, where the contact options are different.
   See *"Configuring your business lines and queues for Contact Us"*.
2. Configure Contact Us style.

   Contact Us uses CSS to implement its styling. All of the visual components are set by ContactUs.css in <drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\Ccmwa\Content. You can copy this file and host it in your own website with any style modifications.
   See *"Configuring Contact Us style"*.
3. Configure the email

- Configure the email form

  For the Contact Us email from, the information captured is sent as an email to a queue for routing. Therefore, the From address must not be same as the To address submitted in the form; otherwise, the message is flagged as a no-reply and is not routed. To prevent this, in YourSite Explorer application, configure an alias email address that is valid for the SMTP server to send an email.

  NOTE: Do not set as this email address as the dial-to address for any queue in the system.

  Edit the CCMWa web.config file using any text or XML editor. The file location is: C:\Program Files (x86)\Mitel\MiContact Center\WebSites\Ccmwa\. In the appSettings section of Web.config, set the value to the email address that you configured. Save and close the file.

  NOTE: Editing the CCMWa web.config file causes the CCMWa process to restart. Hence we recommend that you configure this setting during a downtime.

  These settings do not affect mobile clients because they use the native email client instead of the web form.
- Configure the email form with Exchange

  This step is only required if your mail server uses Exchange.

  See *"Configuring the email form with Exchange"*.

4. Host Contact Us files on your corporate web server (optional)

   If you are using multiple configuration files for Contact Us, you must host them externally on your corporate web server and then enable Contact Us to use the external files.
   See *"Hosting Contact Us files on your corporate web server"*.
5. Add Contact Us to your corporate website.

   Add the necessary files to your corporate website's web directory on the web server and add the JavaScript references to add Contact Us as either a standalone webpage or embedded within an existing corporate webpage.
   See *"Adding Contact Us to your corporate website"*.

Configuring your business lines and queues for Contact Us

Business line and queue information, as well as the settings for how Contact Us displays, are set in the JavaScript file contactus.config.js. This file can be found at <drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\Ccmwa\Scripts.

If you intend to offer multiple instances of Contact Us on your corporate website with different business line and queue information, you will require multiple copies of contactus.config.js. Copies of contactus.config.js can be renamed and stored in different locations, but script references to Contact Us must be updated to renamed file in the script reference's parameters. For more information, see *"Adding Contact Us to your corporate website"*.

Business line or service group sections can be added or removed and the available media types for each of these sections can be modified. The media type layout is fluid so that if one media type icon is removed, the others flow together.

The following procedures describe how to:

- Configure the header and footer
- Hide the header or footer
- Apply a light or dark icon theme
- Use the horizontal Contact Us layout

- Configure contactus.config.js with business lines and media types
- Remove media types from a service group or business line in an instance of contactus.config.js
- Configure logging and connection options

To configure the header and footer

1. Open the instance of **contactus.config.js** in a text editor.
2. Locate the field **HeaderHTML**.
3. Replace field's content with your header content.
4. Locate the field **FooterHTML**.
5. Replace the field's content with your footer content.
6. Save and close the text editor.

To hide the header or footer

1. Open the instance of contactus.config.js in a text editor.
2. If you want to hide the header, locate the line **ShowHeader: true** and set it to **false**.
3. If you want to hide the footer, locate the line **ShowFooter: true** and set it to **false**.
4. Save and close the text editor.

To use a light or dark icon theme

1. Open the instance of contactus.config.js in a text editor.
2. If you want a light icon theme, locate the line **IconTheme** and set it to **Light**.
3. If you want a dark icon theme, locate the line **IconTheme** and set it to **Dark**.
4. Save and close the text editor.

To use the horizontal Contact Us layout

1. Open your instance of contactus.config.js in an editor.
2. Set **UseVerticalBusinessLinesFirst** to **true**.
3. Save and close the editor.

To configure contactus.config.js with business lines and media types

1. Open the instance of contactus.config.js in a text editor.
2. Replace the existing values in the service group/business line fields.

   See the following table for a description of each field.
   See the following figure for a labeled diagram of what fields correspond to which elements in Contact Us.

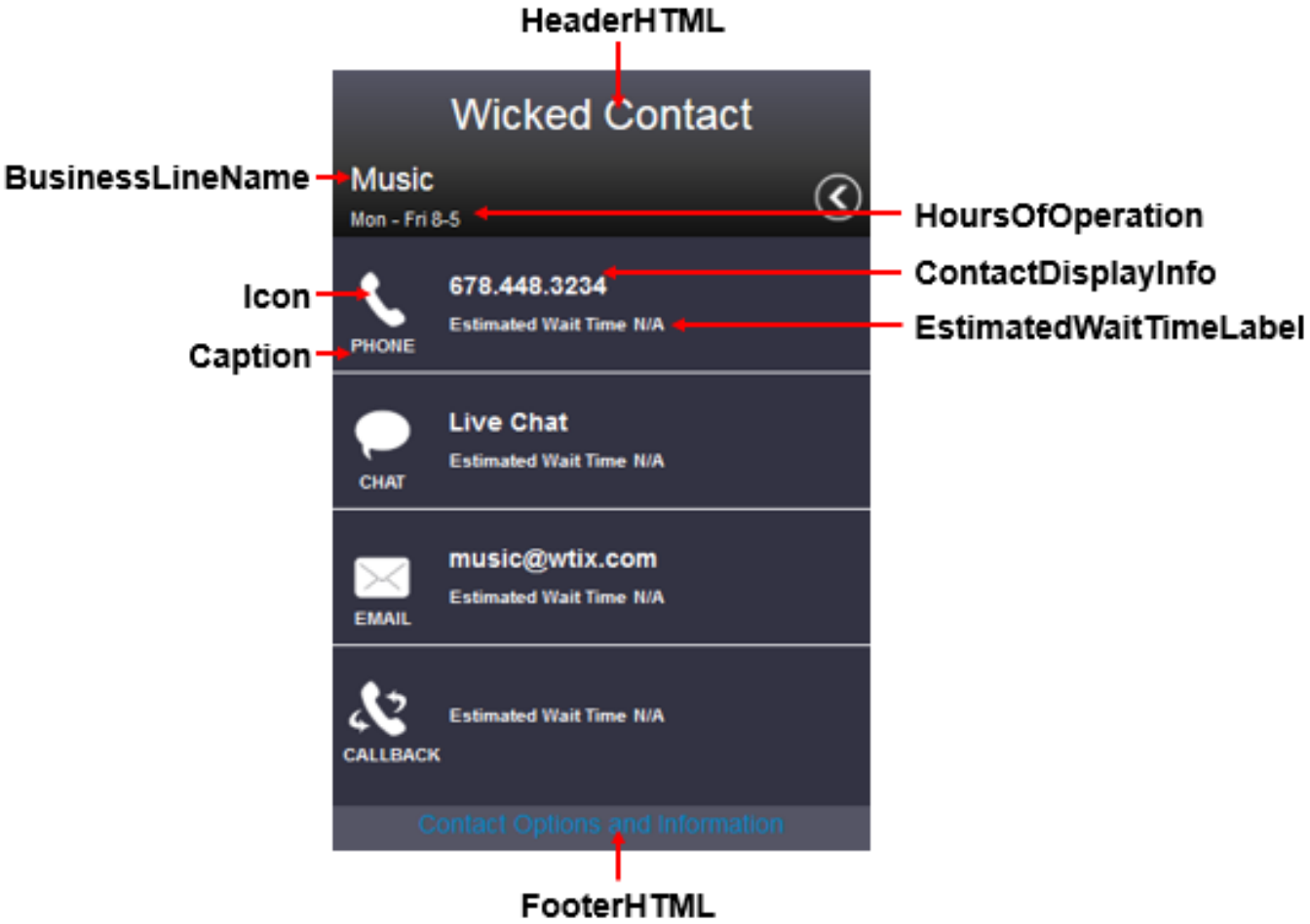
Table 24.13: Business Line fields (Sheet 1 of 2)

contactus.config.js fields	Description
BusinessLineName	The name of the business line or service group
HoursOfOperation	The hours of operation for the contact center handing the queues for this business line or service group

Table 24.13: Business Line fields (Continued) (Sheet 2 of 2)

contactus.config.js fields	Description
UnifiedQueueIdOrNameOrReporting	The service group/business line's Unified Queue Group GUID, Name, or Reporting Number
EstimatedWaitTimeLabel	The Estimated Wait Time label text that displays when a mouse hovers over
ShowIconCaptions	If True, Contact Us will display the caption configured in Caption. If False, it hides the caption
MediaTypes	The supported media types that display in the business line or service group

Figure 24.13: Contact Us contactus.config.js fields



3. Under MediaTypes, configure the MediaTypes fields to correspond to the queues for your own service groups or business lines.

   See the following table for a description of each field.
   See the following figure for a labeled diagram of what fields correspond to which elements in Contact Us.

Table 24.14: MediaTypes fields (Sheet 1 of 3)

Contact.Config.js fields	Function
Enabled	Controls whether or not the media type can be interacted with • If set to True, the media type's icon and text are clickable • If set to False, the icon is greyed out and cannot be interacted with
OnMouseHoverMessage	The text that displays when a mouse hovers over an icon
CssClass	The CSS class used for the media type. By default, these are: • Voice: lobMediaTypePhone • Chat: lobMediaTypeChat • Email: lobMediaTypeEmail • Callback: lobMediaTypeCallback • SMS: lobMediaTypeSms
Caption	The caption text. Used in conjunction with ShowIconCaptions.
ContactDisplayInfo	The text displaying the contact information for the queue, such as email address or phone number
Icon	The type of icon used for this media type. Supported icon values are: • Phone • Chat • Email • SMS • Callback
QueueIdOrNameOrReporting	The queue's GUID This unique identifier enables Contact Us to identify this Contact Us queue with a queue on the media server For instructions on how to obtain a queue's GUID, see *"Obtaining Queue GUIDs"*.

Table 24.14: MediaTypes fields (Continued) (Sheet 2 of 3)

Contact.Config.js fields	Function
ClickToContactInfo	The queue's dialable phone number, email address, chat queue external URL, or SMS number. **NOTE:** • Phone numbers and SMS numbers must be entered with no spaces or other characters • If you enter the external URL for CCMWa/chat instead of an external URL for a queue, then no chat Estimate Wait Time will display as no queue has been selected.
Handler	The type of media. The Handler can be: • Call • Chat • Email • SMS • Callback **NOTE:** It is not recommended to change or edit this field, unless you are adding or removing an entire media type.
SupportedProtocols	The protocols your business can support for the media type contact mechanism. Protocols can be added for voice queues. The following protocols are supported: Voice: • 'tel' – calls the number configured in ClickTo-ContactInfo using the telephone application
EwtPrefix	It is not recommended to change or edit this field, unless you are adding or removing an entire media type. If the media type is voice, email, chat, or SMS, set EwtPrefix value to "ewt" If the media type is callback, set the EwtPrefix value to "ewt_wcb"

Table 24.14: MediaTypes fields (Continued) (Sheet 3 of 3)

Contact.Config.js fields	Function
OutboundWorkflowId	• The GUID for OutboundWorkflow subroutine. • Contact Us can now be configured with a WebCallback subroutine at the queue level. Obtain the GUID for the subroutine and update the associated configuration file for Contact Us. This enables Contact Us to pass along the correct subroutine to be used to initiate a call-back routing for the given queue. • For instructions on how to obtain a subroutine GUID, see *"Obtaining Subroutine GUIDs"*.

4. Save and close the text editor.

To add media types to a service group or business line in an instance of contactus.config.js:

1. Open the instance of contactus.config.js in a text editor.
2. If the media type is email, chat, or SMS, locate the service group or business line's section in contactus.config.js and add the following under MediaType:

```
    Enabled: true,
    OnMouseHoverMessage: "",
    CssClass: "",
    Caption: "",
    ContactDisplayInfo: "",
    Icon: "",
    QueueIdOrNameOrReporting: "",
    ClickToContactInfo: "",
    Handler: ""
    EwtPrefix: ""
    },
```

3. If the media type is callback, locate the service group or business line's section in the contactus.config.js and add the following under MediaType:

```
    {
    Enabled: true,
    OnMouseHoverMessage: "",
    CssClass: "lobMediaTypeCallback",
    Caption: "Callback",
    ContactDisplayInfo: "Callback",
    Icon: "Callback",
    QueueIdOrNameOrReporting: "",
    ClickToContactInfo: "Callback",
    Handler: "Callback",
    EwtPrefix: "ewt_wcb",
```

```
    OutboundWorkflowId: ""
    },
```

4. If the media type is voice, locate the service group or business line's section in contactus.config.js and add the following under MediaType:

```
    Enabled: true,
    OnMouseHoverMessage
    CssClass: " lobMediaTypePhone ",
    Caption: "",
    ContactDisplayInfo: "",
    Icon: "",
    QueueIdOrNameOrReporting: "",
    ClickToContactInfo: "",
    SupportedProtocols "tel",
    Handler: "Call"
    EwtPrefix: "ewt"
    },
```

5. Configure the fields.
6. Save and close the editor.

To remove media types from a service group or business line in an instance of contactus.config.js

1. Open the instance of contactus.config.js in a text editor.
2. To remove a media type, delete that media type's lines from under MediaTypes,

   To delete chat, for example, you would delete the following lines:

```
    {
    Enabled: true,
    OnMouseHoverMessage: "Chat with Sports Support",
    CssClass: "lobMediaTypeChat",
    Caption: "Chat",
    ContactDisplayInfo: "",
    Icon: "Chat",
    QueueIdOrNameOrReporting: "d596e70f-526d-4c94-aa86-faa0e8bdb9db",
    ClickToContactInfo:
    "http://localhost/ccmwa/chat/d596e70f-526d-4c94-aa86-faa0e8bdb9db",
    SupportedProtocols: "",
    Handler: "Chat",
    EwtPrefix: "ewt"
    },
```

3. Save and close the text editor.

To configure logging and connection options

1. Open the instance of contactus.config.js in a text editor.
2. After **ClientSidelogging**, type True if you want to enable a log for Contact Us to be available in the client's browser.

3. After **ConnectionRetryLimit**, set the number of times a desktop device can attempt to connect to Contact Us.
4. After **MobileDeviceConnectionRetryLimit**, set the number of times a mobile device can attempt to connect to Contact Us.
5. After **ConnectionRetryIterationCount**, set the number of times a device can attempt to connect before prompting the user that it is unable to connect and that a refresh will occur.
6. Save and close the text editor.

Configuring Contact Us style

Optionally, you can alter the style of Contact Us to match your corporate website's style. By default, Contact Us uses ContactUs.css, located at <drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\Ccmwa\Content. This default stylesheet can be customized and have multiple copies made of it for use with different instances of Contact Us. If custom instances of ContactUs.css are being used, JavaScript references to Contact Us require parameters specifying the .css file's location. For more information, see *"Adding Contact Us to a webpage"* and *"Adding Contact Us with the default slider"*.

If Contact Us is to be integrated within an existing corporate webpage, CSS can be overridden Contact Us's stylesheet and use the webpage's CSS stylesheet instead.

NOTE:

- It is recommended to only configure colors and fonts. Changing other stylesheet settings, such as icons, may impact Contact Us functionality.
- Copies of ContactUs.css can be stored in different folders, but must keep the name ContactUs.css.

To configure Contact Us to use the integrated webpage's CSS

1. On your Enterprise Server, navigate to **<drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\Ccmwa\Content**.
2. Create a copy of ContactUs.css and add it to a folder within your website.
3. Update ContactUs.css to match your site's style.
4. Add a reference to the copy of ContactUs.css in your JavaScript call to MiccContactUs.js or MiccSide-Slider.js.

   For information, see *"Adding Contact Us to a webpage"* and *"Adding Contact Us with the default slider"*.

Configuring the email form with Exchange

The email form automatically uses the email media server's mail server configured in YourSite Explorer to submit emails to queues. To ensure Exchange uses the customer-entered email address in the form for responses and not the email mail server or queue email address, you must disable Outgoing SMTP Authentication in YourSite Explorer and configure authentication on the Exchange server.

For instructions on the specific Exchange configuration, see the following Mitel Knowledge Base article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1001226/loc/en_US.

NOTE: For Office365 user accounts created in October 2020 and later, Basic Authentication is disabled by default. Currently, MiContact Center Business supports only Basic Authentication. Therefore, if Office365 is used as an email server, Basic Authentication must be manually enabled.

To disable Outgoing SMTP Authentication

1. Click **Multimedia > Mail server**.
2. Select the **Exchange mail server** and click the **Outgoing** tab.
3. Under **Outgoing Logon Information**, clear **SMTP Authentication Required**.
4. Click **Save**.

Hosting Contact Us files on your corporate web server

By default, Contact Us uses files hosted on the Enterprise Server. If you are using multiple contactus.config.js files for different business lines, you will need to host them externally on your corporate web server.

You can store Contact Us JavaScript and CSS files on your corporate web server within the corporate website's directory. Files stored within your website's directory on your corporate web server can be located anywhere within the directory at your discretion. If you store Contact Us files on your corporate web server, you must manually update your files with any new fields and settings after every upgrade.

To enabled externally hosted Contact Us files

1. Navigate to **<drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\CCMWa**.
2. Open **Web.config** in an editor.
3. Locate **UseCcmwaHostedContactUsClientConfig** and set it to **false**.
4. Save and close the editor.

Adding Contact Us to your corporate website

Contact Us can be offered from your corporate website through a number of different methods.

Multimedia Contact Center includes a preconfigured JavaScript file that renders Contact Us in the specified container on a webpage. This can be used to render Contact Us as a standalone webpage, embed Contact Us within a page, or render Contact Us in a pop-up or slider. For more information, see *"Adding Contact Us to a webpage"*.

For integrations with existing webpages, Multimedia Contact Center includes a preconfigured JavaScript slider containing Contact Us that can be added to your webpages. For more information, see *"Adding Contact Us with the default slider"*.

For either resource, you must decide whether you want to host Contact Us's JavaScript files and CSS files on your corporate web server within the corporate website's directory or store the files within CCMWa on the Enterprise Server. Files stored within your website's directory on your corporate web server can be located anywhere within the directory at your discretion.

NOTE: Optionally, you can store Contact Us JavaScript and CSS files on your corporate web server within the corporate website's directory. Files stored within your website's directory on your corporate web server can be located anywhere within the directory at your discretion. If you store Contact Us files on your corporate web server, you must manually add new fields to the files after every upgrade.

Ensure that you specify the locations in the script reference parameters discussed in *"Adding Contact Us to a webpage"* and *"Adding Contact Us with the default slider"*.

Adding Contact Us to a webpage

Contact Us can be offered using a script reference. Multimedia Contact Center includes a JavaScript file, MiccContactUs.js, to render Contact Us within an optional target on a webpage. If you want to render

Contact Us as a stand-alone webpage, create an empty HTML file and add a reference to this script. For an example of this implementation, see contact.basic.stacked.html or contact.basic.horizontal.html in <drive>:\Program Files (x86)\Mitel\MiContact Center\Support\BasicSamples.

By default, this script uses the default contactus.config.js and ContactUs.css. To use different business lines' contactus.config.js files or CSS files with MiccContactUs.js, different parameters can be added to the script reference. The following is an example of a MiccContactUs script with all parameters applied to the script reference.

<script

src="ccmwa/scripts/micccon-
tactus.js?embedded=false&target=contactus&vmode=false&csspath=assets/css/&jspath=assets/js/&co
nfig= contactus.config "></script>

The following table describes the different parameters

Table 24.15: MiccContactUs.js parameters (Sheet 1 of 2)

Parameter Name	Parameter Value	Default Value	Parameter Description
embedded	True or False	False	Controls whether or not Contact Us will embed itself in the container specified with the target parameter. If set to True, Contact Us will be embedded in the target. If set to False, Contact Us renders within the body of the page in the upper-left corner.
target	The ID attribute of the target	none	Sets the target in which Contact Us renders. If the target is not present or empty, the Contact Us will render as the last item on the page.

Table 24.15: MiccContactUs.js parameters (Continued) (Sheet 2 of 2)

Parameter Name	Parameter Value	Default Value	Parameter Description
vmode	True or False	True	Controls whether or not Contact Us renders in the standard display or the horizontal display. If set to True, Contact Us renders in the default display. If set to False, Contact Us renders in the horizontal display. **NOTE:** vmode overrides the value set in UseVerticalBusinessLinesFirst in contactus.config.js.
csspath	File path	<drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\Ccmwa\Content\	Path to ContactUs.css. If left blank or excluded, the default ContactUs.css in <drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\Ccmwa\Content is used.
jspath	Folder path	<drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\Ccmwa\Scripts\	Path to folder containing contactus.config.js. If left blank or excluded, the default folder will be used.
config	File path	contactus.config.js	Path to the contactus.config.js file to be used with Contact Us. If left blank, the default contactus.config.js file in the folder specified in jspath will be used.

There are various other integration options based on a combination of the parameters used and what kind of container is targeted. For more information, see the basic samples website located in <drive>:\Program Files (x86)\Mitel\MiContact Center\Support\BasicSamples. The following procedure details how to configure Contact Us as a standalone webpage. It assumes that you have:

- Added your business lines and queues to a copy of contactus.config.js
- Optionally updated the style in ContactUs.css
- Placed your JavaScript and CSS files in the desired location on either the Enterprise Server or corporate web server.

To configure Contact Us as a stand-alone webpage

1. Open the webpage in which you want to render standalone Contact Us with an editor.
2. Add the following script reference to the Body:

   <script src="ccmwa/scripts/micccontactus.js"></script>
3. If you are using JavaScript and CSS files other than the defaults, update the script reference with parameters indicating the file locations.

   For information on MiccContactUs.js parameters, see the above table.
4. Save and close the text editor.

Adding Contact Us with the default slider

Contact Us can be added to your corporate webpages as a slider using MiCCSideSlider.js. By default, MiccSideSlider.js renders Contact Us as a slider on the right-hand side of your webpage, centered in the viewable area. The default MiccSideSlider can be added to your existing corporate webpage by adding the following script within the body of your webpage.

<script src="ccmwa/scripts/miccsideslider.js"></script>

By default, MiccSideSlider.js uses the default contactus.config.js located at <drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\Ccmwa\Scripts and the default ContactUs.css located at <drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\Ccmwa\Content.

To use different business lines' contactus.config.js files or CSS files with MiccSideSlider, different parameters can be added to the script reference. The following is an example of a MiccSideSlider with all parameters applied to the script reference as guidance for formatting:

<script src="ccmwa/scripts/miccsideslider.js?embedded=false&target=contactslider&vmode=false&csspath=assets/css/&imgpath=images/&imgmod=_wt&jspath=assets/js/&config=contactus.config&promptafter=30000"></script>

The following table describes the different parameters.

Table 24.16: MiCCSideSlider JavaScript options (Sheet 1 of 3)

Parameter Name	Parameter Value	Default Value	Parameter Description
embedded	True or False	True	Controls whether or not the slider will embed itself in the document in the default right-side, vertically-centered position. If set to True, Contact Us will be embedded in the default location. If set to False, Contact Us will be embedded in the location specified in the target parameter.

Table 24.16: MiCCSideSlider JavaScript options (Continued) (Sheet 2 of 3)

Parameter Name	Parameter Value	Default Value	Parameter Description
target	The ID attribute of the target	contactslider	Sets the target in which Contact Us renders. By default, this value is contactslider. If the target is not present or empty, the slider is created in the center of the viewable area.
vmode	True or False	True	Controls whether or not Contact Us renders in the standard display or the horizontal display. If set to True, Contact Us renders in the standard display. If set to False, Contact Us renders in the horizontal display. **NOTE:** vmode overrides the setting of UseVerticalBusinessLinesFirst in contactus.config.js
csspath	File path	<drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\Ccmwa\Content\	Path to ContactUs.css. If left blank or excluded, the default ContactUs.css in <drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\Ccmwa\Content is used.
imgpath	Folder path	<drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\Ccmwa\Content\images	Path to where slider button images are stored on your corporate web server. If left blank or excluded, the default images on the Enterprise from <drive>:\Program Files (x86)\Mitel\MiContact Center\WebSites\Ccmwa\Content\images\ will be used. For more information on custom images, see "Adding custom images".

Table 24.16: MiCCSideSlider JavaScript options (Continued) (Sheet 3 of 3)

Parameter Name	Parameter Value	Default Value	Parameter Description
imgmod	suffix	Blank	Text to append to the end of the standard image name used for the slider in/out images so you can implement custom versions. Images must be .png files. For more information on custom images, see "Adding custom images".
jspath	File path	<drive>:\Program Files (x86)\Mitel\Mi Contact Center\WebSites\Ccmwa\Scripts\	Path to folder containing contactus.config.js. If left blank or excluded, the default folder will be used.
config	File path	<drive>:\Program Files (x86)\Mitel\Mi Contact Center\WebSites\Ccmwa\Scripts\contactus.config.js	The file path to the contactus.config.js file to be used with Contact Us. If left blank, the default contactus.config.js file in the folder specified in jspath will be used.
promptafter	Number in milliseconds	0	The amount of time before the slider automatically slides out. If set to 0 or omitted, the slider will not automatically slide out.

The following procedure assumes you have already added your business lines and queues to a copy of contactus.config.js, optionally updated the style in ContactUs.css, and placed your JavaScript and CSS files in the desired location.

To add the slider to an existing webpage

1. Open the webpage you are adding the slider to in an HTML editor.
2. Add the following script reference in the body of the webpage:

   <script src="ccmwa/scripts/miccsideslider.js"></script>
3. If you are using JavaScript and CSS files other than the default, update the script references with parameters indicating the file locations.

   For information on MiccContactUs.js parameters, see the above table.
4. Save and close the HTML editor.

Adding custom images

MiccSideSlider can use custom images, either through replacing the default images on the Enterprise Server or by using parameters on the JavaScript call to MiccSideSlider.js to instruct us different images. The following images can be customize with MiccSideSlider.js:

- Contact_Us_Slider_Expand.png
- Contact_Us_Slider_Minimize.png

Custom images must have the same name as the original images or else have the same name with the imgmod suffix applied. Custom images must be stored in the same folder.

Obtaining Queue GUIDs

Each queue in your contact center has a unique identifier that Contact Us requires to connect the functions of queue icons with the individual queues they represent.

To obtain a queue GUID

1. In YourSite Explorer, click **Multimedia > Queues**.
2. Select a queue.
3. In the ribbon, click **Queue Tools**.
4. Click **Copy queue ID**.

   The queue GUID is copied to your clipboard.

Obtaining Subroutine GUIDs

Contact Us can now be configured with a WebCallback subroutine at the queue level. Obtain the GUID for the subroutine and update the associated configuration file for Contact Us. This identifier enables Contact Us to pass along the correct subroutine to be used to initiate a callback routing for the given queue.

To obtain web callback subroutine information from SQL

1. Open SQL Server Management Studio or any other SQL management program.
2. Query the following select statement:

   select Pkey, Name from tblConfig_VWM_Subroutine.
3. Find the value of Pkey, to obtain the Subroutine GUID.

Troubleshooting Multimedia Contact Center web features

When troubleshooting Multimedia Contact Center web features, the following method is recommended for verifying if issues are with the Multimedia Contact Center deployment or with the deployment of SSL, reverse proxies, or firewalls.

To troubleshoot Multimedia Contact Center web features

1. Test Chat and/or Contact Us locally on the Enterprise Server with no reverse proxy, SSL, or firewall.
2. If your deployment uses SSL, add SSL and test Chat and/or Contact Us on the Enterprise Server with no reverse proxy or firewall.
3. Add your reverse proxy and test Chat and/or Contact Us externally.
4. Add your firewall and test Chat and/or Contact Us externally.

Multimedia routing using visual workflows

Multimedia Contact Center enables routing using a visual workflow designer. Administrators can configure Inbound, Inqueue, and Response workflows by dragging and dropping activities onto a Workflow Canvas.

Workflows enable flexible routing of email, chat, SMS, and open media interactions to the queues and agents best suited to handle them. For examples of how Inbound, Inqueue, and Response workflows create the routing rules for email, chat, SMS, and open media interactions, see *"Multimedia Contact Center default workflows"*. For information on configuring the activities that comprise workflows, see *"Activity list"*.

Workflow types

The following workflow types are available in Multimedia Contact Center.

Inbound workflows – Determine the first paths interactions follow to reach destinations in an organization. Inbound workflows can search the properties of incoming interactions and determine the destinations to which these interactions should be directed, for example a sales team or a support team. Inbound workflows also support other actions such as sending response messages, running executable scripts, and performing database queries.

Inqueue workflows – Determine the conditions for routing interactions in queue to agents. Examples include when to overflow interactions to different queues, when to requeue an interaction, when to interflow interactions to different agent groups, and when to transfer interactions to available agents. Inqueue workflows are executed once interactions have been delivered from the Inbound workflow to their queue destinations.

Inqueue workflows support push, pick, and mixed routing models.

- In push models, the system offers interactions waiting in queue to available agents
- In pick models, agents select their interactions from queues
- In mixed models, agents select their interactions from queues, but interactions waiting in queue past a specified time are offered to available agents

Response workflows – Enable post-contact options and activities. Performed by queues after an interaction has been handled, Response workflows enable the automation of processes such as removing fields from the system or writing data to an external source, inserting information about the handled interaction into the database, or emailing a transcript from a chat session.

Workflow layouts in Multimedia Contact Center

Administrators can easily view and navigate workflows and workflow layouts in Multimedia Contact Center using the following features, as described in this section:

- A customizable workspace
- The Outline pane
- The Search field
- Focusing and breadcrumbs
- The Overview window and Pan function
- The Zoom feature

- The Expand All, Collapse All, and Restore buttons

The following takes place in Multimedia > Workflows.

Customizing the multimedia workspace

New workflows open as separate tabs in Multimedia Contact Center, freeing up visual space and showcasing individual workflows on-screen. Administrators can open an existing workflow in a dedicated tab by double-clicking the workflow, by right-clicking the workflow and selecting 'Open', or by selecting the workflow and clicking 'Edit'. This maximizes the space devoted to viewing workflows.

Toolbar, Properties, and Outline panes can be minimized, expanded, or pinned to the workspace. This enables administrators to choose how much of the screen is comprised of the workflow versus configuration panes. These enhancements enable administrators to customize their workspaces and manage screen space to better facilitate their work.

Viewing workflows at a glance: The Outline pane

The Outline pane displays workflows in a binary search tree format. Administrators can selectively view the workflow and the parent-child relationships of activities and conditions by expanding or minimizing individual items in the tree. By providing an overview of the workflow in a compact space, the Outline pane enables administrators to efficiently view complex workflows and the relationships between activities.

Administrators can configure activities or branches directly from the Outline pane by selecting the activity in the tree and clicking the Properties pane and by right-clicking the activity in the search tree. Right-clicking also highlights the activity in the workflow, providing a clear means of referencing a specific activity being configured. If, for example, the workflow has several similar activities, highlighting minimizes errors by helping administrators confirm they are configuring the correct activity.

Locating workflow items: The Search field

Administrators can locate specific activities and branches in workflows using the Outline pane's Search field. The Search field returns results based on workflow items' names and system names.

Searches can be performed based on complete or partial search terms. For example, searching 'sched' will return results for all workflow items containing 'Schedule' in the name or system name.

After locating an item in the Search field, administrators can edit the item either by right-clicking it or by toggling to the Properties pane.

To locate workflow items using the Search field

1. Click **Multimedia > Workflows**.
2. Select a workflow and click **Outline**.
3. In **Search Outline**, type the search term and click the **Search** icon.

Viewing specific portions of a workflow: Focusing and the Breadcrumb view

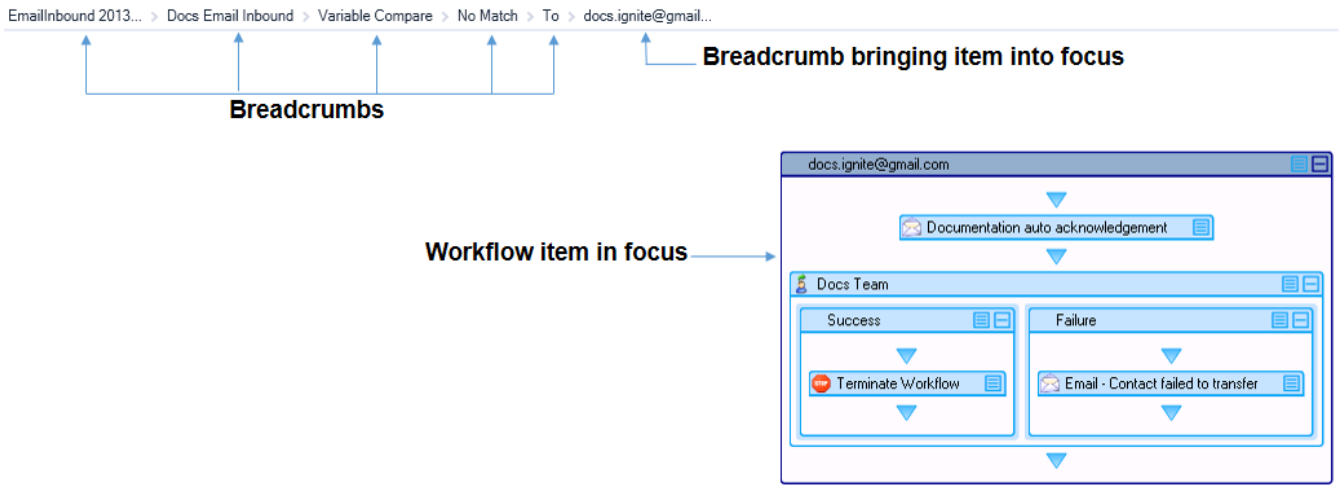
Administrators can devote the entire Canvas to viewing specific portions of a workflow by double-clicking activities or branches on the Canvas. This feature enables focusing on precise elements of complicated workflows and minimizes the need to use subroutines solely to conserve viewing space.

When focusing on an activity or branch, the Workflow Canvas opens in a Breadcrumb view. Breadcrumbs at the top of the Canvas indicate the portion of the workflow being viewed and the parent elements of those portions. After focusing on a specific portion of the workflow, the view of the workflow can be incre-

mentally expanded by tracing back through parent relationships using breadcrumbs. Administrators can also right-click an activity and select 'Go To Parent'. The Breadcrumb view provides an ordered way of redirecting focus in the workflow from precise elements to the bigger picture.

Note that when working in the Breadcrumb view, only the items in focus can be configured. In order to configure other items in the workflow, select the breadcrumb that brings the item into focus. (See the following figure.)

Figure 24.14: Focusing and the Breadcrumb view



Navigating the Workflow Canvas: The MiniMap window and the Pan mode

The MiniMap window and the Pan mode enable administrators to navigate to sections of a workflow without manipulating the horizontal and vertical scroll bars. The MiniMap window displays the workflow in a pop-out that can be used to navigate the Workflow Canvas.

To navigate the Workflow Canvas using the MiniMap window

1. Click **Multimedia > Workflows**, and select a workflow.
2. Click the **MiniMap** button, located to the right of the plus sign at the bottom of the window.
3. Click and drag the highlighted section over the workflow, as it appears in the MiniMap window.
4. To exit out of the MiniMap window, click the **MiniMap** button.

The Pan mode enables administrators to 'grab' the Workflow Canvas and, using the mouse, choose what portion of the workflow is centered on the Canvas without worrying about dragging activities around the workflow in the process.

To navigate the Workflow Canvas using the Pan mode

1. Click **Multimedia > Workflows**, and select a workflow.
2. Click the **Toggle Pan Mode** button, located to the left of the '100%' at the bottom of the window.

   The cursor displays as a hand icon.
3. Click anywhere on the Workflow Canvas to 'grab', and move the mouse to re-center the workflow.
4. To exit out of Pan, click the **Toggle Pan Mode** button.

Resizing workflows: The Zoom feature

You can adjust how large or small a workflow appears in the Workflow Canvas by manipulating the slider bar at the bottom of the Canvas or by pressing the plus and minus signs alongside the bar. Using this feature, administrators can zoom in to focus on precise elements of the workflow or zoom out to get a bird's eye view. Expressed as a percentage, the zoom feature also determines the expanse of the highlighted section of the Overview window. For more information, see *"Navigating the Workflow Canvas: The MiniMap window and the Pan mode"*.

Manipulating all activities in a workflow: The Expand All, Collapse All, and Restore buttons

Administrators can expand or collapse every activity and its corresponding branches in a single operation by clicking the Expand All or Collapse All buttons. Clicking the Restore button returns the workflow to the condition it was in before the activities were expanded or collapsed, enabling administrators to resume their work efficiently.

Designing and managing workflows: Common procedures

Several procedures for designing and managing workflows are common across workflow types. For example, common procedures include creating workflows, naming workflows, deleting workflows, and importing and exporting workflows. See the following sections for common workflow procedures in Multimedia Contact Center.

We recommend that administrators perform actions for designing workflows from the

- Inbound Routing and Response Routing tabs on the Media servers page, for Inbound and Response workflows
- Routing tab on the Queues page, for Inqueue workflows

We recommend that administrators perform actions for managing workflows from the Workflows page, located by selecting Multimedia > Workflows.

Creating workflows in Multimedia Contact Center

We recommend administrators modify the default workflows that ship with Multimedia Contact Center. However, in some instances, administrators may be required to create new workflows.

NOTE: When creating Inbound email workflows, ensure they contain either a Transfer, a Junk Email, or a No Reply Email activity. If they do not, email contacts will remain in system storage, using system memory and causing performance issues.

To create a workflow in Multimedia Contact Center

1. Click **Multimedia > Workflows > Add**.
2. Select the media and workflow type.

   For example, 'Email > Inbound'.
3. In the **Properties** pane, provide a **Name** and a **System Name** for the workflow. The Name and System Name must be unique.
4. Click **Save**.

Copying workflows

Administrators can reuse workflows as templates by copying and pasting them in Multimedia Contact Center. A copied workflow retains all activities and branching conditions of the original workflow, but is not assigned to a media server. Administrators can assign workflows to media servers and queues in the Workflows page. See *"Associating workflows to queues"* and *"Associating workflows to media servers"*.

To copy a workflow

1. Click **Multimedia > Workflows**.
2. Right-click the workflow and select **Copy**.
3. Right-click anywhere in the workflow list and select **Paste**.
4. Click **Save**.

Deleting workflows

Deleting workflows removes the workflow and all its activity configurations from Multimedia Contact Center. Deleting live Inbound workflows stops interactions from routing to queues, and deleting live Inqueue workflows stops interactions from reaching agents.

To delete a workflow

1. Click **Multimedia > Workflows**.
2. Select the workflow and click **Delete**.
3. When prompted, click **OK**.

Importing and exporting workflows

Administrators can import workflows to Multimedia Contact Center from a machine or network. After importing a workflow, administrators must configure its activities with information specific to the contact center and assign the workflow to a media server.

Administrators can export workflows from Multimedia Contact Center to save on a machine or network. Exported and saved workflows can be imported. Administrators should assess any validation errors, to ensure the workflow is fully configured. See *"Validating workflows"* for more information.

To import a workflow

1. Click **Multimedia > Workflows**.
2. Click the **Import** button, browse to the workflow .xaml file, and click **Open**.
3. Click **Save**.

To export a workflow

1. Click **Multimedia> Workflows**.
2. Click the **Export** button, browse to the workflow .xaml file and select it.
3. Browse to the location to which the workflow will be saved and click **Save**.

Naming workflows

For administrative and reporting purposes, you must give workflows unique names and system names. A system name is used by Multimedia Contact Center to identify the workflow. A name labels the workflow for the user to see.

To name a workflow associated to a media server

1. Click **Multimedia > Media servers**.
2. Select the Media server and select either **Inbound Routing** or **Response Routing**.
3. In the **Properties** pane, provide a **Name** and **System Name** for the workflow. The Name and System Name must be unique.
4. Click **Save**.

To name a workflow associated to a queue

1. Click **Multimedia > Queues**.
2. Select the queue and select **Routing**.
3. In the **Properties** pane, provide a **Name** and **System Name** for the workflow. The Name and System Name must be unique.
4. Click **Save**.

To name a workflow not associated to a media server or queue

1. Click **Multimedia > Workflows** and select the workflow.
2. Click **Properties** and type a **Name** for the workflow. The Name must be unique.
3. Type a **System Name** for the workflow. The System Name must be unique.
4. Click **Save**.

Validating workflows

Multimedia Contact Center validates workflows to ensure they do not contain programming or configuration errors before going live. To execute a workflow, workflow validation must be enabled. Workflow validation is also required to successfully offer email, chat, SMS, and open media interactions to agents. By default, workflow validation is not enabled. This allows administrators to configure and save workflows in progress.

If validation is enabled, workflows with errors cannot be saved until the errors are corrected. If validation is not enabled, workflow with errors can be saved.

Red exclamation marks on activities indicate configuration errors to be corrected. Yellow exclamation marks on activities indicate warnings. Clicking the ‘Validation’ button opens a pane explaining the workflow’s errors and warnings.

The pane lists the number of errors and warnings, the activity to which the error or warning is associated, and what is required to fix the problem. Double-clicking the error and warning information in the Validation pane brings the specific activity into focus, for ease of identification. For more information on focusing, see *"Viewing specific portions of a workflow: Focusing and the Breadcrumb view"*.

To validate a workflow

1. Select **Multimedia > Workflows**.
2. Select the workflow and, in the **Properties** pane, select the **Validate workflow** check box.
3. Click **Save**.

Saving and copying workflows as images

Administrators can save workflows as images in JPG, PNG, GIF, and XPS formats. Workflow images can also be copied onto the clipboard, to be pasted into other programs. Saving or copying workflows enables administrators to easily reference, share, and print workflow designs.

To save workflows as images

1. Right-click on the active portion of the Workflows Canvas and select **Save as Image….**
2. Select the desired image type for the workflow.
3. Navigate to the location to which the image will be saved, and click **Save**.

To copy workflows as images

- Right-click on the active portion of the Workflows Canvas and select **Copy as Image**. The workflow can be pasted into another program.

Associating workflows to media servers

Inbound and Response workflows must be associated to a media server of an appropriate type in order to go live in the system.

We recommend building inbound and response workflows from the Inbound Routing and Response Routing tabs on the Media servers page. This automatically associates the workflow to the server. However, workflows built from the Workflows page can be associated to the server as follows.

NOTE: Workflows execute once validation is enabled and any programming and configuration errors are corrected. For more information, see *"Validating workflows"*.

To associate a workflow to a media server

1. Click **Multimedia > Workflows**, and select the Inbound or Response workflow.
2. Click **Media Server Membership**.
3. Under **Available members**, select the media server and click **>**.
4. Click **Save**.

Associating workflows to queues

Inqueue workflows must be associated to at least one queue in order to go live in the system. We recommend associating a single Inqueue workflow to a single queue. This avoids the potential confusion of having changes to an Inqueue workflow reflected in multiple queues. If you associate an Inqueue workflow to a queue that already has an Inqueue workflow associated to it, the newly associated Inqueue workflow replaces the existing Inqueue workflow.

We also recommend modifying an Inqueue workflow from the Routing tab of a selected queue. This automatically associates the workflow to the queue. Workflows built from the Workflows page can be associated to queues as follows.

NOTE: Workflows execute once validation is enabled and any programming and configuration errors are corrected. For more information, see *"Validating workflows"*.

To associate a workflow to one or more queues

1. Select **Multimedia > Workflows**, and select the Inqueue workflow.
2. Click **Queue Membership**.
3. Under **Available members**, select the queues to which the workflow is associated and click **>**.

To associate all queues to the workflow, click '>>'.

4. Click **Save**.

Building subroutines

Subroutines represent a sequence of routing conditions in a workflow. Using subroutines, administrators can efficiently apply a set of activities multiple times within a single workflow and across workflows of the same media and workflow type. For example, an administrator can implement an Email Inqueue subroutine in multiple Email Inqueue workflows.

To build subroutines, administrators drag and drop activities on a Canvas and configure them with routing conditions. Activity availability varies by media type. For more information on activities in multimedia routing, see *"Building visual workflows in Multimedia Contact Center: Activities"*.

The following procedures explain how to

- Implement subroutines in workflows
- Edit and delete subroutines
- Import and export subroutines

NOTE: Variables in Response workflows/subroutines are based on the agent's reply, not the customer's original interaction. For example, in Inbound and Inqueue workflows/subroutines the <<From>> variable populates with the customer's sending address. The <<To>> variable populates with the queue's address.

Implementing subroutines in workflows

Subroutines are implemented in workflows via Subroutine activities. Administrators can implement a single subroutine at multiple points in a workflow and across multiple workflows. However, subroutines must be of the same workflow and media type. For example, an administrator can only implement an Inbound Email subroutine in an Inbound Email workflow.

Administrators must first add a Subroutine activity to a workflow. A subroutine of the appropriate media type can then be assigned to the activity. When the workflow reaches the Subroutine activity, the subroutine executes. For more information, see *"Executing subroutines with the Subroutine activity"*.

Editing and deleting subroutines

Administrators should note the following:

- Edits to subroutines implemented in workflows are applied to each subroutine instance in each workflow.
- Subroutines implemented in workflows cannot be deleted. To delete subroutines, administrators must first remove the subroutine from all workflows using it.

To edit a subroutine

1. Click **Multimedia > Subroutines**.
2. Select the subroutine, and click **Edit**.
3. Make any changes to the subroutine and click **Save**.

To delete a subroutine

1. Click **Multimedia > Subroutines**.
2. Select the subroutine, and click **Delete**.
3. When prompted, click **OK**.

Importing and exporting subroutines

Administrators can import subroutines to Multimedia Contact Center from a machine or network. After importing a subroutine, administrators must configure its activities with information specific to the contact center. Imported subroutines display on the Multimedia tab's Subroutines page.

Administrators can export subroutines from Multimedia Contact Center to save on a machine or network. Exported and saved subroutines can be imported.

To import a subroutine

1. Click **Multimedia > Subroutines**.
2. Click the **Import** button, browse to the subroutine .xaml file, and click **Open**.
3. Click **Save**.

To export a subroutine

1. Click **Multimedia > Subroutines**.
2. Click the **Export** button, browse to the subroutine .xaml file and select it.
3. Browse to the location to which the subroutine will be saved and click **Save**.

Viewing subroutines by type

Administrators can view subroutines selectively by type, by applying filters to the Subroutines page. For more information, see *"Viewing devices by category or type"*.

Configuring data providers

You can create a connection to a data provider located on a local or an external server to access information about incoming callers. For example, the data providers query can be configured to retrieve customer information based on variables.

Multimedia Contact Center can add the following as data providers to query for data:

- Microsoft Excel worksheets
- Microsoft SQL servers
- Lightweight Directory Access Protocol (LDAP)

Multimedia Contact Center also supports the following platforms as generic data providers to query for data:

- SAP
- Salesforce
- Microsoft Dynamics CRM
- Sugar CRM
- NetSuite

Multimedia Contact Center can also import ODBC connections configured using the Windows ODBC Data Source Administrator. Multimedia Contact Center supports the following reference platforms for ODBC connections:

- IBM DB2
- Oracle Database
- MySQL
- Microsoft Access
- PostgreSQL

Adding a Microsoft Excel worksheet as a data provider

Administrators can add Microsoft Excel worksheets as data providers the system can query.

To add a Microsoft Excel worksheet as a data provider

1. In the left pane, click **Multimedia > Data providers**.
2. Click **Add** and select **Excel** from the drop-down list.

   A new data provider is added to the data provider list.
3. After **Name**, type a name for the data provider.
4. Click **Select File** and browse to the Excel worksheet you want to use as a data provider.

   NOTE: The Excel worksheet must be shared as a workbook and located on a UNC (Universal Naming Convention) path, also known as a shared network path. The syntax for a UNC path is \\ComputerName\SharedFolder\Resource. Locating the worksheet on a UNC enables Multimedia Contact Center to access the data provider remotely.
5. Click **Open**.
6. Click **Test Connection**.
7. Click **Save**.

Adding a Microsoft SQL Server as a data provider

Administrators can add Microsoft SQL Servers as data providers the system can query.

To add a Microsoft SQL Server as a data provider

1. In the left pane, click **Multimedia > Data providers**.
2. Click **Add** and select **Microsoft SQL Server** from the drop-down list.
3. After **Name**, type a name for the data provider.
4. After **Server Name**, enter the server name.
5. Under **Log on credentials**, select **Windows Authentication** or **SQL Server Authentication**.
6. If you select SQL Server Authentication, enter a **Username** and **Password**.
7. Click **Test Connection**.
8. After **Database Name**, select a database name from the drop-down list.
9. Click **Save**.

Adding a LDAP as a data provider

Administrators can add LDAP as a data provider the system can query.

To add a LDAP as a data provider

1. In the left pane, click **Multimedia > Data providers**.
2. Click **Add** and select **LDAP** from the drop-down list.

   A new data provider is added to the data provider list.
3. After **Name**, type a name for the data provider.
4. After **Domain**, type the domain of the LDAP.
5. After **Username**, enter the username for the LDAP.
6. After **Password**, enter the password for the LDAP.
7. Click **Test Connection**.
8. On the ribbon, click **Save**.

Adding a generic data provider

Salesforce, Microsoft Dynamics CRM, SAP, Sugar CRM, and NetSuite can be added as generic data providers in YourSite Explorer. Generic data providers have certain limitations on the SQL language for queries. Consult the following KB articles for the SQL language supported for these data providers: https://mitel.custhelp.com/app/answers/answer_view/a_id/1013095/loc/en_US.

To add a generic data provider

1. Click **Multimedia > Data providers**.
2. Click **Add** and select **Generic** from the drop-down list.
3. Type a **Name** for the data provider.
4. After **Type**, select a data provider.
5. Type the **User Name** of the data provider.
6. Type the **Password** for the data provider
7. After Other Settings, enter the data provider-specific information.
   - **SAP**: Enter the client number, the system number, and the connection type, separating the values by semi-colons. For example: 250;25;SOAP
   - **Salesforce**: Enter your Salesforce security token.

     Contact your Salesforce administrator to obtain the Salesforce security token.
   - **Dynamics CRM**: Enter the CRM version. For example, CRM Online Office 365.
   - **Sugar CRM**: Enter your Sugar CRM credentials.
   - **NetSuite**: Enter your NetSuite credentials.
8. Enter the connection's **Url**.
9. To test the connection, click **Test Connection**.
10. Click **Save**

Adding an ODBC as a data provider

ODBC connections can be added as a data provider through the Windows ODBC Data Source Administrator. After adding an ODBC using ODBC Data Source Administrator, the ODBC will automatically appear in data source providers and will be made available for the Query activity.

You cannot edit an ODBC data provider in Multimedia Contact Center.

NOTE: When adding an ODBC connection for Multimedia Contact Center, you must use the 32-bit Windows Server tool. For more information, see the following Mitel Knowledge Base article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1001249/loc/en_US.

Deleting data providers

NOTE: Multimedia Contact Center is unable to delete ODBC data providers from the data providers list.

To delete a data provider

1. Select the data providers you want to delete from the data providers list.
2. Click **Delete**.
3. When prompted, click **OK**.

Working with variables in Multimedia Contact Center

Variables populate subroutines and incoming workflows with data related to inbound interactions. Administrators can use variables to flag incoming interactions, store information for later use, collect customer data, perform database queries, and build simple or complex conditions to route interactions.

Multimedia Contact Center ships with System variables relevant to all media types and variables specific to media types. To view these variables and see a description of each, open YourSite Explorer and go to Multimedia > Variables.

Administrators can

- Create custom variables
- Edit and delete variables
- View variables by category

NOTE: Variables in Response workflows/subroutines are based on the agent's reply, not the customer's original interaction. For example, in Inbound and Inqueue workflows/subroutines the <<From>> variable populates with the customer's sending address. The <<To>> variable populates with the queue's address.

Creating Custom Variables

Administrators can create new, customized variables for use in workflows and subroutines.

To create a custom variable

1. Click **Multimedia > Variables > Add**.
2. Type a **Name** for the variable.

   NOTE:
   - Variable names must be unique and cannot contain spaces.
   - A variable's name cannot be changed after you save.

3. Type a **Description** explaining the variable's function.
4. Select a **Variable Type** from the drop-down list.

   NOTE: The Variable Type cannot be changed once saved.
5. If **Mask Type** is available to this type of variable, select the variable's mask from the dropdown list.
   - **NoMask**– The variable will not be masked within Multimedia Contact Center and associated screen pops, databases, etc.
   - **FullMask**– The entire variable will be masked within Multimedia Contact Center and associated screen pops, databases, etc.
   - **MaskAllExceptLastX**– The variable will be masked except for the specified number of final characters
   - **MaskAllExceptFirstX**– The variable will be masked except for the specified number of first characters.
6. If you selected **MaskAllExceptLastX or MaskAllExceptFirstX**, specify the number of characters to be left unmasked.
7. To enable this variable to display in a toaster notification or screen pop select the **Send to agent desktop** check box.
8. To enable this variable to display in a web Ignite toaster notification select the **Show on agent toaster** check box.

NOTE: The **Show on agent toaster** check box is disabled if the **Send to agent desktop** check box is not selected.

9. After **Display Name**, type the name this variable has when it appears in a toaster notification or screen pop.
10. If you selected Dollars, Euros, or Pounds as the variable type, after **Currency Format**, select the format from the drop-down list.
11. If you selected Date Time as the variable type, after **Date Format**, select the date format from the drop-down list. After **Time Format**, select the time format from the drop-down list.
12. Click **Save**.

Editing and deleting variables

Administrators should note the following limitations:

- 'Variable Type' cannot be edited for previously saved variables.
- System variables cannot be deleted.

To edit a variable

1. Click **Multimedia > Variables**.
2. Select the variable, and click **Edit**.
3. Edit the variable and click **Save**.

To delete a variable

1. Click **Multimedia > Variables**.
2. Select the variable, and click **Delete**.

3. When prompted, click **OK**.

Viewing variables by category

Administrators can view variables selectively by category, including System, Custom, and media type, by applying filters to the Variables page. For more information, see *"Viewing devices by category or type"*.

Building visual workflows in Multimedia Contact Center: Activities

Multimedia Contact Center's activities are used to build workflows and configure routing conditions for interactions. For example, activities can send automatic responses to incoming interactions, transfer interactions to queues, and offer interactions to the agents best suited to answer them. The following sections describe the activities in Multimedia Contact Center and how to configure them.

Note that activity availability varies by media and workflow type. For example, administrators can use the Ask activity in a Chat workflow but not in an Email workflow. The Offer to Agent Group activity can be used in an Inqueue workflow but not in an Inbound workflow.

Multimedia Contact Center ships with default workflows. We recommend administrators create workflows by duplicating and modifying reconfiguring, adding, and deleting activities in the default workflows to suit the contact center's needs. For more information, see *"Multimedia Contact Center default workflows"*.

Common configuration procedures

This section explains configuration procedures common to activities, branches, and branching conditions.

NOTE: Branches route interactions to different portions of a workflow. Branching conditions represent the circumstances an interaction must match to follow a particular branch.

Common activity options include

- Adding and removing expressions
- Selecting expressions
- Grouping expressions
- Adding activities to workflows
- Cutting, copying, and pasting activities and branches
- Deleting activities and branches from workflows
- Naming activities and branches
- Editing branching conditions
- Changing the order in which branches are evaluated
- Reporting on branches and branching conditions
- Annotating activities and branches

Building conditions

Many features in Multimedia Contact Center require users to configure conditions. These include:

- Schedule conditions
- Queue conditions
- Variable compare conditions

While the individual types of expressions that can be added to conditions and their configuration may vary between the conditions being built, Multimedia Contact Center's interface for adding, deleting, and grouping expressions remains consistent throughout Multimedia Contact Center.

Adding and removing expressions

To add an expression

- Click the **Add** button.
  An expression is added to the condition.
  NOTE: When an expression is added, it is highlighted in red if it requires additional configuration.
  The expression will remain highlighted in red until completely configured.

To remove an expression

- Select the expression you want to delete and click the **Delete** button.
  The expression is removed from the condition.

Selecting expressions

The following explains how to select expressions when building conditions.

To select an expression

1. Click the expression's drop-down menu button.
2. Choose **Select/Deselect Row**.

Alternatively,

- Click the expression's selector column on the left side of the expression's row.

Understanding operators

Multimedia Contact Center offers a number of different operators to use when building conditions. The following table outlines the operators available with Multimedia Contact Center.

Table 24.17: Operators

Operator	Use
!=	With this operator the expression will only look for value that do not match the exact value entered. This operator is case-sensitive.
=	With this operator the expression will looks only for the exact value entered in the expression. This operator is case-sensitive. If this operator is being used in a comparison, then the expression will look for an exact string match between the two items being compared.
Contains	With this operator, the expression matches values that contain the entered string. It is not case-sensitive.
Length	With this operator the expression will look for a value with the specified number of characters.
Starts With	With this operator, the expression will look for any value that starts with the entered value.

Grouping expressions

Multimedia Contact Center enables users to group expressions, facilitating construction of detailed and specific conditions. While grouping is associated with a number of different activities, configurations, and dialogs, the grouping clauses are consistent throughout Multimedia Contact Center. Expressions within a group may also be grouped together to create nested levels of sub-groups within a single group.

NOTE: We recommend you do not exceed eight levels of grouping within a group of expressions even though Multimedia Contact Center is capable of handling greater than eight levels of grouping.

Expressions may be grouped by one of two clauses:

- **AND**: Expressions grouped by the AND clause require that all the expressions in a group be met to successfully meet the condition.

  NOTE: If no grouping is selected, the AND clause is applied by default.
- **OR**: Expressions grouped by the OR clause require that only one of the expressions in a group be met to successfully meet the condition.

To group expressions

1. Press the **CTRL** or **Shift** key and select the expressions you want to group. Clicking 'CTRL' enables you to select items one at a time and omit items from selection. Clicking 'Shift' selects a span of items.
2. Click either the **Group AND** or **Group OR** buttons.

   NOTE: You can change the grouping clause by selecting the drop-down beside 'And' or 'Or', and changing your selection.

To ungroup grouped expressions

1. Click the group's drop-down menu button.
2. Select **Ungroup**.

To add a new expression to a group

1. Click the group's drop-down menu button.
2. Select **Add**.

   NOTE: If you cannot add an expression to an existing group, ungroup the expression and then regroup it with the expression you want to add.

To remove a single expression from a group

1. Click the expression's drop-down menu button.
2. Select **Ungroup**.

Adding activities to workflows

Administrators add activities to workflows by dragging and dropping activities onto the Workflows Canvas. Activity availability varies by media and workflow type. We recommend administrators add activities to Inbound and Response workflows via the Inbound Routing and Response Routing tabs on the Media servers page. We recommend administrators add activities to Inqueue workflows via the Routing tab on the Queues page.

NOTE: Administrators can also access workflows by selecting **Multimedia > Workflows**.

The following explains how to add activities to Inbound, Response, and Inqueue workflows

To add an activity to an Inbound or Response workflow

1. Click **Multimedia > Media servers** and select the media server associated to the workflow.
2. Drag the activity from the **Toolbox** to the Workflows Canvas.
3. Configure the activity and validate any configuration errors. For more information, consult the configuration procedures for specific activities in this guide. See also *"Validating workflows"*.
4. Click **Save**.

To add an activity to an Inqueue workflow

1. Click **Multimedia > Queues** and select the queue associated to the workflow.
2. Drag the activity from the **Toolbox** to the Workflows Canvas.
3. Configure the activity and validate any configuration errors. For more information, consult the configuration procedures for specific activities in this guide. See also *"Validating workflows"*.
4. Click **Save**.

Cutting, copying, and pasting activities and branches

Administrators can cut, paste, and copy activities within and between workflows. Administrators can also copy or cut a branch from one activity and paste it into other activities within and between workflows. This functionality enables administrators to create and edit workflows efficiently by duplicating preconfigured activities and their branches.

NOTE: Some activities are specific to media and workflow types. For example, a Say activity is used in Chat workflows but not Email workflows. The Offer to Agent group activity is used in Inqueue workflows but not Inbound workflows. Only cut and paste activities and branches into the appropriate media, workflow, and activity types.

To cut an activity or branch from a workflow

- Right-click the activity or branch and select **Cut**.

To paste an activity inside a workflow

1. Right-click the activity and select either **Copy** or **Cut**.
2. Right-click the activity that will precede the pasted activity, and select **Paste**.

To paste a branch inside an activity

1. Right-click the branch and select either **Copy** or **Cut**.
2. Right click a different branch inside the activity and select **Paste**.

   The copied branch is inserted to the right.

Deleting activities or branches from workflows

The following explains how to remove activities or branches from workflows by deleting them.

To delete an activity or branch

1. Right-click the activity or branch and select **Delete**.
2. When prompted, click **OK**.

Naming activities and branches

For administrative and reporting purposes, give activities and branches unique names and system names. A system name is used by Multimedia Contact Center to identify the item and within reporting to

identify branches and branching conditions. A name labels an activity, branch, or branching condition for the user to see.

To name an activity, branch, or branching condition

1. Select the activity, activity configuration, or branch.
2. In the activity, configuration, or branch header, type a **Name**.
3. With the item still selected, in the **Properties** pane, type a **System Name**. The System Name must be unique.

   NOTE: If a system name is not provided, activities and branches are given sequential system names by default. For example, TerminateActivity1, TerminateActivity2.
4. Click **Save**.

Editing branching conditions

Editing branching conditions changes what is required for an interaction to follow the branch.

To edit a branching condition

1. Expand the activity, right-click the branch, and select **Edit**.
2. Select the value to edit and perform one of the following actions
   - Change the condition and value by typing or using the drop-down lists.
   - Add a new condition by clicking **Add** and typing the desired values.
   - Delete a condition by selecting the condition and clicking **Delete**.
3. Click **OK**.
4. Click **Save**.

Changing the order in which branches are evaluated

Administrators change the order in which they system evaluates branches by places the branches in sequence. The highest priority branch should be in the left-most position, as Multimedia Contact Center evaluates branches in the order of left to right.

To change the order in which branches are evaluated

1. Expand the relevant activity.
2. Drag and drop the branches into the desired position.
3. Click **Save**.

Reporting on branches and branching conditions

Reporting on branches and branching conditions enables supervisors to analyze workflow traffic and determine how interactions are moving through workflows.

You must select ‘Child Reporting Enabled’ for any branches and conditions on which you want to run Workflow Condition reports. For more information on Workflow reports, see the reports guide appropriate to your MiContact Center Business licensing level.

Note that system names are used to report on branches and branching conditions. For this reason, we recommend naming branches and branching conditions with unique and easily identifiable system names. For more information on naming, see *"Naming activities and branches"*.

To configure an activity or branch for reporting

1. Select the branch or branching condition and, in the **Properties** pane, select the **Reportable** or the **Child Reporting Enabled** check box.

   NOTE: Selecting 'Child Reporting Enabled' on parent activities selects all child activities.
2. Click **Save**.

Annotating activities and branches

Administrators can tag activities and branches with notes using the annotation field. Similar to a sticky note, annotations enable administrators to mark an activity with descriptive information. For example, administrators can annotate a Timeout branch to indicate, at a glance, how long before the system times out and where interactions are directed in the workflow once a timeout occurs.

For an example of annotating activities, see the default workflows included with Multimedia Contact Center.

To annotate an activity

1. Click the **Notepad** icon on the activity.
2. Type the annotation in the field provided.
3. Click **Save**.

To delete an entire annotation

- Right-click the activity and select **Annotations… > Delete**.

To display or hide an individual annotation

- Click the **Notepad** icon on the activity. This closes an open annotation and opens a closed annotation.

To expand all annotations in a workflow

- Right-click an activity and select **Annotations… > Show All**.

To hide all annotations in a workflow

- Right-click an activity and select **Annotations > Hide All**.

Activity list

This section describes Multimedia Contact Center activities.

NOTE: Red exclamation marks on activities indicate configuration errors to be corrected. Yellow exclamation marks on activities indicate warnings. Clicking the ‘Validation’ button opens a pane explaining the workflow’s Errors and Warnings.

Asking questions with the Ask activity

The Ask activity enables a workflow to automatically ask questions of contacts and route them based on their responses. The Ask activity is configured with a single question that will be asked by the media server or queue auto response username in a chat session or the media server name or queue phone number in an SMS session. Depending upon their response, the contact is routed down the configured response branches. For example, if you wanted to route a contact in an Inbound chat workflow depending upon what product they were interested in, the question might be set to “Welcome to the Sales queue. If you are interested in Product X, type Product X. If you are interested in Product Y, type Product Y.” Depending upon the answer, the contact could be routed down the Product X branch or down the Product Y branch.

The Ask activity can also be used to collect information from contacts. Contact responses are stored in the <<LastDataCollected>> variable. Using a Set Variable activity, this information can be set into other variables for use elsewhere or saved to a database with a Query activity. For more information on Set Variable activities, see *"Populating variables with the Set Variables activity"*. For more information on Query activities, see *"Querying data providers with the Query activity"*.

URLs entered into the Message field are turned into hyperlinks. Some website content can be embedded into chat sessions using the Ask activity. If a link to a supported website's content, such as a link to a YouTube video, is entered into the Message field, the content is embedded directly into the chat session. The following websites are supported for embedded content in chat:

- "https://twitter.com/"
- "https://soundcloud.com/"
- "http://www.youtube.com/"

NOTE:

- Ignite supports embedding content from Google Maps in chat sessions. However, this requires the use of embed maps URL, available from Google Maps, to embed a Google map, such as: <iframe src="https://www.google.com/maps/embed?pb=!1m18!1m12!1m3!1d2804.500978803945!2d-75.90911198444678!3d45.3386984790996!2m3!1f0!2f0!3f0!3m2!1i1024!2i768!4f13.1!3m3!1m2!1s0x4cd1fff1517da8a9%3A0xe6bc8a721e90f2a5!2sMitel+Networks!5e0!3m2!1sen!2sus!4v1445531227487" width="600" height="450" frameborder="0" style="border:0" allowfullscreen></iframe>
- SMS does not support embedded content.
- Ignite supports embedding Twitter content in chat sessions, however this is only possible when you use the **Copy link to Tweet** in the **More** menu option available from the Twitter site. The **Embed Tweet** menu option will not work in the chat window.

To configure the Ask activity, you must

- Configure the question to be asked
- Configure the accepted responses from the contact

The Ask activity is available to Chat and SMS Inbound and Inqueue workflows.

Configuring the question to be asked

The Ask activity poses questions to contacts from the automatic response username for the media server or the queue. It is recommended that the question be clearly worded and that if it requires specific responses, that these be listed.

By default, the user can respond incorrectly three times before they are routed down the Failure branch. The Invalid branch informs them that their response was invalid using a Say activity. By default, the user has 30 seconds to respond before they are routed down the Timeout branch and informed, using a Say activity, that they timed out and to try again. By default, users can timeout three times before being routed down the failure branch. For information on configuring the Say activity, see *"Responding to interactions with the Say activity"*.

The following procedures explain how to

- Configure the question being asked
- Set how many times the contact can respond incorrectly
- Set how long the user has to respond to the question

To configure the question to be asked

1. Select the **Ask** activity and click **Properties**.
2. After **Question**, click **...**.
3. Type the question and click **OK**.

   In a chat session, the question will be asked using the chat media server's auto response username or the chat queue's username. In an SMS session, the question will be asked using the SMS media server's name or the SMS queue's phone number.
4. Click **Save**.

To set how many times the contact can respond incorrectly

1. Select the **Ask** activity and click **Properties**.
2. Set the number of **Invalid Attempts** allowed.
3. Click **Save**.

To set how long the user has to respond to the question

1. Select the **Ask** activity and click **Properties**.
2. Set the **Timeout (sec)** duration, in seconds.
3. Set the number of **Timeout Attempts** that can occur.
4. Click **Save**.

Creating response branching conditions

After configuring the question, you must configure the accepted responses the contact may enter to be used as branching conditions. Responses can be a set value or the can be a variable. When using a variable as a response, the Ask activity compares the <<LastDataCollected>> variable to the selected variable as if it were a Variable Compare activity. For more information on the Variables Compare activity, see *"Routing interactions with the Variable Compare activity"*. An answer branch may have multiple conditions applied to it. All conditions configured together in a single branch have the 'Boolean And' applied to them.

The following procedures explain how to

- Route contacts by their answer
- Edit a response branching condition
- Delete a response branching condition

To route contacts by an answer

1. Right-click on an **Ask** activity and click **Add Branch**.
2. Enter the **Name** of the branch.
3. Click **Add**.
4. In the second column select one of the following operators from the drop-down list:

   – != Not Equal
   – = Equal

   NOTE: This operator is case-sensitive. If this operator is being used in a comparison, then the expression will look for an exact string match between the two items being compared.
   – Contains
   – Length

– Starts With

5.

6. In the third column, set the **Value** for the answer or select a Variable.
7. Repeat steps 2-4 for each additional answer value you want to route down this branch.
8. To enable reporting for this branch, select **Enable reporting**.
9. If you want to add another branch, click **Add** at the bottom of the window.
10. Click **OK**.
11. Click **Save**.

To edit a response branching condition

- Right-click on a branching condition and click **Edit**.

To delete a response branching condition

- Right-click on a branching condition and click **Delete**.

Suspending workflows with the Delay activity

The Delay activity suspends a workflow for a predetermined time. For example, an administrator uses a Delay activity to suspend a workflow, enabling a third-party application to process a command before the workflow continues to an activity requiring that the processing be complete.

The Delay activity is available to all Multimedia Contact Center workflows.

Setting the duration of Delay activities

Setting the duration of Delay activities specifies how long Multimedia Contact Center suspends a workflow.

To specify how long Multimedia Contact Center suspends a workflow

1. Select the **Delay** activity and click **Properties**.
2. Set the **Duration** of the Delay activity, in seconds.
3. Click **Save**.

Sending emails with the Email activity

The Email activity sends emails from within a workflow, with or without attachments, to recipients via an SMTP server connection configured in YourSite Explorer. For example, an administrator can use the Email activity to send auto-acknowledgement messages to inbound emails.

Email activity templates support HTML and text-based content. Template fields can be populated with variables, and attachments can be populated with variables or files.

You can set email properties to avoid sending multiple auto- response emails when an incoming email is requeued or transferred.

The Email activity is available to all Multimedia Contact Center workflows.

Adding and editing SMTP server information to the Email activity

The following explains how to add and edit the connection between Multimedia Contact Center and the email account on the SMTP server sending emails.

To add an SMTP server to an Email activity

1. Right-click the **Email** activity and select **Edit SMTP Server**.
2. Select a SMTP server and click **OK**.
3. Click **Save**.

To edit SMTP server information using the Email activity

1. Right-click the **Email** activity and select **Edit SMTP Server**.
2. Select the SMTP server and click **Edit**.
3. Follow the appropriate steps under *"Configuring SMTP connections to Multimedia Contact Center"*.

Populating Email activity templates

The following explains how to populate email templates.

NOTE: To see a list of Email variables and their descriptions, go to **Multimedia > Variables**.

To populate an Email template ***NOTE:*** *Email content inserted via the <<Body>> variable in the Email activity is limited to 2MB. After 2 MB, content inserted via the <<Body>> variable is truncated.*

1. Right-click the **Email** activity and select **Edit Email Template**.
2. Configure all email fields as applicable.

   NOTE: In the To:, Cc:, and Bcc: fields, separate multiple addresses with semi-colons.
3. In the body of the email, type the template's text.
4. To populate fields with variables, right-click the field and select the variable from the drop-down list.

   NOTE: When an email with multiple recipients arrives at an Email activity, if the <<To>> variable is used in the From field, no email response will be sent by the Email activity.
5. To indicate the importance of the email message, after **Priority**: select a level from the drop-down list.

   NOTE: This option sets a visual indicator of the message's importance in supporting email clients only.
6. Click **OK**.
7. Click **Save**.

To add attachments

1. Right-click the **Email** activity and select **Edit Email Template**.
2. After **Attachments**, click the **Browse** button.
3. To add a variable, click **Attachments** and select the variable.
4. Click **Add**.
5. To add additional variables, repeat steps 3-4.
6. To add a file, click **Browse**.
7. Navigate to the file and click **Open**.
8. To add additional files, repeat steps 6-7.
9. To change the order of the attachments, select the attachment and click **Up** or **Down**.
10. To remove an attachment, select the attachment and click **Remove**.

11. Click **OK**.
12. Click **OK**.
13. Click **Save**.

Configuring email send settings

By default, every time a contact reaches an Email activity in a workflow, an email is sent. Email activities can be configured to only send an email once per contact, so that if that contact reaches the same Email activity again, as a result of a requeue or transfer, the Email activity will not send a second email. New contacts from the same source will still trigger the Email activity to send an email.

To configure auto-response email settings

1. Select the **Email** activity and click **Properties**.
2. Select the **Only Send Once** check box to avoid sending more than one email to the same contact with this activity.
3. Click **Save**.

Ending chat and SMS sessions with the End Session activity

The End Session activity ends an active chat or SMS session without terminating the workflow. For the contact, the interaction ends, but the workflow may continue to post-interaction activities. A Terminate Workflow activity is required to terminate a workflow after the End Session activity.

For example, an administrator uses the End Session activity in an Inqueue chat workflow that only has automated responses from Ask and Say activities to end the interaction's chat session with the queue while enabling the workflow to continue to a Query activity that writes a transcript of the interaction's back to SQL.

The End Session activity requires no configuration. Administrators can optionally provide the activity with a name and system name. See *"Naming activities and branches"* for more information.

The End Session is available in all Chat and SMS Inbound and Inqueue workflows.

Running external processes with the Execute activity

The Execute activity enables Multimedia Contact Center to interact with external systems by running the following four processes:

- **Executable/Script** – Runs an *.EXE file or *.BAT script on the server and delivers return values or parameters if the script executes successfully.

  NOTE: The Execute activity requires *.EXE files and *BAT scripts to be on a UNC path.
- **PowerShell** – Runs a PowerShell script on the server and delivers return values or parameters if the script executes successfully.

  NOTE:
  - The Execute activity requires PowerShell scripts to be on a UNC path.
  - The Execution Policy for PowerShell scripts must be set in the command prompt window of PowerShell to Set-ExecutionPolicy RemoteSigned.
- **Web Service** – Enables the Execute activity to retrieve an XML response from an external web service using SOAP or REST and delivers return values if the script executes successfully.

NOTE: The data being returned must be valid XML characters. Any invalid characters (such as &, <, or >) will not return successfully and the workflow will route down the Failure branch. The XMLNode object type is not supported.

- **CRM Service** – Sends user defined queries to a Microsoft CRM 2011, Microsoft CRM 2013, or Microsoft CRM Online system and delivers return values if the script executes successfully.

For example, an administrator uses the Execute activity to retrieve customer information from a Web Service database. This information is stored in a custom variable for use within the workflow or to pass on to agents in a screen pop for enhanced customer service.

For an example of a workflow that uses the Execute activity to execute PowerShell and perform a web service SOAP call to a publicly accessible web service, see the following Mitel Knowledge Base article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1000724/loc/en_US. Although the workflow is for IVR Routing, the configuration of the Execute activity is the same for Multimedia Contact Center workflows.

The Execute activity is available to all Multimedia Contact Center workflows.

NOTE: A success return value indicates the process executed without errors, and the Success branch is followed. A failure return value indicates the process exited with errors and did not complete as expected, and the Failure branch is followed.

Specifying the external processes to execute in workflows

The following procedures explain how to instruct the Execute activity to run

- Executable/Script processes
- PowerShell processes
- Web Service processes
- CRM Service processes

To set an Executable/Script or PowerShell process

1. Right-click the **Execute** activity and select **New Process > Executable/Script or PowerShell script**.
2. For Executable/Script processes, after **Path**, click the **Browse** button and navigate to the *.EXE or *BAT script. The script must be on a UNC path.
3. For Executable/Script processes, select the **Separator** required by the .exe file. The separator is the character separating the parameters in the process' command line statement.
4. For PowerShell processes, navigate to the PowerShell script.
5. To add a set of **Input Parameters**, click **Add** and select the **Parameter** the process uses to execute.

   NOTE: If batch files or Executable/Script processes require delimiters, they must be entered manually in the Parameter column.
6. Under **Value**, select a variable or type a static value.

   NOTE:
   - The variable is replaced when a contact progresses through the workflow.
   - To configure the process to use a value not linked to a parameter, select a variable from the Value field and leave the Parameter field blank.
7. Repeat steps 5 and 6 for each set of input parameters the process uses. To delete a set of parameters, click the arrow to the left of **Parameter** and click **Remove**.
8. Under **Test Value**, enter values to test the process and click **Execute**.

NOTE:

- For Executable/Script processes, the Results dialog box lists return values and output pipeline values.
- For PowerShell processes, the Results dialog box lists return values and PSObject[X] values.

9. Click **OK** to auto-populate the Output Mappings pane with Output values.
10. Leave the Process Setup window open and complete the steps under *"Storing retrieved data as variables"*.

To set a SOAP Web Service process

1. Right-click the **Execute** activity and select **New Process > Web Service**.
2. Type the Web Service **URI** and, for the **Web Service Type**, select **SOAP**.
3. If using a SOAP Web Service, click the **Scan** button to verify the Web Service.
4. Select a **Web Method** from the drop-down list. The Web Method populates the Parameters field.

   NOTE: SOAP Web Services populate the Web Methods field with a drop-down list of available functions.
5. Under **Value**, select a variable or type a static **Value**.
6. Under **Test Value**, enter values to test the process and click **Execute**.
7. On the results dialog box, click **OK**.
8. Click **OK** to auto-populate the Output Mappings pane with Output values.
9. Leave the Process Setup window open and complete the steps under *"Storing retrieved data as variables"*.

To set a REST Web Service process

1. Right-click the **Execute** activity and select **New Process > Web Service**.
2. Type the Web Service **URI** and, for the **Web Service Type**, select **REST**.

   CAUTION: If you are using the Execute activity with a web service as a part of a PCI compliant workflow, ensure that you

   - Use an HTTP Secure (https) address.
   - If the return or input fields of the REST call contain sensitive information, use masked variables in the Input and Output parameters of the Execute activity.

   Failure to do so could invalidate your PCI compliance.
3. Type the **Username** and **Password** for the Web Service. Login credentials might not be necessary depending on the Web Service used.
4. To add a set of **Headers**, click **Add** and type the **Parameter** the process uses to execute.
5. Under Value, select a variable or type a static value.
6. Repeat steps 4 and 5 for each set of headers the REST Web Service process uses.
7. To add a set of **Input Parameters**, click **Add** and type the **Parameter** the process uses to execute.
8. Under **Value**, select a variable or type a static **Value**.

9. Repeat steps 7 and 8 for each set of input parameters the REST Web Service process uses. To delete a set of parameters, click the arrow to the left of **Parameter** and click **Remove**.
10. To test the headers and input parameters, enter values under **Test Value** in Headers and Input Parameters and click **Execute**.
11. In the **XML Output** pane of the **Results** dialog box, select the node containing the information the Execute activity retrieves.
12. After **Selected Node**, click the **Show Results** button.
13. Click **OK** to auto-populate the Output Mappings pane with Output values.
14. Leave the Process Setup window open and complete the steps under *"Storing retrieved data as variables"*.

To configure a CRM Service process

1. Right-click the **Execute** activity and select **New Process > Microsoft CRM**.
2. Type the **CRM URI** used to communicate with the CRM system.
3. Select the **CRM Version**.
4. Complete the following fields:
   - **Domain** – Type the domain name of the CRM site.
     NOTE: Domain name is only required for CRM 2011 or 2013.
   - **Operation** – Select the operation the Execute activity is performing
   - **Username** – Type the username for the CRM site login.
   - **Password** – Type the password for the CRM site login.
   - **Entity Name** – Select the name of the CRM entity that the Execute activity queries.
5. To add a set of **Input Parameters**, click **Add** and select the **Parameter** the process uses to execute.

   The parameters depend on the Entity Name selected.
6. Under **Value**, select a variable or type a static **Value**.
7. Repeat steps 5 and 6 for each set of input parameters the CRM Service process uses. To delete a set of parameters, click the arrow to the left of **Parameter** and click **Remove**.
8. Under **Test Value**, enter values to test the process and click **Execute**.

   The results dialog shows mappings of the parameters to values.
9. Click **OK**.
10. Click **Mapping** to assign the output to variables, and click **OK** to store the data as variables.
11. Click **Save**.

Storing retrieved data as variables

The following procedure explains how to store data retrieved by the Execute activity as a variable. These variables can be used later in the workflow.

To store retrieved data as a variable

1. In the **Process Setup** window, under **Mapping**, select a variable from the drop-down list to correspond to each Output value.
2. Click **OK**.

When a contact progresses through the workflow, each variable in the Mapping field is assigned the value indicated in the Output field.

3. Click **Save**.

Specifying options for following the Success, Timeout, and Failure branches

The following procedure explains how to

- Instruct the system to follow the Success branch before a process completes
- Specify how long a process has to complete successfully before the Failure branch is followed

To specify routing options for the Execute activity's Success, Timeout, and Failure branches

1. Select the **Execute** activity and click **Properties**.
2. After **Timeout (sec)**, type the duration for an associated process to complete successfully before the Failure branch is followed.
3. Click **Save**.

Routing contacts with the From activity

The From activity checks the From: field of inbound emails and performs actions based on specified branching conditions.

For example, an administrator configures a From activity to recognize the email addresses of Platinum customers and route their emails to a Priority queue.

The From activity is available to Email workflows.

Applying branching conditions to the From activity

Applying branching conditions to the From activity enables administrators to

- Direct emails based on specified values
- Direct emails based on variables

To direct an email based on specified values

NOTE: To route based on specific email addresses in the 'From:' field, we recommend selecting 'Contains' and typing an email address for the activity to identify. This option identifies a wide range of content in email 'From:' fields. For example, <<From>> Contains sales@email.com.

1. Right-click the **From** activity and select **Add From Condition**.
2. Type a **Name** for the branching condition and click **Add**.
3. From the second column, select one of the following:
   - **NotEqual (!=)**

     For example, administrators can specify that emails not sent from 'prioritysales@email.com' are not sent to the priority sales branch.
   - **Equal (=)**

     For example, administrators can specify that emails sent from 'prioritysales@email.com' are directed to the priority branch.

     NOTE: If selecting 'Equal', administrators must specify an email address as the '<Value>'.
   - **Contains**

     For example, administrators can specify that emails with 'priority' in the From: field are directed to the priority branch.

- **Length**

  For example, administrators can specify that emails sent from addresses longer than 25 characters are directed to a branch for spam.
- **StartsWith**

  For example, administrators can specify that emails sent from addresses starting with 'priority' are sent to the priority sales branch.

4. Click **<Value>** and enter a criterion to branch emails, for example, ‘priority’.
5. Click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
6. Click **Save**.

To direct an email based on variables

NOTE: Directing emails based on variables requires first inserting and configuring an activity on the Canvas capable of populating the From activity’s destination variable. For a list of Email variables, go to Multimedia > Variables.

1. Right-click the **From** activity and select **Add From Condition**.
2. Type a **Name** for the branching condition and click **Add**.
3. From the second column, select an operator. See the procedure above for a description of each option.

   NOTE: To route based on specific variables in the ‘From:’ field, we recommend selecting ‘Contains’ and selecting a variable for the activity to identify. This option identifies a wide range of content in email ‘From:’ fields.
4. From the third column, select **Variable**.
5. Select the variable used to branch emails and click **OK**.
6. Click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
7. Click **Save**.

Routing interactions with the Go To activity

The Go To activity sends interactions to an alternate point in the workflow.

For example, an administrator is configuring the Offer to Agent Group activity for an Email Inbound workflow. The Go To activity, embedded in the Offer to Agent Group activity, is set with a destination of the Offer to Agent Group activity. If the system cannot offer an email to an agent, the Go To activity directs the email back to the Offer to Agent Group activity and the system searches again for an agent.

The Go To activity is available to all Multimedia Contact Center workflows.

Specifying the target activity for the Go To activity

The following procedure explains how to specify where the Go To activity sends contacts

To specify where the Go To activity sends contacts

1. Right-click the **Go To** activity and select **Target…**.
2. Select the activity to which the Go To activity sends contacts and click **OK**.

3. If you do not want to increase the repeat count of your workflow, for example if your workflow uses embedded menus or the Collect Digits activity, in the **Properties** pane, select the **Reset Repeat Count** check box to give callers an unlimited number of attempts to enter information.
4. Click **Save**.

Configuring parent workflow destinations for subroutine Go To activities

If a Go To activity is placed in a subroutine, it can route contacts to the parent workflow to which the subroutine is assigned by setting its destination as 'Go To Parent Workflow'. A target destination must be set on the Subroutine activity to set where the contacts are routed to in the Parent workflow.

To configure a parent workflow destination for a subroutine Go To activity

1. In the parent workflow, select the Subroutine activity.
2. In the **Properties**, after **Target Activity** select the activity to which the subroutine Go To activity returns contacts from the drop-down list.
3. Click **Save**.

Routing interactions with the Interflow activity

The Interflow activity transfers messages that have been waiting in queue for a designated time to an alternate queue, a queue group, or to a variable. Configuring the Interflow activity to direct interactions based on variables in the workflow enables the activity to dynamically route messages in queue to appropriate interflow points.

