

Grandstream Networks, Inc.

**Wave Web - User Guide**



## Overview

Wave web is a client application for the UCM63xx series IP PBX users to use a web browser to participate in web video/audio conferences and make calls via WebRTC. With Wave web client, users can easily create, schedule, manage, and join video conference calls, share presentations, chat during conference calls, register UCM extension and make point-to-point calls. Wave web helps enterprise users to join meetings and communicate efficiently. It is an ideal product for enterprises looking for tools for users to communicate and work productively.

## Feature Highlights

- Supports Google Chrome v75+ and Mozilla Firefox v70+.
- Native integration with UCM including contacts and ability to display SIP users' online status.
- Supports LDAP to access contacts in the UCM LDAP server.
- Supports call display, voicemail, and call encryption.
- Supports call history.
- High-quality point-to-point audio and video calling.
- Full integration with Grandstream's series of IP PBX, including the creation of QR code for automatic login, call transfer, call recording from the server, etc.
- Supports Multi-factor authentication for login when integrated with UCM6300/A IP PBX.
- Supports Opus and G.722 for HD audio. Jitter resilience up to 50% audio packet loss and 20% video packet loss.
- Supports H.264.
- Supports joining the meeting via link without logging in.
- Supports scheduled meetings and meeting now at anywhere anytime.
- Built-in NAT traversal including automatic NAT discovery and TURN/ICE.
- Support basic chat functions, including single chat and group, chat, sending files and emoticons, starting audio conferences in a group chat, simultaneous group chats, and meeting chats.
- Integrated UCM user portal entry to access personal data, follow me settings, SCA, wakeup calls, etc.

## Specifications

Specifications and limitations of WebRTC change from one model to another, please find below a table showing the specifications for the features on each model.

Below are the rest of the technical specifications for all the models:

<b>UCM630x series</b>	<b>Video feeds</b>	<b>Screen Share Feed</b>	<b>Concurrent user registration</b>	<b>Participant limit (Audio Conference)</b>	<b>Participant limit (Video Conference)</b>
<b>UCM6301</b>	4 or 9	1	500	75	20
<b>UCM6302</b>	4 or 9	1	1000	150	30
<b>UCM6304</b>	4 or 9	1	2000	200	60
<b>UCM6308</b>	4 or 9	1	3000	300	80

*Model specifications for Wave Web*

Below are the rest of the technical specifications for all the models:



<b>Protocols/Standards</b>	SIP RFC3261, TCP/IP/UDP, RTP/RTCP, HTTP/HTTPS, DNS (A record, SRV, NAPTR), STUN/TURN/ICE, SIMPLE, LDAP, TLS, SRTP, IPv6
<b>Voice Codecs and Capabilities</b>	Opus, G.711 A-law/U-law, G722, NetEQ
<b>DTMF</b>	In-audio, RFC2833, SIP INFO
<b>Video Codecs and Capabilities</b>	H.264 1080P HD video supports displaying multiple videos, screen sharing, camera block, GS-FEC
<b>Telephony Features</b>	Call hold/unhold, mute/unmute, call transfer, audio meeting room, call history, scheduling meeting, voicemail, call recording, etc. User portal entries allow access to personal data, wakeup call settings, SCA, follow me settings, call queue, CDR, CRM user settings, etc.
<b>UCM Applications</b>	Supports UCM feature codes (transfer, call park, recording, meeting control options, etc.)
<b>QoS</b>	Layer 3 QoS (ToS, DiffServ, MPLS)
<b>Security</b>	SIP over TLS, SRTP (128-bit and 256-bit), HTTPS
<b>Multi-language Support</b>	English, Simplified Chinese, French, Spanish (Latin America), Spanish (Spain), Italian, Greek, Arabic, Russian, German, Polish, Portuguese and Vietnamese.
<b>Login</b>	<ul style="list-style-type: none"> <li>• Supports login with extension and user password.</li> <li>• Supports joining meetings via link without logging in.</li> <li>• Supports Multi-factor login when integrated with UCM6300/A IP PBX.</li> </ul>
<b>Upgrade</b>	Wave Web client is built-in with UCM and upgrades via UCM.

### *Wave Web Specifications*

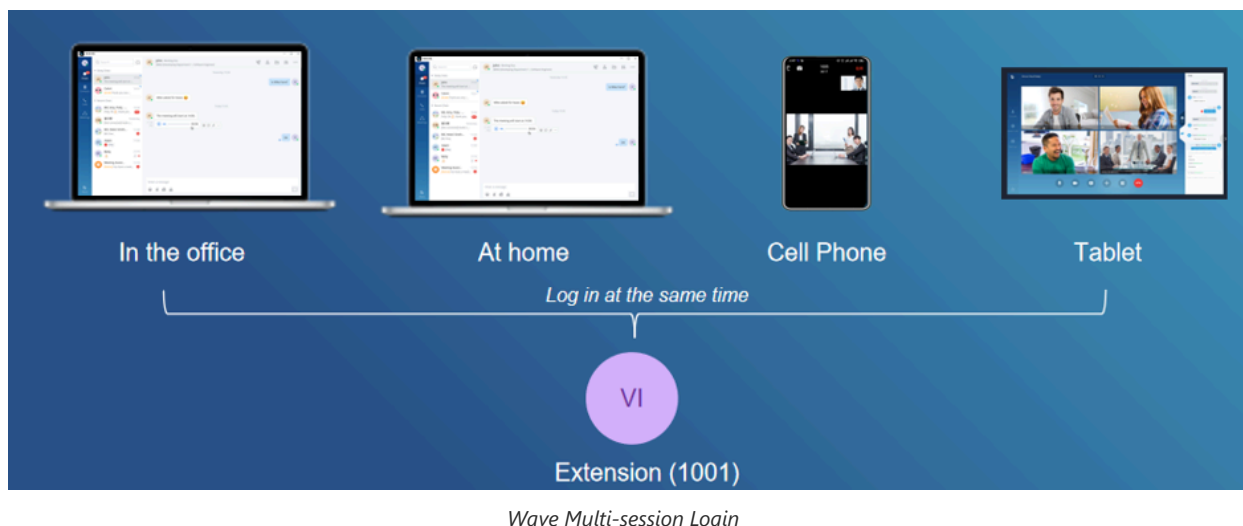
Please visit our website for more Wave web information and product documentation: <https://www.grandstream.com>

## LOGGING IN TO GRANDSTREAM WAVE WEB PORTAL

Wave users can use their extension number and their Wave password to log into their account on a web browser. If the user has already logged-in in their smartphone, they can use Wave mobile application to scan the QR code generated by Wave web to log into their account without having to re-enter their extension number and password.

The user can also log into their extension from different computers or on the same computer from different web browser, given that the option has already been enabled in the UCM6300 Series.

Please see the illustration below which explains opening multiple sessions on different devices.

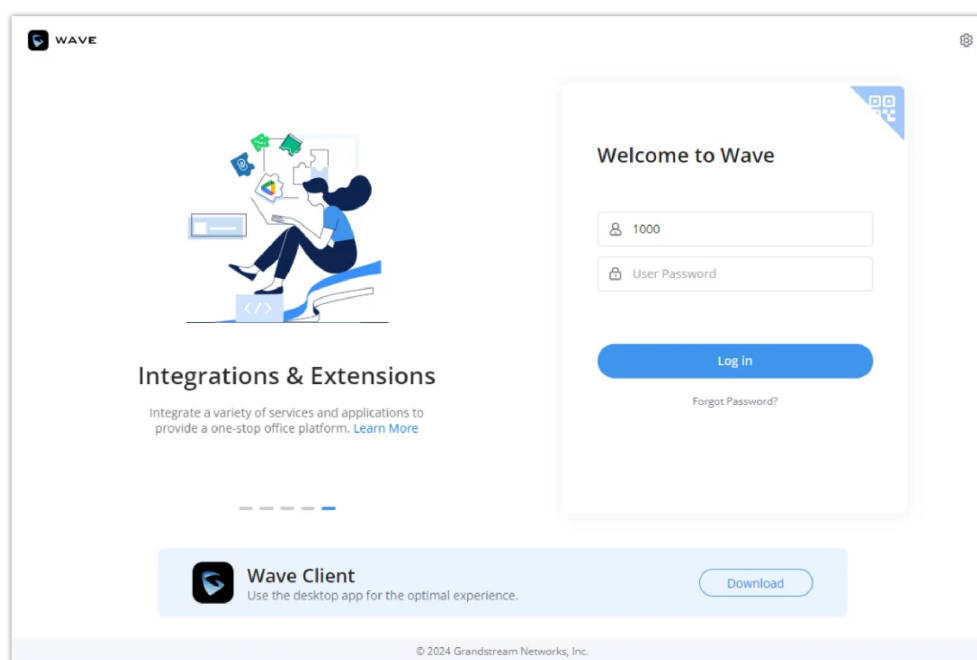


Wave Multi-session Login

## Log In Using Credentials

With the UCM SIP extension number and user portal password, users could log in to the Grandstream Wave web portal. After logging in successfully, users can host meetings, schedule meetings, manage contacts, make calls, transfer calls, chat during a meeting, etc.

The Grandstream Wave web portal can be accessed by using the UCM's server public address and port 8090. For example, <https://my.ucm.com:8090>

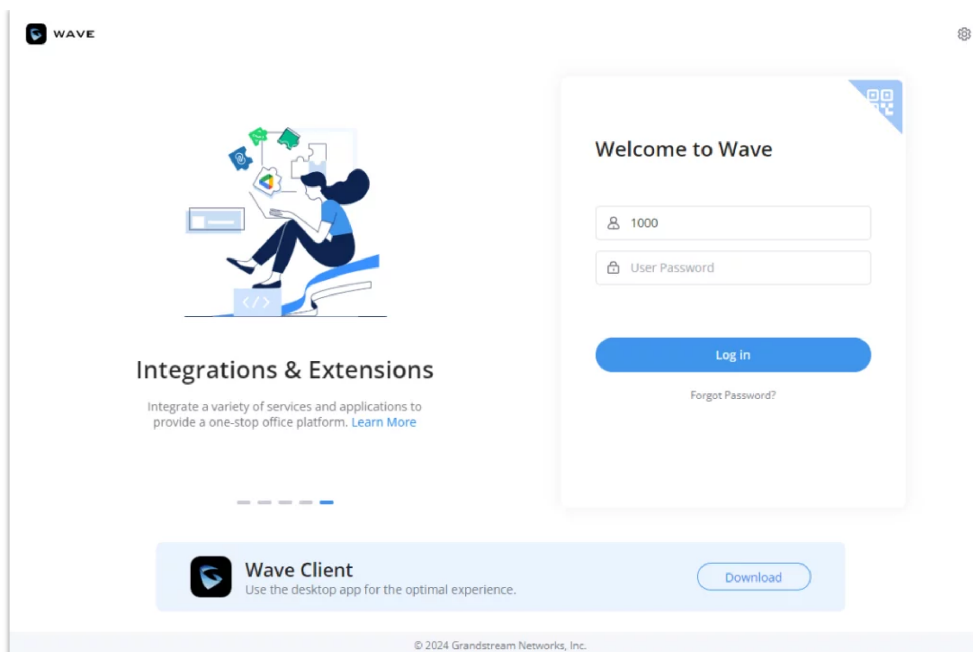


Grandstream Wave Web Login Page

If the user can access UCM's admin web portal login page, he can click on the "Wave" link under the "Login" button to open the Grandstream Wave web portal.

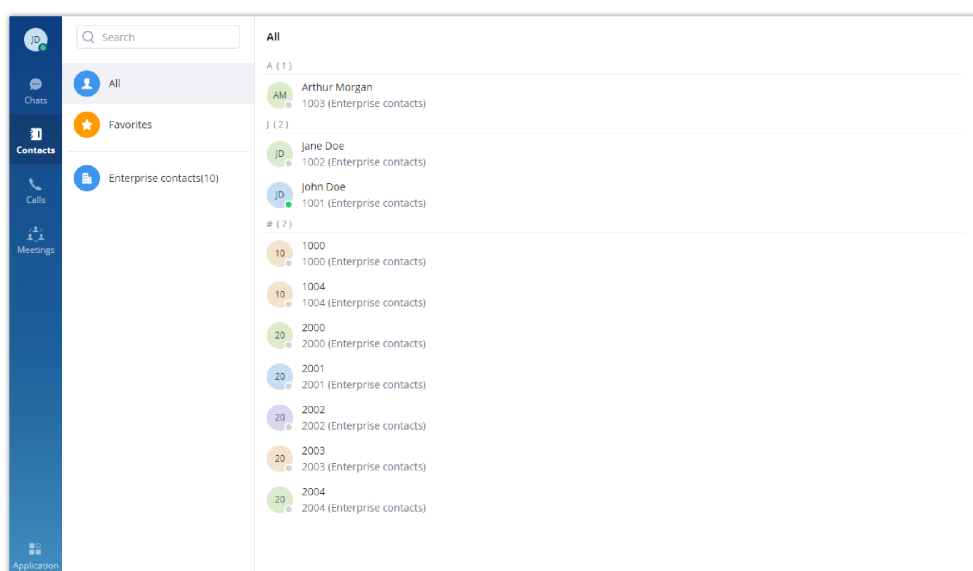
## Notes

1. If the UCM has set up the remote work suite service, the user can log in and use Wave Web client directly using the domain name issued by the GDMS platform in the service module.
2. The user must log in with the user password, and the SIP password is not supported for login. If the user does not know the user password, please contact the administrator, or reset the user password.



*Access Grandstream Wave Web Portal from UCM Admin Login Page*

Enter an extension number and its user portal password on the Grandstream Wave web login page. Once logged in successfully, the following page will appear:

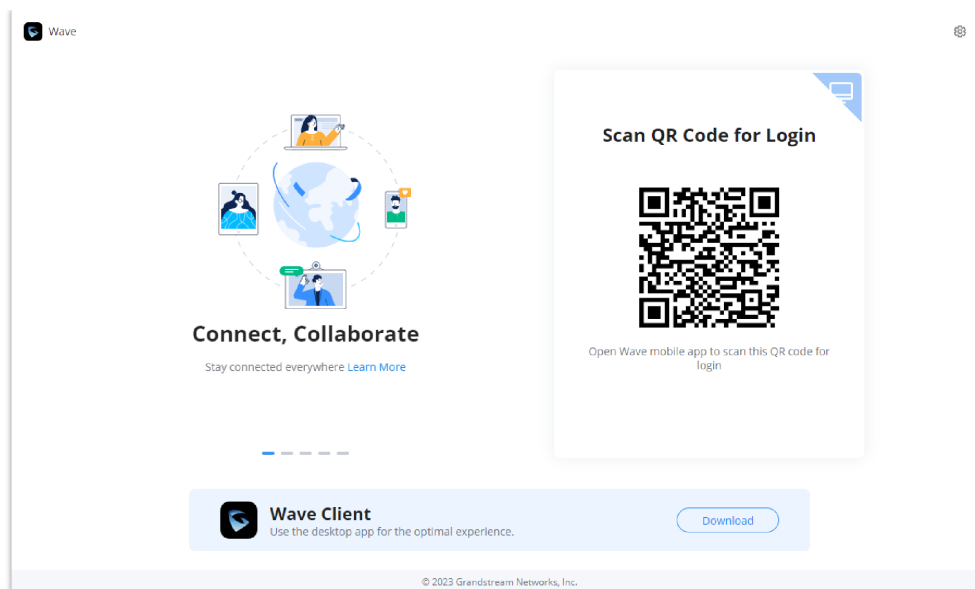


*Grandstream Wave Web Default Page after Login*

## Log In By Scanning QR Code

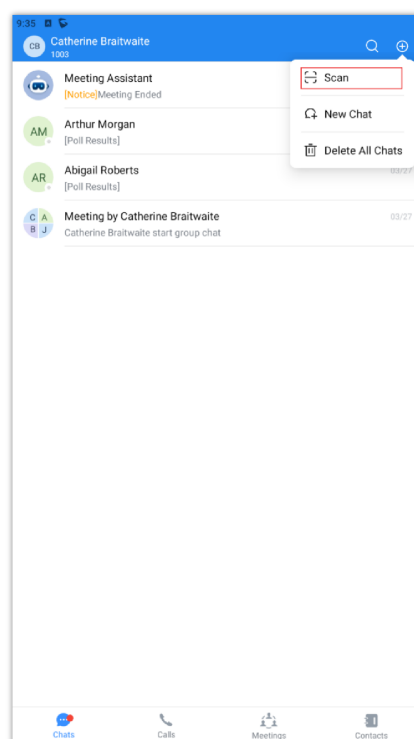
This feature allows you to login quickly to Wave Web client if you are already logged into Wave on your smartphone. To login using this method, please follow the steps below:

**Step 1:** On Wave Web, click on the top right corner highlighted in blue to change the login method.



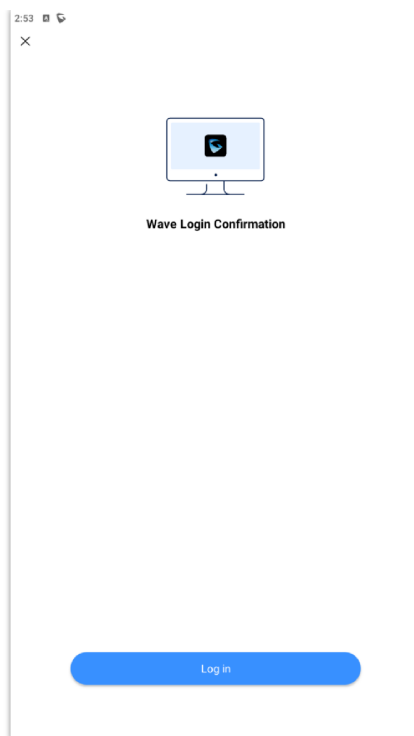
Wave Web QR Login

**Step 2:** On the Wave mobile application, click on the plus icon in the top right corner, and select "Scan".



Wave Mobile – Scan QR Code

Once the QR is scanned, press "Login"



*Wave Mobile – Approve Login*

## Wave Password Recovery

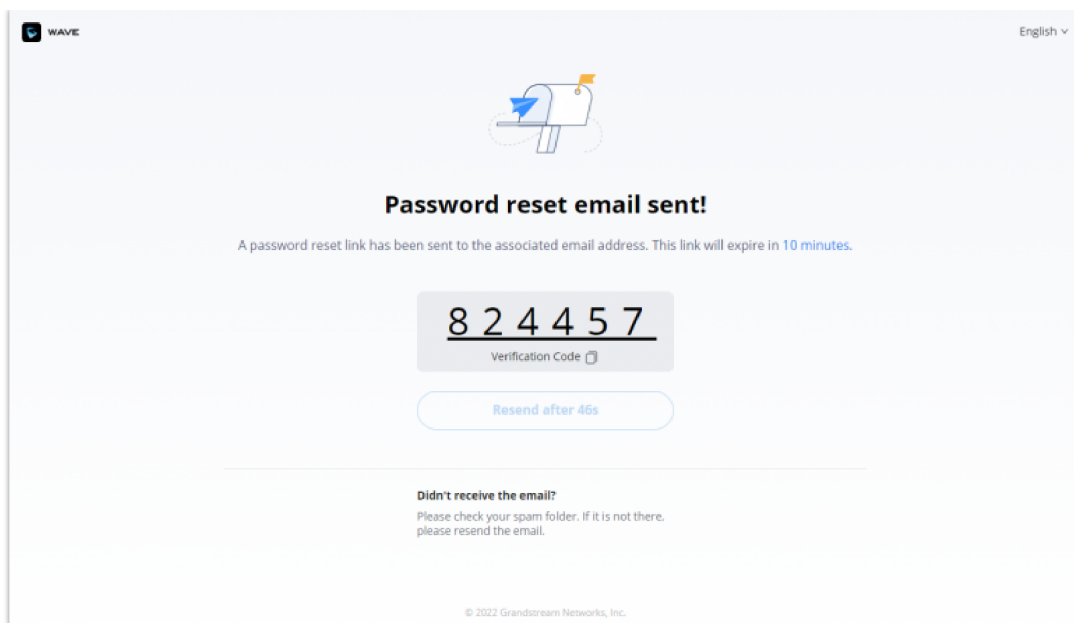
Users can reset the Wave login password by following the below steps:

1. Click on Forgot Password and the below window will be displayed, then enter the username.

A screenshot of a web application interface for password reset. The top left corner features the "WAVE" logo, and the top right corner has a language dropdown menu set to "English". The main heading is "Reset Password". Below the heading is a subtext: "After entering your account number and clicking the button to send email, please check the reset email in your account email address." There is a text input field with a user icon and the text "1001". Below the input field is a blue rounded rectangular button labeled "Send Email". At the bottom of the page, there is a small copyright notice: "© 2022 Grandstream Networks, Inc."

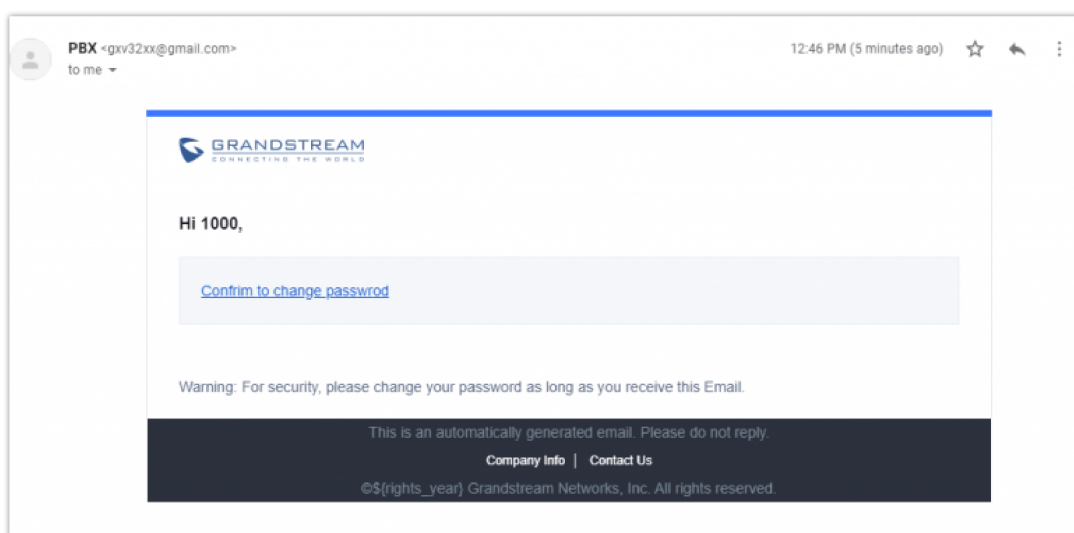
*Reset Password – Username*

2. After clicking on Send Email a verification code will be given.



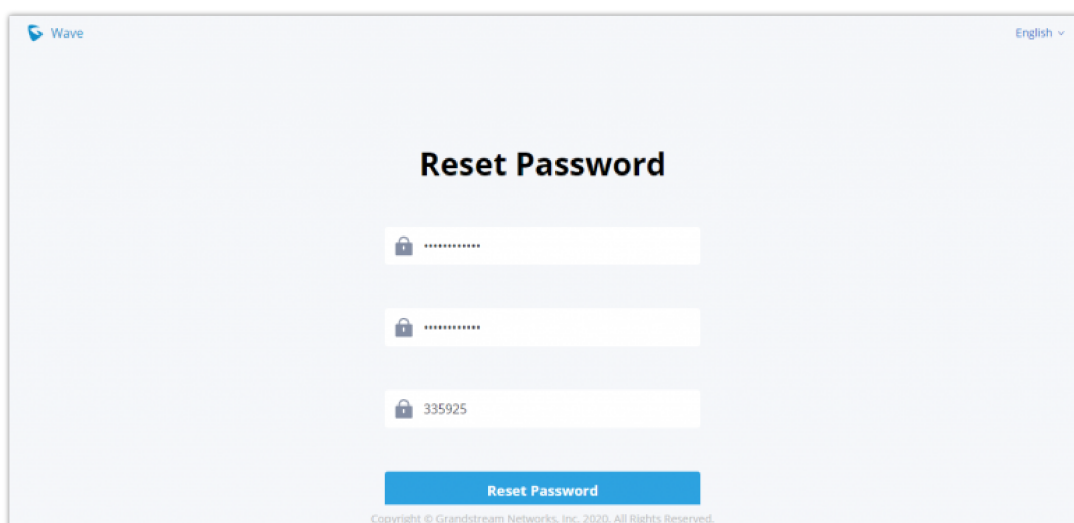
*Reset Password – Verification Password*

3. An email will be sent to the email address configured under the extension.



*Reset Password – Email*

4. On the received email, click on the link to confirm to change password and you will be redirected to the below page, where you will need to enter a new password, re-enter it, and the provided verification code, as shown below:



*Reset Password*

5. And you will be jumped to the login page after the password is reset correctly.

## Note

Users can reset the Wave login password, not the extension SIP password, which means when you reset the Grandstream Wave's password, the Endpoint phone's SIP account's password will not be reset.

## Wave Multi-Factor Authentication

To strengthen account security and protect user data, Wave includes support for **Multi-Factor Authentication** for Web users.

When this feature is enabled, users will be prompted to complete the **MFA Binding process immediately after their login** to the Wave Web. The system will prompt for a time-based one-time password (TOTP) or other configured MFA method during each login session.

Please follow the steps below to enable and configure MFA for Wave Web users:

### 1. Enable MFA Binding on the Extension Level

- Navigate to **Extensions** on the UCM web interface.
- Locate the desired extension and enable "**Multi-Factor Authentication**" under the **Wave Client** settings.

Extensions > **Edit Extension: 1000**

Basic Settings Media Features Voicemail Custom Time Wave Client Follow Me Advanced Settings

To use Wave in a public network environment and ensure proper media traversal, RemoteConnect services must be deployed, or STUN/TURN servers must be configured. RemoteConnect is recommended.

**Normal**

Enable Wave ☒

Allow Concurrent Logins from the Same Client Type ☐

If enabled, Wave will allow more than 1 Desktop/Web client and more than 1 Mobile client login at a time. Otherwise, only 1 Desktop/Web login and 1 Mobile login will be allowed. The extension's concurrent registration limit will still apply.

**Multi-Factor Authentication** ☒ Authentication Method: -

Once enabled, please use the recommended wave version to prevent users from being unable to log in because the Wave version does not support multi-factor authentication.

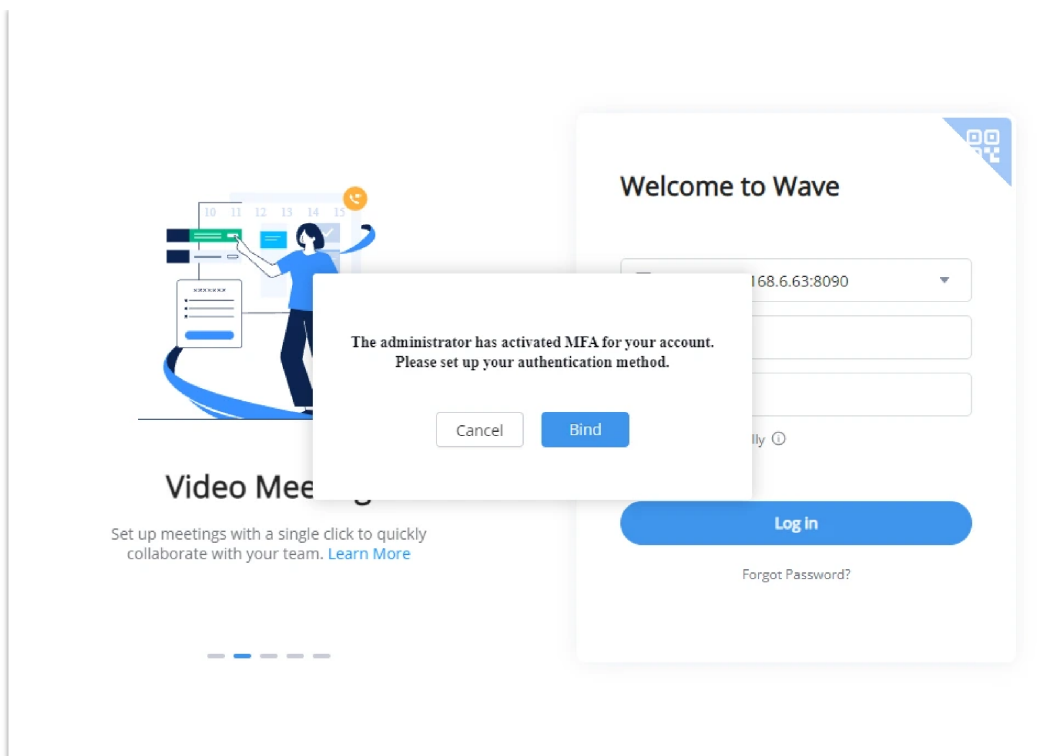
Wave Welcome Email [Email Template](#) [Send to Extension](#)

Wave Permission Settings [Go to Page](#)

*Extension Wave Client Settings*

### 2. Login to Wave Web

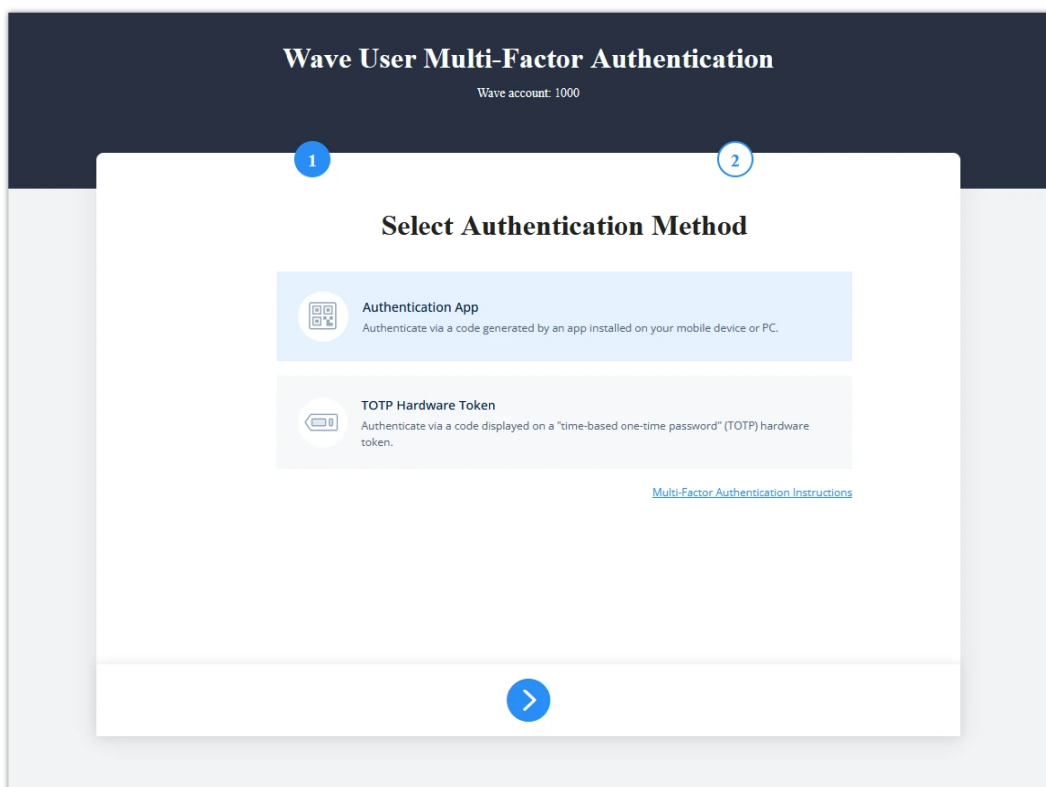
- The user logs in to the Wave Web using their User/Wave credentials.
- After logging in, the following message will be displayed.



*MFA Enabled Prompt*

3. Click the **Bind** button to begin the MFA setup.
4. Select **Authentication Method**, the available MFA options are:
  - **Authentication App:** Authenticate via a time-based one-time password (TOTP) generated by an authentication app (e.g., Google Authenticator, Microsoft Authenticator) installed on a mobile device or PC.
  - **TOTP Hardware Token:** Authenticate using a hardware token that displays a TOTP code.