The Interflow activity is available to Inqueue workflows for all media types.

Interflowing interactions to queues, queue groups, external addresses, and variables

The following procedures explain how to

- Interflow interactions from one queue to another queue or queue group
- Interflow interactions to an external destination
- Interflow interactions to a variable

  NOTE: This variable must be a queue reporting number, dialable number, or name associated to the queue.

To interflow an interaction from one queue to another queue or queue group

1. Select the **Interflow** activity.
2. Click **Properties** and, after **Destination**, click the **…** button.
3. Select either **Queue** or **Queue group**, select the queue or queue group, and click **OK**.

   NOTE:
   - To add a queue to the list, click **Add** and follow the appropriate steps under *"Adding multimedia queues"*.
   - To add a queue group to the list, click **Add** and follow the appropriate steps under *"Adding queue groups"*.
4. Optionally, to keep the current queue's priority for the interflowed interaction in the destination, select **Maintain Queue Priority**.
5. After **Timeout Duration**, set the time allotted for the interflow before the call is routed down the Failure branch.

6. Click **Save**.

To interflow an interaction to an external destination

1. Select the **Interflow** activity.
2. Click **Properties** and, in the **Destination** field, type the external phone number to which interactions are transferred.
3. Select **External Transfer**.
4. Click **Save**.

To interflow an interaction to a variable

NOTE: Interflowing an interaction to a variable requires first inserting and configuring an activity on the Canvas capable of populating the Interflow activity's destination variable.

1. Select the **Interflow** activity.
2. Click **Properties** and, in the **Destination** field, click the **…** button.
3. Click **Variable**, select a variable, and click **OK**.

   NOTE: This variable must be a queue reporting number, dialable number, name, or email address associated to the queue. The variable cannot be a personal email address.
4. Optionally, to keep the current queue's priority for the interflowed interaction in the destination, select **Maintain Queue Priority**.
5. After **Timeout Duration**, set the time allotted for the interflow before the call is routed down the Failure branch.
6. Click **Save**.

Tagging interactions with the Junk Email activity

The Junk Email activity, used in conjunction with other activities, tags inbound emails as junk and prevents them from reaching a queue.

For example, an administrator configures a Variable Compare activity to identify spam keywords found in emails. Emails containing these words are directed to a branch containing a Junk Email activity. The Junk Email activity removes the interaction from the workflow, preventing spam from reaching the queue.

The Junk Email activity requires no configuration. Administrators can optionally add a name and system name to the activity. See *"Naming activities and branches"* for more information.

The Junk Email activity is available to Email Inbound and Inqueue workflows.

Tagging inbound interactions with the No Reply Email activity

The No Reply Email activity, used in conjunction with other activities, tags inbound emails as not requiring a reply and prevents them from reaching a queue.

For example, an administrator configures a Variable Compare activity to identify the words 'Out of Office' in email subject fields. Interactions meeting these conditions are directed to a branch containing a No Reply Email activity. The No Reply Email activity removes the interaction from the workflow. The No Reply Email activity prevents messages not requiring a response from taking up space in queues and being sent to agents.

The No Reply Email activity requires no configuration. Administrators can optionally add a name and system name to the activity. See *"Naming activities and branches"* for more information.

The No Reply Email activity is available to Email Inbound and Inqueue workflows.

Routing interactions with the Offer to Agent Group activity

The Offer to Agent Group activity specifies the agent groups that are offered interactions in queue, establishing a primary response agent group and overflow agent groups.

If an agent in the group is available, the Agent Available branch is followed and the agent is offered the interaction. If the agent accepts, the Success branch is followed. If the agent does not accept, the Failure branch is followed and the system checks again for an available agent. If an interaction terminates in the queue before reaching an agent, the Completed branch is followed. This activity also offers overflow options if agents are unavailable, if interactions wait in queue too long, and if agents in the primary group are logged out. Configuring the Offer to Agent Group activity also enables administrators to implement push, pick, and mixed model routing.

An agent group can only be associated with an Offer to Agent Group activity once per Inqueue workflow. Attempting to associate an agent group with additional Offer to Agent Group activities returns a validation error.

The Offer to Agent Group activity is available to Inqueue workflows for all media types.

The following procedures explain how to configure routing options for offering interactions to agent groups.

NOTE: To enable mixed model routing, where agents select their interactions from queues, but interactions waiting in queue past a specified time are offered to available agents, see *"Enabling mixed model routing"*.

Configuring routing options for offering interactions to agent groups

The following procedures explain how to

- Specify the agent groups offered interactions
- Set the time limit for accepting interactions
- Enable overflow to additional agent groups
- Disable overflow to additional agent groups
- Overflow interactions instantly if agents are logged out
- Instruct the system to push interactions to agents
- Enable agents to pick interactions out of queue
- Specify how frequently the Interval branch is followed

CAUTION: If an Offer To Agent Group activity is enabled for overflow and there are no activities in either the Overflowed branch of the Offer to Agent Group activity or following the Offer to Agent Group activity in the workflow, interactions will be lost when they are routed down the Overflowed branch.

To specify the agent groups offered interactions

1. Select the **Offer to Agent Group** activity and click **Properties**.
2. After **Answering Agent group**, click **...**.
3. Select the agent group to handle interactions and click **OK**.

   NOTE: In the Properties pane, the workflow must have 'Validate workflow' selected to successfully offer interactions to the agent group. See *"Validating workflows"* for more information.
4. Click **Save**.

To set the time limit for accepting interactions

1. Select the **Offer to Agent** activity and click **Properties**.
2. After **Requeue Time**, type a length of time in hh:mm:ss.
3. Click **Save**.

To enable overflow to additional agent groups

1. Select the **Offer to Agent Group** activity and click **Properties**.
2. After **Overflow Time**, type the time interactions wait in queue before the Overflow branch is followed.

   NOTE: If the Inqueue workflow contains activities that can take a significant amount of time to execute such as: Ask, Delay, Query, or Subroutine, then the Overflow Time duration entered in the Offer to Agent Group activity must include the time spent within these activities in addition to the specified duration of time the interaction will be offered to the group. For example: Offer to Agent Group activity (Overflow Time: 10 seconds) > Delay activity (Delay: 1 minute) > Offer to Agent Group activity (desired Overflow Time: 10 seconds). The second Offer to Agent Group activity would set its Overflow Time to 1 minute and 20 seconds.
3. Click **Save**.

To disable overflow to additional agent groups

1. Select the **Offer to Agent Group** activity and click **Properties**.
2. Select **Do Not Allow Overflow** and set the **Overflow Time** to **00:00:00**.
3. Ensure there are no subsequent Offer to Agent Group activities on the Canvas.
4. Click **Save**.

To overflow the interaction instantly if agents are logged out

NOTE: This option also instantly overflows interactions if the preferred agent is logged off. For more information, see *"Routing contacts with the Offer to Preferred Agent activity"*.

1. Select the **Offer to Agent Group** activity and click **Properties**.
2. Select the **Overflow item when all agents are logged out** check box.

   NOTE: Ensure 'Do Not Allow Overflow' is not selected.
3. Click **Save**.

To instruct the system to push interactions to agents

NOTE: A push model instructs the system to evaluate all agents within a skill level and direct the interaction to agent longest idle. To assign skill levels to agents, see *"Managing agent group membership, presence, and skill level"*.

1. Select the **Offer to Agent Group** activity and click **Properties**.
2. Select the **Push Items to Agent** check box.
3. Click **Save**.

To enable agents to pick interactions out of queue

NOTE: A pick model enables agents to select interactions from the queue using Ignite.

1. Select the **Offer to Agent Group** activity and click **Properties**.
2. Deselect the **Push Items** to Agent check box.
3. Click **Save**.

To specify how frequently the Interval branch is followed

NOTE: The workflow follows the Interval branch to perform additional activities, at set intervals, while interactions are routed. For example, in a pick routing model, the Interval branch can check interactions' time in queue and, after a time, push them to agents. Administrators can add activities to the Interval branch to determine actions the system takes when this branch is followed.

1. In the **Offer to Agent Group** activity, select the **Interval** branch activity.
2. After **Interval Time**, type how often the Interval branch is followed.
3. Click **Save**.

Routing interactions with the Offer to Preferred Agent activity

The Offer to Preferred Agent activity directs ongoing interactions to the agent who either handled interaction the previously or wrote the original outbound email. If an incoming interaction is part of an ongoing interaction, the system automatically populates the preferred agent variable with the agent that last handled the interaction.

For example, if a support agent is handling an ongoing issue with a customer, the Offer to Preferred Agent activity directs all incoming interactions from the customer to that agent. If the agent is not available, the system waits until the Overflow Time is reached and follows the Overflow branch. Administrators can configure the activity to overflow interactions instantly if the agent is logged out.

The Offer to Preferred Agent activity offers the interaction to the preferred agent only if their Workload permits handling this interaction. The activity can also be configured to offer the interaction to the preferred agent only if that agent is currently answering for the queue the interaction came in on.

Preferred Agent is not set for agents handling emails that originated internally within a contact center. If an agent is responding to an email from another internal queue, Multimedia Contact Center does not set that agent as the Preferred Agent. For example, if a customer addressed an email to two different queues, the Preferred Agent would only be set for the email sent from the customer, rather than emails sent from the agents.

The Offer to Preferred Agent activity is available to all multimedia Inqueue workflows.

For information on configuring this activity's Overflow Time, Interval Time, and the option to overflow interactions instantly if the preferred agent is logged out, see *"Routing contacts with the Offer to Agent Group activity"*.

NOTE:

- Offer to Preferred Agent functionality requires that auto case and ticket number generation for the email media server is not disabled. See *"Adding email to Multimedia Contact Center"* for more information.
- If contact centers use preferred agent routing, we recommend that agents do not adjust case and ticket numbers in email subject lines. Removing or otherwise altering case and ticket numbers in subject lines can interfere with preferred agent routing.
- If the Preferred Agent is deleted or moved to another agent group, they will no longer be considered to be the Preferred Agent.

To set the time limit for accepting interactions

1. Select the **Offer to Agent** activity and click **Properties**.
2. After **Requeue Time**, type a length of time in hh:mm:ss.
3. Click **Save**.

To only route interactions to preferred agents currently answering for this queue

- Select **Only offer to agents answering for this queue**.

Routing interactions with the Overflow activity

The Overflow activity sends interactions immediately to overflow agent groups.

For example, an administrator wants emails waiting in queue for four hours to overflow to a secondary agent group. The administrator adds an Offer to Agent Group activity to a workflow, and configures the Interval branch with a Queue activity reading the queue's Agents Available. The administrator places an Overflow activity after the Queue activity. Once the Queue activity registers that the queue has less than 2 available agents, the email moves to the Overflow activity and is directed to the secondary agent group.

The Overflow activity requires no configuration. Administrators can optionally provide the activity with a name and system name. See *"Naming activities and branches"* for more information.

The Overflow activity is available to Inqueue workflows for all media types.

Querying data providers with the Query activity

The Query activity reads and writes information through an MS SQL connection, ODBC connection, Excel sheet, or LDAP provider. Administrators can use the Query activity to retrieve information and store it in custom variables for use within workflows. Advanced queries return multiple records of information that can be stored in multiple variables.

For example, an administrator uses a Query activity in an Inbound Email workflow to retrieve customer account balances from a SQL database. The administrator populates an Email activity template with a variable that will contain this information, retrieved from the Query activity. The workflow responds with balance information to customers inquiring via email.

The Query activity is available to all Multimedia Contact Center workflows.

NOTE:

- By default, the query result is stored within the <<LastQueryResult>> system variable. Each subsequent Query action overwrites this variable. It is not recommended to use the LastQueryResult variable when expecting protected information to be contained within this variable.
- For information on configuring data providers, see *"Configuring data providers"*.

Connecting Query activities to data providers

Connecting Query activities to data providers enables the Query activity to access data and use this information to route interactions. See *"Configuring data providers"* for more information.

1. Select the **Query** activity and click **Properties**.
2. After **Data Provider**, click the **Browse** button.
3. Select a data provider and click **OK**.

NOTE: The Query activity cannot be saved without a query or write statement configured.

Running simple queries in workflows

Running simple queries enables administrators to retrieve information from a database and store it in a variable.

To run a simple query in a workflow

1. Select the **Query** activity and click **Properties**.
2. After **Query statement**, click the **Browse** button and, under **Query Type**, select **Simple Query**.

3. After **Database Table Name**, from the drop-down list, select the table to query.

   'Database table names' refer to the tables in the data source from which the Query activity retrieves information.
4. After **Column Return Name**, from the drop-down list, select the column of data to query.

   'Column return names' refer to the columns in the selected table, from which the Query activity retrieves information.
5. After **Variable Return Name**, from the drop-down list, select the variable to populate with the return value.

   'Variable return names' refer to the variables populated as a result of the query.
6. After **Column Where Name**, from the drop-down list, select the name of the column of data to compare against.

   'Column where names' refer to the columns in the data source against which the Query activity compares information.
7. After **Variable Where Name**, from the drop-down list, select the variable to use for comparison.

   'Variable where names' refer to the variables against which the Query activity compares.
8. To test the query, after **Test with a value equal to**, enter an existing value from the data provider and click **Test Query**.

   The Raw SQL window displays the SQL statement based on the selections from the drop-down lists.
9. To clear all fields and return to the Canvas, click **Clear**. To accept the query, click **OK**.
10. Click **Save**.

Running advanced queries in workflows

Advanced queries enable administrators with knowledge of SQL to write SQL statements retrieving information from a database provider. Advanced queries also support LDAP syntax for LDAP providers, and advanced queries for MS SQL Server and ODBC data providers support stored procedures.

Administrators can use an advanced query to retrieve single or multiple records from a database provider.

To run an advanced query in a workflow

1. Select the **Query** activity and click **Properties**.
2. After **Query statement**, click the **Browse** button, and under **Query Type**, select **Advanced Query**.
3. Under **Query**, type the SQL statements to be run directly against the data provider and click Execute.

   The Execute window opens displaying a list of detected input and output parameters.
4. Under **Value**, type the numbers corresponding to the values contained in the data provider.
5. Click **Run**.
6. To assign variables to store information returned by the SQL statements, click the **Variable Assignment** tab.

   Return Column will be populated with the column names in the data provider.
7. Under **Variable Name**, select the variables to store information returned by the SQL statements.
8. To assign values to the parameters filled by the SQL statements, click the **Parameter Assignment** tab.

   Parameter Name will be populated with the SQL parameters used to query the data provider.

9. After **Variable Name**, select a variable from the drop-down list to store the information retrieved by the SQL parameter.
10. To view the values returned from the query, click the **Test Results** tab.
11. To clear the variables and their parameters, click **Clear**. To accept the query, click **OK**.
12. Click **Save**.

Defining write statements

Write statements define a delete, insert, or update statement against a specified data provider. Write statements enable administrators to delete, insert, or update column values in a data provider from within a workflow.

The following procedures explain how to configure simple and advanced write statements

NOTE: Advanced write statements enable users with knowledge of SQL to write insert, update, or delete SQL statements.

To define a simple write statement

1. Select the **Query** activity, click **Properties** and, after **Write** statement, click the **Browse** button.
2. Select **Simple Write** and select a **Write Type** from the drop-down list. Options vary by data provider.
3. After **Table Name**, select the table in the data provider against which the write statement is defined.
4. Under **Column Name**, select a column in the data provider against which the write statement is defined.
5. Under **Value**, select the data to be inserted into the data provider.
6. Under **Where**, select a column name.

   NOTE:
   - 'Where' statements display only if Delete or Update is selected
   - The column names displaying in the list derive from the Table Name selected.
7. Select an operator from the drop-down list
   - =
   - <>
   - >
   - <
   - >=
   - <=
8. From the third drop-down list, select or type the variables used to evaluate the information selected from the first column
9. To test the write statement, click **Test Syntax**.
10. To empty column values, click **Clear**. To accept the write statement, click **OK**.
11. Click **Save**.

To define an advanced write statement

1. Select the **Query** activity, click **Properties**.
2. After **Write statement**, click the **Browse** button and select the **Advanced Write** button.

3. Under **Query**, type the insert, update, or delete SQL statements to be run against the data provider and click **Execute**.
4. The Parameter name column will be populated with the column names in the data provider.
5. Under **Variable Name**, from the drop-down list, select the variables used to evaluate the information you selected from the first column.
6. To test the write statement, click **Test Syntax**.
7. To empty column values, click **Clear**. To accept the write statement, click **OK**.
8. Click **Save**.

Returning multiple results with queries

The Query activity supports returning multiple results from a query. When a Query activity returns multiple results from a query, the Success branch is followed for each result. When there are no more results, the message exits the Success branch of the Query activity and continues along the workflow.

Multiple result returning Query activities enable contact centers to build more complex workflow functions, such as providing callers access to an employee directory.

Routing interactions with the Queue activity

The Queue activity branches workflows based on real-time queue conditions, enabling administrators to route interactions based on emerging queue conditions.

For example, an administrator building an Email Inbound workflow configures the Queue activity to send emails waiting in queue four hours or longer to a secondary queue. This enables the contact center to meet its service level goals.

The Queue activity is available to all Multimedia Contact Center workflows.

Applying queue conditions to the Queue activity

The following explains how to

- Associate queue conditions to a queue or queue group
- Associate queue conditions to a variable
- Add queue condition to an existing branch
- Edit queue conditions
- Delete queue conditions
- Import and export queue conditions
- Group queue conditions

NOTE: Multimedia Contact Center evaluates Queue conditions from left to right. To change the order in which the activity evaluates conditions, see *"Changing the order in which branches are evaluated"*.

To associate queue conditions to a queue or queue group

1. Right-click the **Queue** activity and select **Add**.
2. Type a **Name** for the queue condition and, after Queue, click the **...** button.
3. Select either **Queue** or **Queue Group**, select the queue or queue group and click **OK**.
4. Click **Add** and, from the second column, select a real-time statistic from the drop-down list.

5. In the third column, select an operator from the drop-down list. Options vary according to the variable chosen.
6. Click the fourth column and select either **Value**, **Queue Stats**, or **Variable**.
7. For **Value**, type in a numeric value or enable the check box for the value.
8. For **Queue Stats**, select a queue stat from the drop-down list.
9. For **Variable**, select a variable from the drop-down list.
10. To test the conditions, click **Test Parameters**, enter a value in the relevant fields and click **Test**.
11. Click **OK**.
12. To add another condition, click **Add** and repeat steps 4-11.
13. Click **OK** to create the branch or click Add to add the current branch to the workflow while leaving the dialog box open to create new branches.
14. Click **Save**

Associate queue conditions to a variable

NOTE: Associating queue conditions to a variable requires first inserting and configuring an activity on the Canvas capable of populating the Queue activity's destination variable.

1. Right-click the **Queue** activity and select **Add**.
2. Type a **Name** for the queue condition and, after **Queue**, click the ... button.
3. Select the **Variable** tab, select a variable, and click **OK**.

   To see a list of Multimedia Contact Center variables and their descriptions, go to Multimedia > Variables.
4. Click **Add** and, from the second column, select a real-time statistic from the drop-down list.
5. In the third column, select an operator from the drop-down list. Options vary according to the variable chosen.
6. Click the fourth column and select either **Value**, **Queue Stats**, or **Variable**.
7. For **Value**, type in a numeric value or enable the check box for the value.
8. For **Queue Stats**, select a queue stat from the drop-down list.
9. For **Variable**, select a variable from the drop-down list.
10. To test the conditions, click **Test Parameters**, enter a value in the relevant fields and click **Test**.
11. Click **OK**.
12. To add another condition, click **Add** and repeat steps 4-11.
13. Click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
14. Click **Save**

To edit queue conditions

1. Right-click the relevant branch in the **Queue** activity and select **Edit Condition**.
2. Click **Add** and, from the second column, select a real-time statistic from the drop-down list.

3. In the second column, select an operator from the drop-down list. Options vary according to the variable chosen.
4. Click the third column and select either **Value**, **Queue Stats**, or **Variable**.
5. For **Value**, type in a numeric value or enable the check box for the value.
6. For **Queue Stats**, select a queue stat from the drop-down list.
7. For **Variable**, select a variable from the drop-down list.
8. To test the conditions, click **Test Parameters**, enter a value in the relevant fields and click **Test**.
9. Click **OK**.
10. To add another condition, click Add and repeat steps 2-9.
11. Click **Save**.

To delete queue conditions

- To delete a queue condition, select the row for the condition and click **Delete**.

To import and export queue conditions

1. To import queue conditions, click the **Import** button and navigate to a *.csv file.

   NOTE:
   - Conditions on a single line and separated by a comma will be added to a single branch.
   - Conditions on multiple lines and separated by a comma will be added to multiple branches.
2. To export queue conditions, click the **Export** button and navigate to a *.csv file.
3. To test the conditions, click **Test Parameters**, enter a value in the relevant fields and click **Test**.

To group conditions being compared

- See *"Grouping expressions"*.

Submitting callbacks with the Save Callback activity

The Save Callback activity saves a callback request to the SQL database. This activity works with IVR Routing to submit callback requests from Multimedia Contact Center to submit callback requests to IVR Routing. The Save Callback activity is included if you are licensed for IVR but not available if you are licensed for Messaging and Routing.

The Save Callback activity requires the following variables be set with information for the callback request to be submitted correctly:

- CallbackClientNumber—This variable must be populated with the phone number to which the callback request will be made.
- CallbackDestination—This variable must be populated with dialable number of the voice queue to which the callback request will be submitted.
- CallbackOutboundWorkflowId—This variable must be populated with the Outbound callback subroutine you want to use to submit callbacks to agents.

  NOTE: It is recommended that you use the default abandon outbound callback subroutine as callbacks submitted by a Multimedia Contact Center workflow will not contain a message to be played for agents.

For additional information on the Save Callback activity and callbacks, see "Configuring callbacks".

The Save Callback activity has a Success and Pending branch. The activity routes down Pending when network issues prevent the callback from being submitted. When the network issues are resolved, the callback will be saved.

The Save Callback activity is available to all Multimedia Contact Center workflows.

To set the Save Callback request reason

1. Select the **Save Callback** activity.
2. After **Request Reason**, select New Request from the drop-down menu.

   NOTE: If you are using this activity to submit a callback, you should use New Request.
3. Click **Save**.

Responding to interactions with the Say activity

The Say activity sends messages to interactions.

For example, if a chat message is sent to the contact center after hours, the Say activity can respond with the message 'Thank you for contacting us. Our chat queues are currently closed. Please try again Monday through Friday 9am – 5pm.'

URLs entered into the Message field are turned into hyperlinks and will open in another window or tab of the interaction's browser when the customer clicks on them. Some website content is embeddable into chat sessions using the Say activity. If a link to a supported website's content, such as a link to a YouTube video, is entered into the Message field, the content is embedded directly into the chat session. The following websites are supported for embedded content in chat:

- https://twitter.com
- https://soundcloud.com
- http://www.youtube.com

NOTE:

- Ignite supports embedding content from Google Maps in chat sessions. However, this requires the use of embed maps URL, available from Google Maps, to embed a Google map, such as: <iframe src="https://www.google.com/maps/embed?pb=!1m18!1m12!1m3!1d2804.500978803945!2d-75.90911198444678!3d45.3386984790996!2m3!1f0!2f0!3f0!3m2!1i1024!2i768!4f13.1!3m3!1m2!1s0x4cd1fff1517da8a9%3A0xe6bc8a721e90f2a5!2sMitel+Networks!5e0!3m2!1sen!2sus!4v1445531227487" width="600" height="450" frameborder="0" style="border:0" allowfullscreen></iframe>
- SMS does not support embedded content.

The Say activity is available to Chat and SMS Inbound and Inqueue workflows.

To customize Say activity messages

1. Select the **Say** activity.
2. After **Message**, click ....
3. Type the content of the auto-response message and click **OK**.

   In a chat session, the message will be said using the chat media server's auto response username or the chat queue's username. In an SMS session, the message will be said using the SMS media server's name or the SMS queue's phone number.
4. Click **Save**.

Routing interactions with the Schedule activity

The Schedule activity branches workflows based on date and time conditions, enabling a workflow to respond to a business' hours of operation.

For example, an administrator uses a Schedule activity to route chat messages arriving after hours to an after-hours branch. Interactions following this branch receive a response indicating that the contact center is closed and to send the chat again during business hours.

The Schedule activity is available to all Multimedia Contact Center workflows.

Applying branching conditions to the Schedule activity

The following procedures explain how to

- Route interactions by time of day
- Route interactions by day of the week
- Route interactions by date and holiday
- Modify schedule conditions
- Route interactions by schedule
- Import and export Schedule conditions
- Route interactions by grouped Schedule conditions

To route interactions by time of day

1. Right-click the **Schedule** activity and select **Add a schedule** condition.
2. Type a **Name** for the time condition.
3. Click **Add**, and, from the second drop-down list, select **Time**.
4. Click **00:00:00-00:00:00**, specify the **Start Time** and **End Time** for the business (hh:mm:ss), and click **OK**.
5. To test the conditions, under Testing, select a date and time and click **Test**.
6. Click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
7. Click **Save**.

To route interactions by day of the week

1. Right-click the **Schedule** activity and select **Add a schedule condition**.
2. Type a **Name** for the day of the week condition.
3. Click **Add** and, from the second drop-down list, select **DOW**.
4. Click **<Value>**, select the days of the week the business is open, and click **OK**.
5. To test the conditions, under **Testing**, select a date and time and click **Test**.
6. Click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
7. Click **Save**.

To route interactions by date and holiday

1. Right-click the **Schedule** activity and select **Add a schedule condition**.
2. Type a **Name** for the date or holiday condition.

3. Click **Add** and, from the second drop-down list, select either **Date** or **Holiday**.
4. From the third drop-down list, select the date or holiday that the contact center is closed and click **OK**.

   NOTE: Administrators may select 'Reoccur every year' for date conditions if the business is regularly closed on that date.
5. To test the conditions, under **Testing**, select a date and time and click **Test**.
6. Click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
7. Click **Save**.

To modify Schedule conditions

1. Right-click the branch to modify and click **Edit**.
2. Change the branch as required.
3. To test the conditions, under **Testing**, select a date and time and click **Test**.
4. Click **OK** to create the branch, or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
5. Click **Save**.

To route interactions by schedule

NOTE: The default schedule conditions determine when Multimedia Contact Center executes business hour workflows and after hour workflows. These conditions include the default Monday to Friday, 9:00 AM to 5:00 PM schedule and the default 24/7 schedule. These default Schedule conditions can be used as is or modified to suit specific hours of operation. See also *"Modifying default business hour schedules"*.

1. Right-click the **Schedule** activity and select **Add a schedule condition**.
2. Type a **Name** for the schedule condition.
3. Click **Add** and, from the second drop-down list, select **Schedule**.
4. From the third drop-down list, select a schedule.
5. To test the conditions, under **Testing**, select a date and time and click **Test**.
6. Click **OK** to create the branch, or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
7. Click **Save**.

To import and export Schedule conditions

1. Right-click the **Schedule** activity and select **Add a schedule condition**.
2. Type a **Name** for the schedule condition.
3. To import schedule conditions, click the **Import** button, navigate to a *.csv file, and click **Open**.
4. To export schedule conditions, click the **Export** button, navigate to a *.csv file, and click **Open**.

   NOTE:
   - Conditions on a single line and separated by a comma are added to a single branch.
   - Conditions on multiple lines and separated by a comma are added to multiple branches.
5. To test the conditions, under **Testing**, select a date and time and click **Test**.

6. Click **OK** to create the branch, or click Add to add the current branch to the workflow while leaving the dialog box open to create new branches.
7. Click **Save**.

To route interactions by grouped Schedule conditions

- See *"Grouping expressions"*.

Populating variables with the Set Variables activity

The Set Variables activity takes values generated within a workflow, and populates variables with this data for use later in the same workflow.

For example, an administrator configures a Set Variables activity to retrieve customer data from incoming emails. This information is used in an Email activity's template for automatic responses to the customer.

The Set Variables activity is available to all Multimedia Contact Center workflows.

Populating the Set Variables activity with data

The following explains how to retrieve workflow data and use it to populate Set Variables activities.

To populate the Set Variables activity with workflow data

1. Right-click the **Set Variables** activity and select **Edit Variable Settings**.
2. Type a **Name** for the activity and click **Add**.
3. **Select a variable** from the drop-down list and click **OK**.

   To see a list of Multimedia Contact Center variables and their descriptions, go to 'Multimedia > Variables'.
4. In the third column, either type a **Value**, an expression in **Advanced Text**, or select **Variable** and select a variable from the drop-down list. If selecting a value, note that options vary according to the variable selected. Advanced Text is only available with certain variables.
5. Click **OK**.
6. To add a variable row, click **Add**. To delete a variable row, select the row and click **Delete**.
7. Click **Save**.

Sending SMS with the SMS activity

The SMS activity sends SMS interactions from within a workflow to recipients via the SMS Gateway connection configured in YourSite Explorer. For example, an administrator can use the SMS activity to send auto-acknowledgement messages to inbound SMS interactions.

SMS activity templates support text-based content. Template fields can be populated with variables.

The SMS activity is available to all Multimedia Contact Center workflows.

To add an SMS template to an SMS activity

1. Select the **SMS activity**.
2. After **SMS template**, click ….
3. After **From**, click ….
4. Select an **SMS Provider** and click **OK**.
5. After **To**, type the dialable number or a variable containing the dialable number of the SMS recipient.

Dialable numbers must not contain punctuation or special characters.

6. Type the body of the message.

   The body can have up to 320 characters.

7. Click **OK**.

8. Click **Save**.

Executing subroutines with the Subroutine activity

The Subroutine activity represents a set of workflow steps that can be inserted at any point in a workflow or in multiple workflows. Editing the subroutine changes all instances of that subroutine in workflows, enabling administrators to edit multiple workflows using a single point of configuration. The Subroutine activity is an efficient means of replicating and configuring workflow segments. For information on subroutines, see *"Building subroutines"*.

The Subroutine activity is available to all Multimedia Contact Center workflows.

NOTE: Go To activities nested in subroutines can have a target activity in either the subroutine or the parent workflow.

Assigning subroutines to workflows

The following section explains how to

- Assign subroutines to the Subroutine activity
- Assign variables to the Subroutine activity
- Expand subroutines in workflows

To assign a subroutine to the Subroutine activity

1. Right-click the **Subroutine** activity and click **Assign…**.
2. Click the **Subroutines** tab, select a subroutine to assign and click .
3. Click **Save**.

To assign a variable to the Subroutine activity

NOTE: Assigning a variable to the Subroutine activity requires first inserting and configuring an activity on the Canvas capable of populating the variable.

1. Right-click the **Subroutine** activity and click **Assign…**.
2. Click the **Variable** tab, select a variable to assign and click **OK**.

   To see a list of Multimedia Contact Center variables and their descriptions, go to Multimedia > Variables.

3. Click **Save**.

To expand a subroutine in a workflow

- Right-click the **Subroutine** activity and click **Open…**.

Configuring parent workflow destinations for subroutine Go To activities

If a Go To activity is placed in a subroutine, it can route contacts to the parent workflow to which the subroutine is assigned by setting its destination as ‘Go To Parent Workflow’. A target destination must be set on the Subroutine activity to set where the contacts are routed to in the Parent workflow.

To configure a parent workflow destination for a subroutine Go To activity

1. In the parent workflow, select the **Subroutine** activity.
2. In the **Properties**, after **Target Activity** select the activity to which the subroutine Go To activity returns contacts from the drop-down list.
3. Click **Save**.

Ending workflows with the Terminate Workflow activity

The Terminate Workflow activity ends a workflow at any stage.

For example, an administrator uses a Terminate Workflow activity to end an Inqueue workflow once an interaction requires no further routing to an agent.

The Terminate Workflow activity requires no configuration. Administrators can optionally provide the activity with a name and system name. See *"Naming activities and branches"* for more information.

The Terminate Workflow activity is available to all Multimedia Contact Center workflows.

Routing interactions with the To activity

NOTE: Email routing to blind-copied queues is not supported.

The To activity checks the 'To:' and 'Cc:' fields of inbound emails. The activity performs actions based on specified branching conditions. Administrators can specify whether the To activity checks one or all of the above fields for email.

For example, an administrator configures the To activity to route an email to the Sales queue if the email contains sales@email.com in its To: or Cc: field.

The To activity is available to all Email workflows.

Applying branching conditions to the To activity

Applying branching conditions to the To activity enables administrators to

- Direct emails based on specified values
- Direct emails based on variables
- Group the conditions used to direct emails

To direct emails based on specified values

NOTE: To route based on specific email addresses in the ‘To:’ and 'Cc:' fields, we recommend selecting ‘Contains’ and typing an email address for the activity to identify. This option identifies a wide range of content in email ‘To:’ fields. For example, <<To>> Contains sales@email.com.

1. Right-click the **To** activity and select **Add a Condition**.
2. Type a **Name** for the branching condition and click **Add**.
3. Under **<Select a variable>**, select one of the following:
   - **CC**
   - **To**
4. From the third column, select one of the following:
   - **NotEqual (!=)**

     For example, administrators can specify that emails not interested to 'sales@email.com' are not directed to a Sales branch.

- **Equal (=)**

  For example, administrators can specify that emails addressed to 'sales@email.com' are directed to a Sales branch.

  NOTE: If you select '=Equal to', you must specify an email address as the '<Value>'.

- **Contains**

  For example, administrators can specify that emails containing 'sales' in the To: field are directed to a Sales branch.

  NOTE: If your organization uses email addresses containing the same words, add them to the 'Contains' condition in order of longest address to shortest address. For example, add technicalsupport@email.com before adding support@email.com. This ensures that the system evaluates the addresses correctly and route interactions to the correct destinations.

- **Length**

  For example, administrators can specify that emails sent to an address exceeding 25 characters are directed to a branch for spam.

- **Starts With**

  For example, administrators can specify that emails sent to an address starting with 'Sales' are directed to a Sales branch.

  NOTE: Starts With reads the first address in the To: field only.

5. Click **<Value>** and enter a criterion to branch emails.

   For example, 'sales@email.com'.
6. Click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
7. Click **Save**.

To direct emails based on variables

NOTE: Directing emails based on variables requires first inserting and configuring an activity on the Canvas capable of populating the To activity's destination variable. For a list of Email variables, go to Multimedia > Variables.

1. Right-click the **To** activity and select **Add a Condition**.
2. Type a **Name** for the branching condition and click **Add**.
3. From the second column, select an operator. See the procedure above for a description of each option.

   NOTE: To route based on specific variables in the 'To:' field, we recommend selecting 'Contains' and selecting a variable for the activity to identify. This option identifies a wide range of content in email 'To:' fields.
4. From the third column, select **Variable**.
5. Select the variable used to branch emails and click **OK**.
6. Click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
7. Click **Save**.

Routing interactions with the Transfer activity

The Transfer activity directs inbound messages to queues and queue groups. Administrators can configure the activity to dynamically route messages, either using the <<DestinationQueues>> variable or by routing according to database lookups For example, an administrator configures the workflow to query a database containing customer statuses. Based on the results of this query, the Transfer activity transfers Platinum customers to a priority queue.

By default, Transfer activities added to an email Inbound workflow have the <<DestinationQueues>> variable set as a destination. This variable instructs the Transfer activity to compare all addresses in the To and CC fields of the inbound email to the email addresses configured for contact center's email queues. A copy of the email is transferred to queues matching the addresses in the To or CC fields of the inbound email. For information on associating email addresses to queues, see *"Configuring general multimedia queue information"*.

NOTE: If your contact center will be transferring emails between mail servers, ensure that all aliases are entered on the mail server page. For more information about adding aliases to the mail server, see *"Configuring SMTP connections to Multimedia Contact Center"*.

If you use a destination other than the <<DestinationQueues>> variable in an email Inbound workflow, the email will be transferred according to the configured destination and will ignore the email addresses in the To and CC fields of the email.

The Transfer activity is available to Inbound workflows for all media types.

Transferring messages to queues, queue groups, external addresses, or variables

The following procedures explain how to transfer interactions

- Transfer interactions to a queue or queue group
- Transfer interaction to an external email address
- Transfer interaction to a variable

  NOTE: This variable must be a queue-reporting number, dialable number, name, or an email address associated with the queue. The variable cannot be a personal email address.

If you transfer an interaction to a queue that you are not associated with, you will still be able to view the interaction in your Cases folder. Note that, to view the case details, you have to un-check the "Only show my items" option as you are no longer responsible for this case. Another agent associated with this queue will also be able to see this case.

To transfer an interaction to a queue or queue group

1. Select the **Transfer** activity.
2. Click **Properties** and, after Destination, click the **…** button.
3. Select either **Queue** or **Queue group**, select the queue or queue group, and click OK.

   NOTE:

   – To add a queue to the list, click Add and follow the appropriate steps under *"Adding multimedia queues"*.

   – To add a queue group to the list, click Add and follow the appropriate steps under *"Adding queue groups"*.
4. Click **Save**.

To transfer an interaction to an external email address

1. Select the **Transfer** activity.
2. Click **Properties** and, in the **Destination** field, type the external email address to which interactions are transferred.
3. Select **External Transfer**.
4. Click **Save**.

To transfer an interaction to a variable

NOTE: Transferring an interaction to a variable requires first inserting and configuring an activity capable of populating the Transfer activity's destination variable.

1. Select the **Transfer** activity.
2. Click **Properties** and, in the **Destination** field, click the **…** button.
3. Click **Variable**, select a variable to identify in the interaction's contents, and click **OK**.

   NOTE: This variable must be a queue reporting number, dialable number, name, or email address associated to the queue. The variable cannot be a personal email address.
4. To add a variable to the list, click **Add** and follow the appropriate steps under *"Creating Custom Variables"*.
5. Click **Save**.

Routing interactions with the Variable Compare activity

The Variable Compare activity routes interactions through workflow branches by comparing information, stored in either custom or system variables, against specified conditions.

For example, an administrator uses the Variable Compare activity to filter and prevent automatic email responses from reaching a queue. The Variable Compare activity compares a variable for automatic responses against an email's Subject line. If 'Automatic Reply' or 'Out of Office' is present in the Subject line, the email follows a branch configured to receive junk emails. If neither is present, the email follows the No Match branch and continues through the workflow.

The Variable Compare activity is available to all Multimedia Contact Center workflows.

Applying branching conditions to the Variable Compare activity

The following procedures explain how to

- Add conditions to be compared against workflow data
- Edit conditions being compared
- Delete conditions being compared
- Group conditions being compared

To add a condition to be compared against workflow data

1. Right-click the **Variable Compare** activity and select **Add Variable Compare Condition**.
2. Type a Name for the condition and click **Add**.
3. **Select a variable** from the drop-down list and click **OK**.

   To see a list of Multimedia Contact Center variables and their descriptions, go to Multimedia > Variables.
4. Select an operator from the second drop-down list. Options vary according to the variable chosen.

5. In the third column, type or select a value for the variable. If selecting a value, note that options vary according to the variable selected.

   NOTE: " means 'No Value'.
6. Click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
7. Click **Save**.

To edit a Variable Compare condition

1. Right-click the condition's branch and select **Edit**.
2. Change the condition, and click **OK** to create the branch or click **Add** to add the current branch to the workflow while leaving the dialog box open to create new branches.
3. Click **Save**.

To delete a Variable Compare condition

- Right-click the condition's branch and select **Delete**.

To group Variable Compare conditions

- See *"Grouping expressions"*.

Enabling mixed model routing

In mixed model routing agents pick interactions out of queue, but items in queue that remain unpicked for a specified time are pushed to agents' Inboxes.

Enabling a mixed model requires administrators first to configure two agent groups, each containing the same agents. Administrators must then add two Offer to Agent Group activities, one after the other, to the Workflow Canvas. One of the agent groups is assigned to each activity. The first Offer to Agent Group activity enables a pick routing model, and allows overflow to a secondary agent group. The second Offer to Agent Group activity enables a push routing model, and does not allow overflow. When interactions overflow from the first Offer to Agent Group activity to the second, they overflow to an agent group with the same agents and are pushed to the agents' Inboxes.

For example, Support agents pick the emails they handle, but their supervisor wants to push emails waiting in queue over 30 minutes to the agents' Inboxes. The administrator creates one agent group, called Support Group 1, containing the contact center's Support agents. The administrator then creates a second agent group, called Support Group 2, containing the same Support agents.

The administrator adds an Offer to Agent group activity to the workflow and assigns it Support Group 1. The activity is configured to follow a pick model and to overflow emails waiting longer than 30 minutes in queue. The administrator adds the second Offer to Agent group activity, configures it to follow a push routing model, disables overflow, and assigns Support Group 2. If emails remain unpicked in the Support queue for more than 30 minutes, they overflow to the same Support agents and are pushed to the Inboxes of available agents.

The following procedures explain how to enable mixed routing models. For information on creating agent groups, see *"Adding agent groups"*.

To enable a mixed routing model

1. Place an **Offer to Agent Group** activity on the Canvas and click **Properties**.
2. Deselect the **Push Items to Agent** check box.

3. After **Answering Agent Group**, click the drop-down and select **Agent Group**.
4. Select the agent group to handle interactions and click **OK**.
5. After **Overflow Time**, type the time interactions wait in queue before the Overflow branch is followed and a push routing model begins.

   NOTE: Ensure 'Do Not Allow Overflow' is not selected.
6. Place a second **Offer to Agent Group** activity on the Canvas and, in the **Properties** pane, select the **Push Items to Agent** check box.
7. After **Answering Agent Group**, click the drop-down and assign the second agent group to handle interactions.

   NOTE: This group must contain the agents that are in the first agent group, assigned above.
8. Select **Do Not Allow Overflow** and set the **Overflow Time to 00:00:00**.
9. Click **Save**.

Populating screen pops with workflow variables

When an interaction is processed through a workflow, administrators can populate URLs or executable files with variables. These URL and executable files, and the variable information they contain, can be passed to agents in the form of a screen pop. Workflow-generated screen pops display when agents select ringing interactions in Ignite.

Any variable available to the workflow's media type, which also contains the 'Send to Agent's desktop' check box, can populate a workflow screen pop with information. Populating URLs and executable files with workflow variables enables administrators to customize screen pops on a queue-by-queue basis.

For example, an administrator can configure a workflow to query a database and retrieve a customer's name and account history. When the interaction rings in the agent's Inbox, a web page pops on the agent's desktop, displaying the customer's information. The agent is immediately able to provide personalized, informed service.

Administrators must provide webcodes and servers for URLs and the executable codes behind executable files. URLs must include 'http://' in the URL string.

Executable files may prompt a Windows security warning on client desktops before popping. Administrators may disable this security setting in Internet Explorer. For more information, consult Microsoft documentation.

NOTE:

- Agents using Ignite (WEB) may need to disable pop-up blockers for the Ignite URL in order for screen pops to display .
- Ignite (WEB) supports URL screen pops only. Executable file screen pops are not supported.
- If Contact Center Client and Ignite are used on the same agent desktop and screen pops are populated with workflow variables in voice, email, chat, SMS, and open media, then administrators should disable Contact Center Screen Pop in Contact Center Client. For information on enabling and disabling Contact Center Screen Pop, see the *MiContact Center Business User Guide*.
- If Contact Center Client and Ignite are used on the same agent desktop and screen pops are populated with workflow variables in voice, email, chat, SMS, and open media, then Administrators should disable toaster notifications in Contact Center Client. This prevents screen pops and toaster notifica-

tions from Contact Center Client and Multimedia Contact Center from appearing on an agent's monitor at the same time.

To populate a screen pop with a workflow variable

1. Click **Multimedia > Variables** and select the **ScreenPopOnRinging** variable.
2. Select **Send to agent Desktop**.
3. Click **Workflows** and, in an Inbound or Inqueue workflow, place a **Set Variables** activity on the Workflows Canvas.

   NOTE: If values change after a screen pop has been sent to an agent's desktop, the screen pop will not refresh. We therefore recommend placing the Set Variables activity in close proximity to the Offer to Agent Group activity. This provides optimally current values and helps prevent the screen pop's value from being overwritten by another variable query in the workflow.
4. Right-click the **Set Variables** activity and select **Edit Variable Settings**.
5. Click **Add** and, from the **<Select a variable>** drop-down list, select **ScreenPopOnRinging**.
6. Click **<Value>** and, in the **Value** tab, enter a complete URL string or the path to an executable file.

   NOTE: The paths to executable files must be accessible to any clients who require its use. For example, administrators can place the file on a network share.
7. To populate a web page screen pop with variable information, insert the variable's name between double angle brackets where applicable in the URL string.

   For example, <<DestinationQueueName>>.
8. Click **OK** to close the variable dialog box and click **OK** to return to the workflow.
9. Click **Save**.

Multimedia Contact Center default workflows

MiContact Center Business includes a number of default workflows. These workflows are based on common business scenarios and demonstrate how administrators can route email, chat, SMS, and open media from customers to the agents best suited to respond. These default workflows are generated by the system once media servers and queues are created. The workflows are located in Multimedia Contact Center's Media servers and Queues panes, under the routing tabs, and can be modified according to the contact center's business needs.

Multimedia Contact Center includes the following default workflows

- Default Email Inbound
- Default Email Inqueue
- Default Chat Inbound
- Default Chat Inqueue
- Default Chat Response
- Default SMS Inbound
- Default SMS Inqueue
- Default Open Media Inbound
- Default Open Media Inqueue

The following sections summarize the default workflows and explain how they operate. For ease of understanding, we recommend expanding the entire workflow and all annotations.

To expand the workflow

- Click the **Expand All** button.

To expand all annotations

- Right-click the workflow and select **Annotations… > Show All**.

Customizing the default workflows

To create customized versions of these workflows, we recommend modifying the default workflows. To create multiple workflows of the same type, multiple copies of the default workflows can be made and reconfigured. See *"Copying workflows"*.

Each default workflow requires additional configurations to get up and running. For information on configuring the workflow activities to suit the contact center, follow the cross-references throughout each summary.

NOTE: Inbound Email workflows must contain either a Transfer, a Junk Email, or a No Reply Email activity. If they do not, email interactions will remain in system storage, using system memory and causing performance issues.

The following requirements are shared among default workflows. Administrators must

- Validate the workflow and activity configuration and correct any errors detected
  See *"Validating workflows"*.
- Associate Inbound and, optionally, Response workflows to a server
  See *"Associating workflows to media servers"*.

  NOTE: Inbound workflows modified from the Inbound Routing tab of the Media servers pane and Response workflows modified from the;Response Routing tab are already associated to that media server.
- Associate Inqueue workflows to at least one queue
  See *"Associating workflows to queues"*.

  NOTE: Inqueue workflows modified from the Routing tab of the Queues page are already associated to that queue.

Default Email Inbound workflow

This workflow instructs Multimedia Contact Center to route inbound emails to appropriate queues. Administrators can specify the queues to which inbound emails are directed and can prevent automatic reply messages from reaching the queue. This default Email Inbound workflow provides a template for efficiently routing inbound email interactions to the appropriate queues.

To further illustrate the workflow's activities and their operations, we recommend expanding the entire workflow and all annotations.

To expand the workflow

- Click the **Expand All** button.

To expand all annotations

- Right-click the workflow and select **Annotations… > Show All**.

Description

The first step in the workflow is a Variable Compare activity. This activity is configured to stop automatic responses from reaching the queue. The Variable Compare activity checks an incoming email's Subject line. If the Subject line contains 'Automatic Reply', or 'Out of Office', but does not contain 'RE,' the email follows a branch for the matched condition identifying the email as 'auto response'. A No Reply Email activity marks the email as requiring no reply, and a Terminate activity stops the workflow so that the email is not directed to a queue. This prevents automatic reply messages from bouncing back and forth between a customer's email account and the email media server. You can modify or add to these 'auto response' conditions based on responses received by agents. To configure the Variable Compare activity to branch emails based on a different set, or an additional set, of conditions, see *"Routing contacts with the Variable Compare activity"*.

If the email's Subject line contains neither Automatic Reply nor Out of Office, the email follows a branch with activities routing emails to appropriate queues. In this default workflow, the branch is named 'Email is not an Auto Response'.

This branch contains a Transfer activity. By default, the destination of this activity is set to the <<DestinationQueues>> variable, which compares all addresses in the To and CC field of incoming email to existing queue email addresses. For example, emails directed to the Sales branch would be transferred to the Sales queue, and emails directed to the Support branch would be transferred to the Support queue. Emails failing to transfer to a queue follow the Failure branch. We recommend administrators configure the Failure branch with activities so that a course of action is taken if a transfer fails. Emails transferred to the appropriate queue follow the Success branch. Once an email is transferred to the appropriate queue, a Terminate activity ends the Email Inbound workflow, and the Email Inqueue workflow executes. To configure the Transfer activity to direct emails to queues and queue groups in the contact center, see *"Routing contacts with the Transfer activity"*.

The default workflow ends with three activities designed to notify administrators when emails are not successfully routed.

The first is an Email activity. Inbound emails reaching this activity have failed to reach a queue. For example, an email might reach this activity if the address in the email's To: field was not recognized by the system. The Email activity is intended to notify an administrator that an interaction failed to reach a queue. To configure the Email activity with the administrator's email address and to assign the Email activity to an SMTP server, see *"Enabling mixed model routing"*.

The second is a Transfer activity. We recommend configuring this Transfer activity with a destination to receive emails not successfully routed to a queue. For example, an administrator can specify their email address as the Transfer activity's destination. See *"Routing contacts with the Transfer activity"*.

The third is another Email activity, nested in the Transfer activity's Failure branch. This Email activity contains a message indicating that the final routing activity in this workflow has failed and that the interaction can be reviewed as a Failed item in Ignite. To configure the Email activity with an administrator's email address and to assign the Email activity to an SMTP server, see *"Sending emails with the Email activity"*. See also *"Rerouting Failed emails"*.

NOTE: <<WorkflowName>> indicates a variable populated by the workflow's name as configured in YourSite Explorer. For a list of Multimedia Contact Center variables, go to Multimedia > Variables. For information on renaming the workflow, see *"Naming workflows"*.

Default Email Inqueue workflow

This workflow is executed once an inbound email is transferred to a queue. The workflow offers the email to agents within a primary agent group or, if necessary, overflow agent groups. Administrators can specify

the first and any subsequent agent groups to be offered interactions. This default Email Inqueue workflow provides a template for efficiently routing emails to the agents best suited to answer them.

To further illustrate the workflow's activities and their operations, we recommend expanding the entire workflow and all annotations.

To expand the workflow

- Click the **Expand All** button.

To expand all annotations

- Right-click the workflow and select **Annotations… > Show All**.

Description

The first step in the workflow is a Schedule activity. The Schedule activity contains a Business Hours and an After Hours branch. If an email hits the queue from Monday to Friday between 9:00 AM and 5:00 PM, the Business Hours branch is followed. If an email is received after business hours, the After Hours branch is followed. To configure the Schedule activity with the contact center's business hours, see *"Routing contacts with the Schedule activity"*.

The Business Hours and After Hours branches contain Email activities programmed with a dedicated auto response message. The subject line of the Business Hours branch contains 'Auto Response [<<CaseIdPrefix>><<CaseId>> <<TicketIdPrefix>><<TicketId>>]'. The subject line of the After Hours branch contains 'After Hours Auto Response [<<CaseIdPrefix>><<CaseId>> <<TicketIdPrefix>><<TicketId>>]'. This populates the email subject line with the customer's case and ticket number and indicates that the message is an automatic response. By default, each Email activity's template is set with the From field to <<QueuePrimaryEmailAddress>>, which uses the queue's primary email address in responses. For more information on email queue email addresses, see *"Configuring general settings for multimedia queues"*.

NOTE: Emails will not be sent by the email activity if the <<To>> variable is used in the From field and an inbound email that is addressed to multiple queues arrives in the workflow.

Customers emailing during business hours receive a response message saying 'Hello <<From>>, Thank you for your email. We have received your message and it is being handled by one of our agents. Please expect a reply shortly. Thank you'. Customers emailing after business hours receive a response message saying 'Hello << From>>, You've contacted us outside our regular hours of operation. Please expect a response during our regular business hours. Thank you'. To configure custom response messages for these branches and to connect the activity to an SMTP server, see *"Sending emails with the Email activity"*.

NOTE:

- <<From>> indicates a variable populated by the name appearing in the customer's email address. For a list of Multimedia Contact Center variables, go to Multimedia > Variables.
- The <<CaseIdPrefix>>, <<CaseId>>, <<TicketIdPrefix>>, and <<TicketId>> variables are only populated if the email media server has been configured to send case and ticket number information. See *"Configuring Advanced options for media servers"* for more information.
- To include Case and Ticket number prefixes in auto-responses from the Email activity, insert the <<CaseIdPrefix>> variable before the <<CaseId>> variable, and insert the <<TicketIdPrefix>> variable before the <<TicketId>> variable.
- Each time an email arrives in an Inqueue workflow, an auto-acknowledgment email is sent to the customer. To prevent multiple identical auto-acknowledgment messages when emails move between queues, you can tailor the auto-acknowledgment messages to be queue specific or remove the Business Hours Auto Response Email activity and place Email activities with similar messages in the

Inbound workflow before the Transfer activities to each queue. For more information, see *"Default Email Inbound workflow"*.

The first activity in this workflow is an Offer to Agent Group activity. This activity offers the interaction to a specified agent group, in this example named 'Offer to Primary Agent Group'. If an agent in the primary agent group is available to receive an email, the Agent Available branch is followed. An Offer to Agent activity sends the email to an agent's Inbox. The system evaluates which available agents have the highest skill level and, of these, pushes the email to the agent longest idle. If the email is successfully offered to an agent, the Success branch is followed and a Terminate activity ends the Inqueue workflow. If the system cannot offer the email to an agent, or if an agent does not accept the interaction, then the Failure branch is followed. A Go To activity nested in the Failure branch loops back to the Offer to Agent Group activity and the system searches again for an available agent in the group. If an agent or supervisor picks the email from the queue, the Completed branch is followed and a Terminate activity ends the workflow. To specify agent groups to be offered emails for the queue, see *"Routing contacts with the Offer to Agent Group activity"*. For information on configuring push, pick, or mixed routing models, see *"Configuring routing options for offering contacts to agent groups"*, and *"Enabling mixed model routing"*. To specify a different end point for the Go To activity, see *"Routing contacts using the Go To activity"*.

If agents in the primary agent group are not available, emails sitting in queue for five minutes follow the Overflow branch. Now the system searches for available agents in the second Offer to Agent Group activity, named 'Offer to Overflow Agent Group 1' in this example. The process repeats itself, and emails are overflowed to the third and fourth Offer to Agent Group activities if an available agent cannot be found in the first overflow agent group. The fourth and final Offer to Agent Group activity is configured to disallow overflow. This is to prevent emails from failing to route to an agent group, in the event that an agent in the final Offer to Agent Group activity is not available. Verify that, for the final Offer to Agent Group activity, the 'Do Not Allow Overflow' check box is selected in the Properties pane.

To disallow all overflow, delete the second, third, and fourth Offer to Agent Group activities from the workflow and follow the instructions on disabling overflow in *"Configuring routing options for offering contacts to agent groups"*. See this procedure also to maintain overflow but to adjust the Overflow Time.

NOTE: The default workflow does not make use of the Interval branch. For more information on this branch, see *"Configuring routing options for offering contacts to agent groups"*.

Default Chat Inbound workflow

This workflow instructs Multimedia Contact Center how to route inbound chat requests to the appropriate chat queues. By default, this workflow uses the <<DestinationQueue>> variable to route chats to the appropriate queues during business hours. Outside business hours, interactions receive an automated response informing them that the contact center is unavailable.

To better illustrate the workflow's activities and operations, we recommend you expand the workflow and all annotations.

To expand the workflow

- Click the **Expand All** button.

To show all annotations

- Right-click the workflow select **Annotations… > Show all**.

Description

The first activity in this workflow is a Transfer activity. This activity is configured to route chats using the <<DestinationQueues>> variable, which is filled automatically when either a queue is selected from the

drop-down list in the chat request page or when a customer uses the chat queue's Public URL to start a chat session. If the transfer is successful, the chat is sent to the destination queue and a Terminate activity ends the workflow. If the transfer fails, the chat request is sent down the Failure branch.

The next activity in the workflow is an Email activity. If the transfer failed, this activity sends an email to an administrator to notify them that an emergency routing has occurred for a chat. This activity must be have an SMTP server added to it. The email's template must also be altered for sender and destination. The template may be customized, but changing the variables within the template is not recommended. For more information on configuring the Email activity, see *"Sending emails with the Email activity"*.

This activity is followed by a Transfer activity. This activity is intended to transfer chats that do not route correctly by <<DestinationQueue>> to be routed to a specified chat queue. This activity requires that a destination queue be selected. For more information on configuring a Transfer activity, see *"Routing contacts with the Transfer activity"*. The Success branch of this activity contains a Terminate activity that ends the workflow.

The Failure branch contains an Email activity that sends another email to the administrator, indicating that the final routing activity in this workflow has failed and that the interaction can be reviewed as a Failed item in Ignite. The template must have a destination added. The template may be customized, but changing the variables within the template is not recommended. For more information on configuring the Email activity, see *"Sending emails with the Email activity"*.

The failed chat session is then routed to the final activity of the workflow, a Terminate activity, which ends the workflow.

Default Chat Inqueue workflow

This workflow is executed when an inbound chat is transferred to a queue. This workflow offers the chat session to idle agents within the primary agent group or, if necessary, an overflow agent group. You can specify the first and any subsequent agent group(s) to be offered the interaction. This default Chat Inqueue workflow provides a template for efficiently routing chat sessions to the agents best suited to handle them.

To better illustrate the workflow's activities and operations, we recommend you expand the workflow and show all annotations.

To expand the workflow

- Click the **Expand All** button.

To show all annotations

- Right-click the workflow and select **Annotations... > Show all**.

Description

The first activity in the Chat Inqueue workflow is a Schedule activity. The schedule activity contains a Business Hours and an After Hours branch. If a chat arrives in queue from Monday to Friday between 9:00 AM and 5:00 PM, the Business Hours branch is followed. If a chat is received after business hours, the After Hours branch is followed. To configure the Schedule activity with the contact center's business hours, see *"Routing interactions with the Schedule activity"*.

The After Hours branch contains a Say activity programmed with a dedicated auto-response message. The Say activity sends a greeting to the interaction that states: "Hello, and thank you for contacting us. Our chat queues are currently closed. Please try again during our regular business hours. Thank you." To reconfigure the Say activity's message, see *"Responding to interactions with the Say activity"*. The next

activity in the After Hours branch is an End Session activity, which ends the chat session with the interaction. The branch continues to a Terminate workflow activity, which ends the workflow.

The Business Hours branch contains a Say activity. The Say activity sends a greeting to the interaction that states: “One moment while we check for an available agent.” To reconfiguring the Say activity’s message, see *"Responding to interactions with the Say activity"*.

The next activity in this workflow is the Offer to Agent Group activity. This activity offers the chat session to the configured agent group for the activity, in this example named ‘Primary Agent Group’. After you configure this activity with an agent group, it will offer the chat to that group first. An agent group must be associated to the activity. To specify agent groups to be offered chat sessions for the queue, see *"Routing interactions with the Offer to Agent Group activity"*.

NOTE: The default workflow does not make use of the Interval branch. For more information on this branch, see *"Routing interactions with the Offer to Agent Group activity"*.

If there are available agents in the primary agent group, the chat request is routed to the Agent Available branch. This branch contains an Offer to Agent activity that sends the chat to the agent’s Ignite client. The system evaluates which available agents have the highest skill level and, of these, pushes the chat to the agent who has been the longest idle. If the chat is successfully offered to the agent, the Success branch is followed and a Terminate activity ends the Inqueue workflow. If it fails to be offered to an agent, it is routed to the Failure branch which contains a Go To activity that loops back to the Offer to Agent Group activity and the system searches for another available agent in the group.

If the overflow timer for the Offer to Primary agent group activity is exceeded, the chat session is routed down the Overflowed branch to the next Offer to Agent Group activity.

By default, the Overflow Time in the Properties pane is set to 5 minutes. If you do not want to direct chats to an overflow group, set the Offer to Agent Group’s Overflow Timer to 0, select the ‘Do Not Allow Overflow’ check box, and delete the following Offer to Agent Group activities. For more information on modifying the overflow timer, see *"Routing interactions with the Offer to Agent Group activity"*.

If the chat session is removed while sitting in queue before reaching an agent, the Completed branch is followed and a Terminate activity ends the workflow.

The next three activities in this workflow are Offer to Agent Group activities. There are three Offer to Agent Group activities in the workflow, the agent groups configured with each activity functioning as 1st to 3rd Overflow groups. These activities are identical in configuration to the first Offer to Agent Group activity. The third and final Offer to Agent Group activity is configured to prevent overflow, preventing chats from failing to route to an agent group. These activities can be safely deleted from the workflow, if desired. The fourth and final Offer to Agent Group activity is configured to prevent overflow, preventing chats from failing to route to an agent group. Verify that the ‘Do Not Allow Overflow’ check box is selected in the Properties pane and that the Overflow Time is set to 0:00:00.

Default Chat Response workflow

The default chat response workflow runs after a chat session has been terminated. It confirms if the chat queue is configured to send transcripts and, if so, emails the transcript to the email address entered by the customer when filling out the chat request form.

To further illustrate the workflow’s activities and operations, we recommend you expand the workflow and show all annotations.

To expand the workflow

- Click the **Expand All** button.

To show all annotations,

- Right-click the workflow select **Annotations… > Show all**.

Description

The first step in this workflow is a Variable Compare activity. This activity checks to see if the chat queue is configured to send transcripts. If it is, it routes down the “Queue is configured to send transcript” branch. If it is not configured to send transcripts, the workflow routes down the “Queue is not configured to send transcript” branch, which continues directly to the Terminate activity at the end of the workflow.

The “Queue is configured to send transcript” branch contains an Email activity. This activity is configured with the variables required to send the transcript back to the customer. The template may be customized, but changing the variables within the template is not recommended. This activity requires the assignment of a SMTP server. For information on configuring the Email activity, see *"Sending emails with the Email activity"*.

The final step in the workflow is a Terminate activity. This activity completes the workflow.

Default SMS Inbound workflow

This workflow instructs Multimedia Contact Center how to route inbound SMS interactions to the appropriate SMS queues. By default, this workflow uses the phone number of SMS queues to route SMS interactions to the appropriate queues.

To better illustrate the workflow’s activities and operations, we recommend you expand the workflow and all annotations.

To expand the workflow

- Click the **Expand All** button.

To show all annotations

- Right-click the workflow and select **Annotations… > Show all**.

Description

The first activity in this workflow is a Transfer activity. The activity is configured to route SMS interactions using the <<DestinationQueues>> variable, which is filled in automatically with the phone number the SMS interaction used and is compared to the phone numbers of the SMS queues. If the transfer is successful, the SMS interaction is sent to the destination queue and a Terminate activity ends the workflow. If the transfer fails, the SMS interaction is send down the Failure branch.

The Failure branch continues to an Email activity. If the transfer failed, this activity sends an email to an administrator to notify them that the Transfer activity failed to route and that the interaction can be reviewed as a Failed item in Ignite. The template must have a destination added to it and the Email activity must have an SMTP server added to it. The template may be customized, but changing the variables within the template is not recommended. For more information on configuring the Email activity, see *"Sending emails with the Email activity"*.

The next activity in the branch is a Transfer activity. This activity is intended to transfer SMS interactions that do not route correctly by <<DestinationQueues>> to be routed to a specified SMS queue. This activity requires that a destination queue be selected. For more information on configuring a Transfer activity, see *"Routing interactions with the Transfer activity"*. The Success branch of this activity contains a Terminate activity that ends the workflow.

The Failure branch continues to a Terminate Workflow activity, which ends the workflow.

Default SMS Inqueue workflow

This workflow is executed once an inbound SMS interaction is transferred to a queue. The SMS interaction is offered to agents within a primary agent group or, if necessary, overflow agent groups. Administrators can specify the first and any subsequent agent groups to be offered interactions. This default SMS Inqueue workflow provides a template for efficiently routing SMS to the agents best suited to answer them.

To further illustrate the workflow's activities and their operations, we recommend expanding the entire workflow and all annotations.

To expand the workflow

- Click the **Expand All** button.

To expand all annotations

- Right-click the workflow and select **Annotations… > Show All**.

Description

The first step in the workflow is a Schedule activity. The schedule activity contains a Business Hours and an After Hours branch. If a SMS arrives in queue from Monday to Friday between 9:00 AM and 5:00 PM, the Business Hours branch is followed. If a SMS is received after business hours, the After Hours branch is followed. To configure the Schedule activity with the contact center's business hours, see *"Routing interactions with the Schedule activity"*.

The After Hours branch contains a Say activity programmed with a dedicated auto-response message. The Say activity sends a greeting to the interaction that states: "Hello, and thank you for contacting us. Our SMS queues are currently closed. Please try again during our regular business hours. Thank you." To reconfigure the Say activity's message, see *"Responding to interactions with the Say activity"*. The next activity in the After Hours branch is an End Session activity, which ends the SMS session with the interaction. The branch continues to a Terminate workflow activity, which ends the workflow.

The Business Hours branch routes to an Offer to Agent Group activity. This activity offers the interaction to a specified agent group, in this example named 'Offer to Primary Agent Group. After you configure this activity with an agent group, it will offer the SMS interaction to that group first. An agent group must be associated to the activity. To specify agent groups to be offered for the queue, see *"Routing interactions with the Offer to Agent Group activity"*.

NOTE: The default workflow does not make use of the Interval branch. For more information on this branch, see *"Routing interactions with the Offer to Agent Group activity"*.

If an agent in the primary agent group is available to receive an SMS, the Agent Available branch is followed. This branch contains an Offer to Agent activity that sends the SMS interaction to the agent's Ignite client. The system evaluates which agents have the highest skill level and, of these, pushes the SMS interaction to the agent who has been idle the longest. If the SMS interaction is successfully offered to an agent, the Success branch is followed and a Terminate activity ends the Inqueue workflow. If it fails to be offered to an agent, it is routed to the Failure branch, which contains a Go To activity that loops to the Offer to Agent Group activity and the system searches for another available agent in the group.

If the overflow timer for the Offer to Agent Group activity is exceeded, the SMS activity is routed down the Overflowed branch to the next Offer to Agent Group activity. By default, the Overflow Time in the Properties pane is set to 1 hour. If you do not want to direct SMS interactions to an overflow group, set the Offer to Agent Group's Overflow Timer to 0, select the 'Do Not Allow Overflow' check box, and delete the following Offer to Agent Group activity. For more information on modifying the Overflow Timer, see *"Routing interactions with the Offer to Agent Group activity"*.

If the SMS session is removed while sitting in queue before reaching an agent, the Completed branch is followed and a Terminate activity ends the workflow.

The next activity in this workflow is an Offer to Agent Group activity. This activity offers SMS interactions to the overflow agent group. This activity is identical in configuration to the first Offer to Agent Group, except that it is configured to prevent overflow, preventing SMS from failing to route to an agent group. Verify that the 'Do Not Allow Overflow' check box is selected in the Properties pane and that the Overflow Time is set to 0:00:00.

Managing Ignite

Administrators can manage Ignite to improve agent experiences and productivity.

To manage Ignite, administrators can

- Add items to and clear items from Ignite's global spell checking dictionary
- Configure bounced email detection settings
- Configure maximum email message size
- Accessing diagnostics reports sent from Ignite (WEB)

Adding items to Ignite's global spell checking dictionary

NOTE: The following pertains to email only.

Administrators can configure Ignite's global dictionary to include words that are used by agents across your contact center but are not included in the default dictionary. Examples include product names and services.

Adding items to Ignite's global dictionary eliminates the need for each agent to add these words to their local dictionary while ensuring agents spell the words correctly.

For information on adding items to Ignite's global dictionary, consult the following Knowledge Base article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1002633/loc/en_US.

Configuring bounced email detection settings

NOTE: You must use SSL to send emails in order to fully support bounce detection settings.

Ignite can be configured to filter bounced emails and either automatically junk them or place them in:

- DESKTOP - the Auto Replies/Failed Delivery subfolder (contained in the Failed folder) of the agent who last handled the email and the global failed route folder (where supervisors can view and process bounced emails when agents are absent).
- WEB - the Inbox of the agent who last handled the email and History > Failed (where supervisors can view and process bounced emails when agents are absent).

Emails are considered bounced if:

- The email recipient had a vacation or out of office response configured
- The email recipient had no more space in their mail box
- The message to be delivered to the recipient was delayed by the mail server
- Some of the addresses in the delivery list (To, CC, BCC) were invalid

This applies only when the contact center mail server is configured to operate in SSL mode

For configuration setting details, see the following Mitel Knowledge Base article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1000650/loc/en_US.

Configuring maximum email message size

Maximum email message size can be configured on your system to provide visibility to contact center agents and supervisors when they attempt to send oversized emails. Size restriction settings are applied globally to all of your mail servers so must be set to meet the requirements of the mail server with the lowest supported message size. When set accurately, and an agent attempts to send an oversized email, an error message displays and they are given the option of editing the email size and resending.

For configuration setting details, see the following Mitel Knowledge Base article: https://mitel.custhelp.com/app/answers/answer_view/a_id/1000649/loc/en_US.

NOTE: You must use SSL to send emails in order to fully support maximum email message size setting associated behavior.

Accessing diagnostics reports sent from Ignite (WEB)

Administrators can access diagnostics reports sent from Ignite. Employees can report specific issues, and Ignite can be automated to send continuous information to the Enterprise Server.

NOTE: You may experience higher than normal bandwidth use, depending on the number of agents enabling continuous logging from Ignite.

A single file is created per employee. Additional reports append to this file. Reports contain log lines from employees' browsers and, for on-demand reports, any details added.

To access diagnostics reports from Ignite (WEB)

- On the Enterprise Server, navigate to **<installation drive>:\Mitel\MiContact Center\Logs\Clients** and select a file.

Supervisors - Managing a multimedia contact center

Supervisors use the following applications in order to effectively manage contact center employees.

- Contact Center Client
- Ignite
- CCMWeb

Within Contact Center Client, supervisors can access and oversee real-time customer activity and agent response using a series of desktop monitors, as well as review historical activity. They can affect service levels by manipulating agent group presence and distributing interactions among queues. Using monitor alarms they can be notified when agents are inappropriately inactive or queues become inordinately busy and react to these situations quickly and effectively to improve the customer experience and optimize agent productivity.

Ignite is available as either a desktop or Web version. They share much of the same functionality but also offer unique agent and supervisor experiences enabling you to choose the application that suits your indi-

vidual needs. In our documentation, we refer to desktop Ignite and its features as Ignite (DESKTOP) and Web Ignite and its features as Ignite (WEB) or, where appropriate, as DESKTOP or WEB only.

When circumstances dictate, supervisors licensed for Multimedia Contact Center can use Ignite to temporarily handle interactions, alleviating customer wait times and ensuring a satisfactory service level is maintained. Searching email, chat, SMS, and open media history can also be done in Ignite. This sort of information is essential when building a case history, following a trail to investigate a customer complaint or compliment, or to track agent performance.

With Ignite (WEB), supervisors can access real-time monitors to view current queue statistics and call-back requests. They can also view agent and employee statistics and interact with agent presence to improve service levels.

NOTE: Supervisors have unrestricted access to search email, chat, SMS, and open media history items with an Advanced Supervisor or System Administrator license.

Assessing the statistical information that is found in the wide array of multimedia reports available is an essential part of effective contact center supervision. Reports can be generated, viewed, and scheduled in CCMWeb, your center for reports, setting preferences, and accessing the Help resource documentation.

Setting alarms to monitor agent performance and customer service

You can define alarms to alert you to changes in contact center activity. Using the alarms, you specify performance thresholds for contact center elements such as queues and agents and can customize the visual, auditory, or email delivery of alarms. If any availability or performance issues arise, your alarms deliver a notification enabling you to react to and adjust agent and queue availability.

You can set alarms to notify you when there are a specified number of emails, chats, SMS, or open media waiting or when agents have been in an unavailable state, such as Make Busy, for a specified length of time. If alarms indicate a queue is overloaded with interactions or understaffed, you can join that queue as an agent (dependent on licensing) or find an agent who is capable of handling the media type for that queue and use the Agent Group Presence controls to place them in the group associated to that queue. If an alarm demonstrates to you that an agent has been unavailable for an extended period of time, you can remove the agent from Do Not Disturb or Make Busy, if appropriate.

Client alarms are specific to each computer. To notify you that performance thresholds are not being met, you can configure alarms so that

- Monitor cells and statistics change color.
- A pop-up notification opens on your desktop.
- A sound prompt, such as a beep or.wav files plays.
- You are notified by mail.

For more information on setting alarms, see *"Setting alarms"*.

Accessing real-time information with Contact Center Client

You use Contact Center Client to access real-time contact center agent, queue, and interaction information.

The following section describes typical supervisor usage of the monitors available in Contact Center Client. For more detailed information regarding Contact Center Client, see *"Real-time Monitors"*.

Starting Contact Center Client

NOTE: Launching client-side desktop applications from the task bar causes them to bypass the MiContact Center Updater Service process. To ensure successful updates from the Enterprise Server, after an upgrade close all client-side applications for 15 minutes or reopen them from the Start menu/Start screen.

You use Contact Center Client to access real-time monitors and functionality. Supervisors can view real-time voice, email, chat, SMS, and open media statistics. After starting Contact Center Client, supervisors can choose to minimize it to either the system tray or the taskbar.

To start Contact Center Client

1. Open **Contact Center Client**.
2. If prompted, type your **Username** and **Password** and verify the **Enterprise Server** IP address.
3. If you use Secure Socket Layer, select **SSL**.
4. Optionally, select **Remember my credentials**.
5. Click **Login**.

Hiding monitor control

Interactive Contact Center enables you to manage the presence of all devices in a monitor using Monitor Device Control. If you do not want to use monitor control, you can hide this option so it is not accessible.

To hide the Monitor control option

1. In **Contact Center Client**, click the **Contact Center Client button > Options**.
2. Under **Device control**, clear the **Display monitor device control option** check box.
3. Click **OK**.

Employee and Agent state indicators

The following icons display in agent or employee monitors and indicate the current agent/employee state and media type with which they are engaged. You can choose to display the icons as shown in the following tables or select the Classic view (Contact Center Client tab > Options > Real-time icons).

NOTE: If Contact Center Client becomes disconnected from the server, upon re-connection agent states will be automatically synchronized with the server.

The following table displays Employee state icons and their meanings.

The following table displays Agent state icons and their meanings.

Table 24.18: Employee states (Sheet 1 of 3)

Term	Icon	Meaning
Ringing		An ACD interaction ringing on the employee, waiting to be handled
ACD		An employee handling an ACD interaction

Table 24.18: Employee states (Continued) (Sheet 2 of 3)

Term	Icon	Meaning
ACD Hold		An employee who has placed an ACD interaction on hold
Idle		An employee logged on and waiting to receive an interaction
Non ACD		An employee involved in an incoming Non ACD interaction or employee-originated voice interaction
Non ACD Hold		An employee who has placed a Non ACD voice interaction on hold
Outbound		An employee on an outgoing voice interaction
Outbound Hold		An employee who has placed an outgoing voice interaction on hold
Do Not Disturb		An employee who has activated Do Not Disturb and is not available to receive any ACD or Non ACD interactions
Make Busy		An employee who is not available to receive ACD interactions but can receive transferred interactions and voice interactions dialed directly to the employee This icon also displays when an employee's external hot desk agent is in the Reseize Timer state

Table 24.18: Employee states (Continued) (Sheet 3 of 3)

Term	Icon	Meaning
System Make Busy		An employee that the system has put into a state where they cannot receive ACD contacts. For example, if an employee is offered a communication and does not answer, they will be put into System Make Busy for a predetermined length of time.
Work Timer		An employee who is completing post-contact work, such as paperwork, and is unavailable to receive interactions of that media type
Logged Off		An employee not currently logged in to any queue
Logged In Not Present		An employee logged in but not present in any of their agent groups, and employees not present in a media type across all groups
Unavailable		An employee who has not generated any activity since Mi Contact Center Business was started

Table 24.19: Agent states (Sheet 1 of 3)

Term	Voice	Email	Chat	SMS	Meaning
Ringing					An ACD interaction ringing on an agent, waiting to be handled
ACD					An agent handling an ACD interaction

Table 24.19: Agent states (Continued) (Sheet 2 of 3)

Term	Voice	Email	Chat	SMS	Meaning
ACD Hold					An agent who has placed an ACD interaction on hold
Idle					An agent logged on and waiting to receive an interaction
Non ACD		-	-	-	An agent involved in an incoming Non ACD interaction or agent-originated voice interaction
Non ACD Hold		-	-	-	An agent who has placed a Non ACD voice interaction on hold
Outbound		-	-	-	An agent on an outgoing voice interaction
Outbound Hold		-	-	-	An agent who has placed an outgoing voice interaction on hold
Do Not Disturb					An agent who has activated Do Not Disturb and is not available to receive any ACD or Non ACD interactions
Make Busy					An agent who is not available to receive ACD interactions but can receive transferred interactions and voice interactions dialed directly to the agent This icon also displays when an external hot desk agent is in the Reseize Timer state

Table 24.19: Agent states (Continued) (Sheet 3 of 3)

Term	Voice	Email	Chat	SMS	Meaning
System Make Busy					If an agent is a multimedia agent and is logged on to two or more media servers simultaneously, the system sends the agent only one incoming communication at a time. For example, when the agent answers a voice interaction, the system places the agent ID(s) for the other media server types in System Make Busy
Work Timer					An agent who is completing post-contact work, such as paperwork, and is unavailable to receive interactions of that media type
Unknown					An agent who has not generated any activity since Mi Contact Center Business was started
Logged Off					An agent not currently logged in to any queue
Logged In Not Present					An agent logged in but not present to any of their agent groups, and agents not present to a media type across all groups

Overriding states in real-time monitors

An overriding state is a state that ‘trumps’ another state as the state that appears in an Agent or Employee monitor. The states by order of priority are:

- Ringing
- ACD
- ACD Hold
- Non ACD

- Non ACD Hold
- Outbound
- Outbound Hold
- Work Timer
- Do Not Disturb
- Make Busy
- System Idle
- Idle

Monitoring agents and queues

The real-time monitors in Contact Center Client are automatically updated to reflect current contact center activity and device and device group configuration changes. Supervisors can use the following monitors to access up-to-the-minute statistics and information to assist in identifying performance issues and dealing with such situations immediately as they arise.

You can customize the card design to display information in the monitors to suit your work environment. For more information on customizing Contact Center Client monitors, see *"Customizing the information displayed on position and time monitors"*.

Contact Center Client real-time monitors and charts are briefly described in the following section. If you require a more detailed description of the monitors and charts available with Contact Center Client, see *"Real-time Monitors"*.

Workload and monitors

Employee Workload can affect the value displaying in real-time monitors for ACD, Ringing, Hold, and Work Timer if employees are handling multiple interactions that are in the same state. If an employee is handling multiple interactions at the same time in the same state, the Agent or Employee monitor will display the time of the oldest interaction. When the oldest interaction changes its state, the time will change to the time of the next oldest interaction.

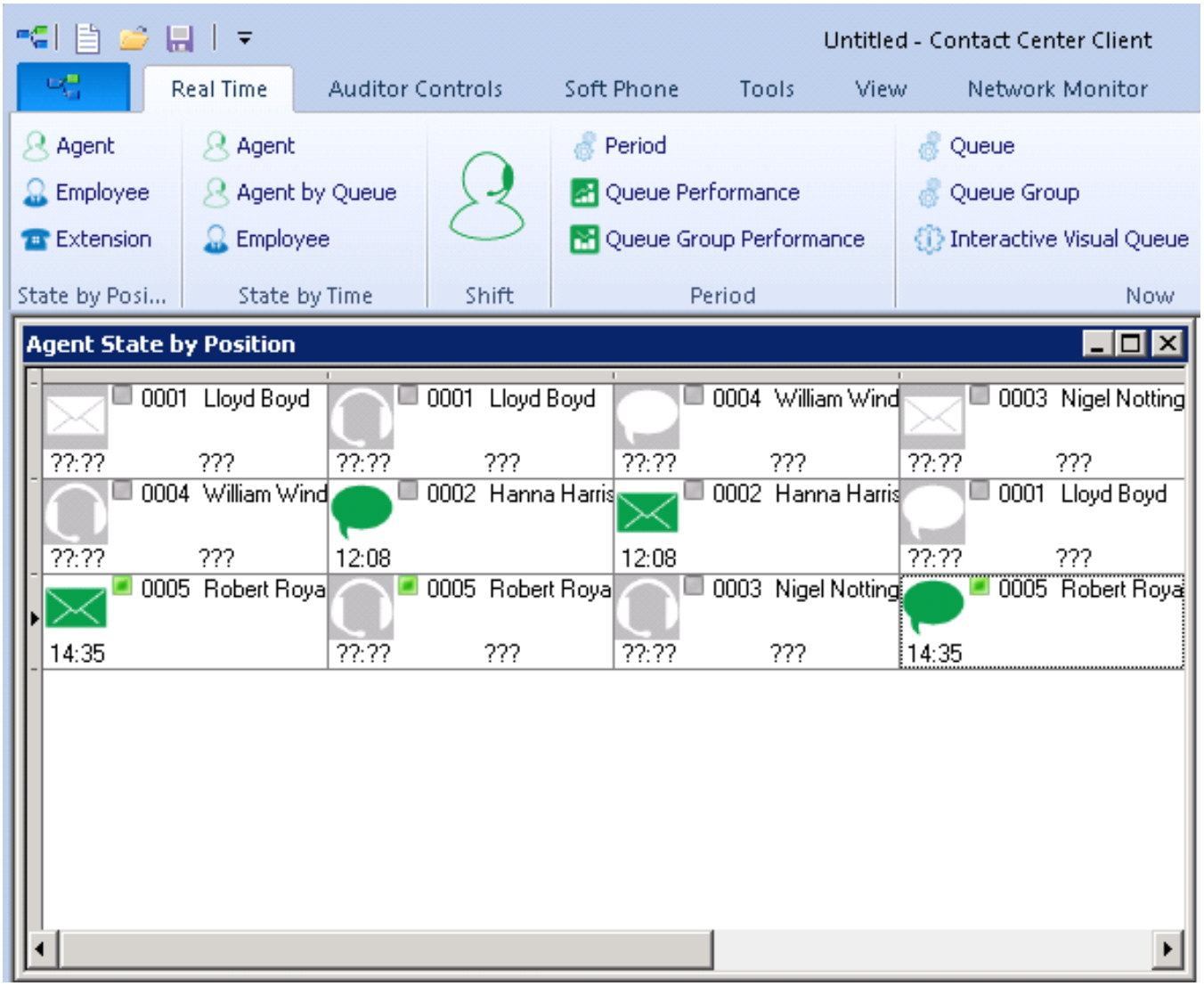
For example, if an email agent in ACD was handling two emails, one at 5:30 and the other at 1:30, the displayed ACD time would be 5:30. If the employee finished handling the oldest email, the time would change to 1:30.

For more information on Workload, see *"Configuring Workload"*.

Agent or Employee State by Position monitor

The Agent and Employee State by Position monitors provide real-time information in cells that you can arrange to mirror your floor plan, enabling you to view employees by their physical position in your contact center. (See the following figures.)

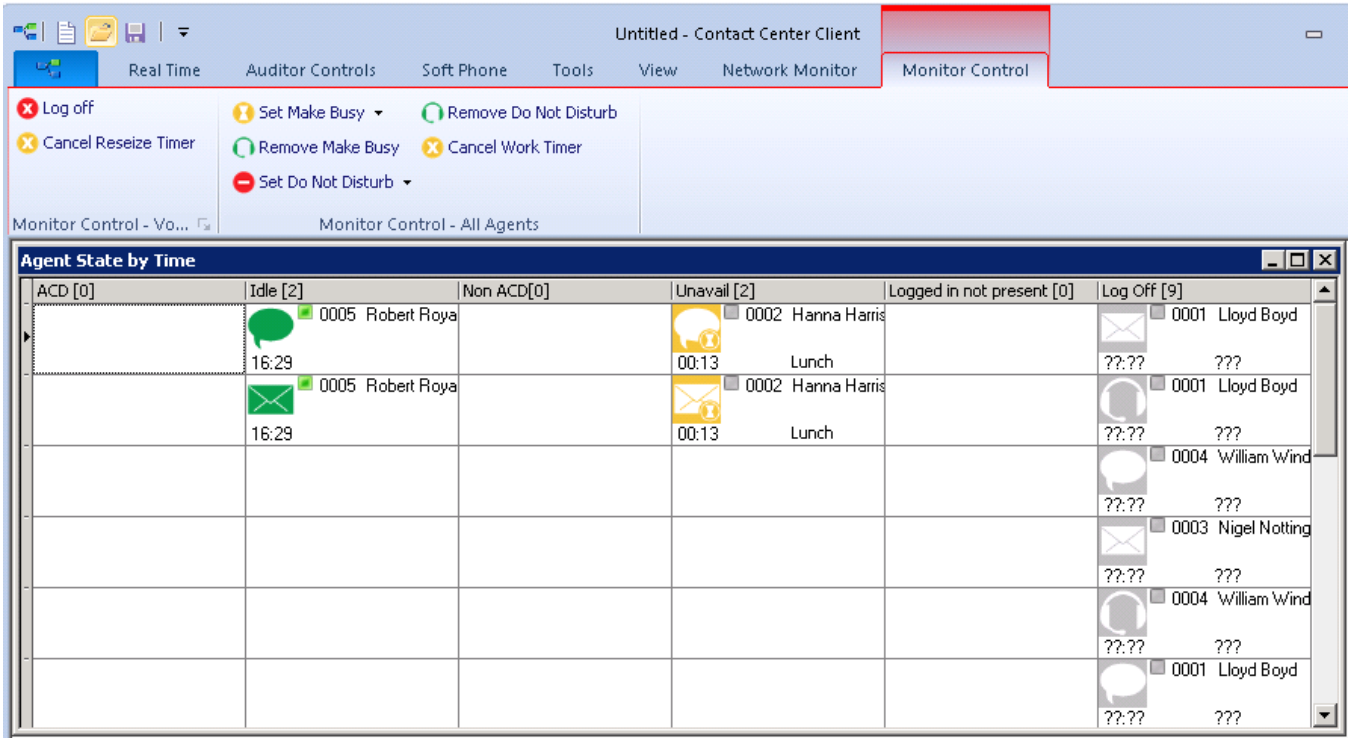
Figure 24.15: Agent or Employee State by Position monitor



Agent or Employee State by Time monitor

The Agent or Employee State by Time monitors provide real-time agent information under ACD, Idle, Non ACD, Unavailable, and Logged Off column headings. The difference between this monitor and the State by Position monitor is that the Agent or Employee State by Time monitors list agents in order of the time spent in the applicable state. You can specify which columns of agent statistics display and in what order they display. For example, you can sort logged off agents by designating the longest logged off agent to display first in the list. (See the following figure.)

Figure 24.16: Agent or Employee State by Time monitor



The following table lists the Agent or Employee State by Time column headings and their associated agent states.

Table 24.20: Agent State by Time and Employee State by Time column headings

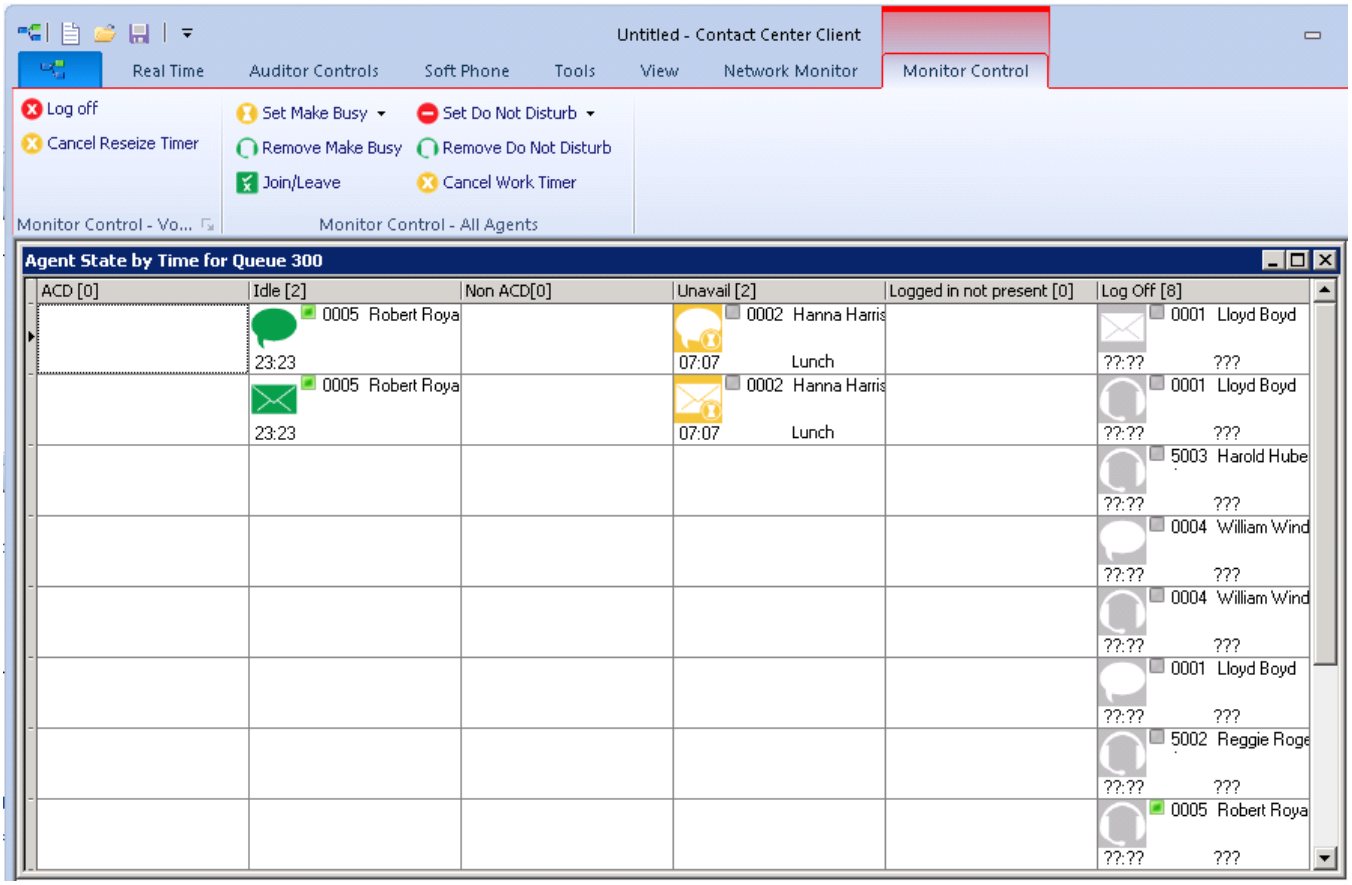
Category	Associated agent states
ACD	includes agents in ACD and agents in ACD Hold
Idle	includes agents in the Idle state
Non ACD	includes agents in Non ACD, in Non ACD Hold, Outbound agents, and Outbound Hold agents
Unavailable	includes agents in Do Not Disturb, Make Busy, Work Timer, Reseize Timer, and Unknown
Logged in not present	includes agents logged in but not present to any of their agent groups, and agents not present to a media type across all groups
Log Off	includes agents in the Logged Off and Offline (Ignite, WEB) states

Agent State by Time for Queue monitor

The Agent State by Time for Queue monitor is designed specifically for contact centers who use Agent Group Presence functionality. This monitor is accessed from the Time menu in Contact Center Client and displays all agents configured in a specific queue and agents who are on ACD interactions, Idle, on Non ACD voice interactions, unavailable, logged onto the system but not present in the queue being moni-

tored, and logged off. Virtual queue groups are shown under the Virtual queue groups section of this monitor and are marked in the title as (virtual).(See the following figure.)

Figure 24.17: Agent State by Time for Queue monitor



The following table lists the Agent State by Time for Queue column headings and their associated agent states.

Table 24.21: Agent State by Time for Queue column headings (Sheet 1 of 2)

Category	Associated agent states
ACD	includes agents in ACD and agents in ACD Hold
Idle	includes agents in the Idle state
Non ACD	includes agents in Non ACD, in Non ACD Hold, Outbound agents, and Outbound Hold agents
Unavailable	includes agents in Do Not Disturb, Make Busy, Work Timer, and Reseize Timer
Logged in not present	includes agents logged in but not present to any of their agent groups, and agents not present to a media type across all groups

Table 24.21: Agent State by Time for Queue column headings (Continued) (Sheet 2 of 2)

Category	Associated agent states
Log Off	includes agents in the Logged Off, Unknown, and Offline (Ignite, WEB) states

Agent Shift monitor

The Agent Shift monitor provides running daily totals of statistics for individual agents. You can specify which columns of statistics display and the order in which they display. (See the following figure.)

Figure 24.18: Agent Shift monitor

Media Server	Agent login ID	Name	Extn #	Log In	Last Event Recd	Shift Time	ACD Time	ACD Hold Time	Non ACD Time	Non ACD Hold Time	Out Time	Out Hold Time	DND Time	MKB Time	Wrap Up Time
DocsIgnite	0001	Lloyd Boyd				00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00
3300 ICP	0001	Lloyd Boyd				00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00
3300 ICP	500...	Harold Hubert				00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00
Chat_Server	0004	William Windsor				00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00
Chat_Server	0005	Robert Royale		5:09 PM	5:09...	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00
3300 ICP	0004	William Windsor				00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00
Chat_Server	0002	Hanna Harris		5:12 PM	5:25...	13:49	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00
DocsIgnite	0002	Hanna Harris		5:12 PM	5:25...	13:49	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00
Chat_Server	0001	Lloyd Boyd				00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00
DocsIgnite	0005	Robert Royale		5:09 PM	5:09...	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00
3300 ICP	500...	Reggie Rogers				00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00
3300 ICP	0005	Robert Royale				00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00

The following table lists the Agent Shift column headings and their definitions.

Table 24.22: Agent Shift column headings (Sheet 1 of 4)

Term	Abbreviated Name	Meaning
Agent State		The agent's media type and current state
Media Server	Media Server	The media server to which the agent is associated
Agent Shift Name	Name	The name of the agent being monitored

Table 24.22: Agent Shift column headings (Continued) (Sheet 2 of 4)

Term	Abbreviated Name	Meaning
Agent login ID	Agent login ID	The login ID of the agent being monitored
Extension Number	Extn #	The extension where the agent logged in (voice only)
Logged On	Log In	The most recent time the agent logged in
Last Event Received	Last Event Recd	The most recent time an agent event occurred
Shift Time	Shift Time	The total elapsed time logged for the agent, calculated based on the difference between log in and last event received
ACD Time	ACD Time	The duration of ACD interactions handled, from agent pickup to completion (not including hold time)
ACD Hold Time	ACD Hold Time	The duration of time ACD interactions spent on hold
Non ACD Time	Non ACD Time	The duration of Non ACD interactions handled, from agent pickup to completion (not including hold time) (voice only)
Non ACD Hold Time	Non ACD Hold Time	The duration of time Non ACD interactions spent on hold (voice only)
Outbound Time	Out Time	The duration of time agents spent handling outbound calls (voice only)
Outbound Hold Time	Out Hold Time	The duration of time outbound calls spent on hold, for agents (voice only)
Do Not Disturb Time	DND Time	The duration of time the agent entered the Do Not Disturb State
Make Busy Time	MKB Time	The number of times the agent entered the Make Busy state

Table 24.22: Agent Shift column headings (Continued) (Sheet 3 of 4)

Term	Abbreviated Name	Meaning
Wrap Up Time	Wrap Up Time	The duration of time where Wrap Up Time was the overriding state for the agent. Wrap up time does not include any time spent making or taking interactions during the wrap up timer.
Do Not Disturb Count	DND Cnt	The number of times the agent entered the Do Not Disturb state
Make Busy Count	MKB Cnt	The number of times the agent entered the Make Busy state
ACD Count	ACD Cnt	The number of ACD interactions handled by the agent
Short ACD Count	Shrt ACD Cnt	The number of ACD interactions handled by the agent where the handle time was less than the Short Handle parameter
Non ACD Count	Non ACD Cnt	The number of Non ACD interactions handled by the agent (voice only)
Hold ACD Count	Hold ACD Cnt	The number of times ACD interactions were placed on hold
Non ACD Hold Count	Non ACD Hold Cnt	The number of times Non ACD interactions were placed on hold (voice only)
Outbound Count	Out Cnt	The number of outbound calls made by the agent (voice only)
Outbound Hold Count	Out Hold Cnt	The number of times outbound calls were placed on hold (voice only)
Contacts Per Hour	Contacts Per Hour	The total ACD interaction count minus the ACD short handle count, divided by the shift time for the agent
On Failover	On failover	Indicates whether the primary media server is offline and has failed over to the secondary media server (voice only)

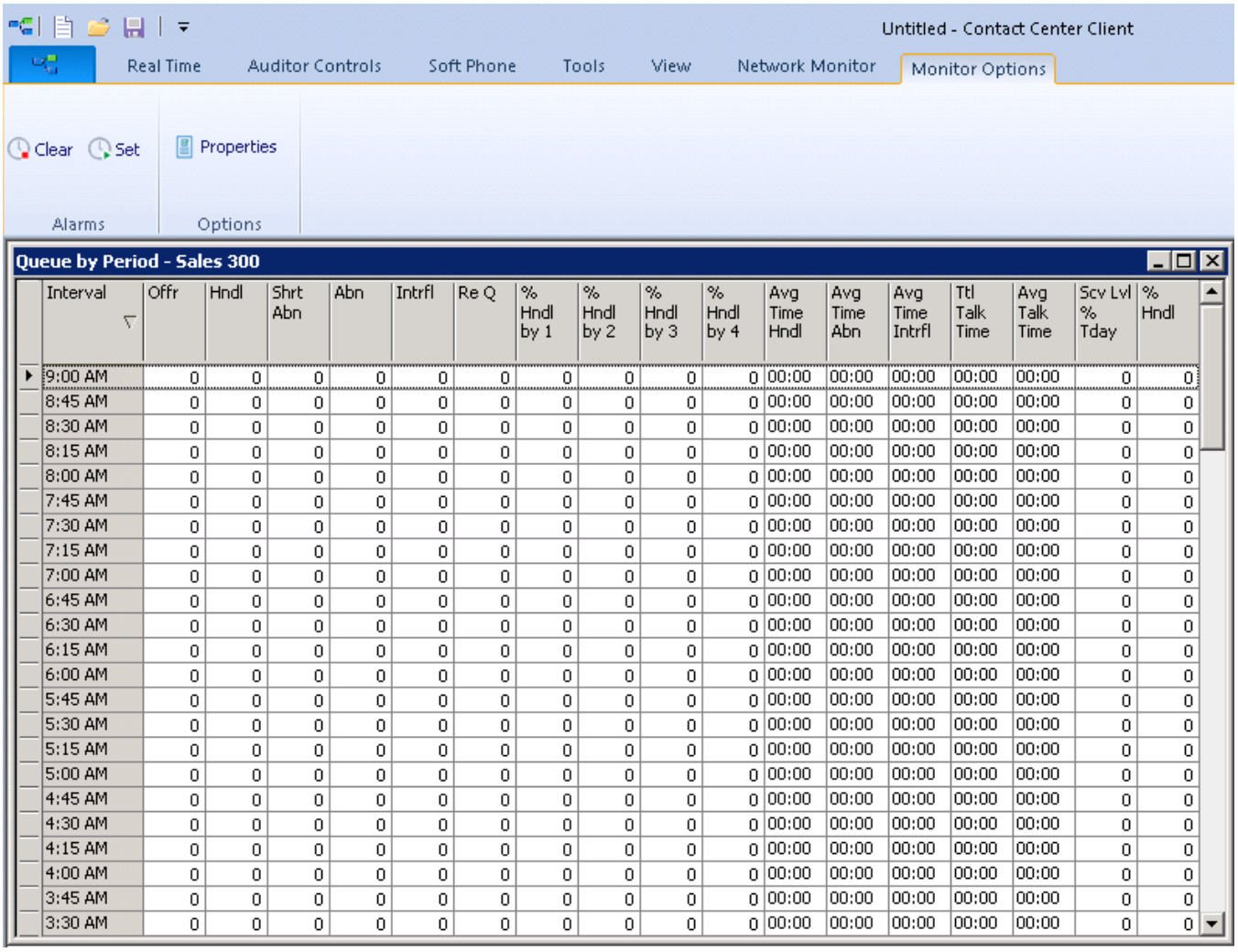
Table 24.22: Agent Shift column headings (Continued) (Sheet 4 of 4)

Term	Abbreviated Name	Meaning
Agent Unavailable Percent	Agt Unavail %	The percentage of shift time for which the agent was unavailable to receive interactions
Logged In Not Present Time	Logged In Not Present Time	The duration of time the agent was logged into but not present to any of their agent groups, and the duration of time the agent was not present in a media type across all groups
Average Handle	Avg Hndl	The average amount of time the agent spent handling ACD interactions (ACD Time divided by ACD Count, excluding ACD Hold Time).
Occupancy	Occp	The duration of time the agent spent processing interactions, including ringing time

Queue by Period monitor

The Queue by Period monitor collates queue statistics by 15-minute intervals over a 24-hour period. The monitor refreshes each time there is a change in a statistic and at 15-minute intervals. The current 15-minute interval always displays at the top of the monitor. (See the following figure.)

Figure 24.19: Queue by Period monitor



Interval	Offr	Hndl	Shrt Abn	Abn	Intrfl	Re Q	% Hndl by 1	% Hndl by 2	% Hndl by 3	% Hndl by 4	Avg Time Hndl	Avg Time Abn	Avg Time Intrfl	Ttl Talk Time	Avg Talk Time	Scv Lvl % Tday	% Hndl
9:00 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
5:45 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
5:15 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
5:00 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
4:45 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	00:00	00:00	0	0

The following table lists the Queue by Period column headings and their definitions.

Table 24.23: Queue by Period column headings (Sheet 1 of 4)

Term	Abbreviated Name	Meaning
Interval time	Interval	The 15 minute interval of time
Offered	Offr	The total number of interactions offered to the queue during the 15-minute interval
Handled	Hndl	The total number of interactions answered by agents during the 15-minute interval

Table 24.23: Queue by Period column headings (Continued) (Sheet 2 of 4)

Term	Abbreviated Name	Meaning
Short Abandoned	Shrt Abn	During the 15-minute interval, the total number of interactions abandoned before the short abandon time configured in YourSite
Abandoned	Abn	The total number of interactions abandoned during the 15-minute interval before being answered by members
Interflowed	Intrfl	The total number of interactions interflowed during the 15-minute interval
Requeued	Re Q	The total number of interactions re-queued during the 15-minute interval **NOTE:** This statistic displays information for ACD paths and multimedia queues only. Statistics for Ring Groups display as '0'.
% Handled by 1-4	% Hndl by 1-4	A count of all of the interactions answered by the first, second, third, and fourth agent groups during the 15-minute interval **NOTE:** This statistic displays information for ACD paths and multimedia queues only. Statistics for Ring Groups display as '0'.
Average Time to Handle	Avg Time Hndl	The average number of minutes interactions waited to be taken out of queue (answered or picked) by an members during the 15-minute interval
Average Time to Abandon	Avg Time Abn	The average number of minutes interactions waited during the 15-minute interval before they abandoned their interactions

Table 24.23: Queue by Period column headings (Continued) (Sheet 3 of 4)

Term	Abbreviated Name	Meaning
Average Time to Interflow	Avg Time Intrfl	The average number of minutes interactions waited during the 15-minute interval before being interflowed
Total Conversation Time	Ttl Conv Time	The total time members spent communicating (talking, chatting, or replying) with interactions during the 15-minute interval
Average Conversation Time	Avg Conv time	The average time members spent communicating with interactions during the 15-minute interval
Service Level % Level	Scv Lvl % Tday	During the 15-minute interval, the percentage of interactions answered within the Service Level Time specified for the queue
% Handled	% Hndl	During the 15-minute interval, the percentage of interactions answered compared to the total number of interactions offered to the ACD queue for the day **NOTE:** This statistic displays information for ACD paths and multimedia queues only. Statistics for Ring Groups display as '0'.
Wrap Up	Wrap Up	The total time the agent spent in the Work Timer state during the 15-minute interval **NOTE:** This statistic displays information for ACD paths and multimedia queues only. Statistics for Ring Groups display as '0'.

Table 24.23: Queue by Period column headings (Continued) (Sheet 4 of 4)

Term	Abbreviated Name	Meaning
Make Busy	Make Busy	The total time the agent spend in the Make Busy state during the 15-minute interval **NOTE:** This statistic displays information for ACD paths and multimedia queues only. Statistics for Ring Groups display as '0'.
Occupancy	Occp	The total time the agent spent in an occupied state during the 15-minute interval (occupied state excludes idle time)
# Handled by 1-4	# Hndl by 1-4	The number of interactions answered by the first, second, third, and fourth agent groups during the 15-minute interval **NOTE:** This statistic displays information for ACD paths and multimedia queues only. Statistics for Ring Groups display as '0'.

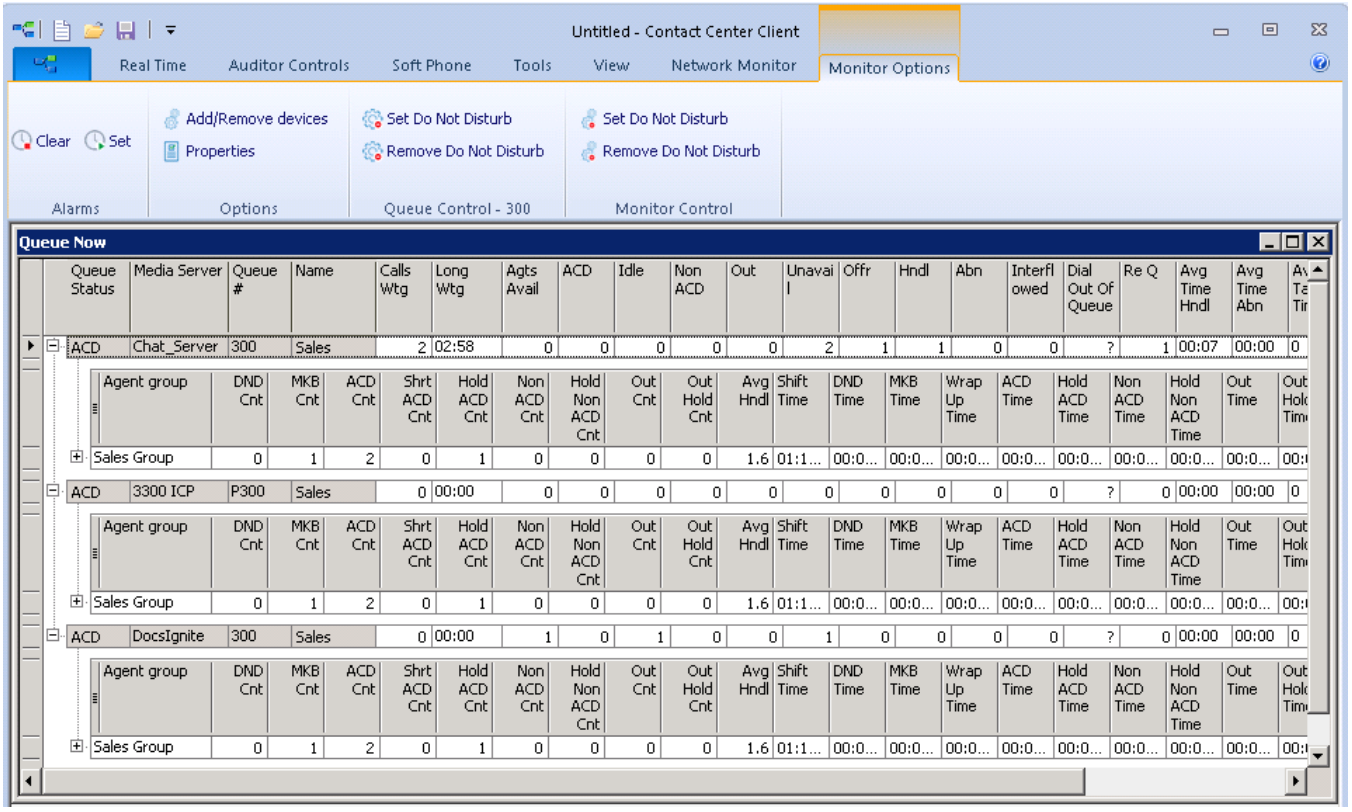
Queue Now and Queue Group Now monitors

The Queue Now monitor enables supervisors to view queue statistics in real-time, as well as expand individual queues in the monitor to view statistics on each queue's associated member agents or extensions. When you expand the Queue Now monitor to display the Name column, the monitor also displays member presence in the queue. Presence is indicated by a colored star in the Present column. A green star indicates the member is present in the queue. A gray star and gray row indicate the agent is not present in the queue. (See the following figure.)

NOTE:

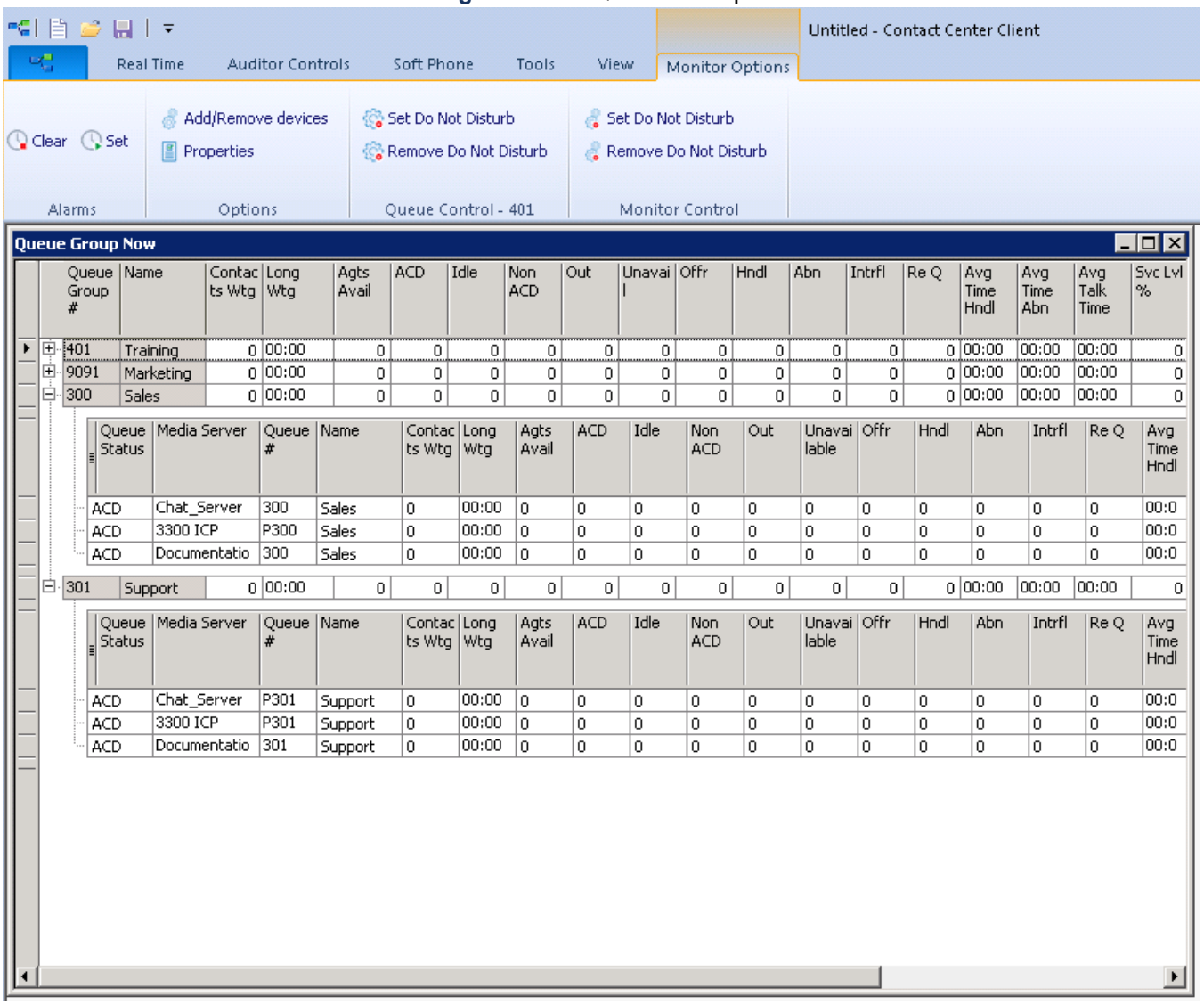
- Multimedia interactions in queue tagged as Junk or No Reply from Interactive Visual Queue and Ignite are not included in queue Handled, Completed, and Offered counts.
- Prior to version 7.1, Queue Now monitors displayed queue's member agent groups with agent group statistics. As of version 7.1, this functionality has been removed. Instead, queue members are grouped by agent group.

Figure 24.20: Queue Now monitor



The Queue Group Now monitor enables supervisors to view aggregated statistics for Reporting, Virtual, and Unified queue groups in real-time, as well as expand individual queue groups in the monitor to view statistics for the queue group's associated queues. (See the following figure.)

Figure 24.21: Queue Group Now monitor



Queue Group #	Name	Contacts Wtg	Long Wtg	Agts Avail	ACD	Idle	Non ACD	Out	Unavail	Offr	Hndl	Abn	Intrfl	Re Q	Avg Time Hndl	Avg Time Abn	Avg Talk Time	Svc Lvl %
401	Training	0	00:00	0	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	0
9091	Marketing	0	00:00	0	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	0
300	Sales	0	00:00	0	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	0

Queue Status	Media Server	Queue #	Name	Contacts Wtg	Long Wtg	Agts Avail	ACD	Idle	Non ACD	Out	Unavailable	Offr	Hndl	Abn	Intrfl	Re Q	Avg Time Hndl
ACD	Chat_Server	300	Sales	0	00:00	0	0	0	0	0	0	0	0	0	0	0	00:0
ACD	3300 ICP	P300	Sales	0	00:00	0	0	0	0	0	0	0	0	0	0	0	00:0
ACD	Documentatio	300	Sales	0	00:00	0	0	0	0	0	0	0	0	0	0	0	00:0

Queue Group #	Name	Contacts Wtg	Long Wtg	Agts Avail	ACD	Idle	Non ACD	Out	Unavail	Offr	Hndl	Abn	Intrfl	Re Q	Avg Time Hndl	Avg Time Abn	Avg Talk Time	Svc Lvl %
301	Support	0	00:00	0	0	0	0	0	0	0	0	0	0	0	00:00	00:00	00:00	0

Queue Status	Media Server	Queue #	Name	Contacts Wtg	Long Wtg	Agts Avail	ACD	Idle	Non ACD	Out	Unavailable	Offr	Hndl	Abn	Intrfl	Re Q	Avg Time Hndl
ACD	Chat_Server	P301	Support	0	00:00	0	0	0	0	0	0	0	0	0	0	0	00:0
ACD	3300 ICP	P301	Support	0	00:00	0	0	0	0	0	0	0	0	0	0	0	00:0
ACD	Documentatio	301	Support	0	00:00	0	0	0	0	0	0	0	0	0	0	0	00:0

The following table lists the real-time and over-the-business-day Queue Now and Queue Group Now queue and queue group statistics and their definitions.

NOTE: Some statistics in the Queue Now monitor display in the Queue Group Now monitor as member statistics.

Table 24.24: Queue Now and Queue Group Now queue statistic column headings (Sheet 1 of 10)

Term	Abbreviated Name	Meaning
Queue Status	Queue Status	The current status of the queue—either Open, Closed, or Do Not Disturb (voice only)
Queue Group Number	Queue Group #	The queue group reporting number (Queue Group Now only)

Table 24.24: Queue Now and Queue Group Now queue statistic column headings (Continued) (Sheet 2 of

Term	Abbreviated Name	Meaning
Media Server	Media Server	The queue's media server
Queue Number	Queue #	The queue's reporting number
Queue Name	Name	The queue or queue group name
Contacts Waiting	Contacts Wtg	The current number of contacts in queue waiting for an member to become available, including those listening to silence, music, or recorded announcements
Longest Waiting	Long Wtg	The current duration, in minutes and seconds, of the contact waiting the longest in queue or queue group
Available (Queue Now) Agents Available (Queue Group Now)	Avail (Queue Now) Agts Avail (Queue Group Now)	The total number of members logged in and not in Do Not Disturb, Make Busy, Work Timer, Ringing, Reseize Timer, Unknown, and Offline (Ignite, WEB)
ACD	ACD	The current number of members handling ACD interactions
Idle	Idle	The current number of members logged on and ready to receive interactions
Non ACD	Non ACD	The current number of members handling Non ACD calls (voice only)
Outbound	Out	The current number of members on outgoing calls (voice only)
Unavailable	Unavail	The current number of agents in Do Not Disturb, Make Busy, Work Timer, or Unknown
Offered	Offr	The total number of interactions offered to the queue / queue group

Table 24.24: Queue Now and Queue Group Now queue statistic column headings (Continued) (Sheet 3 of

Term	Abbreviated Name	Meaning
Handled	Hndl	The total number of ACD interactions handled by members
Abandoned	Abn	The total number of interactions abandoned before being answered by members **NOTE:** Abandoned does not peg short abandons as abandoned interactions while the Abandoned column in the Interactive Visual Queue monitor displays all abandoned interactions. Because of this difference, you may notice discrepancies between the abandoned call information in these two monitors.
Interflowed	Intrfl	The total number of ACD interactions interflowed. Interflow is a mechanism that directs an interaction waiting in queue to another answer point.
Requeued	Re Q	The total number of ACD interactions requeued **NOTE:** This statistic displays information for ACD paths and multimedia queues only. Statistics for Ring Groups display as '0'.
Average Time to Handle	Avg Time Hndl	The average time it takes for the interaction to be taken out of queue (answered or picked) by a member
Average Time to Abandon	Avg Time Abn	The current average amount of time customers wait in queue before abandoning interactions
Average ConversationTime	Avg Conv Time	The current average time members spent communicating (talking, chatting, or replying) with contacts

Table 24.24: Queue Now and Queue Group Now queue statistic column headings (Continued) (Sheet 4 of

Term	Abbreviated Name	Meaning
Service Level %	Svc Lvl %	For a queue, this is the percentage of interactions handled within the queue's Service Level Time value over the day. For a queue group, this is the lowest percentage of interactions handled within the queue's Service Level Time value over the day across all queues.
Handled %	% Hndl	For a queue, this is the percentage of interactions handled compared to the total number of interactions offered to the queue for the day. For a queue group, this is the lowest percentage of interactions handled compared to the total number of interactions offered to the queue for the day across all queues.
% Handled by 1-4	% Hndl by 1-4	For a queue, this is the percentage of all of the interactions answered by the first, second, third, and fourth agent groups. For a queue group, this is the highest percentage of all of the interactions answered by the first, second, third, and fourth agent groups. **NOTE:** This statistic displays information for ACD paths and multimedia queues only. Statistics for Ring Groups display as '0'.
Total Conversation Time	Ttl Conv Time	The current total time members spent communicating (talking, chatting, or replying) with contacts

Table 24.24: Queue Now and Queue Group Now queue statistic column headings (Continued) (Sheet 5 of

Term	Abbreviated Name	Meaning
Total Queue Unavailable	Ttl Q Unavail	The total number of times during the day that interactions are rerouted because the queue is in Do Not Disturb or has no members logged in
Current Queue Unavailable	Curr Q Unavail	The current number of interactions are rerouted because no members are logged in or the queue is in Do Not Disturb. Once the queue becomes available, this value resets to 0.
Offered Last Hour	Offr Last Hour	The total number of interactions offered to the queue during the last hour of business
Time to Handle Last Hour	Time Hndl Last Hour	The time interactions waited in queue during the last hour of business before being handled by an agent
% Handled Last Hour	% Hndl Last Hour	For a queue, this is the percentage of interactions handled in the last hour of business, compared to the total number of interactions offered to the ACD queue for the day. For a queue group, this is the lowest percentage of interactions handled in the last hour of business, compared to the total number of interactions offered to the ACD queue for the day.
Service Level % Last Hour	Svc Lvl % Last Hour	For a queue, this is the percentage of interactions answered or picked within your Service Level Time value in the last hour. For a queue group, this is the lowest percentage of interactions answered or picked within your Service Level Time value in the last hour.

Table 24.24: Queue Now and Queue Group Now queue statistic column headings (Continued) (Sheet 6 of

Term	Abbreviated Name	Meaning
Handled Last Hour	Hndl Last Hour	The total number of interactions handled by members during the last hour of business
Abandoned Last Hour	Abn Last Hour	The total number of interactions abandoned during the last hour of business
Interflowed Last Hour	Intrfl Last Hour	The total number of interactions interflowed during the last hour of business. Interflow is a mechanism that directs an contacts waiting in queue to another answer point.
Unavailable Last Hour	Unavail Last Hour	The total number of times, in the last hour of business, interactions were rerouted because the queue they tried to access was in Do Not Disturb or had no members logged in See Current Queue Unavailable.
Average Handling Time Last Hour	Avg Hndl Last Hour	The average duration of interactions from agent pick up to client hang up (including hold time) during the last hour of business
Offered Last 15 Minutes	Offr Last 15 Min	The total number of interactions offered to the queue in the last 15 minutes of business
Time to Handle Last 15 Minutes	Time Hndl Last 15 Min	The time interactions waited in queue during the last 15 minutes of business before being handled by a member

Table 24.24: Queue Now and Queue Group Now queue statistic column headings (Continued) (Sheet 7 of

Term	Abbreviated Name	Meaning
% Handled Last 15 Minutes	% Hndl Last 15 Min	For a queue, the percentage of interactions answered in the last 15 minutes of business, compared to the total number of interactions offered to the ACD queue for the day For a queue group, the lowest percentage of interactions answered in the last 15 minutes of business, compared to the total number of interactions offered to the ACD queue for the day.
Service Level % Last 15 Minutes	Svc Lvl % Last 15 Min	For a queue, this is the percentage of interactions answered or picked within your Service Level Time value in the last 15 minutes of business. For a queue group, this is the lowest percentage of interactions answered or picked within your Service Level Time value in the last 15 minutes of business.
Handled Last 15 Minutes	Hndl Last 15 Min	The total number of interactions handled by members during the last 15 minutes of business
Abandoned Last 15 Minutes	Abn Last 15 Min	The total number of interactions abandoned during the last 15 minutes of business
Interflowed Last 15 Minutes	Intrfl Last 15 Min	The total number of interactions interflowed during the last 15 minutes of business. Interflow is a mechanism that directs an interaction waiting in queue to another answer point.

Table 24.24: Queue Now and Queue Group Now queue statistic column headings (Continued) (Sheet 8 of

Term	Abbreviated Name	Meaning
Unavailable Last 15 Minutes	Unavail Last 15 Min	The total number of times, in the last 15 minutes of business, contacts were rerouted because the queue they tried to access was in Do Not Disturb or had no members logged in See Current Queue Unavailable.
Average Handling Time Last 15 Minutes	Avg Hndl Last 15 Min	The average handling duration of interactions from interaction pickup to interaction completion, including hold time, during the last 15 minutes of business
% Abandoned	% Abn	For a queue, this is the percentage of interactions that were abandoned (% Abandoned = Interactions Abandoned ÷ Interaction Offered) For a queue group, this is the highest percentage of interactions that were abandoned (% Abandoned = Interactions Abandoned ÷ Interactions Offered)
% Abandoned Last Hour	% Abn Last Hour	For a queue, this is the percentage of interactions that were abandoned in the last hour of business For a queue group, this is the highest percentage of interactions that were abandoned in the last hour of business

Table 24.24: Queue Now and Queue Group Now queue statistic column headings (Continued) (Sheet 9 of

Term	Abbreviated Name	Meaning
% Abandoned Last 15 Minutes	% Abn Last 15 Min	For a queue, this is the percentage of interactions that were abandoned in the last 15 minutes of business For a queue group, this is the highest percentage of interactions that were abandoned in the last 15 minutes of business
Wrap Up	Wrap Up	The total time that agents spent in the Work Timer state **NOTE:** This statistic displays information for ACD paths and multimedia queues only. Statistics for Ring Groups display as '0'.
Make Busy	Make Busy	The total time that agents spent in the Make Busy state **NOTE:** This statistic displays information for ACD paths and multimedia queues only. Statistics for Ring Groups display as '0'.
Occupancy	Occp	The total time that members spent in an occupied state (states other than Idle)
# Handled by 1-4	# Hndl by 1-4	The number of interactions answered by the first, second, third, and fourth agent groups **NOTE:** This statistic displays information for ACD paths and multimedia queues only. Statistics for Ring Groups display as '0'.

Table 24.24: Queue Now and Queue Group Now queue statistic column headings (Continued) (Sheet 10

Term	Abbreviated Name	Meaning
Logged Out	Logged out	The number of agents associated with the queue but not logged in to the system. (Queue Now only) **NOTE:** For Ring Groups, this statistic displays either the number of extensions out of service or hot desk users logged out.
Logged In Not Present	Not Present	The number of agents that are logged in, but not present in the queue.

The following table lists the real-time and over-the-business-day Queue Now and Queue Group Now member statistics and their definitions.

Table 24.25: Queue Now and Queue Group Now member statistic column headings (Sheet 1 of 4)

Term	Meaning
State	The queue member's agent or extension state For a list of agent states, see *"Employee and Agent state indicators"*.
Name	The name of the member being monitored. The icon beside the name indicates the media type the member handles
Present	Indicates whether the member is present in the queue Presence is indicated by a colored star. A green star indicates the agent or extension is present in the queue. A gray star and gray row indicates the agent is not present in the queue.
Media Server	The media server to which the member is associated
Reporting	The reporting number of the member being monitored
Extn #	The extension where the member logged in (voice only)
Log In	The most recent time the member logged in **NOTE:** This statistic displays information for ACD path and multimedia queue members only and is not calculated for Ring Group members.

Table 24.25: Queue Now and Queue Group Now member statistic column headings (Continued) (Sheet 2

Term	Meaning
Last Event Recd	The most recent time a member event occurred
Shift Time	The total elapsed time logged for the member, calculated based on the difference between log in and last event received **NOTE:** This statistic displays information for ACD paths and multimedia queues only. Statistics for Ring Groups display as '0'.
DND Time	The duration of time where Do Not Disturb was the overriding state for the member
MKB Time	The duration of time where Make Busy was the overriding state for the member **NOTE:** This statistic displays information for ACD paths and multimedia queues only. Statistics for Ring Groups display as '0'.
Wrap Up Time	The duration of time where Wrap Up Time was the overriding state for the member. Wrap up time does not include any time spent making or taking interactions during the wrap up timer. **NOTE:** This statistic displays information for ACD paths and multimedia queues only. Statistics for Ring Groups display as '0'.
ACD Time	The duration of ACD interactions handled, from member pickup to completion (not including hold time)
Hold ACD Time	The duration of time ACD interactions spent on hold
Non ACD Time	The duration of Non ACD interactions handled, from member pickup to completion (not including hold time) (voice only)
Hold Non ACD Time	The duration of time Non ACD interactions spent on hold (voice only)
Out Time	The duration of time members spent handling outbound calls (voice only)
Out Hold Time	The duration of time outbound calls spent on hold, for agents (voice only)
DND Cnt	The number of times the member entered the Do Not Disturb state

Table 24.25: Queue Now and Queue Group Now member statistic column headings (Continued) (Sheet 3

Term	Meaning
MKB Cnt	The number of times the member entered the Make Busy state **NOTE:** This statistic displays information for ACD paths and multimedia queues only. Statistics for Ring Groups display as '0'.
ACD Cnt	The number of ACD interactions handled by the member
Shrt ACD Cnt	The number of ACD interactions handled by the member where the handle time was less than the Short Handle parameter
Hold ACD Cnt	The number of times ACD interactions were placed on hold
Non ACD Cnt	The number of Non ACD interactions handled by the member (voice only)
Hold Non ACD Cnt	The number of times Non ACD interactions were placed on hold (voice only)
Out Cnt	The number of outbound calls made by the member (voice only)
Out Hold Cnt	The number of times outbound calls were placed on hold (voice only)
Avg Hndl	The average amount of time the members spent handling ACD interactions (ACD Time divided by ACD Count, excluding ACD Hold Time).
Agt Grp	The agent group to which the agent belongs **NOTE:** This statistic displays information for ACD paths and multimedia queues only. Statistics for Ring Groups display as '0'.
Occupancy	The duration of time the member spent processing interactions
Contacts per Hour	The total ACD interaction count minus the ACD short handle count, divided by the shift time for the member
On failover	Indicates whether the primary media server is offline and has failed over to the secondary media server (voice only)

Table 24.25: Queue Now and Queue Group Now member statistic column headings (Continued) (Sheet 4

Term	Meaning
Unavail %	The percentage of time for the shift that the member was in Do Not Disturb, Make Busy, and Work Timer states
Not Present Time	The duration of time the member was logged into but not present in an agent group or Ring Group
External handle time	The duration of time the member spent handling external calls (voice only)
External inbound cnt	The number of incoming external calls (voice only) **NOTE:** This statistic displays information for ACD paths and multimedia queues only. Statistics for Ring Groups display as '0'.
External outbound cnt	The number of outgoing external calls (voice only) **NOTE:** This statistic displays information for ACD paths and multimedia queues only. Statistics for Ring Groups display as '0'.

Interactive Visual Queue monitor

The Interactive Visual Queue monitor enables supervisors to monitor and control traffic in contact center queues. The Interactive Visual Queue monitor is described in detail in *"Interacting with customer interactions to improve service levels"*.

Interactive Visual Queue works in conjunction with Contact Center Client. Before you use Interactive Visual Queue, ensure your configuration in YourSite Explorer mirrors that of your telephone system.

NOTE: In order to use Interactive Visual Queue, you must enable all HCI options on Class of Service Assignment form 1 (COS 1).

Configuring options in YourSite Explorer

In YourSite Explorer, for each queue you want to monitor, you must configure the priority level and the method for handling interflowed contacts.

NOTE: If the telephone system settings and Interactive Visual Queue settings do not match, Interactive Visual Queue will not display the correct voice contact activity. For example, if Queue 1 is set to a priority of 10 on the telephone system and a priority of 20 in YourSite Configuration, Interactive Visual Queue will display voice contacts in Queue 1 as priority 20. However, the actual queue will handle the voice contacts as priority 10.

Queue Now and Queue Group Now charts

The Queue Now and Queue Group Now charts offer visual representation of Queue Now and Queue Group Now real-time statistics, grouped by the type of statistics displayed. Three different series of statistics are available to view in charts:

- **Integer**—displays numerically-based real-time statistics

- **Percentage**—displays percentage-based statistics
- **Time**—displays time-based statistics

Users can specify which statistics display in their charts. The following figure shows a Queue Now Integer Chart

NOTE: Multimedia interactions in queue tagged as Junk or No Reply from Interactive Visual Queue and Ignite are not included in queue Handled, Completed, and Offered counts.

Figure 24.22: Queue Now (Integer chart)

The Integer chart shows:

- Handled (Default)
- Abandoned (Default)
- Interflowed (Default)
- Calls Waiting
- Agents Available
- ACD
- Idle
- Non ACD
- Outbound
- Unavailable
- Offered
- Requeue
- Total Hour
- Interflowed Last Hour

- Unavailable Last Hour
- Offered Last 15 Minutes
- Handled Last 15 Minutes
- Abandoned Last 15 Minutes
- Interflowed Last 15 Minutes
- Unavailable Last 15 Minutes
- Logged out
- Logged in not present
- # Handled by 1-4

The Percentage chart shows, by default:

- Service Level %
- Handled %
- % Handled by 1-4
- % Handled Last Hour
- Service Level % last Hour
- % Handled Last 15 Minutes
- Service Level % Last 15 Minutes
- %Abandoned
- %Abandoned Last Hour
- %Abandoned Last 15 Minutes.

Time charts show, by default:

- Longest Waiting
- Average Time to Handle
- Average Time to Abandon Minutes
- Average Talk Time
- Ttl Talk Time
- Time to Handle Last Hour
- Average Time to Handle Last Hour
- Hdnl Last 15 Min
- Average Handling Time Last 15 Minutes
- Rmt Long Wtg
- Total Work Timer minutes
- Total make busy minutes
- Total occupancy minutes

For descriptions of the statistics, see *"Queue Now and Queue Group Now monitors"*.

NOTE: *The following statistics are for ACD path voice queues and multimedia queues only and will not display information for Ring Groups:*

- Requeue
- # Handled by 1, 2, 3, 4
- % Handled by 1, 2, 3, 4
- Total Work Timer Minutes
- Total Make Busy minutes

Queue Performance by Period and Queue Group Performance by Period charts

The Queue Performance by Period and Queue Group Performance by Period charts offer visual representations of Queue and Queue Group Performance by Period statistics, grouped by the type of statistic displayed. Three different series of statistics are available to view in charts:

- **Integer**—displays numerically-based real-time statistics
- **Percentage**—displays percentage-based statistics
- **Time**—displays time-based statistics

The following figure displays a Queue Performance by Period chart displaying the default statistics of the Integer series.

NOTE: Multimedia interactions in queue tagged as Junk or No Reply from Interactive Visual Queue and Ignite are not included in queue Handled, Completed, and Offered counts.

Figure 24.23: Queue Performance by Period chart

The Integer series shows the following statistics across 15 minute intervals for queues or queue groups:

- Handled (Default)
- Interflowed (Default)
- Offered
- Short Abandoned
- Abandoned
- Requeue
- # Handled by 1-4

The Percentage series shows the following statistics across 15 minute intervals for queues or queue groups, by default:

- % Handled by 1-4
- Service Level % Today
- % Handled

The Time series show the following statistics across 15 minute intervals for queues or queue groups, by default:

- Average Time to Handle
- Average Time to Abandon
- Average Time to Interflow
- Ttl Talk Time
- Average Talk Time
- Total Work Timer minutes
- Total make busy minutes
- Total occupancy minutes

For more information for the definitions of these statistics, see *"Queue by Period monitor"*.

NOTE: *The following statistics are for ACD path voice queues and multimedia queues only and will not display information for Ring Groups:*

- Requeue
- # Handled by 1, 2, 3, 4
- % Handled by 1, 2, 3, 4
- Total Work Timer Minutes
- Total make busy minutes

Interacting with agent presence to improve service levels

Interactive Contact Center is a feature that enables supervisors to control the availability of employees and their agents.

Using Interactive Contact Center, supervisors can

- Log employees and their agents in and out of their voice and multimedia applications
- Have agents join or leave their agent groups
- Place employees in and remove them from Make Busy
- Place employees in and remove them from Do Not Disturb
- Cancel the employee Work Timer
- Cancel the employee Reseize Timer

Using Interactive Contact Center with Contact Center Client, you can control agents on the following monitors: Agent and Employee State by Position, Agent and Employee State by Time, and Agent Shift.

Using Interactive Contact Center with Ignite (WEB), you can control agents on the following monitors: Employee State and Agent State.

Individual supervisors can be restricted through security roles from managing particular monitors and devices. For more information, consult your System Administrator.

Agent and Agent Group Presence

Employees can be enabled to handle voice, email, chat, SMS, or open media media. When an employee is enabled to handle a media type, YourSite Explorer automatically creates a corresponding agent. These multimedia agents can be assigned to agent groups, which are in turn are associated to queues.

When agent groups are created, an employee's agents are assigned a default group presence, either Present or Absent. If an employee's default presence is Absent will be set in the Logged In Not Present agent state when they log in. To handle that media type, the employee has to manually change their agent presence in Ignite or Contact Center Client. Employees whose agents default presence is Present will be set in the Idle agent state when they log in. For details about agent states, see *"Employee and Agent state indicators"*.

Controlling employees and agents in real-time monitors

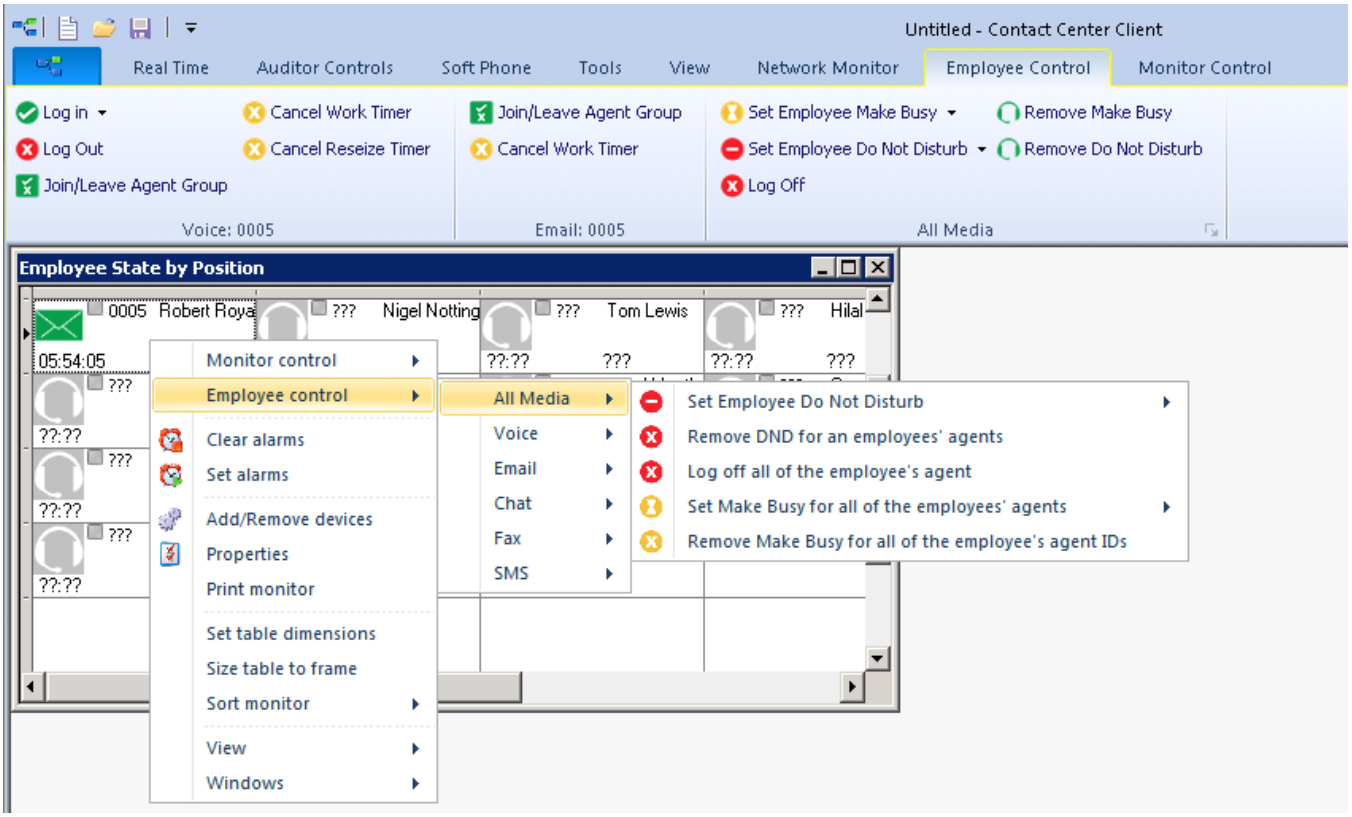
Interactive Contact Center enables supervisors, depending on their security settings, to control employees via the Contact Center Client and Ignite (WEB) employee and agent monitors. For example, if a supervisor notices a dramatic increase in the number of incoming emails in the Sales email queue, they can, using the agent monitor, remove the employee's chat agent from their agent group in the Sales chat queue, ensuring that the employee can focus entirely on incoming emails.

Depending on whether an employee or an agent monitor is open, Contact Center Client displays two tabs in the Contact Center Client ribbon for controlling employees or their agents. Supervisors can perform actions using either a right-click and select method within the monitor or by accessing the action menu in the Employee, Agent, or Monitor Control tab views. If they have Context Sensitivity enabled for monitors, the Agent or Employee tab automatically becomes the active tab when an employee or agent is selected. If an empty cell is selected, the Monitor Control tab becomes the active tab. The following tabs are displayed with employee or agent real-time monitors:

- **Employee or Agent Control**—Employee Control gives you control over individual employees and their agents. Employee monitor controls offer supervisors the greatest flexibility in controlling an employee and all of their agents. Supervisors can manage an employee`s availability, and all of an employee`s agents, or manage specific agents belonging to individual employees. (See the following figure.)
- **Monitor Control**—Monitor Control gives you control over all of the employees or agents on a monitor, enabling simultaneous management of presence for all employees or agents. (See the following figures.)

NOTE: Context sensitivity and monitor control are not supported with Ignite (WEB). You can only alter the state for one employee or agent at a time.

Figure 24.24: Employee State by Position - Employee Control tab options



Supervisors can control employees on the following Contact Center Client monitors:

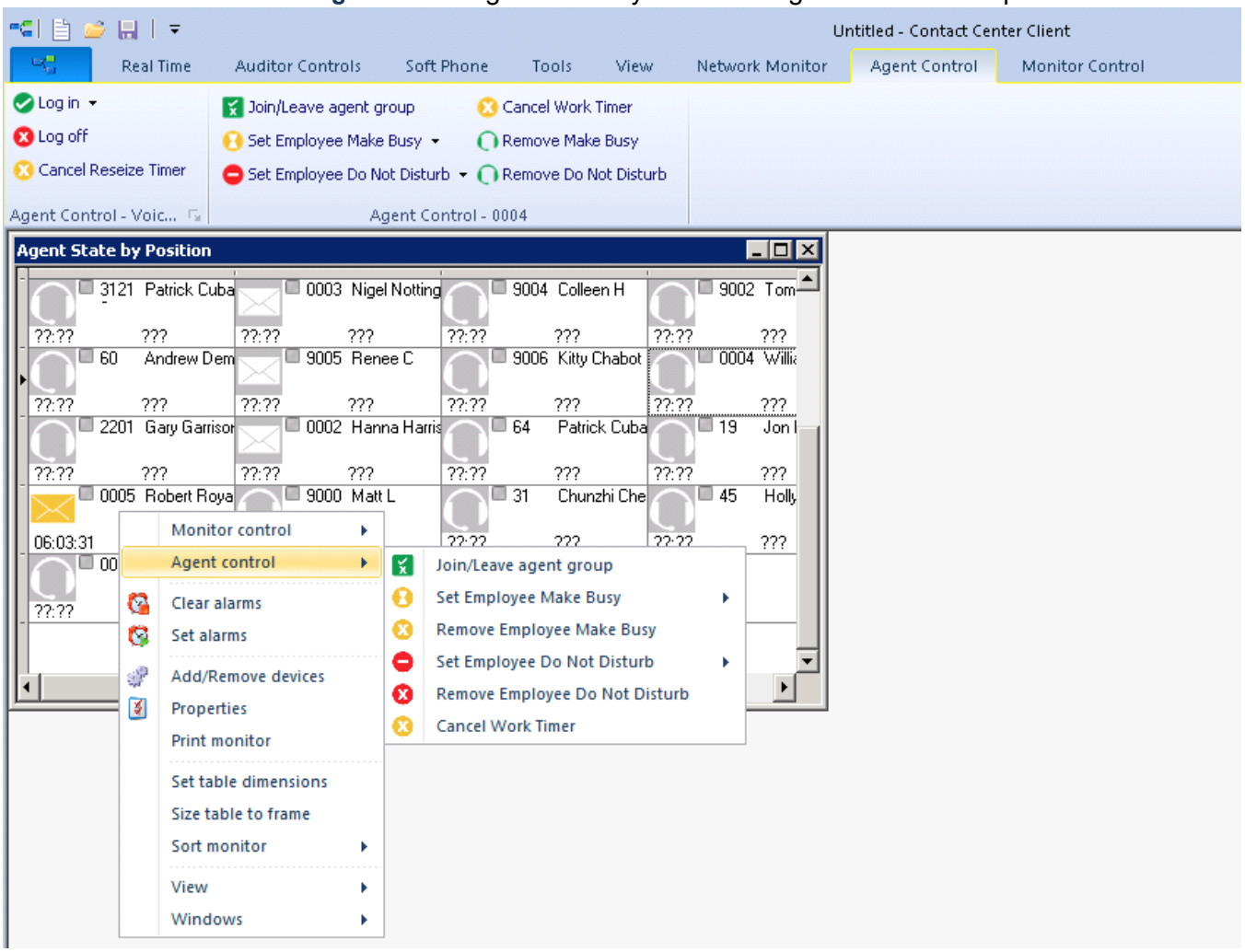
- Employee State by Position
- Employee State by Time

Supervisors can control employees on the following Ignite (WEB) monitor:

- Employee State

Agent Control gives you control over individual agents in an agent monitor. Agent monitor controls enable supervisors a more targeted look at specific aspects of an employee`s presence, enabling supervisors to limit their influence to specific agents or media types. Since agent monitors enable supervisors to view agents by agent group, Agent Control enables supervisors to better manage their agent groups. (See the following figure.)

Figure 24.25: Agent State by Position - Agent Control tab options



Supervisors can control agents on the following Contact Center Client monitors:

- Agent State by Position
- Agent State by Time
- Agent State by Time for Queue
- Agent Shift

Supervisors can control agents on the following Ignite (WEB) monitor:

- Agent State

Figure 24.26: Employee State by Position - Monitor Control tab options

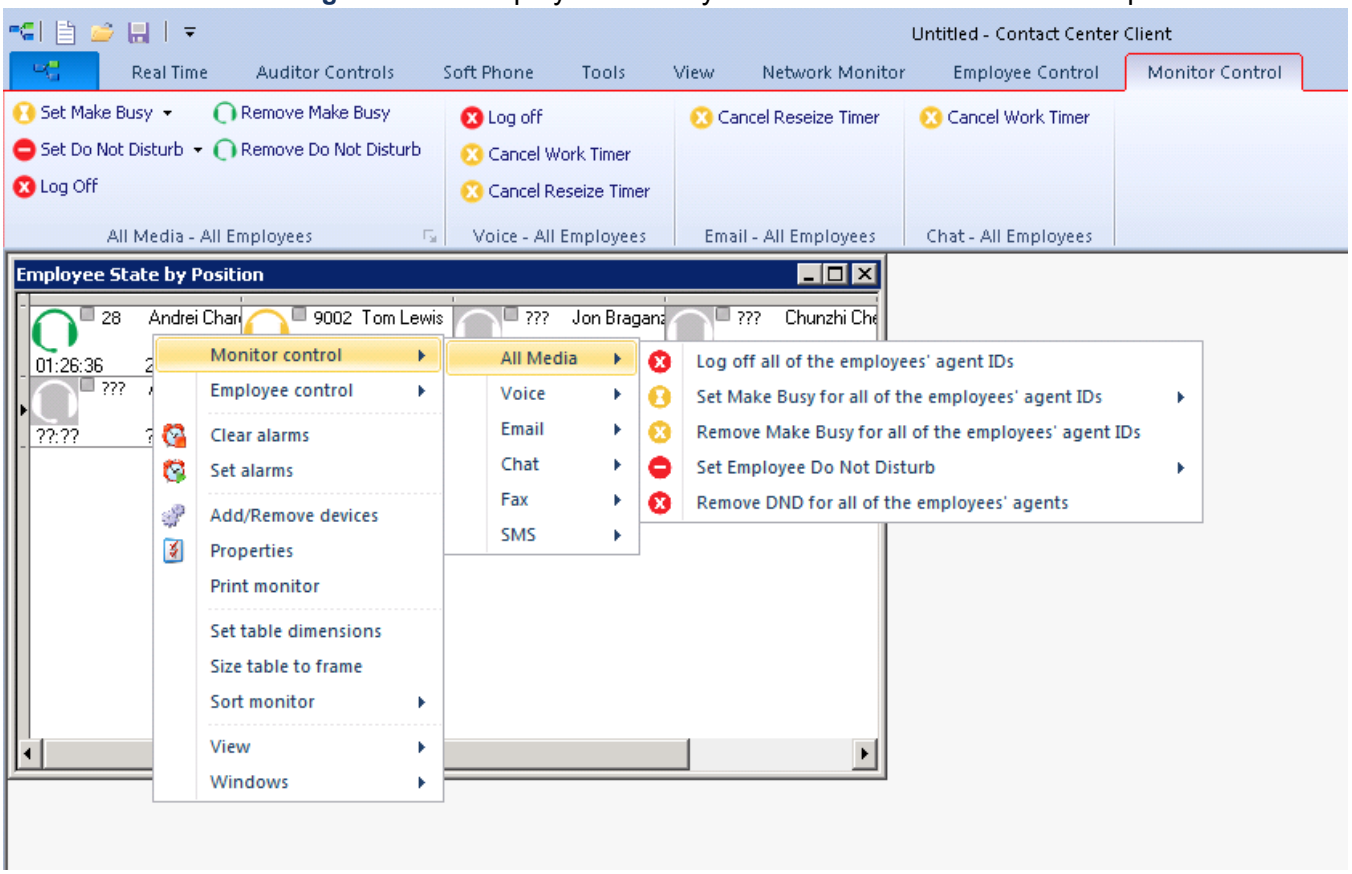
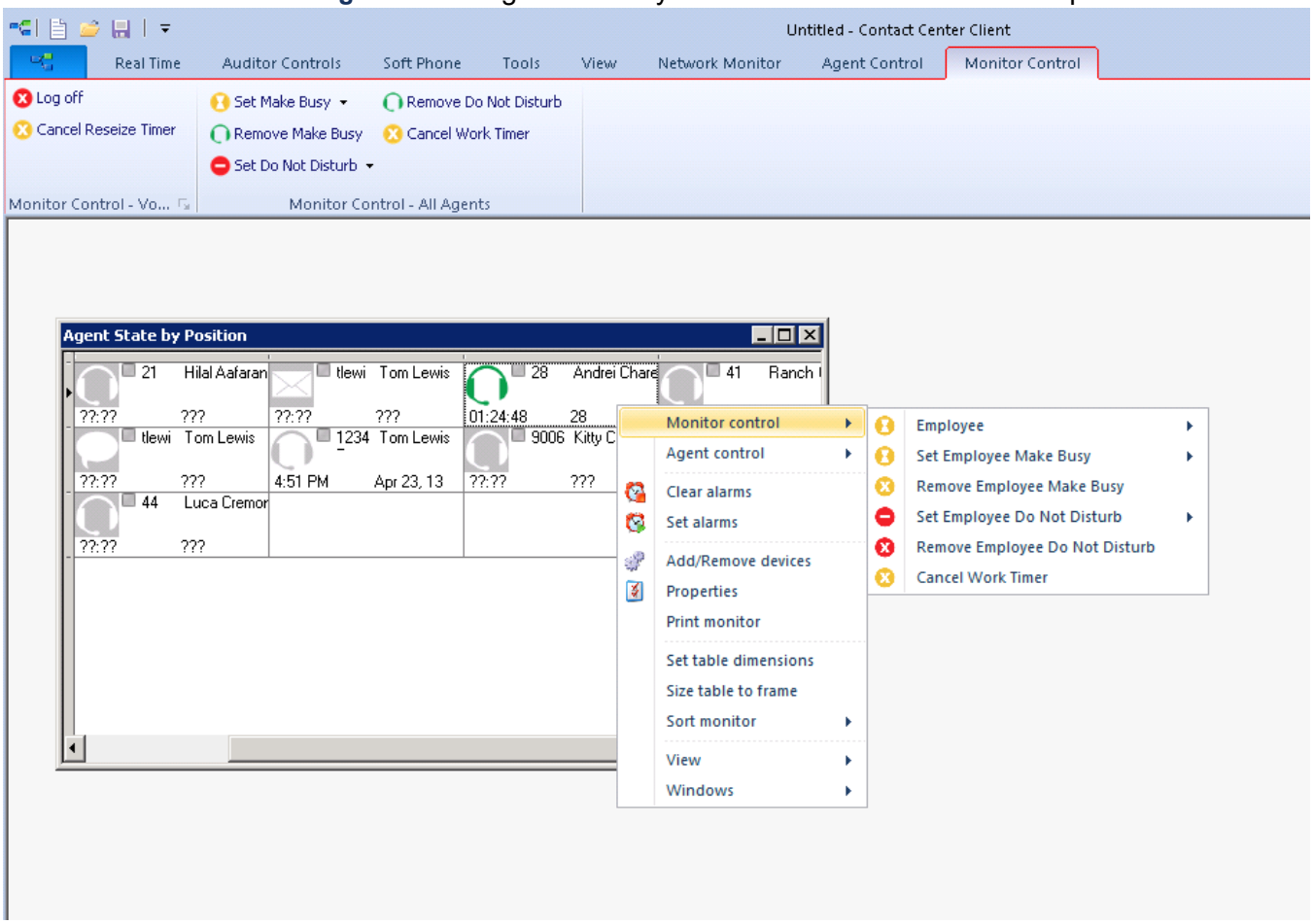


Figure 24.27: Agent State by Position - Monitor Control tab options



Logging on an agent - Contact Center Client

NOTE:

- An ACD Hot Desking Agent must enter an extension number each time the agents logs on to the ACD routing system using Interactive Contact Center. The agent cannot rely on the extension number last used when logging on. This is because the ACD data stream unifies the agent ID and the extension. After a Hot Desking Agent logs on or off of the ACD routing system using Interactive Contact Center, sometimes the Interactive Contact Center agent controls are not available to the agent for two to five minutes.
- You will be unable to log on an agent to the system if there are no available user licenses.
- If your contact center participates in the use of PINs, supervisors with the correct Class of Service do not require an agent's PIN to interactively log in a Hot Desking Agent.
- Depending on security roles and telephone switch settings, employees who are licensed as Advanced Supervisor or System Administrator may not be prompted to enter a PIN when logging into Interactive Contact Center, Softphone, or PhoneSet Manager.
- If a Hot Desking Agent logs into an extension that serves as the overflow point for a Ring Group, calls to that Ring Group will not be offered to the extension and will remain queued or ringing until abandoned or answered.
- Hot desking users logging into a Ring Group extension must also be a member of the Ring Group to ensure accurate reporting.

You log employee voice agents in and out in either an open Employee or Agent Monitor in Contact Center Client. Multimedia agents are not logged in with voice agents.

To log in an agent in an open Employee monitor

- Right-click the cell of an employee and click **Employee control > Log in > voice agent**. Alternatively, select the employee cell in an open monitor, click **Log** in from the **Employee Control** tab on the Contact Center Client ribbon, and select the voice agent.

  NOTE: When you log in an employee's voice agent, you must enter the extension for the agent. See the procedure below.

To log in an agent by extension in an open Employee monitor

1. Right-click the cell of an employee and click **Employee control > Log in > By extension**.
2. If the employee has multiple voice agents, select the agent to log in from the drop-down list.
3. Type the **Agent's extension**.
4. Click **OK**.

To log in an agent in an open Agent monitor

- Right-click the cell of a voice agent who is not logged into and click **Agent Control > Log in > voice agent**. Alternatively, select the agent cell in an open monitor and click **Log in** from the Contact Center Client ribbon.

  NOTE: When you log in a voice agent, you must enter the extension for the agent. See the procedure below.

To log in an agent by extension in an open Agent monitor

1. Right-click the cell of a voice agent and click **Agent control > Log in > By extension**.
2. If the employee has multiple voice agents, select the agent to log in from the drop-down list.
3. Type the **Agent's extension**.
4. Click **OK**.

Logging off an agent - Contact Center Client

You can log off an employee from all media in an Employee monitor or Agent monitor. Logging off an agent logs off all of the employee's voice agents and sets the employee's multimedia agents to Absent in all their agent groups. If the employee is logged into their soft phone in Contact Center Client, they will also be logged out of the soft phone.

The following procedures take place in either an open Employee monitor or an open Agent monitor in Contact Center Client.

To log off all of an employee's agents in an open Employee monitor

- Right-click the cell of an employee and click **Employee control > Log off**. Alternatively, select the employee cell in an open monitor and click **Log Off** from the **Employee Control** tab on the Contact Center Client ribbon.

To log off an agent in an open Agent monitor

NOTE: Logging off an employee's agent logs off all of the employee's agents simultaneously.

- Right-click the cell of an agent and click **Agent control > Log off**. Alternatively, select the agent cell in an open monitor and click **Log Off** from the **Agent Control** tab on the Contact Center Client ribbon.

To log off all employees' agents in an open Employee monitor

1. Right-click the monitor and click **Monitor control > Log off**.
   Alternatively, click the **Monitor Control** tab in the Contact Center Client ribbon and select **Log Off**.
2. Click **Yes**.

To log off all agents in an open Agent monitor

1. Right-click the monitor and click **Monitor control > Log off**.
   Alternatively, click the **Monitor Control** tab in the Contact Center Client ribbon and select **Log Off**.
2. Click **Yes**.

Logging on an agent - Ignite (WEB)

When you log on an agent in Ignite (WEB), you make them available to receive voice interactions.

The following procedure takes place in either an Agent State or Employee State monitor in Ignite (WEB).

To log on a voice agent

1. In the monitor, select the agent you want to log on.
2. Click **State > Available**.
3. Enter the agent's extension and PIN (if enabled) and click **Login**.

   NOTE: This step is not required if the agent is set to automatically log in when the 'Available' state is selected.

Logging off an agent - Ignite (WEB)

When you log off an agent in Ignite (WEB), you make them unavailable to receive all media interactions, including voice, email, chat, SMS, and open media.

The following procedure takes place in either an Agent State or Employee State monitor in Ignite (WEB).

To log off an agent

1. In the monitor, select the agent you want to log off.
2. Click **State > Offline**.

Joining and leaving agent groups - Contact Center Client

After logging into Contact Center Client, agents can use Interactive Contact Center to control their presence status in agent groups. Optionally, supervisors can use Interactive Contact Center to control the presence status of agents in specific agent groups.

NOTE:

- An agent's ACD hot desk line remains in service while they are logged in as an ACD hot desk user even if they are not present in any ACD groups and not receiving ACD calls.

To join an agent to or have an agent leave an agent group in an open Employee monitor

1. Right-click the cell of an employee and click **Employee control > Join/Leave Agent Group > [Agent]**.
   Alternatively, select the cell of an employee and in the **Employee Control** tab of the Contact Center Client ribbon, click **Join/Leave agent group > [Agent]**.
2. Select the agent group(s) to which you want the employee's agent(s) to join or deselect the agent group(s) to have the employee's agent(s) leave the agent groups.
3. Click **OK**.

To join an agent to or have an agent leave an agent group in an open Agent monitor

1. Right-click the cell of an agent who is logged on and click **Agent control > Join/Leave Agent Group**. Alternatively, select the cell of an agent and click **Join/Leave Agent Group** from the Agent Control tab in the Contact Center Client ribbon.
2. Select the agent group(s) to which you want the agent(s) to join or deselect the agent group(s) to which you want the agent(s) to leave.
3. Click **OK**.

Joining and leaving agent groups - Ignite (WEB)

After signing into Ignite (WEB) and logging into their phone, agents can use interactive Contact Center to control their presence in agent groups. Optionally, supervisors can use Interactive Contact Center to control the presence status of agents in specific agent groups from within the Agent and Employee State monitors in Ignite (WEB).

The following procedures take place in either an Agent State or Employee State monitor in Ignite (WEB).

To join an agent to an agent group

1. In the monitor, select the agent for which you want to modify agent group presence.
2. Click **Agent Groups**.
3. Hover over the agent group's avatar and select **Join All**.
4. Click **Update**.

To remove an agent from an agent group

1. In the monitor, select the agent for which you want to modify agent group presence.
2. Click **Agent Groups**.
3. Hover over the agent group’s avatar and select **Leave All**.
4. Click **Update**.

To join an agent to or remove an agent from all agent groups

1. In the monitor, select the agent for which you want to modify agent group presence.
2. Click **Agent Groups**.
3. To join an agent to all agent groups, click **Join All > Update**.
4. To remove an agent from all agent groups, click **Leave All > Update**.

To make an agent available or unavailable to answer interactions of a specific media type

1. In the monitor, select the agent for which you want to modify agent group presence.
2. Click **Agent Groups**.
3. To become available to answer interactions of a specific media type, click the media icon in the agent group so the icon displays in blue.
4. To become unavailable to answer interactions of a specific media type, click the media icon in the agent group so the icon displays in grey.
5. Click **Update**.

Placing employees in Make Busy - Contact Center Client

NOTE: Employees in Work Timer can apply Busy/Make Busy or DND, but will remain in a Work Timer state until the Work Timer expires or is cancelled. If Classification Codes are required for the queue and the Work Timer expires without a Classification Code being entered, a **Non-Compliant** Classification Code will be applied to the call..

Placing employees into Make Busy places both employees and all of their agents into Make Busy.

The following procedures take place in either an open Employee monitor or an open Agent monitor in Contact Center Client.

To place an employee in an open Employee monitor in Make Busy

- Right-click the cell of an employee and click **Employee control > Set Make Busy >** reason code. Alternatively, select an empty cell in an open monitor and click **Set Employee Make Busy >** reason code from the **Employee Control** tab in the Contact Center Client ribbon.

To place all employees in an open Employee monitor in Make Busy

1. Right-click the monitor and click **Monitor control > Set Make Busy >** reason code. Alternatively, select an empty cell in an open monitor and click **Set Make Busy >** reason code from the **Monitor Control** tab in the Contact Center Client ribbon.
2. Click **Yes**.

To place an employee in an open Agent monitor in Make Busy

- Right-click the cell of an agent and click **Agent control > Set Employee Make Busy >** reason code. Alternatively, select the agent cell in an open monitor and click **Set Employee Make Busy >** reason code from the Agent Control tab in the Contact Center Client ribbon.

To place all employees in an open Agent monitor in Make Busy

1. Right-click the monitor and click **Monitor control > Set Employee Make Busy >** reason code. Alternatively, select an empty cell in an open monitor and click **Set Make Busy >** reason code from the **Monitor Control** tab in the Contact Center Client ribbon.
2. Click **Yes**.

Removing employees from Make Busy - Contact Center Client

Removing employees from Make Busy removes both employees and all of their agents from Make Busy.

The following procedures take place in either an open Employee monitor or an open Agent monitor in Contact Center Client.

To remove an employee in an open Employee monitor from Make Busy

- Right-click the cell of an employee whose agents are in Make Busy and click **Employee control > Remove Make Busy**. Alternatively, select an empty cell in an open monitor and click **Remove Make Busy** from the **Employee Control** tab in the Contact Center Client ribbon.

To remove all employees in an open Employee monitor from Make Busy

1. Right-click the cell of an employee who is in Make Busy and click **Monitor control > Remove Make Busy**. Alternatively, select an empty cell in an open monitor and click **Remove Make Busy** from the **Monitor Control** tab in the Contact Center Client ribbon.
2. Click **Yes**.

To remove an employee in an open Agent monitor from Make Busy

- Right-click the cell of an agent in Make Busy and click **Agent control > Remove Make Busy**. Alternatively, select the agent cell in an open monitor and click **Remove Make Busy** from the **Agent Control** tab in the Contact Center Client ribbon.

To remove all employees in an open Agent Monitor from Make Busy

1. Right-click the cell of an employee and click **Monitor control > Remove Make Busy**. Alternatively, select an empty cell in an open monitor and click **Remove Make Busy** from the Monitor Control tab in the Contact Center Client ribbon.
2. Click **Yes**.

Placing employees in Busy - Ignite (WEB)

NOTE: Employees in Work Timer can apply Busy/Make Busy or DND, but will remain in a Work Timer state until the Work Timer expires or is cancelled. If Classification Codes are required for the queue and the Work Timer expires without a Classification Code being entered, a **Non-Compliant** Classification Code will be applied to the call..

Placing an employee into Busy places them in Busy across all media types for which they answer interactions. While in Busy, they can receive transferred multimedia interactions, however, inbound multimedia interactions will not be routed to them. They can also receive Non ACD voice interactions and pick interactions waiting in queue.

The following procedure takes place in either an Agent State or Employee State monitor in Ignite (WEB).

To place an employee in Busy

1. In the monitor, select the employee you want to place in Busy.
2. Click **State > Busy…**.
3. Choose a Busy code.

Removing employees from Busy - Ignite (WEB)

Removing employees from Busy re-enables them to answer inbound multimedia interactions and ACD calls.

The following procedure takes place in either an Agent State or Employee State monitor in Ignite (WEB).

To remove an employee from Busy

1. In the monitor, select the employee you want to remove from Busy.
2. Under **State**, select an alternate state, or, click **X** button next to **Busy...** to remove the busy code.

NOTE: Select **Available** if you want to make them available to receive interactions.

Placing employees in Do Not Disturb - Contact Center Client

NOTE:

- If an agent on an ACD calls puts themselves into MKB or DND, Work Timer events are not received for that call.
- Employees in Work Timer can apply Busy/Make Busy or DND, but will remain in a Work Timer state until the Work Timer expires or is cancelled. If Classification Codes are required for the queue and the Work Timer expires without a Classification Code being entered, a **Non-Compliant** Classification Code will be applied to the call..

Placing employees into Do Not Disturb places employees and all of their agents into Do Not Disturb.

The following procedures take place in either an open Employee monitor or an open Agent monitor in Contact Center Client.

To place an employee in an open Employee monitor in Do Not Disturb

- Right-click the cell of an employee and click **Employee Control > Set Do Not Disturb >** reason code. Alternatively, select the employee cell in an open monitor and click **Set Employee Do Not Disturb >** reason code.

To place all employees in an open Employee Monitor in Do Not Disturb

1. Right-click the monitor and click **Monitor control > Set Do Not Disturb >** reason code. Alternatively, select an empty cell in an open monitor and click **Set Do Not Disturb** from the **Monitor Control** tab in the Contact Center Client ribbon.
2. Click **Yes**.

To place an employee in an open Agent monitor in Do Not Disturb

- Right-click the cell of an agent who is logged on and click **Agent control > Set Employee Do Not Disturb >** reason code. Alternatively, select the agent cell in an open monitor and click **Set Do Not Disturb >** reason code from the Agent Control tab in the Contact Center Client ribbon.

To place all employees in an open Agent monitor in Do Not Disturb

1. Right-click the monitor and click **Monitor control > Set Do Not Disturb >** reason code. Alternatively, select an empty cell in an open monitor and click **Set Do Not Disturb** from the Monitor Control tab in the Contact Center Client ribbon.
2. Click **Yes**.

Removing employees from Do Not Disturb - Contact Center Client

Removing employees from Do Not Disturb removes employees and all of their agents from Do Not Disturb.

The following procedures take place in either an open Employee monitor or an open Agent monitor in Contact Center Client.

To remove an employee in an open Employee monitor from Do Not Disturb

- Right-click the cell of an employee who is in Do Not Disturb and click **Employee control > Remove Do Not Disturb**. Alternatively, select the employee cell in and click **Remove Do Not Disturb** from the **Employee Control** tab in the Contact Center Client ribbon.

To remove all of a monitor's employees in an open Employee monitor from Do Not Disturb

- Right-click the monitor and click **Monitor control > Remove Do Not Disturb**. Alternatively, select an empty cell in an open monitor and click **Remove Do Not Disturb** from the **Monitor Control** tab in the Contact Center Client ribbon.

To remove an employee in an open Agent monitor from Do Not Disturb

- Right-click the cell of an agent who is in Do Not Disturb and click **Agent control > Remove Do Not Disturb**. Alternatively, select the agent cell in an open monitor and click **Remove Do Not Disturb** from the **Agent Control** tab in the Contact Center Client ribbon.

To remove all of a monitor's employees in an open Agent monitor from Do Not Disturb

- Right-click the monitor and click **Monitor control > Remove Do Not Disturb**. Alternatively, select an empty cell in an open monitor and click **Remove Do Not Disturb** from the **Monitor Control** tab in the Contact Center Client ribbon.

Placing employees in Do Not Disturb - Ignite (WEB)

NOTE: Employees in Work Timer can apply Busy/Make Busy or DND, but will remain in a Work Timer state until the Work Timer expires or is cancelled. If Classification Codes are required for the queue and the Work Timer expires without a Classification Code being entered, a **Non-Compliant** Classification Code will be applied to the call..

Placing an employee into Do Not Disturb places them in Do Not Disturb across all media types for which they answer interactions. While in Do Not Disturb, they are unable to receive inbound multimedia interactions and internal voice interactions, including transfers.

The following procedure takes place in either an Agent State or Employee State monitor in Ignite (WEB).

To place an employee in Do Not Disturb

1. In the monitor, select the employee you want to place in Do Not Disturb.
2. Under **State**, click **Do Not Disturb….**
3. Choose a DND code.

Removing employees from Do Not Disturb - Ignite (WEB)

Removing employees from Do Not Disturb re-enables them to receive interactions for all applicable media types.

The following procedure takes place in either an Agent State or Employee State monitor in Ignite (WEB).

To remove an employee from Do Not Disturb

1. In the monitor, select the employee you want to remove from Do Not Disturb.
2. Under **State**, select an alternate state, or, click **X** button next to **Do Not Disturb...** to remove the DND Reason code.

NOTE: Select **Available** if you want to make them available to receive interactions.

Canceling Work Timer for employees - Contact Center Client

NOTE: Employees in Work Timer can apply Busy/Make Busy or DND, but will remain in a Work Timer state until the Work Timer expires or is cancelled. If Classification Codes are required for the queue and the Work Timer expires without a Classification Code being entered, a **Non-Compliant** Classification Code will be applied to the call..

In an Employee monitor or Agent monitor, you can cancel Work Timer for one or more employees. The following procedures take place in either an open Employee monitor or an open Agent monitor in Contact Center Client.

To cancel Work Timer in an open Employee monitor

- Right-click the cell of an employee who is in Work Timer and click **Employee control > Cancel Work Timer**. Alternatively, select the employee cell in an open monitor and click **Cancel Work Timer** in the appropriate media section of the **Employee Control** tab in the Contact Center Client ribbon.