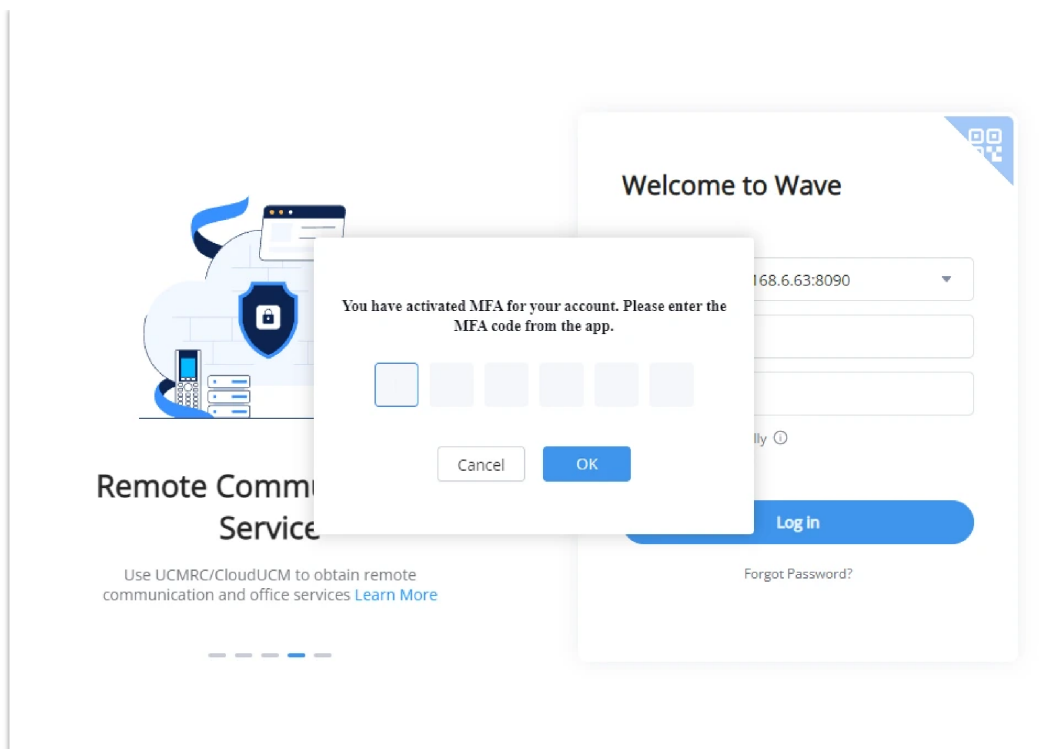
Please refer to [the Multi-factor Authentication How-To Guide](#) for step-by-step instructions on configuring both authentication methods.



*Authentication Methods*

Once setup is complete, the selected MFA method will be required for all future Wave logins associated with that extension.





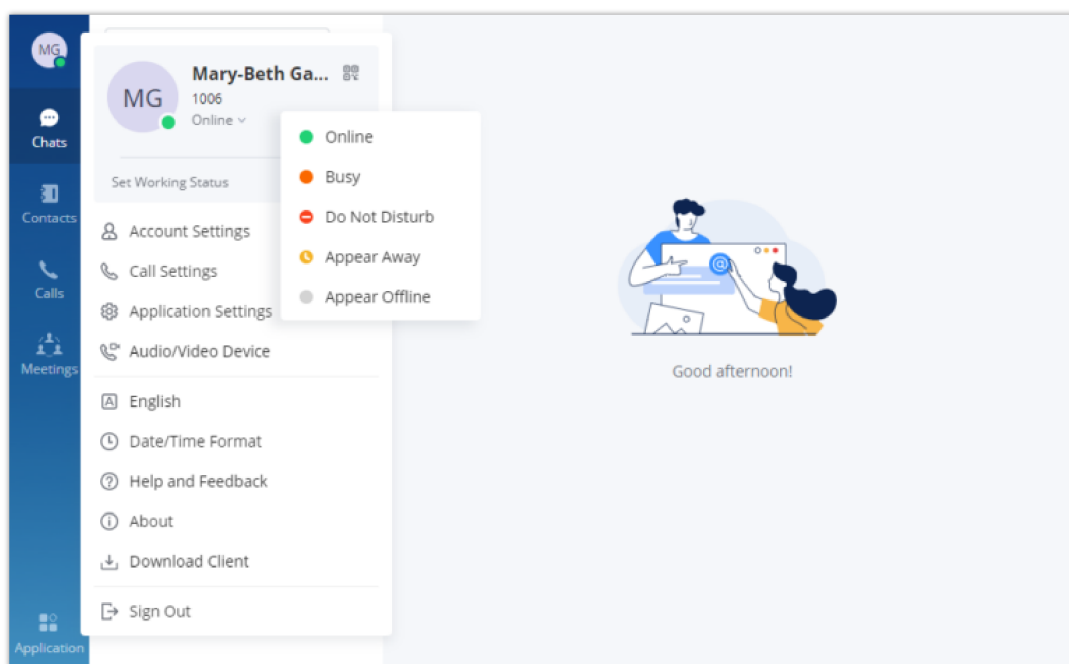
*MFA Login Prompt*

## Custom Status

Wave users can customize the status in the application. It is divided into account status and working status, and it is displayed in the contacts book and chat module.

### ◦ **Account Status:**

The user can click the user icon to enter the configuration interface, then click the status below the account at the top to customize the status of the account, as the screenshot shows below:



*Account Status*

10 **Online:** This is the default account status. The new calls and messages will prompt users.

10 **Busy:** The user is busy now, and the user can send/receive new calls and messages normally.

10 **Do not disturb:** The new incoming calls and messages will be prompted without any sounds, and there is no pushing notification. The new incoming calls will be ignored, and the new missed call history will be generated.

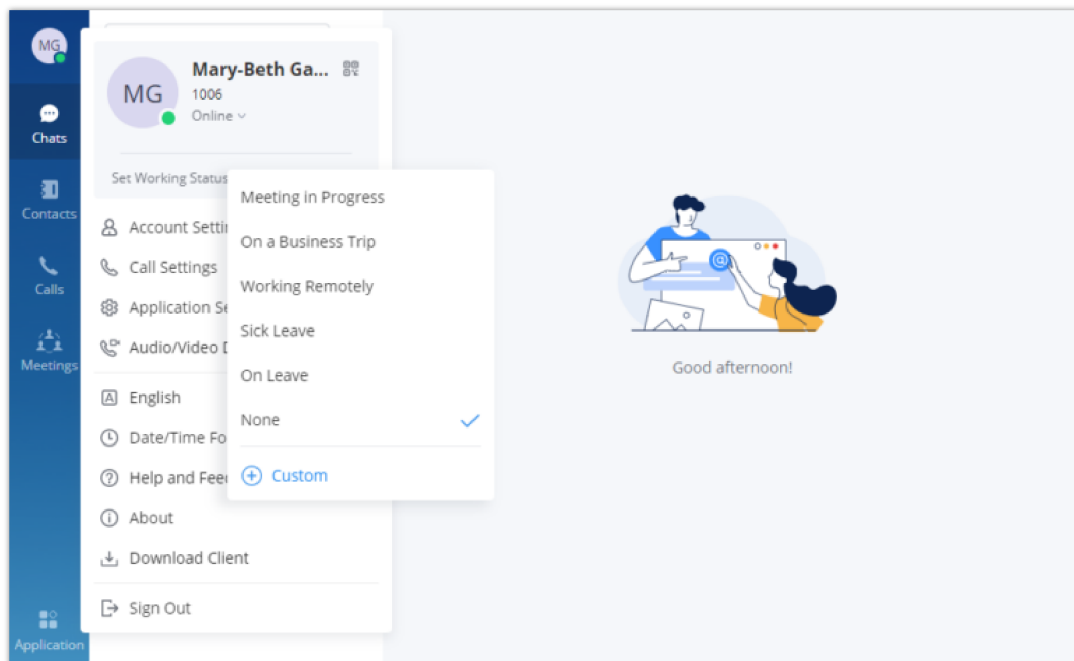
10 **Offline:** The account status will be displayed as offline, but the user still can send/receive calls and messages normally.

10 **Away:** The account status will be displayed as away, but the user still can send/receive calls and messages normally.

#### ◦ Working Status

The user can click the status bar below the user icon and click “Set Working Status” to select the following working status: Meeting in progress, on a business trip, Working remotely, Sick leave, On leave, None, and Custom.

After setting the working status, it will be displayed in the contacts book and chat module.



*Working Status*

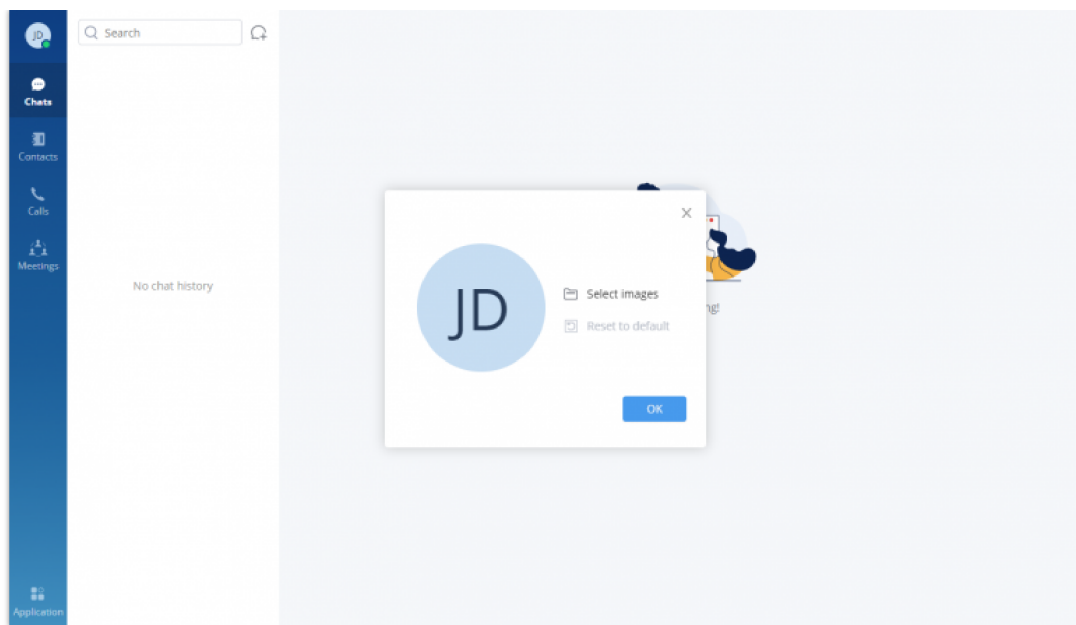
#### Note

The custom working status allows users to enter up to 64 characters and the emojis are not allowed.

## Custom Avatar

Users can customize the profile avatar and the custom avatar will be displayed in the contacts book, chat interface, and meeting interface.

1. **Step 1:** Click on the account icon on the left upper corner, and click “**Change profile picture**”; users can modify the avatar as the screenshot shows below.
2. **Step 2:** Click on “**Select images**” to open the local file selection window, users can select the images from local files.
3. **Step 3:** Select an image and click “**OK**” to upload the custom avatar to the application.



*Custom Avatar*

Users can click the **"Reset to default"** option to restore the avatar to the original avatar.

#### **Note**


Custom avatar uploading only supports PNG, JPG, and JPEG files.

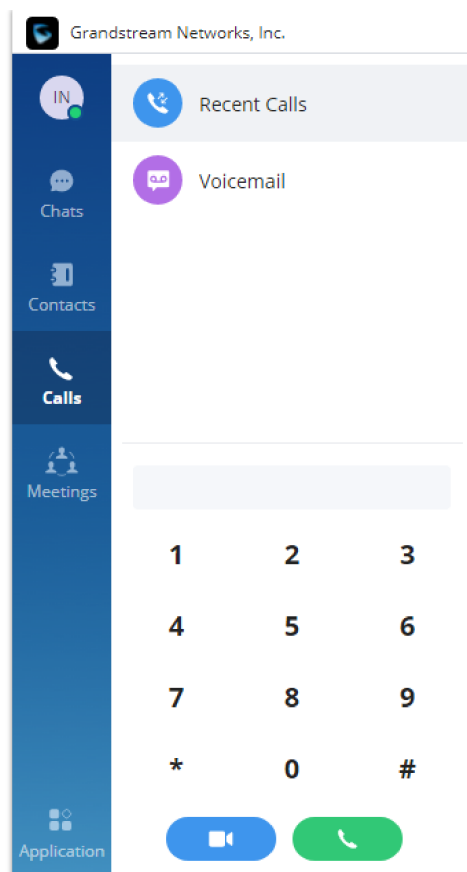
## **CALLS**

### **MAKING CALLS**

Users can use Grandstream Wave web for point-to-point audio and video calls. In case the user initiates a call from the group chat, a meeting will be created once the call has started.



#### **Initiating a Call from Keypad**

1. After logging in to Grandstream Wave web, click on Calls icon  on the bottom left of the page to bring up the keypad.



*Initiating a Call from Keypad*

2. Enter the number to dial.

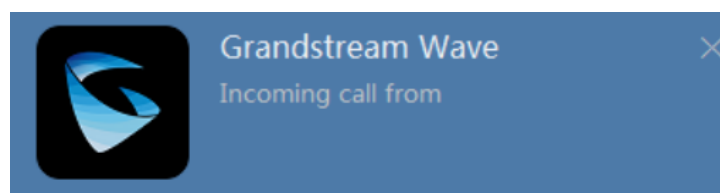
3. Click on  for a video call or click on  for an audio call.

#### Note






All calls are routed via UCM. Users can dial internal extensions, PSTN numbers, and mobile phone numbers as needed.

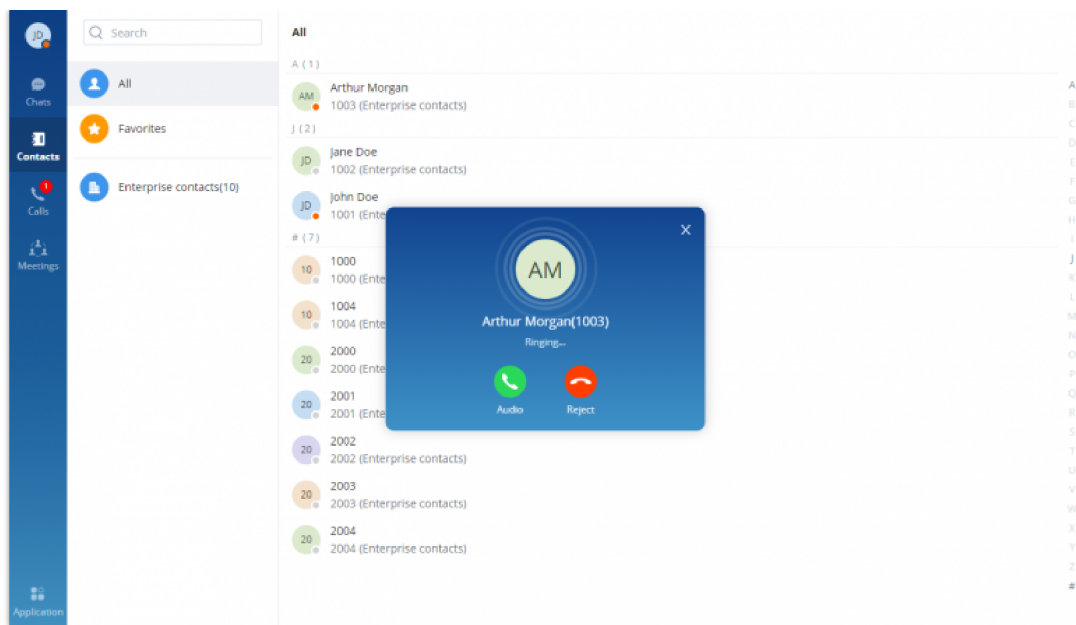
## ANSWERING CALLS

If the user has logged in to Grandstream Wave web, when there is an incoming call, the web browser will prompt an incoming call notification. Clicking on the notification will bring up the Grandstream Wave web page.



*Incoming Call Notification on the Browser*

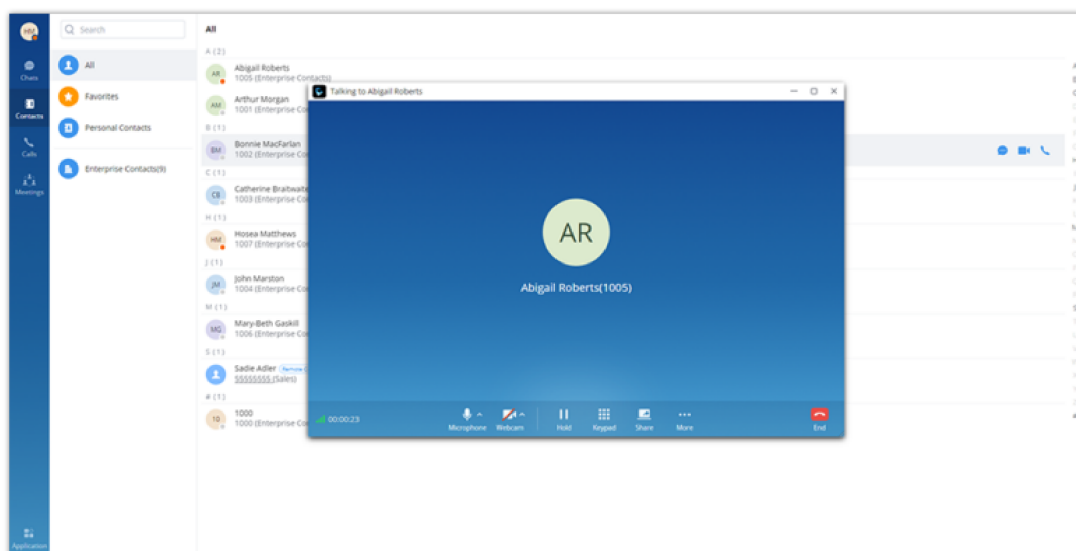
- If it is an audio call, the user can select 
- to answer the call, or select  to hang up.
- If it is a video call, the user can select  to answer with video, select  to answer with audio only, or select  to hang up.



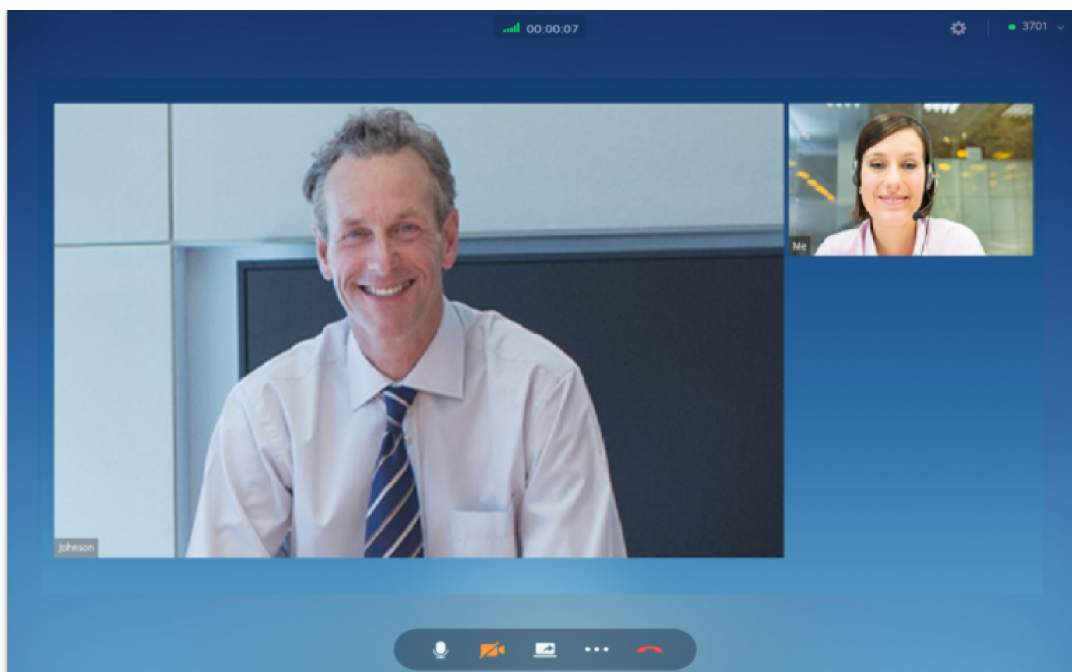
*Incoming Call Prompt on Grandstream Wave Web Page*

## DURING A CALL

Once the call is established, a separate window with the call controls will open. Users can mute/unmute themselves, enable and disable their video feed, screen share, hold/unhold the call, and transfer the current call.



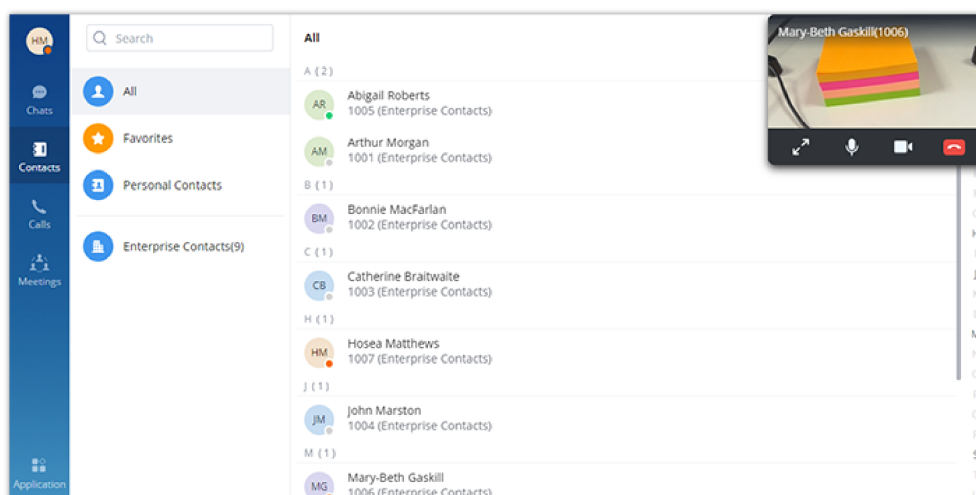
*Audio Call Screen*



Video Call Screen

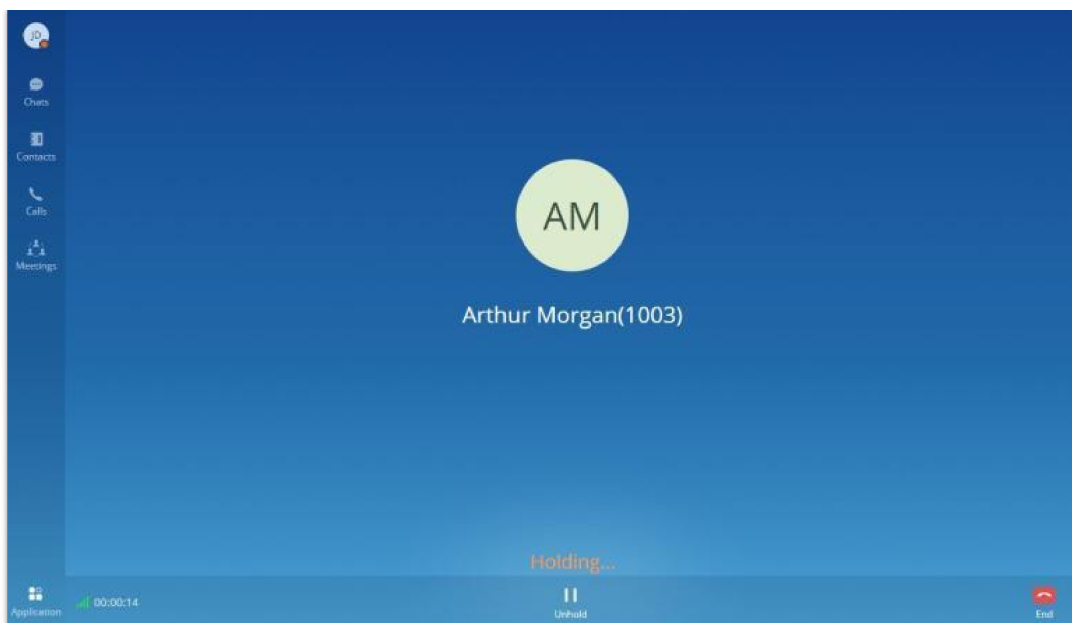
- : View current network connection status including audio and video packet loss.
- : End call.
- : Mute/unmute. Users can click the **"More"** button to enter the alternative ringing speaker settings interface.
- : Video on/off. Users can click the **"More"** button to enter the virtual background settings interface.
- : Share screen.
- : Click to open more functions such as transfer and hold.
- : After clicking on for more functions, click on this icon to hold the call.
- : After clicking on for more functions, click on this icon to transfer the call.
- : After clicking on for more functions, click on this icon to enter DTMF.
- : After clicking on for more functions, click the button to transfer both parties' calls to the conference room for the call, so that more people can be added to the conference.

When a screen-sharing or a video feed is active and the user minimizes the call's screen, a preview of the video/screensharing feed will appear at the top right corner of Wave Web.





## Hold/unhold

1. During a call, click on .
2. To resume the call, click on .



*Call On Hold*


## Mute/unmute

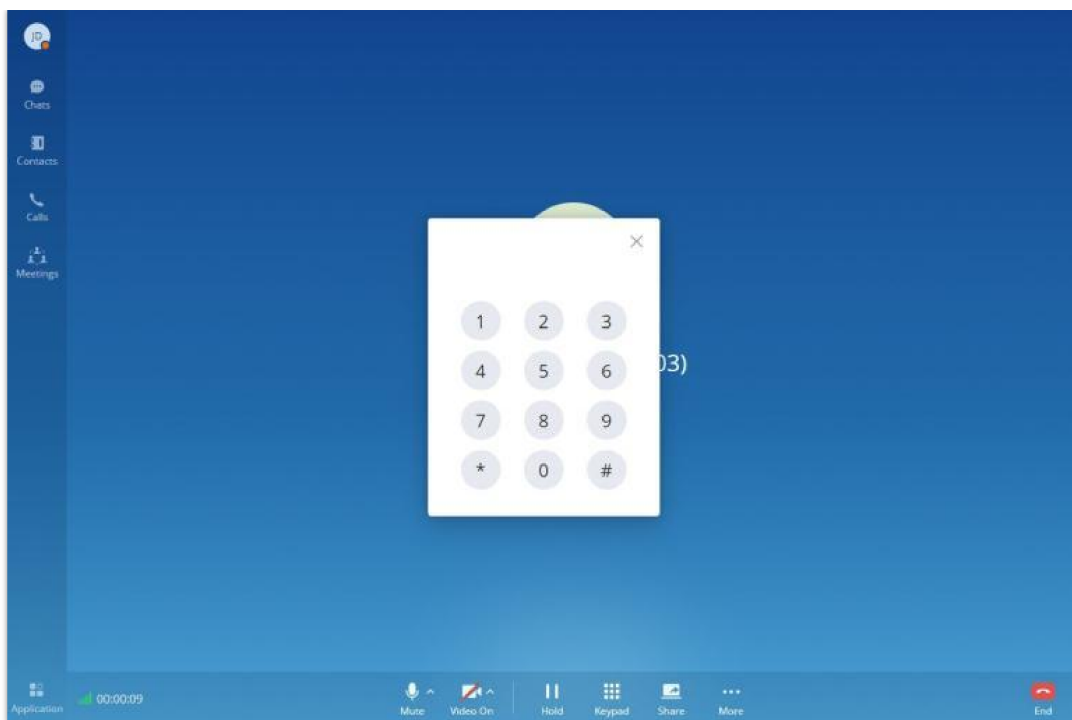
1. During a call, click on  to mute the call. The user will not be heard by other parties anymore.
2. To unmute the call, click on . The user can now be heard by the other parties.



*Mute during a Call*

## DTMF


1. During the call, press the more button to open the menu page, and click the DTMF  button and a soft keyboard will be opened, as shown in the figure below.

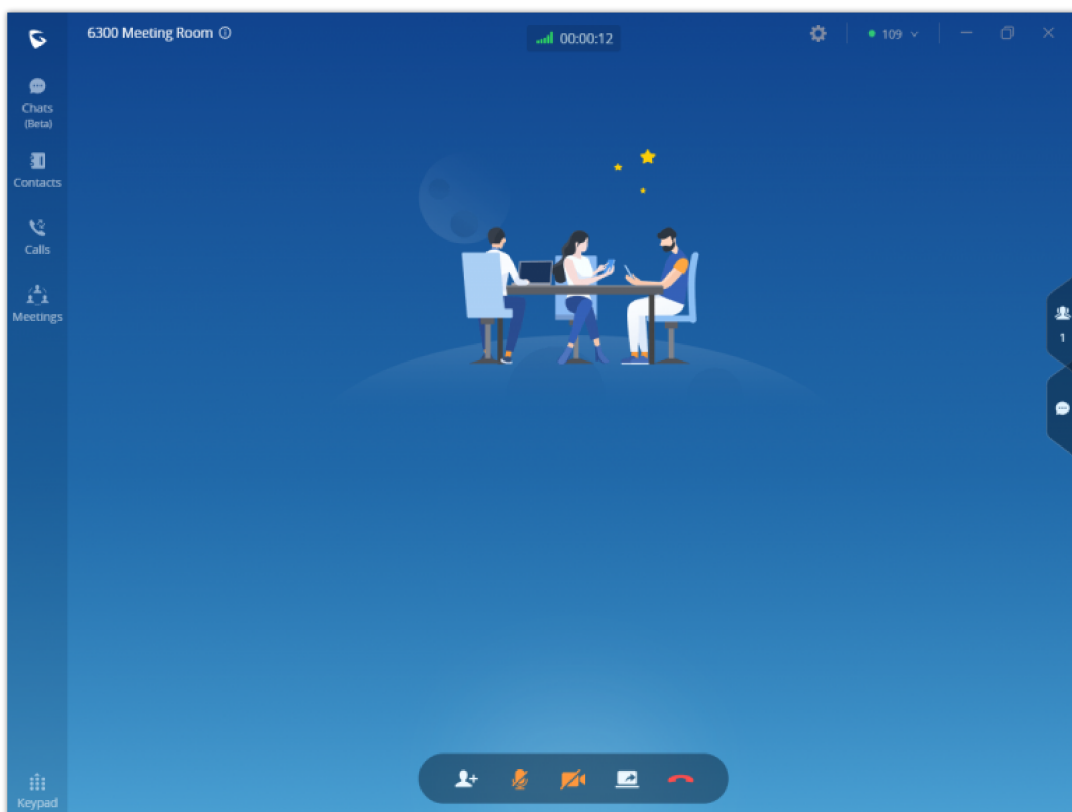


*Open the DTMF Keyboard Interface during a Call*

2. Click on the numbers that need to be entered.

## Transfer to a Meeting Room

1. During the call, the user can click the "..." button to open the menu and click the meeting room button  to transfer the current call to the random video meeting room.
2. When the call has been transferred to the video meeting room, the operator will become the meeting host.



*Transfer to Video Meeting Room*

## Call Flip Function

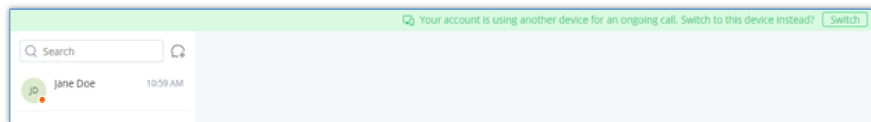


Let's say you initiated a call on your GS Wave softphone app, but when you arrived at your office, you wanted to continue the call on your Grandstream desk phone or Wave Web client. The call flip function allows you to do that seamlessly. Without any interruption, you can switch between calls from one device to another without having to hang up the call. Also, the callee won't notice that you have switched devices.

**Note:**

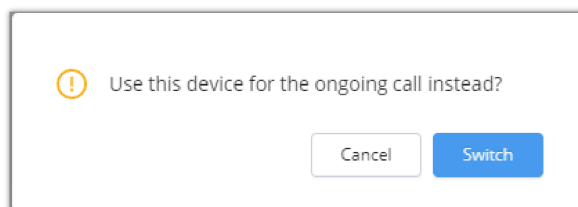
To be able to use the call flip function, make sure that both devices have the same account configured on them.