To cancel Work Timer for all employees in an open Employee monitor

- Right-click the monitor and click **Monitor control > Cancel Work Timer**. Alternatively, select an empty cell in an open monitor and click **Cancel Work Timer** in the media type's section of the **Monitor Control** tab in the Contact Center Client ribbon.

To cancel Work Timer for an employee in an open Agent monitor

- Right-click the cell of an agent who is in Work Timer and click **Agent control > Cancel Work Timer**. Alternatively, select the agent cell in an open monitor and click **Cancel Work Timer** from the **Agent Control** tab in the Contact Center Client ribbon.

To cancel Work Timer for all employees in an open Agent monitor

- Right-click the monitor and click **Monitor control > Cancel Work Timer**. Alternatively, select an empty cell in an open monitor and click **Cancel Work Timer** from the **Monitor Control** tab in the Contact Center Client ribbon.

Canceling Work Timer for employees - Ignite (WEB)

NOTE: Employees in Work Timer can apply Busy/Make Busy or DND, but will remain in a Work Timer state until the Work Timer expires or is cancelled. If Classification Codes are required for the queue and the Work Timer expires without a Classification Code being entered, a **Non-Compliant** Classification Code will be applied to the call..

The following procedure takes place in either an Agent State or Employee State monitor in Ignite (WEB).

To remove an employee from Work Timer

1. In the monitor, select the employee you want to remove from Work Timer.
2. Click **State** and select an alternate state.

NOTE: Select **Available** if you want to make them available to receive interactions.

Canceling Reseize Timer for voice agents

The following procedures take place in either an open Employee monitor or an open Agent monitor in Contact Center Client.

To cancel Reseize Timer for an employee's voice agent in an open Employee monitor

- Right-click the cell of an employee who is in Reseize Timer and click **Employee control > Cancel Reseize Timer**. Alternatively, select the employee cell in an open monitor and click **Cancel Reseize Timer** in the appropriate media section of the **Employee Control** tab in the Contact Center Client ribbon.

To cancel Reseize Timer for all employee voice agents in a monitor in an open Employee monitor

- Right-click the monitor and click **Monitor control > Cancel Reseize Timer**. Alternatively, select an empty cell in an open monitor and click **Cancel Reseize Timer** from the **Monitor Control** tab in the Contact Center Client ribbon.

To cancel Reseize Timer for an employee's voice agent in an open Agent monitor

- Right-click an agent who is in Reseize Timer and click **Agent control > Cancel Reseize Timer**. Alternatively, select the agent cell in an open monitor and click **Cancel Reseize Timer** in the appropriate media section of the **Agent Control** tab in the Contact Center Client ribbon.

To cancel all of the voice agents on a monitor in the Reseize Timer state in an open Agent monitor

- Right-click the monitor and click **Monitor control > Cancel Reseize Timer**. Alternatively, select an empty cell in an open monitor and click **Cancel Reseize Timer** from the **Monitor Control** tab in the Contact Center Client ribbon.

Controlling the availability of voice queues

Using Interactive Contact Center and Contact Center Client, you can control the availability of voice queues on the Queue Now or Queue Group Now monitor. Multimedia queues cannot be controlled using Interactive Contact Center and Contact Center Client. For information on controlling voice queues, see the Interactive Contact Center chapter of the *MiContact Center Business User Guide*.

Interacting with customer interactions to improve service levels

Interactive Visual Queue is a Contact Center Client real-time monitor that works in conjunction with YourSite Explorer and Interactive Contact Center to enable supervisors to both monitor and control the content in contact center queues. With Interactive Visual Queue monitors open, supervisors can monitor the contents of queues and queue groups, easily move interactions between queues, assign interactions to agents, and proactively remove unwanted interactions from the queues.

Interactive Visual Queue is comprised of a Queued media grid and, for voice media, an Abandoned media grid and a Callback to be processed grid. The Interactive Visual Queue Queued media grid displays all types of media interactions that are currently queued. It does not display items that have already been offered to agents or are currently being handled by agents.

Using a drag-and-drop operation, supervisors can balance traffic by moving interactions from busy queues to less active queues and ensure optimum customer service by directing high priority interactions to experienced agents. Supervisors can pick interactions from the queue and handle them, and can tag email interactions as junk or no reply needed to remove them from the queue. Supervisors can also preview email interactions.

For information on using Interactive Visual Queue with voice media, see *"Interactive Visual Queue"*.

Opening Interactive Visual Queue

You access Interactive Visual Queue by logging on to Contact Center Client and then opening the Real-time toolbar.

To open an Interactive Visual Queue monitor

1. Log on to Contact Center Client.
2. In the Contact Center Client ribbon, click **Real Time**.
3. Click **Interactive Visual Queue**.

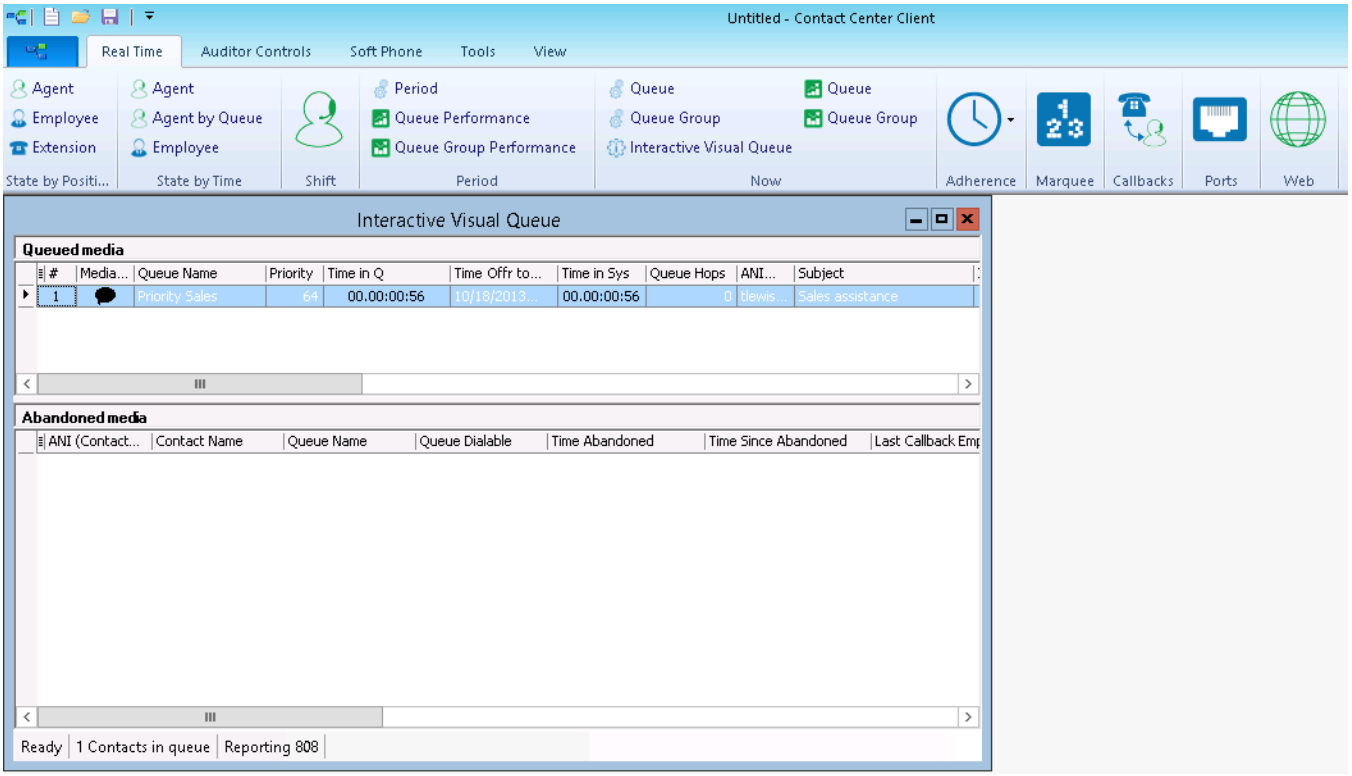
   The Add/Remove device IDs window opens.
4. Select the queue group(s) or queue(s) that you want to monitor and click **OK**.

   See the following figure.

   NOTE:

   – Virtual,Reporting, and Unified Queue Groups are shown in the Queue groups list.

Figure 24.28: Interactive Visual Queue monitor



Accessing queue and interaction information and statistics

To access detailed multimedia queue information, including voice, refer to the Interactive Visual Queue Queued media grid. Here you will find the statistics you need to make informed decisions to ensure interactions are being handled efficiently within your business.

The following list provides descriptions of the column headings available in the Queued media grid:

- *Position (#)* displays the answer position relative to other interactions in the queue
- *Media icon* displays the media type
- Queue Name displays the name of the queue
- Queue Dialable displays:
  - Voice—the dialable number of the queue
  - Chat—Queue Auto Response User Name
  - SMS—the dialable number of the queue
  - Email—Email address of the queue
- *Priority* is the priority of the interaction in the queue (the lower the number, the higher the priority)
- *Time in Queue* is the interaction's total time in the current queue
- *Time Offered to System* is the time the interaction first entered the system
- *Time in System* is the interaction's total time in the system
- *Queue Hops* is the number of times an interaction has changed queues
- *ANI (Contact ID)* displays:
  - Voice—caller # / ANI
  - Chat—Chat email address from pre-chat form

  - SMS—From mobile number
  - Email—From email address
- Subject displays
  - Voice—blank
  - Chat—Chat subject from pre-chat form
  - SMS—blank
  - Email—Email subject
- *Is Callback* indicates if the queued media is a callback request (voice only)
- *Service level countdown* provides a countdown in seconds when the contact will exceed the target time to meet the service level
- *Contact Name* is the name associated with the contact (if available)
  - Voice—caller ID
  - Chat—Chat name from pre-chat form
  - SMS—blank
  - Email—Email “From” name, if available
- *Time Offered to Queue* is the time the contact entered the current queue
- *DNIS (To Address)* displays
  - Voice—DNIS Number
  - Chat—blank
  - SMS—blank
  - Email—receiver's email address
- *To Name* displays
  - Voice—DNIS Name, if configured in YourSite Explorer for the associated DNIS number
  - Chat—blank
  - SMS—blank
  - Email—Email "To" name, if available
- *Collected Information* displays the single or series of collected results provided by IVR Routing or Intelligent Queue. Collected information requires IVR Routing or Intelligent Queue, Verified Collected Digits and, optionally, Remote Database Verification or CTI Developer Toolkit
- *Queue Reporting* is the queue’s reporting number

For information on other Interactive Visual Queue grids that are voice media only, see *"Interactive Visual Queue monitor grids"*. For information on hiding or making columns visible, sorting data in a column, or re-arranging columns, see *"Real-time Monitors"*.

Understanding interaction priority

Each queue has a default priority level. When an interaction enters the system for the first time, the interaction adopts the default priority of whichever queue it enters. If all interactions in a queue have the same priority, the position of the interactions are based on each interaction’s total time in the current queue. If a queue contains interactions that have multiple priority levels, higher priority interactions will have a higher position in the queue than lower priority interactions.

As long as an interaction remains in a queue, it maintains its priority. However, if an interaction moves from one queue to another queue, the interaction's priority may change, based on the method used to move the interaction.

When you redirect an interaction manually, the interaction always adopts the default priority level of the destination queue.

When you redirect an interaction manually, the interaction always adopts the default priority level of the destination queue. For example, suppose Queue 1 has a priority of 1 and Queue 2 has a priority of 15. When an interaction first enters Queue 1, it has a priority of 1. However, if you manually move that interaction to Queue 2, using either a drag-and drop operation or the right-click menu, the interaction priority lowers to 15. The rules work the same in reverse. If you manually move a priority 15 interaction from Queue 2 to Queue 1, the interaction priority increases to 1 when it enters Queue 1.

Interactions interflowed automatically retain the original interaction priority.

Redirecting interactions

An interaction can move between queues automatically (interflow) or manually (redirection).

Interflow

You can configure Inqueue workflows to automatically move an interaction from one to queue to another after a specific duration through the Interflow activity. For example, you could configure your system to move an interaction from Queue 1 to Queue 2 if the interaction has not been answered within 30 seconds. For more information on the Interflow activity, see *"Routing interactions with the Interflow activity"*.

Redirection

Using Interactive Visual Queue, you can manually redirect an interaction from a queue to another queue, to an agent, or, if it is a voice interaction, a dialable number.

There are two ways a voice interaction can be removed from the system. If a voice interaction is moved more than 10 times, either by redirection or by interflow, the interaction is dropped from the system. You can see the current number of times an interaction has moved between queues in the Queue Hops column. A voice interaction will also be automatically removed from the system if its total time in the system exceeds 24 hours. The Total Time column lists the interaction's duration in the system. Email, SMS and chat interactions are removed from the system if they are offered to agents over 50 times.

If an interaction is an email interaction, it can also be set to No Reply or Junk and removed from the system.

You can manually redirect an interaction in the Queued media grid using the following methods:

- Drag and drop an interaction between queues.
- Use the right-click menu to move an interaction between queues.
- Use the right-click menu to send an interaction to a specific dialable number or email address

You may notice that the first two methods perform the same action. However, the second method is convenient when a queue monitor is maximized and you want to move an interaction without having to resize one or more monitors.

You can remove interactions in the Interactive Visual Queue Monitor in the following ways:

- Delete voice interactions from the monitor (voice only)
- Tag emails as No Reply needed
- Tag emails as Junk

When you manually redirect (drag and drop) an interaction in Interactive Visual Queue, Mi Contact Center Business changes the way the voice interaction is pegged on the Queue Performance reports. If you redirect an interaction before the short abandon time set for the queue, the interaction is pegged as *Unavailable*. If you redirect an interaction after the short abandon time set for the queue, the interaction is pegged as *Interflowed*. An internal ACD interaction is pegged as *Abandoned* if the interaction is redirected at any time.

Redirecting multimedia interactions between queues

To drag and drop interactions between queues

1. In the Queued media grid, click anywhere in the row of the interaction you want to move.
2. Use a drag-and-drop operation to move the interaction from its original queue monitor to a new queue monitor.

NOTE:

- You can only drag an interaction from one Interactive Visual Queue monitor to another if the destination monitor has the same media type (such as email to email, chat to chat, etc.).
- Only one interaction can be moved over at a time.
- If the destination monitor has multiple queues for the same media type, the system will assign the redirected interaction to the queue with the fewest interactions in queue.

To redirect an interaction between queues using the menu

1. In the Queued media grid, right-click the row of the interaction you want to redirect and click **Send to > Queue**.
   A list of available queues displays.
   NOTE: You can use the search button to locate a specific queue, either by name or reporting number.
2. Click the name of the queue to which you want to redirect the interaction.
3. Click **OK**.

Alternatively, to redirect an interaction from one queue to another queue

1. In the Queued media grid, right-click the row of the interaction you want to redirect and click **Send to**.
2. In the list of queues beneath **Queue**, select a queue.

Redirecting multimedia interactions to agents

You can transfer interactions in queue directly to agents who are available or in Make Busy/Overloaded states. Agents who are logged out, in DND, Offline (WEB), or whose presence is Unknown cannot receive transferred interactions and do not appear in the list of available agents.

To redirect multimedia interactions to agents

1. In the Queued media grid, right-click the row of the interaction you want to redirect and click **Send to > Agent**.
   A list of available agents who can handle the interaction's media type displays.
   NOTE: You can use the search button to locate a specific agent, either by name or reporting number.
2. Click the name of the agent to which you want to send the interaction.
3. Click **OK**.

Redirecting email interactions to specific email addresses

Using the Send to menu option, you can redirect interactions in Interactive Visual Queue to any email address.

To redirect an email interaction to another email address

1. In the Queued media grid, right-click the row of the email interaction you want to redirect and click **Send to > [Destination]**.
2. When you click [Destination], it changes to a text box.
3. Type an email address into the text box and press **Enter**.

   You can enter multiple email addresses, separating each with a semi-colon (e.g. recipient1@email.com;recipient2@email.com).

   NOTE: If you are licensed to access multimedia functionality in Ignite, you can alternatively redirect interactions directly to an agent by forwarding or transferring. See "Handling emails in Ignite" and *"Handling chats in Ignite"*.

Tagging emails and SMS as Junk

Supervisors can mark email or SMS interactions in an Interactive Visual Queue monitor as junk, removing junk interactions from the queue.

To tag an email or SMS interaction as Junk

1. In the Queued media grid, select the interaction(s) you want to tag as Junk.
   Select multiple emails by holding **CTRL** or **Shift** and clicking the emails.
2. Right-click the row of the interaction you want to tag as Junk.
3. Click **Junk Conversation**.
4. Click **Yes**.

NOTE:

- Multimedia interactions in queue tagged as Junk or No Reply from Interactive Visual Queue and Ignite are not included in queue Handled, Completed, and Offered counts.
- If you are licensed to access multimedia functionality in Ignite, you can alternatively tag emails as Junk using Ignite. See *"Marking emails as No Reply and Junk"*.

Tagging email and SMS interactions as No Reply Needed

Supervisors can mark email and SMS interactions in an Interactive Visual Queue monitor as requiring no reply, such as out of office emails, removing them from the queue.

To tag an email and SMS interaction as No Reply needed

1. In the Queued media grid, select the interaction you want to tag as No Reply needed.
   Select multiple interactions by holding **CTRL** or **Shift** and clicking the emails.
2. Right-click the row of the interaction you want to tag as No Reply needed.
3. Click **No Reply**.

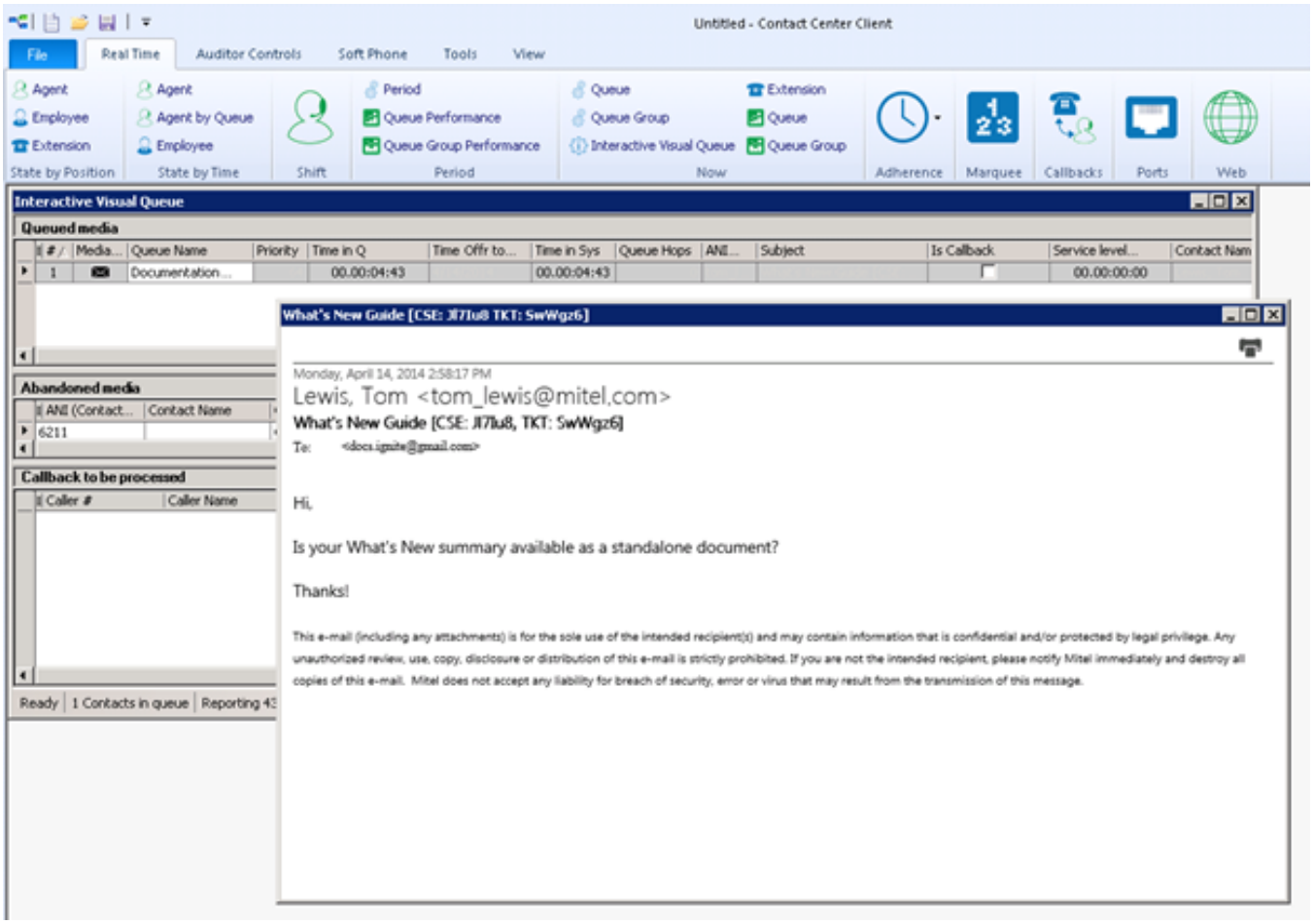
NOTE:

- Multimedia interactions in queue tagged as Junk or No Reply from Interactive Visual Queue and Ignite are not included in queue Handled, Completed, and Offered counts.
- If you are licensed to access multimedia functionality in Ignite, you can alternatively tag email and SMS interactions as No Reply Needed using Ignite. See *"Marking emails as No Reply and Junk"* and *"Marking SMS contacts as No Reply and Junk"*.

Previewing queued multimedia interactions

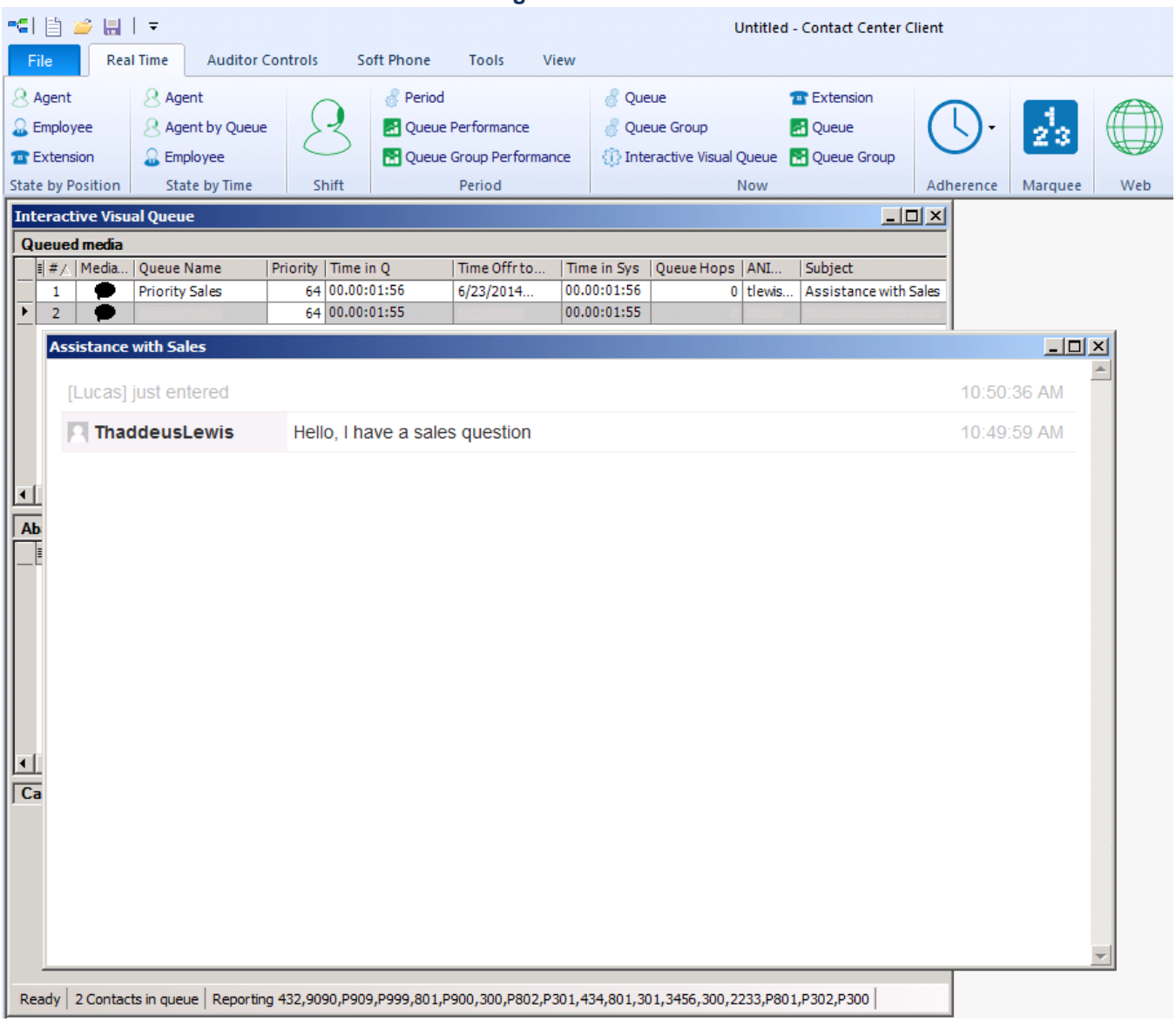
Supervisors monitoring queues in Interactive Visual Queue can preview the contents of queued email, SMS and chat interactions. The following figure shows a previewed email. Previewed emails display in a new window that shows the contents of the email. Supervisors can preview embedded files in the email and download attachments, such as images and e-signatures, but they cannot edit previewed emails, however, nor can they preview an email in an agent's inbox. A supervisor can only have one email preview open at a time.

Figure 24.29: Previewed email



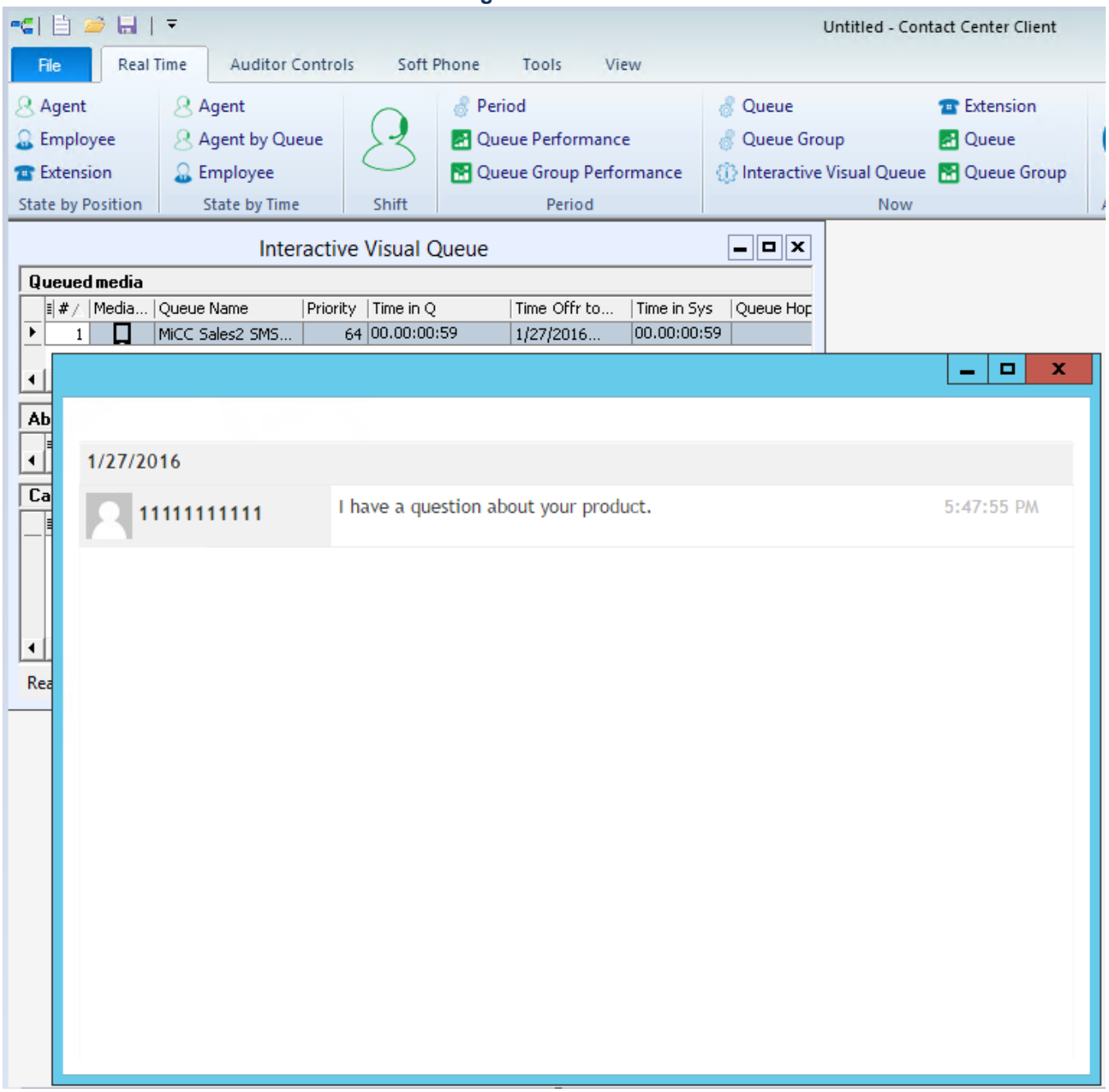
The following figure shows a previewed chat session. Previewed chats show the content of the chat session. Supervisors can open links in the previewed chat session, but they cannot view embedded media or participate in the chat. A supervisor can only preview one chat at a time. Supervisors previewing chats must have an associated chat agent.

Figure 24.30: Previewed chat



The following figure shows a previewed SMS interaction. Previewed SMS interactions show the content of the SMS session. Supervisors can open links in the previewed SMS session, but they cannot view embedded media or participate in the SMS interaction. A supervisor can only preview one SMS interaction at a time. Supervisors previewing SMS interactions must have an associated SMS agent.

Figure 24.31: Previewed SMS



While the preview window is open, no other actions can be taken in Contact Center Client, although you can still answer phone calls from the desktop notification. Previewing a multimedia interaction does not impact the ability of that multimedia interaction to interflow to another queue, to be offered to or picked by an agent, or any other activity in Multimedia Contact Center.

The following procedures take place in an open Interactive Visual Queue monitor in Contact Center Client.

To preview a multimedia interaction

- Right-click the email, SMS or chat you want to preview and select **Preview**.

To print an email preview window

- Click the **printer** icon in the email preview.

Removing interactions from Interactive Visual Queue monitors

Interaction can be removed from Queued and Abandoned media monitors. Deleting an interaction from Interactive Visual Queue does not remove the interaction from the actual queue. Instead, it removes the interaction from the monitor and stops Interactive Visual Queue from tracking it.

To remove an interaction from Interactive Visual Queue

1. Right-click the row of the interaction you want to remove.
2. Click **Delete**.

   The interaction is removed from Interactive Visual Queue

Forecasting multimedia contact center staffing requirements

The Forecasting tool built into Contact Center Client and Workforce Scheduling enables supervisors to take historical data generated by their contact center's ACD routing systems and multimedia servers and use it to predict future traffic volumes and patterns to estimate required resources to handle their contact center's workload.

The Forecasting tool forecasts for each media separately when generating forecasts and does not adjust for agent Workload. Agents allowed to handle simultaneous interactions are likely to be more efficient than those handling a single call due to their ability to multitask. As a result, the number of required agents in a forecast may be met by fewer agents if their Workload permits them to handle different media interactions and numbers of interactions concurrently. Supervisors should adjust their forecast statistics to compensate for the Workload of the agents being forecasted. It is recommended that Workload be the same for all members in an agent group being forecasted.

For more information on forecasting, see the Forecasting chapter of the *MiContact Center Business User Guide*. For information on using the Forecasting tool within Workforce Scheduling to schedule your employees based on multimedia queue traffic needs, see the Workforce Scheduling chapter of the *MiContact Center Business User Guide*.

Accessing historical real-time information with Contact Center Client

Using Auditor you can view historical, multimedia real-time events, at your own pace. Auditor makes it easy for you to analyze when and why past service problems occurred. By understanding the series of events you can prevent such issues from recurring.

For example, you notice that on July 15 you have 12 interactions abandon between 10:00 AM and 10:15 AM. You can review the interactions and the agents' actions on that date for that time period with Auditor. Did all of the interactions arrive at the same time? Did all of the agents go on break at the same time? If all of the interactions arrived at once, you need to schedule more people. If all of the agents went on break at the same time, you need to adjust their break schedule.

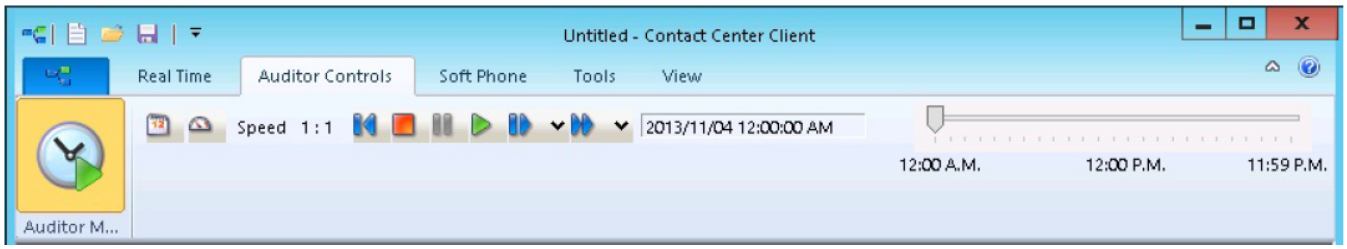
Using Auditor you can also track when employees log on and log off the system. It is easy to determine if any of the employees consistently start late or finish early.

With Auditor, you can use existing profiles, including alarm thresholds, when viewing past days run in real time.

Your access to Auditor is determined by administrator-set security roles.

The first toolbar consists of real-time monitors that provide information on agent availability, queue statistics, and graphic displays on queues. (See the following figure.)

Figure 24.32: Auditor toolbar



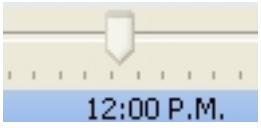
Auditor icons

Using Auditor's second toolbar you select the date of the historical real-time events that you want to view and the speed at which to play the events. The icons are described in the following table.

Table 24.26: Auditor Icons (Sheet 1 of 2)

Icon	Term	Meaning
	Calendar	You can select the date of the historical real-time events that you want to view by clicking the calendar.
	Speed of audit	The Speed of audit is expressed as a ratio of real-time to play speed. You can select the speed from a list of ratios that opens when you click the clock: 1:1, 1:2, 1:5, 1:10, 1:30, 1:60, and 1:120. If you select the ratio1:1, it will take you one second to view one second of the past day. If you select 1:60, it will take you one second to view one minute of the past day.
	Rewind	If you click Rewind when the play is stopped, you jump back to the beginning of the day.
	Stop	You can stop the real-time historical events from playing, and jump back to the beginning of the day, by clicking Stop.
	Pause	You can pause the real-time historical events by clicking Pause.

Table 24.26: Auditor Icons (Continued) (Sheet 2 of 2)

Icon	Term	Meaning
	Play	You can play the real-time historical events by clicking Play.
	Step forward	You can select the increment (in seconds) you will advance from a list that opens when you click the down arrow to the right of Step forward: 1 sec, 2 sec, 5 sec, 10 sec, 15 sec, 30 sec, and 45 sec. If you select 30 seconds, then when the play is stopped, you can step forward in 30 second increments each time you click Step forward. When you reach the end of data for that day, you will automatically jump to the end of the day.
	Jump forward	You can select the increment (in minutes) you will advance from a list that opens when you click the down arrow to the right of Jump forward: 1 min, 2 min, 5 min, 10 min, 15 min, 30 min, and 60 min. If you select 10 minutes, then when the play is stopped, you can jump forward in 10 minute increments each time you click Jump forward. When you reach the end of data for that day, you will automatically jump to the end of the day.
	Slider	As you view the events of the day, the slider indicates the time at which the events occurred. The length of the slider represents the length of the day for which you are viewing historical real-time events.

Viewing historical real-time events

You start Contact Center Client to gain access to Auditor functionality. For more information on Contact Center Client real-time monitoring, see *"Contact Center Client"* chapter of the *MiContact Center Business User Guide*.

To view historical real-time events, you must

1. Start Contact Center Client.
2. Open the grids in which you want to view historical events.

   NOTE: When viewing a Queue or Queue Group monitor, emails in queue that arrived from a previous day in the auditing period will not show up in the monitor statistics until an action is taken on them during the auditing period.
3. Start Auditor.

Starting and using Auditor

You start Contact Center Client to gain access to Auditor functionality.

To view historical real-time events, you must

1. Start Contact Center Client.
2. Open the grids in which you want to view historical events.

   NOTE: When viewing a Queue or Queue Group monitor, emails in queue that arrived from a previous day in the auditing period will not show up in the monitor statistics until an action is taken on them during the auditing period.
3. Start Auditor.

NOTE: If you are using the Contact Center Client marquee, Contact Center PhoneSet Manager, Contact Center Softphone, or Interactive Visual Queue applications (which function in real time only), open Auditor in another instance of Contact Center Client.

To start and use Auditor

1. In the Contact Center Client ribbon, click **Auditor Controls**.
2. Click **Auditor Mode** in the toolbar ribbon.

   The Auditor toolbar displays.
3. Click the calendar icon and select a date.

   The date displays on the left of the slider.
4. Click the speed icon and select the speed of the audit.

   The speed of the audit, expressed as a ratio of real time to play speed, displays on the right of the speed icon.
5. Move the slider to select the time of day at which you want to start monitoring.
6. Click the play button to play the real-time events of the selected date.

   The historical real-time events play at the speed you selected.

Accessing real-time information with Ignite (WEB)

Ignite (WEB) enables real-time monitoring of employees, agents, queues, and callback requests. The Ignite (WEB) real-time monitors do not duplicate those available in Contact Center Client but, instead, offer a succinct set of the most essential statistics in the highly accessible online format of Ignite (WEB).

The following real-time monitors are available in Ignite (WEB):

- Employee State
- Agent State
- Queue Now
- Callback Requests

To access the real-time monitors in Ignite (WEB)

1. In Ignite (WEB), click **Dashboards**.
2. Click the down arrow and select the dashboard from the list that contains the monitor you want to display.

NOTE:

- Alarms are not supported for real-time monitors in Ignite (WEB).
- Access to real-time monitors is determined by administrator-set security roles.

To learn how to add and configure settings for real-time monitors in Ignite (WEB), see *"Configuring Ignite (WEB) dashboards"*.

Monitoring employee state in Ignite (WEB)

The Employee State monitor available in Ignite (WEB) enables you to view activity and, if enabled for Interactive Contact Center, adjust presence for individual employees in your contact center.

You can view the following real-time employee information:

- Employee name, reporting number, and avatar
- ACD availability and state (with colored state icon)
- Busy duration for the day
- Do Not Disturb duration for the day
- Number of interactions handled for the day (voice, email, chat, SMS, open media as applicable)
- Date/Time of first login
- Total shift duration

NOTE: Only one employee at a time can display in the Employee State monitor but you canoptionally add several employee monitors to a dashboard to access information for multiple employees.

The Employee State monitor in Ignite (WEB) is accessible from your Ignite (WEB) Dashboard, To learn how to add and configure settings for the Employee State monitor in Ignite (WEB), see *"Configuring Ignite (WEB) dashboards"*.

Monitoring agent state in Ignite (WEB)

The Agent State monitor available in Ignite (WEB) enables you to view the real-time state of agents in your contact center and, if enabled for Interactive Contact Center, adjust agent presence.

Each column lists agents in order of time in state, with the longest in state at the top. For example, the agent at the top of the Idle column is the next longest idle agent and should receive the next inbound interaction.

The following table lists and describes real-time agent state information that displays in the Agent State monitor in Ignite (WEB).

Table 24.27: Agent State monitor statistics - Ignite (WEB)

STATISTIC	DESCRIPTION
ACD	includes agents in ACD and ACD Hold
Idle	includes agents who are available for ACD but currently not handling any interactions
Non ACD	includes agents in Non ACD, Non ACD Hold, Outbound, and Outbound Hold
Unavailable	includes agents in Do Not Disturb, Busy, Work Timer, and Reseize Timer
Not Present	includes agents who are logged in as an agent but not present in any agent groups
Offline	includes agents who are logged in as an ACD agent

The Agent State monitor in Ignite (WEB) is accessible from your Ignite (WEB) Dashboard, To learn how to add and configure settings for the Agent State monitor in Ignite (WEB), see *"Configuring Ignite (WEB) dashboards"*.

Monitoring queues in Ignite (WEB)

The Queue Now monitor available in Ignite (WEB) enables supervisors to view queue or queue group statistics and a summary of current agent states for each queue or queue group in real time.

Queue statistics include Offered, Service Level %, Interactions Waiting, Requeued, and Longest Waiting. Handled, Interflowed, and Abandoned counts can also be accessed by hovering over ‘Offered’ for each queue or queue group.

The following table lists and describes queue statistics that display in the Queue Now monitor in Ignite (WEB).

Table 24.28: Queue Now monitor statistics - Ignite (WEB) (Sheet 1 of 2)

STATISTIC	DESCRIPTION
Offered	the total number of interactions offered to the queue or queue group

Table 24.28: Queue Now monitor statistics - Ignite (WEB) (Continued) (Sheet 2 of 2)

STATISTIC	DESCRIPTION
Service Level %	for a queue, this is the percentage of interactions handled within the queue's Service Level Time value over the day for a queue group, this is the lowest percentage of interactions handled within the queue's Service Level Time value over the day across all queues
Contacts Waiting	the current number of interactions in queue waiting for a member to become available, including those listening to silence, music, or recorded announcements
Requeued	the total number of ACD interactions requeued **NOTE:** This statistic displays information for ACD paths only. Statistics for Ring Groups display as '0'
Longest Waiting	the current duration, in minutes and seconds, of the interaction waiting the longest in queue or queue group
Handled	the total number of ACD interactions handled by members
Interflowed	the total number of ACD interactions interflowed interflow is a mechanism that directs an interaction waiting in queue to another answer point **NOTE:** If an interaction waiting in queue is redirected before the queue's short abandoned time has elapsed, the queue is pegged with a Queue Unavailable count rather than an interflowed count. In order for the Interflowed peg to occur, the redirection must occur after the short abandoned time has elapsed
Abandoned	the total number of interactions abandoned before being answered by members **NOTE:** Abandoned does not peg short abandons as abandoned interactions in the Queue Now monitor. The Abandoned column in the Interactive Visual Queue monitor displays all abandoned interactions. Because of this difference, you may notice discrepancies between the abandoned call information in these two monitors

The current number of agents, by state, also displays for each queue or queue group for the following agent states:

- **Idle**: includes agents who are available for ACD but not currently handling any interactions
- **ACD**: includes agents in ACD and ACD Hold
- **Non-ACD**: includes agents in Non ACD, Non ACD Hold, Outbound, and Outbound Hold
- **Unavailable**: includes agents in Do Not Disturb, Busy, and Work Timer

The Queue Now monitor in Ignite (WEB) is accessible from your Ignite (WEB) Dashboard, To learn how to add and configure settings for the Queue Now monitor in Ignite (WEB), see *"Configuring Ignite (WEB) dashboards"*.

Viewing and managing callbacks in Ignite (WEB)

When licensed for IVR, the Callback Requests monitor, available in Ignite (WEB), enables you to interact with callbacks and monitor their state in real time.

The Callback Requests monitor enables users to requeue, reject, and delete callbacks from within the monitor. Requeued callbacks are re-entered into their queue. Rejected callbacks are removed from the queue and will not be offered to employees. Deleted callbacks are removed from the monitor, but are not removed from the system.

To requeue, reject, or delete a callback

- In the row of the call you want to interact with, in the **Actions** column, left-click either **Requeue**, **Reject**, or **Delete**.

The following table lists and describes the statistics available in the Callback Requests monitor.

Table 24.29: Callback Requests monitor statistics - Ignite (WEB)

STATISTIC	DESCRIPTION
Name	the name of the caller
Number	the phone number provided by the caller
Status	the status of the callback
Offer At	At the specific time the callback will be executed
Received	the specific time the caller submitted the callback request
Preferred Time	the time the caller is available to receive the callback (if the caller does not enter a preferred time, this column will be blank)
Destination	the queue, agent, and extension for which the callback is intended
# of Attempts	the number of times the callback has been attempted
Last Attempted	the specific time the last callback attempt to the caller was made
Actions	within this column, you can choose to requeue, reject, or delete a callback

The Callback Requests monitor in Ignite (WEB) is accessible from your Ignite (WEB) Dashboard, To learn how to add and configure settings for the Callback Requests monitor in Ignite (WEB), see *"Configuring Ignite (WEB) dashboards"*.

Managing a multimedia contact center with Ignite

As a supervisor, there may be situations where you want to access Ignite's agent features. For example, you may want to occasionally log in to alleviate contact center congestion by handling interactions.

Ignite is also useful for directly transferring interactions to specific agents or as an alternative method for tagging interactions as Junk or No Reply Needed. In addition, supervisors access Ignite to search email, chat, SMS, and open media history.

Supervisors can use the real-time monitors available in the Ignite (WEB) Dashboard to view real-time queue, agent, and employee statistics as well as interact with agent presence to improve service levels. You can also view callback requests and choose to requeue, reject, or delete items from the list.

NOTE: Employees must be licensed for Multimedia Contact Center to access the full multimedia features in Ignite. For more information, see *"Adding multimedia capabilities to employees"*.

Handling multimedia interactions

When traffic levels necessitate, supervisors with appropriate licensing can log into Ignite and alleviate congestion by handling interactions. Emails can be configured to overflow to a supervisor after a specified length of time in queue. If a supervisor primarily uses Contact Center Client, they can minimize Ignite and be notified when they receive an overflow email.

See the Ignite section of this guide for information regarding handling interactions in Ignite.

Searching email, chat, and SMS history

Building a case history is an essential part of investigating situations that result from a customer complaint or a customer commendation. Searching email, chat, SMS, and open media history helps you to follow the trail of activity, enabling you to react appropriately in an informed way.

See *"Searching Ignite's folders"* and *"Reviewing contact history"* for more information.

Accessing real-time monitors in Ignite (WEB)

Real-time monitoring of employees, agents, queues, and callback requests is available via the dashboards in Ignite (WEB).

For more information, see *"Configuring Ignite (WEB) dashboards"*, *"Accessing real-time information with (WEB)"*, and *"Interacting with agent presence to improve service levels"*.

Agents - Handling customer interactions in a multimedia contact center

Agents in a multimedia contact center are enabled to handle interactions of various media types, including voice, email, chat, SMS, and open media. Ignite enables agents to interact with customers, view and adjust their Agent Group Presence and Busy/Make Busy and Do Not Disturb states, and view statistics in real time to determine availability of other agents and to be aware of current contact center conditions.

Agent preferences, such as login ID and language, can be modified in CCMWeb, your online center for personal settings and accessing the Help resource documentation.

Managing agent preferences

Agents can manage their preferences in CCMWeb, a web-based application that provides agents with the ability to view and change settings associated with their login ID. Using the options under CCMWeb's My options tab, agents can set their language preferences, view their security roles, change their password, and manage lists of contacts for emailing reports. Via options under the Help tab, agents can access help documentation, view software information, and download the Client Component Pack installation file.

See *"Setting up user preferences"* to learn how to set user preferences, view security roles, and configure email contacts.

Ignite

Ignite is used by agents to handle all types of media, including voice, email, chat, SMS, and open media.

NOTE: The Desktop Ignite application is not supported on MiCC Business for Open SIP. Agents must use Web Ignite for all agent functionality.

Ignite is available as either a desktop or Web version. They share much of the same functionality but also offer unique agent and supervisor experiences enabling you to choose the application that suits your individual needs. In our documentation, we refer to desktop Ignite and its features as Ignite (DESKTOP) and Web Ignite and its features as Ignite (WEB) or, where appropriate, as DESKTOP or WEB only.

If you want access to the following features, we recommend using Ignite (DESKTOP):

- Fully supported integration with MiCollab Client, including:
  - State indicator collaboration (state changes in either Ignite or MiCollab are reflected in each application)
  - Ability to dock Ignite to MiCollab Client and minimize/maximize both applications simultaneously
  - Auto-logout from MiCollab Client when agent logs out of Ignite
  - Recording and implementing pre-announce and agent greetings
  - Requesting help from other agents or supervisors while on a call
  - Viewing agents' Inbox contents
  - Being notified by email of Enterprise Server alarms
  - Using the 'Next Longest button' to access longest-waiting Chat and SMS interactions with a single click
  - Grouping, sorting, and organizing interactions using the card and grid views

If you want access to the following features, we recommend using Ignite (WEB):

- Accessing Ignite from any supported, Web-enabled device
  - Full support for tablets (Apple, Android, and Microsoft)
  - Partial support for mobile phones (Apple, Android, and Microsoft), including the ability to log in and out, view dashboards, change ACD state, set and remove Make Busy and Do Not Disturb, remove Work Timer, and interact with agent states via dashboards
- Viewing multiple windows simultaneously to enable greater, immediate access to different types of information

- Switching between desktop, tablet, and mobile device, while maintaining consistent access to all relevant information
- Logging into Ignite, without necessarily being available in queues, enabling employees to access Ignite without being presented with ACD calls
- Accessing supervisor-light version of Contact Center Client's Interactive Contact Center capabilities, including interacting with agent states and agent group presence, and moving interactions from queues to agents, based on agent availability and queue activity levels

NOTE: Using MiCollab Client in conjunction with Ignite, to handle voice interactions, but without integration functionality, such as collaborative state updates, docking, minimizing/maximizing together, click to IM other agents and supervisors, and MiCollab Client auto-logout when logging out of Ignite

The following sections describe Ignite's functionality and include procedures for working in Ignite, with a focus on non-voice media types. If your contact center also handles voice interactions, we recommend implementing the MiCollab and Ignite integration described in the *MiContact Center Business User Guide*.

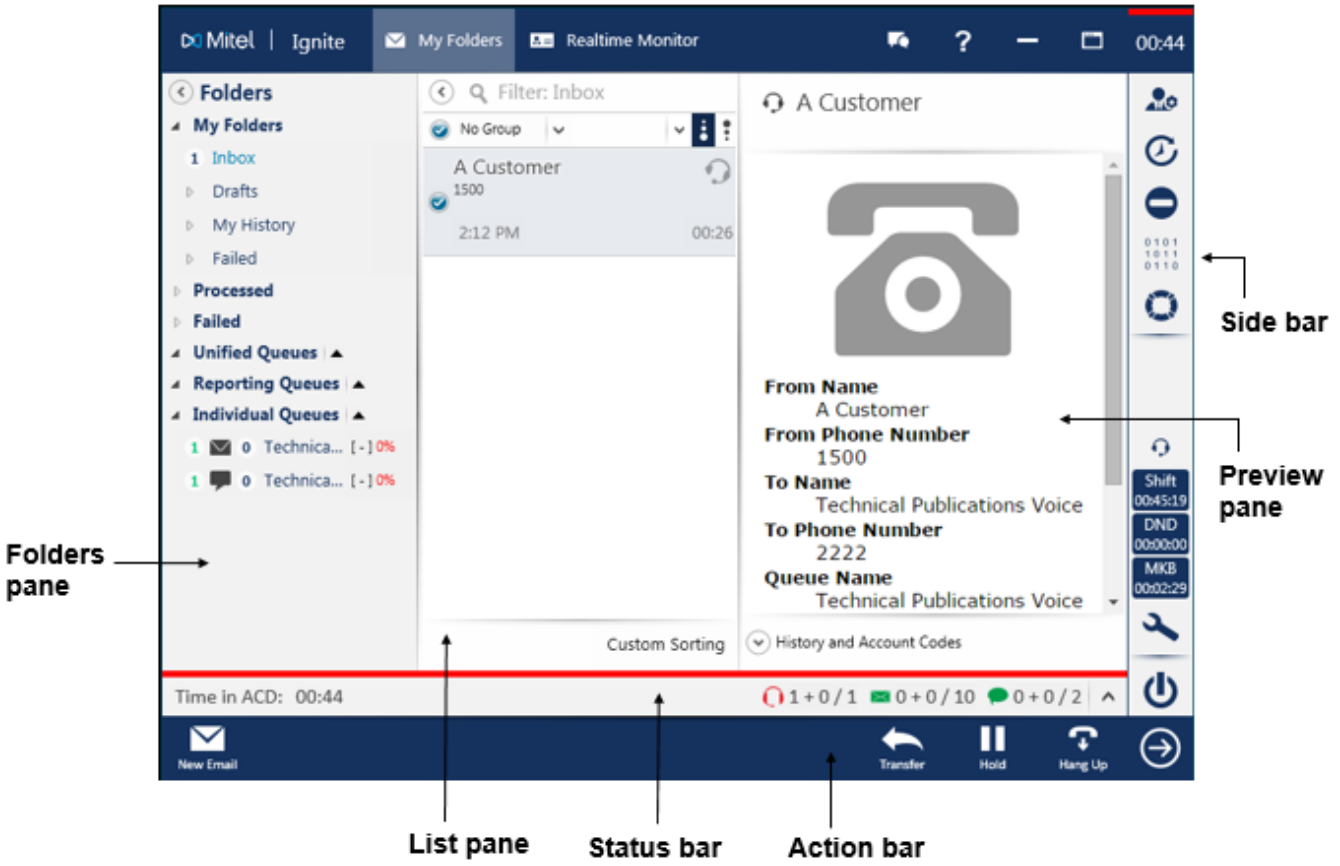
Getting started with Ignite (DESKTOP)

The following sections provide a walkthrough of Ignite's interface. While this section contains some procedures for viewing and orienting Ignite, agents can access in-depth information on how to use Ignite by following the cross-references throughout.

The following figure illustrates Ignite's UI, in the My Folders view. This is the view where agents perform most of their tasks related to handling multimedia interactions.

NOTE: If you display taskbars on multiple monitors, maximizing Ignite on the secondary display does not cover the taskbar and in some instances causes the taskbar to obscure a portion of Ignite. To correct this, see the following Mitel Knowledge Base article: http://micc.mitel.com/kb/KnowledgebaseArticle52017.aspx.

Figure 24.33: The Ignite UI for handling multimedia interactions



Agent state and statistics (DESKTOP)

The Status bar displays the employee's overriding state, including:

- **Time in Ringing** – Displays when an employee has ACD interactions ringing in the Inbox
- **Time in ACD** – Displays when an employee has placed ACD interactions in reply mode
- **Time in ACD Hold** – Displays when an employee has placed ACD interactions on hold
- **Time in Non ACD** – Displays when an employee is handling Non ACD interactions
- **Time in Non ACD Hold** – Displays when an employee has placed Non ACD interactions on hold
- **Time in Outbound** – Displays when an employee has placed an outgoing call
- **Time in Work Timer** – Displays after the employee has handled an interaction, provided none of the employee's agents are in an ACD, Non ACD, Outbound, Make Busy, or Do Not Disturb state
- **Time in Do Not Disturb** – Displays when the employee is in a Do Not Disturb state
- **Time in Make Busy** – Displays when an employee is in a Make Busy state
- **Time Logged in Not Present** – Displays when an employee is not present in any of their agent groups
- **Time in Reseize Timer** – Displays when an call fails to route to an employee
- **Time in Idle** – Displays when an employee does not have contacts in the Inbox
- **Time in Idle** – Displays when the employee does not have interactions in the Inbox

  NOTE: For Voice, Available includes agents whose devices are off hook or who have Non ACD calls ringing. These agents will not be offered ACD calls.

An overriding state is a state that supersedes other states. States higher in the list override the states appearing lower in the list. Note that all of the employee's agents are considered when the system calculates overriding state.

The oldest length for a state supersedes other times for the same state if an agent is handling multiple interactions. For example, if an employee had two emails in ACD, the displayed value in the status bar would be the time of the oldest email. When the oldest email is completed, the displayed value in the status bar would switch to the other email's Time in ACD.

You can display agent handling statistics by clicking the ^ button on the right-hand side of the Status bar. Ignite's Status bar also contains statistics on agent performance as it relates to handling multimedia interactions. See the *Multimedia Contact Center Installation and Deployment Guide* for more information.

NOTE: The Status bar is only visible to employees with associated voice, email, chat, SMS, or open media agents.

Agent handling statistics by media type (DESKTOP)

Agents can view statistics related to their performance via the Sidebar. If you are enabled for media types other than voice, you can toggle between media-specific statistics using the icon directly above the statistic display. Select the headphone icon for voice, the envelope icon for email, the interaction icon for chat, or the phone icon for SMS statistics.

By default, the Sidebar displays Shift Time, DND Time, and MKB Time. However, you can select any three agent shift statistics from the Sidebar Stats tab under the Settings menu. See *"Sidebar Stats settings"* for more information.

If the statistic name is too long to display in full, you can hover over the statistic and read the tooltip or left-click the statistic to view the full name in the fly-out menu.

Logging into and out of Ignite (DESKTOP)

You can open Ignite from the Windows Start menu, Programs menu, Taskbar, or from a Desktop shortcut.

We recommend that agents using Ignite in conjunction with MiCollab Client log into their voice agent in MiCollab Client before logging into Ignite. If you choose to log into Ignite prior to logging into MiCollab Client, you will be prompted during the Ignite login process to register your voice agent in MiCollab Client.

Depending on administrative settings, agents may find that, after logging into their phone and into Ignite, they are placed in Make Busy across all agent capabilities. After logging into Ignite the agent can remove Make Busy and become available to receive ACD calls.

When you log in to Ignite, you become available to answer interactions for your associated queues and will receive items based on routing rules and your agent workload.

To log into Ignite

1. Start **Ignite**.
2. Enter your **Username** and **Password**.

   NOTE: If your system uses Windows Authentication, you will be logged in automatically.
3. If you want the system to remember your login credentials, click **Remember Me**.
4. Click **Login**.

To log out of Ignite and restart the program to the login screen

- In the **Sidebar**, click the **Sign Out** or **Exit** button and select **Sign Out**.
  The agent is logged out of Ignite, and Ignite restarts to the login screen.

To log out of Ignite and close the application

- In the **Sidebar**, click the **Sign Out** or **Exit** button and select **Exit Application**.

NOTE: You can also close Ignite from the Sign In screen by clicking the **Exit Application** button.

The agent is logged out of Ignite, and the application closes.

The Sign In screen (DESKTOP)

Agents access Ignite via the Sign In screen.

Agents with multimedia and voice capabilities should follow best practices for logging into voice and multimedia. For more information, see *"Logging in and out of Ignite"*.

For information on exiting Ignite, see *"Opening and closing Ignite"*.

Note that the availability of Ignite's functionality depends on employee licensing. If you log into Ignite and are not able to access its functionality, or if you receive a message saying you are not configured for ACD, contact your supervisor or system administrator.

The Agent Group Presence Status screen (DESKTOP)

The Agent Group Presence Status screen is where agents can view

- The Agent Groups for which the agent handles interactions.
- Whether the agent is present in or absent from these groups.
- The default presence settings configured in YourSite Explorer.

If permitted, agents can adjust their agent group presence on this screen.

For information on accessing the Agent Group Presence Status screen, see *"Viewing Agent Group Presence in Ignite"*.

For information on using the Agent Group Presence Status screen to become present in, or absent from, agent groups, see *"Adjusting Agent Group Presence in Ignite"*.

The Folders pane (DESKTOP)

The Folders pane contains the media folders and the queues for which the employee's agent groups handle interactions. For more information, see *"The Media Folders view (DESKTOP)"* and *"The Queue Folder view (DESKTOP)"*.

Agents can expand or collapse Ignite's Folders pane to give more or less space to the Media Folder and Queue Folders views. By default, the Folders pane is expanded.

To expand or contract Ignite's Folders pane, click the arrow button beside **Folders**, at the top of the **Folders** pane.

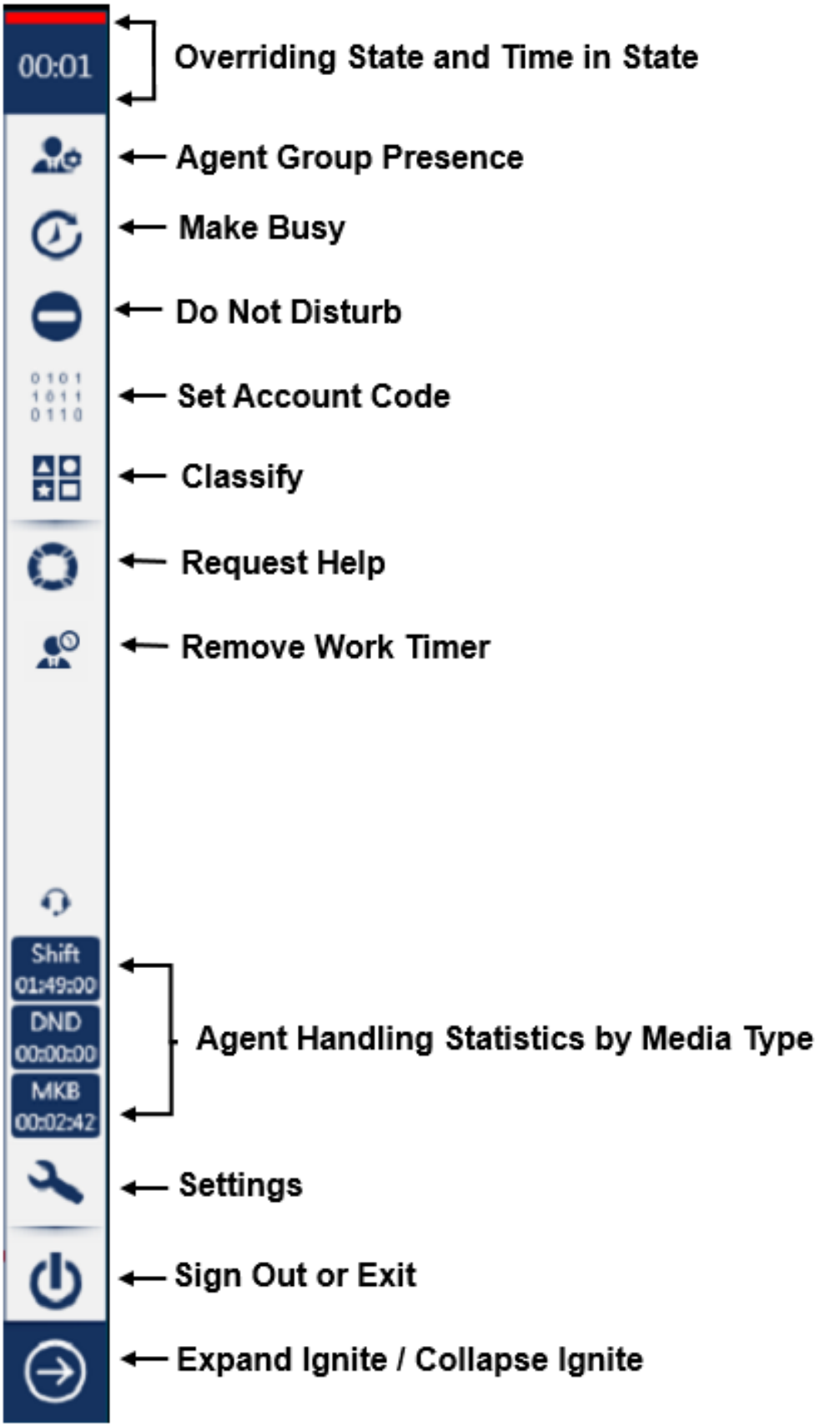
The Sidebar (DESKTOP)

Ignite's Sidebar displays the following agent controls. (See the following figure.)

- Agent Group Presence
  See *"Viewing Agent Group Presence in Ignite"* and *"Adjusting Agent Group Presence in Ignite"*.
- Make Busy
  See *"Setting and removing Make Busy in Ignite"*.
- Do Not Disturb
  See *"Setting and removing Do Not Disturb in Ignite"*.

- Remove Work Timer (displays when Work Timer is active)
  See *"Work Timer"*.
- Set Account Code
  See *"Tagging contacts with Account Codes"*.
- Classify
  See *"Tagging calls with Classification Codes"*.
- Request help
  See *"Requesting Help"*
- Agent Handling Statistics by Media Type
  Agents can select up to three agent handling statistics, by media type, to display in the Sidebar. If you are enabled for multiple media types, you can toggle between media-specific statistics using the icon directly above the statistical displays. Select the headphone icon for voice, the envelope icon for email, the interaction icon for chat, or the phone icon for SMS statistics. By default the Sidebar displays Shift Time, DND Time, and MKB Time. However, using the 'Settings' button in the Sidebar, you can select any agent statistics to display.
- Settings
  See *"Your Ignite profile (DESKTOP)"*.
- Sign Out or Exit
  See *"Logging in and out of Ignite (DESKTOP)"* and *"Opening and closing Ignite (DESKTOP)"*.
- Expand Ignite / Collapse Ignite
  Clicking the 'Expand Ignite / Collapse Ignite' button toggles the view based on your configured settings. See *"Your Ignite profile (DESKTOP)"*.

Figure 24.34: Ignite's Sidebar and controls


00:01
Overriding State and Time in State
Agent Group Presence
Make Busy
Do Not Disturb
Set Account Code
Classify
Request Help
Remove Work Timer
Shift
01:49:00
DND
00:00:00
MKB
00:02:42
Agent Handling Statistics by Media Type
Settings
Sign Out or Exit
Expand Ignite / Collapse Ignite

The Action bar (DESKTOP)

Ignite's Action bar displays multimedia interaction handling options, which vary by an interaction's media type and the stage at which the interaction is being handled.

For information on handing multimedia using the Action bar, see *"Handling multimedia contacts in Ignite"*, *"Handling emails in Ignite"*, *"Handling chats in Ignite"*, and *"Handling SMS in Ignite".*

The Status bar (DESKTOP)

NOTE: The Status bar is only visible to employees with associated multimedia agents. For example, supervisors without an associated voice, email, chat, or SMS agent do not see the Status bar in Ignite.

Ignite's Status bar displays the employee's overriding state, including

- **Time in Ringing** – Displays when an employee has ACD interactions ringing in the Inbox
- **Time in ACD** – Displays when an employee has placed ACD interactions in reply mode
- **Time in ACD Hold** – Displays when an employee has placed ACD interactions on hold
- **Time in Non ACD** – Displays when an employee is handling Non ACD interactions
- **Time in Non ACD Hold** – Displays when an employee has placed Non ACD interactions on hold
- **Time in Outbound** – Displays when an employee has placed an outgoing call
- **Time in Work Timer** – Displays after the employee has handled an interaction, provided none of the employee's agents are in an ACD, Non ACD, Outbound, Make Busy, or Do Not Disturb state
  For more information, see *"Work Timer"*.

  NOTE: If Work Timer is the overriding state, the Status bar displays the Work Timer state that the agent has been in longest.
- **Time in Do Not Disturb** – Displays when the employee is in a Do Not Disturb state
  For more information, see *"Setting and removing Do Not Disturb in Ignite"*.
- **Time in Make Busy** – Displays when the employee is in a Make Busy state
  For more information, see *"Setting and removing Make Busy in Ignite"*.
- **Time Logged in Not Present** – Displays when an employee is not present in any of their agent groups
  For more information, see *"Adjusting Agent Group Presence in Ignite"*.
- **Time in Idle** – Displays when an employee does not have interactions in the Inbox

An overriding state is one that 'trumps' another state, as represented by the list above. States higher in the list override the states appearing lower in the list. Note that all of the employee's agents are considered when the system calculates overriding state.

For example, if an employee's Chat agent is Idle, but their Email agent is ACD, the Status bar displays ACD. In this example, ACD is the overriding state. If the employee's Chat agent is in Work Timer, and their Email agent is in Make Busy, the Status bar displays Work Timer until Work Timer expires or is removed. In this example, Work Timer is the overriding state.

The oldest time for a state 'trumps' other times for the same state if an agent is handling multiple interactions. For example, if an employee had two emails in ACD, the displayed value in the status bar would be the time of the oldest email. When the oldest email is completed, the displayed value in the status bar would switch to the other email's Time in ACD.

Ignite's Status bar also contains statistics on agent performance, offering agents quick access to their current handling statistics across media types. Icons indicate the media type to which the following statistics pertain.

- **Average Handling Time (mins)** – The average time the agent has taken to handle interactions of each media type

- **Workload (current + Work Timer / maximum)** – Displays active interactions, and any Work Timer states, against the maximum number of interactions an agent can be pushed per media type, as defined by the agent's Workload. Note that Work Timer states count against Workload, and will affect whether agents are pushed interactions. For more information, see *"Work Timer"*.
- **ACD (count / duration)** – Displays the number of ACD interactions the agent has handled for a media type, and the time spent handling interactions of that media type
- **Non ACD (count / duration)** – Displays the number of Non ACD interactions the agent has handled for a media type, and the time spent handling the interaction.
- **Unavailable %** – Displays the percentage of time the agent is unavailable during their shift, including DND, MKB, Unknown, and Work Timer states, and when the agent is logged in but not available to receive ACD interactions.

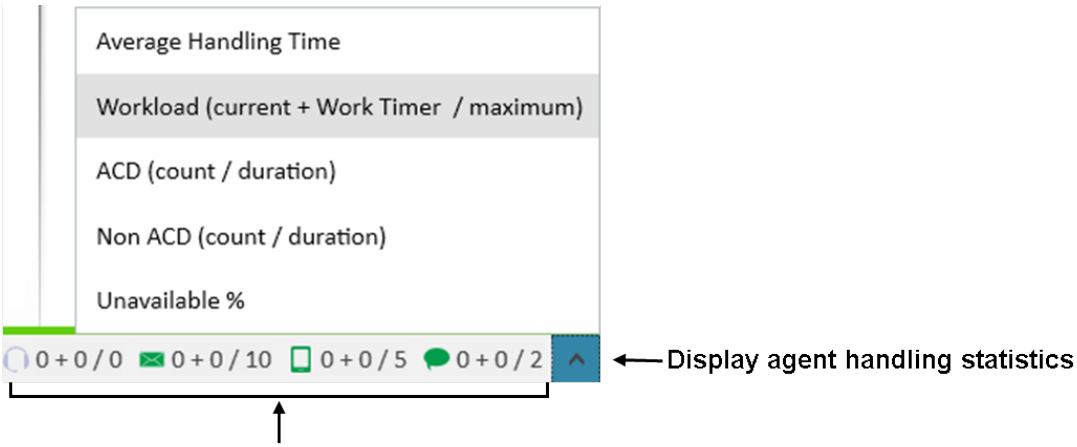
Agents access their handling statistics by clicking the ^ button on the right-hand side of the Status bar. (See the following figure.)

The color of the multimedia icons in the Status bar indicates the agent's state.

- **Green** – Indicates an Idle state
- **Red** – Indicates an ACD or Do Not Disturb state
- **Yellow** – Indicates either a Make Busy or Work Timer state, or that the agent is logged in but not present in any of their agent groups.
- **Blue** – Indicates the agent is in a Non ACD state
- **Gray** – Indicates the agent is logged out or otherwise Unavailable

The following figure displays agent handling statistics in Ignite.

Figure 24.35: Agent handling statistics as displayed in Ignite's Status bar



The My Folders view (DESKTOP)

The My Folders view is where agents perform the majority of their contact-related tasks, including viewing media folders, queues, and handling interactions.

A red banner indicates the number of interactions ringing in the agent's Inbox. For more information, see "Ringing states in Ignite".

In addition to the above functions, supervisors can use My Folders to view

- Interactions in agent Inboxes
- Interactions sent to the queue
- Outbound emails and agent replies to interactions (email only)
- Interactions in the process of being sent (email only)
- Interactions that failed to route

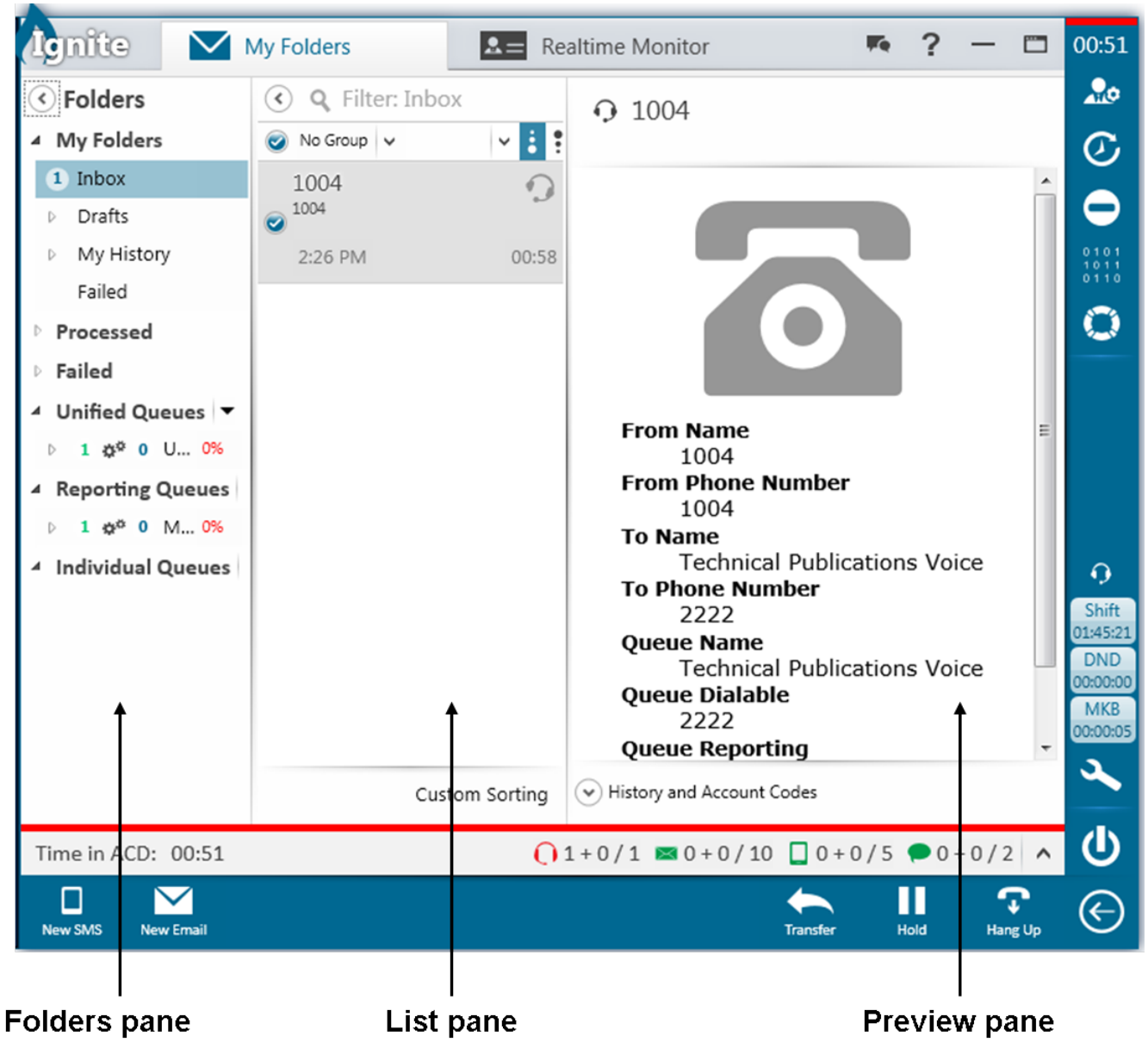
The My Folders view is divided into the Folder, List, and Preview panes. (See the following figure.)

For more information, see "The Folders pane", "The List pane", and *"The Preview Pane"*.

To access the My Folders view

- At the top of Ignite, click the **My Folders** tab.

Figure 24.36: Ignite's My Folders view



Viewing media folders (DESKTOP)

The following procedures explain how to

- View the My Folders folder, which includes the Inbox, Drafts and Drafts subfolders, My History and My History subfolders, and Failed folder.
- View the Processed folder, which includes the In Progress (supervisors only), History and History subfolders, and Failed folder.
- View the Failed folder.

The My History and Processed folders pertain only to email, chat, SMS, and open media interactions. For more information on Ignite's folders, see *"The Media Folders view (DESKTOP)"*.

For information on the specific interactions agents can view in Ignite's media folders, see "Viewing and organizing contacts in Ignite (DESKTOP)".

To view the My Folders folder

- Expand the **Folders** pane and expand the **My Folders** folder.

To view the Processed folder

- Expand the **Folders** pane and expand the **Processed** folder.

To view the Failed folder

- Expand the **Folders** pane and expand the **Failed** folder.

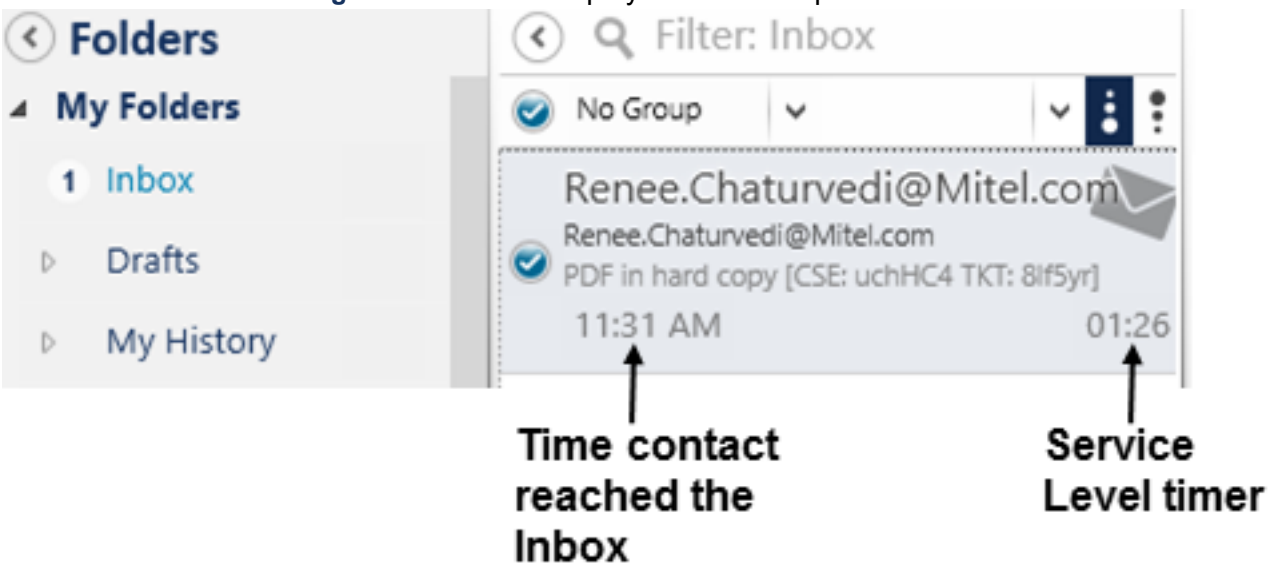
Viewing interactions in Ignite's folders (DESKTOP)

Ignite's List pane has two views: Card view and Grid view. Card view is the default view. Expanding the Card view's borders converts it to the Grid view.

The Card view indicates when an interaction entered the Inbox and how long an agent has to handle an interaction before the Service Level timer expires. (See the following figure.)

Agents can customize how data displays in the Card view. For more information, see *"Choosing how contact data displays in the Card view (DESKTOP)"*.

Figure 24.37: Data displayed in the List pane's Card view Inbox



In the Grid view, agents can see extended interaction information and customize the data displayed. For more information, see "Choosing how contact data displays in the Grid view (DESKTOP)".

The Media Folders view (DESKTOP)

Ignite's Media Folders view displays folders containing interactions dealt with by the queues' agent groups.

The Media Folders view is divided into three main folders: My Folders, Processed, and Failed. Each is comprised of several subfolders.

NOTE: The My History and Processed folders pertain only to email, chat, SMS, and open media interactions.

My Folders – The agent's 'Personal' folder. This folder contains multimedia interactions being offered to the Inbox, multimedia interactions the agent has handled, the agent's email replies, and multimedia interactions that were unable to route. My Folder is organized into the following subfolders.

- **Inbox** – Contains interactions being offered to the agent and interactions on which the agent is working. The Inbox indicates the number of ringing interactions, in red. When a customer responds to a chat, the number of chat interactions awaiting the agent's response is indicated, in orange. An interaction selected in the Inbox becomes the active interaction.
- **Drafts** – Contains the agent's emails in progress. These interactions are organized into the following subfolders:
  - **Inbox** – Contains replies in progress to inbound emails
  - **New Emails** – Contains outbound emails in progress
  - **Forward** – Contains email forwards in progress
- **My History** – Contains email, chat, and SMS interactions that the agent has worked on. These interactions are organized into the following subfolders:
  - **Handled** – Contains the email, chat, and SMS interactions to which the agent has replied or transferred from reply mode

    NOTE: For email, the Handled folder displays only the original, inbound emails.
  - **Sent** – Contains outbound emails and agent replies to email interactions
  - **No Reply** – Contains email interactions designated as needing no reply, such as out of office messages
  - **Junk** – Contains email interactions and chat transcripts designated as Junk
- **Failed** – Contains email, chat, and SMS interactions that were unable to route

Processed – A queue-level folder. This folder contains email, chat, SMS, and open media interactions that agents answering for the queue have worked on and are currently working on.;Processed also includes email interactions in the process of being sent, and email and chat interactions that were unable to route. Processed is organized into the following subfolders.

- **In Progress** – Available only to supervisors. This folder contains email interactions currently in agent Inboxes. By searching agent names, supervisors can identify all interactions in an agent's Inbox.

  NOTE: Supervisors cannot see agent replies in progress.
- History – This folder contains email and chat interactions that agents have worked on. These interactions are organized into the following subfolders.
  - **Handled** – Contains the email, chat, and SMS interactions to which the agent has replied or transferred from reply mode

    NOTE: For email, the Handled folder displays only the original, inbound emails.
  - **Sent** – Contains outbound emails and agent replies to email interactions

- **No Reply** – Contains email interactions designated as needing no reply, such as out of office messages
- **Junk** – Contains email interactions and chat transcripts designated as Junk
- **Outbox** – Contains outbound emails and agent email replies in the process of being sent. If send attempts exceed the default limit of five, the interaction's media icon flashes and displays in red.

Failed – Contains email, chat, and SMS interactions that were unable to route in the queues the agent or supervisor have permission to view.

Failed is organized into the following subfolders.

- **Failed** – Contains email, chat, and SMS interactions that were unable to route
- **Failed to Send** – Contains emails that failed to send because they exceeded the supported email message size for the mail server
- **Auto Replies/Failed Delivery** – Contains emails that failed because the recipient had no more space in their inbox, the recipient had an out of office reply configured, the message was delayed by the recipient's mail server, or there were invalid addresses in the delivery list

The interactions contained in each folder can be searched and sorted according to various criteria. For more information, see *"Searching Ignite's folders"*.

The Queue Folder view (DESKTOP)

The Queue Folder view displays the Unified Queues, Reporting Queues, and Individual Queues for which an employee's agent group answers interactions.

Unified Queues – A collection of queues of different media types receiving interactions for a single service group. For example, a Unified Queue Group called 'Technical Support' can contain a voice, a chat, an email, and an SMS queue receiving tech support interactions. You can view these queues in a single folder, 'Unified Queues', in Ignite. You can control which queues are visible under Unified Queues in Settings. For more information, see *"Queue selection settings (DESKTOP)"*.

Reporting Queues – A collection of queues, typically of a single media type, created for reporting purposes. For example, a collection of queues called 'Email Technical Support' can contain all email queues receiving tech support interactions. You can view these queues in a single folder, 'Reporting Queues', in Ignite. You can control which queues are visible under Reporting Queues in Settings. For more information, see *"Queue selection settings (DESKTOP)"*.

Individual Queues – Queues of a single media type, either voice, email, chat, or SMS, which are not part of a Unified Queue. Individual Queues that are grouped into Reporting Queues also display here. You can control which queues are visible under Reporting Queues in Settings. For more information, see *"Queue selection settings (DESKTOP)"*.

Viewing Unified Queue Groups, Reporting Queues, and Individual Queues (DESKTOP)

You must be licensed for Multimedia Contact Center to view queues. Supervisors must also be configured as agents answering for the queue in order to see its contents.

Selecting a specific queue folder updates Ignite to display the interactions in queue. See *"Viewing contacts in Ignite's folders (DESKTOP)"* for more information. You can organize your queues and queue groups in alphabetical or reverse-alphabetical order for ease of viewing.