On the device you want to switch to, a green bar will appear notifying you that there is already a call ongoing on a different device. In our example, if you open Wave Web App you'll see the green bar on top side of the screen and if you wish to continue that call on the Wave Web app, click on [Switch](#)



*The Call is Ongoing on a Different Device*

After you click on "Switch" this prompt will appear:





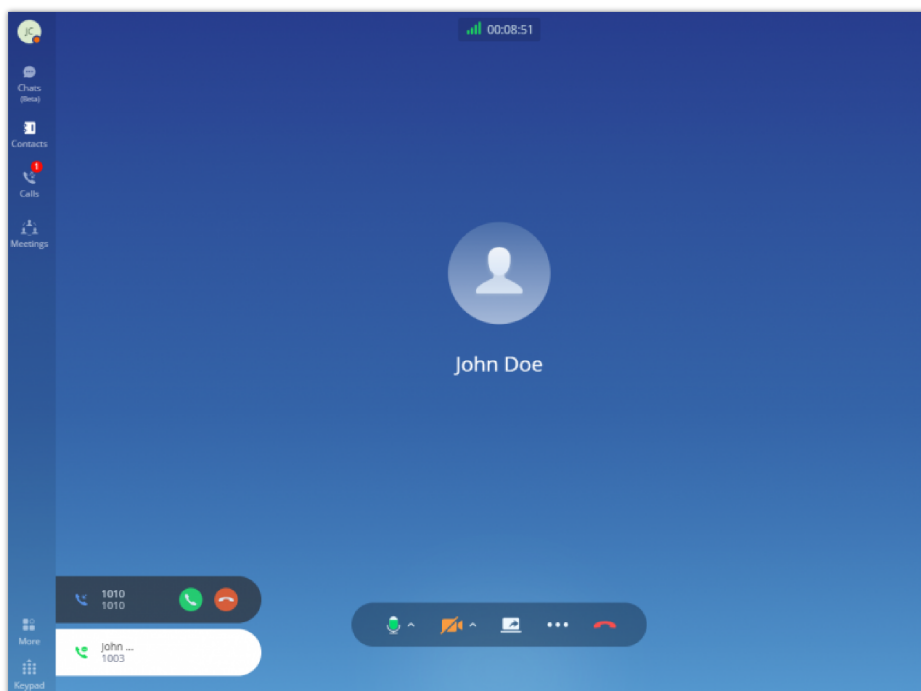
*Confirm Your Choice*

Confirm your choice by clicking on [Switch](#)

The call will be switched to the Wave Web App without any interruption.

## Multiple lines

It supports two lines at the same time. The user can quickly switch lines in the lower-left corner. The user can click the button  to answer the call and click the button  to hang up the call.



*Multiple Lines*





If the user wants to convert all the calls received on the lines into a meeting, he/she can click on "More" and then choose "N-way conference" then check "Invite members of other lines", then click "Accept".









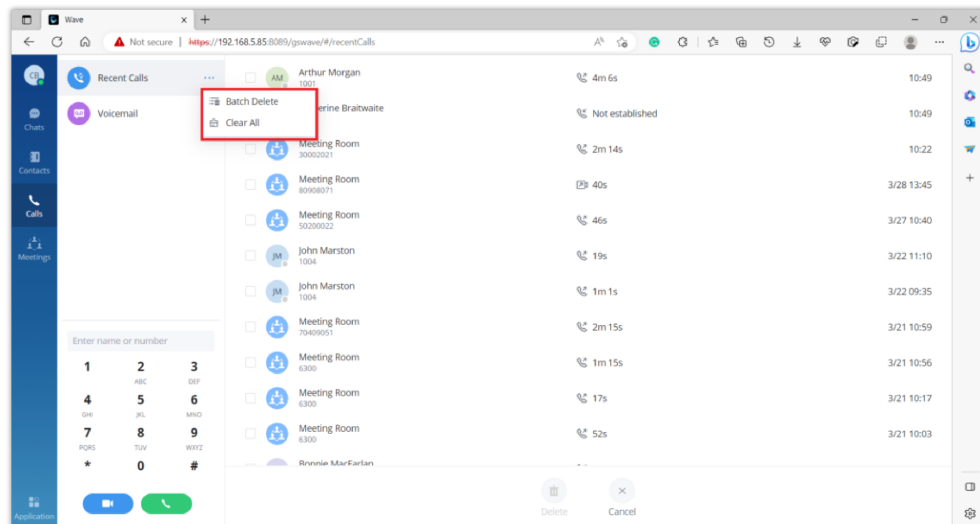
Click on "Calls" to view the call history for the logged-in account. Users can view call history, search in call history, view details or initiate calls from there.



Call history can have the following type of calls:

- o  : Incoming audio calls
- o  : Outgoing audio calls
- o  : Missed audio/video calls and rejected calls
- o  : Incoming video calls

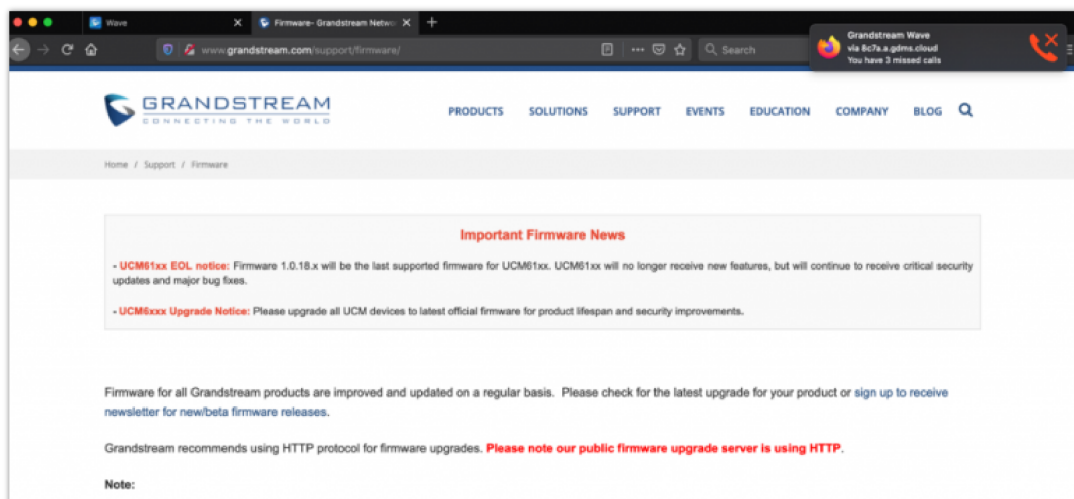
-  : Outgoing video calls
- The user can enter the number or username to search in call history.
- Scroll up and down to view more call history if exists.
- For the call history entry, click on  to make a video call and click on  to make an audio call or  for a chat.
- When a call history entry is selected, the details of this entry are displayed on the right side.
- Click on  Recent Calls  for more options:
  - **“Batch Delete”**: To select multiple entries and delete them.
  - **“Clear All”**: To delete all the call history entries at once.



Call History – Batch Delete / Clear All

## MISSED CALLS

If the user has logged in to Grandstream Wave web, when there is a missed call, the browser will prompt missed call notification. The user can also check missed calls in the “Recent Calls” tab.



Missed Call Notification on Browser

Contact	Status	Duration	Time
test-y 1020	Missed Call		10:08
test-y 1020	Missed Call		10:08
test-y 1020	4m18s		Yesterday 11:19
test-y 1020	Not established		Yesterday 11:19
test-y 1020	21s		Yesterday 11:16
Meeting Room 73104586	9s		Yesterday 11:11
Meeting Room 73104586	Reject		Yesterday 11:11
Meeting Room 73104586	2m54s		Yesterday 11:08
Meeting Room 73104586	Reject		Yesterday 11:08
Meeting Room 30423323	13m52s		11/01 16:35
Meeting Room 8020544	39m10s		11/01 15:43
Meeting Room 8020544	Reject		11/01 15:43
Meeting Room 4020533	26m30s		11/01 14:53
test-y 1020	3s		
6400 6400	22s		11/01 14:35
Meeting Room 19004532	42m17s		11/01 13:52
test-y 1020	1m44s		11/01 12:08

Recent Calls

### Note

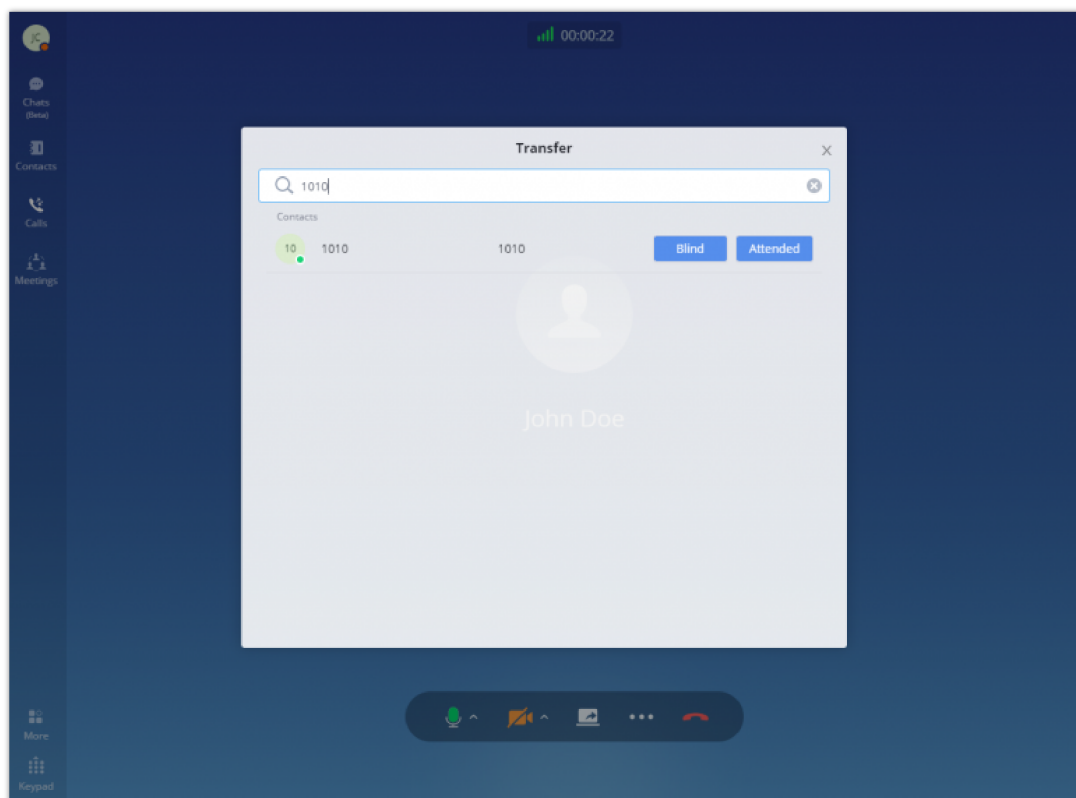
If the user is not logged in on Grandstream Wave web, the user will not receive notification on the browser.

## CALL TRANSFER

Grandstream Wave web users can transfer the current call to another party via blind transfer or attended transfer.


### Blind Transfer

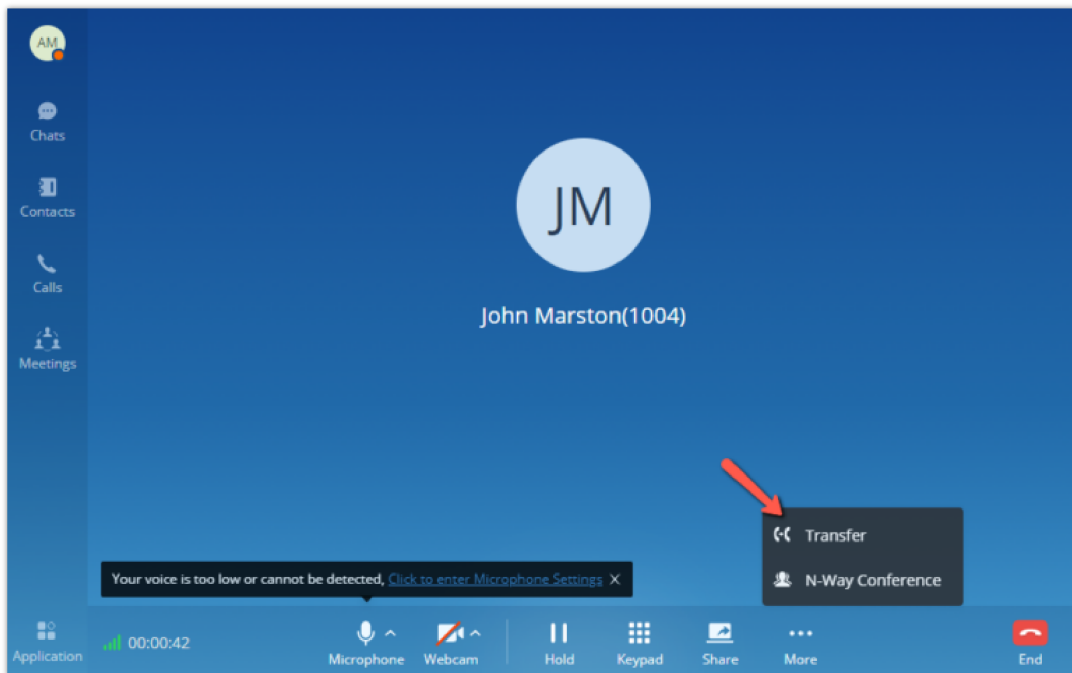
1. User A is using Grandstream Wave web. Establish a call between User A and User B.
2. On User A Grandstream Wave web call screen, click on the icon and select transfer .
3. Enter User C's number as the number to transfer the call to. The number will be listed in the search result.
4. Click on "Blind" to perform a blind transfer.
5. User C rings. User A hangs up automatically. When User C answers, the call between User B and User C will be established.



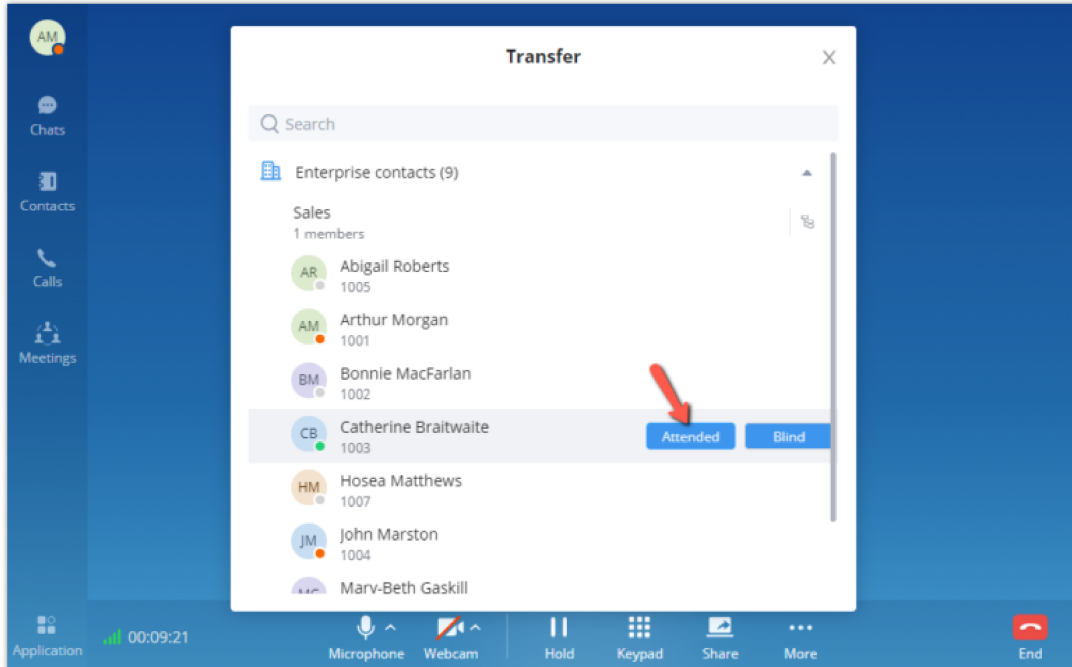
## Attended Transfer

**Step 1:** There is a call which is in progress between extension John and Arthur.

**Step 2:** Arthur clicks on  Transfer button then select the contact to which he wants to initiate the transfer to.



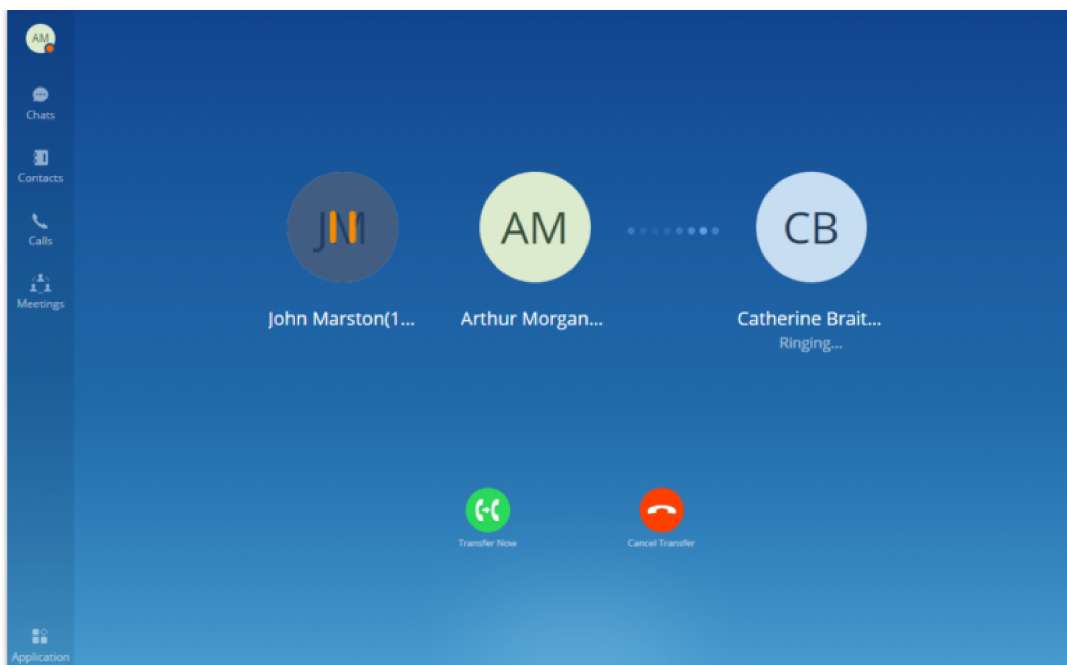
**Step 3:** Arthur selects to start an attended transfer to Catherine.



### Attended Transfer

**Step 4:** Once the attended transfer has been initiated, the call between John and Arthur will be put on hold, and Catherine's extension will start ringing. John will be hearing the On-Hold music.

- **Transfer Now:** The call between Arthur and John will hang up and the transfer will be performed, regardless if Catherine answered or not.
- **Cancel Transfer:** The call between Arthur and Catherine will hang up, and the call between Arthur and John will be resumed.



*Ongoing Attended Transfer*


### Note

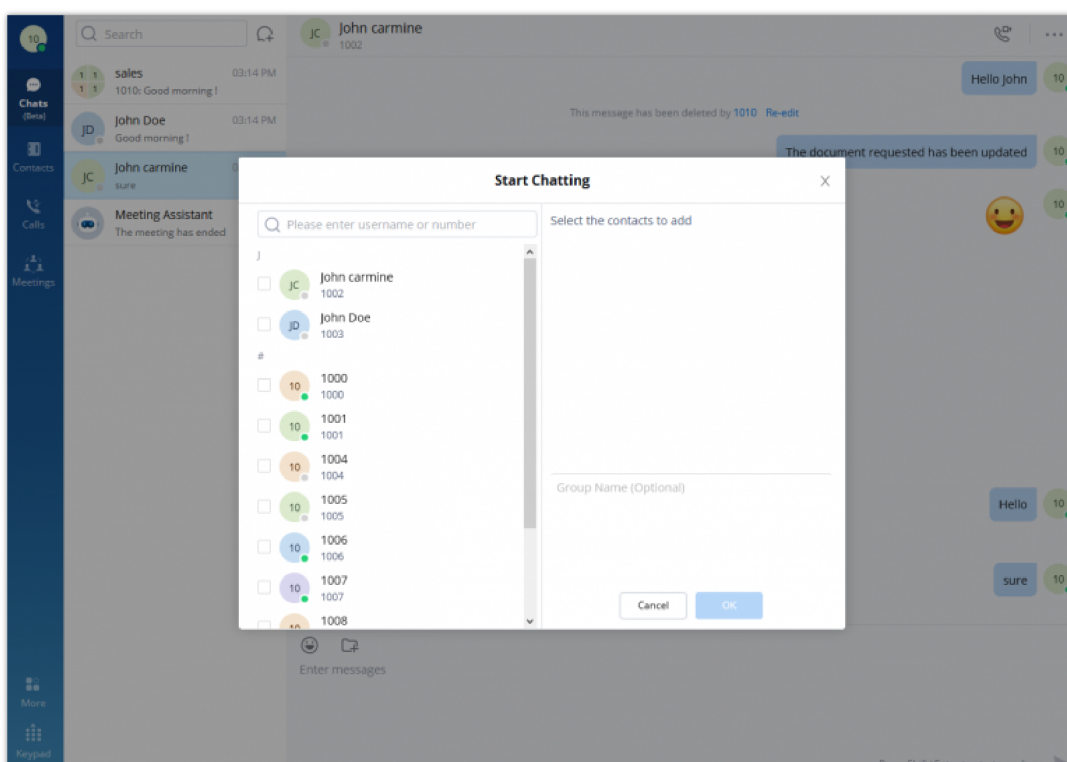
When the administrator tries to transfer the call to a call queue, the UCM administrator needs to check "Enable Feature Codes" option in the UCM Web UI → Call Features → Call Queue → Advanced Settings → Other Settings. Otherwise, the call queue members cannot be transferred. For more details, please refer to the UCM User Guide in Grandstream's official website.


## CHAT


Wave Web allows users to conduct a peer-to-peer chat or a group chat. After logging in to Grandstream Wave web, click on "Chat" on the left panel to open the chat page.


### Start a Single Chat

**Method 1:** After clicking on the "Chat", the user needs to click on  Button, then select the other party he/she wants to chat with and click OK to enter the single chat interface.






**Method 2:** The user can click on the “Contact” tab, find the contact he/she wants to chat with, and click  button, the user will be redirected to the chat section.

**Method 3:** The user can click on the “Calls” tab, find the contact he/she wants to chat with, and click  button to initiate the chat.

**Method 4:** The user can click on the “Keypad” tab, find the contact he/she wants to chat with among the calls log, and click  button to initiate the chat.

## Start a Group Chat

**Method 1:** After clicking on the “Chat”, the user needs to click on  Button, then select multiple contacts he/she wants to chat with, enter the group name, and click OK to enter the group chat interface.

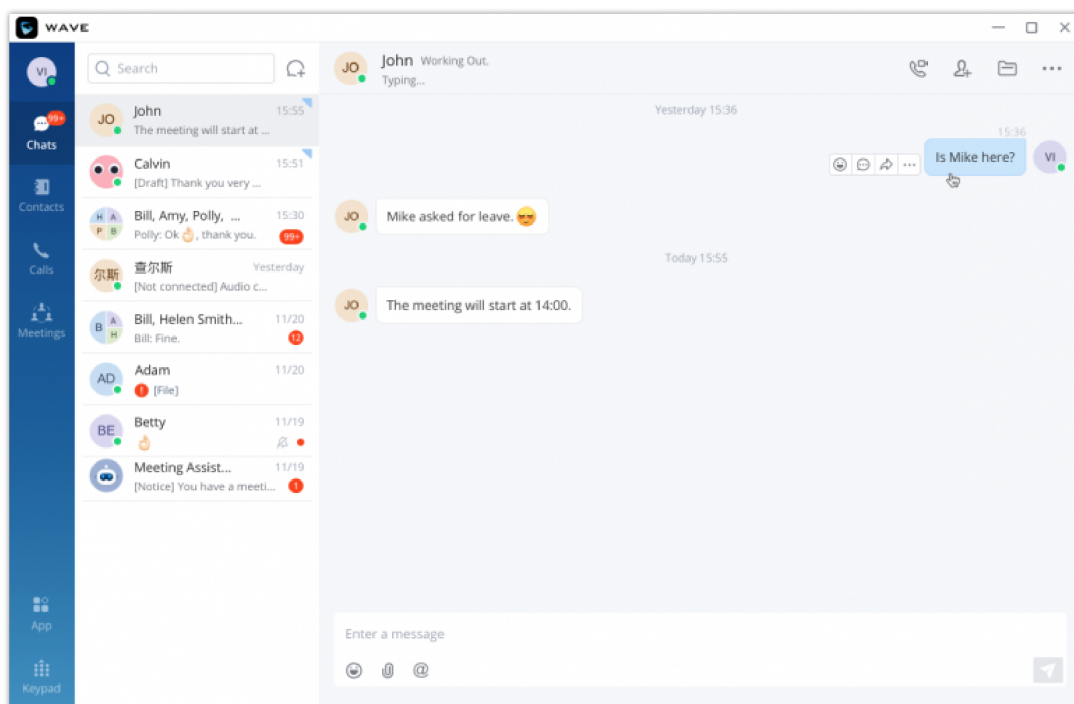
**Method 2:** In the single chat window, the user needs to click on , then on  to invite more contacts to form a group chat.

### Note

Up to 500 users can be selected when creating a group chat.



## Send Messages





In the chat interface, sending text, emoticons, files/pictures are supported.



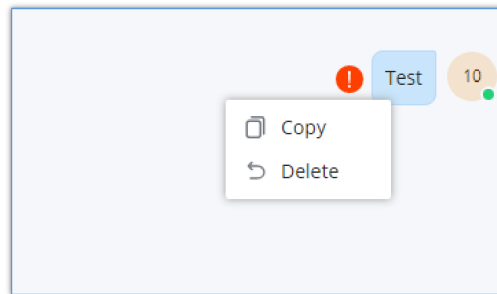
Chat Interface

### Note

- Text: Support sending any characters within 5000 characters.
- For a new line, press Shift + Enter to wrap.
- For emoticon, click on , it supports selecting one or more emoticons to send.
- For file/picture, click on , or drag a file to this window, you can select a file/picture to send from the local computer, and the file size is limited to 50M.

- For call, if it is a single chat interface, click on  to call the other party, select the  Audio call button to call the other party in audio. If it is a group chat page, click on the same button to initiate a group conference call, all group members will be called by default, and group chat messages will be brought into the chat box in the conference call.
- For a video call, only the single chat interface can initiate a video call; click on , select  Video call button to initiate a video call to the other party.
- @Everyone/someone: Only supported in group chats. Enter @ in the input box to send messages from @all or someone, and the other party will remind you of @Message.
- **Send Excel Content:** Copy the contents in the Excel file and paste the contents to the chat window. The user can select to paste the contents in a text (Paste text) or image (Paste image), and then send out the contents.


When a message fails to send, a red exclamation mark will appear right next to it as shown in the screenshot below:



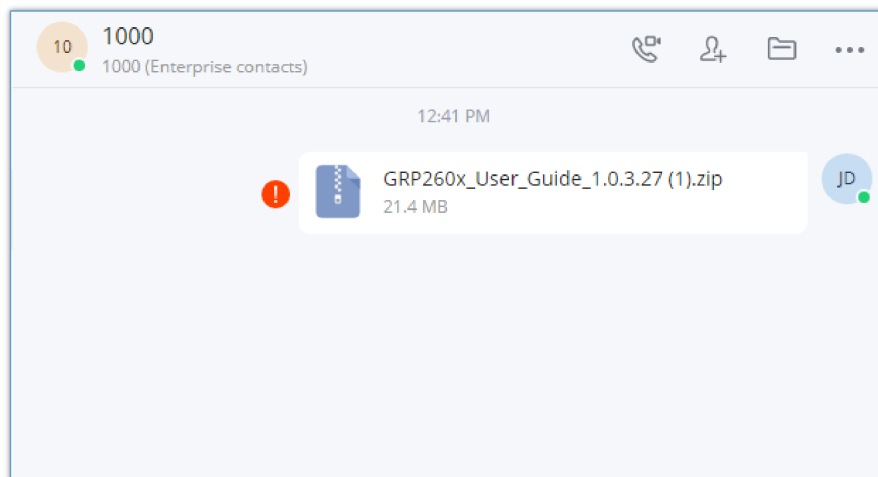
*Message Failed to Send*

You can click on the exclamation mark to try to send it. Or, you can delete it by right-clicking on it and choose "Delete".

## Send Files

Wave Web allows the user to send files to a contact or a group of contacts. To do that, click on  under the chat box, then select the file you want to send. The user can select multiple files to send them at once.

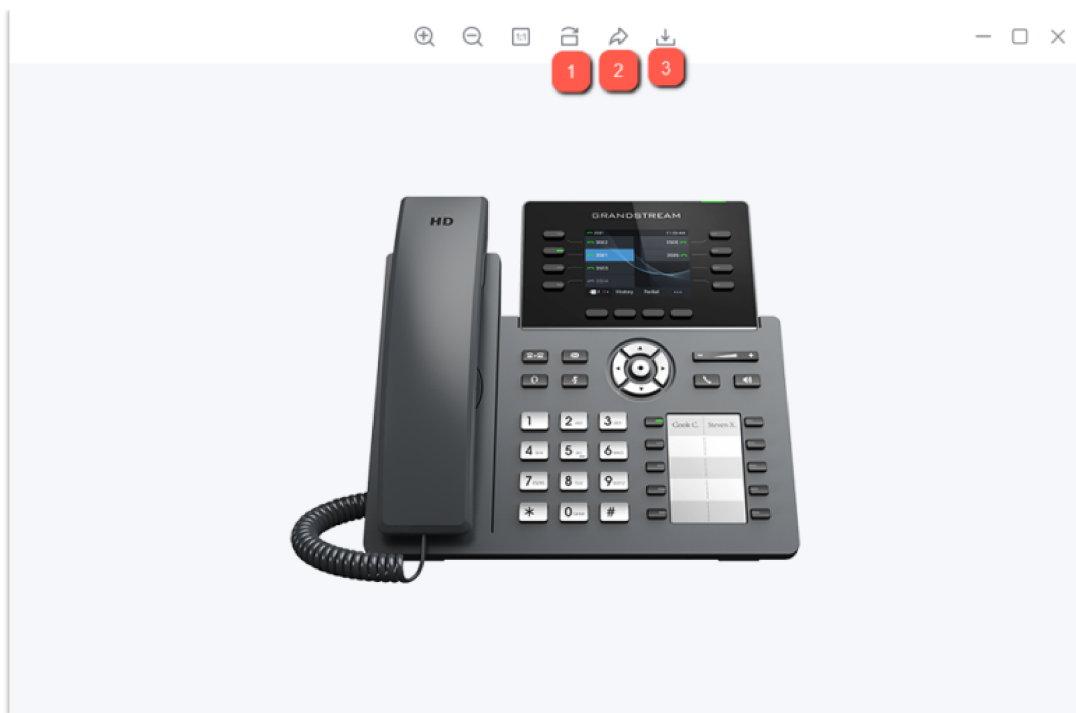
In case a file fails to upload, you will get an exclamation mark that indicates that the file has not been sent.



*File Failed to Send*

In case the user sends an image in a point-to-point chat or a group chat, the users can directly see the images and will be also able to rotate, share, or download the image.




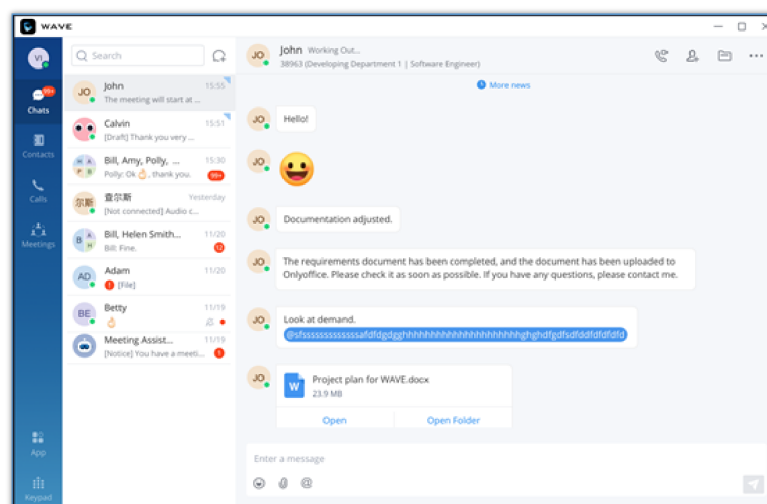


- **1:** Rotate the image clockwise.
- **2:** Share the image in another chat.
- **3:** Download the image.

## File List

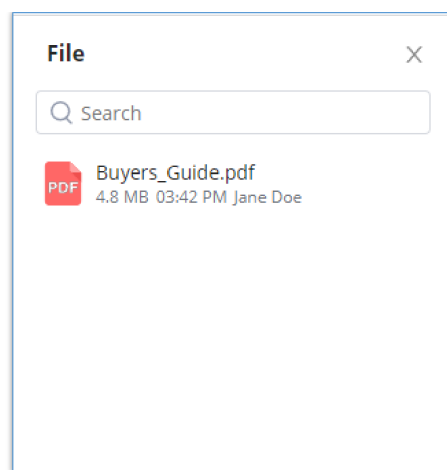
All the files that have been exchanged in a point-to-point chat or a group chat can be viewed in one list.

To access this list, the user needs to click on the folder icon  in the top right-hand corner of the screen of the chat, then the list will appear as shown in the image below:



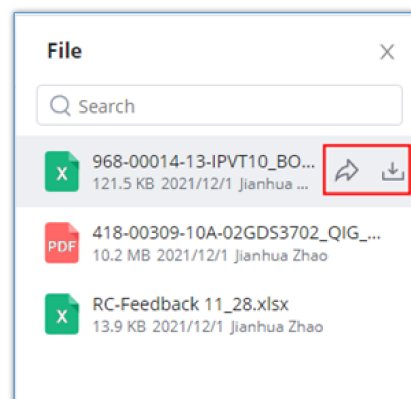
*Chat Interface – File*

The files list will be displayed, and the “Search” bar will be available to quickly find the needed file.



*Files List*

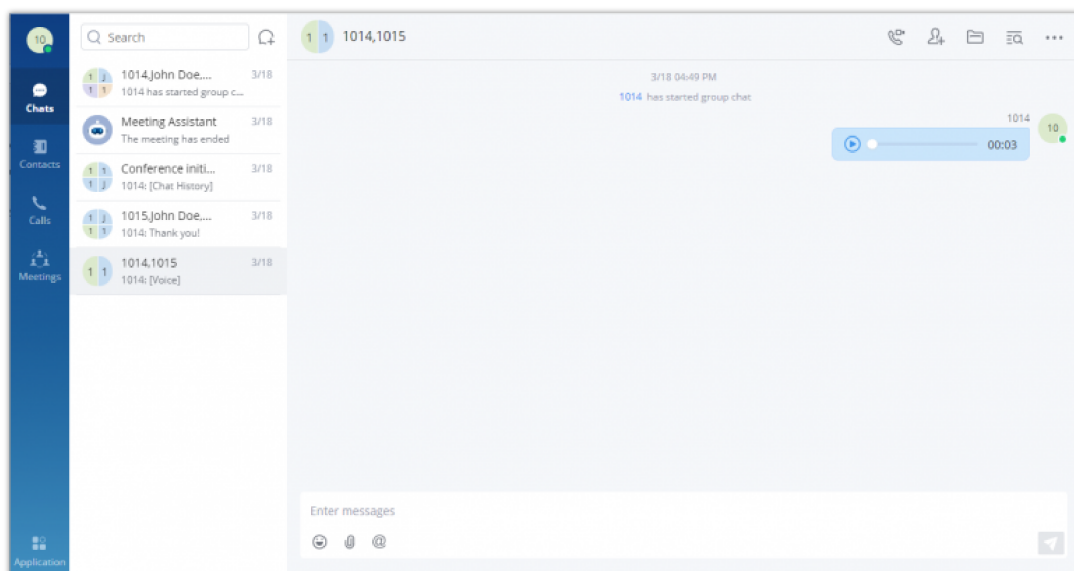
Users can forward/download or open the files as shown in the screenshot below:



*Download/Forward a File*

## Audio Message

The users can receive voice messages from other users. Upon receiving a voice message, it will be shown on the chat window and can be played by clicking on the play button. Please see the screenshot below:



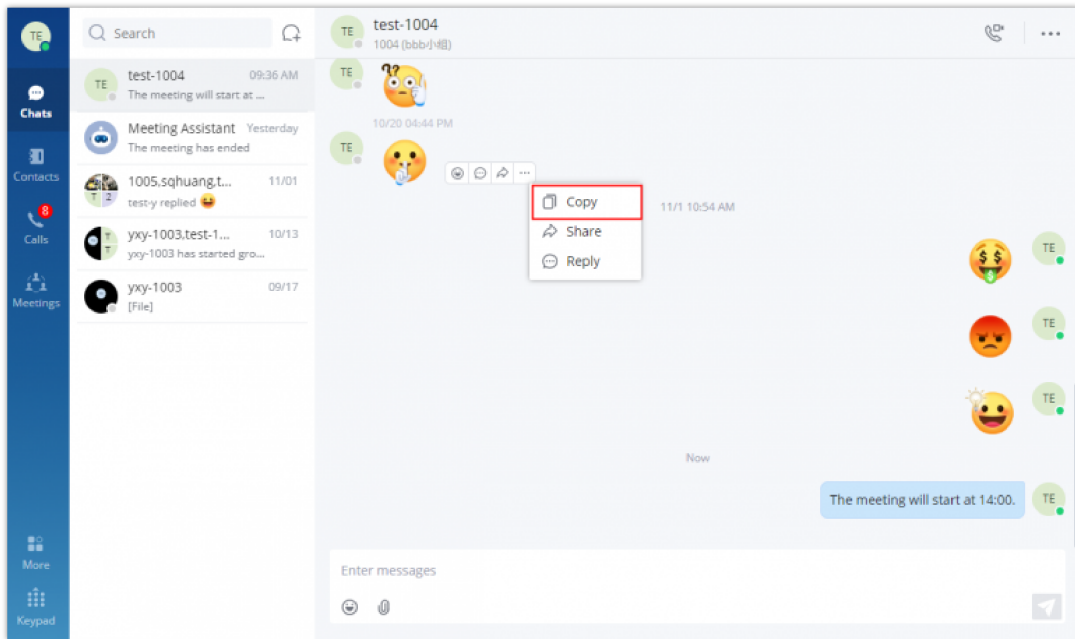
*Audio Message*

### Note

Voice messages can only be sent from the Wave Mobile app.

## Copy Message

In the chat interface, select a message, right-click, and select “Copy” to copy the content of the message. Currently, files and pictures do not support copying.



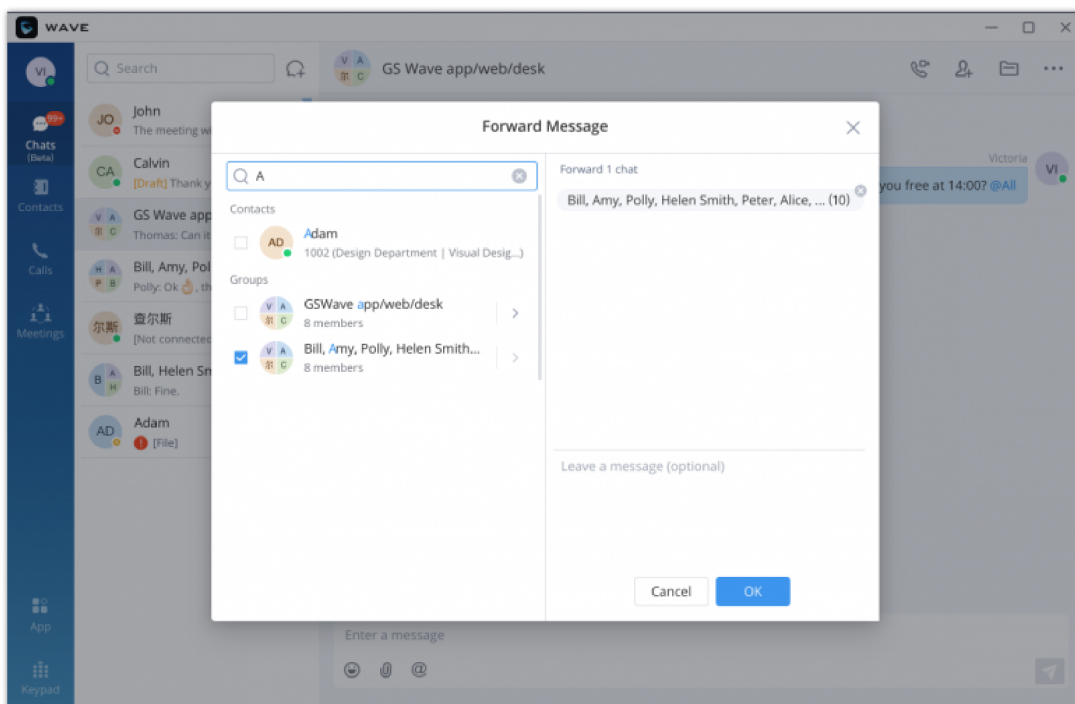
Copy Message

## Forward Message

Wave users can forward one or multiple messages using the **Share** option to one or multiple recipients. These recipients can either be a single chat or a group chat.

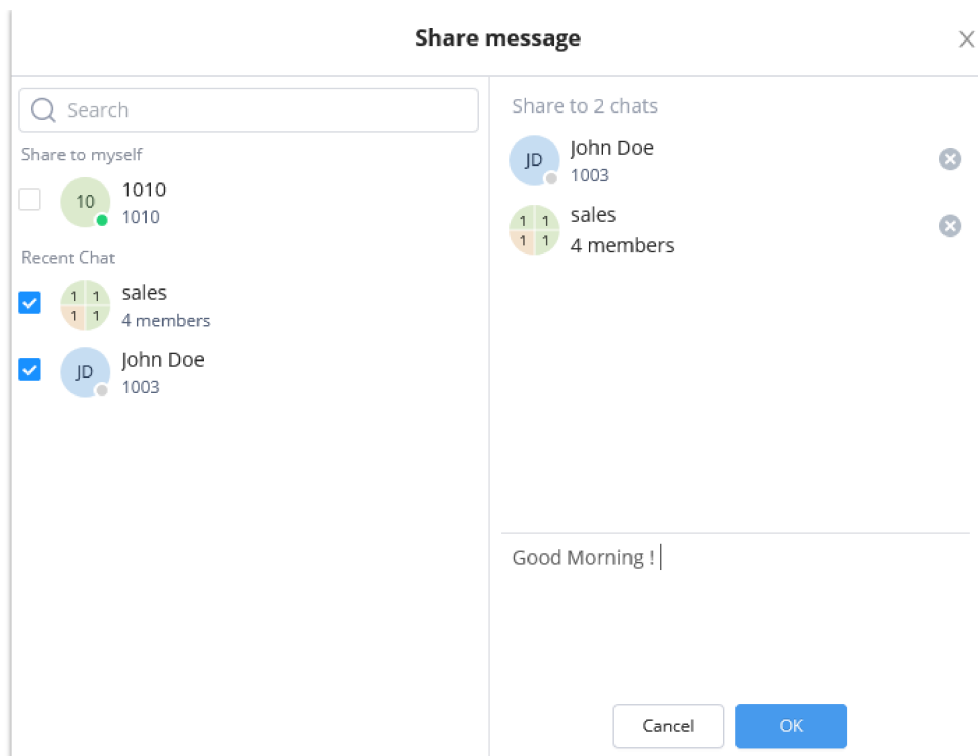
**Step 1.** In the chat interface, select a message, with right-click select “Share”.

**Step 2.** Check to forward to a contact or group.



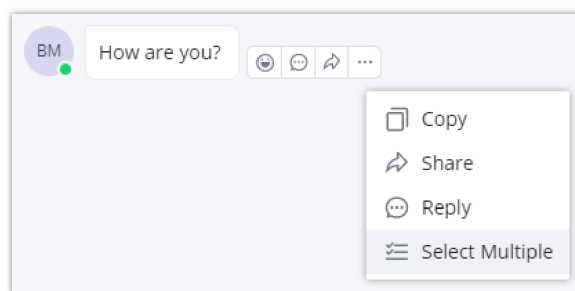
Forward Message

**Step 3.** (Optional) Write a message and click the “OK” button to forward the content of this message to the selected person or group.

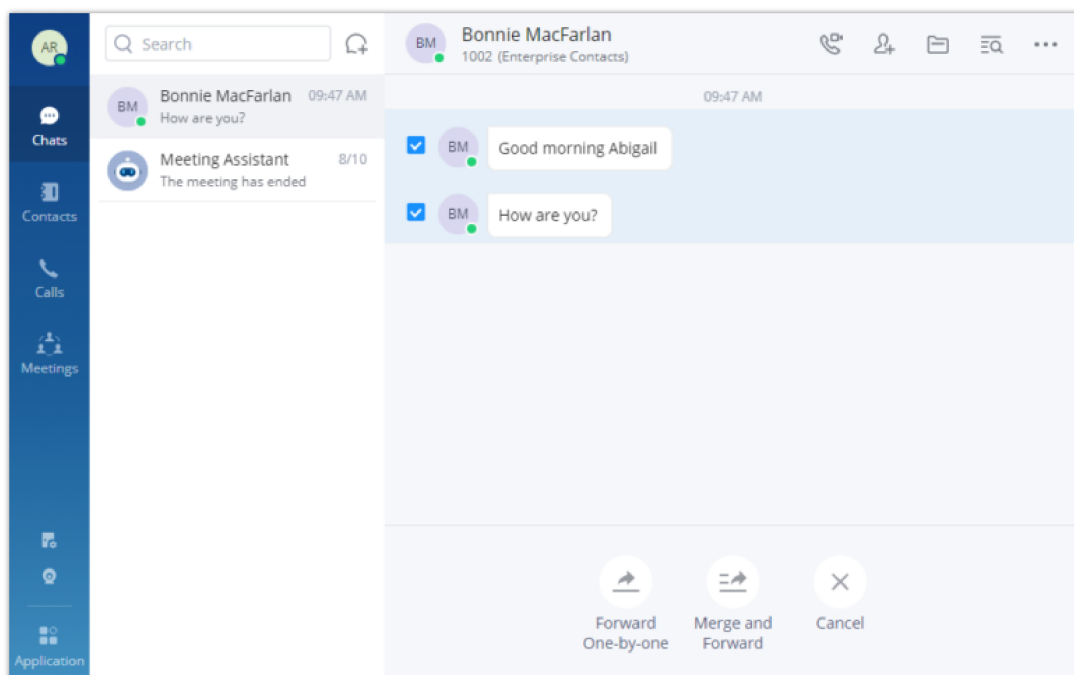


*Leave a Message*

To send multiple messages, please click on **More** then click select the messages that you want to forward.



*Forward Multiple Messages*



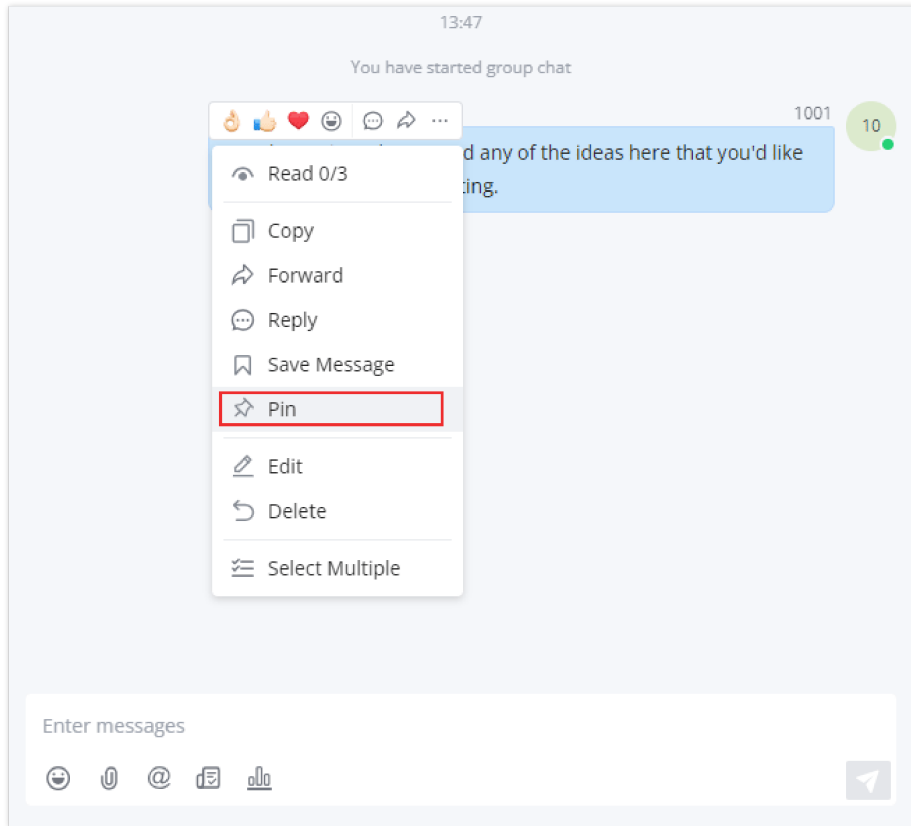
*Forward Multiple Messages*

Use **Forward One-by-One** if you want the messages to be forwarded separately.

Use **Merge and Forward** to have the messages forwarded in one message.

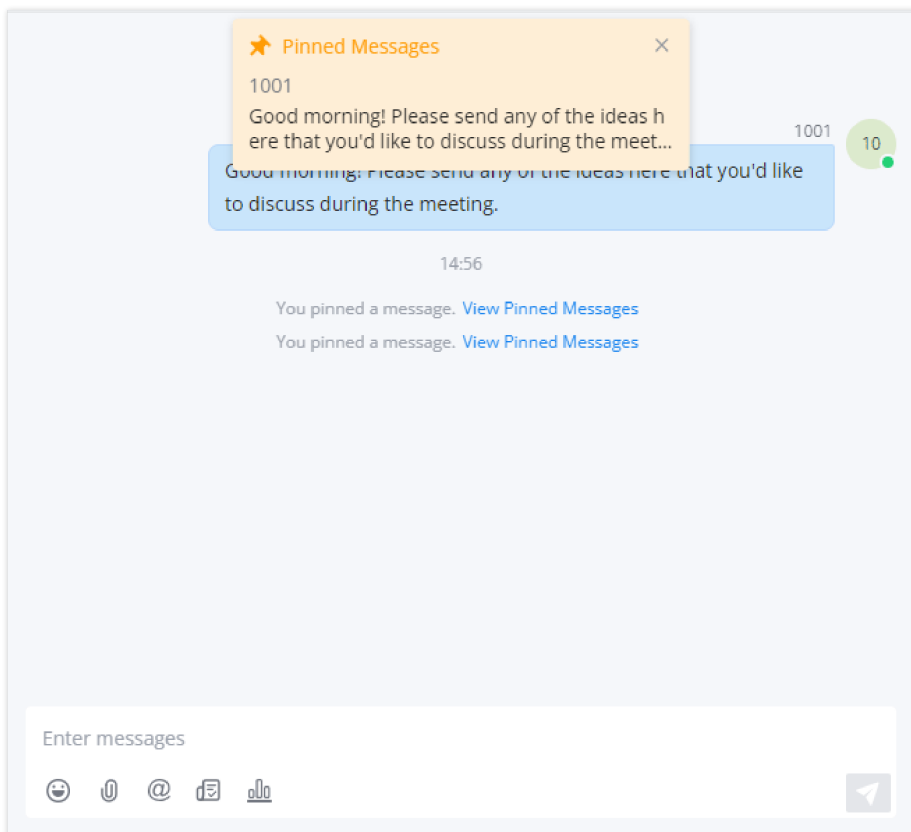
## Pin Messages

The user can pin important messages in group chats, the pinned messages will be displayed separately on the top of the chat box so all the users can see the message or announcement when they open the chat window of the group. The user can select a message that has been resent to pin on the top of the conversation. If many messages have been pinned in the conversation, the user can click on the pin symbol to see all the messages that are pinned.



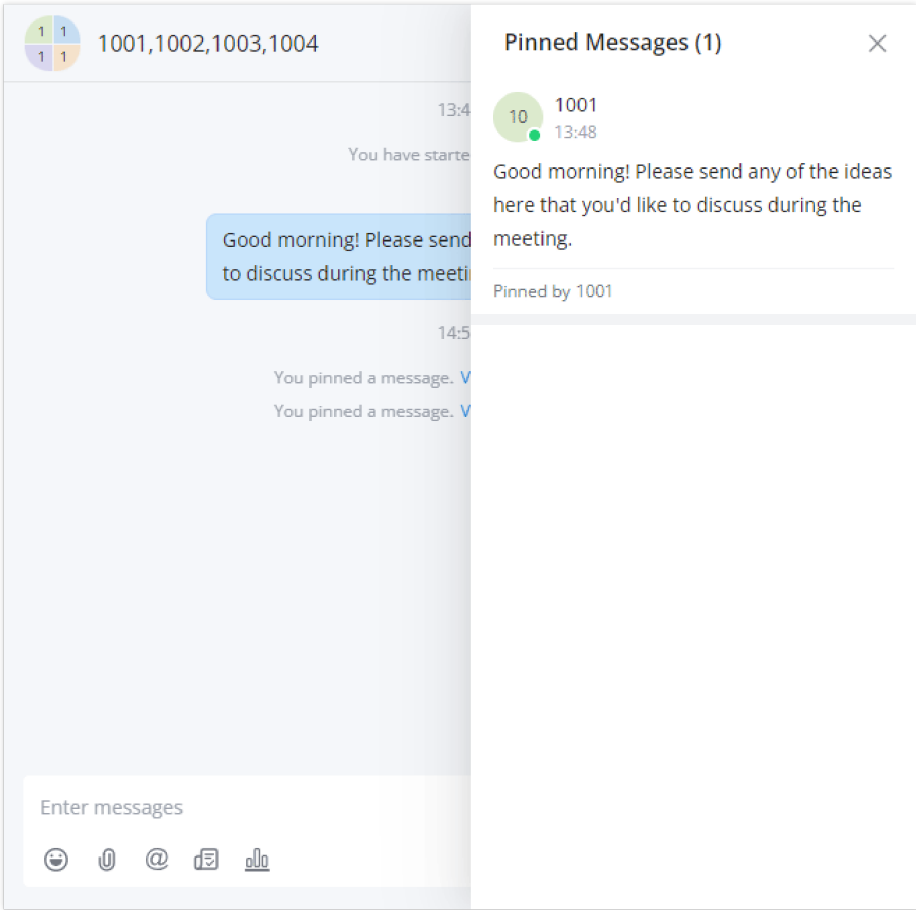
*Pin a Message*

The pinned message will appear at the top of the group chat.



*Pinned Message*

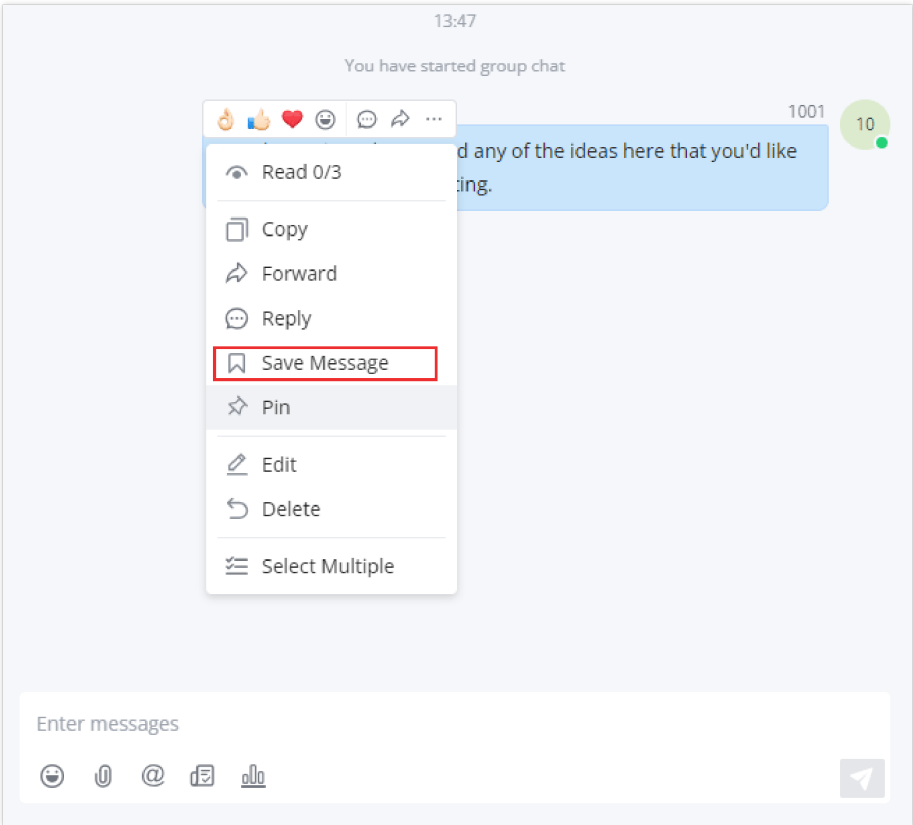
The user can click on the message to expand it and view other pinned messages.




All Pinned Messages

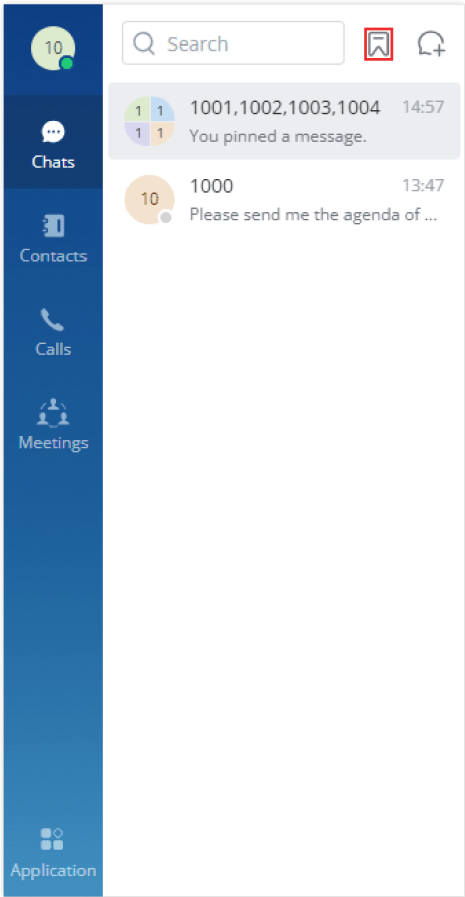
Save Messages

The user can save any messages in one-to-one conversations or group conversations. This allows the user to save important messages, to-do items, important files, etc. which can be easily accessed later.



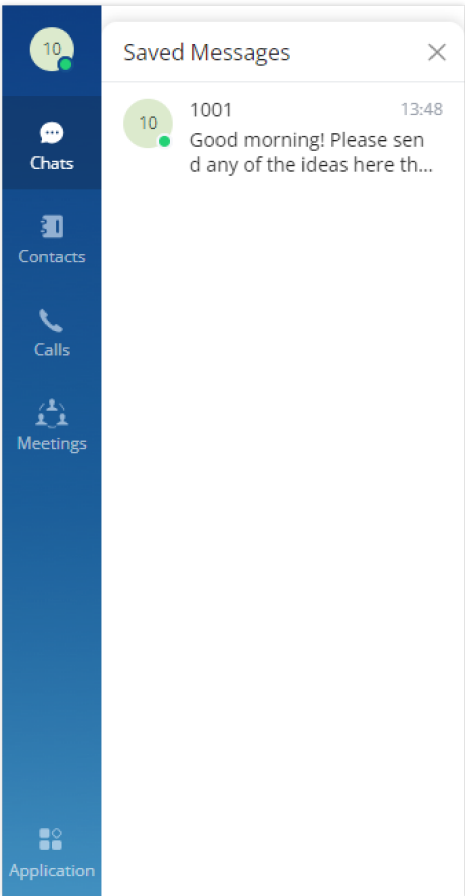
Save Message

To access saved messages, please click on  icon.



View Saved Messages

Then the list of all the saved messages will appear, as shown in the figure below.

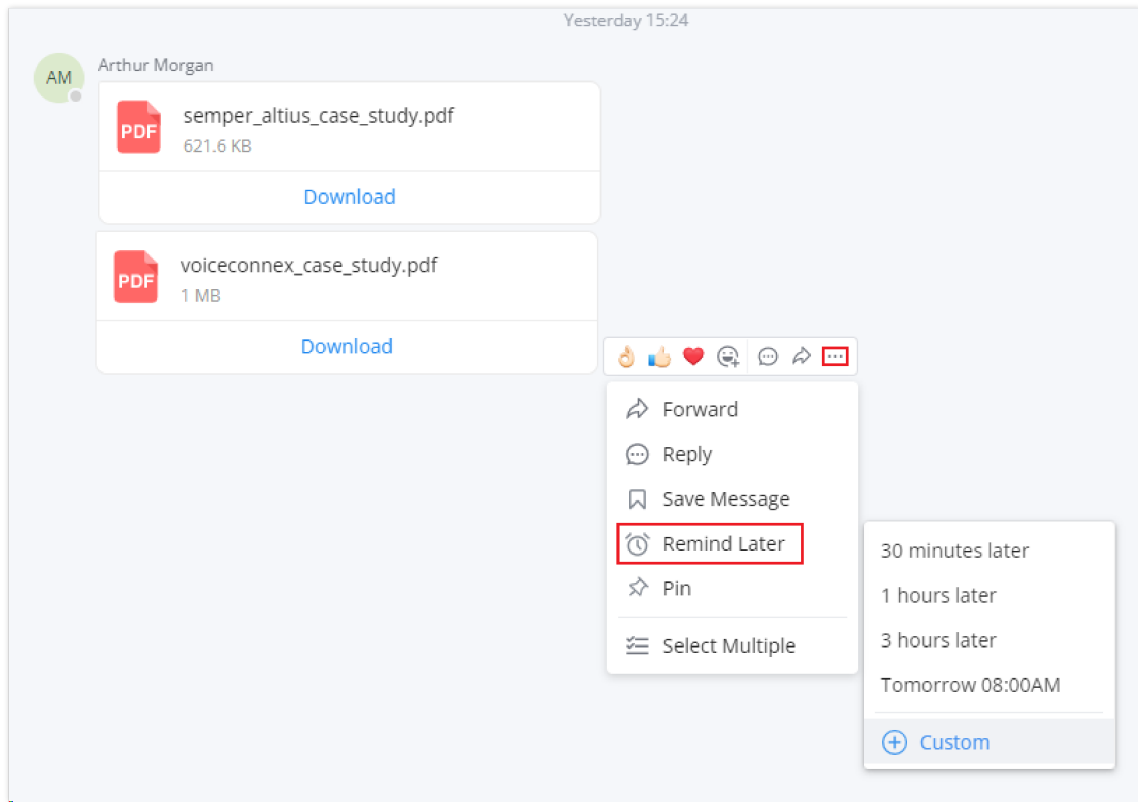


Saved Messages

## Message Reminder

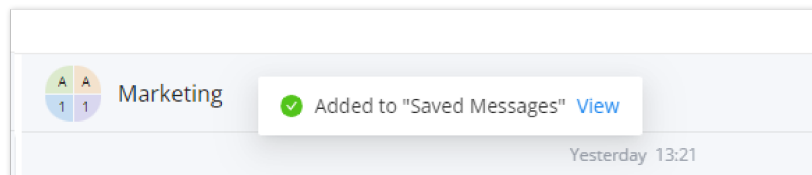
The user can use the feature message reminder to set a scheduled notification which will be prompted when the set time arrives. To set a reminder for a specific please follow the steps below.