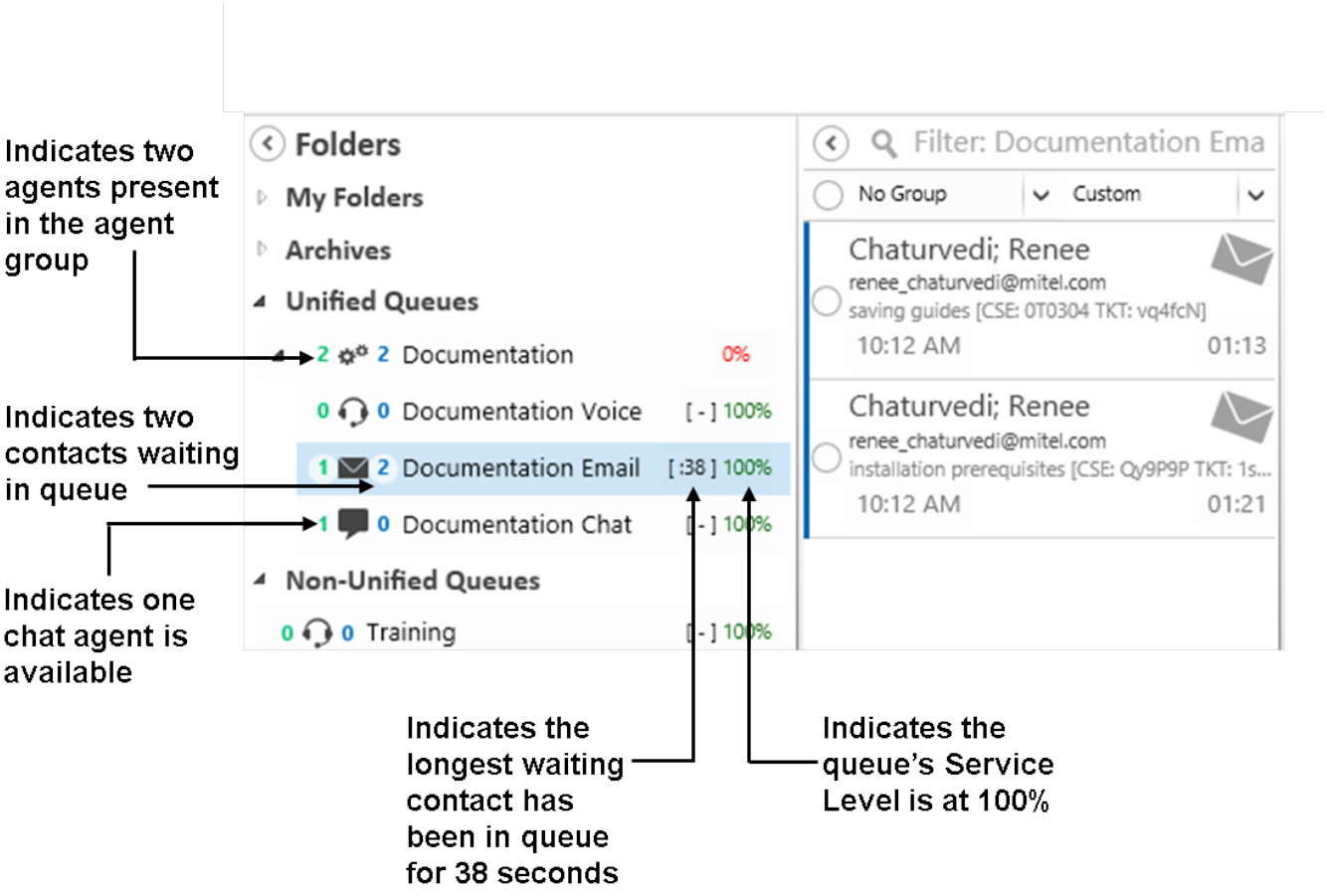
Agents can choose which queues display in Ignite. For more information, see *"Queue selection settings (DESKTOP)"*. Supervisors can restrict the devices that agents can view in Ignite. For more information, see *"Configuring security roles"*.

Each queue indicates

- The number of agents available in each queue's answering agent groups. For Reporting Queues and Unified Queue Group folders, the total number of agents available for the queues is displayed.
- The number of interactions in queue, or 'InteractionsWaiting', for the queue and the queue groups
- The time that the longest waiting interaction has been in queue
- The queue or queue group's Service Level. This Service Level is color-coded to give an indication of how the queue is faring. 75% or greater is green, 50% to 74% is orange, and less than 50% is red.

The following figure illustrates where each statistic displays.

Figure 24.38: Queue statistics displayed in the Queue Folder view



The following procedures explain how to

- View Reporting Queues and Unified Queue Groups
- View queues within Reporting Queues and Unified Queue Groups
- View Individual Queues
- Sort queues and queue groups

To view Reporting Queues and Unified Queue Groups

1. In the **My Folders** view, expand the **Folders** pane.
2. In the **Folders** pane, expand either **Reporting Queues** or **Unified Queues**.

To view the queues within Reporting Queues and Unified Queue Groups

1. In the My Folders view, expand the Folders pane.
2. In the **Folders** pane, expand either **Reporting Queues** or **Unified Queues**.
3. Expand the queues for which you want to see members.

To view Individual Queues

1. In the **My Folders** view, expand the **Folders** pane.
2. In the **Folders** pane, expand **Individual Queues**.

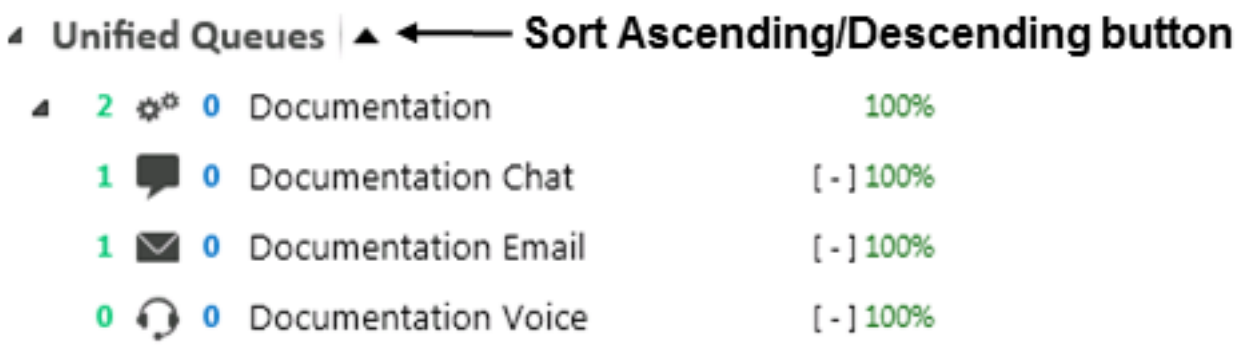
To sort queues and queue groups

1. In the **My Folders** view, expand the **Folders** pane.
2. In the **Folders** pane, expand **Reporting Queues**, **Unified Queues**, and **Individual Queues**.
3. Click the **Sort Ascending/Descending** button.

   See the following figure.

   NOTE: An upward-facing triangle indicates alphabetical sorting (Ascending). A downward-facing triangle indicates reverse-alphabetical sorting (Descending).

Figure 24.39: Ignite's Sort Ascending/Descending button



The List pane (DESKTOP)

Ignite's List pane displays the contents of folders selected in the Folders pane. You can view the List pane in Card view and Grid view.

Each view can display different interaction details. For information on customizing the data displaying in the List pane's Card and Grid views, see *"Choosing how contact data displays in the Card view (DESKTOP)"* and *"Choosing how contact data displays in the Grid view (DESKTOP)"*.

Viewing the List pane's Grid and Card views (DESKTOP)

The following procedures explain how to

- Expand or collapse the List pane
- View the List pane in Grid view
- View the List pane in Card view

To expand or collapse the List pane, click the arrow beside the Search box at the top of the **List** pane. By default, the Line pane is expanded.

To view the List pane in Grid view

- When in **Card view**, expand the right-hand border of the **List** pane until it displays in Grid view.

To view the List pane in Card view

- When in **Grid view**, reduce the right-hand border of the **List** pane until it displays in Card view.

The Preview pane (DESKTOP)

Ignite's Preview pane serves a number of functions. If administrative configurations permit, the contents of email, chat, and SMS interactions selected in a folder or in queue are displayed in the Preview pane before an agent handles them. Unpreviewed interactions display a blue line beside them.

Requeued emails contain any response text drafted. This text is visible to other employees who handle the email. Agents can choose to include the drafted content when previewing requeued emails in queue.

Requeued chat and SMS interactions contain all of the previous interaction between contact and agent.

For voice interactions, the Preview pane displays call information such as the caller's ANI. The Preview pane is the location for formatting replies, applying Account Codes, and viewing historical transcripts of communications. Functions available in the Preview pane vary by a interaction's media type.

NOTE: In this guide, 'reply mode' refers to the state of the Preview pane when an agent has selected an interaction in their Inbox or in queue and has clicked either 'Reply', 'Reply all', or 'Pick & Reply'. 'Preview mode' refers to the state of the Preview pane when an agent has selected an interaction without clicking reply.

The Realtime Monitor view (DESKTOP)

The Realtime Monitor view displays current statistics for the following devices:

- Queue Groups
- Queues
- Agent Groups
- Agents
- Employees

Agents can customize which devices within a group display in the Monitor. For more information, see *"Ignite's Realtime Monitor (DESKTOP)"* and *"Viewing device statistics in Realtime Monitor (DESKTOP)"*.

To access the Realtime Monitor

- At the top of Ignite, click **Realtime Monitor**.

Accessing Ignite (DESKTOP)

The following procedures explain how to

- Open and close Ignite
- Log in and out of Ignite

Voice agents should consult *"Logging in and out of Ignite (DESKTOP)"* for important instructions on logging into Ignite in conjunction with Contact Center Softphone, PhoneSet Manager, or hard set desk phones.

For information on accessing the Ignite web client, see *"Logging into Ignite (WEB)"*.

Opening and closing Ignite (DESKTOP)

Accessing Ignite and its features requires employees to be licensed for Multimedia Contact Center and to have specific security roles enabled. Employees experiencing difficulty accessing Ignite should consult their supervisors or system administrators.

NOTE: Employees without Multimedia Contact Center licensing can be licensed to use Ignite but will have access to voice interactions only.

The following procedures explain how to

- Open Ignite
- Close Ignite

  NOTE: When Ignite closes, it logs the agent out of all associated devices.

To open Ignite

- Ignite can be opened from Windows' Start menu, Programs menu, Taskbar, or from a Desktop shortcut.

  NOTE:

  – Launching client-side desktop applications from the task bar causes them to bypass the MiContact Center Updater Service process. To ensure successful updates from the Enterprise Server, after an upgrade close all client-side applications for 15 minutes or reopen them from the Start menu/Start screen.

  – If MiContact Center Business applications are configured to use Windows Authentication, opening Ignite also logs agents into the program.

To close Ignite

- In the **Sidebar**, click the **Sign Out or Exit** button and select **Exit Application**.

Logging in and out of Ignite (DESKTOP)

The following provides important information on logging in and out of Ignite in conjunction with voice devices and with interactions in the Inbox.

We recommend that agents using Ignite log into their voice device before logging into Ignite. Once logged into their voice device, the agent can minimize Contact Center Client to the system tray and log into Ignite.

Agents can configure Contact Center Client to launch Ignite when logging into the phone, so the agent only has to launch one application to handle voice and multimedia. If you choose the 'Remember Me' option on the Ignite Sign In screen, Ignite launches and automatically logs you in. For more information, see *"Automatically launching Ignite upon voice login (DESKTOP)"*. This option is available for Contact Center Softphone and PhoneSet Manager only.

Agents may find that, after logging into their phone and into Ignite, they are placed in Make Busy across all agent capabilities. This is a recommended administrative configuration. After logging into Ignite the agent can remove Make Busy and become available to receive ACD voice and multimedia interactions.

When an employee logs out of Ignite, all agents representing the employee are logged out, including voice agents. However, voice agents on active calls are not logged out until the call is complete. Logging out of the voice device logs multimedia agents out of Ignite and may requeue items in the Inbox, depending on administrative configurations.

Agents logging out of Ignite with interactions in the Inbox are notified if active interactions will requeue. Interactions that requeue are indicated in Ignite's List pane and display a larger media icon than interac-

tions that do not requeue. To avoid losing work on these items, agents should finish their reply or transfer the items to a queue before logging out.

The following procedures explain how to

- Log into Ignite
- Log out of Ignite

To log into Ignite

1. Start **Ignite**.
2. If prompted, type your **Username** and **Password** and verify the **Enterprise Server** IP address.
3. If you use Secure Socket Layer, select **SSL**.
4. Optionally, select **Remember my credentials**.
5. Click **Login**.

To log out of Ignite and restart the program to the login screen

- In the **Sidebar**, click the **Sign Out or Exit** button and select **Sign Out**.
  The agent is logged out of Ignite, and Ignite restarts to the login screen.

To log out Ignite and close the application

- In the **Sidebar**, click the **Sign Out or Exit** button and select **Exit Application**.
  The agent is logged out of Ignite, and the application closes.

Automatically launching Ignite upon voice login (DESKTOP)

If you use both Contact Center Client and Multimedia Contact Center, you can instruct Contact Center Client to automatically launch Ignite after you log into your phone. This enables you to launch one application to handle both voice and multimedia. If you choose the ‘Remember Me’ option on the Ignite Sign In screen, Ignite launches and automatically logs you in.

This option can be saved to your Contact Center Client profile. However, the option is only available when using PhoneSet Manager and Contact Center Softphone.

To automatically launch Ignite upon voice login

1. Open **Contact Center Client** and click the **File** icon.
2. Select your profile name and click **OK**.

   NOTE: If you have not configured a profile, see *"Setting up the soft phone"* in the MiContact Center Business User Guide.
3. In the ribbon, select **Soft Phone** and click the **Soft Phone** icon.
4. In the Soft phone configuration window, select the **Automatically launch the Ignite Client on ACD login check box**.
5. Click **OK**.
6. On the ribbon, click **Save**.

NOTE: If you are running the MiCollab Client Ignite integration, when you log into MiCollab Client, Ignite is automatically launched. You can set your profile to also automatically launch MiCollab Client when you start and log into Ignite. See *"General settings (DESKTOP)"*.

Viewing and organizing interactions in Ignite (DESKTOP)

Agents can view, organize, and search for interactions using Ignite's Folders pane and List pane.

Selecting a folder in the Folders pane displays its contents in the List pane. Agents can organize how Folder content displays in the List pane. These options vary depending on whether the List pane is in Card view or Grid view.

Under My Folders, agents can only view interactions that they personally have handled. For queues, agents can only view interactions sent to the queues for which the agent answers. To view interactions handled by other agents in the queue you must search the Processed folder.

Employees licensed as Advanced supervisors or System Administrators may search Ignite's entire repository. This includes Ignite's In Progress folder (DESKTOP), which enables supervisors to see interactions currently in agent Inboxes. This search capability does not require Multimedia Contact Center licensing. However, to view and search interactions in queue using Ignite, employees must have a Multimedia Contact Center license and multimedia agents assigned to the queue.

Descriptive information on folders in Ignite can be found in *"Getting started with Ignite (DESKTOP)"*.

The following sections explain

- Choosing how interaction data displays in the List pane's Card view
- Choosing how interaction data displays in the List pane's Grid view
- Searching Ignite's folders

Choosing how interaction data displays in the Card view (DESKTOP)

By default, interactions in the List pane Card View are sorted in the following order:

1. By media type – voice, email, chat, SMS, or open media
2. By Service Level – Expired first, then in order of the least amount of time remaining to the highest amount of time remaining
3. By time waiting in queue

This order prioritizes real-time interactions, and places interactions with the lowest Service Level time or, if expired, the longest waiting time, at the top of the list.

Agents can choose how and what interaction data displays in the List pane's Card view.

The following procedures explain how to

- Group interactions in a selected folder
- Ungroup interactions in a selected folder
- Sort interactions by a single condition and remove this condition
- Sort interactions by multiple conditions and remove these conditions
- Restore default sorting conditions
- Filter interactions in a folder and remove filters

To group interactions in a selected folder

1. From the **Folders** pane, select a folder in which to group interactions.
2. In the **List** pane's **Card** view, after **No Group**, select the drop-down list.
3. Select a grouping condition from the drop-down list. Beside each condition, Ignite indicates the number of items currently displayed. To display more, click **Show more results ….**

4. Expand individual rows to see interactions matching the grouping criteria. Expand all rows by clicking the **plus** icon beside the grouping conditions drop-down list.

To ungroup interactions in a selected folder

1. From the **Folders** pane, select a folder for which you want to remove grouping conditions.
2. In the **List** pane's **Card** view, after **No Group**, select the drop-down list.
3. Select **No Group**.

To sort interactions by a single condition and remove this condition

1. From the **Folders** pane, select a folder in which to sort interactions.
2. In the **List** pane's **Card** view, after **Custom**, select the drop-down list.
3. Select a sorting condition from the drop-down list.
4. Optionally, order the sorted interactions in ascending or descending order by selecting the **Sort Ascending** or **Sort Descending** buttons.
5. To remove the sorting condition, select the drop-down from which you selected the sorting condition and select **No Sort**.

To sort interactions by multiple conditions and to remove these conditions

1. From the **Folders** pane, select a folder in which to sort interactions.
2. In the **List** pane's **Card** view, click **Custom Sorting**.
3. From the drop-down lists, select sorting conditions. Ignite prioritizes the conditions you select by the order in which they display in this pane.
4. Optionally, for each condition, order the sorting interactions in ascending or descending order by selecting the **Sort Ascending** or **Sort Descending** buttons.
5. Click **Apply**.
6. To remove custom sorting conditions, click **Custom Sorting > Clear**.
7. Click **Close**.

To restore default sorting conditions

1. From the **Folders** pane, select the folder to restore default sorting conditions.
2. In the **List** pane's **Card** view, click **Custom Sorting**.
3. Click **Defaults**.

   NOTE: For the Processed folder, clicking 'Defaults' removes all sorting conditions.
4. Click **Close**.

To filter interactions in a folder and remove filters

1. From the **Folders** pane, select a folder in which to filter interactions.
2. In the **List** pane's **Card** view, type filter keywords over the ghost text in **Filter** and press **Enter**.
3. Remove filters by clicking the **x** button.

Choosing how interaction data displays in the Grid view (DESKTOP)

In the Grid view, agents can choose the interaction data displaying for the selected folder and can customize the order of columns appearing in the grid. Agents can sort and filter column data to further customize the data displaying for the selected folder.

NOTE: To complete the following procedures, expand the Card view's right-hand borders until the **List** pane displays in **Grid** view.

The following procedures explain how to

- Choose the data columns that display
- Restore data columns to the default view
- Change data column order
- Group column data using drag-and-drop functionality

To choose the data columns that display

1. From the **Folder** pane, select a folder.
2. Click the **Show column chooser** button.
3. Select data columns to display. Deselecting data columns removes them from display.

   The following figure lists the interaction statistics you can choose to see in the Grid view.

   NOTE: Column availability depends on the folder selected.
4. When finished, click **Close**.

To restore data columns to the default view

- Click the **Reset grid to defaults** button.

Table 24.30: Column data in the List pane's Grid view (Sheet 1 of 3)

Column heading	Data displayed
Agent Received	The time at which the interaction arrived in the agent's Inbox
Agent Time	How long since the interaction arrived in the agent's Inbox
Case ID	The case number associated to the interaction Not applicable to voice or chat
Collected Information	Digits collected from the caller, such as an account number Not applicable to email and chat
From Address	Email: The interaction's 'From' email address Chat: The interaction's 'From' email address as entered on the chat request form SMS: The interaction's 'From' SMS number
From Name	Voice: The Caller ID, if supported by the customer Email: The name associated to the interaction's 'From' email address Chat: The name as entered on the chat request form SMS: The interaction's 'From' SMS number
Dialable	The dialable number of the queue Not applicable to email, chat, or SMS

Table 24.30: Column data in the List pane's Grid view (Continued) (Sheet 2 of 3)

Column heading	Data displayed
Last Agent Action	The last action taken by the agent on the interaction Not applicable to voice
Last Agent ID Response	The reporting number of the agent who last responded to the interaction
Last Agent Response	The time since the agent last responded to the interaction
Last Agent Response Date/Time	The date and time since the agent last responded to the interaction
Last Customer Response	The time since the customer last responded to the agent
Last Handled Agent Name	The name of the agent who last handled the interaction
Media	The interaction's media type
Position	The interactions position in queue
Priority	The priority level of the queue the interaction is in. 64 is the default
Queue	The queue in which the interaction is sitting
Queue Received	The time at which the interaction entered the queue
Queue Reporting	The reporting number associated to the queue
Queue Time	How long interaction has been waiting in queue
Reporting	The queue's reporting number
Retries Exceeded	Whether the interaction's maximum send attempts have been exceeded Not applicable to voice, chat, or SMS
SL Countdown	The amount of time in which an agent has to respond to an interaction before the Service Level timer expires The timer begins counting down once an interaction arrives in an agent's Inbox. The timer stops counting once an agent clicks 'Reply'
State	The current state of the interaction Also indicates if a server request is pending. For example, this column indicates if the server is processing a request to transfer the interaction to a different agent or queue
Subject	Email: The subject line of the email Chat: The pre-chat topic as entered on the chat request form SMS: The first 40 characters of the SMS message Not applicable to voice

Table 24.30: Column data in the List pane's Grid view (Continued) (Sheet 3 of 3)

Column heading	Data displayed
System Received	For inbound email interactions, the date/time that an interaction was received by the mail server For inbound chat and SMS interactions, the date/time that an interaction was received by the media server For outbound interactions, the date/time that an interaction was initiated by an agent
System Time	How long since the interaction entered Multimedia Contact Center
Ticket ID	The ticket number associated to the interaction Not applicable to voice
Transfers	How many times an interaction has been transferred, interflowed, or re-queued

To change data column order

- Drag and drop a column into the desired position. Animated arrows display when a column can be dropped into position.

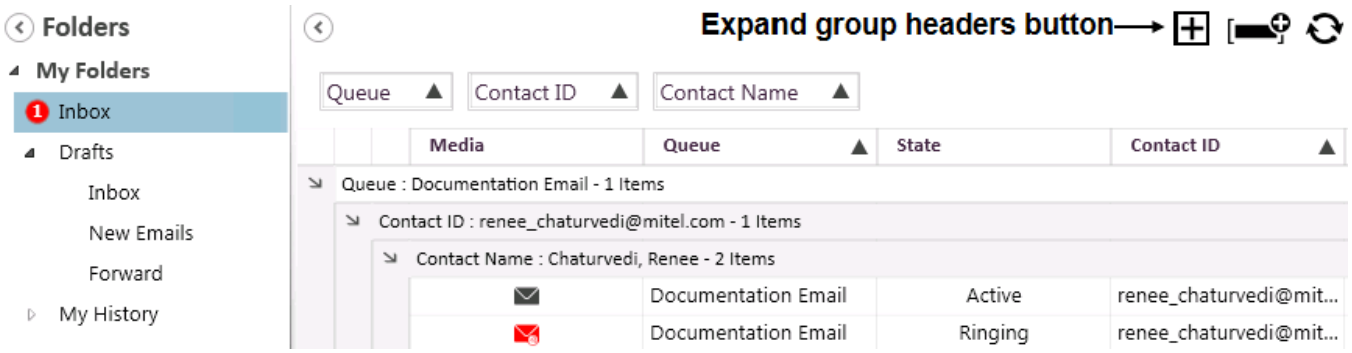
To group column data using the drag-and-drop functionality

NOTE: When grouping with the drag-and-drop method, animated arrows indicate when an item can be dropped into position.

1. From the **Folders** pane, select a folder.
2. In the List pane's **Grid** view, drag and drop a column to the **Drag columns here to group** section of the Ignite UI.
3. Expand or close the data rows by clicking the arrow button beside the rows of filtered data. To expand all rows, click the **Expand group headers button**.

   See the following figure.
4. To remove a row, drag the column header from the **Drag columns here to group** section back to the column headers in the Grid view.

Figure 24.40: The Expand group headers button



Ignite's Realtime Monitor (DESKTOP)

Ignite's Realtime Monitor displays current statistics for devices including queue groups, queues, agent groups, agents, and employees. Ignite's Realtime Monitor enables you to navigate efficiently through a hierarchy of devices and see associations among them. Pinning items to the Realtime Monitor lets you see only the items associated to the pinned item.

Color bars on each device statistic window indicate the device's state. You can use these bars to view device availability. To see the states indicated by each color, see *"The Status bar (DESKTOP)"*.

The following procedures explain how to

- Viewing device statistics in Realtime Monitor
- Pinning items in the Realtime Monitor

NOTE: For a description of statistics viewable in the Monitor, see *"Realtime Monitor statistics available in Ignite (DESKTOP)"*.

Viewing device statistics in the Realtime Monitor (DESKTOP)

The following procedures explain how to

- Toggle through multimedia devices
- View real-time statistics for select items and clear selections
- Search for device items
- Clear searches

To toggle through multimedia devices

- Select the **Realtime Monitor** tab and select either **Queue Group**, **Queue**, **Agent Group**, **Agent**, or **Employee**.

To view real-time statistics for select items and clear selections

1. Select the **Realtime Monitor** tab and select either **Queue Group**, **Queue**, **Agent Group**, **Agent**, or **Employee**.
2. Select the radio-button for the item you want to display.

NOTE: Select multiple devices by holding 'Shift'. Optionally, display all items by clicking **Select All**.

3. To clear selections, deselect the associated radio buttons. Optionally, clear all selections by clicking **Deselect All**.

To search for a device item

NOTE: You can only search within, not between, multimedia devices.

1. Select the **Realtime Monitor** tab.
2. In the **Search** field, type the search keywords and click the **Search** icon.
3. Select the radio button for the item you want to display. Select multiple items by holding **Shift**. Optionally, display all items by clicking **Select All**.

   NOTE: Icons beside media-specific devices identify an item's media type. For example, an email icon identifies an email queue.

To clear a search

- In the **Search** pane, select the **x** button.

Pinning items in the Realtime Monitor (DESKTOP)

You can pin items in Ignite's Realtime Monitor. Once an item is pinned, the Monitor displays only the other items associated to the pinned item.

For example, when the contact center is busy, the agent group answering emails for the Training queue is offered emails from the Support queue. An agent in Training wants to transfer a support-related email back to the Support agent group, but needs to see who is available to take the email. In the Realtime Monitor, the agent pins the 'Support' agent group. When the agent toggles the Monitor to agent statistics, only agents in the Support group display. The Training agent can see who is available in Support to receive the transfer.

The following procedure explains how to pin items to the Monitor and remove pins.

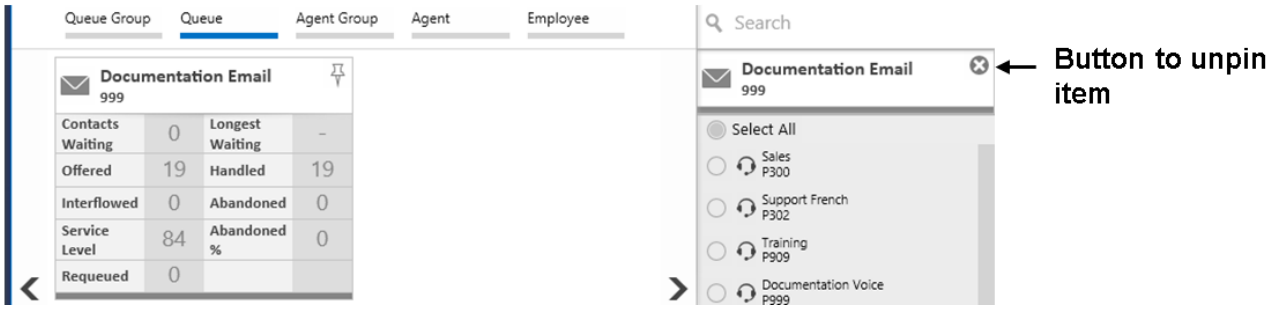
To pin an item to the Monitor and remove pins

1. Click **Realtime Monitor** and select either **Queue Group**, **Queue**, **Agent Group**, **Agent**, or **Employee**.
2. Click the **pin** icon on a device item. Toggling devices displays only items associated to the pinned item.

   NOTE: To view statistics for additional items, select them in the device pane. To revert back to viewing only statistics associated to the pinned item, click 'Select Related Only'.
3. To remove a **pin**, click the pin icon again. Alternatively, click the **X** button in the device pane.

   See the following figure.

Figure 24.41: Device pane button to unpin an item



Realtime Monitor statistics available in Ignite (DESKTOP)

See the following tables for definitions of the real-time statistics available by device.

Statistics in the Realtime Monitor dynamically update as device conditions change. Color bars on each device statistic window indicate the device's state. You can use these bars to view device availability. To see the states indicated by each color, see *"The Status bar (DESKTOP)"*.

NOTE:

- The specific statistics displaying in the Agent Realtime Monitor vary by media type.
- Interflow statistics include interactions manually transferred from one queue to another.

Table 24.31: Queue Group Statistics

Monitor field	Statistic
Available Agents	The number of agents available in the queue group's answering agent groups
Offered	The number of interactions sent to the queue that were completed, interflowed, or abandoned
Handled	The number of interactions dealt with by agents in the queue group's answering agent groups
Interflowed	The number of interactions redirected from queues in the group to an alternate answer point, such as another queue or, for email, an external email address
Abandoned	The number of interactions sent to queues in the group, where the customer disconnected before reaching an agent Not applicable to email and SMS
Requeued	The number of interactions sent back to the queues after being offered to an agent answering for the queues

Table 24.32: Queue statistics (Sheet 1 of 2)

Monitor field	Statistic
Contacts Waiting	The number of interactions waiting in queue to be handled
Longest Waiting	The amount of time an interaction has been waiting in queue the longest
Offered	The number of interactions sent to the queue that were completed, interflowed, or abandoned
Handled	The number of interactions dealt with by agents in the queue's answering agent groups
Interflowed	The number of interactions redirected from the queue to an alternate answer point, such as another queue or, for email, an external email address
Abandoned	The number of interactions received by the queue where the customer disconnected before reaching an agent Not applicable to email and SMS
Service Level %	The percentage of interactions handled, abandoned (voice and chat only) and interflowed before the defined Service Level time

Table 24.32: Queue statistics (Continued) (Sheet 2 of 2)

Monitor field	Statistic
Abandoned %	The percentage of interactions affecting Service Level that were abandoned Not applicable to email and SMS
Requeued	The number of interactions sent back to the queue after being offered to an agent

Table 24.33: Agent Group statistics

Monitor field	Statistic
ACD	The number of ACD interactions handled by agents in the agent group.
Non ACD	The number of Non ACD interactions handled by agents in the agent group. Not applicable to email, chat, SMS, and open media.
MKB	The number of times agents in the agent group went into Make Busy
DND	The number of times agents in the agent group went into Do Not Disturb
Hold	The number of times agents in the agent group put interactions on hold

Table 24.34: Agent statistics

Monitor field	Statistics
ACD Count	The number of ACD interactions handled by the agent
Non ACD Count	The number of Non ACD interactions handled by the agent Not applicable to email, chat, SMS, and open media.
ACD Time	The amount of the agent's shift spent handling ACD interactions
Average Handled	The average amount of time taken to handle ACD interactions
Outbound	The number of outbound interactions made Not applicable to email, chat, SMS, or open media
Outbound Duration	The time spent on outbound interactions Not applicable to email, chat, SMS, or open media
MKB Count	The number of times the agent went into Make Busy
DND Count	The number of times the agent went into Do Not Disturb

Employee statistics

The following employee statistics display in the Realtime Monitor

- Employee name
- Employee ID

- The number of interactions handled for each media type
  NOTE: These statistics reset at midnight
- The employee's overriding state
- The time at which the employee first logged on, or the time at which the employee logged off
  NOTE: This data resets at midnight
- How long the employee has been logged on, or how long the employee has been logged off

Your Ignite profile (DESKTOP)

Ignite enables you to customize, organize, and change display elements to satisfy both personal preferences and work needs. The customizations and changes constitute your Ignite profile, associated to the username used to access Ignite.

Each time you close Ignite your profile is automatically saved. When Ignite is reopened with your username, your most recent profile settings are reloaded. If Ignite shuts down suddenly, it resumes your last saved profile on restart.

Ignite always opens to the Inbox in the My Folders view. Ignite remembers the device monitors you had open in the Realtime Monitor view, if the Realtime Monitor view was open when Ignite was closed. Your profile does not reopen folders that were active when you last shut down Ignite.

Ignite remembers your changes to the following elements of Ignite:

- Ignite window size
- Position of Ignite on your screen
- Pane size
- Folder view:
  - Queue folder sorting
  - Selected queues to display
- Grid view:
  - Displayed columns
  - Column order
  - Grouping
- Card view:
  - Grouping
  - Filtering
  - Custom sorting
- Realtime Monitor:
  - Device monitor last open
  - Selected devices
  - Pinned devices

You can reset your profile to Ignite’s default settings when logging into Ignite. Resetting your profile restores all elements to their default display.

To reset your profile to the default settings

1. Log in to Ignite with your username and password.
2. As Ignite is signing you in, press and hold **CTRL+ R**. Hold these keys until Ignite indicates it is restoring your profile and loading the configuration.

In addition to auto-settings, Ignite offers general and Sidebar stats configuration options via the Settings button in the Sidebar.

General settings (DESKTOP)

By clicking the Settings button in the Sidebar and then clicking the General settings tab, you can customize Ignite display and behavior.

- **Launch MiCollab Client if installed but not running when signing into Ignite**: This setting is selected by default and automatically opens MiCollab Client, if not currently running, when an agent signs into Ignite.

  NOTE: You will be prompted to register and log in your voice agents in MiCollab Client before signing into Ignite.
- **Always show Sidebar**: This setting is checked by default. If unchecked, you will not have access to the options listed below and you will need to use the arrow icon to show or hide the Sidebar.
- **Expand Ignite when a multimedia item is accepted**: This setting is checked by default. When selected, if the main Ignite window is collapsed and an email, chat, SMS, or open media is accepted via the toaster, the main Ignite window automatically expands. If not selected, Ignite will not automatically expand when an email, chat, SMS, or open media is accepted and the agent must expand it manually by clicking the arrow at the bottom of the Sidebar.
- **Expand Ignite when a voice item is accepted**: This setting is not checked by default and if the main Ignite window is collapsed and a call is accepted via the toaster, Ignite does not automatically expand. We recommend deselecting this setting as the main Ignite window is not essential for handling voice interactions. If selected, if the main Ignite window is collapsed and a call is accepted via the toaster, Ignite automatically expands.
- **Collapse Ignite on startup**: This setting is not checked by default. When you start Ignite, the main window will not collapse. If this check box is selected, only the Ignite Sidebar displays at startup. You can use the arrow icon at the bottom of the Sidebar to expand the main Ignite window. If this setting is not selected, when you start Ignite the main window and the Sidebar will display.
- **Collapse Ignite when inbox is emptied**: This setting is not checked by default. When selected, and your inbox empties, the main Ignite window collapses. If not selected, the main Ignite window does not collapse when your inbox has been emptied.

Sidebar stats settings (DESKTOP)

By clicking the Settings button in the Sidebar and then clicking the Sidebar Stats settings tab, you can select which three agent handling statistics you want to display in the Ignite Sidebar.

Queue selection settings (DESKTOP)

You can select which queues are visible by clicking the Settings button in the Sidebar and clicking Queue Selection. You are still offered interactions for the queues to which you are assigned, even though they may not be visible.

Ignite can display a maximum of 64 queues. If your profile is new, from an upgrade, or has been restored from a reset, Ignite automatically loads the maximum number of queues, starting with Unified Queues and then Individual Queues. Queues under Reporting Queues are never loaded by default.

Agent Greeting settings (DESKTOP)

The Agent Greeting feature enables agents to record messages (as .wav files) that play automatically to callers when the agent answers an inbound ACD call. The greeting can provide a consistent experience for each caller and free the agent from having to repeat the same introductory phrase for every call.

Agents can record multiple greeting messages in Ignite and assign them to different queues or use the same recorded greeting on all queues. The agent greeting is a two-way playback, where both the caller and the agent hear the recording.

Agents record and manage their greetings on the Agent Greeting tab on the Settings page.

NOTE:

- When the agent greeting is playing, the caller is able to hear the agent speaking. To prevent the caller from hearing the agent or other contact center background noise during the agent greeting, mute the agent's headset for the duration of the greeting.
- Administrative settings determine whether you have access to Agent greeting functionality. If your contact center is not enabled for agent greetings, the Agent Greeting tab will not display in Ignite.

On the Agent Greeting tab, you can:

- Record greetings
- Assign greetings to specific queues
- Designate a recording as the default greeting
- Play or re-name an existing greeting
- Re-record or delete an existing greeting

Recording agent greetings (DESKTOP)

When you click the Record button to create a recording, the system's Record Agent Greeting workflow is triggered. The Record Agent Greeting workflow instructs the system to call your DN and prompts you to record and save a greeting.

NOTE: When recording messages, your voice agent is in a Non ACD state, and is not offered calls from any incoming queues.

To record your first agent greeting

1. Click the **Settings** button in the **Sidebar**, then click the **Agent Greeting** tab.
2. Hover over the **Add New Recording** label to make the **Record** button visible on the right-hand side.
3. Click the **Record** button.
4. Enter a name for the recording and click **OK**.

   The Record Agent Greeting workflow is triggered and instructs the system to call your DN.
5. Answer the incoming call and follow the system prompts to record and save your greeting.

   The new greeting displays under the Default Recording heading.

By default, the system selects the first recording as your default recording. The default recording is played on all incoming calls, regardless of the originating queue, unless there is a specific recording assigned to the queue. For more information, see *"Assigning a recorded greeting to a queue (DESKTOP)"*.

You can record additional greetings and designate any one of your saved recordings as the default recording, or you can choose not to use a default recording.

To record additional greetings

1. Click the **Settings** button in the **Sidebar**, then click the **Agent Greeting** tab.
2. Click on the down arrow beside the **Advanced Options** heading to expand the section.
3. Hover over the **Add New Recording** label to make the **Record** button visible on the righthand side.
4. Click the **Record** button.
5. Enter a name for the recording and click **OK**.

   The Record Agent Greeting workflow is triggered and instructs the system to call your DN.
6. Answer the incoming call and follow the system prompts to record and save your greeting.

   The new recorded message displays under the Recordings heading.
7. Repeat steps 3 to 6 to record additional greetings.

Assigning a recorded greeting to a queue (DESKTOP)

By default, the recording listed under the Default Recording heading on the Agent Greeting tab is played on all incoming calls, regardless of the originating queue. However, you can assign different recordings to different queues if you want to customize your greeting for certain inbound calls.

NOTE: If you do not have a designated default recording, you must assign a recording to each queue explicitly. If there is no default recording, and a queue does not have a recording assigned to it, no greeting is played to customers on incoming calls from that queue.

The Queues section of the Agent Greeting (under Advanced Options) lists all of the queues to which you are assigned. The recorded greeting that plays on incoming calls from a queue is shown to the right of the queue name.

To assign a recording to a queue

1. Click the **Settings** button in the **Sidebar**, then click the **Agent Greeting** tab.
2. Click on the down arrow beside the **Advanced Options** heading to expand the **Advanced Options** section.
3. Under the **Queues** heading, select the queue to which you want to assign a recording by selecting the check box beside it.
   - You can search for a specific queue by typing the name in the **Search** box.
   - You can filter the list of queues to show only the queues that do not have the default recording assigned to them by clicking the **Only Show Non-Default** option.
4. Click the **Apply Recording** button.

   The Apply Recording window opens. The selected queue is displayed at the top, and a list of available recordings displays below.
5. Hover over the recording you want to assign to the queue to make the check mark visible on the right-hand side.
6. Click on the check mark to apply the selection.

   The check mark turns green and the new recording displays beside the selected queue in the Queues list on the main Agent Greeting tab.

7. To remove the custom greeting from the queue and revert back to using the default recording, click the **X** button beside the recording you just assigned to the queue.

   The Default Recording label displays beside the queue.

Managing recorded greetings (DESKTOP)

You can review, modify, and delete existing recordings in Ignite. You can:

- Play a greeting
- Re-record a greeting
- Rename a greeting
- Designate a greeting as the default greeting
- Delete a greeting

To play a greeting

1. Click the **Settings** button in the **Sidebar**, then click the **Agent Greeting** tab.
2. To select a non-default greeting, click the down arrow beside the **Advanced Options** heading to expand the section.
3. Under the **Recordings** section, hover over the name of the recording in the list to make the row of icons visible on the right-hand side.
4. Click the **Play** button (second icon from the left).

   The system plays the recorded greeting on your PC.

To re-record a greeting

1. Click the **Settings** button in the **Sidebar**, then click the **Agent Greeting** tab.
2. Click on the down arrow beside the **Advanced Options** heading to expand the section.
3. Under the **Recordings** section, hover over the name of the recording in the list to make the row of icons visible on the right-hand side.
4. Click the **Record** button.

   The Record Agent Greeting workflow is triggered and instructs the system to call your DN.
5. Answer the incoming call and follow the system prompts to record and save your greeting.

   The changes are saved to your existing recording.

NOTE: You can also re-record the default greeting. Hover over the greeting listed under the **Default-Greeting** header and click the **Record** button (as noted above) to re-record the greeting.

To rename a greeting

1. Click the **Settings** button in the **Sidebar**, then click the **Agent Greeting** tab.
2. Click on the name of the recording you want to rename (either in the **Default Greeting** section or the **Recordings** section).

   The name field becomes editable.
3. Type the new name of the recording in the name field, then click **Rename**.

   The recording displays in the list with the new name.

To designate a greeting as the default greeting

1. Click the **Settings** button in the **Sidebar**, then click the **Agent Greeting** tab.
2. Hover over the name of the recording in the list to make the row of icons visible on the righthand side.
3. Click the **Pin** button to make the greeting the default greeting.

   The newly-designated greeting displays in the Default Recording section.
4. To clear the default recording designation, hover over the name of the default recording to make the row of icons visible, and click the **Pin** button.

   The greeting is removed from the Default Recording section.

To delete a greeting

1. Click the **Settings** button in the **Sidebar**, then click the **Agent Greeting** tab.
2. Hover over the name of the recording in the list to make the row of icons visible on the righthand side.
3. Click the **Trash** button to delete the greeting.

   The system displays a confirmation dialog.
4. Click **Yes** to confirm that you want to delete the greeting.

   The greeting is removed from the system.

Getting started with Ignite (WEB)

The following sections provide a walkthrough of Ignite's interface. While this section contains some procedures for viewing and orienting Ignite, agents can access in-depth information on how to use Ignite by following the cross-references throughout.

Feedback (WEB)

The Feedback button enables you to submit feedback and suggestions to Mitel. (See the following figure.) For information about submitting feedback, see *"Posting feedback and viewing our forums (WEB)"*.

Figure 24.42: Feedback button

Ignite Icons

Use the Ignite Web icons to perform actions on contacts, cases, and interactions. The icons are described in the the following table.

Table 24.35: Ignite icons (Sheet 1 of 4)

Icon	term
	Add

Table 24.35: Ignite icons (Continued) (Sheet 2 of 4)

Icon	term
	Accept
	Apply Code
	Associate Participant
	Cases Inqueue
	Case
	Call
	Conference
	Cut from case
	Decline
	Dissociate Participant
	Edit
	Email
	Export to csv

Table 24.35: Ignite icons (Continued) (Sheet 3 of 4)

Icon	term
	Flag for follow up
	Follow up Calendar
	Forward
	Go to
	Hold
	Import Contacts
	Invite
	Junk
	Merge
	No Reply
	Pending
	Print
	Reply

Table 24.35: Ignite icons (Continued) (Sheet 4 of 4)

Icon	term
	Reply All
	Request Help
	Resolve
	Send
	Swap
	Text
	Transfer

Contacts (WEB)

The Contacts button enables you to search for contacts and communicate with them by Voice, Email, Chat, or SMS.

Figure 24.43: Contacts button

Using the Contact button in Ignite, agents can search for employees who are configured in YourSite Explorer and Active Directory as well as contacts who have been added as customers. They can also search for queues. By default, when clicking the Contact button all contacts are available to be searched but agents can filter their search by Employees, Queues, Active Directory, and External.

NOTE: For an Active Directory contact to be displayed in a Web Ignite contact search, at least one of the following must be configured for the contact: email, phone number, or mobile phone number.

Contacts that you have often contacted are listed under **Contact History**. You can edit or delete a contact that is listed in Contact History. Hover over the contact avatar and click **Edit** to modify the contact information, or click the **X** button to remove the contact from Contact History.

Agents can view cases associated with a contact thus enable them to have an overview about the customer's calls before handling the customer issue.

For information on using Contacts, see *"Sending outbound emails"*, *"Sending outbound SMS contacts"*, or *"Making calls"*.

The following section explains how to

- Add new contact information
- Edit an existing contact information
- Import contacts from .CSV files
- View cases associated with a contact
- Merge Contacts

To add contact information

1. Click **Contacts**, and click **Add Contact**.
2. Provide all necessary information and click **Save**.

To edit an external contact information

1. Click **Contacts**. In the **Search** field, type the external contact name you want to edit. A list of contacts matching the search are displayed.
2. Hover over the contact avatar and click **Edit**, or click the contact and then click **Edit**.
3. In the **Edit Contact** window, under **Details** tab, modify contact information and click **Update**.

   If history information is available for the selected contact. You can view information such as old phone numbers or old email addresses, are listed under **History** tab.

   NOTE: Agents can also edit contact information during an interaction. For example, an agent in the Sales queue is on a call with a customer and updates the customer's email address or mobile number. The agent can now view the updated contact information and, if required, can transition to an alternate interaction type, such as email.

To import contacts from CSV file

1. Click **Contacts** and then click **Import Contacts**.
2. In the **Import Contacts** window, click **Browse** to select a .csv file and import all contacts from it.

   NOTE: .csv file contains a list of personal contacts in the "Name, Email, Phone number, Mobile number" format.

   For example: Jon Doe,jon.doe@email.com,6137109876,6137658765
   Scott Alan,scott.alan@express.com,,5879856541
   Jon Doe,,5096308945
3. Click **Import**.

   Ignite confirms the import by displaying the following message "Contacts imported successfully".

NOTE: If the CSV file contains duplicate records, the system alerts you; based on the preferences set in the Customization page, the import action is either terminated or continued. Ignite confirms the import status by displaying a message; for example, "Process completed. 10 successful, 2 already exists, 3 unknown".

To view cases associated with a contact

1. Click **Contacts**. In the **Search** field, type the contact name you want. A list of contacts matching the search are displayed.
2. Hover over the contact avatar and click **Cases**.

   The Cases that the employee is associated to are displayed.

Merge External Contacts

As an agent or supervisor, you can manually merge two external contacts to clean up duplicate contacts.

For example, you can merge duplicate contacts with the following information:

CONTACT NAME	EMAIL	PHONE	EXTENSION	MOBILE PHONE
Juan		4556677999	333	9454345444
Juan Mata	Juan.matta@as.com	4556677999	334	;

After you merge two contacts, the resultant contact is as shown below:

CONTACT NAME	EMAIL	PHONE	EXTENSION	MOBILE PHONE
Juan Mata	Juan.matta@as.com	4556677999	334	9454345444

To merge external contacts

1. Click **Contacts**, and in the **Search** field, type the contact name.
   Ignite displays a list of contacts matching the search.
2. Under **Results**, hover over the source contact avatar and click **Merge**. Alternately, click the source contact and then click the **Merge** icon.

   The **Merge Contacts** window is displayed with details for the selected source contact.
3. In the **Merge Contacts** window, in the **Search** field, type the target contact name.

   Ignite displays the contact you have searched for.
4. Hover over the target contact avatar and click to select it and click **OK**.

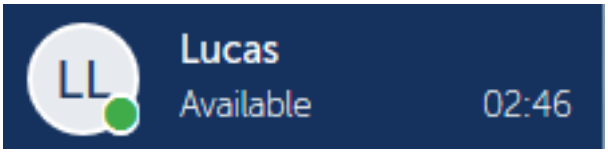
   In the **Merge contacts** window, the source and target contact details are displayed.
5. In the **Merge Contacts** window, from **Select Fields**, select the contact details you want to display in the merged contact. The selected details are displayed under **Result Contact**. A dialog box appears, displaying the message: “Are you sure you want to merge these contacts?”.
6. In the dialog box, click **OK** to merge the contacts.

   NOTE: When you merge external contacts, the changes are updated in cases and their associated calls.

Avatar and agent state (WEB)

The avatar displays your agent avatar, your agent’s first name, your current state, and how long you have been in that state. (See the following figure.)

Figure 24.44: Avatar and agent state



The color of the circle over the avatar indicates your current presence.

- **Green**—Indicates an Available state
- **Red**—Indicates an ACD or Do Not Disturb state
- **Yellow**—Indicates a Make Busy or Work Timer state, or that the agent is logged in, but not present in any of their agent groups
- **Blue**—Indicates that the agent is in a Non ACD state
- **Gray**—Indicates the agent is logged out or otherwise unavailable

If you have been enabled to adjust your agent group presence and agent state, you can click your avatar to both view and change your agent group presence or agent state. For information on your agent state, see *"Viewing agent state and state statistics (WEB)"*.

For information on changing your agent group presence and status, see *"Managing agent group presence and agent states"*.

For information on changing your avatar, see *"Your Ignite profile (WEB)"*.

Viewing agent state and state statistics (WEB)

The agent state section of the Avatar displays the employee's overriding state, including:

- **Ringing** – Displays when an employee has interactions ringing in the Inbox
- **ACD**– Displays when an employee is handling ACD interactions
- **ACD Hold** – Displays when an employee has placed ACD interactions on hold or have themselves been placed on hold during an ACD call
- **Non ACD** – Displays when an employee is handling Non ACD interactions
- **Non ACD Hold** – Displays when an employee has placed Non ACD interactions on hold or have themselves been placed on hold during a Non ACD call
- **Outbound** – Displays when an employee has placed an outgoing call
- **Outbound Hold** – Displays when an employee has placed an outgoing call on hold or have themselves been placed on hold during an Outbound call
- **Work Timer** – Displays after an employee has handled an interaction, provided none of an employee's agents are in an ACD, Non ACD, Outbound, Make Busy, or Do Not Disturb state
- **Do Not Disturb** – Displays when the employee is in a Do Not Disturb state
- **Busy** – Displays when an employee is in a Make Busy state
- **Away (Not Present)** – Displays when an employee is not present in any of their agent groups
- **Offline** – Displays when an employee is signed in, but their agents are logged out
- **Reseize Timer** – Displays when a call fails to route to an employee
- **Available** – Displays when an employee does not have inbound interactions in the Inbox

An overriding state is a state that supersedes other states. States higher in the list override the states appearing lower in the list. Note that all an employee's agents are considered when the system calculates the overriding state.

The oldest length for a state supersedes other times for the same state if an agent is handling multiple interactions. For example, if an employee had two emails in ACD, the displayed value in the status bar would be the time of the oldest email. When the oldest email is completed, the displayed value in the status bar would switch to the time of the other email.

Agent states by media are available in the Inbox. For more information, see *"Viewing agent handling statistics (WEB)"*.

List pane (WEB)

Ignite's List pane displays the contents of folders selected in the Folders pane.

In the Inbox, the History, and the Queues pages, you can switch between Grid view and List view. In Grid view, all interactions for the selected page are displayed in a grid format.

Click **Grid** on the page to display interactions in Grid view.

NOTE: Grid view is not supported on mobile devices

The following procedures explain how to

- View data in each column
- Choose columns to display in the grid
- Restore data columns to the default view
- Change data column order
- Sort column data in Ascending or Descending order
- Remove Ascending / Descending sort
- Hide column(s) from grid
- Group column data by specific column headers
- Ungroup column data

To view data in each column

You can click anywhere on the row for that interaction to select an interaction, select the check box for that interaction. You can select multiple interactions. You can also customize the order in which columns appear in the grid. This allows you to view all the interaction properties at once and to sort or group by specific interaction properties.

To choose columns to display in the grid:

1. Select a page and in Grid view, click the **Show column chooser** button at the top-right of the grid. A list of available columns displays.
2. Click the columns you want to display in the grid. A **tick mark** against the column name indicates that it is selected, and an **X** mark indicates that it is not selected.

NOTE: An administrator can enable a custom variable in the YSE application by selecting the **Send to agent desktop** check box. For more information about custom variable creation, see *"Creating Custom Variables"*.

To restore the grid data columns to the default setting

1. Click **Options > Customization**.
2. Under **Grid settings reset**, click the page button (i.e. Inbox, History, Queue) to reset.

To change data column order

- Drag and drop a column to the desired position.

To sort column data in Ascending or Descending order

- On the column header, click the drop-down arrow, and select **Sort Ascending/ or Descending**. The selected column's data are sorted in ascending or descending.

To remove ascending / descending sort

- On the column header, click the drop-down arrow and select **Remove Sort**. The column data are restored to the default.

To hide column(s) from the grid

- On the column header, click the drop-down arrow, and select **Hide Column**. The selected column is hidden from the grid.

To group column data by column headers

1. On the column header, click the drop-down arrow, and select **Group**. The selected column data are grouped.
2. Click **Expand** button to expand all rows of the grouped column data.

> **NOTE:** You cannot group the following column headers: Interaction Id, System Received, Action Time.

To ungroup column data

- On the column header, click the drop-down arrow and select **Ungroup**. The column data are ungrouped and restored to the default.

Dashboards

The Dashboards page enables you to customize different dashboard displays of information relevant to your agent. You can add the following widgets to a dashboard:

- Employee State
- Callback Request
- Queue Now
- Agent State
- Web Browser

For more information on creating dashboards, see *"Configuring Ignite (WEB) dashboards"*.

Inbox (WEB)

Ignite's Inbox displays all interactions currently handled by the employee, ringing the employee, drafts, as well as failed send and autoreply items belonging to the employee.

When there is an active interaction or draft in the Inbox, a red badge appears over the Inbox icon, indicating how many interactions and drafts there are in the Inbox.

When you select an interaction in Inbox, in addition to the handling options, you can quickly access the case details, notes, calls, all the participants of the case, other cases from the same customer, and URLs by using the corresponding tabs. This saves time when you are interacting with a customer. For more information about these tabs, see the *"Cases (WEB)"*.

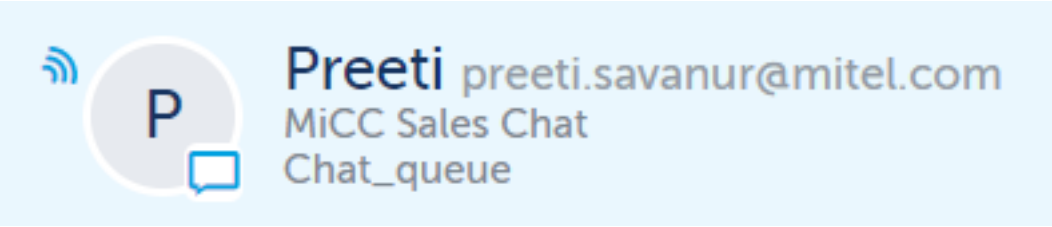
An agent can view any call's variable values that contain a URL under a separate tab, URLs. The URLs tab consists of a drop-down with all the variables and their associated value (URL). By default, the first URL is displayed in the frame. To open the URL in a new window, click **Open**.

Additionally, the Inbox displays current real time agent handling statistics. For more information, see *"Viewing agent handling statistics (WEB)"*.

Viewing interactions in Inbox (WEB)

Interactions in the Inbox provide you with relevant information for handling the interaction. (See the following figure).

Figure 24.45: Interaction in Inbox

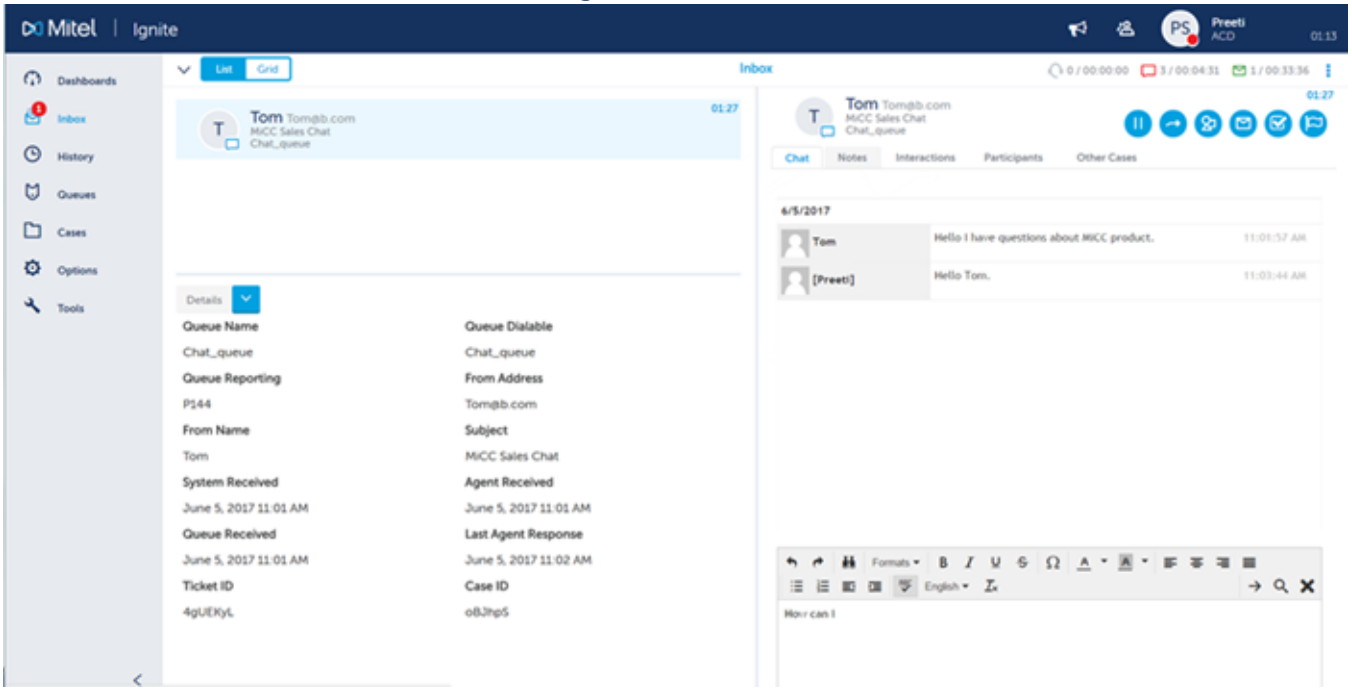


If the interaction is a draft, it will be labeled as such. When you select an interaction in your inbox, in addition to the handling options, you can quickly access the case details, notes, interactions, all the participants of the case, and other cases from the same customer by using the corresponding tabs. This saves time when you are interacting with a customer. For more information about these tabs, see the *"Cases (WEB)"*.

If an interaction consists of an URL, an agent can view the URL under a separate tab, **URLs**. The URLs tab consists of a drop down with all the variables and their associated value(URL). By default, the first URL is displayed in the frame. To open the URL in a new window, click **Open**.

You can choose to view the interactions in List view or in Grid view by clicking the respective option. Also, you can choose to view the case details in the additional pane that appears in the Inbox when you click the down arrow in the top header of the Inbox. (See the following figure).

Figure 24.46: Active interaction



You can expand or collapse the navigation pane using the **<** and **>** buttons.

Viewing agent handling statistics (WEB)

The Inbox contains agent handling statistics for each of the media types the agent handles. The following figure displays agent handling statistics across media types.

Figure 24.47: Inbox agent handling statistics (Average Handling Time)

Each media type's icon indicates the corresponding state of the employee's agents. The following table outlines the different states.

Table 24.36: Agent states (Sheet 1 of 2)

STATE	VOICE	CHAT	EMAIL	SMS	OPEN MEDIA	DESCRIPTION
Ringing						An ACD interaction ringing on an agent, waiting to be handled
ACD						An agent handling an ACD interaction
ACD Hold						An agent who has placed an ACD interaction on hold
Idle						An agent logged on and waiting to receive an interaction
Non ACD		--	--	--	--	An agent involved in an incoming Non ACD interaction or agent originated voice interaction
Non ACD Hold		--	--	--	--	An agent who has placed a Non ACD voice interaction on hold
Outbound		--	--	--	--	An agent on an outgoing voice interaction
Outbound Hold						An agent who has placed an outgoing voice interaction

Table 24.36: Agent states (Continued) (Sheet 2 of 2)

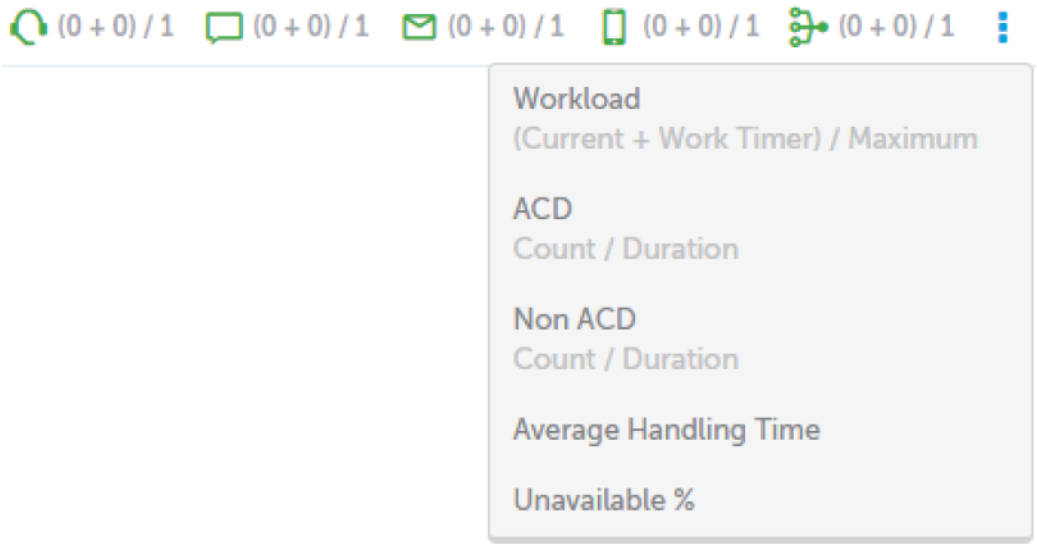
STATE	VOICE	CHAT	EMAIL	SMS	OPEN MEDIA	DESCRIPTION
Do Not Disturb						An agent who has activated Do Not Disturb and is not available to receive any ACD or Non ACD voice interactions
Make Busy						An agent who is not available to receive ACD interactions but can receive transferred interactions and voice interactions dialed directly to the agent
Work Timer						An agent who is completing post-contact work, such as paperwork, and is unavailable to receive interactions of that media type
Offline						An agent unavailable to handle interactions
Away (Not Present)						An agent whose presence is removed from an agent group or media type

The Inbox offers five different types of handling statistics:

- **ACD (Count / Duration)** -- Displays the number of ACD interactions the agent has handled for a media type, and the time spent handling interactions of that media type
- **Non-ACD (Count / Duration)** -- Displays the number of Non ACD interactions the agent has handled for a media type, and the time spent handling the interaction
- **Average Handling Time (hours:mins:secs)** – The average time the agent has taken to handle interactions of each media type
- **Unavailable %** -- Displays the percentage of time the agent is unavailable during the shift, including Do Not Disturb, Make Busy, Unknown, and Work Timer states, and when the agent is logged in but not available to receive ACD interactions. (See the following figure.)

By clicking the More button, agents can change the statistics being displayed. (See the following figure.)

Figure 24.48: Inbox real-time statistics



History (WEB)

The History page contains a searchable archive of all calls handled by an agent as well as calls sent to the queues for which the agent answers. Agents can filter these historical interactions by type, limit the display interactions to items the agent has handled, or search for specific interactions.

Supervisors can filter all the interactions by type and also view the interactions that are being handled by agents and are in agent's Inbox, or put on hold, or are in draft state. This gives the supervisor a better visibility into the interactions that are being handled by the agents.

NOTE: Supervisors will not be able view agents' SMS interactions that are in draft state.

You can also reply to participants of all interactions (except Chat) from History. When you select an interaction in History, in addition to the handling options, you can quickly access the case details, notes, interactions, all the participants of the case, other cases from the same customer, and URLs by using the corresponding tabs. This saves time when you are interacting with a customer. For more information about these tabs, see the *"Cases (WEB)"*.

An agent can view any interaction's variable values that contain a URL under a separate tab, URLs. The URLs tab consists of a drop-down with all the variables and their associated value (URL). By default, the first URL is displayed in the frame. To open the URL in a new window, click **Open**.

You can choose to view the interactions in List view or in Grid view by clicking the respective option. See the *"List pane (WEB)"*.

For more information on filtering historical interactions, see *"Filtering historical contacts (WEB)"*.

For more information on searching interactions in History, see *"Searching 's folders"*

For more information on reviewing interaction history, see *"Reviewing interaction history"*.

For more information on sending replies to participant(s), see *"Replying to participant(s) of a case from History (WEB)"*.

Replying to participant(s) of a case from History

From the **History** tab, you can reply to email, SMS, or voice interaction without manually entering the participant's contact details.

The following are the important details you must note while sending email, SMS, and voice replies to the participants:

- You can reply to a participant of a single case at a time.
- Participant's contact details must be available.
- The interaction thread and Case Id are preserved.
- The 'From' address is pre-selected if and only if the last interaction is an email.
- The subject of the new interaction is prepended by 'RE: the subject of the last interaction [case and ticket information]' (i.e. RE: Test e-mail [CSE: Case: Ticket Information]) if and only if the last interaction is an email.
- By default, the status of the case is "Waiting For Customer", if the case requires more follow-up, the agent has to manually change the state of a case to "Follow up required".

To send email replies to participant(s) of a case from History

1. Click **History** and, optionally, select a **Filter:**.
2. From the list of interactions, click any interaction you want, or, optionally search for the interaction.
3. To select a participant, in the **Participants** tab, highlight the participant record you want and click **Email** button
4. To select all or some participants, in the **Participants** tab, hover over the participant's avatar and click to select all or some participants and click **Email** button.

   In the email reply editor, the participant's email address is automatically inserted in the **To** field. The subject of that email is prepended by 'RE: the subject of the last email interaction [case and ticket information]'.
5. Type the content and click **Send**.

To send an SMS reply to a participant of a case from History

1. Click **History** and, optionally, select a **Filter:**.
2. From the list of interactions, click any interaction you want, or, optionally search for the interaction.
3. In the **Participants** tab, highlight the participant record you want, or, hover over the participant's avatar and select.
4. Click **Text** button.

   The participant's phone number is automatically inserted in **To** field. Click **From** to select the SMS queue before sending the reply message.
5. Type the reply message and press **Enter**.

To call back a participant of a case from History

1. Click **History** and, optionally, select a **Filter:**.
2. From the list of interactions, click any interaction you want, or, optionally search for the interaction.
3. In the **Participants** tab, highlight the participant record you want to dial to, or, hover over the participant's avatar and select.
4. Click **Call** button.

Cases (WEB)

The Case page contains searchable details for all cases that the employee can access. Agents and supervisors can quickly review all the key information related to case records without the need to select individual interaction.

For example, an agent in the Sales queue handling an email can review the interaction history for that case, or preview other interaction to that case. Agents can also move an interaction to or merge interactions from another case.

NOTE: When upgrading from MiContact Center 7.x or 8.x or 9.x to MiContact Center Business 9.2 cases are automatically created for emails (beginning with the most recent email and ending with the oldest email). Emails that are associated to a particular customer calls are grouped within a single case to consolidate information.

In addition, contact information based on historic emails is added to the MiContact Center Business database. For MiContact Center version 8.1 customers who implemented the Omni Channel Tech Preview cases are also created for SMS and Chat during an upgrade to MiContact Center Business version 9.2.

Cases are deleted when the email interaction related to the customer are all Junked. If an email is accidentally set as 'Junked' and it would be the only item in a case, you must find and forward it to the customer to enable it to display in the list of cases.

For more information on handling cases in Ignite (WEB), see *"Working with cases in Ignite(WEB)"*.

Queues (WEB)

Queues displays the queues and queue groups from which an employee's agent handles interactions. Queues groups the display by queues groups and queues. There are three kinds of queue groups:

- **Unified Queue Groups**—A collection of queues of different media types receiving interactions for a single service group. For example, a Unified Queue Group called 'Technical Support' can contain a voice, a chat, an email, and an SMS queue receiving tech support contacts.
- **Reporting Queue Groups**—A collection of queues, typically of a single media type, created for reporting purposes. For example, a collection of queues called 'Email Technical Support' can contain all email queues receiving tech support contacts.
- **Virtual Queue Group**—A collection of voice queues that offer calls to the same pool of agent groups, providing resiliency. For example, a collection of queues called 'Sales' can contain voice queues all routing calls to the same pool of agents handling sales calls.

Queues displays queues, both queues not associated to a queue group as well as queues belonging to queue groups. You can search for queues and queues to display or you can set queues and queue groups as favorites so that they always display when you go to Queues.

The Queues page contains a searchable archive of all calls sent to the queues for which the agent answers.

When you select a call in Queues, in addition to the handling options, you can quickly access the case details, notes, calls, all the participants of the case, other cases from the same customer, and URLs by using the corresponding tabs. This saves time when you are interacting with a customer. For more information about these tabs, see the *"Cases (WEB)"*.

An agent can view any interaction's variable values that contain a URL under a separate tab, URLs. The URLs tab consists of a drop-down with all the variables and their associated value (URL). By default, the first URL is displayed in the frame. To open the URL in a new window, click **Open**.

You can choose to view the interactions in List view or in Grid view by clicking the respective option. See the *"List pane (WEB)"*.

Viewing queue groups and queues (WEB)

You must be licensed to handle a media type to view queues of that media type. Supervisors must also be configured as agents answering for the queue in order to see its contents.

Agents can pin queues and queue groups as favorites so that your most handled queues are always readily available. By selecting a pinned queue or queue group in the Queues page, agents can view interactions in queue. Each queue and queue group indicate

- The number of agents available in each queue's answering agent groups. For reporting queue groups and unified queue groups, the total number of agents available for their component queues is displayed.
- The number of interactions in queue, or 'interactions Waiting', for the queue and the queue groups.
- The queue or queue group's Service Level percentage.

Agents can search for pinned queues and queue groups by keyword. Ignite displays all queues and queue groups matching the keyword. The search remains until you navigate away from the Queues page. You can sort search results and favorites by name or queue media type. Sorting by name sorts the queues and queue groups alphabetically. Sorting by media arranges queues in the order of Chat, Email, SMS, and Voice and sorts queue groups in the order of Unified, Virtual, and Reporting.

The following procedures explain how to

- Pin queues and queue groups as favorites
- Set queues and queue groups as favorites
- Sort queues by name
- Sort queues by media
- View Queues interactions

To pin queues or queue groups as favorites

1. Click **Queues**.
2. Click the **Select Favorite Queues** button.
3. Select the queues and queue groups you want to favorite.
4. Click **Save**.

To search for a queue or queue group

1. Click **Queues**.
2. In the **Search** field, enter the keyword.

To sort queues by name

1. Click **Queues**.
2. Click **Name**.

To sort queues by media

1. Click **Queues**.
2. Click **Media**.

To view Queues interactions

1. Click **Queues**.
2. From the queue groups, click the queue of your choice to view its interactions.

   A list of interactions for the selected queue is displayed.

NOTE: You can flip between **List** and **Grid** view.

3. Click the interaction of your choice to view its details in the right pane.

   NOTE: A Back link is available for you to navigate back to the Queues **page**.

Options (WEB)

The Options page enables you to customize your Ignite profile, set Ignite defaults, configure your extension, customize your email editor, and report performance issues. For more information, see *"Your Ignite profile (WEB)"*, *"Set email editor options"*, *"Reporting performance issues in Ignite (WEB)"*, *"Agent greeting settings (WEB)"*, and *"Recording agent greetings (WEB)"*. When you click the Record button to create a recording, the system's Record Agent Greeting workflow is triggered. The Record Agent Greeting workflow instructs the system to call the dialed number and prompts you to record and save a greeting.

Agent greeting settings (WEB)

The Agent Greeting feature enables agents to record messages (as .wav files) that play automatically to callers when the agent answers an inbound ACD call. The greeting can provide a consistent experience for each caller and free the agent from having to repeat the same introductory phrase for every call.

Web Ignite allows the agents to record a single default agent greeting that can be assigned on all queues. The agent greeting is a two-way playback, where both the caller and the agent hear the recording.

Agents record and manage their default greeting on the **Options > Phone** page.

NOTE:

- When the agent greeting is playing, the caller is able to hear the agent speaking. To prevent the caller from hearing the agent or other contact center background noise during the agent greeting, mute the agent's headset for the duration of the greeting.
- Administrative settings determine whether you have access to Agent greeting functionality. If your contact center is not enabled for agent greetings, the Agent Greeting options will not display in Ignite.

Recording agent greetings (WEB)

When you click the Record button to create a recording, the system's Record Agent Greeting workflow is triggered. The Record Agent Greeting workflow instructs the system to call your DN and prompts you to record and save a greeting.

NOTE: When recording messages, your voice agent is in a Non ACD state, and is not offered calls from any incoming queues.

To record your first agent greeting

1. Under the **Options > Phone**, click the **Record** button. The Record Agent Greeting workflow is triggered and instructs the system to call your DN.
2. Answer the incoming call and follow the system prompts to record and save your greeting. After you have finished recording, you can see the **Click when finished recording** button under **Agent Greeting** section.
3. Press the **Click when finished recording** button.

Under **Agent Greeting** section, **Record** and **Play** buttons are now visible. You can click the **Play** button to verify the agent greeting using your computer's speakers. To re-record the agent greeting, click **Record**.

4. To disable your agent greeting, use the slider option under **Agent Greeting** section.

To record your first agent greeting

1. Go to, **Options** > **Phone**, click **Record**.
2. Answer the incoming call and follow the system prompts to record and save the greeting. Recording is initiated and **Recording in Progress** text is displayed, after the recording is complete the system will save the recording.
3. Go to **Agent Greeting** and click **Play** to verify the agent greeting. To re-record the agent greeting, click **Record**.
4. To disable your agent greeting, use the slider option under **Agent Greeting** section.

NOTE: Internet Explorer does not support .wav file playback. While using the Agent Recording feature, for playback of your recording, use any of the browsers supported by MiContact Center Business.

Set email editor options

You can customize the email editor in Ignite.

To set the email editor

1. Click **Options > Email** to view options.
2. Set the options. Available options:
   - **Mobile view**—If this option is enabled, the email editor is optimized for the hand-held device and the text formatting icons are not displayed.
   - **Use last reply template folder location**—If this option is enabled and when you browse for a reply template, you can directly access the folder location where the last used reply template is stored.
   - **Quick reply templates**—If this option is enabled, you can access and apply an existing template when replying to emails.
   - **Clear Quick reply templates view after Insert**—If this option is enabled, the quick reply templates view will be cleared after you have inserted the template.
   - **Expand Headers**—If this option is disabled, all the header fields are collapsed except the top-level header. To expand or collapse the header fields, click the down arrow or up arrow buttons.
3. Click **Save**.

Tools (WEB)

In the Tools page, you can create a personal email reply template that can include plain text, images, or links to provide standardized email responses to common questions and requests. You can also insert variables in your reply templates, which can dynamically change their value depending on the email call's supplemental details.

Creating personal reply templates

You can create, preview, edit, and delete existing personal reply templates.

To create a personal reply template

1. Click **Tools > Email**.
2. To insert text, in the reply template editor, type or copy and paste the text.

3. To insert a variable, type the variable name in the following format: <<VariableName>>. You can insert multiple variables. In the email reply, Ignite replaces the variable with the actual value of the variable defined in YourSite Explorer (YSE).

   NOTE: The variable name used in the reply template must match the variable name defined in YSE and Send to agent desktop must be selected in YSE. Otherwise, the email reply will leave the text as it is enclosed within quotes. (that is, “<<VaribleName>>”). Consult with the system administrator to obtain a list of variables, from which you can choose the variables you want to insert in a personal reply template.
4. To insert an image, click **Insert picture** and browse to the image you want to insert.
5. To insert a link, click **Insert/edit link** and copy and paste the text for the link you want to insert.
6. Type the name you desire for the reply template.
7. Click **Save**.

To preview a personal reply template

1. Click **Tools > Email**.
2. In the reply template editor, click the **Browse** button.

   A list of personal reply templates displays.
3. From the list of personal reply templates, select the reply template you want and click **Preview**.

To edit a personal reply template

1. Click **Tools > Email**.
2. In the reply template editor, click the **Browse** button.

   A list of personal reply templates displays.
3. From the list of personal reply templates, select the reply template you want to edit and click **Open**.
4. Make changes to the reply template and click **Save**.

   The **Save Personal Reply Template** window displays.
5. To save changes to the selected reply template, click the template in the list, and click **Save**.
6. Click **OK** in the confirmation dialog.
7. To save changes to a different reply template, type the name of the reply template in the text field and click **Save**.
8. Click **OK** in the confirmation dialog box.

To delete a personal reply template

1. Click **Tools > Email**.
2. In the **Reply Template** editor, click the **Browse** button.

   A list of personal reply templates displays.
3. From the list of personal reply templates, select the reply template you want to delete and click **Delete**.
4. Click **OK** in the confirmation dialog box.

Viewing and organizing Interactions in Ignite (WEB)

Agents can view, organize, and search for current interactions in Inbox and Queues. Agents can view and search for historical interactions in History.

In Inbox, agents can view interactions they are handling or are currently ringing them. For Queues, agents can view interactions sent to the queues for which the agents answer.

Employees licensed as Advanced supervisors or System Administrators may search all interactions in the History tab of Ignite. This search capability does not require the supervisor be licensed to handle multi-media.

For more information on Inbox, History, and Queues, see *"Inbox (WEB)"*, *"History (WEB)"*, and *"Queues (WEB)"*.

Filtering historical interactions (WEB)

There are six filters for interactions in History:

- **All**—All interactions.
- **Handled**—All interactions to which the agent has replied or transferred from reply mode.
  NOTE: For email, the Handled folder displays only the original, inbound emails
- **Sent**—All outbound emails and SMS interactions and agent replies to email interactions.
- **No Reply**—Contains email and SMS interactions designated as needing no reply, such as out of office messages.
- **Junk**—Contains email and SMS interactions designated as Junk.
- **Failed**—Contains voice, email, chat, SMS, and open media interactions that were unable to route.

Historical interactions can also be limited to only interactions you have handled or sent display, rather than all interactions for the queues you handle.

Supervisors can filter all the interactions by type and also view the interactions that are being handled by agents and are in agent's Inbox, or put on hold, or are in draft state. This gives the supervisor a better visibility into the interactions that are being handled by the agents.

Supervisors are provided with these additional filters:

- **Inbox**—All interactions that are in the Inbox state.
- **Hold**—All interactions that agents have put on hold.
- **Draft**—All interactions that are in the Draft state. Supervisors can further view the type of draft state: New Draft, Inbox Draft, Hold Draft, or Forward Draft

NOTE:

- Supervisors will not be able view agents' SMS interactions that are in **Draft** state.
- Agents will be able to **Reply** and **Reply All** to the email interactions that are in **Handled**, **Sent**, **No Reply**, and **Junk** historical states.
- Agents will not be able to **Reply** and **Reply All** to the email interactions that are in **Inbox** and **Failed** historical states.

The interactions contained in each filter can be searched for more specific interactions. For more information, see *"Searching Ignite"*.

The following procedures explain how to

- Filter historical interactions
- Limit displayed interactions to only your items

To filter historical interactions

1. Click **History**.
2. Select the **Filter**.

To limit displayed interactions to only your items

1. Click **History**.
2. Select **Only show my items**.

NOTE: The agent who has worked last on a particular call gets the ownership of the calls and is displayed in that agent's call history when the **Only show my items** option is checked.

For example, if Agent A answers a call and then transfers to Agent B, this call is not displayed in Agent A's history if the **Only show my items** option is checked. It is displayed in Agent B's history when the **Only show my items** option is checked.

Selecting multiple email and SMS interactions in Ignite (WEB)

You can select multiple email and SMS interactions in Ignite to perform a single action on several items at once. For example, a supervisor can select multiple emails in queue and classify them all as 'Junk'.

You can multi-select email and SMS interactions using either the Ignite (WEB) UI or Windows' CTRL+ or SHIFT+ functionality.

Once multi-select is invoked, handling options and the option to select all items display.

NOTE: The option to multi-select displays only on the History and Queues pages.

The following procedures explain how to:

- Select multiple email and SMS interactions
- Select all email and SMS interactions on the page
- Deselect all email and SMS interactions on the page

To select multiple email and SMS interactions

1. Select either **History** or **Queues**.
2. Hover over the item avatar and select the check mark that displays. Repeat this step for any additional items.
3. Once multiple items are selected, at the top of the items list choose an action to perform.

   NOTE: On the History page you may only perform an action across items that failed to route.

To select all email and SMS interactions on the page

1. Select either **History** or **Queues**.
2. Hover over the item avatar and select the check mark that displays.
3. At the top of the items list, click the 'master' check mark.
4. Once multiple items are selected, at the top of the items list choose an action to perform.

   NOTE: On the History page you may only perform an action across items that failed to route.

To deselect all email and SMS;interactions on the page

1. Once multi-select is active, at the top of the items list, select the 'master' check mark. If all items are selected, disregard this step.
2. Once all items are selected, at the top of the items list, select the 'master' check mark.

Logging into Ignite (WEB)

Launch the browser and sign into the application to log into Ignite. See *"Signing into and out of Ignite (WEB)"*.

NOTE:

- The intended users of Ignite (WEB) are employees connected either locally on the LAN or to the network via VPN.
- Ignite (WEB) does not support Compatibility Mode.
- Ignite (WEB) requires JavaScript be enabled on your browser. For more information, consult your browser documentation.
- When configuring screen pop notifications to be used with Ignite (WEB), you can execute only web URLs. Direct file execution (for example, .EXE or .BAT files) does not work in Ignite (Web) as the browser considers it as a security risk.

Launch Ignite by typing the following URL into a supported web browser:

- **http://<EnterpriseServerName >/Ignite**
  OR
- **http://<EnterpriseServerIP>/Ignite**

  NOTE: If your system uses SSL, type ‘https’ in place of ‘http’ and insert a valid domain or FQDN in place of an IP address.

For a list of supported web browsers, contact your supervisor or system administrator. Ignite supports default browser configuration settings.

NOTE:

- We recommend that you do not use the Ignite (WEB) and Ignite (DESKTOP) applications simultaneously.
- Editing responses across multiple, open browsers simultaneously is not supported.
- If you are drafting an email response and change browsers, hit 'Refresh' to pull down your drafted content.

Signing into and out of Ignite (WEB)

NOTE: After signing into Ignite and becoming Available, you may be placed in Busy across all agent capabilities. This is an administrative configuration. To remove Busy, see *"Setting and removing Make Busy in Ignite"*.

Your default sign-in state is Offline. This means you are signed into Ignite but your ACD agents are logged out. You cannot receive ACD interactions until your state is Available. To change states, see *"Adjusting agent states in Ignite (WEB)"*.

If you are enabled for voice, you can set Ignite to log you into your phone. See ‘To sign into Ignite and log into the phone’, below. Otherwise, we recommend you log into your phone before signing into Ignite so that your agents may become Available.

Logging out of the phone or exiting MiCollab will only log out the voice agent (multimedia agents are not affected). Logging out of Ignite will log out all agents (voice and multimedia) and may requeue items in the Inbox, depending on administrative configurations. To avoid losing work on these items, agents should finish their replies or transfer inbox items to a queue before logging out.

The following procedures explain how to

- Sign into Ignite

- Sign into Ignite and log into the phone
- Sign out of Ignite

To sign into Ignite

1. Launch a supported web browser and type: **http://EnterpriseServerName>/Ignite**.
   OR
   http://<Enterprise Server IP>/Ignite.
   NOTE: If your system uses SSL, type 'https' in place of 'http' and insert a valid domain or FQDN in place of an IP address.
2. Enter your **Username** and **Password**.
   NOTE: If you use Windows Authentication, enter your DOMAIN\Username and your domain password.
3. Click **Sign in**.
   – You can set or change phone settings from Ignite's Options page.

To sign into Ignite and log into the phone

NOTE:

- This feature is supported for hot desk and external hot desk agents only
- You can set or change phone settings from Ignite's Options page.

1. Launch a supported web browser and type: **http://EnterpriseServerName>/Ignite**.
   OR
   http://<Enterprise Server IP>/Ignite.
   NOTE: If your system uses SSL, type 'https' in place of 'http'.
2. Enter your **Username** and **Password**.
   NOTE: If you use Windows Authentication, enter your DOMAIN\Username and your domain password.
3. Click **Sign in**.
4. On the **Log in to a phone** dialog window, specify your **Extension** and **PIN** (if applicable).
5. To log into your phone once your sign-in is complete, select the **Automatic login** checkbox and click **Login**.
   NOTE:
   – Clicking 'Save' dismisses the dialog window and signs you in as Offline. However, the phone information is saved to your profile and you are logged into your phone once your state is Available.
   – Clicking 'Cancel' dismisses the dialog window and signs you in as Offline across all media types.

To sign out of Ignite

- Click your avatar and select **State > Log out**.
  NOTE:
  – Voice agents on active calls are not logged out until the call is complete.
  – Directly closing the browser does not log you out of Ignite (Web); you must manually logout of Ignite (Web).