1. Hover the cursor on the message and click on the three-dot menu button to open more options. Click on “Remind Later” as shown in the screenshot below, then select the time of the reminder.



*Set a Message Reminder*

2. Once the reminder is set, the message will be added to the list of “Saved Messages”.



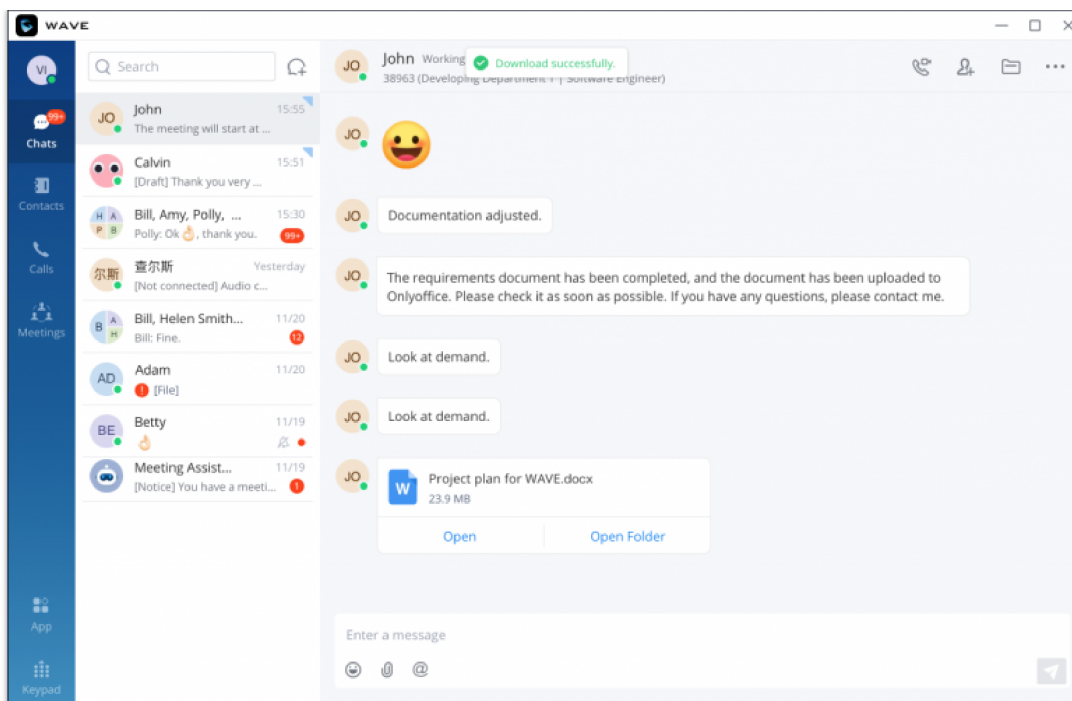
*Message Saved*

When the time of the reminder arrives, Wave will play a sound cue to indicate the reminder time has arrived.

## View Unread Messages

In the “Chat” tab, users can view the latest unread messages. Tap to enter the chat interface to view new messages.

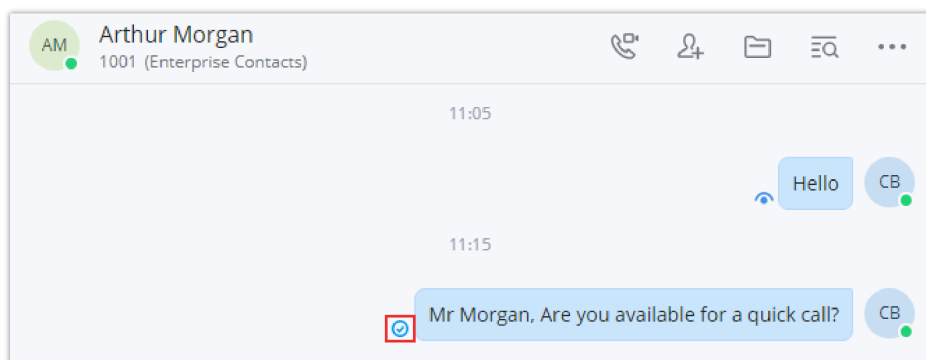




*Unread Messages*

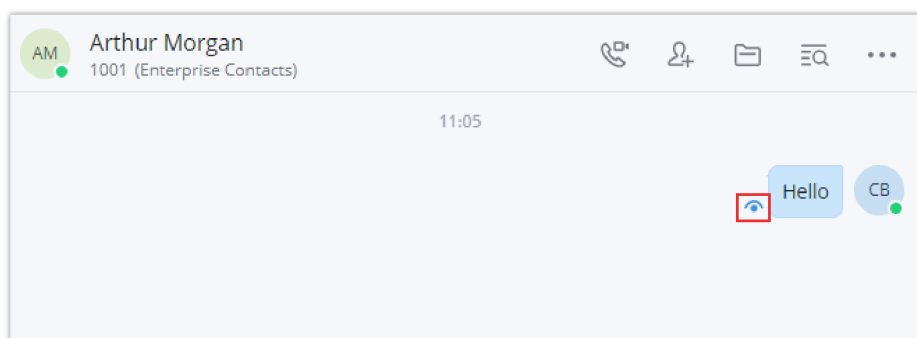
In addition, by clicking on the chatbox of a person or a group, users can view the history of chatting.

When a message is sent, Wave will indicate to the sender that the message has been successfully delivered to the contact. This is indicated by a small check mark right next to the latest message sent



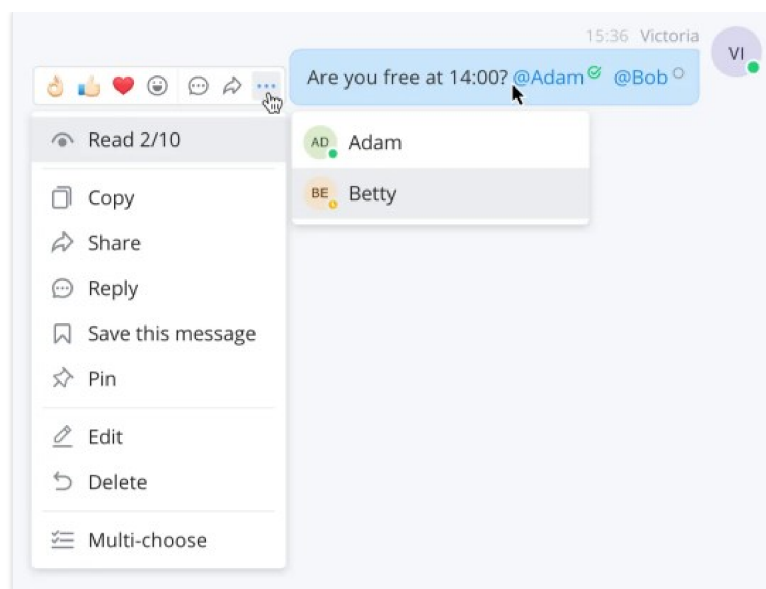
*Message Delivered*

Once a user has opened an unread message, Wave will indicate to the sender that the message has been read by showing a small eye icon next to the latest message seen.




*Wave Message Seen*

In a group chat, the user can check the parties who have seen the message by hovering the mouse cursor on the message, then clicking on the three dots to open the menu, then you can see the read count. If you hover the mouse cursor on the read count number, you can see who has read the message as displayed in the screenshot below.

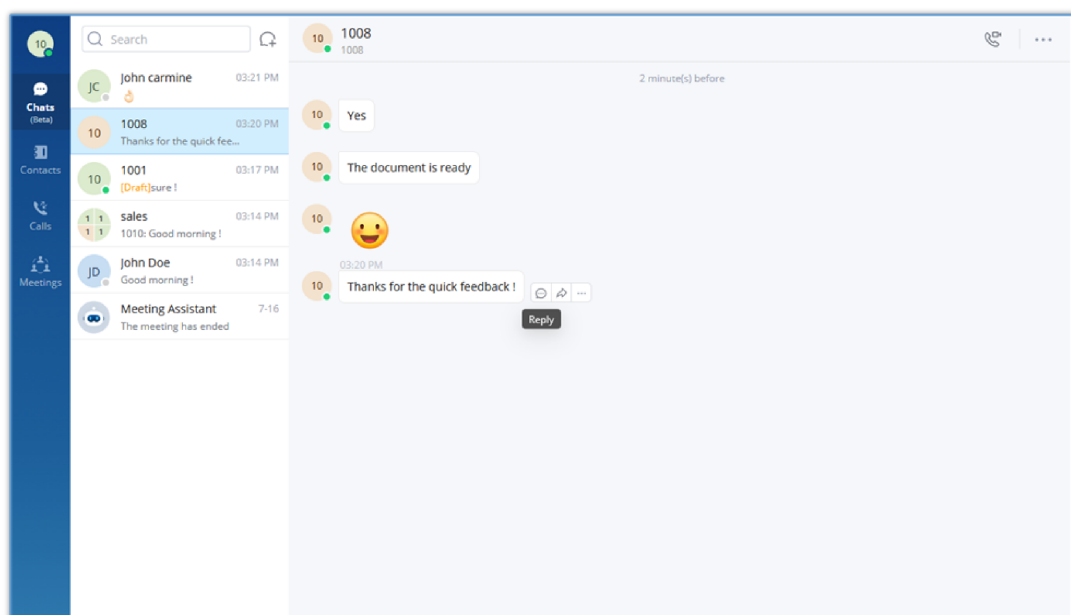


Group Chat – Message Read

## Quote to Reply to a Message

**Step 1.** In the chat interface, the user can select a message, right-click the message, and click the “Reply” option or click the button  next to the message.


**Step 2.** The user can reply to the message in the message box.

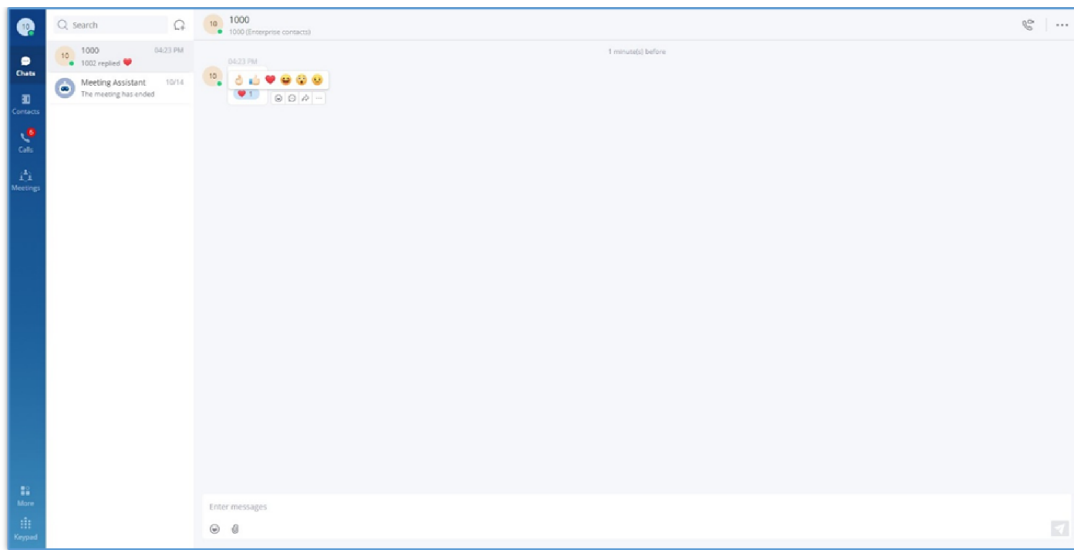


Quote to reply message

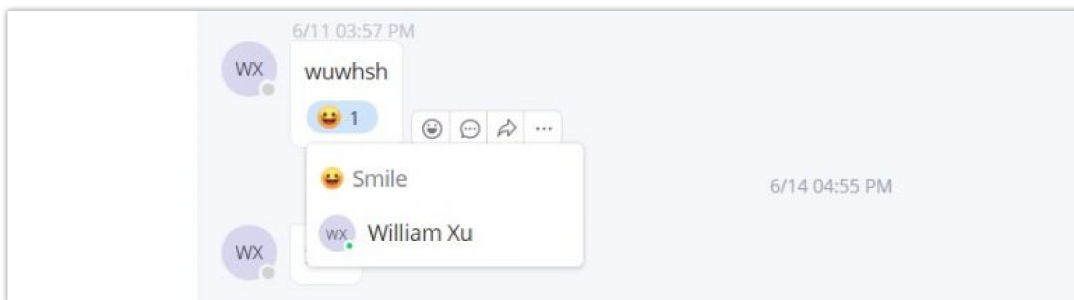
## React with Emoji

In the chat interface, users can reply to the sent/received messages in the single/group chat, files, and images with emojis.

- Click on  option and select a specific emoji. The replied emoji and the emoji amount will be displayed under the corresponding message, as the screenshot shows below.
- For the same message, each member can only reply with 1 single emoji. If the member replies to the message with another emoji again, the previously replied emoji will be replaced.
- If the member clicks the same emoji as the replied emoji again, the replied emoji will be canceled.
- If the user moves the mouse over the emoji, the user can view the member who replies to the message with the emoji.




Reply with Emoji

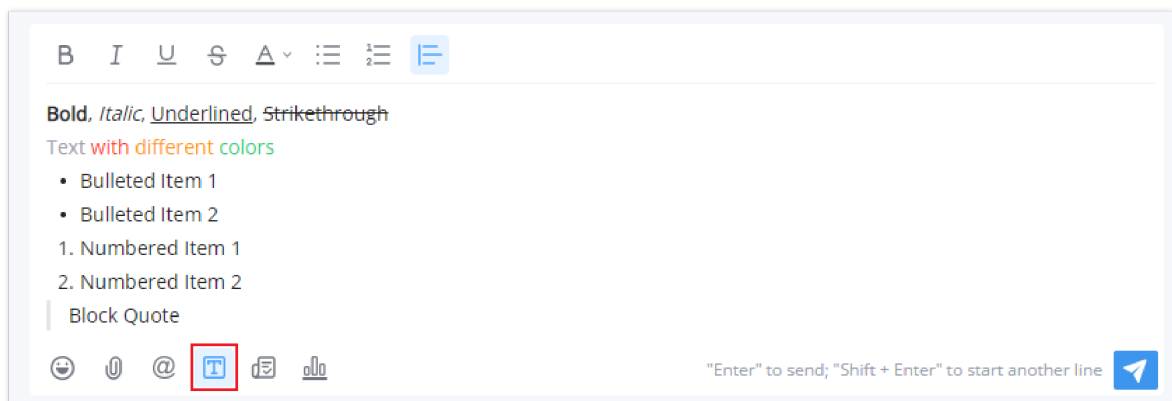


View Emoji Details

## Rich Text Formatting

Wave Desktop supports Rich Text Formatting in the chat box. Rich Text Formatting features allow the user to format a message before sending it by adding effects on the text like bold, italic, underline, strikethrough, changing the color of the text, formatting the text in a bulleted or enumerated list, or formatting the text in a quote block.

To show the controls for rich text formatting in Wave, click on the icon .



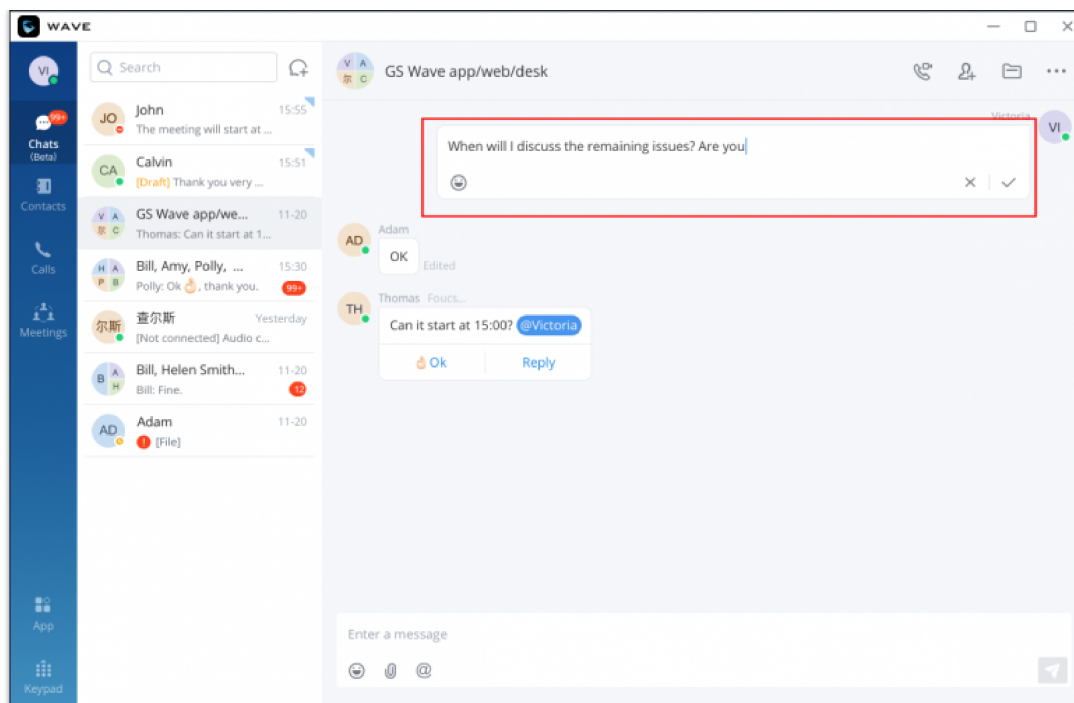
Rich Text Formatting

## Edit Sent Text

In the chat interface, users can edit the sent text and resend the edited message.

**Step 1:** In the chat interface, the user can select a sent text message, and right-click to edit the message.

**Step 2:** Re-edit the contents in the input box.



*Edit the Text Sent*

#### Note

1. Images, videos, and files are not supported to be edited. The re-edited content can only be added with text and emojis.
2. The re-edited contents are limited to 5000 characters.

## Delete Message

**Step 1.** In the chat interface, the user can select a message, right-click the message, and click the “Recall” button to recall the message.

**Step 2.** After recalling the message, the remote party will delete the message synchronously.

**Step 3:** The deleted text can be re-edited by the user.

**Note:** After recalling the message, the message will be deleted permanently, and the message cannot be recovered.


#### Note:

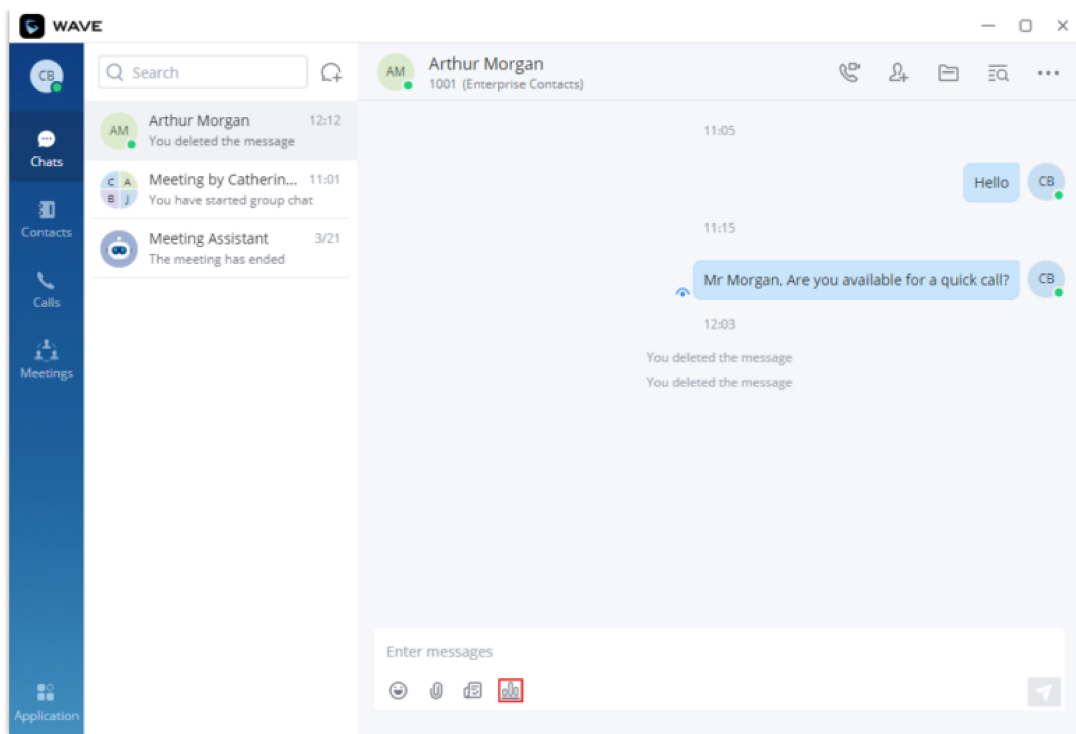
To delete a message, the user must have the “Delete Chat” permission. Please refer to the UCM63xx User Manual for more details.

## Create Poll/Survey

In the chat window in Wave, the users can create polls, in which they ask the recipient(s) to pick one option. Polls and surveys can be created in individual chats as well as group chats.

To create a poll, please follow the steps below:

1. Navigate to the chat window in which you want to start a poll, then click on the poll icon .

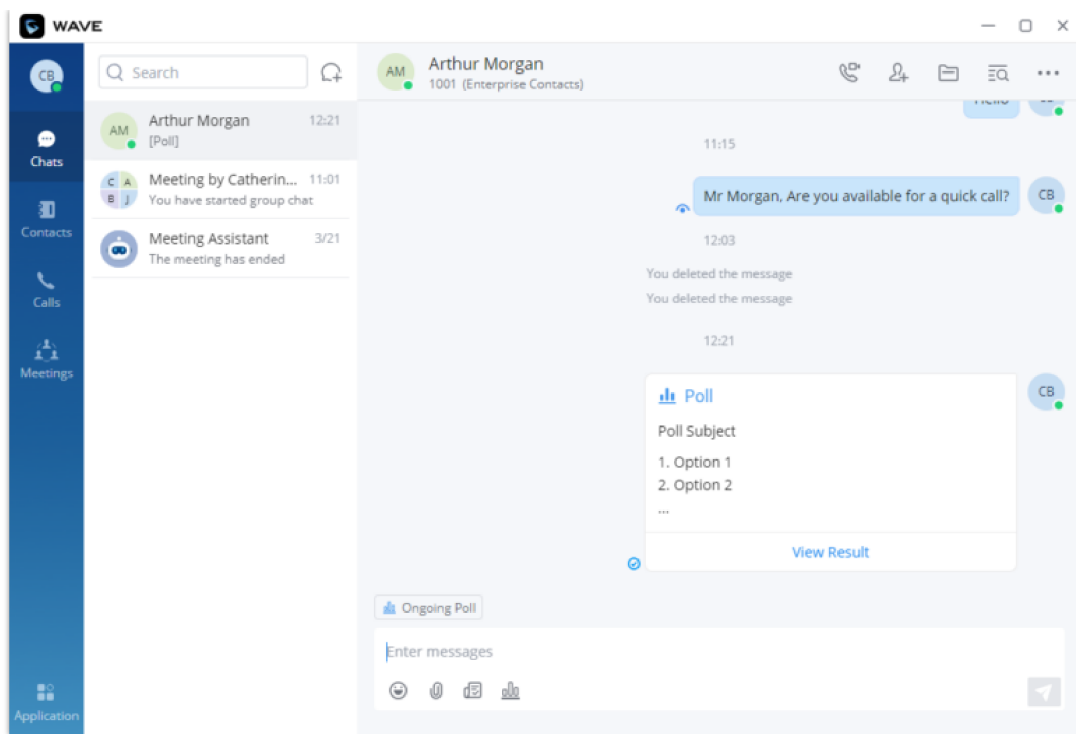


*Create a Poll*


2. Enter the information regarding the poll, as shown in the figure below.

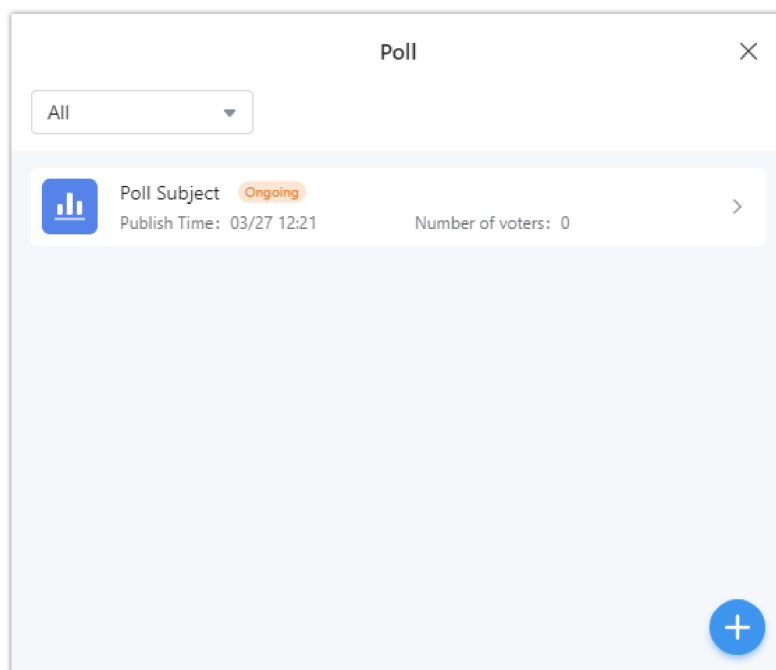
*Poll Subject and Options*

3. Click "Save" to save the poll as a draft. The recipient will not be able to see the poll. If the poll is ready to be sent, then click "Save and Publish". Then the poll will be displayed just like the figure below illustrates.



*Wave Poll Published*

Please note that while the poll is ongoing, you can send it to multiple Wave users to cast their votes on the poll. To do that, please navigate to the chat window in which you want to send the poll, then click on the poll icon . From the list of the polls, select the poll you want to send.



*Created Polls*

Click on the three dots to show more options, then click on "Send".

The screenshot shows a 'Poll' window with a close button (X) in the top right corner. Below the title, there is a 'Poll Subject' label. Two options are listed: 'Option 1' and 'Option 2'. Each option has a progress bar and a label '(0) 0%' with a right-pointing arrow. Below the options, it says 'Number of voters: 0'. A context menu is open over the bottom right, showing 'Send', 'Edit', and 'Export Result' options. At the bottom of the window, there are three buttons: 'Stop' (red outline), 'Fill in' (blue), and a three-dot menu button.

*Poll Options*


#### Notes

- **Poll Subject:** You can enter up to 256 characters.
- **Option:** There must be at least 2 options and up to 20 options. The input limit for each option is up to 265 characters.
- Users can preview the newly created polls.
- Users can publish the poll to one or multiple point-to-point chats or group chats.
- While the poll is ongoing, the results will be displayed in real-time.

Once a poll has ended, the user can choose to publish it again, delete it, share the results with other chat parties, or export the results to a .xlsx file.

Wave supports creating surveys that allow the user to make a list of questions and send them to other users either in individual chats or in group chats.

To create a survey, please follow the steps below:

1. On the chat window, click on survey icon .
2. Then fill in the survey's information accordingly.

Add Survey

3. Specify the type of answer that the user will provide.

- **Single Selection:** Enter the choices that users can choose from. The users will be able to pick only one option.
- **Multiple Selection:** Enter the choices that users can choose from. The users will be able to pick multiple answers to the question.
- **Text:** The user will be able to provide the answer in the form of a text.
- **Yes/No:** The users will get the option to answer either Yes or No to the question.

Once the survey is ready to be published, the user can click on “Save and Publish” to send the survey. Just like polls, the surveys can be sent to other users to fill in.

Survey management includes: Add Survey, Publish Survey, Edit Survey, Delete Survey, View Survey Results, Share Survey Results, and Export Survey Results.


For a survey that is in progress, the user can end the survey or send the survey to others or other chat groups. For the ended survey, the user can re-publish the survey (the previous votes will be reserved, and the survey will be reopened for voting) or re-create the survey (the original survey options will be reserved, but the previous votes will not be reserved).

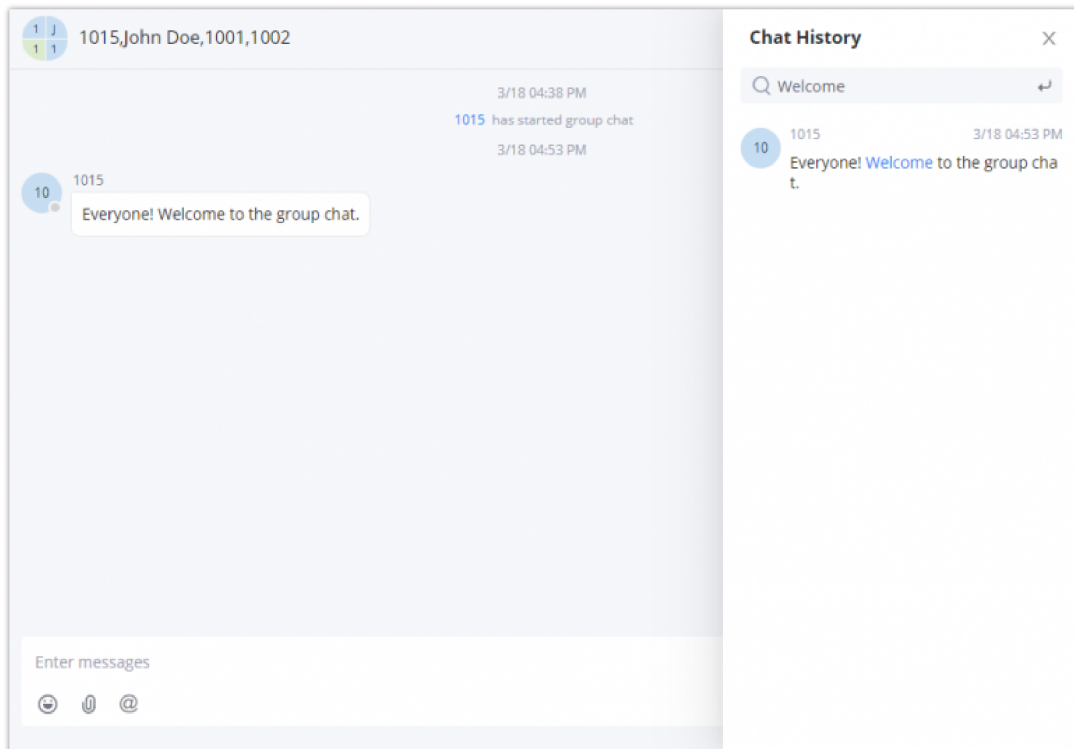
### Notes

- **Survey Subject:** Up to 256 characters.
- **Description:** Enter a description for the survey. The user can enter up to 1000 characters.
- **Questions:** There must be at least 1 question and up to 20 questions.
- **Question Content:** Up to 500 characters.
- **Options:** There must be at least 2 options and up to 20 options. The input limit for each option is up to 256 characters.
- The option “Allow Participants to Share Survey” is disabled by default. If you wish to allow the users to share the link of the survey with other users, please enable this option. The system will generate a link for this survey. Anyone with the link can take part in the survey.
- Users can preview newly created surveys.
- The user can publish surveys to one or multiple point-to-point chats or group chats.
- While the survey is ongoing, the user can edit the survey or export the results in an .xlsx file.



## Keyword Search

Grandstream Wave allows searching for a specific keyword within a conversation so you can exactly recall the context and the information relayed by your team members. This can be used in group chat as well as point-to-point conversations. To search for a specific word, navigate to the discussion you wish to search. Then on the top right corner of the window, click the search button . After that type the keyword you wish to search, then press enter. If there are any results, they will be displayed similarly to this example below.



*Chat Keyword search*

## Pin Chat Box

In the chat list, the user can select a point-to-point chat or group chat and set the chatbox to the top of the chat list. When the chatbox has been set to the top of the chat list, the user can quickly find the chatbox and reply to the message.

The user can also click the chatbox and unpin the chatbox.

## Hide Chat Box

In the chat list, the user can select a point-to-point chat or group chat and set it to hide the chatbox. Then, the chatbox will be hidden in the chat list.

### Note

The chat history will not be deleted after hiding the chatbox. When the user receives a message from this chat box in the future, the user can also view the chat history.


## DND

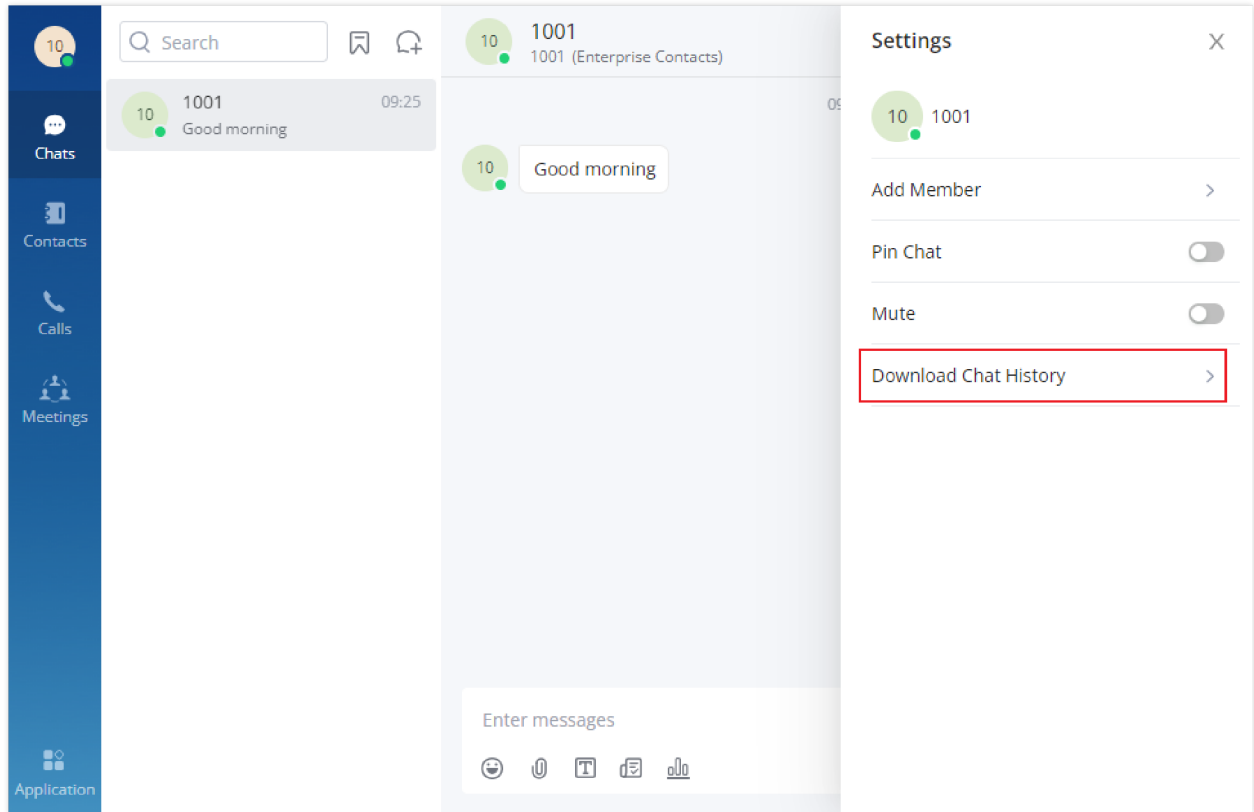
If the user needs to mute the new message notification of a chat, the user can select a point-to-point chat or group chat in the chat list and set it to "DND."

If the user wants to resume notification of new messages for the chat, the user can select the current chatbox and cancel the DND setting.

## Download Chat History

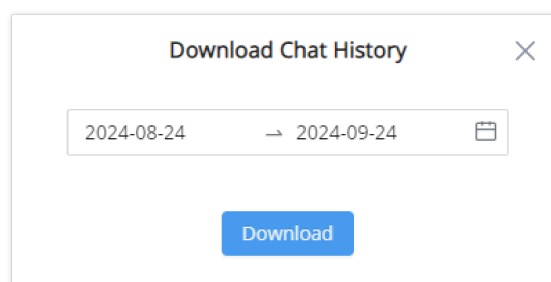
Wave allows users to download the chat history either for a individual chat or group chat given that the permission to perform this action has been granted by the PBX administrator. This privilege is granted by default. To download the chat history of a specific conversation, please follow the steps below.

1. Access the chat page which you want to download the chat history.
2. Click on the settings button  on the top-right corner of the chat page.
3. Then click on "Download Chat History" as highlighted in the figure below.



*Download Chat History*

4. Specify the chat interval to download then click "Download".



A text file will be downloaded containing all the messages from the specified interval.

### Note

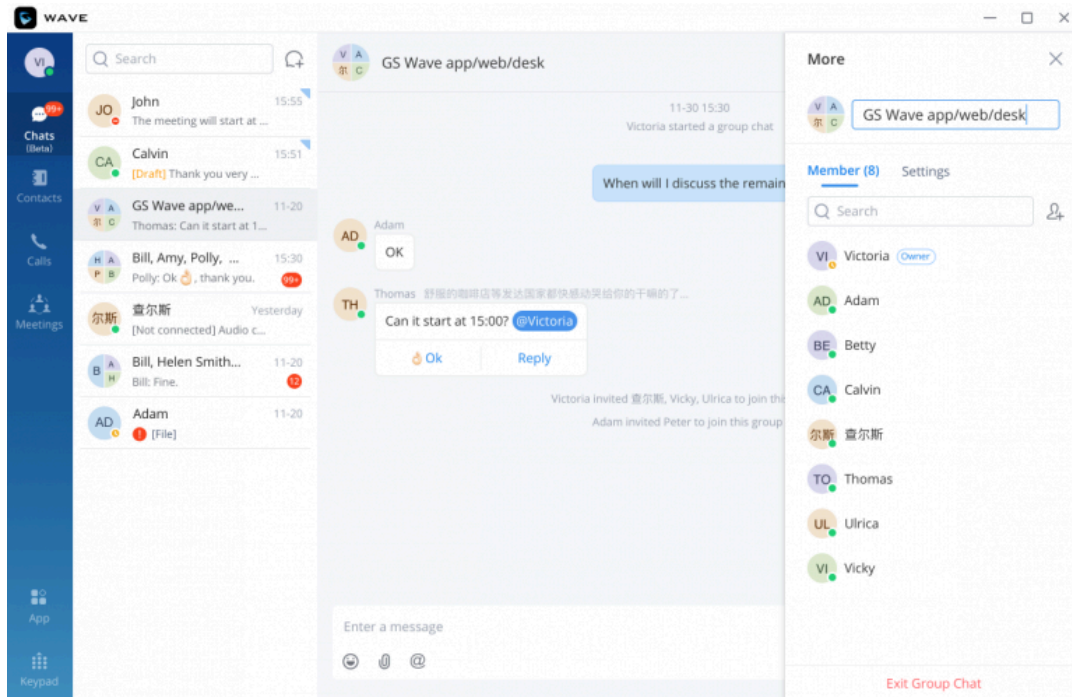
Please note that the exported conversation content is unencrypted. If the exported chat conversation includes sensitive data, we highly recommend to store it safely.

## Group Management


### Change Group Name

Both the group owner and group members can change the group name and do so, kindly follow the steps below.

**Step 1.** On the chat page, open the group chat page and click on the upper right corner to view group information.



*Change Group Name*

**Step 2.** By clicking on , users can modify the group name. The group name supports a maximum of 80 characters.

**Step 3.** After the modification is completed, click anywhere to save successfully.

Or You can directly click on the chat group name to edit it quickly, as shown in the screenshot down below:

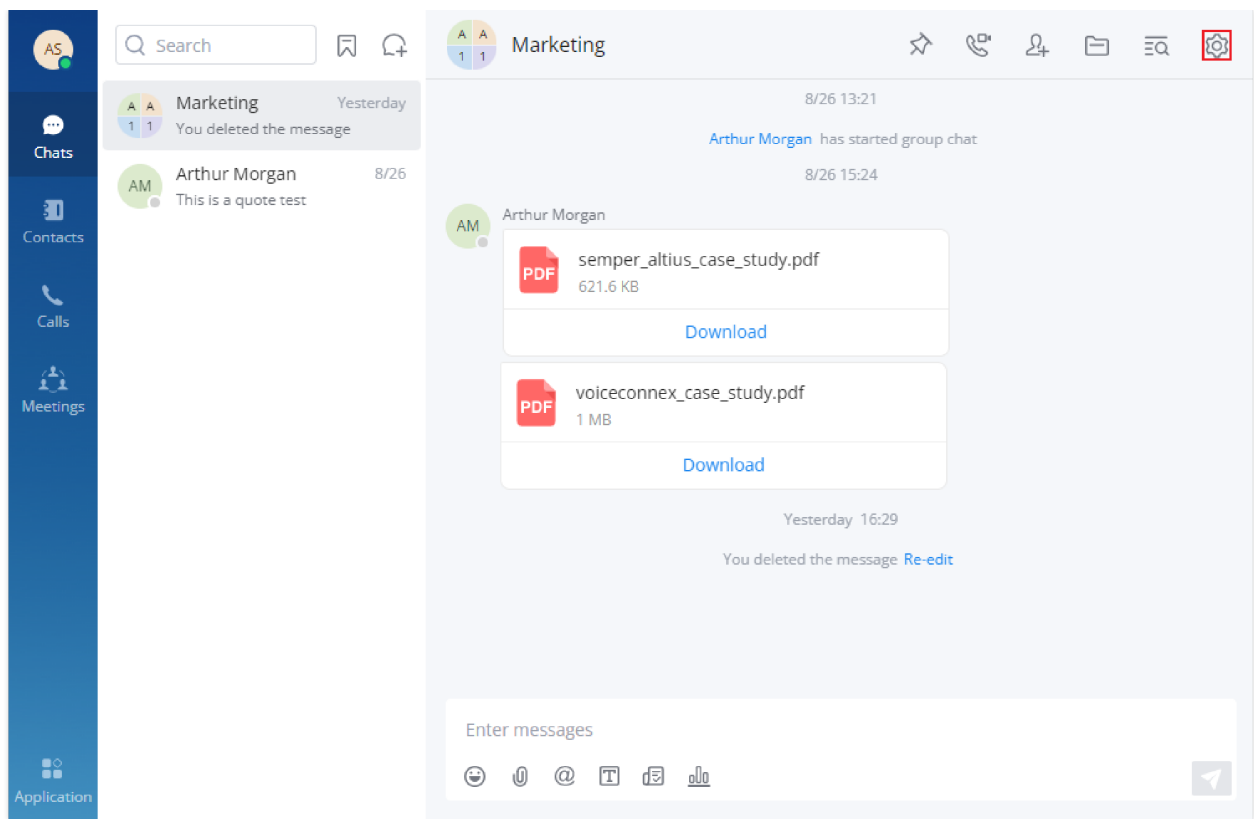


*Quickly Change the Group Name*

## Change Group Avatar

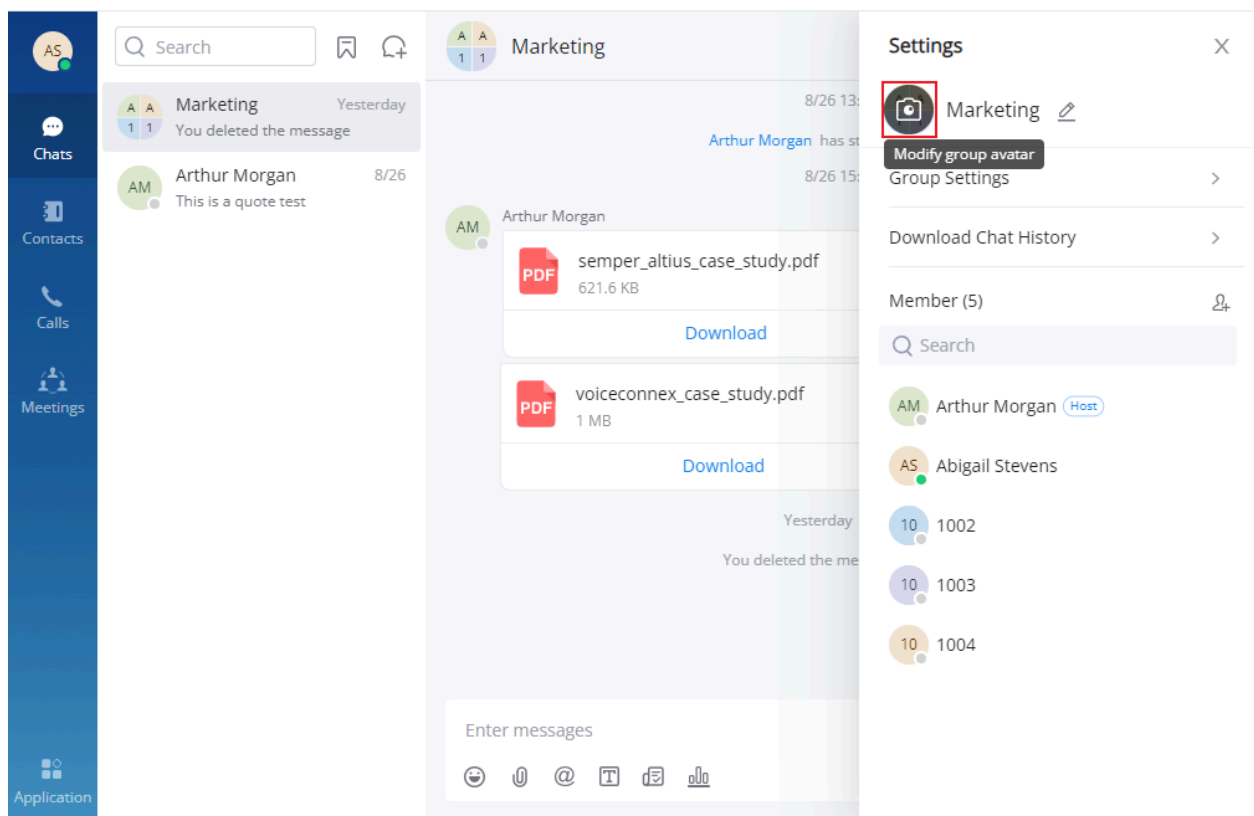
To set an avatar for a group chat on Wave Desktop, please follow the steps below.

1. Click on the group settings button  on the top right corner of the group page.



Group Settings

2. On the sidebar, click on the avatar of the group chat.



Avatar Settings

3. To upload an image, please click on "Select Images". If an image has already been set and you wish to restore the change to default, click on "Reset to Default".

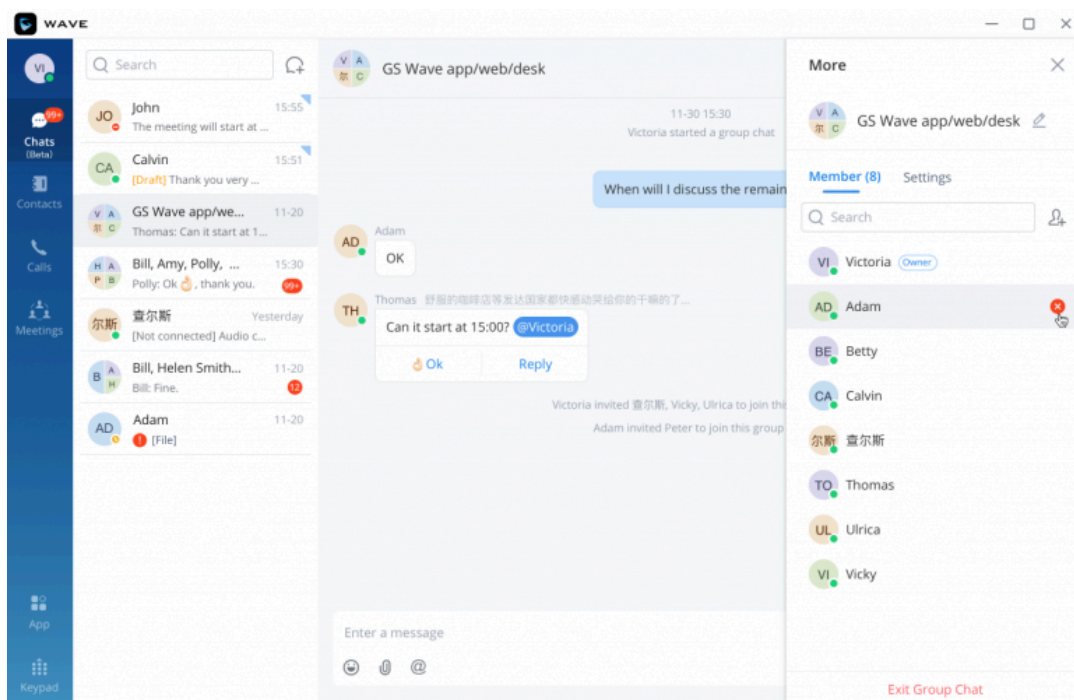


Upload

## View Group Members

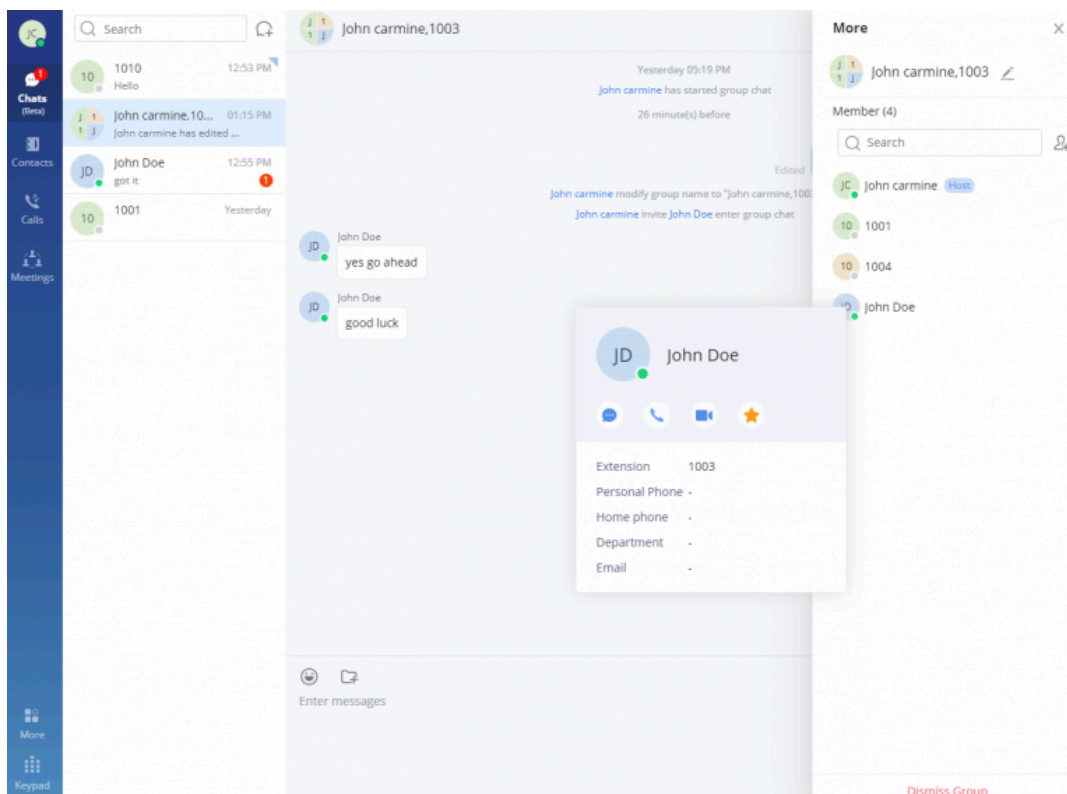
Both the group owner and group members can view the group members.

**Step 1.** On the chat page, open the group chat page and click on the upper right corner to view group members.



View Group Members


**Step 2.** Click on the avatar of the group member to view the detailed information of the member, send messages, and make calls.

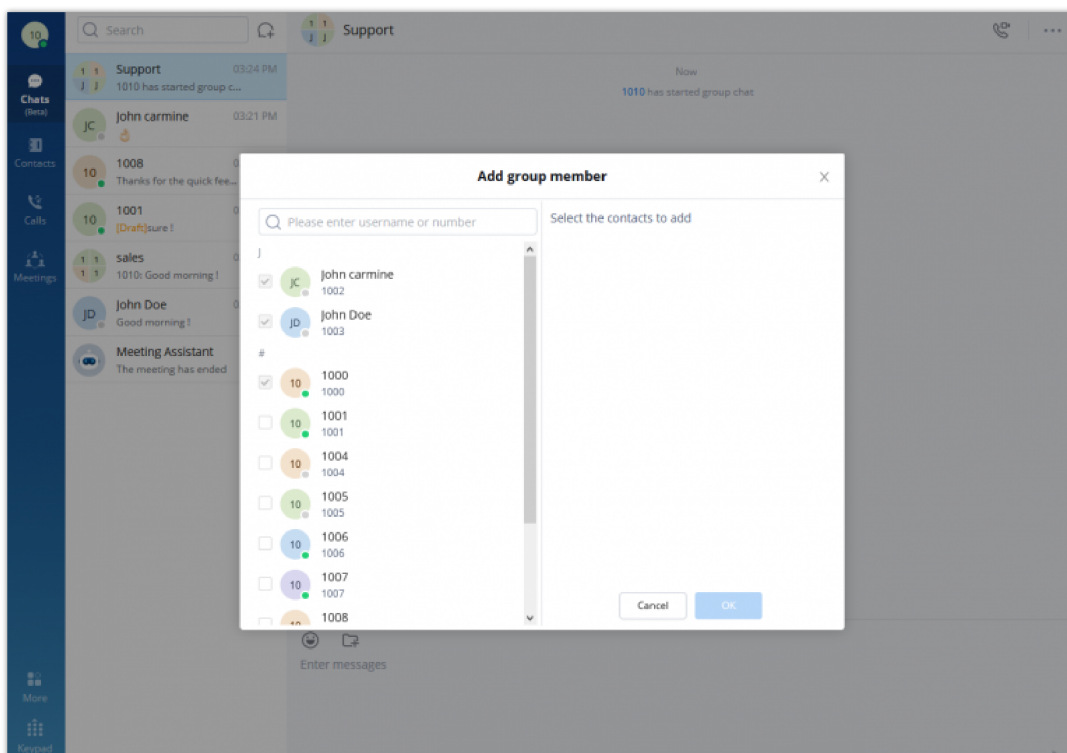


Group Member Card Interface

## Add Group Members

Both group owners and group members can add group members.

**Step 1.** On the chat page, open the group chat page and click on the upper right corner, then click on  to enter the contact selection page.



Add Group Member Interface

**Step 2.** Select the contact you want to add or search for a contact by name and select it.

**Step 3.** Click the "OK" button to immediately add the selected contact to the group chat.


### Note

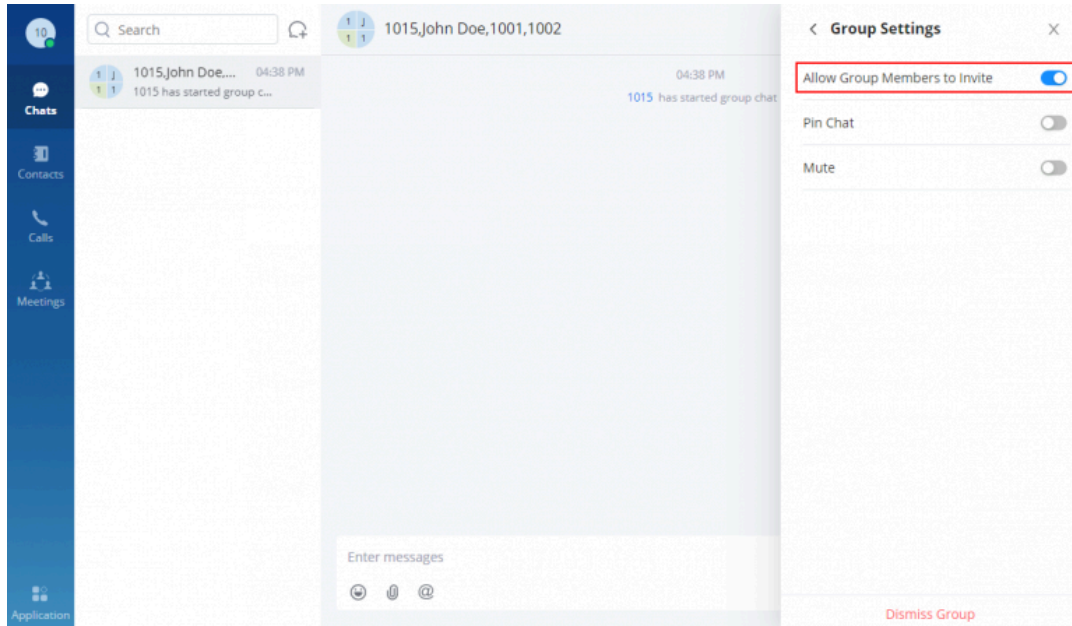


1. The newly joined members in the group chat cannot view the group chat history by default (Only the group owner can set the chat history that the group members can view: No, All, 1 Day, 7 Days).

2. The maximum group membership is 200 people.

- **Prevent or allow participants to invite other users:**

The chat group creator can allow or prohibit the participants from adding other members. To do that, please navigate to the “Group Settings” icon  then choose to toggle on or off the option “Allow Group Members to Invite”.

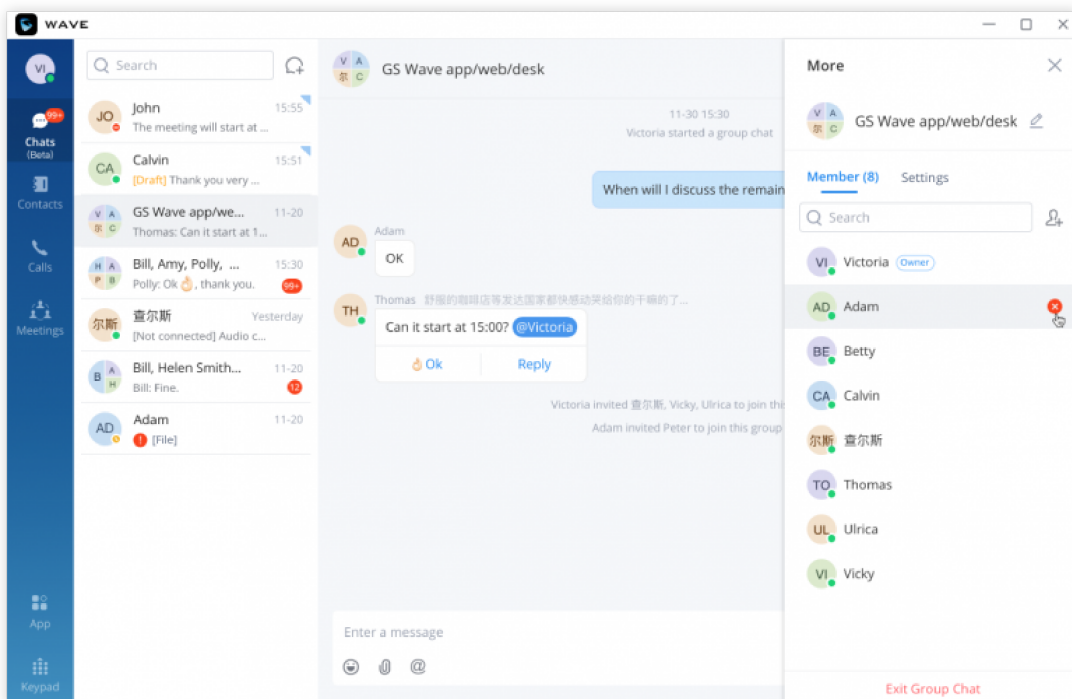


*Allow Group Members to Invite Participants*

## Delete Group Members

Only the owner can delete group members.

**Step 1.** On the chat page, open the group chat page, click on the upper right corner, and hover over the profile picture of the member you want to delete.



*Delete Group Members Interface*

**Step 2.** Click behind the member to delete this member.

**Step 3.** After confirming the deletion, this group member exits the group chat and can no longer view the group chat messages.

**Note:** After deletion, only the deleted member will be notified, not everyone.

## Exit Group

Only group members can leave the group.

**Step 1.** On the chat page, open the group chat page and click on the upper right corner, then click “Exit Group Chat” at the bottom.

**Step 2.** After confirming to log out, you will no longer accept new messages from this group and cannot view the group history messages.

### Note

After logging out, only the group owner will be notified, not everyone.

## Dismiss Group

Only the group owner can dismiss the group.

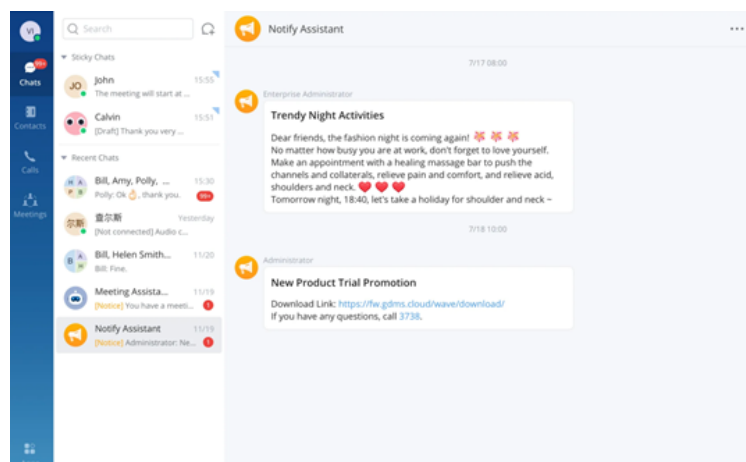
**Step 1.** In the chat interface, the user can open the group chat interface and click the button on the right upper corner , then click the “**Dismiss Group**” option at the bottom of the interface to dismiss the group.



**Step 2.** After dismissing the group, all members of the group will be removed, and the group chat history cannot be viewed.

## Notification Assistant

The administrator of your UCM can log in the **Web UI of the UCM -> Messaging -> Message Broadcast** to publish a broadcast message to all extension users, and Wave users can receive this message and display through the Notification Assistant. You can set the desktop notification and sound notification in Settings.

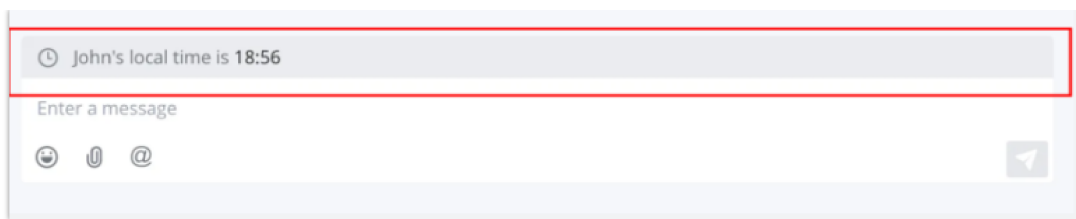


*Notification Assistant*

## Contact Local Time

When opening the chat box of a specific contact, Wave will show the contact’s local time. This helps with knowing what time it is for a contact when the contact is located in a different time zone. This saves the user time in converting between time zones.