Reconnecting Ignite (WEB)

If Ignite experiences connectivity issues, a 'Reconnecting' message displays. If Ignite cannot reconnect within the time allotted, a 'Connection lost' dialog pops with the option to Reconnect.

Once the connection is reestablished Ignite refreshes and functionality is restored.

To reconnect Ignite

- Under **Connection lost**, click **Reconnect**.

Posting feedback and viewing our forums (WEB)

Mitel has partnered with UserVoice, a third-party service, to host customer suggestions on https://micontactcenter.uservoice.com. When you post an idea to our feedback forum, others will be able to subscribe to it and make comments.

Our forums enable you to send feedback directly to the people building the product. While we cannot comment on every suggestion, feedback is analyzed and considered for future releases.

NOTE: Please do not use the forums to submit product defects. To submit product defects, please contact your administrator or dealer.

To post feedback and view our forums

- Click the **Feedback** button
  OR
  Access the following URL: https://micontactcenter.uservoice.com.

Your Ignite profile (WEB)

Ignite provides each user with a profile, associated to the username used to log into Ignite. You can adjust several of the profile's default settings to customize your Ignite experience.

Ignite remembers your changes to the following elements:

- History
- Favorited queues
- Dashboard
- Default landing page
- Phone settings, including Extension, PIN, and automatic login to your phone
- Automated diagnostics reporting
- Filter selection preference

You cannot delete your profile; however you can reset the above to Ignite's default settings.

The following procedures explain how to:

- Set an avatar image
- Clear or change your avatar image
- Specify your language preference
- Set Ignite's default landing page
- Configure notification display duration
- Configure phone settings, including Extension, PIN, and automatic log-in to the phone
- Enable automated diagnostics reporting from Ignite
- Reset your profile to Ignite's default settings

To set an avatar image

1. Click **Options > Profile**.
2. Click **Change Photo**.
3. Under **Upload**, click to upload a photo or drag-and-drop a photo to the space provided.
4. Click **Save**.

To clear or change your avatar image

1. Click **Options > Profile**.
2. Click **Change Photo** and select **Clear**.
3. To change the image, follow the steps in 'To set an avatar image' above.

To specify your language preference

1. Click **Options > Profile**.
2. After **Language**, select a language from the drop-down.
3. Click **Save**.

To set Ignite's default landing page

1. Click **Options > Customization**.
2. Under **Default landing page**, select a page from the drop-down.
3. Click **Save**.

To configure the notification duration (in seconds)

An agent can configure the durations (in seconds) for the following notifications: new interactions, follow up, and info/error messages displayed on the Ignite screen.

To configure Notification display duration

1. Click **Options > Customization** to view the options.
2. Under **Notification Settings**, set the **Interaction toaster display time (seconds)** in the range 5 - 60 seconds; default value is 5 seconds.
3. Under **Notification Settings**, set the **Follow up toaster display time (seconds)** in the range 5 - 60 seconds; default value is 10 seconds.
4. Under **Notification Settings**, set the **Info/ error toaster display time (seconds)** in the range 5 - 60 seconds; default value is 5 seconds.
5. Click **Save**.

NOTE: Notification durations can also be reset in Reset Application Options.

To configure phone settings

NOTE: These settings enable login to your phone from Ignite. This feature is supported for hot desk and external hot desk agents only.

1. Click **Options > Phone**.
2. Specify your **Extension** and, if applicable, **PIN**.
3. To be logged into your phone after making yourself Available, select the **Automatic login** checkbox.
4. Click **Save**.

The next time you sign into Ignite and set your state to Available, you will be logged into your phone.

To enable automated diagnostics reporting from Ignite

NOTE: You can send on-demand reports in addition to automated reporting. See *"Reporting performance issues in Ignite (WEB)"*.

1. Click **Options > Diagnostics**.
2. Under **Continuously send diagnostics information**, toggle the switch to blue.

To reset your profile to Ignite's default settings

1. Click **Options > Customization**.
2. Under **Factory reset**, click **Reset Application Options**.
3. When prompted, click **Reset**.

NOTE: Resetting your profile to Ignite's default settings resets the **Clear quick reply templates view after insert** option.

Filter selection preference (WEB)

You can configure filter selection behavior and enable selection of multiple filters at a time. This setting applies to the History, Case, Case interactions and Contacts tabs in Ignite (WEB).

To set the multi-select filter option

1. Click **Options > Customization** to view options.
2. Set the '**Allow filter multiselect**' option.
3. Click **Save**.

Reporting performance issues in Ignite (WEB)

You can report performance issues in Ignite on-demand, to be reviewed by a supervisor or system administrator. Reports include log lines from your browser and any details you enter.

On-demand reports are sent in addition to Ignite's automated diagnostics reporting. For information on enabling automated diagnostics reporting, see *"Your Ignite profile (WEB)"*.

Supervisors looking to access diagnostics reports should consult *"Accessing diagnostics reports from Ignite (WEB)"*.

To report a performance issue in Ignite

1. Click **Options > Diagnostics**.
2. In the field provided, describe the issue experienced.
3. Click **Send**.

Configuring Ignite (WEB) dashboards

Real-time monitoring of employees, agents, queues, and callback requests is available via the dashboards in Ignite (WEB). You can create multiple dashboards, customize the widgets that display in each, and give them meaningful names to indicate their purpose.

NOTE: The real-time monitors in Ignite (WEB) are known as 'widgets' in the dashboard user interface.

Adding and configuring dashboards

Upon first use of Ignite (WEB), a default dashboard is created, containing the Employee State widget only. You can rename this dashboard and include additional widgets to display.

See *"Accessing real-time information with Ignite (WEB)"* for information on how to use the real-time monitors.

To access the dashboards

1. In Ignite (WEB), click **Dashboards**.
2. Click the down arrow to see a list of dashboards, with the number of widgets you have added for each one

   NOTE: If this is your first use of Ignite (WEB), only the Default Dashboard will display.
3. Open a dashboard by selecting it from the list.

To create a new dashboard

1. Click **Dashboards**.
2. Click the **Add Dashboard** button.
3. Click **Save**.

To modify a dashboard's title and display format

1. In a dashboard, click the **Edit Dashboard** button.
2. Click **Options**.
3. Optionally, rename the dashboard by entering text in the field under **Title**.
4. Optionally, reorganize the template by selecting from the choices under **Layout**.
5. Click **Close**.
6. Optionally, click **Undo** to revert changes or click **Save** to accept changes.

To delete a dashboard

1. In the dashboard you want to delete, click the **Delete Dashboard** button.

   NOTE: The dashboard you want to delete must be one that was previously saved. If not, then you must save it first before deleting.
2. Click **Delete** to delete the dashboard or click **Cancel** to retain the dashboard.

Adding and configuring dashboard widgets

The following widgets can be added to dashboards:

- **Employee State**—Displays employee presence and shift information
- **Callback Requests**—Displays a list of callback requests
- **Queue Now**—Displays queue and queue group statistics
- **Agent State**— Displays agents organized by time spent in the following states: ACD, Idle, Non-ACD, Unavailable, Not Present, and Offline
- **Web Browser**— Displays the website content that is embedded in the widget

To add widgets to a dashboard

1. In a dashboard, click **Add Widget**.
2. Select the widget you want to add to the dashboard.

3. Repeat steps 1-2 to select additional widgets if desired.
4. Click **Save**.
5. If you want to add more widgets after saving, select the dashboard to which you want to add widgets and click the **Edit Dashboard** button.

When a dashboard is in edit mode, you can edit the content within widgets, collapse widgets, change the widgets' location on the dashboard, or remove widgets from the dashboard.

NOTE: When you are editing a Web Ignite Dashboard that includes a Web Browser widget you will not see the webpage in the widget while in edit mode.

NOTE: You can collapse or expand the widget at any time (you do not have to be in edit mode).

The following procedure describes the editable features that are common to all widgets.

To modify a widget (common procedures)

1. In the dashboard, click the **Edit Dashboard** button.
2. In the widget toolbar:
   - Click the **Settings** button to edit the content within the widget (see the relevant procedures for each widget for specific details).
   - Click the **Collapse** button to collapse the widget or the **Expand** button to expand the widget.
   - Select the **Move** button to drag and drop the widget to a different position on the dashboard.
   - Click the **Delete** button to remove the widget from the dashboard.
3. If you edited the content within the widget, click **Apply**.
4. Click **Save** to save the changes to the dashboard or **Undo** to revert the change to the dashboard.

Configuring options in the Employee State widget

When you configure options in the Employee State widget, you optionally change the name of the monitor and add an employee to be monitored.

To configure options in the Employee State widget

1. In the dashboard, click the **Edit Dashboard** button.
2. In the Employee State widget, click the **Settings** button.
3. Optionally, under **Title**, type a new name for the monitor.
4. Under **Employees**, either select from the displayed list or type the employee ID in the search field to find the employee you want to monitor.
5. Click **Apply**.
6. Click **Save** to save the change to the dashboard or **Undo** to revert the change to the dashboard.

Configuring options in the Callback Requests widget

The only option available to be configured in the Callback Requests widget is the monitor name.

When you configure options in the Callback Requests widget, you can change the name of the monitor and add or remove the device to be monitored.

To rename the Callback Requests widget

1. In the dashboard, click the **Edit Dashboard** button.
2. In the Callback Requests widget, click the **Settings** button.
3. Under **Title**, type a new name for the monitor.
4. Click **Apply**.
5. Click **Save** to save the change to the dashboard or **Undo** to revert the change to the dashboard.

Configuring options in the Queue Now widget

When you configure options in the Queue Now widget, you can change the name of the monitor and add or remove the device to be monitored.

To configure options in the Queue Now widget

1. In the dashboard, click the **Edit Dashboard** button.
2. In the Queue Now widget, click the **Settings** button.
3. Optionally, under **Title**, type a new name for the monitor.
4. Click the drop-down beside **Queue** and select either **Queue** or **Queue Group**.
5. Optionally, enter text into the **Search** field to search for queues or queue groups.
6. Select the check box beside each queue or queue group you want to monitor, or select the check box beside **ID** to select all queues or queue groups.
7. Click **Apply**.
8. Click **Save** to save the change to the dashboard or **Undo** to revert the change to the dashboard.

Configuring options in the Agent State widget

When you configure options in the Agent State monitor, you can change the name of the monitor and add or remove the device to be monitored.

To configure options in the Agent State widget

1. In the dashboard, click the **Edit Dashboard** button.
2. In the Agent State widget, click the **Settings** button.
3. Optionally, under **Title**, type a new name for the monitor.
4. Optionally, type content into the **Search** text box to filter the agents that display in the list.
5. Select the check box beside each agent you want to monitor, or select the check box beside each media icon to select all agents who are configured to handle that media type.

   NOTE: You can optionally select multiple voice agents for each employee, if applicable, by selecting the check boxes located under the voice (telephone) icon, beside the employee name.
6. Click **Apply**.
7. Click **Save** to save the change to the dashboard or **Undo** to revert the change to the dashboard.

Configuring options in the Web Browser widget

When you configure options in the Web Browser widget, you optionally change the name of the widget, the height of the widget, and URL of the website you want to display.

To configure options in the Web Browser widget

1. In the dashboard, click the **Edit Dashboard** button.
2. In the **Web Browser** widget, click the **Settings** button.
3. Optionally, under **Title**, type a new name for the web browser.
4. In **URL** field, enter the URL of the website you want to display.
5. Optionally, enter the height of the widget in the range 50—5000.
6. Click **Apply**.
7. Click **Save** to save the change to the dashboard or **Undo** to revert the change to the dashboard.

NOTE: When you are editing a Web Ignite Dashboard that includes a Web Browser widget you will not see the webpage in the widget while in edit mode.

Searching Ignite

You can search Ignite to view interactions. Please note the following.

Agents may only search interactions sent to queues for which the agents answer.

DESKTOP - Employees licensed as Advanced supervisors or System Administrators may search Ignite's entire repository. This includes Ignite's In Progress folder (DESKTOP), which enables supervisors to see interactions currently in agent Inboxes. This search capability does not require Multimedia Contact Center licensing. However, to view and search interactions in queue using Ignite, employees must have a Multimedia Contact Center license and multimedia agents assigned to the queue.

WEB - Agents may only search interactions sent to queues for which the agents answer. Employees licensed as Advanced supervisors or System Administrators may search all interactions in the History tab of Ignite (WEB). This search capability does not require the supervisor be licensed to handle multimedia.

Time stamps on interactions reflect the Ignite client time. To search interactions by date or time, use the date or time for the Ignite client.

Interactions that are removed from the queue are removed from queue folder search results.

New interactions in queue matching search criteria will not be displayed until the search is executed again.

DESKTOP - You cannot search for voice interactions, but you can filter voice interactions to view them selectively. See "Choosing how interaction data displays in the Card view (DESKTOP)" on page 315, and "Choosing how interaction data displays in the Grid view (DESKTOP)" on page 316 for more information.

WEB - You can search for voice interactions in Ignite Web version 9.1.

The following procedures explain how to

- Perform keyword searches of Ignite's folders
- Search Ignite using search filters

Performing keyword searches

DESKTOP - Performing keyword searches of Ignite's folders enables you to search for interactions.

WEB - You can perform a keyword search for either historical interactions or interactions in queue.

To perform keyword searches of Ignite's folders (DESKTOP)

1. From the Folders pane, select a folder. If necessary, expand the **My Folders**, **Processed**, **Unified Queues**, **Reporting Queues**, or **Individual Queues** folder.
2. In the **Search** or **Filter** field, type keywords over the ghost text.

NOTE: To display more search results, click **Show more results ….**

3. To clear searches, click the **x** button.

To perform keyword searches for historical interactions in Ignite (WEB)

1. Click **History**.
2. Optionally, select a **Filter**.
3. Optionally, select **Only show my items**.
4. In the **Search interactions** field, type the keyword(s). To clear search texts, click **Clear**.

To perform advanced searches for historical interactions in Ignite (WEB)

1. In the **Search interactions** field, click **Advanced Search**.
   Use the following search criteria in any combination to search for historical interactions.
   - **Media**—Select the media type you want
   - **Date**—Select a date and a date range
   - **Interaction Id**—Type the interaction id you want
   - **Case**—Type the case details as search keywords
   - **Queue**—Type the queue name, the system displays a predictive list of results based on the letters you type, and select the record
   - **Employee**—Type the employee name, the system displays a predictive list of results based on the letters you type, and select the record
2. Click **Search**. To clear searches, click **Reset**.

To perform keyword searches for interactions in queue in Ignite (WEB)

1. Click **Queues** and select a queue or queue group.
2. In the **Search interactions** field, type the search text. To clear search texts, click **Clear**.

To perform advanced searches for in queue interactions in Ignite (WEB)

1. Click **Queues** and select a queue or queue group
2. In the **Search interactions** field, click **Advanced Search**.

   Use the following search criteria in any combination to search for in queue interactions.
   - **Media**—Select the media type you want
   - **Date**—Select a date and a date range
   - **Interaction Id**—Type the interaction id you want
   - **Case**—Type the case details as search keywords
   - **Queue**—Type the queue name, the system displays a predictive list of results based on the letters you type, and select the record
   - **Employee**—Type the employee name, the system displays a predictive list of results based on the letters you type, and select the record
3. Click **Search**. To clear searches, click **Reset**.

Searching Ignite using search filters

Agents may only search interactions sent to queues for which the agents answer. Users can search Ignite's folders by entering filters into Ignite's Search fields. Employees licensed as Advanced supervisors or System Administrators may search Ignite's entire repository.

DESKTOP - This includes Ignite's In Progress folder, which enables supervisors to see interactions currently in agent Inboxes. This search capability does not require Multimedia Contact Center licensing. However, to view and search interactions in queue using Ignite, employees must have a Multimedia Contact Center license and multimedia agents assigned to the queue.

If administrative configurations permit, selecting the search result previews them.

The following explains how to use filters to search Ignite. This information does not apply to voice interactions.

NOTE:

- Time stamps on interactions reflect the Ignite client time. To search interactions by date or time, use the date or time for the Ignite client.
- To display more search results, click 'Show more results….

Using the filters in the following table, you can perform the following searches in Ignite.

NOTE: DESKTOP - The following search filters cannot be applied to the Inbox.

Table 24.37: Ignite search filters (Sheet 1 of 4)

Filter	Explanation
No filter	Finds interactions containing a specific word E.g. order
AND	Finds interactions containing one word and another E.g. sales AND order
Space	Finds interactions containing one word and another E.g. sales order
;	Finds interactions containing one word and another E.g. sales;order
NOT	Finds interactions containing one word as long as they do not also contain another E.g. order NOT closed
-	Finds interactions containing one word but not another E.g. order -closed
OR	Finds interactions containing either of the words specified E.g. sales OR order
Quotation marks	Finds interactions containing the exact phrase E.g. “sales order”
date	Finds interactions received on specific dates E.g. date:01/15/2014

Table 24.37: Ignite search filters (Continued) (Sheet 2 of 4)

Filter	Explanation
Today	Finds interactions received today E.g. date:Today
Yesterday	Finds interactions received yesterday E.g. date:Yesterday
This week	Finds interactions received this week E.g. date:This week
This month	Finds interactions received this month E.g. date:This month
This year	Finds interactions received this year E.g. date:This year
Month name **NOTE:** Ignite will search the month by the current year, if no year is specified.	Finds interactions received on a specific month. You can also search by a specific date in the month. E.g. date:August, or date:August 2013, or date:August 18, or date: August 18 2013
Abbreviated month name	Finds interactions received on a specific month, by a three letter abbreviation E.g. date:Aug, or date:Aug 2013, or date:Aug 18, or date:Aug 18 2013
Day name	Finds interactions received on a specific day of the week E.g. date:Monday
> (for searches by date or attachment size)	Finds interactions by dates after the specified date or date keyword E.g. date:>August 18 2013, or date:>August, or date:>August 18 Find email interactions by attachments larger than the attachment size E.g. attachments:>200KB
>= (for searches by date or attachment size)	Finds interactions by dates after or on the specified date or date keyword E.g. date:>=August 18 2013, or date:>August, or date:>=August 18 Finds email interactions by attachments larger than or equal to the attachment size E.g. attachments:>=200KB
< (for searches by date or attachment size)	Finds interactions by dates before the specified date or date keyword E.g. date:<August 18 2013, or date:<August, or date:<August 18 Finds email interactions by attachments smaller than the attachment size E.g. attachments:<200KB
<= (for searches by date or attachment size)	Finds interactions by dates before or on the specified date or date keyword E.g. date:<=August 18 2013, or date:<=August, or date<=August 18 Finds email interactions by attachments smaller than or equal to the attachment size E.g. attachments:<=200KB

Table 24.37: Ignite search filters (Continued) (Sheet 3 of 4)

Filter	Explanation
AND or space (for searches by date)	Finds interactions received on two or more dates E.g date:Today AND Yesterday, or date:Today Yesterday
NOT or - (for searches by date)	Finds interactions received on one date but not another E.g. date:This month NOT Last week, or date:This month -Last week
OR (for searches by date)	Finds interactions received on either of the dates specified E.g. date:Today OR August 25
subject:	Finds interactions containing text by subject E.g. subject:sales AND order
from:	Finds interactions received from a specific sender. You can search by the sender's first name, last name, full name, or email address. E.g. from:Renee
to:	Finds interactions sent to a specific recipient. You can search by the recipient's first name, last name, full name, or email address. E.g. to:jane@gmail.com
cc:	Finds interactions cc'd to a specific recipient. You can search by the recipient's first name, last name, full name, or email address. E.g. cc:jane@email.com
bcc:	Finds interactions bcc'd to a specific recipient. You can search by the recipient's first name, last name, full name, or email address. E.g. bcc:jane@gmail.com
case:	Finds interactions tagged with a specific case ID E.g. case:kxPKez
ticket:	Finds interactions tagged with a specific ticket number E.g. ticket:pAsMDc
media:	Finds interactions of a specific media type E.g. media:email
agent:	Finds interactions last handled by a specific agent. You can search by the agent's first name, last name, full name, or by reporting number. E.g. agent:Renee or agent:1000
queue:	Finds interactions last sent to a specific queue E.g. queue:sales

Table 24.37: Ignite search filters (Continued) (Sheet 4 of 4)

Filter	Explanation
attachments:	Finds email interactions by attachment. You can search by attachment name, size, content, or type. E.g. attachments:docx or attachments:<200KB **NOTE:** If no size unit is specified, the default search unit is bytes.

You can perform the following types of searches in Ignite:

General searches – Any keywords can be typed in the search field, and the search returns interactions containing the keywords.

For example, if an agent types ‘sales order’ in the Filter field, Ignite searches for interactions in the selected folder containing the terms sales and order.

In the Inbox, the History, and the Queues pages, while you type the search keywords in the Queue box, the system displays a predictive list of results based on the letters you type.

For example, if an agent types ‘a’ letter in the Queue box, Ignite (Web) displays any queue names that contain ‘a’ (i.e. chat_queue12, email_queue33) as a predictive list of results.

Targeted searches – You can limit searches to fields and folders by inserting a colon between the field and the search term.

For example, an agent searching interactions’ Subject fields for the word ‘order’ can type ‘subject:order’. In this example, Ignite searches the ‘Subject’ fields of interactions in the selected folder for the term ‘order’.

Multiple targeted searches – You can limit searches to more than one field using semi-colons.

For example, an agent searching for an order placed by a specific customer can type ‘subject:order;from:Renee’. Ignite interprets this as (Subject contains Order) AND (From contains Renee). In this example, the program searches the Subject fields of contacts to find orders from Renee.

NOTE:

- If at least one of the filters ends with ‘:’, you must separate all filters with “;”. For example, 'from:Renee;date:yesterday'.
- If at least one of the filters ends with ‘:’, you cannot use ‘NOT’, ‘-‘, and ‘OR’ between the filters. For example, typing ‘order:Renee OR from:Tom to retrieve orders placed by either Renee or Tom is invalid. Typing ‘order;from:Renee OR from:Tom’ is valid and will retrieve orders placed by either Renee or Tom.

Complex targeted searches – You can perform complex searches to further narrow results returned.

For example, an agent searching for a completed order, placed by a specific customer, can type ‘completed;subject:sales order;from:Renee’. Ignite interprets this as: Completed AND (Subject = (Sales AND Order)) AND (From contains Renee). In this example, Ignite searches the Subject fields of contacts for completed sales orders placed by Renee.

Email attachment size searches - You can search emails by attachment size. Searches by bytes (‘b’), kilobytes (‘KB’), and megabytes (‘MB’) are supported. If no size unit is specified, the default search unit is bytes. If searching for attachments by size, specifying "attachments.size:" in your query returns results more efficiently.

Managing agent group presence and agent states

Agent group presence refers to whether an ACD agent is present in or absent from an agent group.

Agents present in an agent group can receive interactions in the Inbox, pick interactions out of queue, and be sent interactions from a supervisor. Agents absent from an agent group cannot handle interactions for the queue.

Agent states refers to an agent's availability to receive ACD interactions. Examples of agent states include Available, Busy/Make Busy and Do Not Disturb. An agent's state determines Ignite handling options available to them.

WEB - An agent in the Offline state is logged into Ignite but their ACD agents are not logged into the system. In this state interactions cannot be handled for the queue.

NOTE: When you configure Agent Group Presence for agents who use an ACD softphone, you must set the default presence to **Absent**. If the presence is set to **Present**, agents will receive ACD calls when they log in to MiCollab, without logging in to Ignite.

Viewing Agent Group Presence in Ignite

Agents can view the agent groups of which they are members. Viewing Agent Group Presence helps agents verify that they are able to handle interactions for the appropriate queues.

Agents can view Agent Group Presence on a group-by-group basis across media types. If administrative configurations permit, agents may also make themselves present in and absent from agent groups and the media types that the group handles.

To view Agent Group Presence (DESKTOP)

- In the **Sidebar**, click the **Agent Group Presence** button.
  Check marks display beside agent groups to which the agent is present. Media types that an agent is present in handle display a blue background. Media types that an agent is not present in handle display a white background.

To view Agent Group Presence (WEB)

- Click your avatar and select **Agent Groups**.
  Media types that an agent is present in handle display in blue. Media types that an agent is not present in handle display in grey.

Adjusting Agent Group Presence in Ignite

If agents have the required permissions, they can make themselves present in, or absent from, agent groups.

Adjusting Agent Group Presence enables agents to make themselves available or unavailable for interactions of different media types. For example, an agent belongs to the Sales (voice and chat) and the Training (email) agent groups. This agent makes herself available to answer only email interactions by becoming absent from the Sales group.

Agents can also make themselves available or unavailable to answer interactions of specific media types. For example, the agent makes herself available to answer only Sales voice interactions by becoming absent from chat in the Sales agent group.

Agents can also make themselves available or unavailable to all agent groups of which they are members, in one action.

DESKTOP - When agents are not present in any of their agent groups, Ignite's Status bar displays a 'Time Logged in Not Present' status. See *"The Status bar (DESKTOP)"* for more information.

WEB - When agents are not present in any of their agent groups, their state becomes Away (Not Present). See *"Viewing agent state and state statistics (WEB)"*.

NOTE: Agents may be made automatically present in their agent groups upon logging into Ignite, with multimedia interactions routing as soon as the login is complete. This is an administrative configuration and is not controlled by the agent. However, without this administrative configuration, agents must make themselves present in agent groups in order to be offered interactions.

The following procedures explain how to

- Become present to an agent group
- Become absent from an agent group
- Become either present in or absent from all agent groups
- Become available or unavailable to answer interactions of a specific media type
- Apply default Agent Group Presence settings (DESKTOP)

To become present in an agent group (DESKTOP)

1. In the **Sidebar**, click the **Agent Group Presence** button.
2. Select the group or groups from the **Agent Group Presence** screen and click **Apply**. Multimedia interactions begin routing.

To become present in an agent group (WEB)

1. Click your avatar and select **Agent Groups**.
2. Hover over the agent group's avatar and select **Join <Agent Group name>**.
3. Click **Update**.

To become absent from an agent group (DESKTOP)

1. In the **Sidebar**, click the **Agent Group Presence** button.
2. Deselect the group or groups from the **Agent Group Presence** screen and click **Apply**.

To become absent from an agent group (WEB)

1. Click your avatar and select **Agent Groups**.
2. Hover over the agent group's avatar and select **Leave <Agent Group name>**.
3. Click **Update**.

To become either present in or absent from all agent groups (DESKTOP)

1. In the **Sidebar**, click the **Agent Group Presence** button.
2. To become present to all agent groups, click **Select All**.
3. Click **Apply**.

   You become present in all agent groups and media types within the group.
4. To become absent from all agent groups, click **Clear All**.
5. Click **Apply**.

   You become absent from all agent groups and media types within the group.

To become either present in or absent from all agent groups (WEB)

1. Click your avatar and select **All Agent Groups**.
2. To become present in all agent groups, click **Join All > Update**.
3. To become absent from all agent groups, click **Leave All > Update**.

To become available or unavailable to answer interactions of a specific media type (DESKTOP)

1. In the **Sidebar**, click the **Agent Group Presence** button.
2. To become available to answer interactions of a specific media type, click the media icon in the agent group so the icon displays a blue background.
3. To become unavailable to answer interactions of a specific media type, click the media icon in the agent group so the icon displays a white background.
4. Click **Apply**.

To become available or unavailable to answer interactions of a specific media type (WEB)

1. Click your avatar and select **Agent Groups**.
2. To become available to answer interactions of a specific media type, click the media icon in the agent group so the icon displays in blue.
3. To become unavailable to answer interactions of a specific media type, click the media icon in the agent group so the icon displays in grey.
4. Click **Update**.

To apply default agent group presence settings (DESKTOP)

1. On the **Agent Group Presence** screen, click **Defaults**.
2. Click **Apply**.

Adjusting agent states in Ignite (WEB)

Agents can adjust their states to make themselves available or unavailable to receive ACD interactions without logging out of the application.

Agents can set the following states in Ignite:

- **Available**: Agents are logged into Ignite and their ACD agents are available to receive ACD interactions.
- **Offline**: Agents are logged into Ignite and can peruse the interaction repository, but their ACD agents are offline and cannot receive ACD interactions.

  NOTE: Time in Offline does not count towards shift duration.
- **Busy**: See *"Setting and removing Make Busy in Ignite"*.
- **Do Not Disturb**: See *"Setting and removing Do Not Disturb in Ignite"*.

To adjust your agent state

1. Click your avatar and select **State**.
2. Select a state

Setting and removing Busy/Make Busy in Ignite

When agents must become temporarily unavailable for inbound multimedia interactions, they can put themselves into Busy/Make Busy and choose a code indicating why they are unavailable.

Setting Busy/Make Busy for one agent capability applies a Busy/Make Busy status status to all of the employee's agents. Inbound multimedia interactions are not routed to the agent; however, agents in Busy/Make Busy can receive transferred interactions. While in Busy/Make Busy, voice agents are able to receive Non ACD voice interactions without being removed from Busy/Make Busy and can pick interactions waiting in queue.

Entering Busy/Make Busy while handling interactions ensures that agents are not offered more once finished. However, existing voice, email, chat, SMS, and open media interactions continue until one of the parties ends the interaction.

Agents also enter Reseize Timer when they decline an interaction, fail to answer a ringing interaction within the allotted time, and place an item on hold for longer than is permitted. In each instance, the agent is automatically put into Busy/Make Busy across all media capabilities, and a System Make Busy is registered for the employee. For information on the time allotted to answer a ringing interaction and the duration for which interactions can be on hold, contact your supervisor or system administrator.

The following procedures explain how to

- Set Busy/Make Busy and change Busy/Make Busy codes
- Remove Busy/Make Busy

  NOTE: Agents must remove Busy/Make Busy to become available to receive inbound multimedia interactions and internal voice interactions.
- Change to a Do Not Disturb (DND) state while in Busy/Make Busy

To set Make Busy and change Make Busy codes (DESKTOP)

1. In the **Sidebar**, click the **Make Busy** button.
2. Select a MKB code and click **Apply**.

   NOTE: Agents cannot program MKB codes and can only select from the list provided.
3. To change a Make Busy code assigned to you, follow the above steps.

To set Busy and change Busy codes (WEB)

1. Click your avatar.
2. Under **State**, click **Busy**.
3. Choose a Busy code.

To remove Make Busy (DESKTOP)

- In the **Status** bar, click the **X** button.

To remove Busy (WEB)

1. Click your avatar.
2. Under **State**, click the **X** button next to **Busy**.

To change to a Do Not Disturb state while in Make Busy (DESKTOP)

NOTE: Do Not Disturb and Busy/Make Busy states layer. If an agent in Busy/Make Busy changes their state to Do Not Disturb, the agent will remain in Busy/Make Busy once Do Not Disturb is removed. This prevents agents from receiving interactions when switching states between Busy/Make Busy and Do Not Disturb.

1. In the **Sidebar**, click the **Do Not Disturb** button.
2. Select a DND code and click **Apply**.

NOTE: To remove DND and revert to Make Busy, click your avatar, click the **X** button next to **Do Not Disturb**

To change to a Do Not Disturb state while in Make Busy (WEB)

NOTE: Do Not Disturb and Busy/Make Busy states layer. If an agent in Busy/Make Busy changes their state to Do Not Disturb, the agent will remain in Busy/Make Busy once Do Not Disturb is removed. This prevents agents from receiving contacts when switching states between Busy/Make Busy and Do Not Disturb.

1. Click your avatar.
2. Under **State**, click **Do Not Disturb**.
3. Select a Do Not Disturb reason code.
4. To remove DND and revert to Make Busy, click your agent name and click **X** button next to **Do not Disturb**.

Setting and removing Do Not Disturb in Ignite

When agents must become temporarily unavailable for receiving inbound multimedia interactions and internal voice interactions, including transfers, they can put themselves into Do Not Disturb (DND) and choose a code indicating why they are unavailable.

Agents in DND can receive external voice interactions, and existing chat and inbound/internal voice interactions continue until one of the parties ends the interaction.

Setting DND for one agent capability applies a DND status to all of the employee's agents.

The following procedures explain how to

- Set DND and change DND codes
- Remove DND

  NOTE: Agents must remove DND to become available to receive inbound multimedia interactions or internal voice interactions
- Change to a Busy/Make Busy (MKB) state while in DND

To set DND and change DND codes (DESKTOP)

1. In the **Sidebar**, click the **Do Not Disturb** button.
2. Select a DND code and click **Apply**.

   NOTE: Agents cannot program DND codes and can only select from the list provided.
3. To change a DND code, follow the above steps.

To set DND and change DND codes (WEB).

1. Click your avatar.
2. Under **State**, click **Do Not Disturb ….**
3. Choose a DND code.

To remove DND (DESKTOP)

- In the **Status bar**, click the **X** button.

To remove DND (WEB)

1. Click your avatar.
2. Under **State** , click the **X** button next to **Do Not Disturb ….**

To change to a MKB state while in DND (DESKTOP)

NOTE: If an agent changes their DND state to MKB, the agent remains in DND until this state is removed.

1. In the **Sidebar**, click the **Make Busy** button.
2. Select a Make Busy code and click **Apply**.
3. In the **Status** bar, click the X button to remove yourself from DND and enter MKB.

To change to a Busy state while in DND (WEB)

NOTE: If an employee applies a MKB state while in DND, the employee remains in DND until the DND state is removed.

1. Click your avatar.
2. Under **State** choose **Busy...**.
3. Choose a Busy code.
4. Click your avatar.
5. Under **State**, click the **X** button next to **Do Not Disturb**.

Work Timer

NOTE:

- When agents are in Work Timer, Interactions remain in the Inbox until Work Timer is removed .
- Employees in Work Timer can apply Busy/Make Busy or DND, but will remain in a Work Timer state until the Work Timer expires or is cancelled. If Classification Codes are required for the queue and the Work Timer expires without a Classification Code being entered, a **Non-Compliant** Classification Code will be applied to the call..

DESKTOP - Interactions in Work Timer are marked with yellow.

WEB - Interactions in Work Timer are marked with yellow and a clock icon.

If administrative configurations permit, agents are placed in a Work Timer state after completing an interaction. During Work Timer agents can complete after-contact work, such as speaking with a supervisor, without having this downtime affect their performance statistics.

Work Timer counts against an agent's Workload, and can determine whether agents are pushed interactions. If agents are in a Work Timer state for the maximum number of interactions they can handle for a media type, they are not offered another interaction of that media type until Work Timer expires or is removed. For example, an agent permitted to handle two emails at a time is in Work Timer for both. Until one Work Timer state expires or is removed, the agent is not offered another inbound email. However, this agent will be pushed chat interactions, unless they are also in Work Timer for the maximum number of chat interactions their Workload permits them to receive.

Ignite displays Workload statistics, including the number of Work Timer states the agent is in for each media type. See *"The Status bar (DESKTOP)"* for more information. See *"Viewing agent handling statistics (WEB)"*. For more information on Workload, see *"Handling multimedia contacts in Ignite"*.

The duration of Work Timer is configured on a queue-by-queue basis. To determine this duration, contact your supervisor or system administrator.

When Work Timer is the overriding state, agents can remove Work Timer and put themselves back into an overriding state across all media capabilities. Once agents have removed Work Timer, they cannot put themselves back into this state.

The following procedures explain how to remove Work Timer.

To remove Work Timer (DESKTOP)

- In the **Sidebar**, click the **Remove Work Timer** button.
  NOTE: Alternatively, remove Work Timer via the Action bar.

To remove Work Timer (WEB)

- Click **Clear Work Timer**.
  Alternatively, click your avatar, select **State**, and choose an alternate state.

Handling multimedia interactions in Ignite

NOTE: To retain the integrity of Excel charts pasted in Ignite, first copy the Excel table to Word and then copy/paste it in Ignite.

Multimedia Contact Center supports skills-based routing. When an agent is available, they receive interactions based on the following criteria

1. Highest queue priority (optional)
2. Highest skill priority (optional)
3. Longest idle

Agents can handle multiple interactions at a time. However, an employee's Workload determines the number and type of media interactions that can be pushed to an agent at any one time. For example, agents may not be permitted to receive voice and chat interactions concurrently. Or, agents may be permitted to receive a maximum of five emails and two chats at one time.

When traffic levels necessitate, supervisors with appropriate licensing can log into Ignite and alleviate congestion by handling interactions. Emails can be configured to overflow to a supervisor after a specified length of time in queue. If a supervisor primarily uses Contact Center Client, they can minimize Ignite and be notified when they receive an overflow email.

If you are not being pushed interactions, it may be that you have reached the maximum number of interactions your Workload permits you to handle. For more information on viewing your Workload status, see *"The Status bar (DESKTOP)"*.

Note also that agents who have reached their Workload maximum for a media type can pick items out of queue and can receive transferred interactions of that type.

To provide context on how interactions reach queues and agents, this section explains

- Overflowing and interflowing interactions
- Routing models in Multimedia Contact Center
- Receiving notifications of new interactions
- Receiving information in screen pops

In addition, the following sections explain general interaction handling procedures, including

- Reviewing interaction history
- Tagging interactions with Account Codes
- Sending interactions back to the queue

For information on procedures specific to handling different media types, see *"Handling calls in Ignite"*, *"Handling emails in Ignite"*, and *"Handling chats in Ignite"*.

Transition from one interaction type to other can be done. For more information on Transition to other type, See *"Transitioning from one conversation type to another (WEB)"*.

Overflowing and interflowing interactions

The following section explains the concepts of overflow and interflow for multimedia interactions.

Once an interaction has reached a queue, it is offered to an agent group. Agents in the group are responsible for accepting the interaction. Interactions wait in queue until an agent from an assigned agent group accepts them. Overflow and interflow are two routing methods designed to reduce the length of time that interactions wait in queue

Overflowing interactions

Overflow is the process of offering an interaction, already offered to one agent group, to additional agent groups after the interaction has been waiting in queue past a set time. The amount of time before an interaction overflows is determined by an administrative configuration, and the system overflows the interaction without agent intervention.

Interflowing interactions

Interflow is the process of taking an interaction out of one queue and routing it to a different answer point, such as another queue or an external email address. Interflow is an administrative configuration occurring under specified queue conditions, and occurs without agent intervention.

Routing models in Multimedia Contact Center

Push, Pick, and Mixed routing models determine how agents receive interactions in queue. Note that administrative configurations determine the routing models that your contact center uses and that the routing model can vary by queue. For more information, consult your supervisor or system administrator.

NOTE: Push, Pick, and Mixed routing models determine how agents receive email and chat interactions in queue. Delivery of voice interactions is determined by programming on the 3300 ICP. For more information, contact your supervisor or system administrator.

Push model

In Push model interactions in queue are sent to an available agent's Inbox. The number of interactions that can be pushed to an agent's Inbox at one time depends on the agent's Workload, as configured in the system, and can vary by media type. For example, the system may be permitted to push five emails at a time to an agent's Inbox but only two chats.

Interactions are also pushed to agents on the basis of Agent Skills (as configured in the system), Queue Priority, and Preferred Agent. A Preferred Agent is one who is engaging in an ongoing interaction with a customer.

With the exception of transferred interactions, agents do not receive items in their Inbox if the Inbox contains ringing interactions of the same media type.

Picking interactions out of queue is permitted in a Push model.

Pick model

In Pick model agents pick interactions out of queue exclusively. Agents in Do Not Disturb cannot pick interactions out of queue.

Mixed model

In Mixed model agents pick interactions out of queue, but items sitting in queue past a set time are pushed to agents' Inboxes. Workload determines the number and type of media interactions that can be pushed to an agent at any one time. For more details, see 'Push model', above.

With the exception of transferred interactions, agents do not receive items in their Inbox if the Inbox contains ringing interactions of the same media type.

Receiving notifications of new interactions

Agents receive notifications of new interactions in one of two ways. An interaction can 'ring' in the Inbox and agents can receive toaster notifications of new interactions.

Ringing states in Ignite

When interactions reach an agent's Inbox, the interactions are in a ringing state until the agent puts them into reply mode or until the requeue timer expires.

Ignite indicates a ringing interaction as follows:

- DESKTOP - Ignite marks ringing interactions in red, and indicates in red the number of interactions ringing in the Inbox.
- WEB - Ignite marks ringing interactions with a 'ringing' icon, and the agent's state indicates 'Incoming'.

NOTE:

- With the exception of transferred interactions, in Push and Mixed routing models agents do not receive items in their Inbox if the Inbox contains ringing interactions of the same media type. Once ringing interaction is put into reply mode, another interaction of that media type is pushed to the Inbox in a ringing state if the agent's Workload permits. This behavior continues until an agent's Workload is met.
- For MiVoice Connect phones, if the ring count for ACD calls exceeds the requeue timer, which is set to 30 seconds by default, calls will directly connect to agent's voice mail.

Receiving toaster notifications of new interactions

Ignite sends agents toaster notifications of interactions offered to the Inbox.

Toaster notifications indicate the interaction's media type and display information such as originating phone number, subject, and queue name. Information displayed varies by media type.

Agents can accept or decline the interaction by selecting the appropriate option on the toaster notification. Option availability varies by the interaction's media type.

NOTE: Accepting emails sends them to the agent's Inbox. Agents can open them in reply mode with Cc'd recipients included in the reply.

Please note the following behavior:

DESKTOP

- If agents are permitted to preview interactions, clicking anywhere within the notification opens Ignite with the item ringing in the Inbox. Agents are then able to preview the interaction.
- If the agent does not act on the notification by accepting, declining, or previewing the interaction, the Ignite icon flashes in the taskbar and eventually remains a solid color until the application is selected.

WEB

- When Ignite is in focus, the toaster notification pops with options to Accept and, depending on the interaction's media type, Decline the interaction. If Ignite is not in focus, a notification indicates a ringing interaction. Clicking a notification takes you to the relevant interaction.

  NOTE: Internet Explorer does not pop notifications when Ignite is not in focus.
- When Ignite is minimized, clicking the notification opens Ignite with the item ringing in the Inbox. Agents are then able to handle the interaction.

- When accepting open media interactions, the link that displays depends on TargetUri settings and, as such, may display as embedded content within Ignite (WEB) or as a new page in the browser. Please note that some web applications do not support iframe embedded content, such as is used with Ignite (WEB). If you want content to be embedded in Ignite (WEB), you must enable iframe embedding in such 3rd party web applications.

Receiving information in screen pops

When interactions are ringing in the Inbox, agents may receive screen pops on their desktops.

Screen pops differ from toaster notifications. Toaster notifications alert agents to ringing interactions and indicate basic information such as the interaction's media type. A screen pop displays information relevant to handling a specific interaction.

For example, a screen pop may display a web page listing a customer's recent interaction history. Agents use screen pops to provide more personalized, informed customer service. It is the agent's responsibility to close the screen pop once the information is no longer required.

Screen pops open on agents' desktops when a ringing item is selected in the Inbox.

If you are receiving two screen pops and/or two toaster notifications for a single interaction, consult your supervisor or system administrator.For more information on toaster notifications, see *"Receiving toaster notifications of new interactions"*.

NOTE:

- If you receive a security warning when your screen pop displays, consult your supervisor or system administrator about disabling the warnings.
- WEB - By default, screen pops open in a new tab but obey browser configuration and may therefore open in a new window.
- WEB - If screen pops are not displaying you may need to disable pop-up blockers for this site.

Reviewing interaction history

Ignite stores transcripts of email, chat, and SMS multimedia interactions and enables agents to review these transcripts by case and customer.

For example, an agent gets a response from a customer saying, 'How do I do that?'. However, the customer has deleted all prior communication in the email chain. The agent can retrieve transcripts of previous interactions with the customer in order to answer the question.

If an interaction's history is not visible via the History function, we recommend searching Ignite's repository. For more information on searching, see *"Searching Ignite"*.

The following procedures explain how to

- Review interaction history by case

  NOTE: This function is only available if the system has case and ticket numbers enabled. This is an administrative configuration and cannot be adjusted by agents.
- Review interaction history by customer

To review interaction history by case or customer (WEB)

NOTE: You can pare down the list of interactions displaying on the History page using filters. For information, see *"Searching Ignite using search filters"*.

1. Select an interaction or hover over the item's avatar and select **History**.
2. Select either **Case** or **Customer** and select the interaction to review.

You can display specific interactions by entering search criteria in the 'Search interactions' field.

3. To exit out of this view, click **Back to <page>**.

To review interaction history by case (DESKTOP)

1. In the **Folders** pane, select a folder and select an interaction in the folder.
2. In the **Preview** pane, select **History** and **Account Codes**, and select By Case.
3. To see more items, double-click **Show more results...**.
4. Optionally, sort items in each pane in ascending or descending order by clicking the column headers.
5. To view a transcript of the communication, double-click the interaction in the pane.

To review interaction history by customer (DESKTOP)

1. In the **Folders** pane, select a folder and select an interaction in the folder.
2. In the **Preview** pane, select **History** and **Account Codes**, and select **By Customer**.
3. To see more items, double-click **Show more results...**.
4. Optionally, sort items in each pane in ascending or descending order by clicking the column headers.
5. To view a transcript of the communication, double-click the interaction in the pane.

Tagging interactions with Account Codes

Account Codes are used for reporting purposes. They are numbers identifying services, departments, or other elements of the contact center. Agents can tag interactions with Account Codes in Ignite to indicate in reports what the interaction was about.

For example, an agent handling chats for three catalog companies enters an Account Code of '01' to indicate that the customer is inquiring about Company A. Later in the same chat interaction the agent enters an Account Code of '06' to indicate that the customer is inquiring about Company A's mail-out services.

Agents can only apply Account Codes when replying to interactions. Agents can tag interactions with multiple Account Codes but cannot configure Account Codes in Ignite.

Please note the following limitations regarding tagging voice interactions with Account Codes in Ignite

- Voice interactions handled in Ignite can only be tagged with non-verified Account Codes. Verified Account Codes are entered before an outbound voice interaction and can be applied via Contact Center Client. For more information on verified Account Codes in your contact center, contact your system administrator.
- Tagging interactions with Classification Codes is supported from Ignite for voice interactions only. Classification codes associate the entire interaction handling duration to the Account Code selected. This includes transfer time. It also includes Work Timer duration if 'Include queue work timer as part of handling time' is enabled on the queue. To learn more about applying Classification Codes to voice interactions, see *"Tagging calls with Classification Codes"*.

NOTE: Classification Codes are not supported for multimedia interactions, only Account Codes may be used on multimedia interactions.

NOTE: Account Codes on emails are terminated after employee logout. Agents logging into Ignite to resume work on emails must re-enter their last Account Code.

To tag an interaction with an Account Code (DESKTOP)

1. In the **Preview** pane, expand **History and Account Codes** and select **Account Codes**.
2. Expand any Account Code groups, if required.

3. Beside the Account Code you are using to tag the interaction, click **Apply**.

   Account Codes applied to an interaction are marked in bold.

   NOTE: Alternatively, apply Account Codes via the Account Code button that displays in theSidebar.

To tag an interaction with an Account Code (WEB)

1. Select an interaction or hover over the item avatar and click **Apply Code**. The account codes/categories are displayed in tree view (as configured in YSE) in the **Apply Classification/Account Code** window.
2. Select an Account Code. You can type the name or number of a code in the **Search** field. Optionally, use the **Expand** or **Collapse** buttons to view account codes and select the required account code.

   NOTE: If you enter a number or the name in the search field, and the system returns only one result, you can apply the Code by pressing **Enter**.

Sending interactions back to the queue

When interactions reach an agent's Inbox, the interactions are in a ringing state until the agent clicks the Reply button and Ignite goes into reply mode.

Interactions can be sent back to the queue for several reasons. First, interactions requeue when declined by an agent. Second, ringing interactions in the Inbox requeue when the ringing timer expires. Third, interactions on hold requeue when the hold timer expires, including emails automatically placed on hold after agent's logout. Fourth, interactions in the Inbox can requeue on employee logout. However, administrative configuration determines requeue behavior for email interactions in the Inbox.

In each instance, the interaction is returned to the queue as the longest waiting. Unless logged out, the employee is put into a Busy/Make Busy state across all agent capabilities, and a System Make Busy is registered.

Agents logging out of Ignite with interactions in the Inbox are notified whether relevant interactions will be requeued (DESKTOP). However, in these instances a System MKB is not registered against the employee.

Requeued emails contain any response text drafted. This text is visible to other employees who handle the email. Agents can choose to include the drafted content when previewing requeued emails in queue.

Requeued chat and SMS interactions contain all of the previous interaction between contact and agent.

If the system immediately requeues interactions on logout, to avoid losing work we recommend that agents either complete their work or transfer the item to a queue before logging out.

NOTE:

- The time allotted to answer ringing interactions, the duration for which interactions can be on hold before requeuing, and requeue behavior for email interactions on employee logout is determined by administrative configuration. For more information, contact your supervisor or system administrator.
- Logging in and logging out of Ignite does not reset the duration interactions can be on hold before requeuing.

Transitioning from one conversation type to another (WEB)

During an interaction, agents can transition between interaction types. For example, an agent in the Support queue who is in a chat interaction with a customer can transition to voice.

The agent can transition to an alternate interaction type only if the agent is associated with that media type and if the customer's relevant contact details are available. Agents can also edit contact information during an interaction.

NOTE: Agents cannot transition from other media types to a chat interaction, as chats are inbound only.

The following explains how to

- Transition interactions to an alternate interaction type
- Update contact details during an interaction

To transition to an alternate interaction type

1. Click **Inbox** and select the interaction or hover over the item avatar.
2. Click the action icon based on the interaction type.

   For example, with an email interaction, click **Reply**, or with a chat interaction, reply to the chat messages.
3. From the handling icons, click the interaction type icon to which you want to transition. Optionally, you can hover over the item avatar in the Inbox to view the handling icons.

   NOTE: You can edit the contact information for the customer during the interaction and you can view the updated contact information and, if required, can transition to an alternate interaction type.
4. Continue the interaction in the transitioned interaction type.

Update contact information during a conversation

Agents can also edit contact information during an interaction. For example, an agent in the Sales queue is on a call with a customer and updates the customer's email address or mobile number. The agent can now view the updated contact information and, if required, can transition to an alternate interaction type, such as email.

To update contact information during an interaction

1. Click **Contacts** and search for the applicable customer.
2. In the **Contacts** window, under **Contact Details**, click **Edit Contact**.

   Optionally, you can hover over the avatar to view the **Edit** icon.
3. In the **Edit Contact** window, update the contact details, and click **Update**.

   The handling icons are refreshed to reflect the updated details.

Working with cases in Ignite(WEB)

The **Cases** page contains searchable details for all cases that the employee can access. Agents and supervisors can quickly review all the key information related to case records without the need to select individual interactions.

The following sections explain how to

- View case details
- Search and filter cases
- Add notes for a case
- Edit the subject of a case
- Flag a case for follow-up
- Flag a case as resolved
- Merge interactions from two different cases

NOTE: You cannot edit a case that is being edited by another agent or supervisor. A lock icon displays next to the action icons to indicate that a case is being edited by another agent or supervisor. Only one person can perform the following actions at a time in Ignite—edit the subject of the case, change the state of the case, add or edit notes, cut from case, or merge cases.

View case details

For each of the case records, you can view the state of the case, notes, interactions, customer details, and other cases that are associated with the customer.

1. Click **Cases** to display a list of all cases.
2. Locate and click the case title.

If you know the case details, you can use the search and filter capabilities to locate the required case.

The following case details are displayed:

- **Case details**—Displays case details such as customer details, subject, details of the agent who handled the last interaction in the case, or the queue details, date modified, and the state.
- **Notes**—Lists the notes entered for the selected case. You can search for notes by entering the string in the search field in the Notes tab.
- **Interactions**—Lists all interactions related to the selected case. You can filter and search for interactions in this tab.
- **Participants**—Lists the contact details of all participants.
- **Other cases for this customer**—Lists the other cases associated with this customer(s). You can filter and search for cases in this tab.
- **State**—Indicates the current state of the case. Possible values include

  - **Pending**—Cases are indicated by icon. Cases are automatically assigned this state when inbound interactions are received by the system. This state is assigned even if the linked case was previously closed. The only exception is when a new interaction is already linked to an existing case whose state is marked as ‘Follow up required’. You can see cases in the pending state only for the queues to which you are assigned.
  - **In Progress**—Cases are automatically assigned this state when you accept interaction associated with that case. The only exception is when a new interaction is already linked to an existing case whose state is marked as ‘Follow up required’.
  - **Follow up required**—Cases are indicated by a red badge. When an agent handles an interaction, and wants to mark the interaction for further follow up, the case can be flagged as ‘Follow up required’.
  - **Follow up required now**—Cases are indicated by a red badge. When an agent marks an interaction for a follow up at a specific date and time, just before the specified date and time, the interaction is which is flagged as ‘Follow up required’ changes to ‘Follow up required now’, a notification icon on the top panel prompts the agent to take action on the interaction.
  - **Waiting for customer**—Cases are indicated by an orange badge. When an agent completes an interaction, or marks the interaction as ‘No Reply’, the case’s state is set to ‘Waiting for customer’ unless it was previously set to ‘Follow up required’ or ‘Resolved’, in which case it remains unchanged. When an agent sends an unsolicited outbound email or SMS to a customer, a new case is automatically created and assigned with this state.

- **Resolved**—Cases are indicated by a blue check mark icon. You can set the case to 'Resolved' when you no longer need to interact with or track it. Cases in 'Waiting for customer' state are automatically moved to 'Resolved' state after the configured number of days (by default, it is 14 days) when no interactions are added or actions are taken.
- **Closed**—Indicated by icon. Cases in 'Resolved' state are automatically moved to 'Closed' state after the configured number of days (by default, it is 7 days) when no interactions are added, or actions are taken.

Edit the subject of a case

To edit the subject of a case

1. Click **Cases** to display a list of all cases,
2. Locate and click the required case from the list.

   The details are displayed in the right pane. The default subject is based on the most recent interaction associated to the case, relevant to the interaction media type.
3. Click **Edit Subject** icon.
4. Enter the subject in the text box.
5. Click **Save**.

Search and filter cases

To search and filter cases

1. Click **Cases**, and in the **Search cases** field, enter a search string.
2. For a more detailed search, click the **Advanced Search** in the **Search cases** field and enter specific details in the fields displayed. For **Media, Queue, and Employee** fields, you can use the **Only search most recent** check box next to fields to search for cases having the particular media, queue, or employee as their last one.

   For example, let us assume that there is a case linked to two interactions; a chat (first interaction) and a voice call (second and last interaction). If you select "chat" in the **Media** drop-down menu and:
   - Do not select the **Only search most recent** check box next to **Media**, Ignite will find this case because it will search for all cases that have a chat interaction.
   - Select the **Only search most recent** check box next to **Media**, Ignite will only search for cases whose most recent interaction type is "chat", hence, the above case is not found as the last interaction for the above case is not "chat", but is "voice".
3. Click **Search** to display the search results.
4. Click the filter name to filter the search results based on case states. The available filters are **All**, **Pending**, **In progress**, **Waiting for customer**, **Follow up required**, **Resolved** and **Closed**.

   NOTE:
   - If an agent selects the **Only show my items** check box, Ignite displays only cases associated with that agent.
   - In Case folder, agents will be able to **Reply** and **Reply All** to the email interactions only in **Waiting for Customer**, **Follow up required**, **Resolved**, and **Closed** case states.

- In Case folder, agents will not be able to **Reply** and **Reply All** to the email interactions in **Pending** and **In progress** case states.

Export the case details to a CSV file

To Export a case details to a .csv file

1. Click **Cases** to display a list of all cases.
2. Click the required case from the list.

   The details are displayed in the right pane.
3. Click the **Export to csv** icon. The case details are downloaded in a .csv file format.

Flag a case for follow up

To flag a case for follow up

1. Click **Cases** to display a list of all cases.
2. Click the required case from the list.

   The details are displayed in the right pane.

   NOTE: This state can only be set for cases that are currently in an 'In Progress', 'Waiting for customer', or 'Resolved' state.
3. Click the **Flag for follow up** icon. The **Case Follow-up** screen is displayed.
4. Select the notification date and time. If you are a supervisor, you can choose an agent you want to notify.
5. Click **OK**. You will receive a reminder notification at the set date and time. You can review the case by clicking the notification toaster from your Inbox.

   In case you want to edit the notification details, click the **Follow up Reminder** icon and make the changes.

Flag a case as resolved

To flag a case as resolved

1. Click **Cases** to display a list of all cases.
2. Locate and click the required case from the list.

   The details are displayed in the right pane. Any new case that is responded to, is flagged as **Waiting for customer** and denoted by an orange badge.
3. Click the **Resolve** icon. A confirmation window is displayed.
4. Click **OK**.

Merge Cases

When a customer is associated with more than one case, some or all of the cases, and their interactions and notes, can be merged into a single case to consolidate information.

To merge cases (and their associated interactions and notes) into a single target case

1. Click **Cases**.
2. From the list of cases, click the case you want to merge into the target case.

3. In the **Other Cases for this customer** tab, click **Merge**.
4. In the **Confirm the merge of case** dialog box, click **OK**.

NOTE: When merged, all notes and interactions from the original case are moved to the target case and the original case is deleted. If the target case was closed before the merge, it is only reopened after the merge if the original case was neither closed nor reopened, and its new state will match the state of the original case.

Notes associated with cases

The **Notes** page lists the notes entered by the agent for the selected case. You or any other agent associated with the case can refer to these notes during the resolution of the case. You can also view notes that are automatically generated by the system when the following events occur—state change, case merger, and calls are cut and pasted into a new or an existing case.

To search notes

- In the **Notes** tab, type the text in the **Search notes** field. Optionally, you can include the system notes to your search by clicking **Show system notes** option.

To add notes

1. Click **Cases** to display a list of all cases.
2. Locate and click the required case from the list.

   The details are displayed in the right pane.
3. Click the **Notes** tab.

   Notes related to the selected case are displayed.
4. Click **Add Note**.
5. Enter the note in the text box.
6. Click **Save**.

To edit notes

1. In the **Notes** tab, and click **Edit**.
2. Edit the information that is displayed and click **Save**.

   NOTE: You can only edit the most recent note that you have created.

Interactions associated with cases

The Interactions tab present under History, Inbox, Case or Inqueue pages displays all the calls related to the selected case. Each interaction is assigned with a case ID. Ignite automatically reuses the last Case ID for all the inbound* or outbound interactions associated with the same customer. This helps to keep the related case information together so that the agent doesn't have to manually merge related cases later. Interactions are assigned to a previous Case ID only if the previous case is not closed and not older than the defined default number of days.

*: When a customer sends an email without a case ID in the subject to the contact center, a new case is always created (Ignite does not reuse an existing case ID).

NOTE: When you initiate an outbound email, the previous case ID is not automatically reused, but Ignite displays the reusable case found and you can choose to reuse the Case ID if you wish to.

You can enable or disable the option to search for reusable cases on the **Options > Customization** page.

You can filter, search, view the status of the interactions, move interactions from a case to another case, and go to the corresponding folders(Inbox, History or Inqueue) from the cases page.

Search and filter interactions

To search and filter interactions

1. Click **Cases** to display a list of all cases.
2. Locate and click the required case from the list.

   The details are displayed in the right pane.
3. Click the **Interactions** tab, enter the string in the **Search interactions** field. The search results are displayed.
4. For a more detailed search:

   Click the down arrow in the Search field and enter the specific details.
   Click the Search icon to display the results.
   Optionally, you can filter based on case state – All, Draft, Inqueue, Ringing, Inbox, Handled, Sent, No Reply, Junk, and Failed. You can also select the **Only show my items** check box to filter your interactions.
   You can also view all the cases, or the customer related to an interaction by clicking **Case** tab or **Customer** tab next to the **Search interaction** field.

Pick or Pick and Reply inqueue conversation

You can pick or pick and reply all to an Inqueue multimedia interaction from a case.

NOTE: An agent can only Pick or Pick and Reply All to one interaction at a time from a case. Pick, Pick and Reply All are available for Multimedia interactions, whereas only Pick is available for Voice and Open Media interactions (replying to those can only be performed from the Inbox).

To activate Reply, Reply All buttons in the Inbox

1. Click **Options > Customization**.
2. Click **Show 'Reply' button** to activate reply button or click **Show 'Reply All' button** to activate reply all button in the Inbox.
3. Click **Save**.

To reply to a picked Inqueue interaction from Inbox

1. In the **Inbox**, identify and select the Inqueue interaction you just picked.
2. On the right pane, click either **Reply** or **Reply All**.

NOTE: If the email to which you are replying has an existing draft, the **To:**, **CC:**, and **BCC:** fields are cleared and refilled with the default addresses based on the reply type selected

3. The interaction opens in reply mode with all recipients copied. Type the content and click **Send**.

To activate Pick or Pick and Reply All buttons in the Interactions tab

1. Click **Options > Customization**.
2. Click **Show 'Pick'** button to activate pick button or click **Show 'Pick and Reply All'** button to activate pick and reply all button in the **Interactions** tab.
3. Click **Save**.

To pick an Inqueue interaction from within a case

1. Click **Cases**, and from the list of cases, select the case of the Inqueue interaction.
2. In the **Interactions** tab, click **Pick** to assign the Inqueue interaction to yourself.
3. Click **OK**.

To pick and automatically reply to an Inqueue interaction of a case

1. Click **Cases**, and, from the list of cases, select the case of the Inqueue interaction.
2. In the **Interactions** tab, click **Pick and Reply All** to assign the Inqueue interaction to yourself and reply.

NOTE: If the email to which you are replying has an existing draft, the **To:**, **CC:**, and **BCC:** fields are cleared and refilled with the default addresses based on the reply type selected

3. The Interaction opens in reply mode with all recipients copied. Type the content and click **Send**.

Navigate using the Go to button

You can select an interaction listed in the **Interactions** tab present under **Inbox**, **History**, **Cases**, or **Queues** folders and navigate to the interaction in the folder it is currently located in.

For example, for an interaction in your Inbox that contains a related interaction in the History folder, you can navigate to the interactions tab and use the Go to icon next to this related interaction to navigate to the History folder and view the related interaction.

NOTE:

- The Go to button is not displayed for the currently selected interaction in the Inbox, but is displayed only for the other related interactions for the same customer.
- The Go to button is not displayed for the inbox items, that do not belong to you.

To navigate using the Go to icon from cases

1. Click **Cases** to display a list of all cases.
2. Click the required case from the list.

   The details are displayed in the right pane.
3. In the **Interactions** tab, click **Go to** icon to navigate to the interaction's current folder.

Moving conversations to other cases

Moving interactions from one case to another might be needed to fix incorrect case linking. You can move one or more interactions from a case to an existing or new case of the same customer.

The following are the important points you must be familiar with before moving interactions from the source case to other cases:

- If the source case is the only case the customer is associated with, you can select one or many interactions to cut from that case, but not "all" of them. The selected interactions will be moved to a new case.
- When the customer has more than one case, you can select one, many, or all interactions from the source case and move them to an existing target case of the same customer.
- The state of the new case will be same as the source case.
- The subject for a case is based on the last interaction associated with the case. Therefore, after interactions are moved from one case to another, the subject of the latter case might change.

Ignite(Web) will automatically re-close a case in the following scenario:

1. Case A was auto-closed after being resolved for a long time.
2. Ignite automatically reopened Case A when a new email with the same case in the subject line was received.
3. Additional interactions may get associated with Case A (i.e. An agent may respond to that email).
4. An agent or supervisor may decide to move all the interactions that were associated with the case (case A) since it was closed to a new case (case B) or another existing case (case C).
5. Case A is auto-closed again.

To move interactions from one case to another case:

1. Click **Cases**.
2. From the list of cases, select the case that contains the interaction(s) you want to move.
3. In the **Interactions** tab, select the interaction from the list. Optionally, you can select multiple interactions from this list.
4. Click **Cut from Case** icon next to the interaction or hover over the interaction avatar and click the **Cut from Case** icon.

   If you want to move multiple interactions, click the avatar and select many or all interactions, and click **Cut from Case** icon at the top.
5. Paste the selected interactions to a new case or to an existing case:
   - To paste to a new case, click the **Paste to new case** button. A new case is created containing the interaction you moved there.
   - To paste to an existing case (if there is one for this customer), click the **Paste to other case** button, and search and select the target case in the dialog box that displays.

   NOTE:
   - If you selected all interactions from a case to be moved, all the notes from the case are moved to the target case and the source case is deleted.
   - If the selected interactions are not the only interactions for the source case, Ignite will display a list of notes that were created after the first interaction you want to cut, and you can decide which notes (if any) you want to cut and paste it into the target case.
6. Click **OK**.

Forwarding an interaction listed in a case

You can forward an interaction to others if you no longer wish to track the interaction.

To forward an interaction from a case

1. Click **Cases** to display a list of all cases.
2. Click the required case from the list.

   The details are displayed in the right pane.
3. Click the **Interactions** tab.

   Interactions related to the selected case are displayed.
4. In the **Interaction** tab, click **Forward** icon.

5. Insert addresses in the **To:** field, and copy or blind-copy additional recipients by filling in the appropriate fields. Separate multiple addresses with semi-colons.
6. Type the required content and click **Send**.

Participants

You can view the list of participants associated with each case. The participants list includes employees and external contacts.

NOTE: Participants list can also contain contact information derived from Active Directory. Active directory is only supported in single-tenant configuration.

To view the participants associated with a case

1. Click **Cases** to display a list of all cases.
2. Click the required case from the list.

   The details are displayed in the right pane.
3. Click the **Participants** tab to view the list of associated participants for the case.

In the **Participants** tab, you can do the following:

- Search for the participants associated with a case using the search field
- Edit external participants' contact information by clicking on the **Edit** icon. Note that you cannot edit employee or active directory records. For information on editing external contacts, see *"Contacts (WEB)"*.
- View all the cases that the participant is associated with by clicking on the **Case** icon. For information on viewing case information related to participants, see *"Contacts (WEB)"*.
- Associate or dissociate external contacts from cases by using the **Associate and the Dissociate** icons. For information on associating and dissociating external contacts from a case, see *"Associating or disassociating participants to a case"*.
- Merge external contacts by clicking on the **Merge** icon. For information on merging external contacts, see *"Merge External Contacts"*.

Associating or disassociating participants to a case

You can associate participants with a case if they are relevant to that case. If a participant's association with a case is incorrect, you can disassociate that participant from the case. An alert appears on the participant tab, when a participant is not associated to a call.

To associate a participant with a case

1. Click **Cases** to display a list of all cases.
2. Click the required case from the list.

   The details are displayed in the right pane.
3. In the **Participants** tab, click the **Associate Participant** icon.

   The **Associate Participant** window is displayed.
4. In the **Associate Participant** window, you can:
   - Search for an existing contact and associate the contact with the case—In the **Search** field, type the contact name. Under **Results**, hover over the contact avatar and click to select it and click **OK**.
   - Add a new contact and then associate that contact—Click the **Add Contact** icon. The **Create and Associate Contact** window is displayed. Enter the contact details and click **Save**.

NOTE: When you create a contact in Ignite(WEB), you must add an extension to the phone number if multiple contacts share the same phone number.

The contact you associated with the case is listed in the **Participants** tab.

To disassociate a participant from a case

1. Click **Cases** to display a list of cases.
2. Click the required case from the list.

   The details are displayed in the right pane.
3. In the **Participants** tab, click the **Dissociate** icon for the participant you want to dissociate.
4. Click **OK** to disassociate the participant from the case.

Other cases for this customer

The **Other cases for this customer** page lists other cases associated with this customer(s).You also can filter, search, view the status of the interactions, and move calls from a case to another case.

Handling emails in Ignite

Handling emails in Ignite mirrors common email client behavior, offering agents and supervisors a familiar and user-friendly environment. Ignite supports both HTML and plain text emails.

NOTE: Removing or otherwise altering case and ticket numbers in subject lines before handling emails can interfere with preferred agent routing. Agents should contact their supervisors or system administrators before editing case and ticket numbers in email subject lines.

The following explains how to

- Preview emails
- Preview drafted content for emails in queue (DESKTOP)
- Pick emails out of queue
- Reply to emails
- Forward emails
- Add attachments to emails
- Insert images in emails
- Preview and save attachments
- Transfer emails to internal and external destinations
- Decline emails
- Mark emails as ‘No Reply’ and ‘Junk’
- Place emails on hold and retrieve emails from hold
- Transition to alternate interaction types
- Correct spelling in email responses
- Create personal reply templates
- Apply personal reply templates to emails
- Apply reply templates to emails
- Apply personalized signatures to emails
- Apply quick reply templates to emails
- Reroute Failed emails
- Handle oversized emails

- Handle bounced emails
- Send outbound emails

NOTE: DESKTOP - To complete the following procedures, you must be in Ignite's My Folder's View.

Previewing emails

If administrative configurations permit, agents can preview interactions before picking them out of queue or handling them.

The following explains how to

- Preview emails in queue
- Preview emails in the Inbox

To preview an email in queue (DESKTOP)

1. In the **Folders** pane, select a queue.
2. In the **List** pane, select an email.

To preview an email in queue (WEB)

1. Click **Queues** and select a queue.
2. Select an email to preview.

To preview an email in the Inbox (DESKTOP)

1. In the **Folders** pane, click **Inbox**.
2. In the **List** pane, select an email.

To preview an email in the Inbox (WEB)

- Click **Inbox** and select an email to preview. In addition to handling options, you can quickly access the case details, notes, calls, all the participants of the case, and other cases from the same customer. This can save time when you are interacting with a customer.

To preview emails in Cases (WEB)

- Click **Cases** and select the email to preview.

Previewing drafted content for emails in queue (DESKTOP)

If administrative configurations permit previewing emails in the Preview Pane before picking emails out of queue, agents can also choose to preview content drafted by other agents in requeued emails.

Normally agents only see the original content of the email interaction when viewing emails in the List pane or the Preview pane. Requeued emails, however, may contain content drafted by employees for use by other agents in the contact center. Agents can choose to filter the List pane's contents for a queue to only show the emails in queue that have drafted content from other agents and include the drafted contents in the List pane and in the Preview pane. If agents navigate away from the queue to another queue, the filter is removed.

NOTE: Previewing drafted content for emails in queue in Ignite requires agent previews to be enabled on the media server. See *"Configuring Advanced options for media servers"* for more information.

The following procedures explain how to

- Preview drafted content for emails in queue
- Revert to viewing all emails in queue

To preview drafted content for emails in queue

1. In the **Folders** pane, right-click the email queue for which you want to preview drafted content.
2. Select **Drafts**.

   The List pane displays the requeued emails in queue that have drafted content. The Folder pane displays the queue name in orange and italics.

To revert to viewing all emails in queue

1. In the **Folders** pane, right-click the email queue.
2. Select the queue name.

   The List pane displays all emails in queue. Drafted content is not displayed.

Picking emails out of queue

Pick behavior occurs in the following ways: First, agents can pick interactions out of queue and send them to the Inbox. When the interactions ring in the Inbox, agents can handle them. Second, agents can choose to pick and reply to an interaction. Choosing to pick and reply to an interaction sends the interaction to the agent's Inbox from where the agents can handle the interaction. Cc'd recipients are included in the reply.

Emails picked out of queue ring in the agent's Inbox until the interaction is put into reply mode. For more information on ringing behavior, see *"Ringing states in Ignite"*.

NOTE:

- Agents cannot pick or pick and reply to interactions from the queue if they are in Do Not Disturb.
- Agents may only pick or pick and reply to interactions from the queue if they have the appropriate permissions.

The following procedures explain how to

- Pick an email out of queue and handle the email
- Pick and automatically reply to an email

To pick an email out of queue and handle the email (DESKTOP)

1. From the **Folders** pane, select the queue from which the email will be picked.
2. From the **List** pane, select an email from the queue and, from the **Action** bar, click the **Pick** button.

   The email is transferred to your Inbox.
3. To handle the email, select **Inbox** and, in the **List** pane, select the email.

   NOTE: Additional handling options display in the Action bar. For information on handling the email, see the appropriate procedures in this section.

To pick an email out of queue and handle the email (WEB)

1. Click **Queues** and select the appropriate queue.
2. Select an interaction or hover over the item avatar and click **Pick > Pick**.

   The email is transferred to your Inbox.
3. To handle the email, click **Inbox** and select the email or hover over the item avatar.
4. Select either **Reply** or **Reply all**.

To pick and automatically reply to an email (DESKTOP)

NOTE: This action functions as 'reply all' if there are recipients Cc'd on the original email.

1. In the **Folders** pane, select the queue from which an email will be picked.
2. In the **List** pane, select an email from the queue and, from the **Action** bar, click the **Pick & Reply** button.

   The email is transferred to your Inbox and opens in reply mode, with all recipients copied.

   NOTE:

   – Additional handling options display in the Action bar. For information on handling the email, see the appropriate procedures in this section.
   – If the email to which you are replying has an existing draft, the To:, CC:, and BCC: fields are cleared and refilled with the default addresses based on the reply type selected.

To pick and automatically reply to an email (WEB)

1. Click **Queues** and select the appropriate queue.
2. Select an interaction or hover over the item avatar and click **Pick > Pick and Reply**.

   The interaction is transferred to your Inbox and opens in reply mode with all recipients copied.

Replying to emails

Once an email is in the Inbox, agents can write and send a response. Agents can reply to the email's sender only, reply to all email recipients, insert additional addresses in their email's To: field, and, if enabled for the email queue, select a From address from one of the email queues they handle. Agents can also copy and blind-copy other email addresses on replies.

NOTE: When replying to an email, you can select the **Paste as Text** button to paste the content into the email message as plain text. When you click **Paste as Text** for the first time, Ignite displays the message, "Paste is now in plain text mode. Contents will now be pasted as plain text until you toggle this option off. The latest state of the toggle button is saved to your profile.

DESKTOP - Emails to which an agent has replied display under 'Handled', in the Folders pane.

Formatted URLs entered by agents in email responses will become links when the agent sends the email reply.

Note that, by default, the maximum file size for emails, including attachments, signatures, and images, is 25 MB.

To reply to an email (DESKTOP)

1. In the **Folders** pane, click **Inbox**.
2. In the **List** pane, select an email and, in the **Action** bar, click **Reply or Reply All.**

   NOTE: If the email to which you are replying has an existing draft, the To:, CC:, and BCC: fields are cleared and refilled with the default addresses based on the reply type selected.
3. Insert addresses in the **To:** field, and copy or blind-copy additional recipients by filling in the appropriate fields. Separate multiple addresses with semi-colons.
4. If enabled for this queue, you can select a different From address by clicking **From** and selecting the email address.

   By default, From is set to the email address of the last queue the email was handled from.
5. Type the email's contents and, in the **Action** bar, click **Send** . An icon displays over the Preview pane, indicating the email is being sent.

NOTE: Additional handling options display in the Action bar. For more information, see the appropriate procedures in this section.

To reply to an email (WEB)

1. Click **Inbox** and select an email or hover over the item avatar.
2. Click **Reply** and select either **Reply or Reply All**.

   NOTE: If the email to which you are replying has an existing draft, the To:, CC:, and BCC: fields are cleared and refilled with the default addresses based on the reply type selected.
3. Insert addresses in the **To:** field, and copy or blind-copy additional recipients by filling in the appropriate fields. Separate multiple addresses with semi-colons.

NOTE: If you want to initiate an email to multiple customers without manually entering the addresses, select the interaction in Inbox, in the preview pane, click **Participants** tab, click the avatars of the desired contacts, a check mark is displayed against the selected contacts, now click the email icon next to the **Contacts Selected** text. A new draft with all the selected customer email addresses in the **To** field is initiated.

4. If enabled for this queue, you can select a different From address by clicking **From** and selecting the email address.

   By default, From is set to the email address of the last queue the email was handled from.
5. Type the email's contents and click **Send**.

Forwarding emails

You can forward emails to multiple parties with additional recipients copied and blind-copied on forwarded mails.

DESKTOP - You can forward emails from the My History folder and its subfolders, the History folder and its subfolders, and the Failed folders. Forwards in progress are housed in the agent's personal Drafts folder, in the Forward subfolder. When forwarding an email that failed to route, the options to reroute or junk the email will not be available.

WEB - You can forward emails from the History page. Forwards in progress are housed as drafts in the Inbox.

Agents cannot forward emails from reply mode. Instead, agents can transfer emails to internal and external destinations. For more information, see *"Transferring emails to internal and external destinations"* and *"Replying to emails"*.

NOTE: When replying to an email, you can select the **Paste as Text** button to paste the content into the email message as plain text. When you click **Paste as Text** for the first time, Ignite displays the message, “Paste is now in plain text mode. Contents will now be pasted as plain text until you toggle this option off. The latest state of the toggle button is saved to your profile.

The following procedures explain how to

- Forward an email
- Discard forwards in progress

To forward an email (DESKTOP)

1. In the **My Folders** view, expand the **Folders** pane.
2. In the **Folders** pane, select either the **History**, **My History**, the **Failed** folder, or their subfolders.
3. In the List pane, select the email and, in the **Action** bar, click **Forward**.

4. Insert addresses in the **To**: field, and copy or blind-copy additional recipients by filling in the appropriate fields. Separate multiple addresses with semi-colons.
5. Click **Send**.

To forward an email (WEB)

1. Click **History** and, optionally, select a **Filter:**.
2. Select an email or hover over the item avatar and click **Forward**.
3. Insert addresses in the **To:** field, and copy or blind-copy additional recipients by filling in the appropriate fields. Separate multiple addresses with semi-colons.
4. Click **Send**.

NOTE: When you forward an email to an external email address, the contact information is automatically added to the associated case and in the database. Also, the state of the case is updated to "Waiting for customer".

To discard a forward in progress (DESKTOP)

1. In the **My Folders** view, expand the **Folders** pane .
2. In the **Folders** pane, click **Drafts**. If necessary, expand the **My Folders** folder first.
3. Expand the **Drafts** folder and select **Forward**.
4. In the **List** pane, select the email and, in the Action bar, click **Discard Draft**.

To discard a forward in progress (WEB)

- Click **Inbox** and either select the forward in progress or hover over the item avatar and click **Discard**.

Adding attachments to emails

When replying to or forwarding an email, agents can add attachments. Agents can either drag and drop attachments into emails or add attachments by following the steps below. When dragging and dropping attachments, you must drop the attachment into the area of the User Interface that displays the **To:**, **CC:**, and **Bcc:** fields. Note that files attached by drag-and-drop are not embedded in the body of the email. To embed an image in the body of an email, see *"Inserting images in emails"*.

Note that, by default, the maximum file size for emails, including attachments, signatures, and images, is 25 MB.

To add an attachment to an email (DESKTOP and WEB)

1. When replying to an email, click the **Add attachment** icon. This icon displays as a paperclip.
2. Navigate to the file and click **Open**. You can select multiple files.
3. To remove an attachment, click the **X** button beside the attachment.

Inserting images in emails

You can insert images in emails using Ignite's Insert Image button, or can drag-and-drop or copy/paste images into email responses.

Inserting an image into an email embeds the image in the body of the email at the cursor point. Dragging and dropping an image adds the image as an attachment. Copying and pasting an image into an email embeds the image in the body of the email.

50 inserted images will be visible in Ignite email responses. After 50 the images will show as an X in Ignite, but will display to the recipient in full.

Note that, by default, the maximum file size for emails, including attachments, signatures, and images, is 25 MB.

To insert images in emails (DESKTOP and WEB)

1. When replying to an email, click the **Insert picture** icon.
2. Navigate to the image and click **Open**. You can select multiple files.
3. To remove an image from an email, select the image and press the **Delete** key.

Previewing, saving, and removing attachments

NOTE: Previewing and saving attachments are currently available in Ignite desktop only. The Ignite web client allows for downloading attachments only.

Agents can preview the following attachments on incoming emails: PDF, Word, Excel, and Windows Media files (.wma). Note that these applications are not included with Ignite and must be installed on the agent's desktop for previewing to function. Agents can also save attachments to their hard drives, and remove attachments from received emails.

The following procedures explain how to

- Preview PDF, Word, Excel, and Windows Media files attachments
- Save attachments
- Remove attachments

To preview an attachment (DESKTOP)

1. In the **Preview** pane, click the attachment and select **Open**.

   NOTE: If the list of attachments exceeds two lines, use the scroll bar to navigate attachments.

To save an attachment (DESKTOP)

1. In the **Preview** pane, click the attachment and select **Save**. If the list of attachments exceeds two lines, use the scroll bar to navigate attachments.
2. Browse to a save location and click **Save**.

   NOTE: Save dialog options may vary depending on your operating system. If more information is required, please consult Microsoft Windows documentation.

To remove attachments (DESKTOP and WEB)

1. To remove an attachment, click the **X** button beside the attachment.
2. To remove all attachments, to the right of the attachments, click the **Remove All Attachments** button.

Transferring emails to internal and external destinations

Agents can transfer emails to both internal and external destinations. For example, agents in the Support queue receiving requests for account renewals can transfer these contacts to the Sales queue. Transfers include any email attachments.

Agents transfer emails internally to other agents and to queues. To receive transfers, devices must be enabled to handle the interaction's media type.

Agents who are logged out, in DND, Offline (WEB), or whose presence is Unknown cannot receive transferred emails. Agents who are either in Busy/Make Busy or at their email Workload limit can receive transferred emails.

When agents transfer emails from their Inbox, the email retains any text entered. This enables agents receiving transferred mails to see and build on responses other agents have drafted.

NOTE:

- You may only transfer interactions if you have the appropriate permissions.
- If you are transferring an email with drafted content, the To:, CC:, and BCC: fields will be cleared and replaced by the default addresses when another agent chooses to Reply or Reply All to the email.

The following explains how to

- Transfer emails to an agent or queue
- Transfer emails to an external address

To transfer an email to an agent or queue (DESKTOP)

1. In the **Folders** pane, click **Inbox**.

   NOTE: To transfer directly from the queue, select the email from the queue and, in the Action bar, click 'Transfer'. Follow steps 4 onward.
2. In the **List** pane, select an email and, in the **Action** bar, click **Reply**.
3. In the **Action** bar, click **Transfer**.
4. Select the **Internal Transfer** radio button and select an agent or queue. Expand the device list if necessary. You can search for an internal transfer destination by typing the name of an agent or queue in the 'Search' field.
5. Click **Transfer**.

To transfer an email to an agent or queue (WEB)

1. Click **Inbox** and select an email or hover over the item avatar and click **Accept**.
   To transfer directly from the queue, click **Queues**.
   To transfer from the **Cases** page, under **Interactions** tab, select the inqueue or inbox email and click **Goto** icon. The Queues page is displayed. You can now transfer the email from the **Queues** page. Follow steps 4 onward.
2. Click **Reply** and select either **Reply or Reply All**.
3. Click **Transfer**.
4. Select the email or hover over the item avatar and click **Transfer** icon.

NOTE: Optionally you can select multiple emails from the **Inbox** or the **Queues** page and click **Transfer**. The Transfer window is displayed. The list of available Employees and Queues are displayed in the **Results** section.

5. To transfer to an agent, in the **Transfer** window click **Employees** and select an employee from the list.
6. To transfer to a queue, in the **Transfer** window click **Queues** and select a queue from the list.
7. In the **Transfer** window, click **Employees** and type an email address. Separate multiple addresses with semi-colons.
8. To transfer the email, select the name of the appropriate agent or queue.

To transfer an email to an external address (DESKTOP)

1. In the **Folders** pane, click **Inbox**.

   NOTE: To transfer directly from the queue, select the email from the queue and, in the Action bar, click 'Transfer'. Follow steps 4 onward.
2. In the **List** pane, select an email and, in the **Action** bar, click **Reply**.
3. In the **Action** bar, click **Transfer**.
4. Select the **External Transfer** radio button and, in the **Transfer To:** field, type an email address. Separate multiple addresses with semi-colons.

   NOTE: Invalid entries return an error message. Re-type a valid entry and click 'Transfer'.
5. Click **Transfer**.

To transfer an email to an external address (WEB)

1. Click **Inbox** and select an email or hover over the item avatar and click **Accept**.
   To transfer directly from the queue, click **Queues**,
   To transfer from the **Cases** page, under **Interactions** tab, select the inqueue or inbox email and click **Goto** icon. The Queues page is displayed. You can now transfer the email from the **Queues** page. Follow steps 4 onward.
2. Click **Reply** and select either **Reply** or **Reply All**
3. Click **Transfer**.
4. Select the email or hover over the item avatar and click **Transfer** icon.

NOTE: Optionally you can select multiple emails from the **Inbox** or the **Queues** page and click **Transfer**. The Transfer window is displayed. The list of available Employees and Queues are displayed in the **Results** section.

5. To transfer to an agent, in the **Transfer** window click **Employees** and select an employee from the list.
6. To transfer to a queue, in the **Transfer** window click **Queues** and select a queue from the list.
7. In the **Transfer** window, click **Employees** and type an email address. Separate multiple addresses with semi-colons.
8. To transfer the email, select the appropriate email address(es).

Declining emails

Agents can decline offered emails, sending interactions back to the queue as the longest waiting.

NOTE: When an agent declines an interaction, they are automatically put into Busy/Make Busy across all media capabilities. A System Make Busy and a requeue count is registered for the employee . For more information, see *"Setting and removing Busy/Make Busy in Ignite"*.