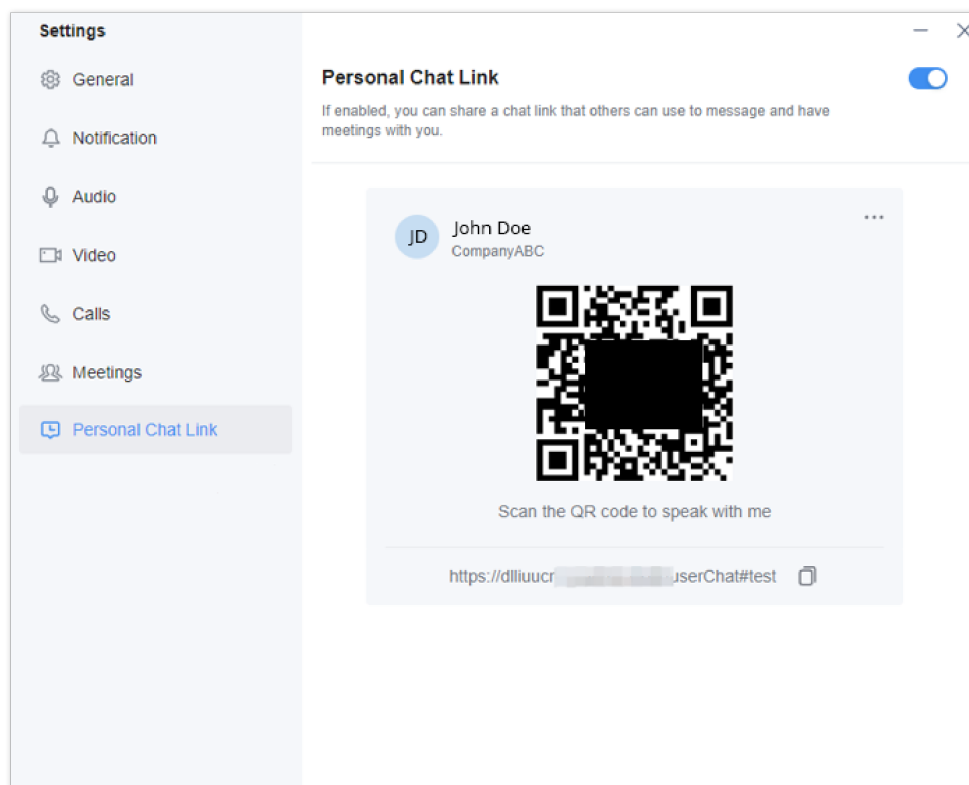


*Contact Local Time*

## Personal Chat Link

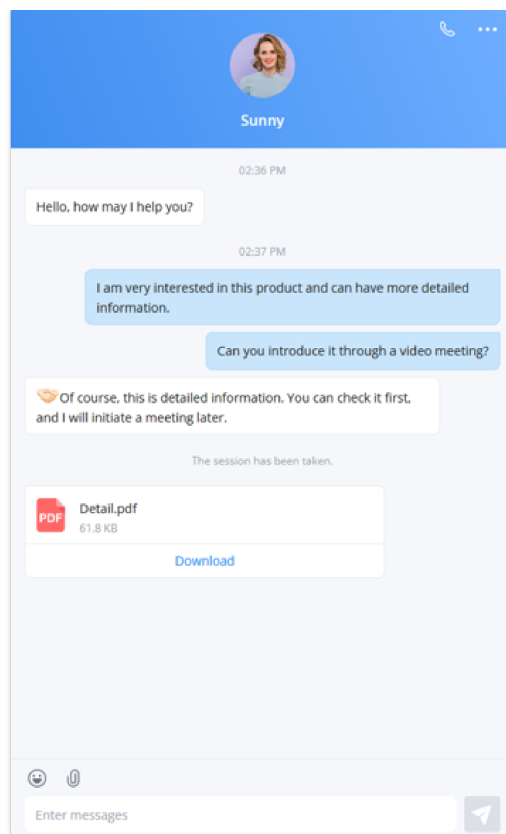
Wave users can create and share a personal chat link to share with other people. External people can open this link on a browser and be able to reach the Wave user directly or start a meeting.

To create a personal chat link, please click on your avatar, then click on "Settings". Then click on "Personal Chat Link" and enable the Personal Chat Link toggle as shown in the figure below.




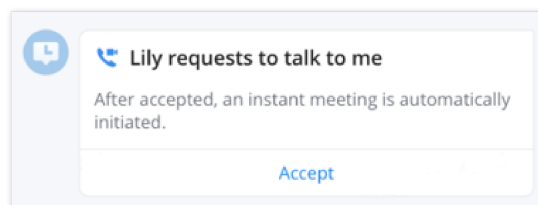
*Personal Chat Link*

1. The link is valid only when this function is enabled. After it is turned off, the link will be invalid immediately.
2. You can download the QR code and share it with external users
3. You can copy the link to external users.
4. Users can click [More Settings](#) change the displayed avatar and name, and support resetting the link or customizing the link address (after resetting, the original link will be invalid).  
External users can open this link through a browser:



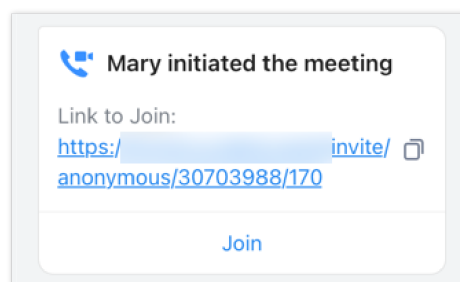
*Private Chat*

1. External users can open this link using a computer or a mobile browser to chat.
2. External users can send text messages, emoticons, and attachments.
3. Clicking the icon  will send a call request to the Wave user, and the Wave user will receive the request as follows:



*Meeting Request*

When the user clicks "Accept", an instant meeting is initiated and the meeting link is sent to external users.



*Meeting Initiated*

When an external user clicks "Join", they will join the meeting using their current browser.

## MEETINGS

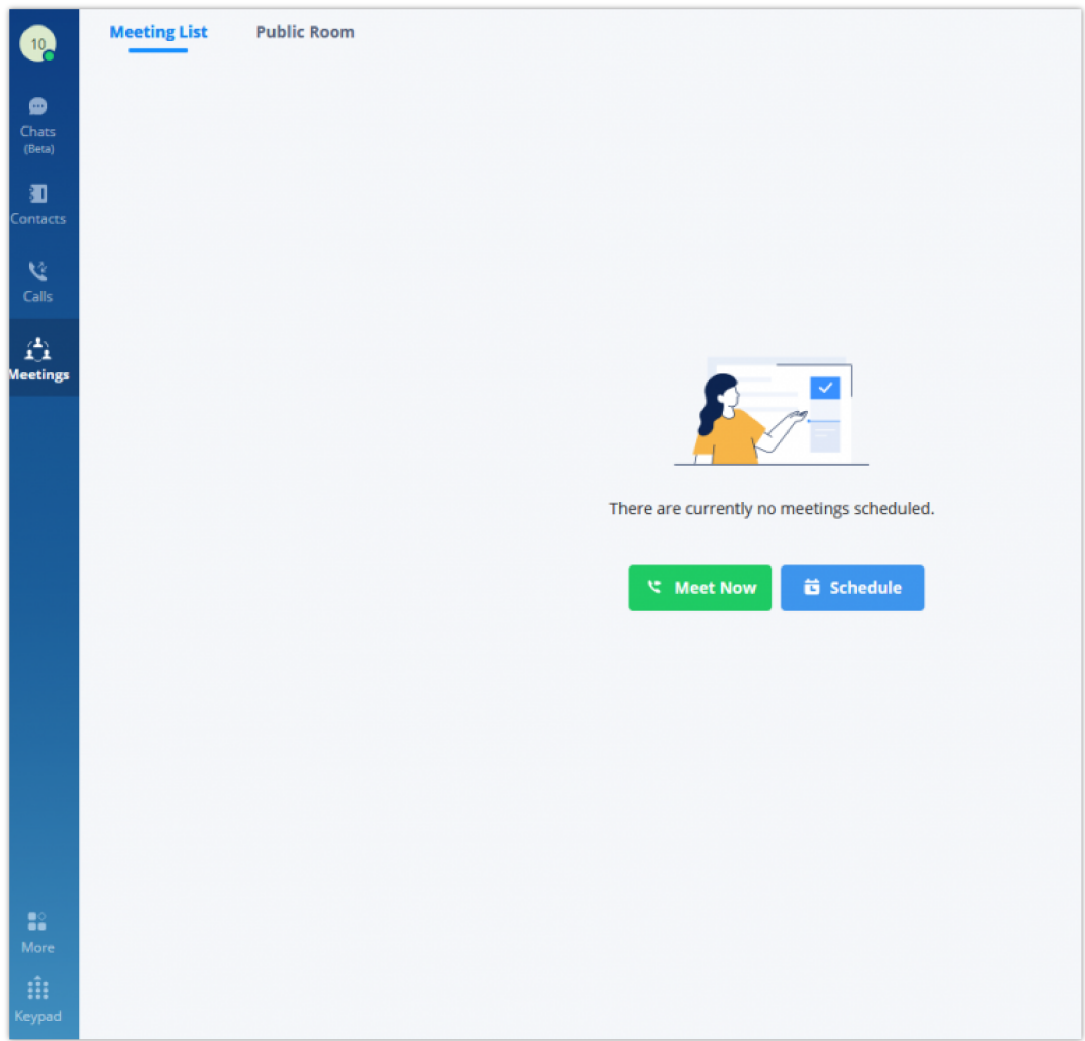
### MEETING LIST

Users can join an audio or video meeting on UCM by dialing the room number. After logging in to Grandstream Wave web, click on "Meetings" on the left panel to open the meeting page.

Users can view all meeting history in the Wave application, and it will show the actual duration of the previous meetings, as well as the participants' list of the previous meetings.

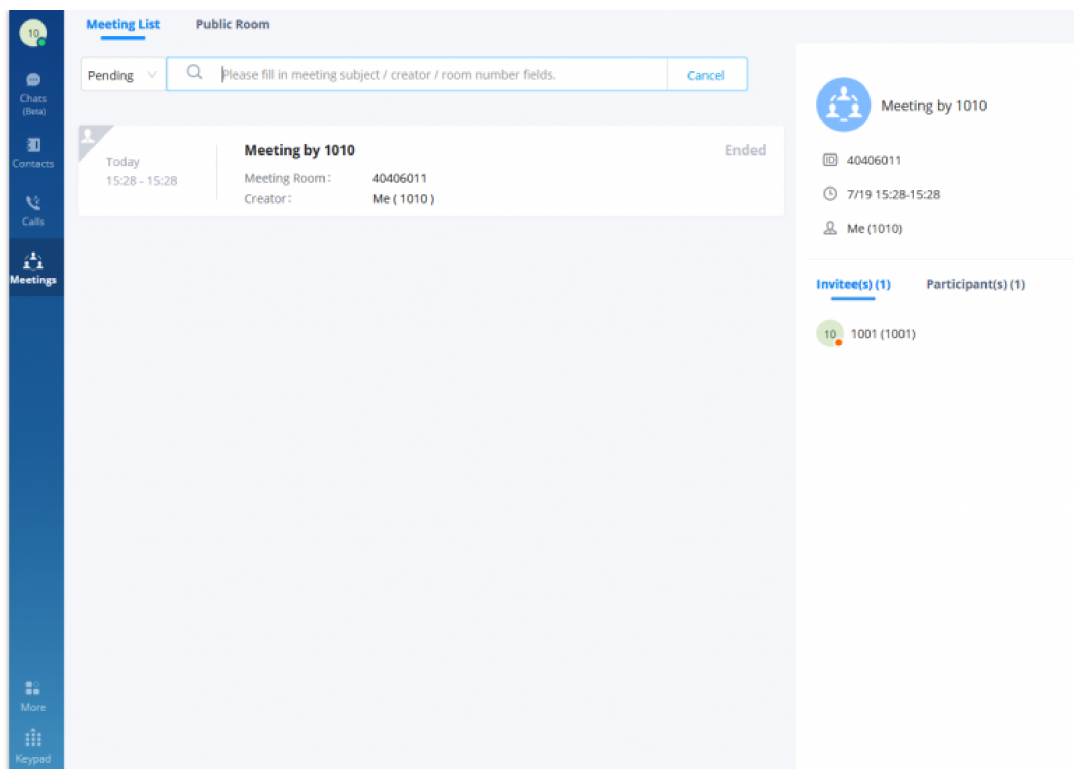
Users can search for the recent 6 months' meeting history. The period will be counted by natural month.

Users can create a meeting to start now by selecting [Meet Now](#) or to schedule a meeting by clicking [Schedule](#) on the top of this page.



Grandstream Wave Meetings Web Page

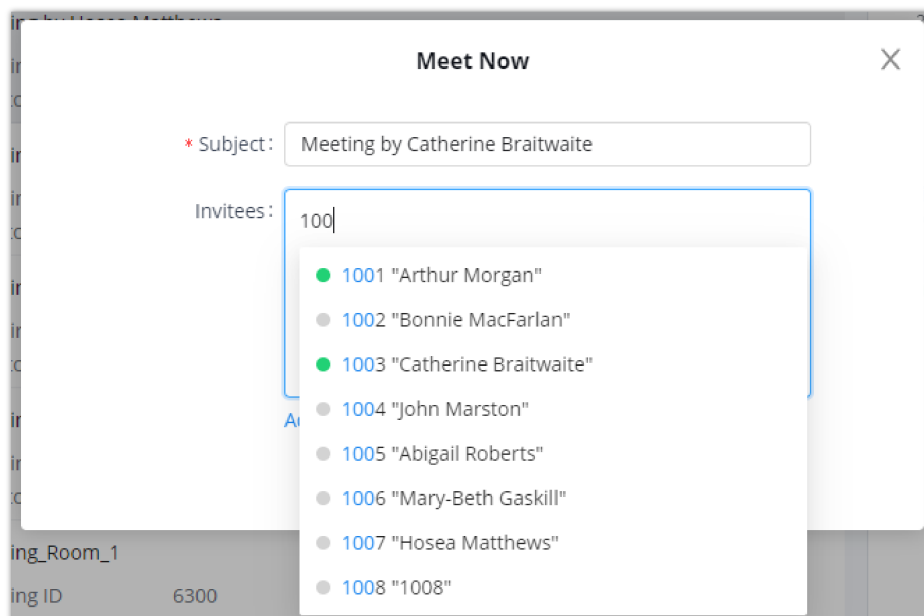
🔍 Users can view scheduled meetings by selecting "Daily", "Weekly", and "Monthly" and defining the date range. Click to search meeting by meeting subject, creator, and meeting room number.



*Search Meeting*

## Meet Now

1. On the top of the meeting page, click on  .



*Instant Meeting Interface*

### Note

When choosing the invitees, the colored dot next to the extension name indicates if the extension is online, busy, or offline. The colors of each status are green, orange, and gray, respectively.

**Step 1.** The user needs to enter a meeting subject.

**Step 2.** The user needs to enter the invitee's number or email address or click the **"Add"** button to invite the participants from the contacts or group.

**Step 3.** The user can click the **"Meet Now"** button to start an instant video meeting immediately and invite participants to join the meeting.

### Note

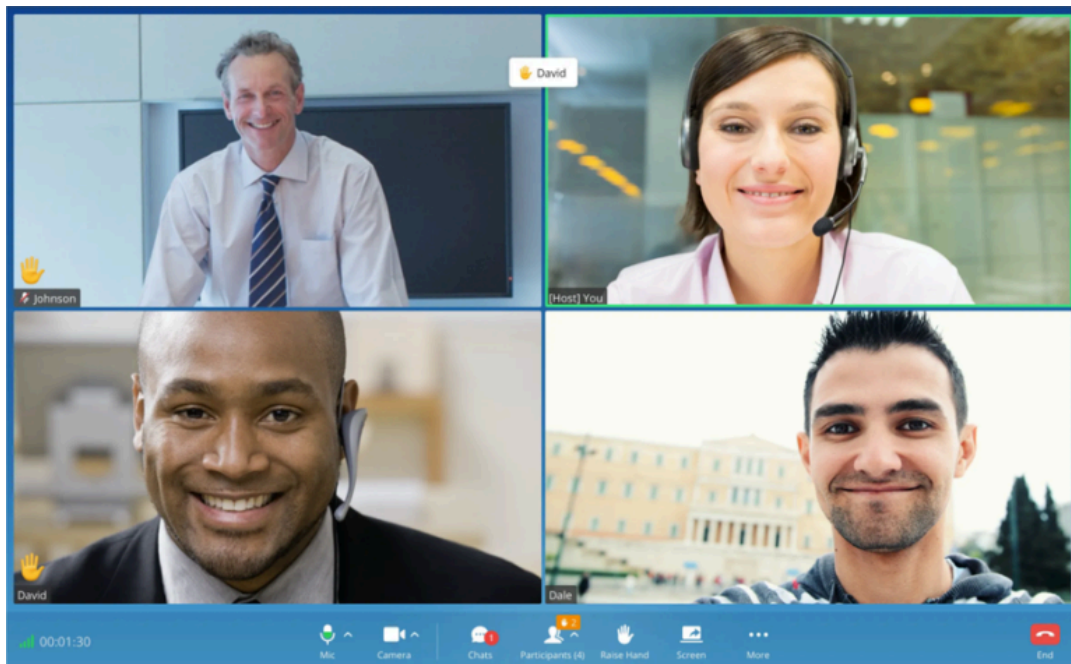
After creating the instant meeting, the video meeting number is a random meeting number. If the user wants to use the public meeting room, the user can access the public meeting room list and join the public meeting room.

### Note

The audio or video meeting room must be created and pre-configured by the UCM admin before users can join any meetings.











## Multimedia Meeting

Users can click the **"Video on"** or **"Video off"** option during the conference to switch between video/audio conferences. The picture below is showing the call interface after joining the video conference room.





*Video Conference Screen*

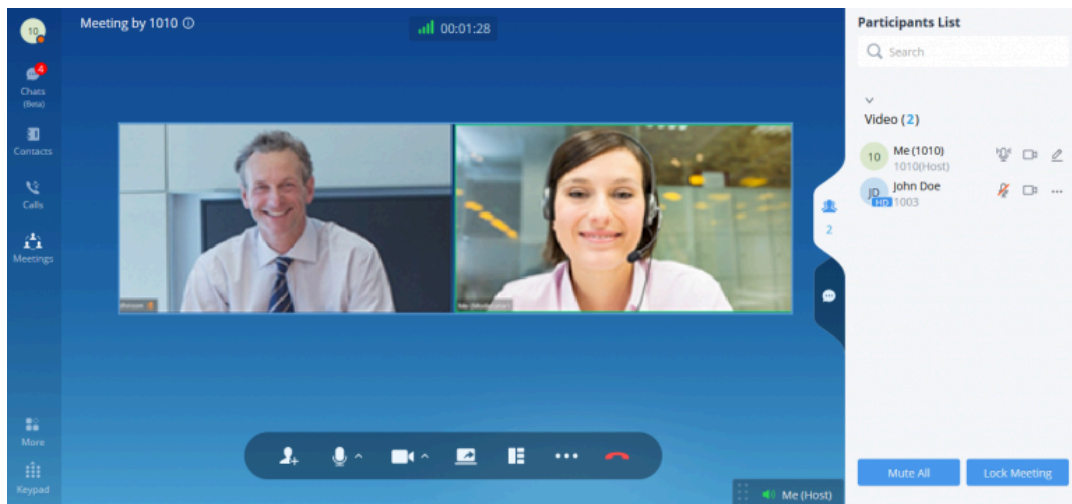
Below are the available meeting control options:

- : View network condition status such as packet loss for video and audio.
- : Invite participants. If the UCM admin has enabled "Allow User Invite" for the meeting room, any participant in the meeting can invite other participants. Otherwise, only the moderator can invite other participants.
- : Mute/unmute. Users can click the **"More"** button to enter the alternative ringing speaker settings interface.
- : Video on/off. Click to enable/disable the local video feed. Users can click the **"More"** button to enter the virtual background settings interface.
- : Screen sharing. Click to start screen sharing. Only one participant can share screen at a time. If a participant already shares the screen, this icon will be grey and other participants cannot click on this icon to share.
- : More options. The user can click this button to open the DTMF soft keyboard and display the chat bubble function.
- : End call.
- : View participant list. Click to open the participant list. The user can view participants' mute/unmute status, search for a participant, modify display name, chat with participants, etc.
- : Chat. Click to open the chat window and enter chat text.
- : Raise hand to request to talk.


To become meeting host:

- **Host Meeting:** If there is no meeting host in the meeting, the user can click the “More” button  and select the “Host Meeting” option to become the meeting host.
- Manage participants:

Click on the icon  on the right-side menu to open the participant list. The moderator can mute/unmute participants, turn on / off video for participants, transfer the moderator to another participant, remove a participant from a meeting, etc. The moderator can also mute all participants and lock the meeting room (no one can join the meeting room).




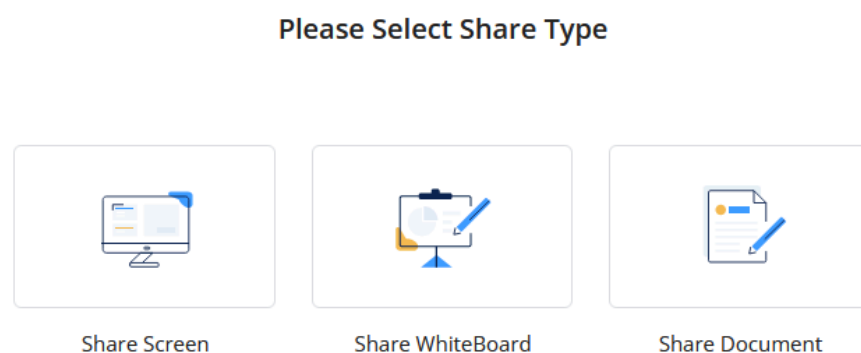
*Managing Participants in a Video Conference*

**Note:** The user can hide the tiles of the participants who do not have their webcams on by clicking on  then hovering the mouse cursor on “Layout” and then clicking on “Hide Non-video Participants”.

## Content Sharing

During point-to-point video calls or video meetings, users can share screen to present to all the other participants.

After the users click on the icon , a prompt will appear with the sharing options:



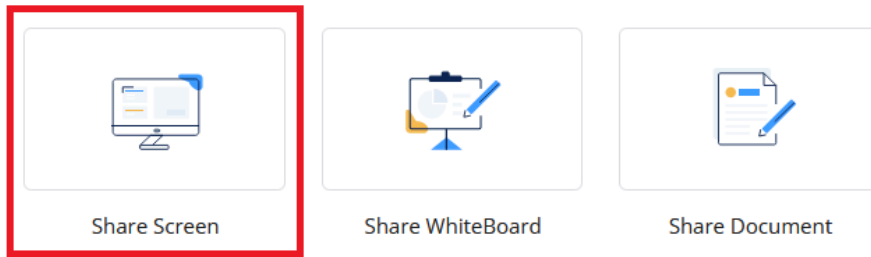
*Share Type*

- “Share Screen”: To share the screen
- “Share WhiteBoard”: To share the WhiteBoard (Supported in meetings only)
- “Share Document”: To share a PDF file (Supported in meetings only)

## Share Screen

Select “Share Screen”.

## Please Select Share Type



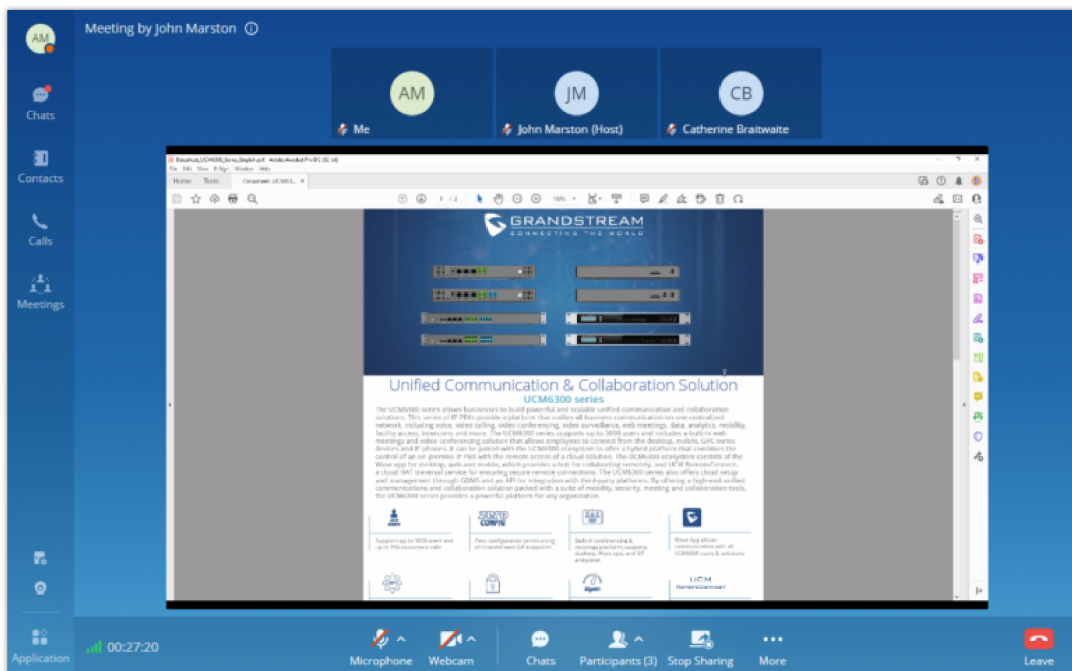
### Share Screen

A prompt will be displayed to select the content to share: "Entire Screen", "Application Window" (Opened), "Web browser" (Opened).

#### Note

Only one user can share a screen at a time.

During screen sharing, the users can double-click on the sharing screen or video screen to enlarge the display area to full screen.

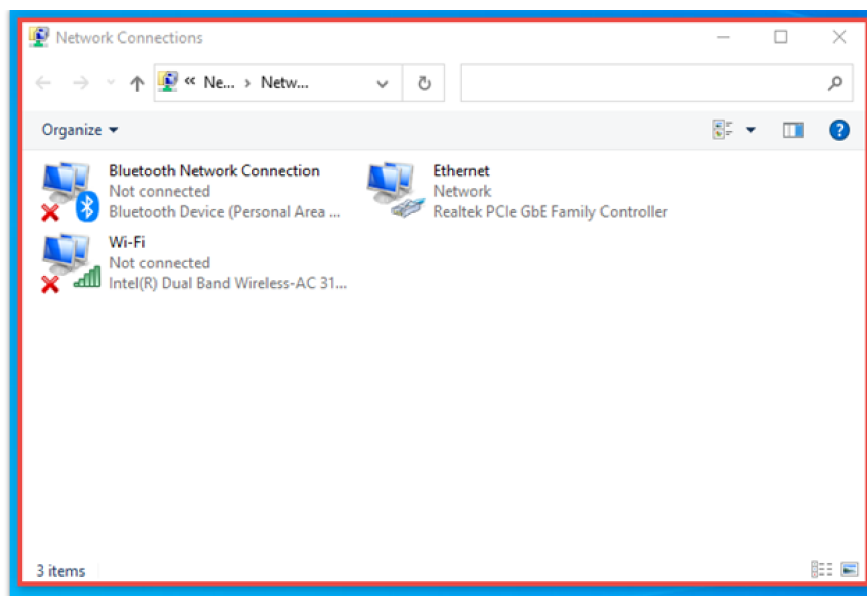


### Screen Sharing Layout

#### Note

The user can choose to enable sharing the PC audio alongside the screen-sharing, any audio that is played in the PC will be heard by all the participants.

During screen sharing, the shared screen/window will have a red frame to distinguish the shared content.



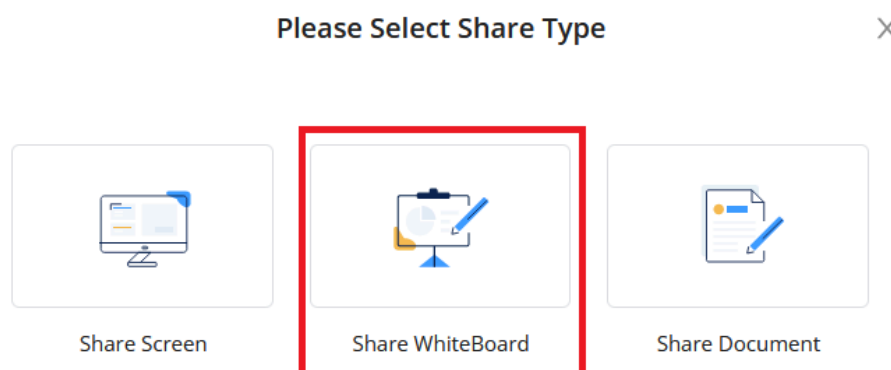
*Ongoing Window Sharing*

The user can use the sketching tools to draw annotations on the screen.

## Share Whiteboard

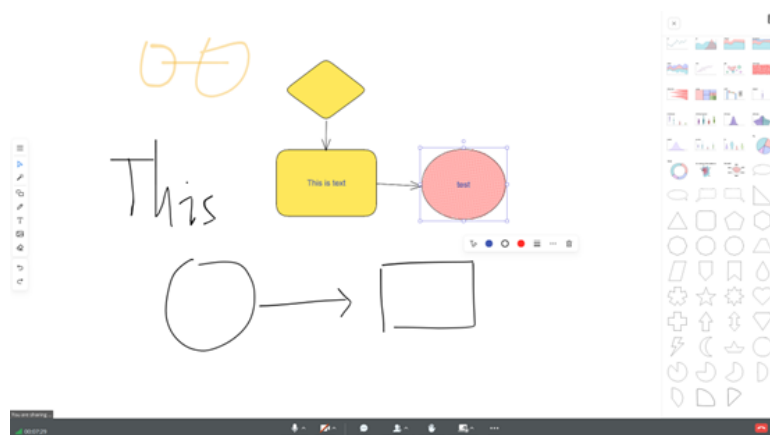
Share Whiteboard is available in meetings only.

The user can click on the icon  , and select "Share Whiteboard".



*Share Whiteboard*

The shared whiteboard contains complete features including a laser pointer, highlighter, input texts, graphics, flow charts, charts, and other graphics and styles. You can drag graphics, and edit graphics multiple times. The real-time drawing feature is very simple and fast for users.





☰: Click to view more options (only the sharer has permission) including: Enable/Disable the Collaboration function (After enabling this function, other participants can draw at the same time), change the Canvas Color, Empty Canvas, Open File (the whiteboard data picture which was previously saved), Save as Picture, etc.

☞: This is the mouse option. After you select this option, the whiteboard brush becomes the mouse. You can select any figure on the whiteboard, drag the figure or change the style of the figure. You can press and hold the blank space to move the whiteboard.

☞: This is the laser pointer option and only the sharer has this option. It displays the drawn track and will disappear in 3 seconds.

☞: This is the graphics option. It only displays the basic graphics by default. You can click "All Graphics" option to expand the menu and see more graphics, including more basic graphics, flow charts, charts, UCM charts, Google charts, etc. You can also double-click the graphic to add text.

☞: This is the brush option. There are two types brush "Common Brush" and "Highlighter".

☞: This is the text box option. You can click it to enter texts.

☞: Pictures can be inserted. After inserting a picture, you can drag the edge to change the size of the picture.

☞: This is the eraser option.

☞: This is the undo option.

☞: This is the recovery option.

## Share Document

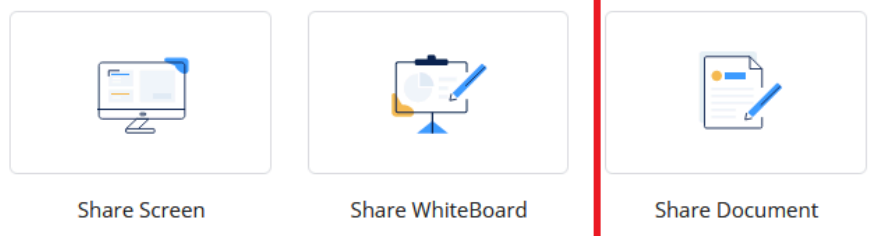
Share Document is available in meetings only.

The user can click on the icon



, and select "Share Document".