To decline an email (DESKTOP)

1. In the **Folders** pane, click **Inbox**.
2. In the **List** pane, select an email and, in the **Action** bar, click **Decline**.

To decline an email (WEB)

- Click **Inbox** and select an email or hover over the item avatar and click **Decline**.

Marking emails as No Reply and Junk

Occasionally emails requiring no reply, like an out of office message, and junk mail, like spam, reach queues and agents' Inboxes. Agents can mark these emails either as requiring no reply or as junk.

Agents can also junk emails directly from 'Failed' rather than attempting to reroute them.

Marking interactions as No Reply and Junk removes the interactions from Ignite. If the item is in queue or the Inbox, responses in progress are deleted.

NOTE:

- Multimedia interactions in queue tagged as Junk or No Reply from Interactive Visual Queue and Ignite are not included in queue Handled, Completed, and Offered counts.
- Agents may only Junk interactions if they have the appropriate permissions.

To mark an email as No Reply or Junk (DESKTOP)

1. In the **Folders** pane, either click **Inbox**, select the queue in which the email is waiting, or select a **Failed** folder.
2. In the **List** pane, select an email and, in the **Action** bar, click either **No Reply** or **Junk**.

To mark an email as No Reply or Junk from the Inbox (WEB)

- Click **Inbox** and select an email or hover over the item avatar and click either **No Reply** or **Junk**.

To mark an email as No Reply or Junk from the queue (WEB)

1. Click **Queues** and select an email queue.
2. Select an email or hover over the item avatar and click either **No Reply** or **Junk**.

Placing emails on hold and retrieving emails from hold

Agents may have to stop working on one email in order to work on other items. In these cases, agents can put the active email on hold. Interactions on hold are marked with a 'pause' icon.

Note that administrative configurations may limit how long interactions may be on hold before being requeued and a System Make Busy is registered for the employee. For information on this limit, contact your supervisor or system administrator.

The following procedures explain how to

- Place an email on hold
- Retrieve an email from hold

To place an email on hold (DESKTOP)

- When replying to an email, click the **Hold** button.

To place an email on hold (WEB)

- Click **Inbox** and select an email, or hover over the item avatar, and click **Hold**.

To retrieve an email from hold (DESKTOP)

1. In the **Folders** pane, click **Inbox** and, in the **List** pane, select the email on hold.
2. In the **Action** bar, click **Remove Hold**.

To retrieve an email from hold (WEB)

- Click **Inbox** and select an email on hold or hover over the item avatar and click **Remove Hold**.

Transition to alternate conversation types

During an interaction, agents can transition to an alternate interaction type if the agent is associated with that media type and if the customer's relevant contact details are available. Agents can also edit contact information during an interaction.

See the *"Transitioning from one conversation type to another (WEB)"* section in this guide.

Correcting spelling in email responses

Ignite provides automatic spell checking of email responses. Incorrectly spelled words are underlined in red and can be corrected via a right-click menu.

Ignite's spell check button is located in the formatting toolbar, along with additional formatting options. Ignite's spell checking function assists agents in sending polished responses to customers.

NOTE:

- Russian and Mandarin Chinese are not supported.
- Grammar checking is not supported.

The following explains how to

- Correct spelling in email responses
- Ignore flagged words
- Undo spell checking changes
- Change the dictionary's language
- Add words to your personal dictionary
- Clear additions to your personal dictionary
- Toggle spell checking on or off

To correct spelling in an email response

- Right-click an underlined word and select the correct spelling from the list provided.

To ignore flagged words

- Right-click an underlined word and select **Ignore**.

To undo spell checking changes

NOTE: This function reverts words to their original spelling. It does not clear additions made to the dictionary.

- In the Ignite formatting toolbar, click the **Undo** button.

To change the dictionary's language

- In the Ignite formatting toolbar, from the dictionary language drop-down list, select a language. See the following figure.

  NOTE: Ignite remembers this selection for future replies.

To add words to your personal dictionary

- Right-click an underlined word and select **Add to personal dictionary**.

To clear additions to your personal dictionary

NOTE: This option clears all additions to your personal dictionary.

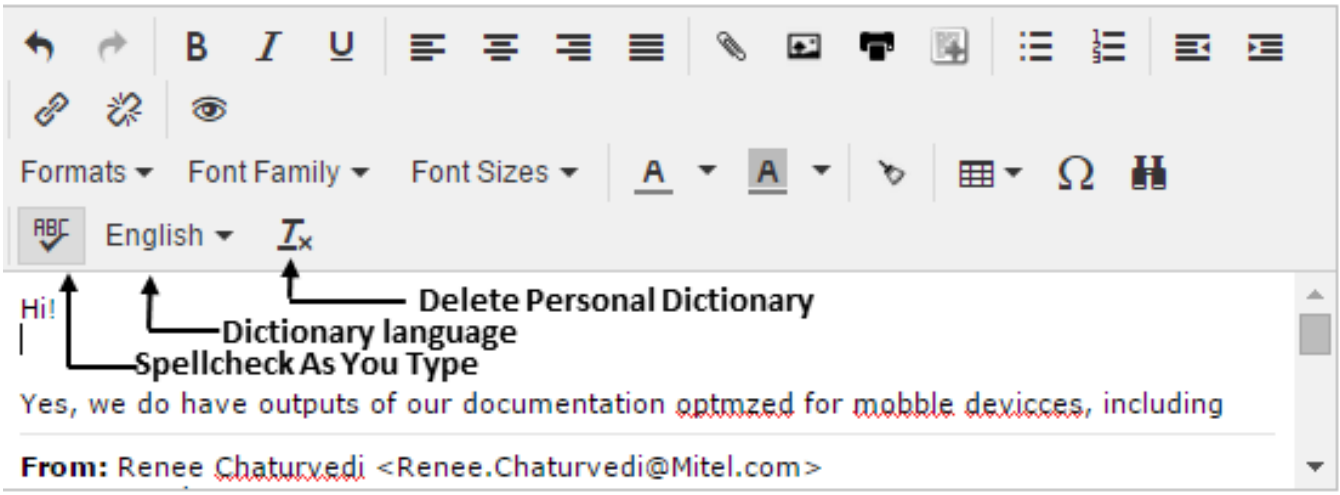
1. In the Ignite formatting toolbar, click the **Delete Personal Dictionary** button. (See the following figure.)
2. Either refresh the page or log out of Ignite and log back in for the changes to take effect.

To toggle spell checking on or off

- Click the **Spellcheck As You Type** button. (See the following figure.)

  NOTE: Ignite remembers this selection for future replies.

Figure 24.49: Spell check options



Applying reply templates to emails

Agents can apply reply templates to emails, providing standardized responses to common questions and requests. Once applied, responses can be edited as required. Also, click refresh to view and apply the recently created reply templates.

The following procedures explain how to

- Apply reply templates to emails using file name or predictive text
- Apply reply templates by browsing and selecting

To apply reply templates to emails using file name or predictive text

1. When an email is in reply mode, place the cursor in the body of the email response.
2. On the formatting toolbar, click the **Insert Reply Template** button.
3. In the **Insert Reply Template** window, begin typing the file name or the text that the template contains. Templates matching the file name or the text will display.
4. To insert the template, in the **Insert Reply Template** window, click the template you want to insert and click **Insert**. The text is inserted in the email, at the cursor point.
5. Optionally, delete the text from the window and repeat the above steps.

To apply reply templates by selecting the templates from the list (WEB)

1. When an email is in reply mode, place the cursor in the body of the email response.
2. On the formatting toolbar, click the **Insert Reply Template** button.
3. From the **Insert Reply Templates** window, select the reply template you want to apply from the list and click **Insert** button.
4. Reply template is inserted in the email, at the cursor point.

5. Optionally, delete the text from the window and repeat the above steps.

To apply reply templates by browsing and selecting (DESKTOP)

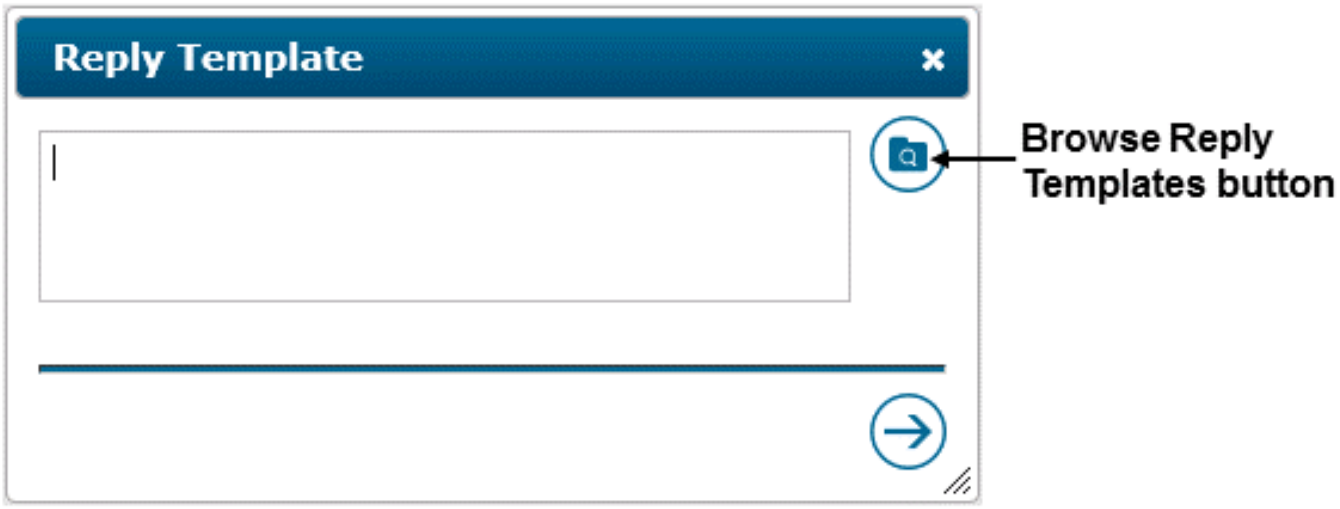
1. When an email is in reply mode, place the cursor in the body of the email response.
2. On the formatting toolbar, click the **Reply Template** button.
3. In the **Reply Template** window, click the **Browse Reply Templates** button.

   See the following figure.
4. From the **Browse Reply Templates** window, select the template from the options listed.
5. To insert the text, in the **Reply Template** window, click the **check mark** icon. The text is inserted in the email, at the cursor point.
6. Optionally, delete the text from the window and repeat the above steps.

NOTE:

- The image must be in .jpg format while using a messaging file in the reply template.
- The Chat reply templates must be saved in UTF-8 encoding or Unicode encoding.

Figure 24.50: Browse Reply Templates button



Applying personal reply templates to emails

Applying personal reply templates to emails enables you to provide standardized responses to common questions and requests. For information on creating a personal reply template, see *"Tools (WEB)"*

To apply reply templates to emails

1. When an email is in reply mode, place the cursor in the body of the email response.
2. On the formatting toolbar, click the **Insert Reply Template** button.
3. In the **Insert Reply Template** window, from the list of reply templates, type to search for a reply template that you want to insert, or, click the reply template you want to select from the list.
4. Optionally, click **Preview** to preview the selected reply template before inserting.
5. Click **Insert**.

The reply template is inserted in the email, at the cursor point.

Applying personalized signatures to emails

If allowed, agents can apply personalized signatures to emails. Personalized signatures can be created as templates, which can then be applied to email responses. For more information, see *"Applying reply templates to emails"*. Once applied, signatures can be edited as required. Agents can also cut-and-paste signatures into emails.

NOTE: Creating templates is an administrative configuration. For information on whether personalized signatures are allowed, contact your supervisor or system administrator.

Applying quick reply templates to emails

When responding to an email interaction, you can quickly access an existing reply template used. When using Ignite from the desktop, you can select from the five most recently used templates. When using Ignite from a hand-held device, only the three most recently used templates are available.

To apply a recently used template to an email response

1. Click **Inbox**, select an email, or hover over the item avatar, and click **Reply** or **Reply All**. The most recently used templates display at the bottom of the window.
2. Click the reply template you want to insert into the email response.

To disable quick reply templates

1. Click **Options > Email**.
2. Under **Quick reply templates**, toggle the switch to gray.

   NOTE: Quick reply templates is enabled by default, The **Clear quick reply templates view after insert** is disabled when you disable the quick reply templates.

Rerouting failed emails

If emails fail to route, they are stored in Ignite's Failed folder (DESKTOP) or in the History page under Failed (WEB). Ignite's Reroute button removes emails from these locations and attempts to transfer them back to the queue.

Agents may also mark these emails as Junk or forward the email. Forwarding emails from Failed does not remove the original copy from these locations. Forwards in progress are housed in the agent's personal Drafts folder (DESKTOP), in the Forward subfolder (DESKTOP) or in the Inbox (WEB). If you reroute an email that has existing forward drafts, the drafts will be deleted.

For information on handling bounced and oversized emails, see *"Handling bounced emails"* and *"Handling oversized emails"*.

We recommend that agents and supervisors check Ignite frequently in order to reroute emails that failed to route.

- DESKTOP - Under Processed, supervisors may see all emails that failed to route. Agents may only see emails sent to the queues for which they answer.
- WEB - In History > Failed, supervisors will see all emails that failed to route. Agents may only see emails sent to the queues for which they answer.
- While rerouting emails removes them from Failed immediately, there may be a delay before the emails are transferred back to the queue.
- Agents may only Junk interactions if they have the appropriate permissions.

To reroute emails in the Failed folder (DESKTOP)

1. In the **My Folders** view, expand the **Folders** pane.
2. In the **Folders** pane, select a **Failed** folder.
3. In the **List** pane, select an email and, in the **Action** bar, click **Reroute**. Alternatively, click **Junk** to mark the email as Junk and remove it from the Failed folder or click **Forward** to send the email to a recipient.

To reroute emails from Failed (WEB)

1. Click **History > Failed**.
2. Select an email or hover over the item avatar and click either **Reroute**, **Junk**, or **Forward**.

   If you select 'Forward,' the interaction is delivered to the Inbox where you can specify recipients.

Handling oversized emails

Depending on administrative settings, an error message displays if you attempt to send an email that exceeds the maximum message size. You can then edit the email to reduce its size and attempt to resend the email.

If administrative settings do not match the limits of your organization's mail server, you may not receive the error message. Subsequently, Ignite displays the following behavior:

- DESKTOP - The email fails to send and displays in the Failed to Send subfolder (contained in the Failed folder), where it can be selected, edited to reduce its size, and re-sent. Failed to Send emails also display in the supervisor's Failed to Send folder, where they can optionally edit and resend them if the associated agent is inactive.
- When there are items in the Failed to Send subfolder, the font color of this folder name, and of the parent Failed folder, display in red, followed by a number indicating how many active items currently reside in the folder.
- WEB - The email fails to send and displays in the Inbox where it can be selected, edited to reduce its size, and re-sent. Items that fail to send are marked in red and a failure message displays. Supervisors can also view these items in History.

Handling bounced emails

Depending on administrative settings, you may be required to handle bounced emails. These are sent emails that failed to route due to out of office auto-responses, lack of space in the receiver's inbox, delays caused by the mail server, and invalid addresses.

If your system is configured to support bounced email detection, and you have one or more bounced emails pending, Ignite displays the following behavior:

- DESKTOP - The number of bounced items displays beside your Auto Replies/Failed Delivery subfolder (contained in the Failed folder). The font color of this folder name, and of the parent Failed folder, displays in red. You can select an item and either Junk or forward it.
- WEB - Bounced items display in the Inbox and are marked in red, with 'Auto-Reply' text. You can select an item and either Junk or forward it. Supervisors can also view these items in History.

Sending outbound emails

NOTE:

- Real-time and reporting statistics are not available for outbound email activity at this time. We recommend instead that agents put themselves into Busy/Make Busy, with an 'Outbound email' Reason Code applied, when drafting outbound emails. Make Busy reports and real-time queue statistics will then display time spent drafting outbound emails.
- If contact centers use preferred agent routing, we recommend that agents do not adjust case and ticket numbers in email subject lines. Removing or otherwise altering case and ticket numbers in subject lines can interfere with preferred agent routing.

DESKTOP - Outbound emails in progress are housed in the agent's personal Drafts folder, in the New Emails subfolder. This functionality is available to employees with email agents answering for queues. Agents can only send outbound emails from the email queues for which they answer.

WEB - Outbound emails in progress are housed in the Inbox, marked as 'Draft'.

By default, the maximum file size for emails, including attachments, signatures, and images, is 25 MB.

Queue signatures are automatically inserted in outbound emails, if signatures are configured for the queue. Queue signatures are inserted each time a queue is selected as the 'From' address.

If you are permitted to use personalized signatures in outbound emails, see *"Applying personalized signatures to emails"*.

Agents can perform common email functions when sending outbound emails, including inserting images, attachments, and applying reply templates to email drafts. See the appropriate topics in this guide for applicable procedures.

Outbound email functionality supports preferred agent routing, to enable ongoing interactions between agents and email recipients.

The following procedures explain how to

- Send outbound emails
- Discard outbound emails in progress
- Search for outbound emails

To send an outbound email (DESKTOP)

NOTE: Account codes are not supported for outbound emails.

1. In the **My Folders** view, expand the **Folders** pane.
2. In the **Action** bar, click **New Email**.
3. In the **Preview** pane, click **From…** and select an email queue.

   NOTE: Queue signatures are inserted each time a queue is selected as the 'From' address.
4. Insert addresses in the **To:** field, and copy or blind-copy additional recipients by filling in the appropriate fields. Separate multiple addresses with semi-colons.
5. Type the email's contents and, in the **Action** bar, click **Send** . An icon displays over the Preview pane, indicating the email is being sent.

   The email queue signature is inserted in the draft email.

To send an outbound email (WEB)

1. Click **Contacts**.
2. If the email destination is not a recent contact, type the email address in the **Search** field.
3. Hover over the appropriate address and click the **Email** icon. For emails to agents, a colored dot on the avatar indicates its availability.

The system checks if the selected contact is associated with any open cases and if there is an existing open case, the **Reusable case found** dialog is displayed with the details of the most recent open case for that contact. You can view the case information such as Case ID, subject and the email body and decide if you want to reuse the existing Case ID for this email. To reuse the Case ID, click **Yes**, else, click **No**.

NOTE: If you do not wish to search for reusable cases in future, click the **Disable searching for reusable cases in the future** check box. You can enable or disable the option to search for reusable cases on the **Options > Customization** page.

4. In the new draft, click **From…** and select an email queue.

   NOTE: Queue signatures are inserted each time a queue is selected as the 'From' address. Agents are responsible for deleting non-applicable queue signatures from outbound email drafts.

5. You can alternatively search for contacts and their associated email addresses by clicking the **To:**, **CC:**, or **Bcc:** buttons. In the Contacts dialog box, select the required contacts, the email address are auto-entered in the appropriate fields.

6. Type the email's contents and click **Send**.

   NOTE: If Contacts is open, click Contacts again to close the window and expose the desired controls.

To discard an outbound email in progress (DESKTOP)

1. In the **My Folders** view, expand the **Folders** pane.
2. In the **Folders** pane, click **Drafts**. If necessary, expand the **My Folders** folder first.
3. Expand the **Drafts** folder and select **New Emails**
4. In the **List** pane, select the outbound email and, in the **Action** bar, click **Discard Draft**.
5. To search for an outbound email in the Drafts folder, see the procedure below.

To discard an outbound email in progress (WEB)

NOTE: If Contacts is open, click Contacts again to close the window and expose the desired controls.

- Click **Inbox** and select a draft or hover over the item avatar and click **Discard**.

To search for an outbound email in the Drafts folder (DESKTOP)

NOTE: The Drafts folder contains the agent's emails in progress. To search for sent outbound emails, search the Sent folder.

1. In the **My Folders** view, expand the **Folders** pane.
2. In the **Folders** pane, click **Drafts**. If necessary, expand the **My Folders** folder first.
3. Expand the **Drafts** folder and select **New Emails**.
4. If required, in the **Search** field, click the **x** button to clear the pane.
5. In the **Search** field, type keywords over the ghost text.

   See *"Searching Ignite"* for detailed search information and procedures.

To search for an outbound email (WEB)

1. Click **History** and select **Sent**.
2. In the search field, type keywords over the ghost text.

   See *"Performing keyword searches"* for detailed search information and procedures.

Handling chats in Ignite

NOTE: If you are using Contact Center Messenger Chat, for more information see *"Handling Contact Center Messenger in Ignite"*

Handling chats in Ignite mirrors common instant messaging applications, providing a familiar and user-friendly experience. Chat sessions are initiated by customers via your contact center's chat request page or corporate website.

Interactions are automatically sent to your Inbox if you are the longest idle agent, the preferred agent, or the agent with the highest skill level in your agent group, if your agent group uses skill levels. Agents can also pick chat interactions out of queue.

The following explains how to:

- Preview chat interactions
- Pick chat requests out of queues
- Join chat sessions
- Decline chat interactions
- Chat with customers
- Transition to alternate interaction types
- Correct spelling in chat responses
- Apply reply templates to chat responses
- Place chat sessions on hold and retrieve chat sessions from hold
- Join the longest waiting active chat session (DESKTOP)
- Transfer chats
- Leave chat sessions
- Forward chat transcripts
- Remove Failed chat transcripts from Ignite

NOTE: DESKTOP - To complete the following procedures, you must be in Ignite's My Folder's View.

Previewing chat interactions

If administrative configurations permit, agents can preview interactions before picking them out of queue or handling them.

The following explains how to

- Preview chat interactions waiting in the Inbox
- Preview chats waiting in queue

To preview a chat interaction in your Inbox (DESKTOP)

1. From the **Folders** pane, click **Inbox**.
2. From the **List** pane, select the chat interaction to preview.

   The chat interaction displays in the Preview pane.

To preview a chat interaction in your Inbox (WEB)

- Click **Inbox** and select a chat to preview.

To preview a chat interaction waiting in queue (DESKTOP)

1. From the **Folders** pane, click a queue.
2. From the **List** pane, select the chat interaction to preview.

The chat interaction displays in the Preview pane.

To preview a chat interaction waiting in queue (WEB)

1. Click **Queues** and select a queue.
2. Select a chat interaction to preview.

Picking chat requests out of queue

Pick behavior occurs in the following ways: First, agents can pick interactions out of queue and send them to the Inbox. When the interactions ring in the Inbox, agents can handle them. Second, agents can choose to pick and reply to an interaction. Choosing to pick and reply to an interaction sends the interaction to the agent's Inbox from where the agents can handle the interaction.

Chat interactions picked out of queue ring in the Inbox until the interaction is accepted. For more information on ringing behavior, see *"Ringing states in Ignite"*.

NOTE:

- Agents cannot pick or pick and reply to interactions from the queue if they are in Do Not Disturb.
- Agents may only pick or pick and reply to interactions from the queue if they have the appropriate permissions.

The following procedures explain how to

- Pick a chat request out of a queue
- Pick and automatically join a chat session

To pick a chat request out of a queue (DESKTOP)

1. From the **Folders** pane, select the queue from which an interaction will be picked.
2. From the **List** pane, select a chat from the queue and, from the **Action** bar, click the **Pick** button.

   The chat is transferred to your Inbox.
3. To handle the chat, select **Inbox** and, in the **List** pane, select the chat.

   NOTE: Additional handling options display in the Action bar. For information on handling the chat, see the appropriate procedures in this section.

To pick a chat request out of a queue (WEB)

1. Click **Queues** and select a queue.
2. Select an interaction or hover over the item avatar and click **Pick > Pick**.

   The chat is transferred to your Inbox.
3. To handle the chat, click **Inbox** and select the chat or hover over the item avatar.

To pick and automatically join a chat session (DESKTOP)

1. In the **Folders** pane, select the queue from which a chat will be picked.
2. In the **List** pane, select a chat from the queue and, from the **Action** bar, click the **Pick & Reply** button.

   The chat is transferred to your Inbox.
3. In the **Preview** pane, agents can respond to the chat, transfer the chat to another destination, or put the chat session on hold.

   NOTE: Additional handling options display in the Action bar. For information on handling the chat, see the appropriate procedures in this section.

To pick and automatically join a chat session (WEB)

1. Click **Queues** and select a queue.
2. Select an interaction or hover over the item avatar and click **Pick > Pick and Reply**.

   The interaction is transferred to your Inbox and opens in reply mode.

Joining chat sessions

When a chat session arrives in an agent's Inbox, agents can join the session and start responding to the interaction.

Agents can join sessions via Ignite's toaster or UI.

To join a chat session (DESKTOP)

1. In the **Folders** pane, click **Inbox**.
2. In the **List** pane, select a chat session and, in the **Action** bar, click **Reply**.
3. In the **Preview** pane, agents can respond to the chat, transfer the chat to another destination, or put the chat session on hold.

   NOTE: Additional handling options display in the Action bar. For information on handling the chat, see the appropriate procedures in this section.

To join a chat session (WEB)

- Click **Inbox** and select a chat session or hover over the item avatar and click **Accept**.

Declining chat interactions

Agents can decline a chat interaction in their Inbox, sending the chat back to the queue where it retains its queue priority.

Agents can decline sessions via Ignite's toaster or UI.

NOTE: When an agent declines an interaction, they are automatically put into Busy/Make Busy across all media capabilities. A System Make Busy and a requeue count is registered for the employee . For more information, see *"Setting and removing Busy/Make Busy in Ignite"*.

To decline a chat interaction (DESKTOP)

1. In the **Folders** pane, click **Inbox**.
2. In the **List** pane, select a chat and, in the **Action** bar, click **Decline**.

To decline a chat interaction(WEB)

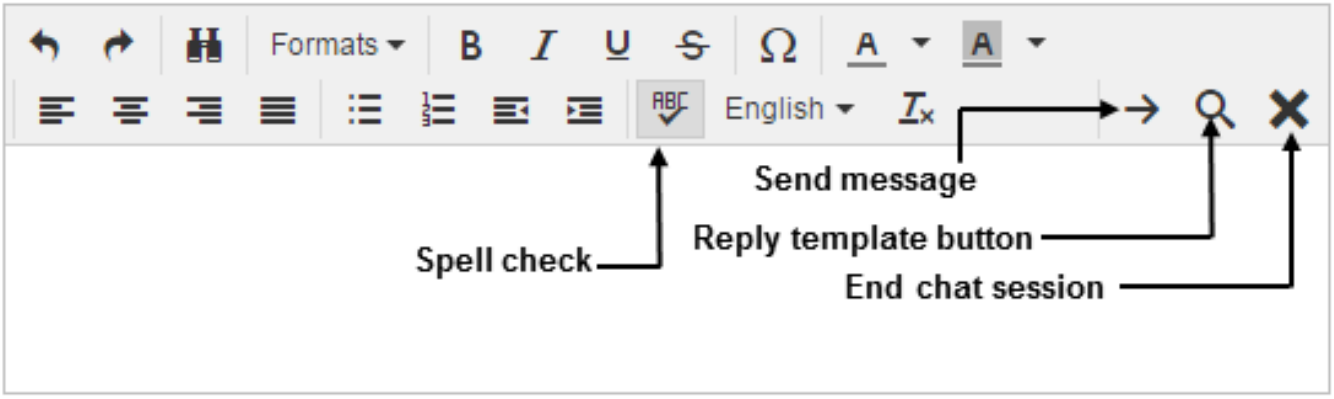
- Click **Inbox** and select a chat or hover over the item avatar and click **Decline**.

Chatting with customers

After you join a chat session, Ignite goes into Reply mode and the Input pane appears, enabling you to chat with the customer.

The following figure presents the Input pane during a chat session.

Figure 24.51: Chat Input pane



Ignite indicates to agents and customers that the other is typing a response. Ignite indicates that customers have sent a response in an active chat as follows:

- DESKTOP - When the Inbox is not in focus and a customer sends a message in an active chat, an orange indicator alerts agents and displays a number listing how many interactions are waiting for replies.
- WEB - When Ignite is not in focus, a notification indicates that the customer has entered a response. When Ignite is in focus but the active chat is not selected, an exclamation mark displays beside the interaction and a notification displays. Clicking a notification takes you to the relevant interaction.

  NOTE: Internet Explorer does not pop notifications when Ignite is not in focus.

Ignite permits content to be copied and pasted from other sources and turns URLS into hyperlinks.

Ignite supports embedding content from Google Maps in chat sessions. However, this requires the use of embed maps URL, available from Google Maps, to embed a Google map, such as:

```
<iframe
src="https://www.google.com/maps/embed?pb=!1m18!1m12!1m3!1d2804.50097880
3945!2d-
75.90911198444678!3d45.3386984790996!2m3!1f0!2f0!3f0!3m2!1i1024!2i768!4f
13.1!3m3!1m2!1s0
x4cd1fff1517da8a9%3A0xe6bc8a721e90f2a5!2sMitel+Networks!5e0!3m2!1sen!2su
s!4v144553122 7487" width="600" height="450" frameborder="0"
style="border:0" allowfullscreen&gt;&lt;/iframe>
```

Ignite also supports the 'Share' link from the following websites. Cutting and pasting URLs from the following sites embeds the content in a chat session.

- https://twitter.com/
- https://soundcloud.com
- http://www.youtube.com

If your message fails to send, a red icon displays beside the unsent message. To resend the message, you can copy and paste the message from your chat window or you can retype it.

To chat with an interaction (DESKTOP and WEB)

- Type a message in the **Input** pane and either press **Enter** or click the **Send Message** button.

Transition to alternate conversation types

During an interaction, agents can transition to an alternate interaction type if the agent is associated with that media type and if the customer's relevant contact details are available. Agents can also edit contact information during an interaction.

See the *"Transitioning from one conversation type to another (WEB)"* section in this guide.

Correcting spelling in chat responses

Ignite provides automatic spell checking of chat responses. Incorrectly spelled words are underlined in red and can be corrected via a right-click menu.

Ignite's spell check button is located in the formatting toolbar, along with additional formatting options. Ignite's spell checking function assists agents in sending polished responses to customers.

NOTE:

- Russian and Mandarin Chinese are not supported.
- Grammar checking is not supported

The following explains how to

- Correct spelling in chat responses
- Ignore flagged words
- Undo spell checking changes
- Change the dictionary's language
- Add words to your personal dictionary
- Clear additions to your personal dictionary
- Toggle spell checking off or on

To correct spelling in a chat response

- Right-click an underlined word and select the correct spelling from the list provided.

To ignore flagged words

- Right-click an underlined word and select **Ignore**.

To undo spell checking changes

NOTE: This function reverts words to their original spelling. It does not clear additions made to the dictionary.

- In the Ignite formatting toolbar, click the **Undo** button.

To change the dictionary's language

- In the Ignite formatting toolbar, from the dictionary language drop-down list, select a language. (See the following figure.)

  NOTE: Ignite remembers this selection for future chat sessions.

To add words to your personal dictionary

- Right-click an underlined word and select **Add to personal dictionary**.

To clear additions to your personal dictionary

NOTE: This option clears all additions to your personal dictionary.

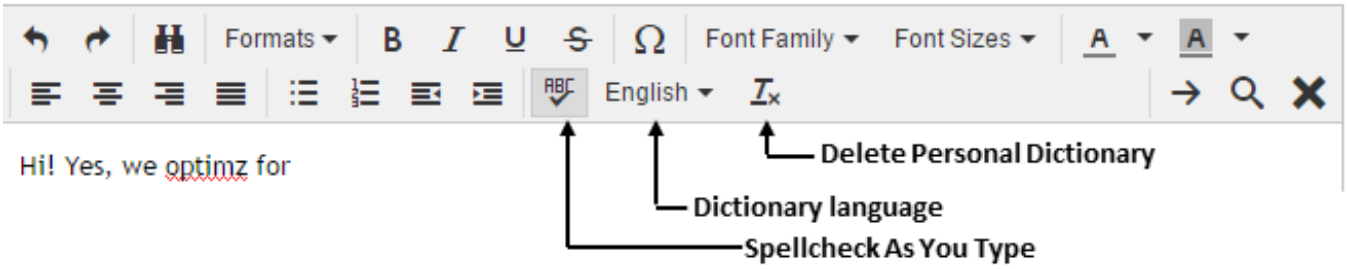
- In the Ignite formatting toolbar, click the **Delete Personal Dictionary** button. (See the following figure.)
- Either refresh the page or log out of Ignite and log back in for the changes to take effect.

To toggle spell checking on or off

- Click the **Spellcheck As You Type button**. (See the following figure.)

  NOTE: Ignite remembers this selection for future chat sessions.

Figure 24.52: Spell check options in the Input pane



Applying reply templates to chat responses

Agents can apply templates to their chat responses, providing standardized responses to common questions and requests.

To apply a reply template to a chat response

1. When a chat is in reply mode, place the cursor in the body of the chat response.
2. Click the **Reply Template** button.
3. Type the text that the template contains.

   Templates matching the text display.
4. Select a template text from the list provided.
5. Press **Enter**.

   Template mode changes back to Reply mode.
6. Click **Reply** to send the message with the template.

Placing chat sessions on hold and retrieving chat sessions from hold

Agents may have to stop participating in one chat session in order to work on other items. In this case, agents can put the active chat session on hold. Interactions on hold are marked with a 'pause' icon.

Note that administrative configurations may limit how long interactions may be on hold before being requeued and a System Make Busy is registered for the employee. For information on this limit, contact your supervisor or system administrator.

The following procedures explain how to

- Place a chat session on hold
- Retrieve a chat session from hold

To place a chat session on hold (DESKTOP)

- When participating in a chat session, in the **Action** bar, click the **Hold** button.

To place a chat session on hold (WEB)

- Click **Inbox** and select the chat or hover over the item avatar and click **Hold**.

To retrieve a chat session from hold (DESKTOP)

NOTE: You can also retrieve a session from hold by sending a response.

1. Select your **Inbox** and, in the **List** pane, select the chat on hold.
2. In the **Action** bar, click **Remove Hold**.

   The chat session becomes active again.

To retrieve a chat session from hold (WEB)

NOTE: You can also retrieve a session from hold by sending a response.

- Click **Inbox** and select a chat on hold or hover over the item avatar and click **Remove Hold**.

Joining the longest waiting active chat session (DESKTOP)

Agents can switch between active chat sessions according to how long they have been waiting for a response by using the 'Next Longest' button in the Action bar. The 'Next Longest' button applies to all active interactions in the agent's Inbox, directing agents to the chat session that has been open and unfinished the longest.

For example, an agent is handling three different chat sessions. Clicking 'Next Longest' highlights the active chat session to the chat session that has been waiting the longest for an agent response and switches that interaction back into the Active Contact pane.

When switching between active interactions, the chat session indicates that the agent is joining and leaving the chat session as appropriate.

To reply to the longest waiting chat session

1. In the **Folders** pane, select **Inbox**.
2. In the **List** pane, select an active chat.

   An active chat is one that is no longer ringing and has been joined.
3. In the **Action** bar, click **Next Longest**.

   The system takes you to the next longest waiting active chat session in the Inbox.

Transferring chats

Chat sessions can be transferred to other destinations within a contact center. For example, agents in the Support queue receiving enquiries about a product invoice can transfer these interactions to the Sales queue.

Agents transfer chat sessions to other agents and to queues. To receive transfers, devices must be enabled to handle the interaction's media type.

Agents who are logged out, in DND, Offline (WEB), or whose presence is unknown cannot receive transferred chats. Agents who are either in Busy/Make Busy or at their chat Workload limit can receive transferred chats.

NOTE: You may only transfer interactions if you have the appropriate permissions.

To transfer a chat (DESKTOP)

1. In the **Folders** pane, click **Inbox**.
2. In the **List** pane, select a chat and, in the **Action** bar, click **Reply**.
3. In the **Action** bar, click **Transfer**.
4. Select an agent or a queue.

NOTE: You can search for a transfer destination by typing the name of an agent or queue in the Search field.

5. Click **Transfer**.

To transfer a chat (WEB)

1. Click **Inbox** and select a chat or hover over the item avatar and click **Accept**.
   To transfer directly from the queue, click **Queue**.
   To transfer from the **Cases** page, under **Interactions** tab, select the inqueue or inbox chat and click **Goto** icon. The Queues page is displayed. You can now transfer the chat from the **Queues** page.
2. Select the chat or hover over the item avatar and click **Transfer** icon.

NOTE: Optionally you can select multiple interactions from the **Queues** page and click **Transfer**. The Transfer window is displayed. The list of available Employees and Queues are displayed in the Results section.

3. To transfer to an agent, in the **Transfer** window click **Employees**, select an employee from the list.
4. To transfer to a queue, in the **Transfer** window click **Queues** and select a queue from the list.
5. To transfer the chat, select the name of the appropriate person or queue.

Leaving chat sessions

When an agent is finished with an interaction, the agent can end the chat session. When an agent leaves a chat session, a message is sent in the chat session stating that the session is complete.

To leave a chat session (DESKTOP AND WEB)

1. When participating in an active chat session, click the **End Your Session** button.
   The End Your Session button displays as an X.
2. When prompted, click **Yes**.

Forwarding chat transcripts

You can forward chat transcripts to multiple parties as an email with additional recipients copied and blind-copied.

Forwards in progress are housed in the agent's personal Drafts folder (DESKTOP), in the Forward subfolder (DESKTOP) or in the Inbox (WEB).

The following procedures explain how to

- Forward a chat transcript
- Discard forwards in progress

To forward a chat transcript (DESKTOP)

1. In the **Folders** pane, select either **History**, **My History**, one of the **Handled** subfolders, or one of the **Failed** folders.
2. In the **List** pane, select a chat transcript and, in the **Action** bar, click **Forward**.
3. Insert addresses in the **To:** field, and copy or blind-copy additional recipients by filling in the appropriate fields. Separate multiple addresses with semi-colons.
4. Click **Send**. An icon displays over the Preview pane, indicating the transcript is being sent.

NOTE: If you attempt to forward a transcript and receive a warning that the email address is invalid, the queue that handled the chat may not have been configured for sending transcripts. Contact your supervisor or system administrator.

To forward a chat transcript (WEB)

1. Click **History** and, optionally, select a **Filter:**.
2. Select a chat transcript or hover over the item avatar and click **Forward**.
3. Insert addresses in the **To:** field, and copy or blind-copy additional recipients by filling in the appropriate fields. Separate multiple addresses with semi-colons.
4. Click **Send**.

To discard a forward in progress (DESKTOP)

NOTE: You can also discard forwards in progress by clicking 'Discard Draft' in the Action bar instead of 'Send'.

1. In the **My Folders** view, expand the **Folders** pane.
2. In the **Folders** pane, click **Drafts**. If necessary, expand the **My Folders** folder first.
3. Expand the **Drafts** folder and select **Forward**.
4. In the **List** pane, select the transcript and, in the **Action** bar, click **Discard Draft**.

To discard a forward in progress (WEB)

- Click **Inbox** and either select the forward in progress or hover over the item avatar and click **Discard**.

Removing failed chat transcripts from Ignite

Occasionally, chat transcripts may route to 'Failed' in Ignite. You can remove these transcripts from Failed using Ignite's Junk and Forward buttons.

NOTE: Agents may only Junk interactions if they have the appropriate permissions.

To remove a failed chat transcript from Ignite (DESKTOP)

1. In the Folders pane, select a Failed folder.
2. In the **List** pane, select a chat transcript and, in the **Action** bar, click either **Junk** or **Forward**.

To remove a failed chat transcript from Ignite (WEB)

1. Click **History > Failed**.
2. Select a chat transcript or hover over the item avatar and click either **Junk** or **Forward**.

   If you select Forward, the interaction is delivered to the Inbox where you can specify recipients.

Handling Contact Center Messenger in Ignite

Contact Center Messenger simplifies the deployment of chat support in Contact Centers' web sites.

Handling Contact Center Messenger is similar as legacy Chat.

The agent will get similar notification for the incoming chat as in the legacy chat. If the agent accepts the incoming chat, both agent and customer will see a system message that the agent has joined.

NOTE:

- Agents are not allowed to use desktop Ignite if Contact Center Messenger is configured for the chat.
- Administrator must enable contact center messenger for the agent to accept incoming chats.

As with any normal chat, an agent or supervisors can transfer chats from the Web Ignite and from the Interaction Visual Queue.

Logging in to and Logging out from Ignite

- You can log in to **Web Ignite** using either basic authentication or Windows authentication and then use Contact Center Messenger.
- If the log in fails, **Web Ignite** displays an error message and chat presence will be disabled. But agents will still be allowed to use all other media types.
- If agents are configured to use Contact Center Messenger for chat, then the agents will not be able to log in to desktop Ignite. If they try to connect to desktop Ignite, an error message will be displayed recommending them to use Web Ignite.
- If the agent accepts the incoming chat, both agent and customer will see a system message that the agent has joined.

Logging out of Contact Center Messenger is same as legacy Chat.

Reply Templates

Agent can create, edit, delete personal chat reply templates using a Reply Template editor.

NOTE: Reply template editor is visible only if Contact Center Messenger is enabled.

1. To create new templates, go to **Tools** > **Chat Personal reply template editor**.
2. Enter the reply content in the text box and click **Save**.
3. If you want to use an existing template to create a new template, then click **Insert reply template**.
4. Choose the existing template that you would like to use, the content will appear in the editor, you can make the required changes and click **Save**.
5. To edit or delete an existing template, click **Browse** and choose the template you want to edit or delete from the list of templates.

Searching Reply Templates

You can accept a chat and click icon to insert a reply template to the chat window.

- You can toggle **Use reply template** button to use the last reply template to the new chat; otherwise the agent can select a template form the Reply Templates list.
- The Chat reply template is inserted into the chat dialogue line. Agents can preview the message before sending the conversation.

Ending a Chat

For Contact Center Messenger Chats, an End Session icon is added to the left of the Hold button.

The Chat UI component is replaced with the entire chat transcript during worktimer or after you end or transfer a chat.

Handling Agent Assist Suggestions

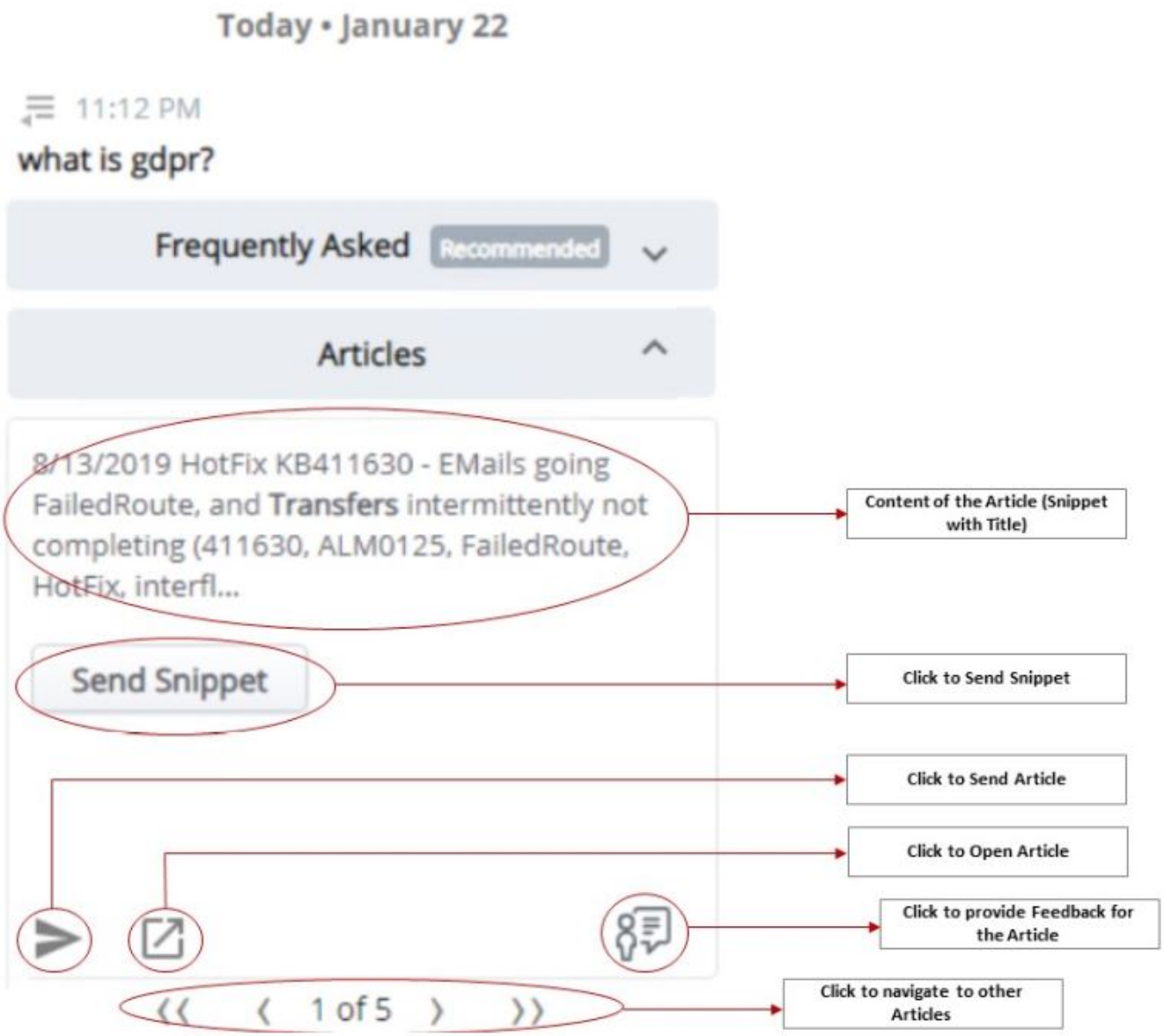
In Ignite, if **Agent Assist** is enabled in CC-Admin, then the system displays the suggestion side pane. This pane is displayed only for the interactions in the inbox. The suggestions appear automatically as the conversation progresses.

The system displays the default suggestions for the customer conversation. However, you can also change it for show agent messages to be displayed.

The suggestions have the following details displayed:

- Click the message icon to navigate the message in the interaction pane and to view a list of suggestions.
- The time stamp for each suggestion that you received from Google Agent Assist is displayed.
- The message from the conversation for which the suggestion given is also displayed.
- Click the button, by clicking which you can expand the relevant Frequently Asked Questions and Articles.

- **Articles**:



- You can have multiple articles as suggestions; the total number of articles is displayed at the top.
- Articles are arranged based on the priority of recommendation; the most recommended article appears first.
- Click ‹ › buttons to views next or previous suggestions. Click ‹‹ ›› buttons to navigate to the first and last suggestions.
- The articles displayed will contain a title and a snippet. If there is no title, then the system displays only the snippet.
- Click the **Send Snippet** icon to send the snippet as a message in the conversation.

- Click the icon to send the pdf link of that article as a message in the conversation.
- Click the icon to open an article in a new browser tab, which can be used to view the full article.
- Click the icon to provide feedback for the article suggestion. The system displays the following options:
  - Correct
  - Partially
  - Wrong

  Feedback helps to refine the suggestions, if the context of the conversation is similar.

- **FAQs**:
  - You can have multiple FAQs as suggestions; the total number of FAQs are displayed at the top.
  - FAQs are arranged based on the priority of recommendation; the most recommended FAQ appears first.
  - Click buttons to views next or previous suggestions. Click buttons to navigate to the first and last suggestions.
  - The FAQs have answers listed. Click the **Send Answer** button to send the answer as a message in the conversation.
  - Click the icon to provide feedback for an FAQ suggestion. The system displays the following options:
    - Correct
    - Partially
    - Wrong

    Feedback helps to refine the suggestions, if the context of the conversation is similar.

NOTE: *If there are more than 50 suggestions for a conversation, when you close the conversation or refresh the browser, by default the system displays the last 50 suggestions with the recent suggestions towards the bottom.*

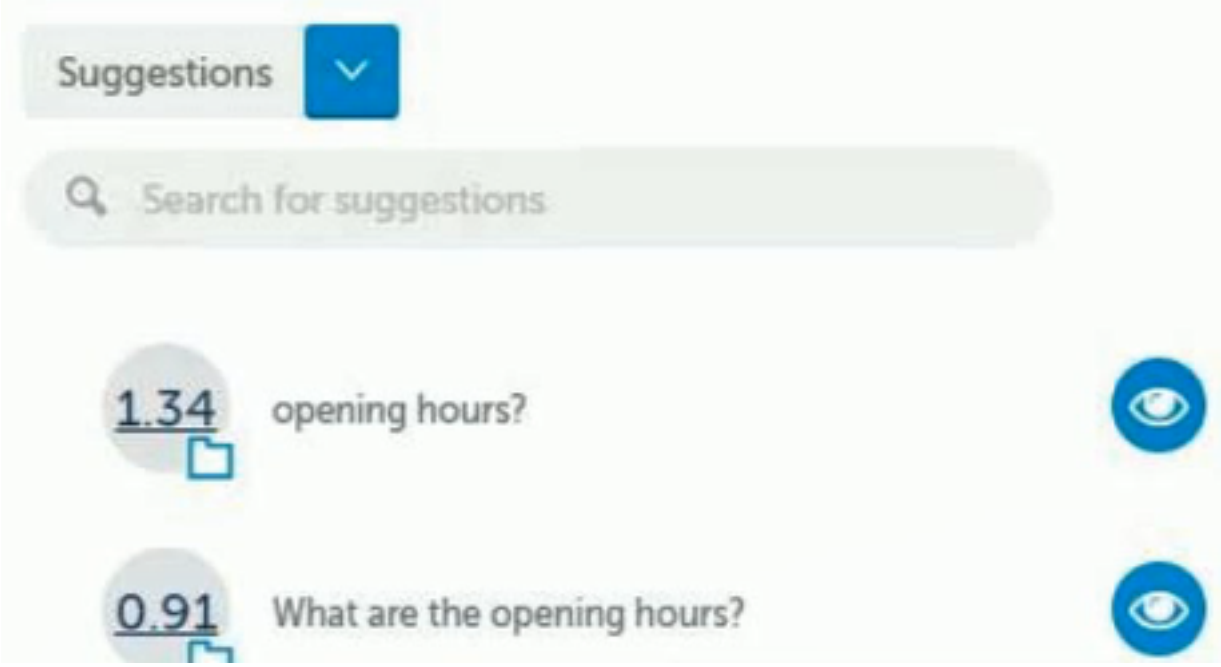
To view the previous suggestions, scroll up to load 50 previous suggestions.

Handling Smart Suggestions

Smart Suggestions is a new feature supported in MiContact Center Business. This feature provides Agents real-time suggestions for interacting with customers. It also helps the Agents to reuse suggestions

coming from historical data and reply templates in a new interaction. The suggestions are picked from the database based on matching keywords found in case notes, global reply templates, and chat, email, and SMS interactions.

This feature is available as the **Suggestions** drop-down menu in Web Ignite. A text box for manual search is also available.



NOTE: By default, the Smart Suggestions feature is enabled in YSE for a customer. An administrator can disable the Smart Suggestions feature in **YSE** > **Enterprise** > **Smart Suggestions** and select the **Enable Smart Suggestions** check box for customers who do not want to use it.

An administrator can enable or disable Smart Suggestions for particular Agents and Supervisors. To do this, go to **YSE > Security Roles**, and select a security role. Select the **Ignite** tab, and toggle **May See Suggestions**, to enable and to disable the feature. This option is set to **ON** by default.

NOTE: If an administrator sets the **Enable Smart Suggestions** option in **YSE** to **ON** and sets the **May see suggestions** option to OFF or vice versa for an Agent or Supervisor, the Web Ignite UI for Smart Suggestions does not appear for that Agent or Supervisor. Agent and Supervisor must logout and login if the UI elements were already loaded on the browser.

Adding Suggestions

If an agent responds to an interaction and the response becomes available in the Web Ignite history, it can be offered as a possible suggestion.

An agent or supervisor can also add a user note in a Case, or a supervisor can create a Global Reply Template. For more information on Global Reply Templates, see Global Reply Template section.

Deleting Suggestions

Only a Supervisor can remove suggestions from a list of suggestions. The Supervisor can review cases and interactions and if there is any warning, or sensitive or irrelevant content in the suggestion, the Supervisor can click the dislike icon to remove that suggestion from the list of suggestions.

Influencing Suggestions

Supervisors and Agents can alter the popularity of suggestions in two ways:

- Click **Like** or **Insert Response** (when available) for suggested responses presented in the Web Ignite Inbox or Queues sections.
- Find corresponding responses in the Web Ignite History or Cases sections and Click the **Like** button. In addition to text-based search, users can use the Advanced Search feature to find responses based on the number of likes or reuses, disliked responses, or responses having warnings.

Popular responses get a minor score boost when they are suggested.

Anonymizing Suggestions

Content from the interactions that are marked as suggestions may be masked based on the sensitivity of the data. Customer details that include customer name, credit card details, phone numbers, carrier tracking numbers, email addresses, and Social Security Numbers are masked from suggested responses.

The system reminds the Agent that there could be sensitive data in a suggestion and that the Agent must check before proceeding to present it as a response. The following disclaimer is displayed for every suggested response:

WARNING: This may contain sensitive information about other customers

Rating Smart Suggestions

Every suggestion will be rated with a score, which is based on its relevancy (depending on how well it matches with the content found in the interactions or the keywords manually entered during a search) and its popularity (if you reuse or mark a like for any of the existing suggestions, the system will increase the reuse count of a suggestion). Hover over the reuse icon to see who reused a suggestion and when.

- **Like**: Agents and Supervisors can like an interaction or case in the inbox suggestion response window, history, or in the case it is associated with. If they click the like icon for a suggestion, the score of the suggestion will receive a minor boost, which will increase the popularity of the suggestion.
- **Warning**: Agents can mark a warning for a suggestion. If they do so, a Supervisor can see the warning and take the necessary action for that suggestion. If the warning can be ignored, Supervisors can remove it by pressing the "x" button on it.

  NOTE:

  – The other agents will see these warnings too and they cannot use the suggestions that contain warnings. If you ignore a warning associated with a suggestion and decide to reuse the suggested response anyway, Web Ignite displays a message to confirm the decision so that warning is considered.

  – Warning reasons are configured in YourSite Explorer by the Administrator. To add Warning reasons, an Administrator must go to **YSE** > **Enterprise** > **Smart Suggestions** and click **Managing Warning**

reasons. Administrator will see a list of preconfigured warning reasons, the list includes **Ambiguous, Contains Sensitive data, Contains typos, Incorrect, Obsolete** by default.

To add new warning, click Add and enter the new warning reason and click **Save**.

To edit a warning, select a warning reason and click Edit; update the warning and click **Save**.

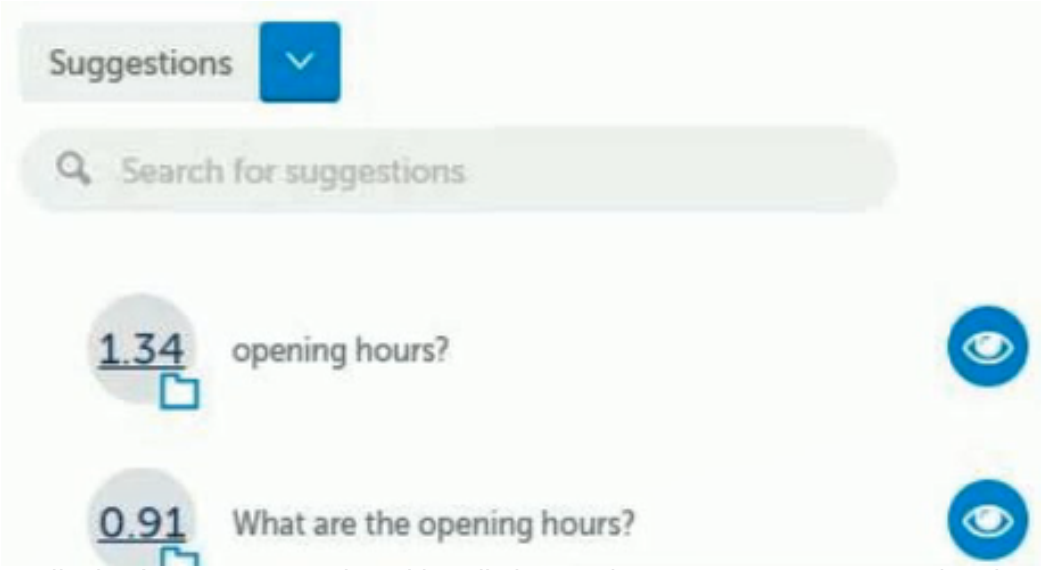
Supervisors can also edit or delete an existing warning reason.

- **Dislike**: Only a Supervisor can dislike a response. The response is then not presented in any list of suggestions.

Using Smart Suggestions

Agents can use these suggestions in Web Ignite for their responses while handling interactions.

1. Select an interaction from the inbox or from the queue. The system searches the content of email, chat and SMS interactions, and on finding a match for the text entered by the customer, lists a set of suggestions.



For any media the Agent can search multimedia interactions, case user notes, and reply templates by entering relevant text in the Suggestions text box displayed.

2. Select a suggestion and click the See Response icon to view the suggested response.
3. Select the **Response** to use the suggested response and click **Insert response**. This will insert the selected suggestion as your response to the interaction you opened.

NOTE: The Response check box is only for suggested chat, SMS, and notes and not for email or templates. If you edit the response, the check box is automatically selected.

For presenting an email response, click **View entire thread** link to view the entire email thread and use the response inline.

Stop Terms

Stop terms are the words or phrases that must be ignored in the incoming text when scoring occurs. Only an administrator can manage Stop Terms.

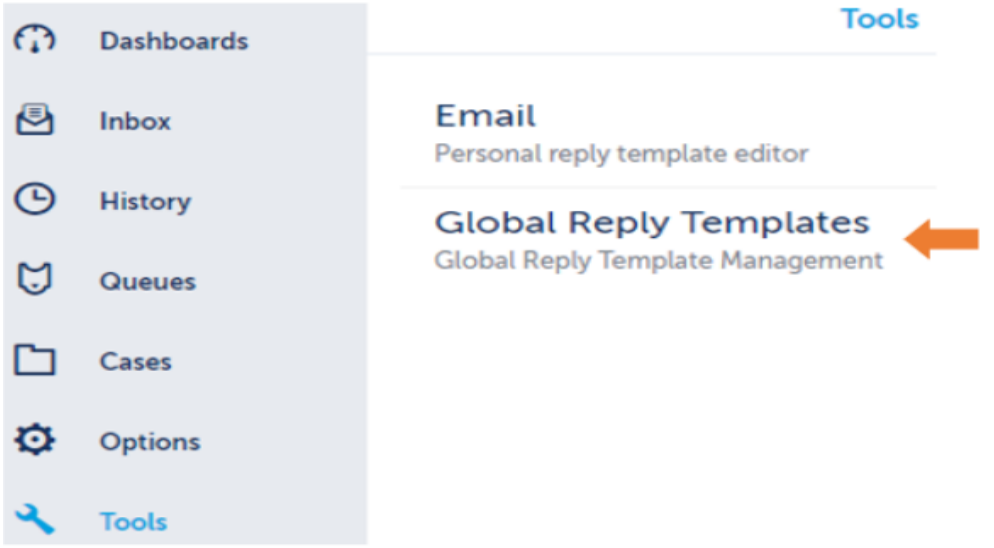
1. Go to **YSE** > **Enterprise** > **Smart Suggestions**.
2. Click the **Manage scoring stop terms** button.

3. Click **Add** and enter the terms (words or phrases) that you want to add.

   You can also edit or delete an existing stop term.

Global Reply Templates

Global Reply Templates are some basic and standard reply templates that are created by supervisors and can be used by anyone. Global Reply Templates can be managed by supervisors in **Web Ignite** > **Tools** > **Global Reply Templates**.



Global Reply Templates may be managed by supervisors depending if the **May see all queues** checkbox is checked in the advanced tab of the Supervisor's Employee record in YSE

- If **May see all queues** checkbox is not checked, supervisors can only see templates that are not associated to any queue or templates that are associated to queues that the supervisors are allowed to see.
- If **May see all queues** checkbox is checked, supervisors can see all templates.

NOTE: Agents cannot like or add warnings for templates, Supervisors cannot dislike templates.

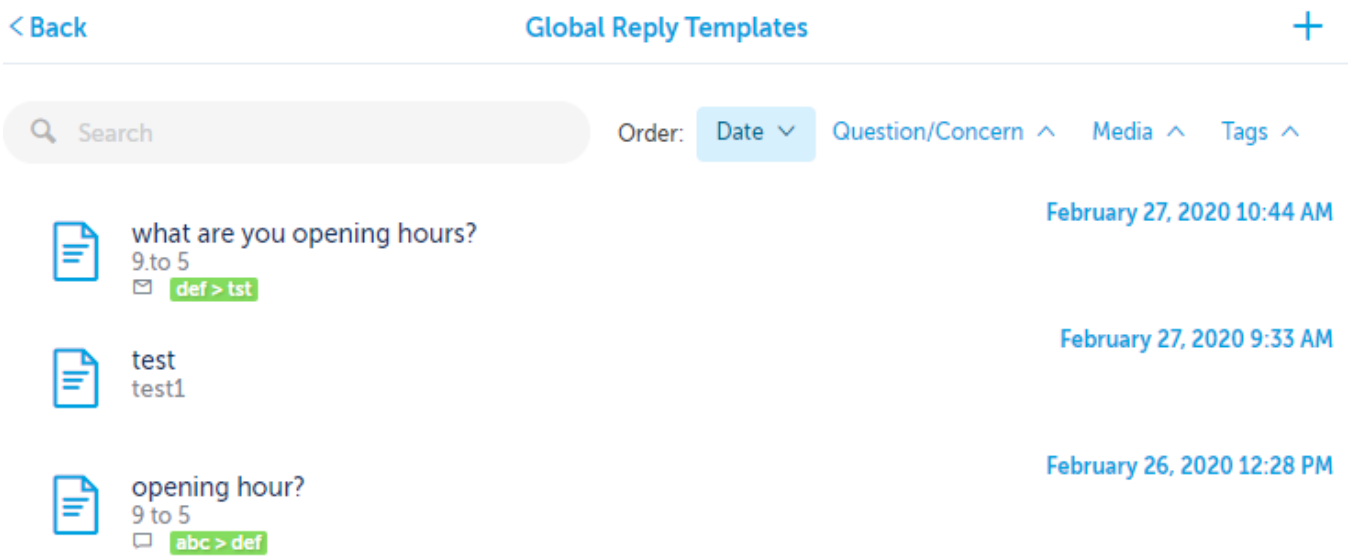
Supervisor can Search, Add, Edit, or Delete Global Reply Templates in Web Ignite.

Each Template displays the following fields:

- Question/concern field – Displays the relevant question or concern the template belongs to, this is the text that is analysed by the system when it provides suggestions in the Inbox.
- Template – Displays the reply text of the selected Reply Template
- Media – Displays the media type of the template.
- Tags – Displays the Keywords associated with the Template.

NOTE: During a system upgrade, old templates present in the system (in the form of txt or msg files) are migrated to the new format. When that happens, the path of the old template is used to created tags. For example, if an old template was found under the “English\Support” directory structure, the tags will be “English > Support”.

If there are more than one listed template, by default it shows in descending order based on date modified. You can display results by the date, question/concern, Media, and Tags. If there are more than 10 templates listed, then click Show more button to see more templates.



The Search textbox allows you to search for templates (matching keywords found in either the Question/Concern, template, or tags). The results are displayed in the paged list.

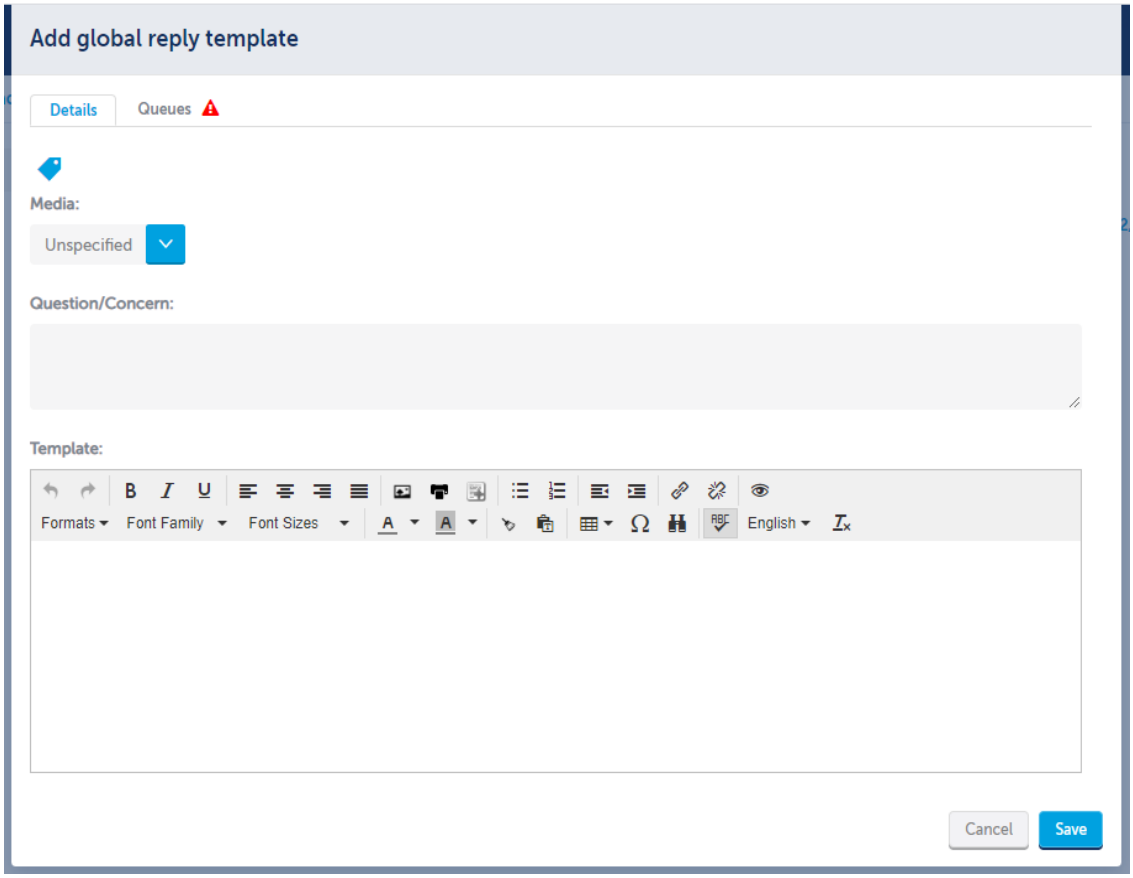
Adding Global Reply Template

Do the following:

1. Click + icon to add new templates.
2. Optionally, add tags and select a media.
3. Optionally, click **Associate** to associate queues to new templates.

NOTE: Templates that are associated with queues can only be seen by agents who are assigned to these queues.

4. Enter the **Question**.
5. Enter the **Template** content. You can add images in the Template, and also add a template inside a template.
6. Click **Save**.



NOTE: If you enter a search keyword before creating a new template, and that search keyword doesn't match the Question/Concern, template or tags in the new template you're creating, After you save, you will not find that template in the list (you must first remove the search string before you see that new template in the list).

Editing Global Reply Template

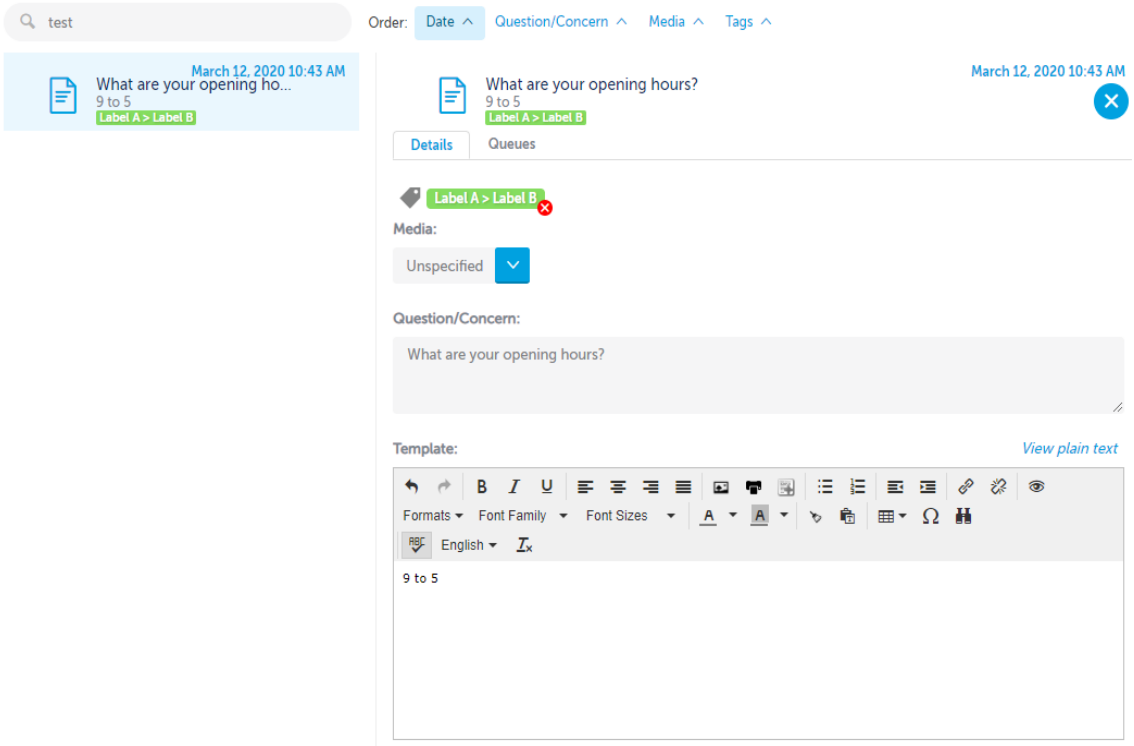
If you select a template to edit, you will see two tabs as described below:

- **Details** tab - Allows you to add tags, media, question/concern, and the template content with text.
- **Queues** tab – Displays the queues associated with that template. Click Disassociate button to dissociate a queue if needed, and Click “Associate" button to associate new queues.

  NOTE:

  – If queues are specified, only agents associated with those queues will be able to see those templates in their inbox

- You can only see queues that you are associated with if the new May see all queues checkbox is not checked in the advanced tab of the supervisor's Employee record in YSE.

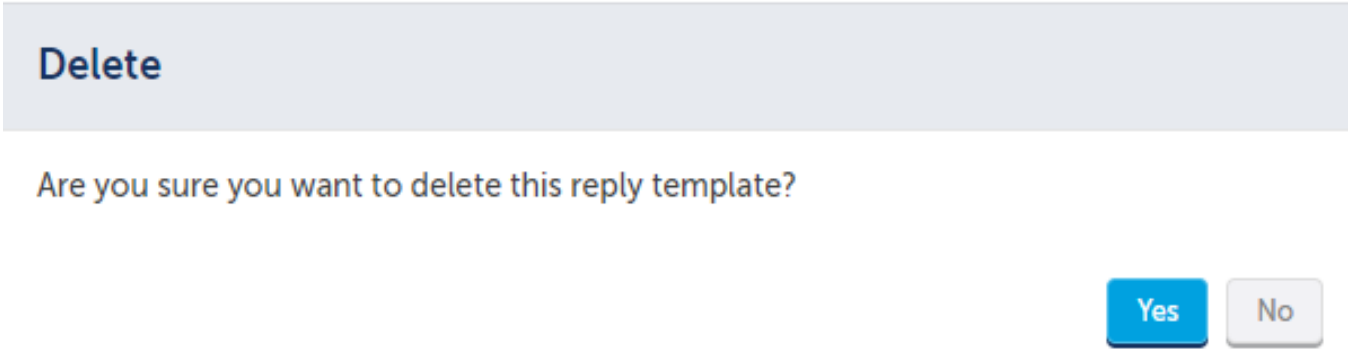


- You can associate new queues and dissociate existing queues.

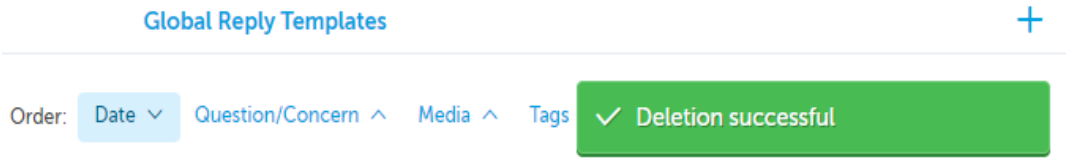
  If there were no associated queues or if you disassociate all the queues a warning "No queues are associated with this global reply template: all agents will have access to it" is displayed and if you associate at least one queue, the warning displayed above disappears.

Deleting Global Reply Templates

Click the "**Delete**" icon to delete the reply template. You will see a warning message to confirm or cancel the delete action.



If the reply template is deleted, a pop-up message temporarily indicates success:



- If the deleted template was linked to an interaction, you can convert the interaction again to a template. This interaction does not remain in a disliked state.
- If the deleted template was linked to a case, you can convert the case again without seeing a warning about the fact that a template already exists. This case remains in a disliked state because the case could have been disliked using the dislike button.

Saving a Global Reply Template

Click this icon to save your changes to the template. You can save your changes to the template for the following actions:

- adding/removing tags
- updating the "Question/Concern" text
- updating the template text
- updating the media
- associating or dissociating any queue

  NOTE:

  – You cannot save a template with blank text in the **Question/Concern** or **Template** section else an error message is displayed.

  – You will get an error message and the changes will not be saved, if you forget to save and try to do one of the following actions:
    - selecting another template
    - searching a template
    - selecting an Order filter
    - clicking the Back button
    - Select another menu on the left (like "Cases" or "Options" for example).

  – You can revert your action (and click **Save**) if you click the **Cancel** button.

Converting Multimedia Interaction to a Global Reply Template

Supervisor can convert a multimedia interaction into a Global Template. This is allowed for **Handled Chats** or **SMS** and for Sent emails but not for **Handled Emails**.

1. Go to **Web Ignite** > **History** section, select a valid interaction, then click icon in the Chat, SMS or Email tab.
   – For Email Interaction: You will see Customer Question/Concerns and Response.
   – For Chat and SMS: You will see Customer Question/Concerns and Response with a checkbox to include each section in Final Template.
2. Click **Next**.

NOTE: You must select at least one Question/Concern and one response, else you will not be able to click **Next**.

3. Preview the entered content.

4. Optionally, you can add Tags, click icon and enter required tags.

5. Click **Save** and click **OK**.

Converting User Notes to a Global Reply Template

Supervisor can convert Notes into a Global Reply Template, if the case has at least one user note set. If the "Customer Questions/Concerns" field is not set the Notes cannot be converted to Reply Template.

1. Go to **Cases**, select a case and in the **Notes** tab, click icon.
2. Select one **Question/Concern** and a Note, Click **Next**.
3. Preview the entered content.

4. Optionally, you can add Tags, click icon and enter required tags.

5. Click **Save** and click **OK**.

Handling SMS in Ignite

Handling SMS in Ignite mirrors common instant messaging applications, providing a familiar and user-friendly experience.

SMS sessions are initiated by customers using contact information or, optionally, through the contact center's SMS request page or corporate website. SMS interactions are then routed to appropriate queues.

Interactions are automatically sent to your Inbox if you are the longest idle agent or the agent with the highest skill level in your agent group, if your agent group uses skill levels. Agents can also pick SMS interactions out of queue.

NOTE:

- SMS agent responses cannot contain more than 320 characters.
- Preferred agent routing is not supported.

The following explains how to:

- Preview SMS interactions
- Pick SMS interactions out of queues
- Join an SMS session
- Reply to SMS interactions
- Decline SMS interactions
- Correct spelling in SMS responses

- Apply reply templates to SMS responses
- Place SMS sessions on hold and retrieve SMS sessions from hold
- Transition to alternate interaction types
- Join the longest waiting active SMS session (DESKTOP)
- Transfer SMS interactions
- End SMS sessions
- Forward SMS transcripts
- Remove Failed SMS transcripts from Ignite
- Mark SMS interactions as No Reply and Junk
- Send outbound SMS interactions

NOTE: DESKTOP - To complete the following procedures, you must be in Ignite's My Folder's View.

Previewing SMS interactions

If administrative configurations permit, agents can preview interactions before picking them out of queue or handling them.

The following explains how to

- Preview SMS interactions in the Inbox
- Preview SMS interactions in queue

To preview an SMS interaction in the Inbox (DESKTOP)

1. From the **Folders** pane, click **Inbox**.
2. From the **List** pane, select the SMS interaction to preview.

   The SMS interaction displays in the Preview pane.

To preview an SMS interaction in the Inbox (WEB)

- Click **Inbox** and select an SMS to preview.

To preview an SMS interaction in queue (DESKTOP)

1. From the **Folders** pane, click a queue.
2. From the **List** pane, select the SMS interaction to preview.

   The SMS interaction displays in the Preview pane.

To preview an SMS interaction in queue (WEB)

1. Click **Queues** and select a queue.
2. Select an SMS to preview.

Picking SMS interactions out of queue

Pick behavior occurs in the following ways:

First, agents can pick interactions out of queue and send them to the Inbox. When the interactions ring in the Inbox, agents can handle them.

Second, agents can choose to pick and reply to an interaction. Choosing to pick and reply to an interaction sends the interaction to the agent's Inbox from where the agents can handle the interaction.

SMS interactions picked out of queue ring in the Inbox until the interaction is accepted. For more information on ringing behavior, see *"Ringing states in Ignite"*.

NOTE:

- Agents cannot pick or pick and reply to interactions from the queue if they are in Do Not Disturb.
- Agents may only pick or pick and reply to interactions from the queue if they have the appropriate permissions.

The following procedures explain how to

- Pick an SMS interaction out of queue and handle the SMS
- Pick and automatically reply to an SMS

To pick an SMS out of queue and handle the SMS (DESKTOP)

1. From the **Folders** pane, select the queue from which an interaction will be picked.
2. From the **List** pane, select an SMS interaction from the queue and, from the **Action** bar, click the **Pick** button.

   The SMS interaction is transferred to your Inbox.
3. To handle the SMS interaction, select **Inbox** and, in the **List** pane, select the SMS interaction.

   NOTE: Additional handling options display in the Action bar. For information on handling the SMS interaction, see the appropriate procedures in this section.

To pick an SMS out of queue and handle the SMS (WEB)

1. Click **Queues** and select the appropriate queue.
2. Select an interaction or hover over the item avatar and click **Pick > Pick**.

   The SMS is transferred to your Inbox.
3. To handle the SMS, click **Inbox** and select the SMS or hover over the item avatar.

To pick and automatically reply to an SMS (DESKTOP)

1. In the **Folders** pane, select the queue from which an SMS interaction will be picked.
2. In the **List** pane, select an SMS interaction from the queue and, from the **Action** bar, click the **Pick & Reply** button.

   The SMS interaction is transferred to your Inbox.
3. In the **Preview** pane, agents can respond to the SMS interaction, transfer the SMS interaction to another destination, or put the SMS interaction on hold.

   NOTE: Additional handling options display in the Action bar. For information on handling the SMS interaction, see the appropriate procedures in this section.

To pick and automatically reply to an SMS (WEB)

1. Click **Queues** and select the appropriate queue.
2. Select an interaction or hover over the item avatar and click **Pick > Pick and Reply**.

   The SMS is transferred to your Inbox and opens in reply mode.

Joining SMS sessions

When an SMS interaction arrives in an agent's Inbox, agents can join the session and start responding to the interaction.

Agents can join sessions via Ignite's toaster or UI.

To join an SMS session (DESKTOP)

1. In the **Folders** pane, click **Inbox**.
2. In the **List** pane, select an SMS interaction and, in the **Action** bar, click **Reply**.
3. In the **Preview** pane, agents can respond to the SMS interaction, transfer the SMS interaction to another destination, or put the SMS session on hold.

   NOTE: Additional handling options display in the Action bar. For information on handling the SMS interaction, see the appropriate procedures in this section.

To join an SMS session (WEB)

- Click **Inbox** and select an SMS session or hover over the item avatar and click **Accept**.

Replying to SMS interactions

Once an SMS interaction is in the Inbox, agents can reply to or otherwise handle it.

After you join an SMS session, Ignite goes into Reply mode and the Input pane displays, enabling you to reply to the interaction. Send responses using the arrow button.

Declining SMS interactions

Agents can decline an offered SMS interaction, sending the interaction back to the queue where it retains its queue priority.

Agents can decline sessions via Ignite's toaster or UI.

NOTE: When an agent declines an interaction, they are automatically put into Busy/Make Busy across all media capabilities. A System Make Busy and a requeue count is registered for the employee . For more information, see *"Setting and removing Busy/Make Busy in Ignite"*.

To decline an SMS interaction (DESKTOP)

1. In the **Folders** pane, click **Inbox**.
2. In the **List** pane, select an SMS interaction and, in the **Action** bar, click **Decline**.

To decline an SMS interaction (WEB)

- Click **Inbox** and select an SMS interaction or hover over the item avatar and click **Decline**.

Correcting spelling in SMS responses

Ignite provides automatic spell checking of SMS responses, assisting agents in sending polished, professional, and consistent content to customers. Incorrectly spelled words are underlined in red and can be corrected using a right-click menu.

The spell check button is located in the formatting toolbar, along with additional formatting options.

NOTE:

- Russian and Mandarin Chinese are not supported.
- Grammar checking is not supported.

The following explains how to

- Correct spelling in SMS responses
- Ignore flagged words
- Undo spell checking changes
- Change the dictionary's language

- Add words to your personal dictionary
- Clear additions to your personal dictionary
- Toggle spell checking on or off

To correct spelling in an SMS response

- Right-click an underlined word and select the correct spelling from the list provided.

To ignore flagged words

- Right-click an underlined word and select **Ignore**.

To undo spell checking changes

NOTE: This function reverts words to their original spelling. It does not clear additions made to the dictionary.

- In the Ignite formatting toolbar, click the **Undo** button.

To change the dictionary's language

- In the Ignite formatting toolbar, from the dictionary language drop-down list, select a language. See the following figure.

  NOTE: Ignite remembers this selection for future SMS sessions.

To add words to your personal dictionary

- Right-click an underlined word and select **Add to personal dictionary**.

To clear additions to your personal dictionary

NOTE: This option clears all additions to your personal dictionary.

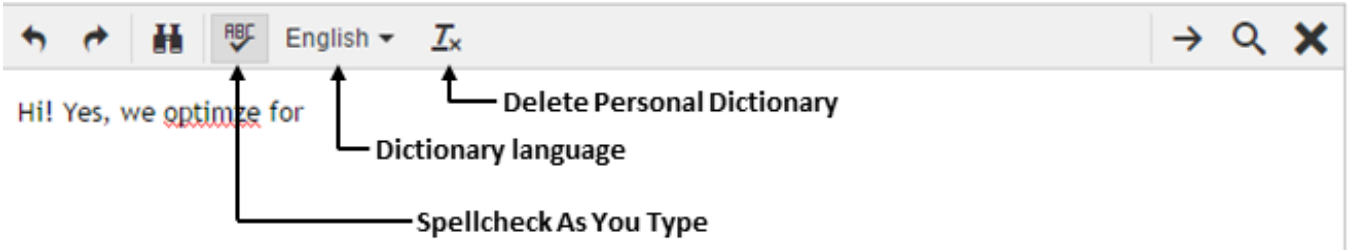
1. In the Ignite formatting toolbar, click the **Delete Personal Dictionary** button. (See the following figure.)
2. Either refresh the page or log out of Ignite and log back in for the changes to take effect.

To toggle spell checking on or off

- Click the **Spellcheck As You Type button**. (See the following figure.)

  NOTE: Ignite remembers this selection for future SMS sessions.

Figure 24.53: Spell check options in the Input pane



Applying reply templates to SMS responses

Agents can apply templates to their SMS responses, providing standardized responses to common questions and requests.

To apply a reply template to an SMS response

1. When an SMS interaction is in reply mode, place the cursor in the body of the response.
2. Click the **Browse Reply Templates** button.

The Browse Reply Template button displays as a magnifying glass in the formatting toolbar.

3. Type the text that the template contains.

Templates matching the text display.

4. Select a template text from the list provided.
5. Press **Enter** and click **Insert Template**.

Template mode changes back to Reply mode.

6. Click **Send Message** to send the message with the template.

Placing SMS sessions on hold and retrieving SMS sessions from hold

At times, agents may have to stop participating in an SMS session in order to work on other items. In these cases, agents can put the active SMS session on hold. Interactions on hold are marked with a 'pause' icon.

Note that administrative configurations may limit how long interactions may be on hold before being requeued and a System Make Busy is registered for the employee. For information on this limit, contact your supervisor or system administrator.

The following procedures explain how to

- Place an SMS session on hold
- Retrieve an SMS from hold

To place an SMS session on hold (DESKTOP)

- When participating in an SMS session, click the **Hold** button.

To place an SMS session on hold (WEB)

- Click **Inbox** and select the SMS or hover over the item avatar and click **Hold**.

To retrieve an SMS session from hold (DESKTOP)

NOTE: You can also retrieve a session from hold by sending a response.

1. Select the **Inbox** and, in the **List** pane, select the SMS interaction on hold.
2. In the **Action** bar, click **Remove hold**.

To retrieve an SMS session from hold (WEB)

NOTE: You can also retrieve a session from hold by sending a response.

- Click **Inbox** and select an SMS on hold or hover over the item avatar and click **Remove Hold**.

Transition to alternate conversation types

During an interaction, agents can transition to an alternate interaction type if the agent is associated with that media type and if the customer's relevant contact details are available. Agents can also edit contact information during an interaction.

See the *"Transitioning from one conversation type to another (WEB)"* section in this guide.

Joining the longest waiting active SMS session (DESKTOP)

Agents can switch between active SMS sessions according to how long the customer has been waiting for a response by using the 'Next Longest' button in the Action bar. The 'Next Longest' button applies to all active interactions in the agent's Inbox, directing agents to the SMS session that has been open and unfinished the longest.

For example, an agent is handling three different SMS sessions. Clicking 'Next Longest' highlights the active SMS session that has been waiting the longest for a response and switches that interaction back into the Active Contact pane.

When switching between active interactions, the SMS session indicates that the agent is joining and leaving the SMS session as appropriate.

To reply to the longest waiting active SMS session

1. In the **Folders** pane, select **Inbox**.
2. In the **List** pane, select an active SMS session.

   An active SMS session is one that is no longer ringing and has been joined.
3. In the **Action** bar, click **Next Longest**.

   The system takes you to the next longest waiting active SMS session in the Inbox.

Transferring SMS interactions

SMS interactions can be transferred to agents and queues. For example, agents in the Support queue receiving inquiries about a product invoice can transfer these interactions to the Sales queue. To receive transfers, devices must be enabled to handle the interaction's media type.

Agents who are logged out, in DND, Offline (WEB), or whose presence is unknown cannot receive transferred SMS interactions. Agents who are either in Busy/Make Busy or at their SMS Workload limit can receive transferred SMS interactions.

NOTE: You may only transfer interactions if you have the appropriate permissions.

To transfer an SMS interaction (DESKTOP)

1. In the **Folders** pane, click **Inbox**.
2. In the **List** pane, select an SMS interaction and, in the **Action** bar, click **Reply**.
3. In the **Action** bar, click **Transfer**.
4. Select an agent or a queue.

NOTE: You can search for a transfer destination by typing the name of an agent or queue in the **Search** field.

5. Click **Transfer**.

To transfer an SMS interaction (WEB)

1. Click **Inbox** and select an SMS interaction or hover over the item avatar and click **Accept**.
   To transfer directly from the queue, click Queues.
   To transfer from the **Cases** page, under **Interactions** tab, select the inqueue or inbox SMS and click **Goto** icon. The Queues page is displayed. You can now transfer the SMS from the **Queues** page. Follow steps 3 onward.
2. Select the SMS or hover over the item avatar and click **Transfer** icon.

NOTE: Optionally you can select multiple SMS from the **Inbox** or the **Queues** page and click **Transfer**. The Transfer window is displayed. The list of available Employees and Queues are displayed in the **Results** section.

3. To transfer to an agent, in the **Transfer** window click **Employees**, select an employee from the list and proceed to step 5.
4. To transfer to a queue, in the **Transfer** window click **Queues** and select a queue from the list.

5. To transfer the SMS interaction, select the name of the appropriate person or queue.

Ending SMS sessions

When an agent is finished handling an interaction, the agent can end the SMS session.

To end an SMS session (DESKTOP and WEB)

1. When participating in an active SMS session, click the **End Your Session** button.
   The 'End Your Session' button displays as an X.
2. When prompted, click **Yes**.

Forwarding SMS transcripts

You can forward SMS transcripts to multiple parties as an email with additional recipients copied and blind-copied.

Forwards in progress are housed in the agent's personal Drafts folder (DESKTOP), in the Forward subfolder (DESKTOP) or in the Inbox (WEB).

DESKTOP - You can only forward SMS transcripts from the My History folder and its Handled subfolder, from the History folder and its Handled subfolder, and from the Failed folders.

WEB - You can forward SMS transcripts from the History page.

The following procedures explain how to

- Forward an SMS transcript
- Discard forwards in progress

To forward an SMS transcript (DESKTOP)

1. In the **Folders** pane, select either **History**, **My History**, one of the **Handled** subfolders, or one of the **Failed** folders.
2. In the **List** pane, select an SMS transcript and, in the **Action** bar, click **Forward**.
3. Insert addresses in the **To:** field, and copy or blind-copy additional recipients by filling in the appropriate fields. Separate multiple addresses with semi-colons.
4. Click **Send**. An icon displays over the Preview pane, indicating the transcript is being sent.

   NOTE: If you attempt to forward a transcript and receive a warning that the email address is invalid, the queue that handled the SMS interaction may not have been configured for sending transcripts. Contact your supervisor or system administrator.

To forward an SMS transcript (WEB)

1. Click **History** and, optionally, select a **Filter:**.
2. Select an SMS transcript or hover over the item and click **Forward**.
3. Insert addresses in the **To:** field, and copy or blind-copy additional recipients by filling in the appropriate fields. Separate multiple addresses with semi-colons.
4. Click **Send**.

To discard a forward in progress (DESKTOP)

NOTE: You can also discard forwards in progress by clicking 'Discard Draft' in the Action bar instead of 'Send'.

1. In the **My Folders** view, expand the **Folders** pane.
2. In the **Folders** pane, click **Drafts.** If necessary, expand the **My Folders** folder first.
3. Expand the **Drafts** folder and select **Forward**.
4. In the **List** pane, select the transcript and, in the **Action** bar, click **Discard Draft**.

To discard a forward in progress (WEB)

- Click **Inbox** and either select the forward in progress or hover over the item avatar and click **Discard**.

Removing failed SMS transcripts from Ignite

Occasionally, SMS transcripts may route to 'Failed' in Ignite. You can remove these transcripts using Ignite's Junk button.

NOTE: Agents may only Junk interactions if they have the appropriate permissions.

To remove a failed SMS transcript from Ignite (DESKTOP)

1. In the **Folders** pane, select a Failed folder.
2. In the **List** pane, select an SMS transcript and, in the **Action** bar, click either **Forward** or **Junk**.
3. To remove a failed SMS transcript from Ignite (WEB)
4. Click **History > Failed**.
5. Select an SMS transcript or hover over the item avatar and click either **Junk** or **Forward**.

   If you select 'Forward,' the interaction is delivered to the Inbox where you can specify recipients.

Marking SMS interactions as No Reply and Junk

Occasionally, SMS interactions requiring no reply reach queues and agents' Inboxes. Agents can mark these SMS interactions either as requiring no reply or as junk.

Agents can also junk SMS interactions directly from 'Failed', rather than attempting to reroute them.

Marking interactions as No Reply and Junk removes the interactions from Ignite. If the item is in queue or the Inbox, responses in progress are deleted.

NOTE:

- Multimedia interactions in queue tagged as Junk or No Reply from Interactive Visual Queue and Ignite are not included in queue Handled, Completed, and Offered counts.
- Agents may only Junk interactions if they have the appropriate permissions.

To mark an SMS interaction as No Reply or Junk (DESKTOP)

1. In the **Folders** pane, either click **Inbox**, select the queue in which the SMS message is waiting, or select a **Failed** folder.
2. In the **List** pane, select an SMS message and, in the **Action** bar, click either **No Reply** or **Junk**.

To mark an SMS interaction as No Reply or Junk from the Inbox (WEB)

- Click **Inbox** and select an SMS interaction or hover over the item avatar and click either **No Reply** or **Junk**.

To mark an SMS interaction as No Reply or Junk from the queue (WEB)

1. Click **Queues** and select an SMS queue.
2. Select an SMS interaction and click either **No Reply** or **Junk**.

Sending outbound SMS interactions

Agents can send outbound SMS interactions in Ignite. When an agent sends an outbound SMS interaction, they may not be the agent who receives the customer response.

- You cannot send an SMS to multiple recipients.
- Account codes are not supported for outbound SMS interactions.
- Real-time and reporting statistics are not available for outbound SMS activity. We recommend instead that agents put themselves into Busy/Make Busy, with an ‘Outbound SMS’ Reason Code applied, when drafting outbound SMS interactions. Make Busy reports and real-time queue statistics will then display time spent drafting outbound SMS interactions.

WEB– Outbound SMS interactions in progress are housed in the Inbox, marked as 'Draft'.

To send an outbound SMS interaction (DESKTOP)

1. In the **My Folders** view, expand the **Folders** pane.
2. In the **Action** bar, click **New SMS**.
3. After **From**, select an SMS queue.
4. After **To**, type the recipient’s number.
5. Type the SMS interaction's contents and click **Send**.

To send an outbound SMS interaction (WEB)

1. Click **Contacts**
2. If the destination is not a recent interaction, type its name or number in the **Search** field.
3. Hover over the destination's avatar and click the **SMS** icon. For SMS;interactions to agents, a colored dot on the avatar indicates its availability.
4. Under **From (queue)**, select an SMS queue.

   NOTE: Queue signatures are inserted each time a queue is selected as the ‘From’ address. Agents are responsible for deleting non-applicable queue signatures from outbound SMS drafts.
5. Type the SMS interaction’s contents and click **Send**.

   A new case is automatically created and assigned with "Waiting For Customer" state.

   NOTE: If Contacts is open, click Contacts again to close the window and expose the desired controls.

To discard an outbound SMS interaction in progress (WEB)

NOTE: If Contacts is open, click Contacts again to close the window and expose the desired controls.

- Click **Inbox** and select a draft or hover over the item avatar and click **Discard**.

Handling calls in Ignite

In addition to email, chat, SMS, and open media handling, you can handle calls in Ignite.

MiCollab Client is recommended for performing advanced call handling functions. For information about handling voice Interactions in MiCollab Client, see the *MiContact Center Business User Guide* .

The following procedures explain how to

- View call information
- Pick calls out of queue
- Answer and end calls
- Make calls
- Perform in-call actions

To perform other call handling functions such as conferencing and supervised transfers, agents must use Contact Center Softphone, PhoneSet Manager, MiCollab, or a hard set. See the appropriate sections in the *MiContact Center Business User Guide* for more information on Contact Center Softphone and PhoneSet Manager.

DESKTOP—For important information about logging on to and out of Ignite in conjunction with Contact Center Softphone, PhoneSet Manager, orhard sets, see *"Logging in and out of Ignite (DESKTOP)"*.

WEB—For important information about signing in and out of Ignite for voice agents, see *"Signing into and out of Ignite (WEB)"*.

NOTE:

- DESKTOP - Ignite provides call control for Inbound ACD interactions only. Agents must make outbound calls using Contact Center Softphone, PhoneSet Manager, or a hard set or use Web Ignite.
- DESKTOP - If your contact center focuses on voice interaction handling, we recommend that you implement the MiCollab Client and Ignite integration described in the .
- Ignite's phone functionality does not support multiple lines.
- Ignite's phone controls are not supported for External Hot Desking Agents.

Viewing call information

You can view basic call information in Ignite before picking a call out of queue or handling it from the Inbox. Note that information displayed may vary based on administrative configuration.

The following explains how to

- View information for calls in queue
- View information for calls in the Inbox

To view information for calls in queue (DESKTOP)

1. In the **Folders** pane, select a queue.
2. In the **List** pane, select a call.

   Call information displays in the Preview pane.

To view information for calls in queue (WEB)

1. Click **Queues** and select the appropriate queue.
2. Select a call from the queue.

To view information for calls in the Inbox (DESKTOP)

1. In the **Folders** pane, click **Inbox**.
2. In the **List** pane, select a call.

   Call information displays in the Preview pane.

To view information for calls in the Inbox (WEB)

- Click **Inbox** and select a call.

Picking calls out of queue

Agents can pick calls out of queue and send them to the Inbox. Once ringing in the Inbox, the call can be answered.

NOTE:

- Agents cannot pick or pick and reply to interactions from the queue if they are in Do Not Disturb.
- Agents may only pick or pick and reply to interactions from the queue if they have the appropriate permissions.

To pick a call from the queue (DESKTOP)

1. From the **Folders** pane, select the queue from which a call will be picked.
2. From the **List** pane, select a call from the queue and, from the **Action** bar, click the **Pick** button.

   The call is transferred to your Inbox.
3. Pick up your desk phone to answer the call.
4. Answer the call using MiCollab Client.
5. To answer the call, select **Inbox** and, in the **List** pane, select the call and click **Reply**.

   NOTE: Additional handling options display in the Action bar. For more information, see the appropriate procedures in this section.

To pick a call from the queue (WEB)

1. Click **Queues** and select the appropriate queue.
2. Select a call from the queue or hover over the item avatar and click **Pick**.

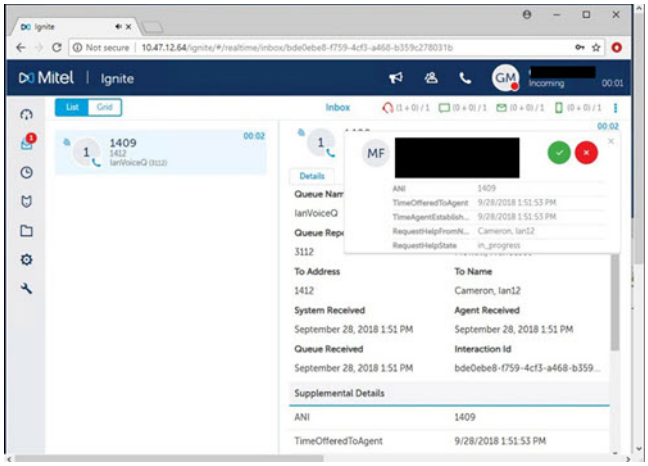
   The call is transferred to your Inbox.

Answering and ending calls

NOTE:

- You cannot explicitly decline a ringing call.
- Agents can request help from other agents, as well as from supervisors. When you answer an incoming request for help, the Ignite toaster displays "Request Help" and the name of the person requesting help. Accepted requests are entered in Silent Monitor mode. Supervisors must use Contact Center Client or their headsetto escalate to Coach mode.
- When supervisor receives an ACD help request and chooses to answer the call through Web Ignite, the call will be directly connected to the agent and the supervisor can coach the agent. Supervisor do not need to specifically press the **Coach** button on the desk phone to coach an agent.

For more information on silent monitoring, see the *MiContact Center Business User Guide*. For more information on the Request Help feature, see the appropriate section in this guide.



You can answer incoming calls from Ignite. Ignite displays a toaster for each incoming call and allows you to accept the call from the toaster.

When you answer a call, Ignite displays call information.

To answer a call (DESKTOP)

- In the Ignite toaster, click **Accept**, select the call in the **List** pane and, in the **Action** bar, click **Reply**.

To answer a call

- In the Ignite toaster, click **Accept**. Alternatively, select the call or hover over the item avatar and click **Accept**.

You can end calls from Ignite.

To end a call (DESKTOP)

- In the **Action** bar, click **Hang Up**.
  Alternatively, in the **Conversation** window, in the bottom toolbar, click the **Hang Up** button.

To end a call (WEB)

- Click **Inbox** and select a call or hover over the item avatar and click **Hang Up**.

Making calls

DESKTOP - We recommend you use MiCollab Client to make calls, although you can make calls using Contact Center Softphone or Contact Center PhoneSet Manager. This recommendation applies to internal and external destination calls, and calls to dialable queues.

DESKTOP — You can place a call in Ignite by either searching for a destination or entering the destination in the dial pad.

WEB — You can place a call in Ignite by searching for a destination.

To make a call (DESKTOP)

1. In the **Action** bar, click **New Call**.
2. In the **New Call** window, in the **Search** field, type the dialable number or the name of the employee to call. You can also click the dial pad button to enter numbers. Only voice-enabled employees can be searched for by name.

   NOTE: The system supports partial matching on names and numbers. For example, if you type ‘12’, the system returns a list of employees whose IDs start with ‘12’.

3. In the **New Call** window, to the right of the destination, click the **phone** button to place the call. Note that the phone icon is disabled if the contact is an agent who is in DND.

   If the destination is available, the system places the call. The call is transferred to your Inbox and your desk phone rings. Answering the call connects you to the destination.
   If the call fails, a failure message displays in the New Call window.

To make a call (WEB)

1. Click **Contacts**.
2. If the destination is not a recent contact, type its name or number in the **Search** field.

   NOTE: You can also create external contacts or import contacts from the Contacts page. For more details, see "Contacts (WEB)" in this document.
3. Hover over the destination's avatar and click **Call**.If applicable, hover over multiple Call avatars to select the appropriate dialable number. For calls to agents, a colored dot on the avatar indicates its availability.

   NOTE: If Contacts is open, click Contacts again to close the window and expose the desired controls.

Optionally, you can also make a call using the New Call button (Phone icon). You can choose the name and number that should be displayed on the external phone when making a call to an external destination.

To specify name and number when making calls

1. Click **New Call**, the **Voice Contacts** page is displayed.
2. Click the **From** button. The **From** page is displayed with all the CLIP (Calling Line Identification Presentation) numbers. The number with a bold font is your reporting number or the line URI.

   NOTE: The outbound CLIP numbers are populated from the DNIS device list in YourSite Explorer.
3. Select the number from the list. The customer sees the selected name and number on their display when they are contacted.

Performing in-call actions

While on active calls you can:

- Put calls on hold and retrieve calls from hold
- Tag calls with Account Codes.
- Tag calls with Classification Codes
- Transfer calls (DESKTOP)
- Initialize Conference calls
- Transition to alternate interaction types
- Merge calls (DESKTOP)
- Contact agents before transferring calls and requesting help

Putting calls on hold and retrieving calls from hold

At times, agents may have to put a call on hold. Ignite displays a paused icon over calls on hold so they can be easily identified.

NOTE: Calls on hold may not be transferred until hold is removed.

The following explains how to

- Put a call on hold
- Retrieve a call from hold

To put a call on hold (DESKTOP)

1. In the **Folders** pane, click **Inbox**.
2. In the **List** pane, select the active call.
3. In the **Action** bar, click the **Hold** button.

To put a call on hold in the Conversation window (DESKTOP)

- In the **Conversation** window, click **Hold**.

To put a call on hold (WEB)

- Click **Inbox** and select a call, or hover over the item avatar, and click **Hold**.

To put a call on hold (MiCollab Client)

- Click **Inbox** and select a call, or hover over the item avatar, and click **Hold**.

To retrieve a call from hold (DESKTOP)

1. In the **Folders** pane, click **Inbox**.
2. In the **List** pane, select the call on hold.
3. In the **Action** bar, click **Remove Hold**.

To retrieve a call from hold in the Conversation window (DESKTOP)

- In the **Conversation** window, click the **Remove Hold** button.

To retrieve a call from hold (WEB)

- Click **Inbox** and select a call or hover over the item avatar and click **Remove Hold**.

Tagging calls with Account Codes

Account Codes identify services, departments, or other elements of the contact center. They are numerical codes with predefined meanings that are used for reporting purposes. You can apply multiple Account Codes during an interaction. The duration of each Account Code is measured from when the Account Code is entered until either the end of the call or the time a new Account Code is entered. Agents tag calls with Account Codes in Ignite to indicate in reports what the interaction segment was about.

For example, an agent handling calls for three catalog companies enters an Account Code of ‘01’ to indicate the customer is inquiring about Company A. Later in the interaction, the agent enters an Account Code of ‘06’ to indicate that the customer is now inquiring about Company A’s mail-out services.

Agents can tag calls with multiple Account Codes. Account Codes must be entered during the call and cannot be entered after the call has ended.

NOTE:

- Ignite (WEB) enables agents to filter Account Codes rather than sorting them by categories.

To tag a call with an Account Code (WEB)

1. Select a call or hover over the item avatar and click **Classify**.
2. Select an Account Code. You can type the name or number of a Code in the **Search** field.

   NOTE: If you enter a number in the search field, you can apply the Code by pressing ‘Enter’ when prompted.

Tagging calls with Classification Codes

Classification Codes are a type of Account Code but differ in the following ways:

- You can apply multiple Classification Codes, and this can be done at any point during the (call or interaction) or its Work Timer. All Classification Codes applied to a call are pegged with the full call duration,

from the time the call arrives until the call ends. This includes transfer time. It also includes Work Timer duration if 'Include queue work timer as part of handling time' is enabled on the queue. If the same code is entered twice, it is not double pegged in reporting statistics.

- Classification Codes can be ‘forced’, meaning the agent must enter a Classification Code either during the call or when in Work Timer to remain within compliance.
- Account Codes can only be entered during a call, but Classification Codes can be entered during or after a call (while in Work Timer). There are often scenarios within which you set single or multiple Account Codes during a call and then set a Classification Code when the call terminates.

NOTE: Classification Codes are only supported for ACD voice (calls or interactions).

NOTE: During a call, apply Classification Codes as you would Account Codes, using the list of Account Codes in the ‘Set Account Code’ rolling panel in the Sidebar or in the 'History and Account Code' section of the Preview pane.

To tag a call with a Classification Code after a call ends (DESKTOP)

1. In the **Sidebar**, click the **Classify** button to open the **Classify** rolling panel.
   When the call ends, the Classify button displays (and flashes if forced Classification Codes are enabled) and Work Timer is activated.
2. Select the applicable Classification Code from the list that displays and click **Apply**.

   NOTE: If you are handling more than one item in the Inbox, for example, one email and one call, and you apply a Classification Code during the call, it will be applied to the call regardless of which item is currently selected in the Inbox. If you apply a Classification Code after the call when in Work Timer, the voice interaction stays in your Inbox and you must use the ‘Classify’ button in the Sidebar to apply a Classification Code to the voice interaction.
3. If Work Timer has not been configured to automatically cancel after entering a Classification Code, cancel Work Timer by clicking the **Remove Work Timer** button in the **Sidebar**.

   NOTE: Forced Classification Codes prevent canceling Work Timer until a Code is entered. Failing to enter a Classification Code before Work Timer expires or is removed by entering Busy/Make Busy or DND can result in a default Classification Code of ‘-1 Non-Compliant’ applied automatically.

To tag a call with a Classification Code after a call ends (WEB)

NOTE: During a call, apply Classification Codes as you would Account Codes, but select ‘Classification’ in the Classify dialog window.

1. Click **Enter a Classification Code**.
2. Select a Classification Code. You can type the name or number of a Code in the **Search** field.

   NOTE: If you enter a number in the search field, you can apply the Code by pressing ‘Enter’ when prompted.

Transferring calls (DESKTOP)

You can transfer calls to internal and external destinations. Internal transfer destinations include destinations programmed in the voice media server or in a cluster of voice media servers. External transfer destinations include dialable numbers not programmed in the voice media server or in the cluster of voice media servers. For example, agents in the Support queue receiving calls concerning account renewals can transfer these calls internally to the Sales queue, or agents can transfer calls externally to a supervisor’s cell phone.

To receive transfers devices must be enabled to handle the interaction's media type.

Agents who are logged out, in DND, Offline (WEB), or whose presence is Unknown cannot receive transferred calls, but the call can be transferred to their voicemail. Agents who are either in Busy/Make Busy or at their call Workload limit can receive transferred calls.

Call transfers in Ignite are always blind transfers. In blind transfers, there is no communication with transfer destinations before sending calls. Calls are transferred immediately, and the system does not monitor the outcome.

To perform a supervised transfer, you must use MiCollab Client, Contact Center Softphone, Contact Center PhoneSet Manager or Ignite Web. See the *MiContact Center Business User Guide* for more information.

NOTE:

- You cannot transfer calls on hold. Hold must be removed before the call can be transferred.
- You may only transfer interactions if you have the appropriate permissions.

The following procedures explain how to

- Blind transfer calls to a voice-enabled employee or queue
- Blind transfer calls to a dialable number

  NOTE: This option is only available with Click to Call. For more information, see "Contacting agents before transferring calls".
- Perform a supervised transfer using Merge (DESKTOP)
- Perform a supervised transfer using Click to Call and Merge (DESKTOP)

  NOTE: This option is only available with Click to Call. For more information, see "Contacting agents before transferring calls".

To blind transfer a call to a voice-enabled employee or queue (DESKTOP)

1. When on a call, in the **Action** bar, click **Transfer**.
2. Select the **Internal Transfer** radio button and select a voice-enabled employee or queue. Expand the device list if necessary. You can search for an internal transfer destination by typing the name of a voice-enabled employee or queue in the ‘Search’ field.
3. Click **Transfer**.

To blind transfer a call to a dialable number (DESKTOP)

1. When on a call, in the **Action** bar, click **Transfer**.
2. Select the **External Transfer** radio button and, in the **Transfer To:** field, type a dialable number. Enter this number as you would on a phone, including any digits required for outbound dialing.

   NOTE: Invalid entries return an error message. Re-type a valid entry and click ‘Transfer’.
3. Click **Transfer**.

Transferring calls (WEB)

You can perform either a blind or a supervised transfer of a voice call from Web Ignite. To perform either type of transfer, you make a consultation call to another party (the available queues, employees, external, or Active Directory contacts) and then decide whether you want to transfer the call immediately (blind transfer) or wait to talk to the other party before you transfer the call (supervised transfer). You can also modify the call to make it a conference while talking to the consultative party.

Transition to alternate conversation types

During an interaction, agents can transition to an alternate interaction type if the agent is associated with that media type and if the customer's relevant contact details are available. Agents can also edit contact information during an interaction.

See the *"Transitioning from one conversation type to another (WEB)"* section in this guide.

Requesting help

You can request help from other voice-enabled employees by clicking the Request Help Call Control button in the Sidebar. When you click the button, you can enter either a valid DN in the free form text box or select an employee from a pre-populated list. The system dials the DN, and the employee is added to the call when they accept.

Employees who accept requests for help join the call in Silent Monitor mode and are not audible unless they escalate to Coach or Barge.

Help requests to queues or to external numbers are not supported

The Request Help button is available as soon as a call is delivered to your Inbox. You can send multiple requests for help during a call, but you can only send one request at a time. Requests sent to employees in unavailable states fail.

The Request Help button is not available when a call is on hold.

To request help on a call (Desktop)

1. In the **Sidebar**, click the **Request Help** button
   Ignite displays a list of voice-enabled employees and enables you to look up contacts in the Active Directory (AD)
2. In the **Request Help** window, do one of the following:
   - Select a voice-enabled employee from the list
   - In the Search box, enter a voice-enabled employee or AD contact's dialable number
   - In the Search box, enter the name of a voice-enabled employee or AD contact
3. Click **Call**.

   NOTE: You cannot cancel requests in progress. The Request Help button is disabled (turns gray) while the call is being established. Hover over the button with your mouse to view the connection status in a tool tip.
   - If the request is answered within 180 seconds, notification that the request help is established is displayed, and the **Request Help** icon is displayed next to the caller's icon and on the Inbox item. The **Request Help Call Control** button is no longer available until the employee that answered the Request Help call hangs up.
   - If the request is declined or times out, a notification that the request help was declined is displayed. The **Request Help Call Control** button is available, and the employee can make a new Request Help call.

To request help on a call (WEB)

1. Click the **Request Help** icon in the handling icons.
   Ignite displays a list of voice-enabled employees and their ACD status.
2. In the **Request Help** window, do one of the following:
   - Select a voice-enabled employee from the list
   - In the text box, enter a voice-enabled employee's dialable number
   - In the **Search** box, type the name or dialable number of a voice-enabled employee

3. Click **Call**.

NOTE: You cannot cancel requests in progress.

- If the request is answered within 180 seconds, a notification that the request help is established is displayed, the **Request Help** icon is displayed next to the caller's icon and on the **Inbox** item. The **Request Help** icon is no longer available till the employee that answered the Request Help call hangs up
- If the request for help is not answered within 180 seconds, the request times out and you can make another request for help.

NOTE: The length of time a request help call rings for is defined in the Ignite configuration. By default, duration is set to 180. See the KB article SO3146 in Mitel Knowledge Management System for information on how to change this, and how it interacts with the Agent COS.

Contacting agents before transferring calls

You can choose to instant message or call other employees(DESKTOP and WEB) to alert them of an incoming transfer.

DESKTOP - The Click to Call option is not displayed when agents are in Do Not Disturb or absent from their agent groups.

NOTE:

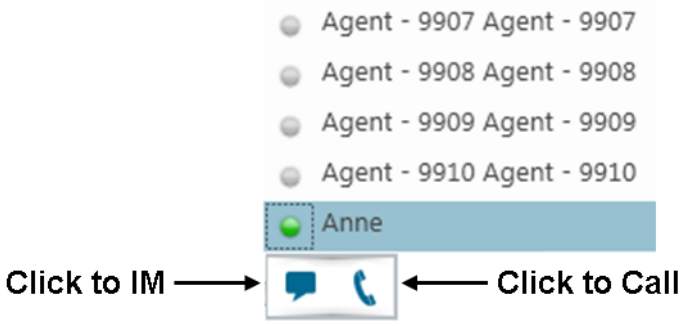
- If an agent has multiple voice agents, Ignite provides call control for the number associated with the currently active voice agent
- DESKTOP - Click to IM does not support group IM sessions.

To Click to Call or Click to IM (DESKTOP)

1. In the **Transfer** window, select an available agent.
2. Select **Click to IM** to initiate an IM session or select **Click** to Call to initiate a voice call. See the following figure

NOTE: The recipient's presence displays, advising of their availability to receive your call or instant message.

Figure 24.54: Click to IM and Click to Call



To Click to Call (WEB)

1. Click **Contacts**.
2. If the destination is not a recent contact, type its name or number in the **Search** field.
3. Hover over the destination's avatar and click **Call**.

Handling calls using the Active Call window (WEB)

When on a call, agents can use the Active Call window for basic call handling options.

For procedures on specific call handling actions supported in the Active Call window, see the appropriate sections of this guide.

For procedures on using Contacts to reach another person, see the appropriate sections of this guide.

To handle a call using the Active Call window

1. When on a call, click the **Phone** button.
2. Choose a call handling option.
3. To close the Active Call window, click the **Phone** button.

To perform a supervised transfers

1. Click **Inbox** and select a call or hover over the item avatar and click **Accept**.
2. Select the call or hover over the item avatar and click **Transfer**.

   Transfer window lists all the numbers from available queues, employees, external, or Active Directory contacts.
3. To select a contact to transfer the call, hover over the contact. This enables the Blind Transfer and Consultation Call buttons.
4. Hover over the Consultation Call button to list the dialable numbers associated with the contact.
   - If the contact has only one associated dialable number, you can select the dialable number or click on the Consultation Call button to transfer the call.
   - If the contact has more than one dialable number, select a dialable number to transfer the call.

   The call now is ringing the other party and the caller is placed on hold.
5. Before the other party accepts the transfer, you can do the following:
   - Click **Cancel Transfer** to cancel the call with the other party whom you consulted and connect back to the caller.
   - Click **Complete Transfer** to complete the transfer.
6. After the other party accepts the transfer, you can do one of the following:
   - Click **Cancel Transfer** to cancel the call with the other party whom you consulted and connect back to the caller.
   - Click **Complete Transfer** to complete the transfer.
   - Click **Conference** to connect the three parties together.
   - Click **Swap** to swap the hold. (Applicable to MiVB only).
   - Click **Hold** to put both parties on hold. (Applicable to SIP Only).
   - Click **RemoveHold** to remove hold. (Applicable to SIP Only).

   After you leave the call, the conversation will stay in your inbox if a Work Timer applies to it.

Initialize Conferencing calls

While you are on a call with a customer, you can invite other parties into the call to create a conference. You cannot transfer a call that is in a conference. You can hang up to leave the conference or put the call on hold, muting the person who puts it on hold, and keeps them from hearing the conference. Other parties in the conference can also invite others to the conference.

You can initiate a conference through a supervised transfer. See the “Transfer calls” section for details.

To conference a call (DESKTOP)

1. When on a call, in the **Conversation** window, click the Invite More People button
2. Type the name or number of the participant you want to invite.
3. Select a participant and click the **Invite** button.

   The system calls the specified participant. When the participant answers, they are added to the call.
4. To invite additional participants, repeat the above steps.

To create a conference call (WEB)

1. While on a call, click the **Invite** button. The **Invite** window opens.
2. In the **Invite** window, you can search and filter to find the required contacts from the available queues, employees, or external or Active Directory contacts.
3. Click the avatar. You can include up to five parties in a conference call.

   The first agent who answered the call will be in ACD state during the conference and if the call was transferred to another agent, the second agent will be in Non ACD state. You can view all the participants of the conference under the **Participants** list in Ignite.

To perform a blind transfer

1. Click **Inbox** and select a call or hover over the item avatar and click **Accept**.
2. Select the call or hover over the item avatar and click **Transfer**.

   Transfer window lists all the numbers from available queues, employees, external, or Active Directory contacts.
3. To select a contact to transfer the call, hover over the contact. This enables the Blind Transfer and Consultation Call buttons.
4. Hover over the Blind Transfer button to list the dialable numbers associated with the contact.
   - If the contact has only one associated dialable number, you can select the dialable number or click on the transfer button to transfer the call.
   - If the contact has more than one dialable number, select a dialable number to transfer the call.

The call is now ringing the other party and you are disconnected. The conversation will stay in your inbox if a Work Timer applies to it.

Conferencing calls

While you are on a call with a customer, you can invite other parties into the call to create a conference. You cannot transfer a call that is in a conference. You can hang up to leave the conference or put the call on hold, muting the person who puts it on hold, and keeps them from hearing the conference. Other parties in the conference can also invite others to the conference.

You can invite other participants into an existing call to create a multi-party conference call. You can leave a conference call after initiating it without ending the call for the other participants.

To create a conference call (WEB)

1. While on a call, click the **Invite** button. The **Invite** window opens.
2. In the **Invite** window, you can search and filter to find the required contacts from the available queues, employees, or external or Active Directory contacts.
3. Click the **avatar**. You can include up to five parties in a conference call.

   The first agent who answered the call will be in ACD state during the conference and if the call was transferred to another agent, the second agent will be in Non ACD state. You can view all the participants of the conference under the **Participants** list in Ignite.

Removing Work Timer

NOTE: When agents are in Work Timer, Interactions remain in the Inbox until Work Timer is removed

DESKTOP - Interactions in Work Timer are marked with yellow.

WEB - Interactions in Work Timer are marked with yellow and a clock icon.

Agents use the time spent in Work Timer to complete post-interaction work, such as consulting with a supervisor, without having this downtime affect their performance statistics.

When Work Timer is the overriding state in Ignite, agents can remove Work Timer and put themselves back into an overriding state across all media capabilities. Once agents have removed Work Timer, they cannot put themselves back into this state.

According to queue configuration settings, agents can be placed in a Work Timer state for a set period of time after completing a call. The Work Timer can optionally be configured to cancel automatically after a Classification Code has been entered. If the Work Timer is not set to cancel automatically, you must cancel it manually after entering a Classification Code.

NOTE: Employees in Work Timer can apply Busy/Make Busy or DND, but will remain in a Work Timer state until the Work Timer expires or is cancelled. If Classification Codes are required for the queue and the Work Timer expires without a Classification Code being entered, a **Non-Compliant** Classification Code will be applied to the call..

If Work Timer is not configured to cancel automatically when a Classification Code has been entered and you end the call and do not manually cancel it you will be unable to receive calls until the Work Timer duration, as configured on the queue, has expired.

If you are handling voice and other media interactions simultaneously, one agent being in Work Timer will not prevent you from being offered an interaction of a different media type. For example, if you are in Work Timer after handling a voice call, you may still be offered an email from the email queue, and you can accept it and handle it normally.

To remove Work Timer (DESKTOP)

- In the **Sidebar**, click the **Remove Work Timer** button.

  NOTE: Alternatively, remove Work Timer via the Action bar.

To remove Work Timer (WEB)

- Click **Clear Work Timer**.
  Alternatively, click your avatar, select **State**, and choose an alternate state.

Call handling using the Action bar (DESKTOP)

Agents can optionallyperform call handling activities, such as transferring a call, placing a call on hold, and hanging up a call, from the Ignite Action barinstead of using the MiCollab Client call control window. They can also remove Work Timer from the Action bar instead of the Sidebar, which may be preferable for multimedia agents who do not use voice and, as a result, benefit more from the Ignite main window than from the Sidebar. Multimedia agents may choose to collapse the Sidebar and expand Ignite's main window to more efficiently handle emails and chats.

Handling open media interactions

Open media interactions are automatically sent to your Inbox if you are the longest idle agent or the agent with the highest skill level in your agent group, if your agent group uses skill levels. Agents can also pick open media interactions out of queue.

When an open media item is routed to the desktop and accepted by an agent, depending on the settings for the variables used for the API request (TargetUri and TargetUriEmbedded), one of the following occurs:

- A URL launches as an external tab
- An HTTP interface is embedded into Ignite

The following explains how to

- Preview open media interactions
- Pick open media interactions out of queue
- Reply to open media interactions
- Transfer open media interactions
- Decline open media interactions
- Mark open media interactions as No Reply and Junk
- Place open media interactions on hold and retrieve open media interactions from hold

Previewing open media contacts

If administrative configurations permit, agents can preview interactions before picking them out of queue or handling them. The information available when previewing items in the queue depends on the Preview Url settings used for the API request.

The following explains how to

- Preview open media interactions in queue
- Preview open media interactions in the Inbox

To preview an open media interaction in queue

1. Click **Queues** and select a queue.
2. Select an open media interaction to preview.

To preview an open media interaction in the Inbox

- Click **Inbox** and select an open media interaction to preview.

Picking open media contacts out of queue

Pick behavior occurs in the following ways: First, agents can pick interactions out of queue and send them to the Inbox. Once ringing in the Inbox, the interaction can be accepted. Second, agents can choose to

pick and reply to an interaction in one motion. Choosing to pick and reply sends the interaction to the agent's Inbox and immediately opens the interaction in reply mode.

For more information on ringing behavior, see *"Ringing states in Ignite"*.

NOTE:

- Agents cannot pick or pick and reply to interactions from the queue if they are in Do Not Disturb.
- Agents may only pick or pick and reply to interactions from the queue if they have the appropriate permissions.

The following procedures explain how to

- Pick an open media interaction out of queue and handle the open media interaction
- Pick and automatically reply to an open media interaction

To pick an open media interaction out of queue and handle the open media interaction

1. Click **Queues** and select the appropriate queue.
2. Select an interaction or hover over the item avatar and click **Pick**.

   The open media interaction is transferred to your Inbox.
3. To handle the open media interaction, click **Inbox** and select the open media interaction or hover over the item avatar.

To pick and automatically reply to an open media interaction

1. Click **Queues** and select the appropriate queue.
2. Select an interaction or hover over the item avatar and click **Pick and Reply**.

   The interaction is transferred to your Inbox and opens in reply mode.

Replying to open media contacts

Once an open media interaction is in the Inbox, agents can reply to or otherwise handle it.

To reply to an open media interaction

- Click **Inbox** and select an open media interaction or hover over the item avatar and click **Accept**.

Transferring open media contacts

Open media interactions can be transferred to queues or other agents within a contact center.

To receive transfers, devices must be enabled to handle the interaction’s media type. Agents who are logged out, in DND, Offline (WEB), or whose presence is unknown cannot receive transferred open media interactions. Agents who are either in Busy/Make Busy or at their open media Workload limit can receive transferred open media interactions.

NOTE: You may only transfer interactions if you have the appropriate permissions.

To transfer an open media interaction

1. Click **Inbox** and select an open media interaction or hover over the item avatar and click **Accept**.
   To transfer directly from the queue, click **Queues**,
   To transfer from the **Cases** page, under **Interactions** tab, select the inqueue chat and click **Goto** icon.
   The Queues page is displayed. You can now transfer the chat from the **Queues** page.
2. Select the open media interaction or hover over the item avatar and click **Transfer** icon.

NOTE: Optionally you can select multiple interactions from the **Inbox** or the **Queues** page and click **Transfer**. The Transfer window is displayed. The list of available Employees and Queues are displayed in the Results section.

3. To transfer to an agent, in the **Transfer** window click **Employees**, select an employee from the list and proceed to step 5.
4. To transfer to a queue, in the **Transfer** window click **Queues** and select a queue from the list.

   To search queues, type the name of the queue in the **Search** field.
5. To transfer the open media interaction, select the name of the appropriate person or queue.

Declining open media contacts

Agents can decline offered open media interactions, sending the interaction back to the queue as the longest waiting.

NOTE: When an agent declines an interaction, they are automatically put into Busy/Make Busy across all media capabilities. A System Make Busy and a requeue count is registered for the employee. For more information, see *"Setting and removing Busy/Make Busy in Ignite"*.

To decline an open media interaction

- Click **Inbox** and select an open media interaction or hover over the item avatar and click **Decline**.

Marking open media contacts as No Reply and Junk

Occasionally, open media interactions requiring no reply reach queues and agents' Inboxes. Agents can mark these open media interactions either as requiring no reply or as junk.

Agents can also junk open media interactions directly from 'Failed', rather than attempting to reroute them.

Marking interactions as No Reply and Junk removes the interactions from Ignite. If the item is in queue or the Inbox, responses in progress are deleted.

NOTE:

- Multimedia interactions in queue tagged as Junk or No Reply from Interactive Visual Queue and Ignite are not included in queue Handled, Completed, and Offered counts.
- Agents may only Junk interactions if they have the appropriate permissions.

To mark an open media interaction as No Reply or Junk from the Inbox

- Click **Inbox** and select an open media interaction or hover over the item avatar and click either **No Reply** or **Junk**.

To mark an open media interaction as No Reply or Junk from the queue

1. Click **Queues** and select an open media queue.
2. Select an open media interaction and click either **No Reply** or **Junk**.

Placing open media contacts on hold and retrieving open media contacts from hold

Agents may have to stop working on one open media interaction in order to work on other items. In these cases, agents can put the active open media item on hold. Interactions on hold are marked with a 'pause' icon.

Note that administrative configurations may limit how long interactions may be on hold before being requeued and a System Make Busy is registered for the employee. For information on this limit, contact your supervisor or system administrator.

The following procedures explain how to

- Place an open media interaction on hold
- Retrieve an open media interaction from hold

To place an open media interaction on hold

- Click **Inbox** and select an open media interaction, or hover over the item avatar, and click **Hold**.

To retrieve an open media interaction from hold

- Click **Inbox** and select an open media interaction on hold or hover over the item avatar and click **Remove Hold**.

Appendix A

Installation and upgrade checklists

The following checklists are meant to provide dealers and installers who are familiar with MiContact Center Business software with a quick reference to the procedures required for installing and upgrading.

Included in the appendix are:

- A list of prerequisite and pre-installation notes for installations and upgrades
- A condensed list of steps for installing or upgrading MiContact Center Business
- A more detailed list, for installing MiContact Center Business 7.1 or upgrading from Version 6.x to 7.1

PROGRAMMING TRAFFIC DATA COLLECTION FOR THE 3300 ICP

This section describes the options you must program on the Mitel 3300 ICP Traffic Options Assignment form in order to collect traffic data and produce reports with the Traffic Analysis application.

The Traffic Options Assignment form is a form-driven method to obtain time-based traffic reports on telephone system usage. You can generate reports that cover attendant usage, channel utilization, system activity, data station usage, delay to dial tone, extension-to-extension calls, feature usage, and trunk use.

Traffic Options Assignment form

The Traffic Options Assignment form gives the communications site manager a form-driven method of obtaining time-based traffic reports on the usage of the system. Reports may be generated as required, covering attendant usage, channel utilization, system activity, data station usage, delay to dial tone, extension-to-extension calls, feature usage, and trunk utilization.

NOTE:

- You can define up to six different time slots.
- If the start and stop time are blank while the time slot is active, an error message is displayed when the commit operation is attempted; in this case, the changes will not be committed.
- No two traffic slot stops should be less than 5 minutes apart. This time is required for the system time to generate the previous report.
- Making changes to the data in this form and recommitting interrupts a traffic report that is running.

To program the Traffic Options Assignment form

1. Log onto the 3300 ICP telephone system.
2. Browse to the **Traffic Options Assignment** form.
3. Click **Change**.
4. Configure the traffic options as described in the following table.

Table 25.1: Traffic Options Assignment form (Sheet 1 of 2)

Option	Value
Time Slot Active	Select Yes to start a traffic session at the time specified in Start Time field and finish at the Stop Time field for each of up to six different slots. The report is resumed the next day at the same time. Select No to suspend the traffic report for the associated time slot. The traffic report will not run until Yes is entered and the form recommitted. Default is No. There can be no overlapping of ACTIVE time slots. Select: Yes
Start Time (-Hours, -Minutes)	Select the time the traffic report is to start running. Default is blank. The start time must be assigned for active time slots; it can be blank for inactive time slots. If the start time equals the stop time then the time period is 24 hours. Select: 00:00
Stop Time (-Hours, -Minutes)	Select the stop time for the report. If the session is to run for 24 hours, enter the same time as the start time. Default is Blank. The stop time must be assigned for active time slots; it can be blank for inactive time slots. If the start time equals the stop time then the time period is 24 hours. Select: 23:59
Period Length	Select the length of time (15, 30, or 60 minutes) that data is to be collected for the session before a traffic report is formatted and output. Default is 60 minutes. Select: 15
Usage Units	Select the type of units (Erlangs or CCS) the report is to use. Default is Erlangs. Select: Erlangs
Autoprint	Select Yes to spool the traffic report to the printer assigned to this function in the Application Logical Port Assignment form. Default is No. We will be using the LPR1 Port 1754 to output traffic. Select: Yes
Maximum Number of Traffic Files	Enter the maximum number of traffic reports to be stored in disk. Default is 10. Select: 10

Table 25.1: Traffic Options Assignment form (Continued) (Sheet 2 of 2)

Option	Value
Sections to include in Traffic Report Select Yes to enable the collection of data for each resource group that is to be included in the traffic report. Default is No	
Route Plans	Yes
Route Lists	Yes
Routes	Yes
Trunk Groups	Yes
Trunks	Yes
Links	No
Groups of Links	No
Channels	No
DTMF Receivers	Yes
Data Transceivers	No
Modem Groups	No
Data Station Groups	No
Attendant Groups	Yes
Attendant Consoles	Yes
Attendants	Yes

Assigning a port

You must assign a port to the 3300 ICP to output traffic data.

To enable traffic data output

1. Log on to the 3300 ICP telephone system.
2. Browse to **Application Logical Port Assignment**.
3. Select **Traffic Report Port**.
4. Click **Change**.
5. Under **Port Physical Name**, type **LPR1**.
6. Click **Save**.

Testing traffic output

To test that traffic is being output through port 1754

1. Click **Start > Programs > Accessories > Communications > Hyperterminal**.
2. After **Name** type **Traffic**.
3. Ensure that the red telephone icon is selected.

   See the following figure.

Figure 25.1: Red Telephone Icon

4. Click **OK**.
5. After **Connect using**, select **TCP/IP**.
6. After **Host address**, type the IP address of the 3300 ICP
7. After **Port number**, type **1754**.
8. Click **OK**.
9. Wait the Period Length you selected in the Traffic Options Assignment form, for example 15, 30 or 60 minutes. The traffic should then output to your screen.
10. After the output is complete, you can disconnect and close the hyper terminal window.

Configuring traffic options in MiContact Center Business

To configure the traffic collection options in MiContact Center Business

1. Start YourSite Explorer.
2. Click **Media Servers**.
3. Select a 3300 ICP media server.

   NOTE: Make note of the Media Server ID. You will need this ID number later.
4. Click the **Data Collection** tab.
5. Verify the Traffic Analysis check box is selected and the port is 1754.
6. Click **Save**.
7. Wait the interval you selected in the Traffic Options Assignment, for example 15, 30 or 60 minutes.
8. Browse to **<installation drive:>\Program Files (x86)\Mitel\MiContact Center\DataDirectory\Node_[Media Server ID]**.

   This is the directory of the media server for which you configured traffic options.
   You should see a new file with the following naming convention, TYYYYMMDD.txt. For example, T20050127.txt, where YYYY is the year, MM is the month, and DD is the date.
9. Double-click the file to open it and view the traffic data.

Appendix B

IVR Routing Architecture

IVR Routing can operate in different configurations depending on your scalable, resilient, and redundant business environment requirements.

Scalability

IVR Routing provides scalability by distributing call loads across multiple IVR;Routing instances, managed from a single user interface. Scalability enables you to increase your IVR Routing instances as your business grows, supporting geographically distributed instances and reducing the number of ports required for common IVR;Routing tasks.

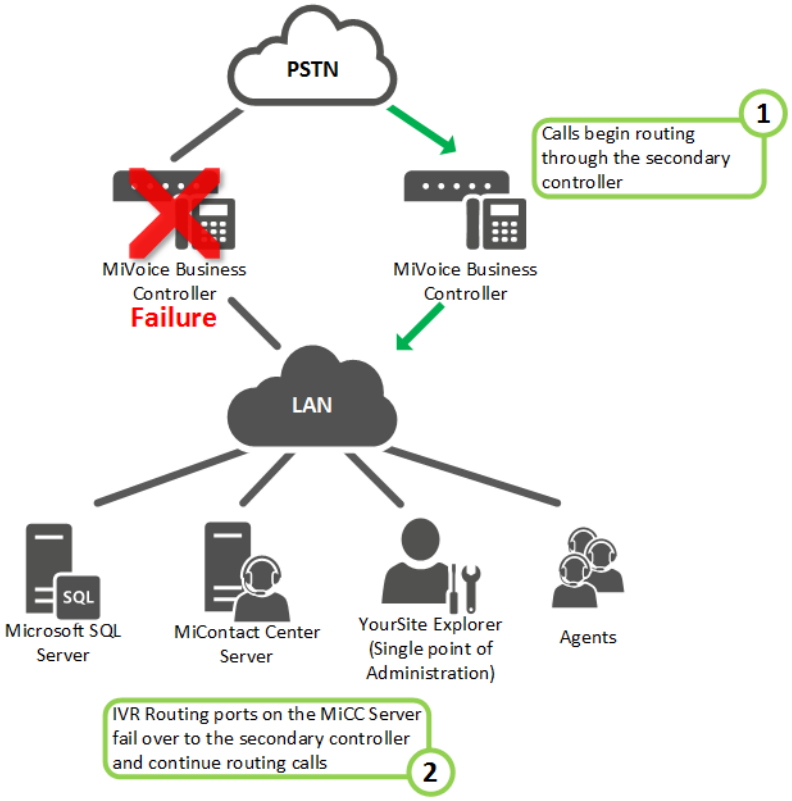
Resilient Configuration

IVR Routing also provides resiliency, with multiple live systems and redundant ports that compensate when one system goes down and resilient ports across controllers. In a resilient configuration, calls are routed through the secondary telephone switch if the primary telephone switch fails. IVR Routing functionality then fails over to the secondary phone switch to continue routing calls.

NOTE: You cannot make any major provisioning changes, for example, create new devices or make changes to existing devices and their relations to workflow associations while in failover mode.

The following figure displays an example of IVR Routing configured with multiple MiVoice Business controllers, providing ACD resiliency.

Figure 26.1: Resilient



Configuration

Redundant Configuration

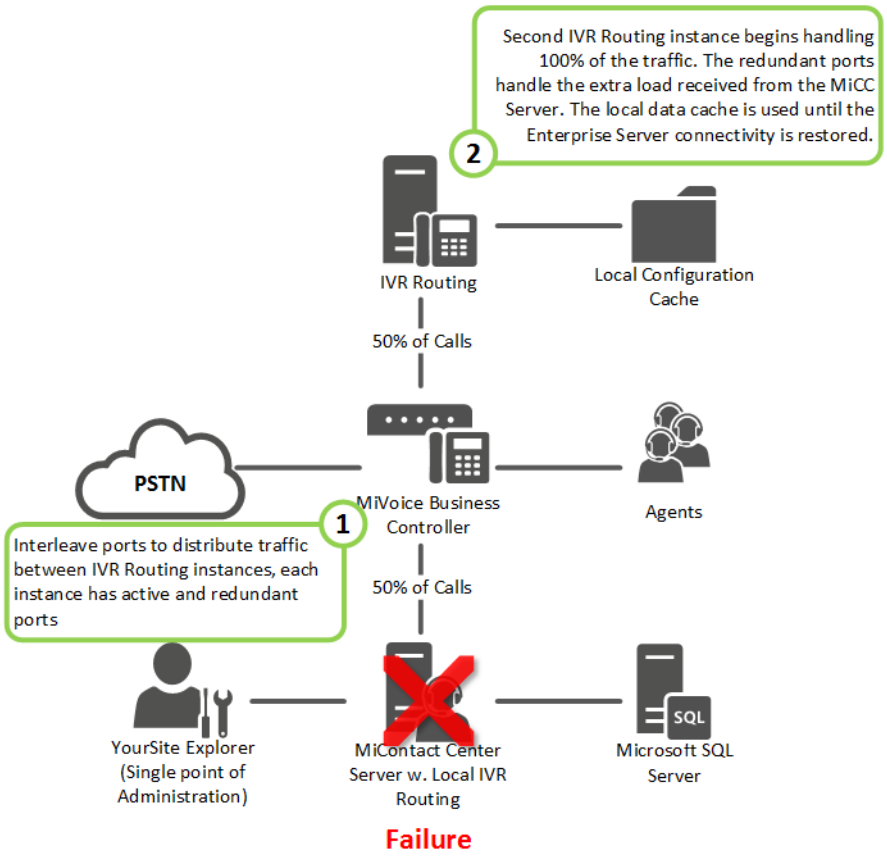
Resilient and reliable redundant IVR Routing environments are configured using multiple instances of live IVR Routing servers, with redundant ports to compensate when one system is impacted by hardware or software issues, network outages, or other unforeseen circumstances. Ports are resilient across multiple telephone systems and self-sufficient remote instances of IVR Routing will continue to function even if they lose connectivity to the primary database or site.

In the redundant IVR Routing configuration, the primary IVR Routing instance resides with the MiContact Center Business Server, which the secondary IVR Routing instance resides on a separate Remote Server. Each IVR Routing instance is assigned 50% of the ports and a matching set of redundant ports. If one server instance fails, it can use the redundant ports to handle the full call load.

NOTE: When using IVR Routing in a remote configuration, the Enterprise Server and all remote IVR;Routing servers must be in the same workgroup or domain to synchronize workflows correctly.

The following figure displays the redundant IVR Routing configuration.

Figure 26.2: Redundant configuration



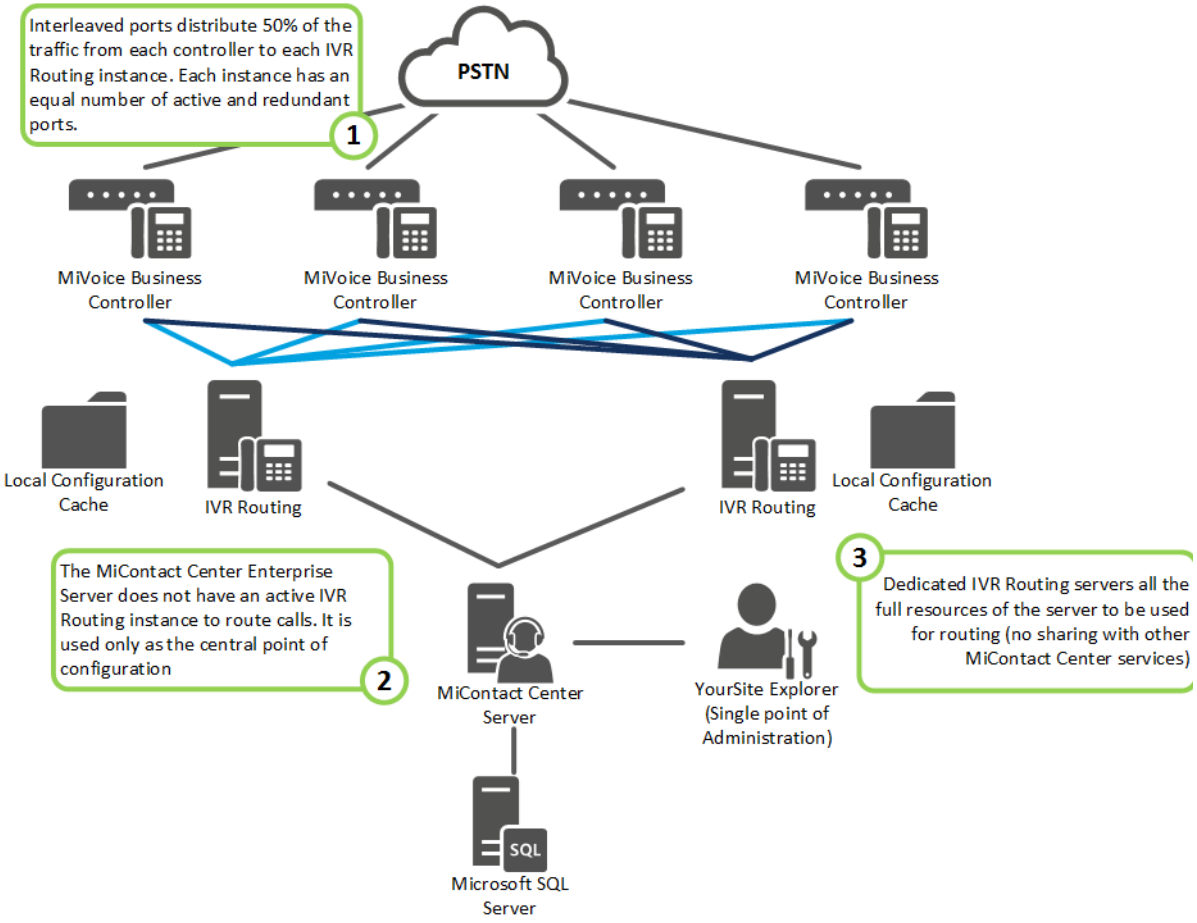
High Availability Configuration

IVR Routing high availability configuration consists of fully resilient controllers with dedicated highly available IVR Routing instances. Remote IVR Routing instances can be geographically dispersed to provide an added level of redundancy. In this configuration, we suggest IVR Routing not be installed on the Enterprise Server to avoid overloading the Enterprise Server hardware components. Each IVR Routing instance is on a dedicated server with a mirror of the Enterprise Server configuration information. If the Enterprise Server fails, all IVR Routing instances are unaffected. By making the telephone systems redundant in this configuration, if one IVR Routing instance fails, the remaining instances will pick up traffic from the telephone systems (up to the limitations of the hardware).

NOTE: When using IVR Routing in a remote configuration, the Enterprise Server and all remote IVR Routing servers must be in the same workgroup or domain to synchronize workflows correctly.

The following figure displays the resilient controller, dedicated high availability IVR Routing configuration.

Figure 26.3: High availability configuration



Terms and definitions

This section includes terms that may not be applicable to your software licensing level.

Abandoned call

An abandoned call is a call that the caller ends before the call is answered.

Account Code

Account Codes are classifiers that can be applied to call records and used to identify unique attributes about the caller or call for individual departments, projects, or services to generate reports on them. As well, they can be used by agents as classification codes for incoming calls. Account codes can be verified, non-verified, fixed length, or forced.

See Classification Codes, Fixed Length Account Codes, Forced Account Codes, Non-Verified Account Codes, Verified Account Codes.

ACD (Automatic Call Distribution)

ACD (Automatic Call Distribution) is a call distribution mechanism that distributes calls to a pool of available queue members.

ACD (state)

ACD is a state applied to a queue member while they are handling an ACD call.

ACD calls handled

See Calls Handled.

ACD calls interflowed

See Interflowed.

ACD calls offered

See Calls offered.

ACD calls requeued

See Calls requeued.

ACD handling time

ACD handling time is a parameter for MiContact Center Business that provides the sum of all events from answer to hang up of an ACD call.

ACD path

An ACD path is a predefined route that a call follows before reaching an agent. ACD paths direct callers to the agents or agent groups best suited to handle the calls. For example, a contact center can have an ACD path for sales, which routes callers to the agents taking sales orders.

Active Directory

Active Directory is a directory service created by Microsoft that is used for managing a domain. In MiContact Center Business, Active Directory is synchronized with YourSite Explorer to align Active Directory security groups and users with MiContact Center Business employees and employee groups within selected organizational units.

Agent

An agent is a contact center employee, assigned an Agent ID, who receives calls routed to ACD paths.

Agents available

Agents available is a real-time statistic indicating the current number of agents who are logged in and not in Make Busy or Do Not Disturb. If an agent is configured as a part of an agent group and is logged in, the agent is counted as available, even if they are not present in that agent group. This statistic can be used as a queue condition in IVR Routing.

ANI (Automatic Number Identification)

ANI (Automatic Number Identification) is a service that provides receivers of telephone calls with the caller information. ANI can be used to create screen pops for agents or to route calls by caller phone numbers.

Answered by

Answered by is the real-time name for the number of calls answered by the first, second, third, and fourth answer points

Answering points

An answering point is a single point of communication available to callers where they can contact a contact center, such as a queue, voice mail, or extension.

ASA

See Average Speed of Answer

Average Speed of Answer

Average speed of answer (ASA) is an ACD statistic that measures how long the average caller waits on hold before the call is picked up by a queue member (including time in queue and ringing time).

Average abandon time

The average abandon time is the average number of seconds callers wait in queue before they abandon a call.

Blocked call

A blocked call is a call that is unable to get into the contact center's telephone system because there are no trunks available. The caller receives a busy signal.

Busy hour

Busy hour is a statistic that highlights the busiest hour of operation of a business day.

Call abandoned parameter

The Call abandoned parameter is a queue configuration that defines short abandoned calls, determining what abandoned calls are included as abandoned in call statistics. The default the short abandon is configured at 6 seconds.

Call routing

Call routing is the set of instructions configured in Mi Contact Center Business to automate the movement of calls to their intended answering points.

Call type

Call type categorizes calls queue members receive, enabling them to be looked up in SMDR Inspector. Call types include ACD or Non ACD, abandoned, interflowed, requeued, unavailable, or outbound.

Callback

Callback is an optional feature of telephone systems that enables callers who are unable to reach an agent in a contact center to be called back by the contact center. Mi Contact Center Business and IVR Routing offer several methods of providing callbacks, including Call me back, voice callbacks, web callbacks, and abandon callbacks.

Calls abandoned

Calls abandoned is a report field detailing the total number of calls that abandoned in queue or while the phone was still ringing at an extension. Calls abandoned ignores calls that were abandoned before the short abandoned parameter had been passed.

See Abandoned calls.

Calls abandoned (long)

Calls abandoned (long) are abandoned calls where the caller hung up after the short abandon parameter had been passed. By default, the short abandon is configured to be 6 seconds.

Calls abandoned (short)

Calls abandoned (short) are abandoned calls where the caller hung up before the short abandon parameter had been passed and are not included in the call statistics.

Calls answered

See Calls handled.

Calls handled

A handled call is a call that has been picked up answered by a queue member. A call that listens to in-queue RAD messages is not considered handled until it is answered by a queue member.

Calls interflowed

See Interflowed.

Calls offered

1. Calls offered are all calls received, regardless of how they are handled or routed, including calls handled and both short and long abandoned calls.
2. Calls offered is a forecasting parameter used to determine the queue member requirement for a contact center's Service Level percent and Service Level time targets through applying the Erlang C equation to the estimated Call Load and average ACD Handling Time.

Calls requeued

Requeued calls are all calls replaced back into the same queue and offered to another agent when an agent receives an ACD call and fails to answer it after a pre-configured duration or number of rings.

Calls waiting

Calls waiting is the number of callers in a queue waiting for a queue member to become available, including those listening to Music on hold or queue announcements.

Camp on

Camp on is a notification tool that enables callers to notify an employee, who is currently on a call, that they are waiting to be answered. The employee is notified by a series of audible beeps.

Classification codes

Classification codes are classifiers appended to calls to categorize them, enabling reporting to examine specific categories of calls, such as those relating to specific products or services.

Clustered environment

A clustered environment is a network environment where multiple telephone systems are linked together to function as a single system.

Computer Telephony Integration

Computer Telephony Integration (CTI) are technologies that merge computer functions and telephone systems, enabling PC-based telephone systems to deliver functions such as synchronized voice and data delivery, voice and data conferencing, automatic information retrieval for calls, caller-based messaging and routing, and desktop productivity tools.

CTI

See Computer Telephony Integration

Customer Relationship Management

Customer Relationship Management (CRM) is a model for customer management that relies on technology to streamline and manage interactions with customers.

Date stamp

See Date/Time stamp.

Date/Time stamp

A date/time stamp is an indicator attached to a record or statistic detailing when it was created.

Delayed call

A delayed call is a call placed in the ACD queue because it cannot be immediately answered by a queue member. The ACD queue allows the client to wait for an available member rather than blocking the client from entering the system.

Dialable number

The dialable number is a digit or series of digits dialed by a caller to reach an answering point, such as an a queue member, an extension, a queue, or voice mail.

Dialed Number Identification Service (DNIS)

Dialed Number Identification Service (DNIS) is a telecommunication service that identifies the phone numbers dialed by inbound callers. DNIS can be used to route calls, enabling contact centers managing multiple product lines or businesses to direct calls to the appropriate endpoint.

Division

A division is a grouping of several employee or extension groups that enable a single report to be run for several groups simultaneously.

DND

See Do Not Disturb (state).

DNIS

See Dialed Number Identification Service.

Do Not Disturb (state)

Do Not Disturb (DND) is a state that prevents queue members from receiving inbound interactions and transfers. For agents, Do Not Disturb is an employee-level configuration. When an employee is in Do Not Disturb, they enter Do Not Disturb across all agent capabilities.

Employee

An employee is a person who is employed by an organization and configured as an employee in MiContact Center Business so that they have access to MiContact Center Business applications and may have their associated devices reported on.

Enterprise

An enterprise is both the single site where the Enterprise Server is installed and all the connected branch offices that comprise a company.

Enterprise Server

The Enterprise Server is the central server upon which MiContact Center Business is installed and from which MiContact Center Business runs.

Erlang

An Erlang is a unit of measure for telephone traffic equal to one hour or 3,600 seconds of telephone interaction, such as a single call lasting one hour or six calls lasting 10 minutes.

Erlang B

Erlang B is an equation used to estimate the number of trunks required by a contact center.

Erlang C

Erlang C is a forecasting equation that uses historical Call Load data, Service Level Percentage, Service Level Time, and Wrap up Time Used to predict the resources required to keep wait times within a contact center ‘s Service Level objective for the time interval and data range selected in a forecast.

External Hot Desking Agent

See Hot Desking Agent.

Extension

An extension is an endpoint for answering calls. Extensions can be assigned to Ring Groups., or can be logged into by agents.

Fixed Length Account Codes

Fixed Length Account Codes are verified and non-verified Account Codes that are automatically submitted to the system when the correct number of digits has been entered.

Forced Account Codes

Forced Account Codes are verified and non-verified account codes that must be entered at a specific time in a call. Forced verified account codes must be entered as soon as the phone is off the hook. Forced non-verified Account Codes must be entered after the phone number is dialed. Systems may be configured to avoid the requirement of entering a forced non-verified Account Code when making a call that must not be charged (for example, dialing a leading digit such as 8 to make a call without entering an Account Code and dialing a leading digit such as 9 to make a call that requires an Account Code).

Grade of service

The grade of service (GOS) is a measure of the likelihood of an attempted call receiving a busy signal. GOS compares the number of trunks to the level of traffic and expresses the result as a decimal fraction. A GOS of P.02, for example, indicates that a caller would have a two percent chance of receiving a busy signal.

Handled by

Handled by is the real-time statistic for the number of calls answered by the first, second, third, and fourth answer points.

Handled %

Handled % is the real-time statistic comparing the calls handled to the calls offered.

Handling time

Handling time is the measure of how long a call took to be handled by a queue member, from when the call is answered when the call is finished. Handling time includes talk time, hold time, as well as transfers and conferences on the call.

Hot Desking Agent

Hot Desking Agents are employees configured with a Hot Desking Agent ID that enables them to sit at any extension in a network and log on to that extension with all their regular work settings available. External Hot Desking Agents can hot desk remotely using any phone or headset.

Hunt group

A hunt group is a series of telephone lines grouped by the telephone system that rotates incoming calls through the lines until an available line is found and the caller is connected.

Inbound

Inbound is a descriptive term applied to forms of interaction or communication, such as a phone call, to indicate that it is being sent to a contact center from an external source.

Inbound calls

See Inbound.

Interflowed

Interflow is a mechanism that redirects interactions from queues to alternate answering points (for example, to another queue or to voicemail). Interflow statistics include interactions manually transferred from one queue to another. Interactions routed from queues to other answering points before the Short Abandon time are not included in Interflow statistics.

Interactive Voice Response

Interactive Voice Response (IVR) is a technology that enables callers to interact with a contact center's phone system by pressing keys or speech recognition while following IVR dialog.

Internal calls

Internal calls are calls made from within a system to other answering points within the same system.

LAN

A Local Area Network (LAN) connects multiple computers together over short distances. LANs typically operate within a building. The computers share information, applications, and peripherals, such as printers.

Logged on

Logged on is an agent state applied to agents who have signed into the ACD system.

Logged off

Logged off is an agent state applied to agents who have signed out of the ACD system.

Longest waiting

Longest waiting is the duration, in minutes and seconds, of the call that has been waiting the longest in queue.

Make Busy (state)

Make Busy is an agent presence state applied to prevent an agent who is busy from receiving ACD calls. Agents in Make Busy are able to receive Non ACD calls. Make Busy is an employee-level configuration. When an employee is in Make Busy, they enter Make Busy across all agent capabilities.

Media servers

A media server is a server or system, such as a telephone system, used to organize and distribute communications throughout a contact center.

MiTAI

MiTAI is a Mitel implementation of TAPI that is used to connect the telephone system/PCs running windows to external applications, such as ACD controllers.

Mitel OPS Manager

Mitel OPS Manager is a Mitel software application that provides network-wide administration and maintenance for MiVoice Business and 3300 Network Elements or Nodes.

Non ACD (state)

Non ACD is a state applied to queue members involved in an incoming personal contact, a member-originated call, or a call dialed directly to their extension.

Non-verified Account Codes

Non-verified Account Codes are numbers entered onto the SMDR record for billing and call management. During a call, non-verified Account Codes can be entered as often as required.

Outbound calls

Outbound calls are calls made from within a contact center to external answering points.

Overflow

Overflow is a call distribution mechanism that queues calls against two or more agent groups to limit the delay faced by callers. If a call in an ACD queue is not answered after the configured Overflow time, then it is placed into the queue of a second agent group in addition to the first queue.

PBX

See Telephone system.

Pooling principle

The pooling principle refers to the increased contact center efficiency gained by consolidating contact center resources.

Port

A port is a communications endpoint in MiContact Center Business used to link services.

Probability of delay

The probability of delay is a statistic that measures the likelihood of a call being delayed in the ACD queue, comparing the number of queue members to the level of traffic carried by the trunks.

PSTN

See Public Switched Telephone Network.

Public Switched Telephone Network (PSTN)

The Public Switched Telephone Network is a global collection of Central Offices (CO) interconnected by long distance telephone switching systems.

Quality of service

Quality of service is a reflection of an agent's ability to provide excellent assistance to each customer. Quality of service can be evaluated and managed through silent monitoring systems, IT support systems, CTI, ANI, and DNIS.

Queue number

A queue number is the address of a queue or other answering point used in the telephone system. The programming associated with the queue number defines the routing and timing options available to the call.

Queue member

A queue member is an individual answering for the queue. For ACD paths, ‘members’ refers to agents in the queue’s answering agent groups. For Ring Groups, ‘members’ refers to the extensions assigned to the queue’s Ring Groups.

Queue unavailable

1. Queue unavailable is a routing option that reroutes calls to an unavailable answer point/overflow point. Queues are unavailable when the call enters the system outside business hours, when all queue members have removed their presence, when all queue members are in DND, or when the queue has been placed in DND. Calls interflowed before the Short Abandon time are included in Queue Unavailable statistics.
2. Queue unavailable is a real-time statistic that counts how many calls were re-rerouted to other queues due to the queue being unavailable.

RAD

See Recorded Announcement Device.

Readerboard

See Wall sign.

Real-time adherence

Adherence refers to whether or not agents are performing the activities for which they are scheduled. Workforce management tools enable supervisors to be notified of discrepancies between agents' work schedules and the actual activities they perform.

Reason Code

Reason codes are descriptive classifiers applied to Make Busy and Do Not Disturb states to provide more detailed information as to why the queue member applied the code.

Recorded Announcement Device

Recorded Announcement Device is an IVR Routing feature that provides prerecorded messages to callers waiting in the ACD queue.

Reporting number

A reporting number is the unique number assigned by the system to contact center resources for reporting purposes.

Ring Group

A Ring Group is a collection of extensions, or a single dialing point for a collection of extensions, in a business. Ring Groups are typically used to reach back office extensions. For example, a business with

agents taking sales orders may also have several phone extensions in the warehouse. These warehouse phone extensions are compiled into a Ring Group, which can be reached via a single dialing point.

Service Level percent

The Service Level percent is the number of calls that are handled, abandoned, and interflowed before the Service Level time, compared to the total number of calls handled, abandoned, and interflowed.

Service Level time

The Service Level time is the specified time used in calculating the queue service objective in conjunction with the Service level percent, such as 80% (Service Level percent) of interactions answered within 120 seconds (Service Level time).

Silent monitoring

Silent monitoring is a MiContact Center Business feature that facilitates the tracking of agent extension call handling techniques by enabling supervisors to listen to the voice interactions of internal or external calls between agents and callers.

Site

A site is a physical location of a contact center with one or more media servers. It may be the same location where the Enterprise Server is installed or a branch office.

Spectrum

Spectrum is a reporting feature configured for queues that provides a frequency distribution of calls abandoned, answered, or interflowed based on a defined time scale.

SQL

SQL is a standard query language used to enter, query, and change data in a database, as well as create and administer databases. Administration of YourSite Explorer is done using Microsoft's SQL Server.

Subroutines

Subroutines are portions of workflows that can be reused in multiple workflows.

Talk time

Talk time is the measure of the time an employee agent spends talking to callers, excluding time spent on hold.

TCP/IP

TCP/IP is the basic communication protocol of the Internet and is used as a communication protocol in private networks (intranets).

Telephone system

A telephone system is a private branch exchange (PBX) or business telephone switch used to process incoming and outgoing calls to a contact center.

Time to answer

Time to answer is the measure, in seconds, of how long an incoming call remained in queue before it was answered. It is primarily used as an SMDR data mining criteria.

Time stamp

See Date/Time stamp.

True talk time

See Talk Time.

Trunk

A trunk is a communication line between two telephone systems.

Trunk load

Trunk load is the duration of time from when a trunk receives a call to when the queue member finishes handling the call and disconnects. Trunk load does not include Wrap Up Time.

Unavailable

Unavailable is an agent and employee state real-time column in Contact Center Client that includes agents unavailable to take calls due to being in Do Not Disturb, Make Busy, Work Timer, Reseize Timer, or Unknown.

Updated Position in Queue (UPiQ)

Updated Position in Queue (UPiQ) is a notification feature that provides messages to callers informing them of their position in queue and keeps them informed of their position if it changes, at preset intervals.

UPiQ

See Updated Position in Queue.

Verified Account Codes

Verified Account Codes are numbers entered before making a call to change the Class of Service or Class of Restriction at the station. When the call ends, the station returns to normal. Verified Account Codes can be tracked with SMDR for long-distance billing purposes and may be reported in Internal SMDR logs.

Wall board

See Wall sign.

Wall sign

A wall sign is an electronic sign used to display real-time ACD statistics to employees in a contact center.

WAN

Wide Area Network (WAN) connects multiple computers over a wide geographic area. WANs operate over telephone carrier lines through bridges or routers. Router options enable communication between high speed LAN links and slower speed WAN links, which tie LAN segments together.

Whisper Coach

Whisper Coach is a silent monitor feature that enables supervisors to converse with and coach agents handling calls without callers hearing the supervisor.

Workflow

Workflows are programed pathways in IVR Routing and Multimedia Contact Center, which control how interactions are routed to queue members.

Workforce management

Workforce management is the scheduling of contact center agents to meet forecasted resource requirements and the managing of agents to ensure they adhere to their scheduled activities.

Wrap Up Time

Wrap Up Time is a real-time and reporting statistic detailing the total time an agent spends in the Work Timer state.

Workflows

If you are configuring IVR Routing workflows, see *"Building workflows"*.

If you are configuring Multimedia Contact Center workflows, see *"Multimedia routing using visual workflows"*.

Subroutines

If you are configuring IVR Routing subroutines, see *"Building subroutines"*

If you are configuring Multimedia Contact Center subroutines, see *"Building subroutines"*

Variables

If you are configuring variables for IVR Routing, see *"Adding variables"*.

If you are configuring variables for Multimedia Contact Center, see *"Working with variables in Multimedia Contact Center"*.

Adding a Microsoft SQL data provider

If you are configuring a Microsoft SQL data provider for IVR;Routing, see *"Adding a Microsoft SQL server as a data provider"*.

If you are configuring a Microsoft SQL data provider for Multimedia Contact Center, see *"Adding a Microsoft SQL server as a data provider"*.

Adding a Microsoft Excel worksheet data provider

If you are configuring a Microsoft Excel worksheet data provider for IVR Routing, see *"Adding a Microsoft Excel worksheet as a data provider"*.

If you are configuring a Microsoft Excel worksheet data provider for Multimedia Contact Center, see *"Adding a Microsoft Excel worksheet as a data provider"*.

Adding a LDAP data provider

If you are configuring a LDAP data provider for IVR;Routing, see *"Adding a LDAP as a data provider"*.

If you are configuring a LDAP data provider for Multimedia Contact Center, see *"Adding a LDAP as a data provider"*.

Call flow 8
Call routing 9
Multiple queue routing 10
Planning cycle 13
Service criteria 16
Estimating the trunk requirement 25
Calculating the Shrinkage Factor 27
Staggering breaks to optimize call handling 28
Enterprise structure 58
Recommended configuration scenario 76
Microsoft Excel .csv formatting example 90
Notepad .csv formatting example 90
Virtual queue group 127
Security roles settings options for Yoursite Explorer 151
Inbound Customer Trace Report 165
MiTAI events example 167
Setting up Spectrum wall signs 192
Edit WallBoarder Service for Default Site Demo tab 194
Add sign group tab 196
Diagnostics tab 197
Add sign variable tab 198
Add Sign Message tab 199
Add sign plan tab 200
Add sign plan tab 201
Add sign plan tab 202
Priority message tab 203
Scheduled messages tab 203
Diagnostics monitor 210
Focusing and the Breadcrumb view 213
ANI routing workflow example 226
DNIS routing workflow example 226
Schedules and menus workflow example 227
Collected digits workflow example 227
Template - Default.html 241
Web callback Application Pools Advanced Settings 244
Management subroutine 337
Schedule with Mode of Operation and Menu 347
Sample ANI and DNIS Condition with unique Menus and Callback option 349
Schedule condition followed by DNIS and Language with Menus 351
Outbound workflow with Excel 353
Outbound workflow 358
SQL data types 359
Failed attempt example 360
Suggested variable configuration 360
Creating the advanced SQL query 362
Make Call activity 362

Powering connections

mitel.com

© Copyright 2021, Mitel Networks Corporation. All Rights Reserved. The Mitel word and logo are trademarks of Mitel Networks Corporation, including itself and subsidiaries and authorized entities. Any reference to third party trademarks are for reference only and Mitel makes no representation of ownership of these marks.

Branches of the Make Call activity 363
Menu activity options 363
Configuring the email template 364
Configuring the Play activity 364
Date format options 365
Dial Active Directory workflow 366
DialByAD subroutine 366
Required variables 367
Main Menu activity properties configuration 368
Menu option configuration 369
Collect Digits activity 370
Customized .wav file storage in Active Directory 371
Variable assignment 372
Parameter Assignment 373
Device Monitor sample application 433
Queue monitor sample application 435
Data Inspectors window 456
ACD Inspector main window - Agent events tab 457
ACD search criteria - Queue events tab 464
ACD search criteria - Option events tab 465
ACD search results - Agent events tab 466
ACD search results - Agent events tab 468
ACD search results - Queue events tab 469
ACD search results - Queue events tab 472
ACD Wild card search results - Queue events tab 473
SMDR search criteria - Call parties tab 476
SMDR search criteria - Call types tab 479
SMDR search criteria - Options tab 480
SMDR search results tab - Call parties search 490
SMDR search results - Call types search 491
SMDR Search result - Options search 492
Contact Center Client ribbon 502
Context sensitivity example - Agent Control tab 504
Contact Center Client options 505
View options ribbon 506
Status bar 507
Agent State by Position - viewing agent availability and online presence 516
Employee State by Position - viewing employee availability and enhanced presence 516
Agent State by Position - viewing multiple agent IDs 518
Employee State by Position - viewing the ID to which the agent is logged on 518
Employee State by Position 518
Agent State by Time 519
Agent State by Time for Queue 520
Agent Shift 521
Agent monitor with failed over agents 524
Employee monitor with failed over agents 525

Powering connections

mitel.com

© Copyright 2021, Mitel Networks Corporation. All Rights Reserved. The Mitel word and logo are trademarks of Mitel Networks Corporation, including itself and subsidiaries and authorized entities. Any reference to third party trademarks are for reference only and Mitel makes no representation of ownership of these marks.

Extension monitor with failed over agents 525
Extension State by Position 526
Extension State by Position 527
Extension State by Position 528
Extension Now monitor 528
Queue by Period 530
Queue Now 533
Queue Now 547
Queue Performance by Period chart 548
Global callback monitor 550
Port status monitor 552
Auditor toolbar 554
Add/Remove devices 557
Docking monitors 558
Docked monitor 558
Set alarms window 567
Card design window 568
Enable grouping 570
Contact Center Chat 573
Desktop Chat notification 574
Forecasting window 585
Average Handle Time window 588
Contacts Offered window 589
Weekly total for Contacts Offered window 589
Agent Shift - Agent Control tab options 593
Extension State by Position – Extension Control tab 604
Extension State by Position – Extension Control tab 604
Queue Now monitor - Monitor Options tab 606
Placing a queue in Do Not Disturb 606
Interactive Visual Queue monitor 608
Redirecting a call to an extension 614
Soft phone configuration window 620
Soft phone toolbars 621
Thumbnail soft phone toolbar 622
Making a call 632
Contact Center Softphone display 634
Making a call 639
Contact Center Softphone display 641
Consulting with a person while on call 645
Call recording 647
Softphone coach on 649
MiCollab Client and Ignite integration 652
Accessing agent availability in the Ignite Transfer window when transferring a call 653
Flexible Reporting user interface 658
Scheduler window 671
People pane 672

Powering connections

mitel.com

© Copyright 2021, Mitel Networks Corporation. All Rights Reserved. The Mitel word and logo are trademarks of Mitel Networks Corporation, including itself and subsidiaries and authorized entities. Any reference to third party trademarks are for reference only and Mitel makes no representation of ownership of these marks.

Time bar pane 673
Totals pane 673
Schedule details pane 674
Adherence Detail Grid monitor 709
Adherence Timebars monitor 710
Default Workload 772
Root chat request form 808
Queue chat request form 810
DefaultConfig with ChatQueues fields 823
chat.supervisor.config.js formatting 835
Contact Us 838
Contact Us (Expanded) 839
Contact Us (horizontal) 840
Email Us form 841
SMS form 842
Web callback 843
WickedTix with open slider 845
Contact Us contactus.config.js fields 849
Focusing and the Breadcrumb view 864
Agent or Employee State by Position monitor 930
Agent or Employee State by Time monitor 931
Agent State by Time for Queue monitor 933
Agent Shift monitor 934
Queue by Period monitor 937
Queue Now monitor 941
Queue Group Now monitor 943
Queue Now (Integer chart) 956
Queue Performance by Period chart 958
Employee State by Position - Employee Control tab options 960
Agent State by Position - Agent Control tab options 962
Employee State by Position - Monitor Control tab options 963
Agent State by Position - Monitor Control tab options 964
Interactive Visual Queue monitor 973
Previewed email 979
Previewed chat 980
Previewed SMS 981
Auditor toolbar 983
The Ignite UI for handling multimedia interactions 992
Ignite's Sidebar and controls 996
Agent handling statistics as displayed in Ignite's Status bar 1000
Ignite's My Folders view 1001
Data displayed in the List pane's Card view Inbox 1002
Queue statistics displayed in the Queue Folder view 1005
Ignite's Sort Ascending/Descending button 1006
The Expand group headers button 1014
Device pane button to unpin an item 1016

Powering connections

mitel.com

© Copyright 2021, Mitel Networks Corporation. All Rights Reserved. The Mitel word and logo are trademarks of Mitel Networks Corporation, including itself and subsidiaries and authorized entities. Any reference to third party trademarks are for reference only and Mitel makes no representation of ownership of these marks.

Feedback button 1024
Contacts button 1027
Avatar and agent state 1029
Interaction in Inbox 1033
Active interaction 1033
Inbox agent handling statistics (Average Handling Time) 1034
Inbox real-time statistics 1036
Spell check options 1091
Browse Reply Templates button 1092
Chat Input pane 1099
Spell check options in the Input pane 1102
Spell check options in the Input pane 1122
Click to IM and Click to Call 1136
Red Telephone Icon 1147
Resilient Configuration 1149
Redundant configuration 1149
High availability configuration 1151