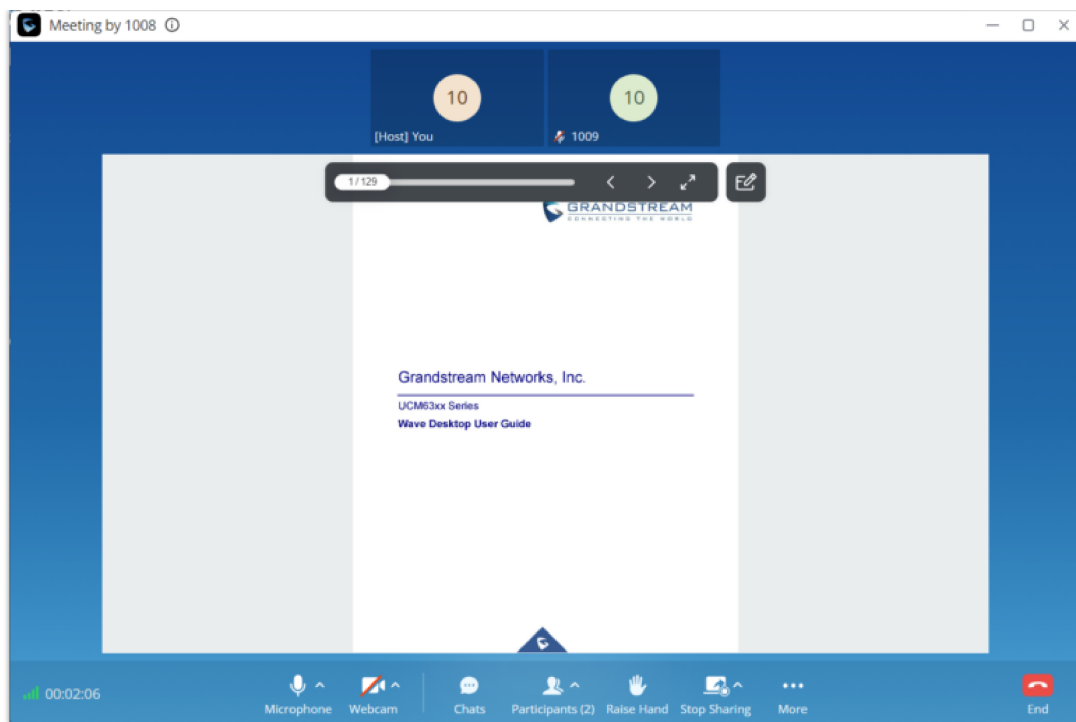
### Please Select Share Type




*Share Document*

#### Note:


Supports PDF file only, with up to 20 MB





*Shared Document*


The users can click  button to use annotations on the shared document.




: This option to change the brush thickness and color.


: This is the paint brush option. It supports different modes: Free, Line, Rectangle/square, Circle and Arrow.


: This option to enter text.


: This is the eraser option.

: This is the undo option.

: This is the recovery option.

: This is the empty option to clear all the annotations.

: This option to other the other participants to draw annotations at the same time.

: This is the download option. It will download the current page with its annotations as jpeg file.

## Switch Sharing Source

Using Wave point-to-point call or meeting allows switching seamlessly between the source of the screen-sharing. This can be performed without ending the screen-sharing. Please refer to the screenshot below to know exactly how it can be performed.




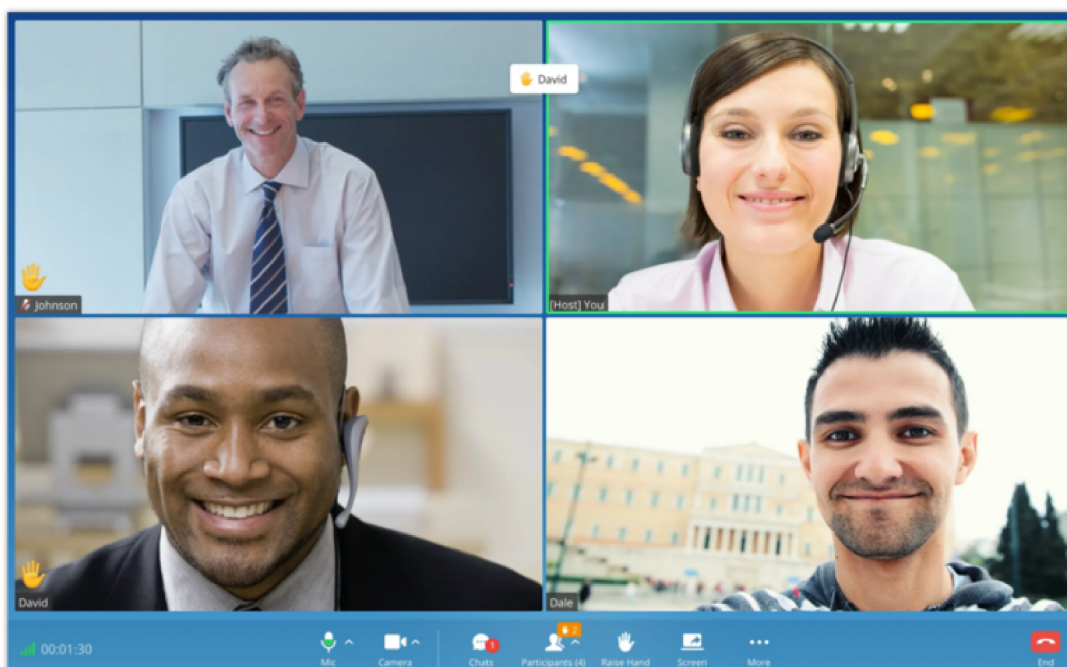
*Switch Share Source*

Then choose the new source that you want to share with the other users.

## Raise Hand

During the meeting, the participants can request to speak by raising the hand. All the other participants will be able to see who has risen their hand. This makes meetings with many participants a lot easier to manage for the host.

To raise your hand, please click on . The participants who have risen their hands will be displayed as the screenshot below shows.

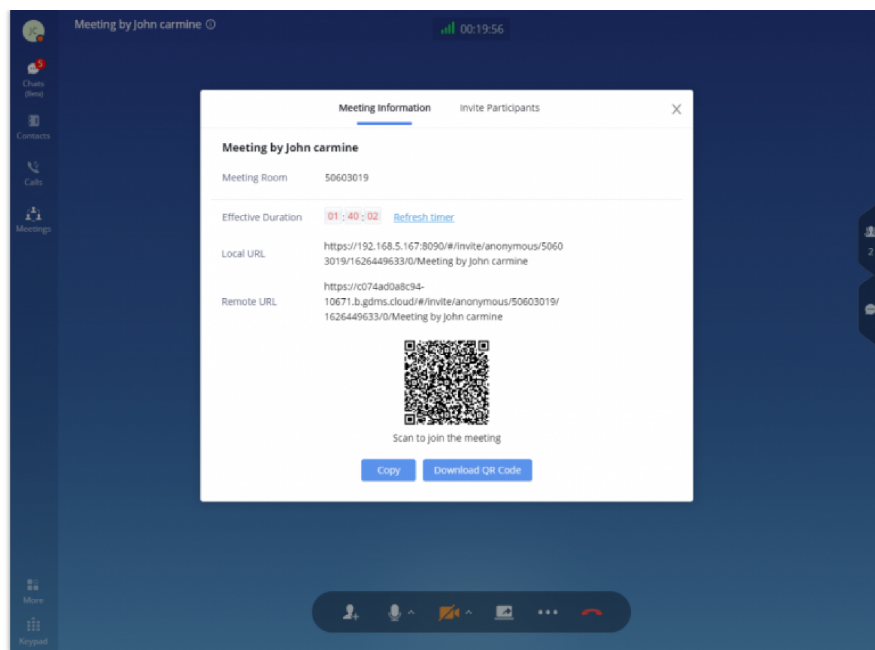


*Raise Hand*

## Invite Participants

If the UCM admin has enabled "Allow User Invite" for the meeting room, any participant in the meeting can invite other participants. Otherwise, only the moderator can invite other participants.

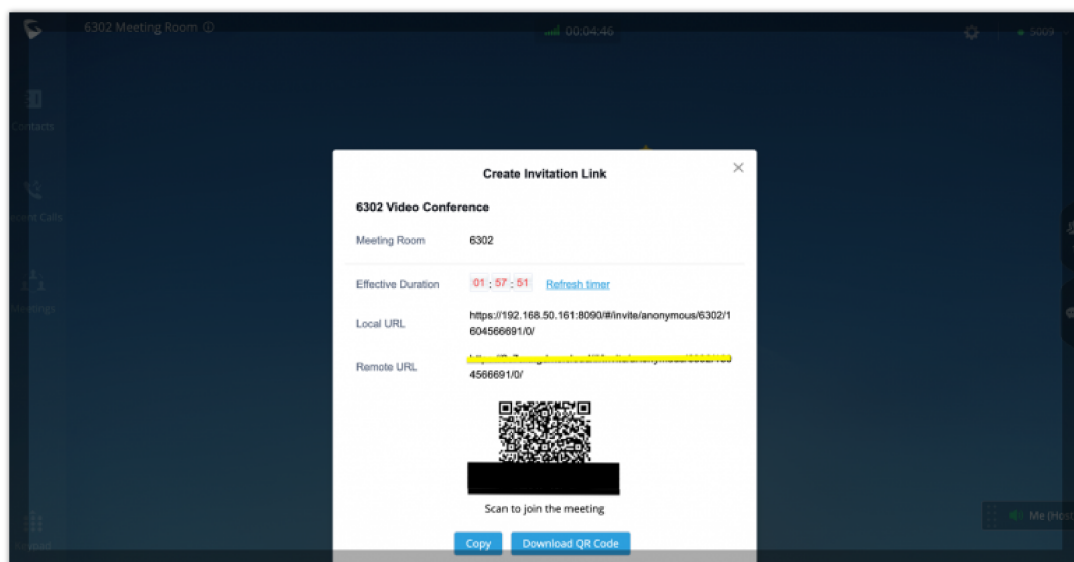
Users can invite other participants by generating a meeting link or dialing other participants.



*Invite Participants*

- **Create invitation link:**

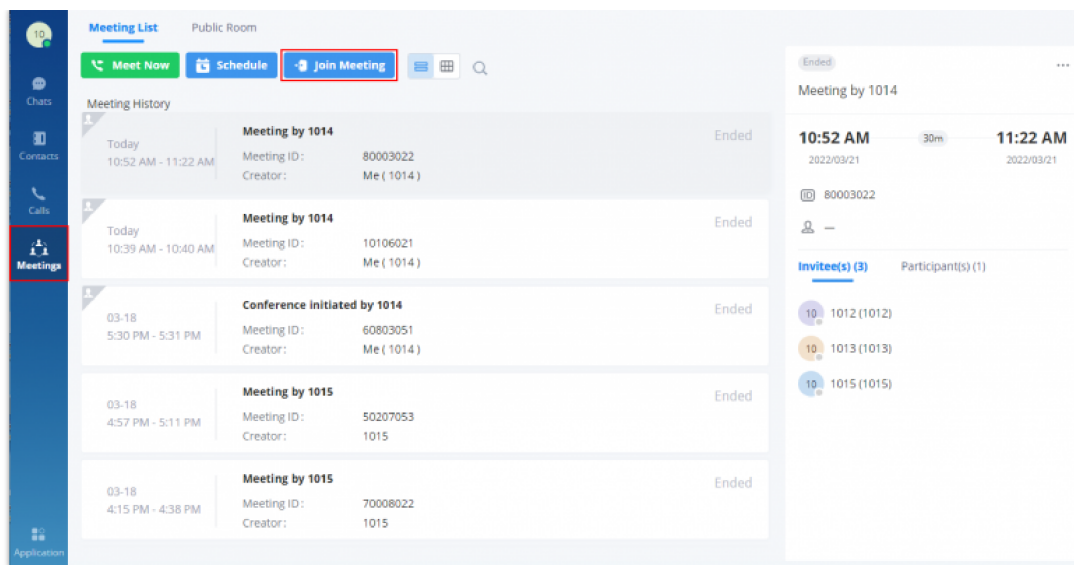
After selecting "Create Invitation Link," users will be prompt with link information as below. The users can send the link or QR code to other parties for them to join the meeting.



*Create Invitation Link*

- **Join using a link**

The users can use the link to join the meeting by going to "Meeting" tab then click on "Join Meeting"



This prompt will appear then paste the link and enter the password if the meeting room is locked, if not leave the password text field empty.

**Join Meeting**
✕


\* Meeting ID/Link

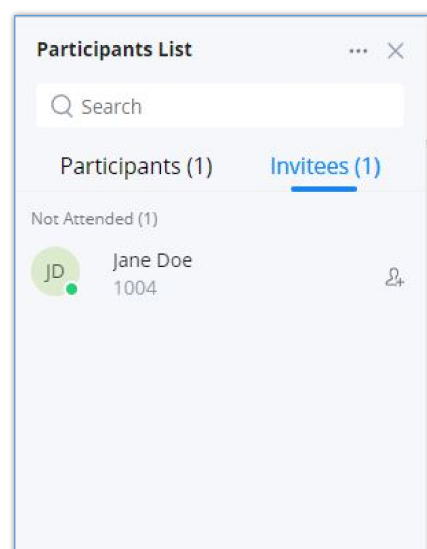
Meeting Password

Then click on "Join Meeting"

- **Invite participants:**

After selecting "Invite Participants," users can select a contact to invite or enter the number to invite.

The meeting's host can also invite the participants quickly. . To do this, the user needs to click on  button in the menu bar at the bottom of the screen to bring the participants menu up:

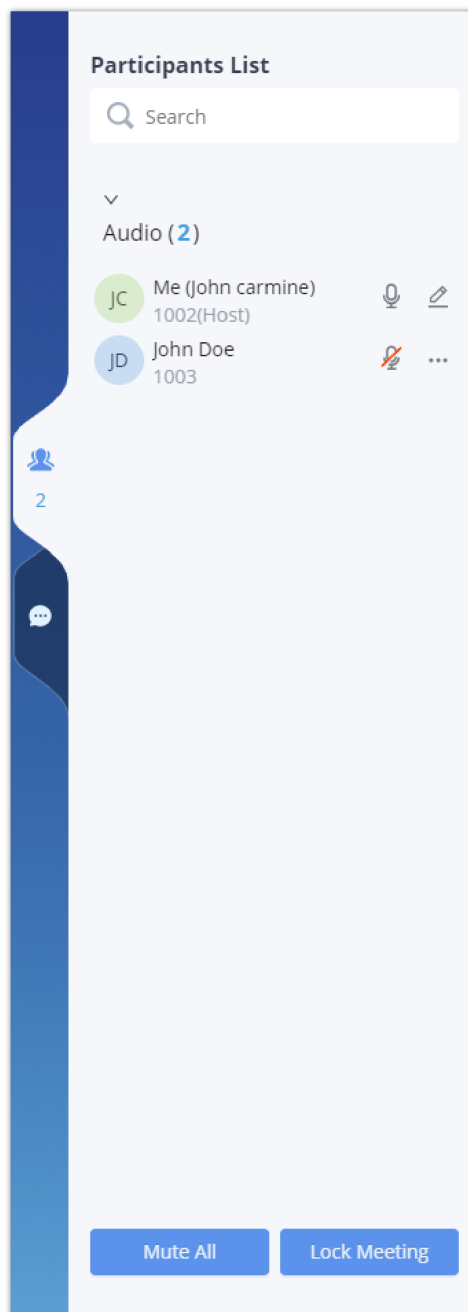


*Participants List*

On the invitees tab, the user needs to click on  to quickly invite the participant.









## Managing Participants

During the meeting, click on the icon  to open the participants' list.



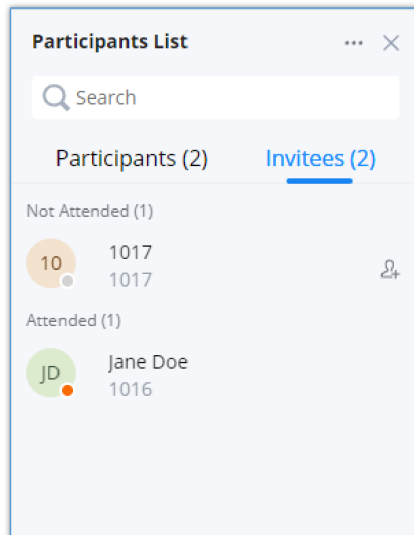
*Participants List*

Participants can view the list only, while the moderator has more options to manage the participants.

-  : Modify display name.
-  : This indicates the participant has the video on. If the moderator clicks on it, it will turn off the participant's video.
-  : This indicates the participant has video off. If the moderator clicks on it, it will invite the participant to turn on the video.
-  : Mute. This indicates the participant has the mic on. If the moderator clicks on it, it will mute the participant's mic.
-  : This indicates the participant is talking. If the moderator clicks on it, it will mute the participant's mic.
-  : This indicates the participant is muted. If the moderator clicks on it, it will turn the mic back on for this participant.
-  : More options to operate for this participant, such as "Transfer Moderator", "Remove" and "Chat".
-  : Chat. Click to open the chat window.
- Lock Meeting: Click to lock the meeting so that no one can join the meeting room anymore.
- Mute all: Click to mute all participants in one click.


## Invitees List

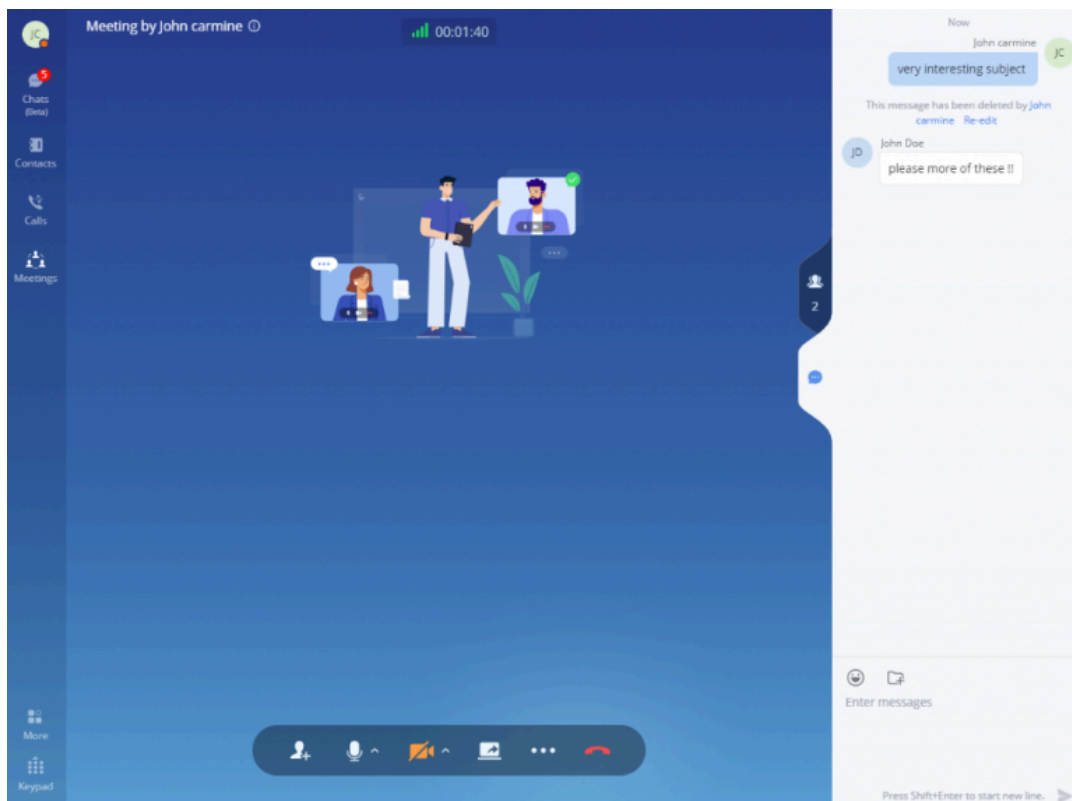
If the current user is the meeting host, the user can view the list of participants who are not attending the meeting. The participants can only view the list of current attended participants. The meeting's host can send an invitation to the people who have not attended the meeting or those who left. Please see the screenshot below.




*Invitees List*

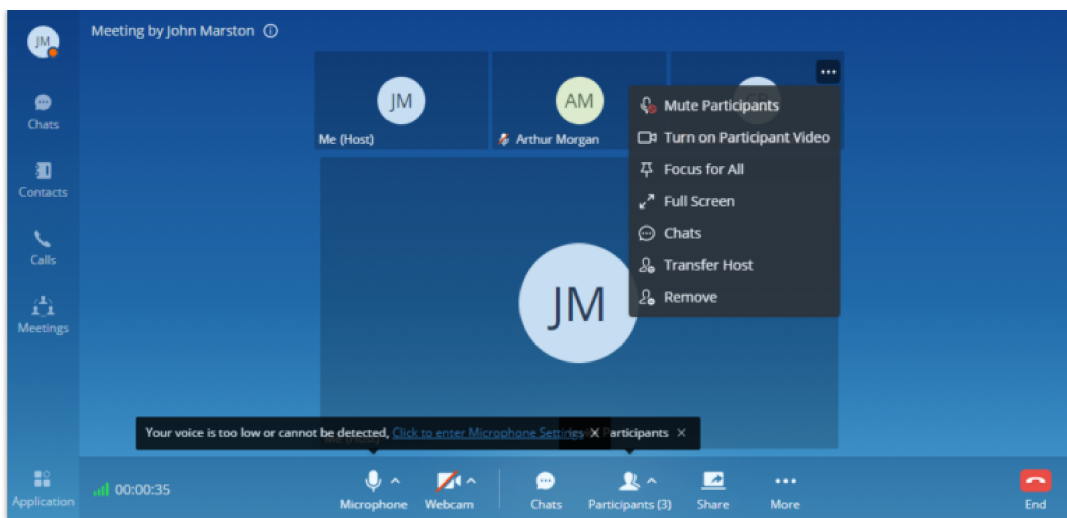
## Chat During Meeting

During the meeting, users can click on  to open the chat window. The chat messages can either be sent to a specific participant or all the participants.



*Chat during meeting*




- The chat window not only displays all chat messages but also shows real-time notifications when a participant joins the meeting or leaves the meeting.
- Wave supports chat with members who join the conference via browser, PC client, and mobile APP.
- The user can choose to send a message to all members or select a specific member to send the message.
- Click the icon  under the participant list for a specific user to chat privately with him/her. Only supported by Wave users.



*Participant Menu*

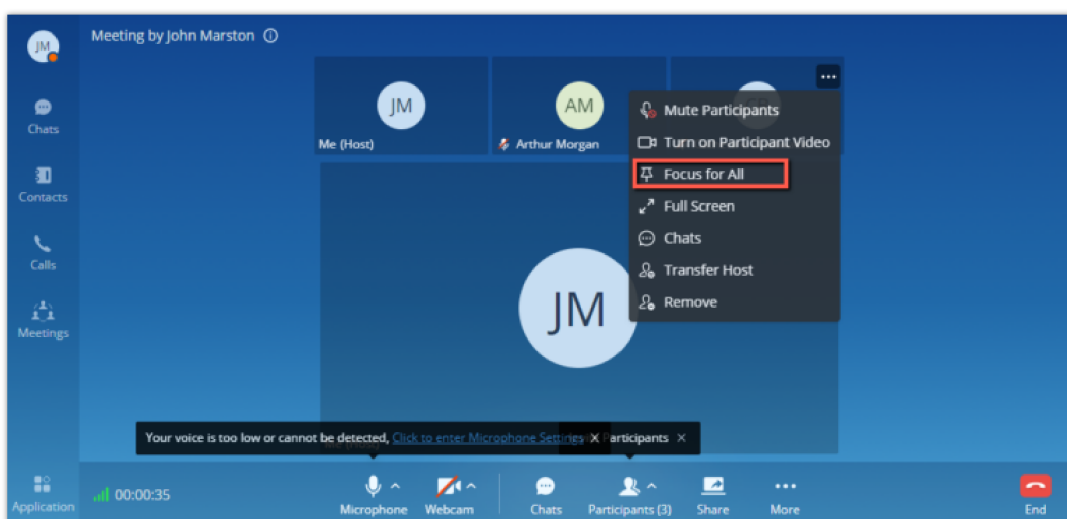
- **Mute Participant:** The host can mute a specific participant who seems to be in a noisy environment. This enables push-to-talk for the participants. If he/she wants to speak, he/she can press and hold the space button, and release it when he/she is done speaking.
- **Turn on Participant Video:** The host can turn on the sound of a certain participant.
- **Focus For All:** The host can enable focus on one speaker tile/webcam feed.
- **Full Screen:** The host can toggle one speaker tile/webcam feed to full screen.
- **Chats:** The host can directly mention the speaker in the chat using this button.
- **Transfer Host:** The host can relegate its role as a meeting host to a different participant.
- **Remove:** The host can use this feature to remove a participant from the meeting.

## Meeting Call Layout

You can arrange the layout of the tiles of the participants in a specific meeting in two arrangements, to do that please click on "More" button , then select either  **Speaker Layout** Or  **Tiled Screen Layout**



- **Tiled Screen Layout:** The tiles will be arranged in the same size without putting the focus on the speaker.
- **Speaker Layout:** Whenever someone is speaking his tile will be enlarged and shown under the tiles of the listeners. This puts the focus on the speaker and his/her video feed if he/she has the webcam on.

The meeting host can also control to have one participant's tile pinned. To do that, the meeting host can click on the three dots on the top right corner of the user's tile, then click on "Focus For All" as the screenshot below shows.

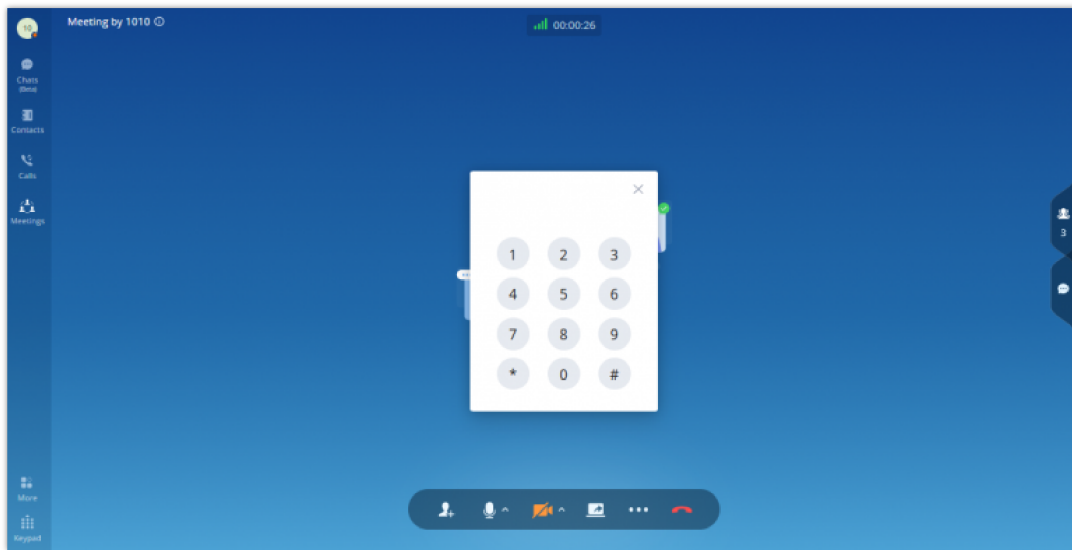


*Focus For All Meeting Layout*




**Step 1:** During the meeting, the user can click the "More" button  on the menu and click the DTMF button  to open the DTMF soft keyboard, as the screenshot shows below.

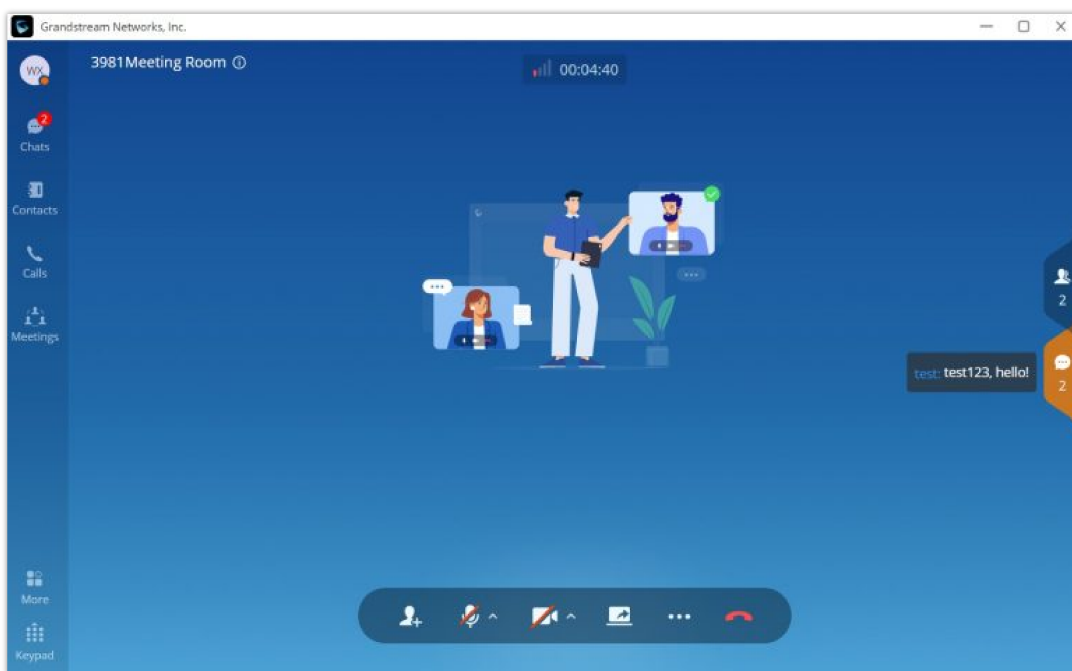
**Step 2:** The user can click the digit button on the keyboard to enter the digits.



*DTMF Soft Keyboard*

## Chat Bubble

During the meeting, the user can click  button to enable the chat bubble function. If there is a new message during the meeting, the chat content will be displayed in the form of bubbles on the right side of the interface, as the screenshot shows below:

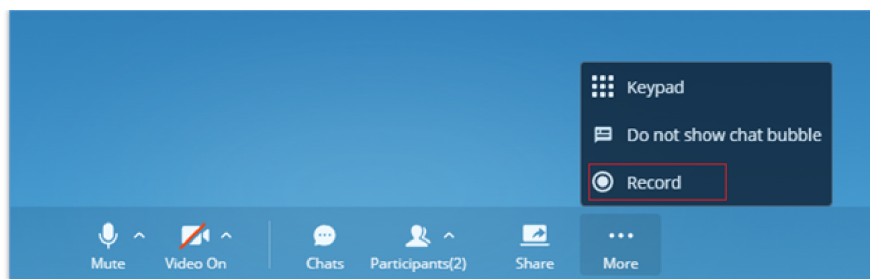


*Chat Bubble Interface*

## Record an Ongoing Meeting

During a meeting, the host can start recording it. To do that, you need to click on "More" on the menu at the bottom of the screen, then click "Record".

When the meeting is ended, the meeting organizer can view the recording files in Meeting Details.

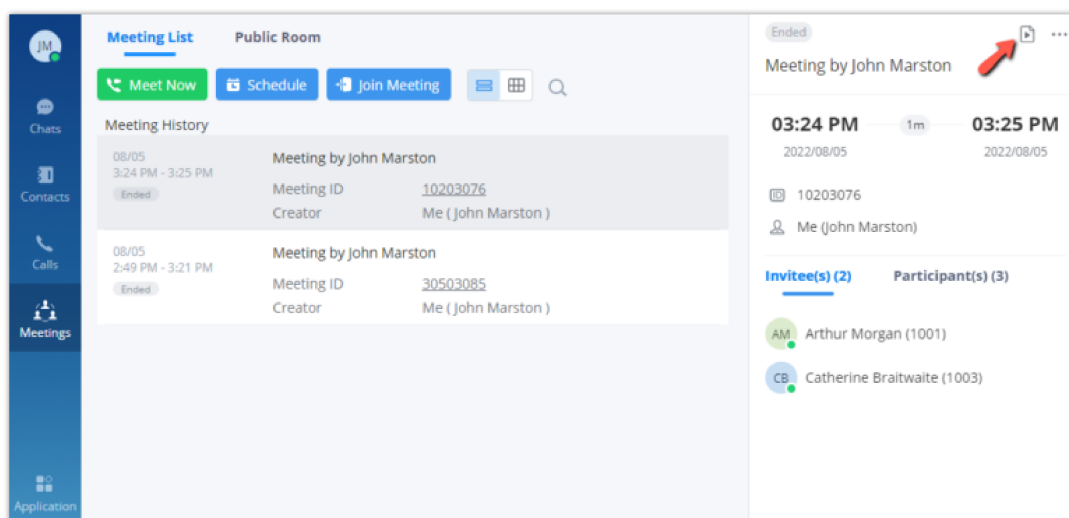


*Record an Ongoing Meeting*

#### Note

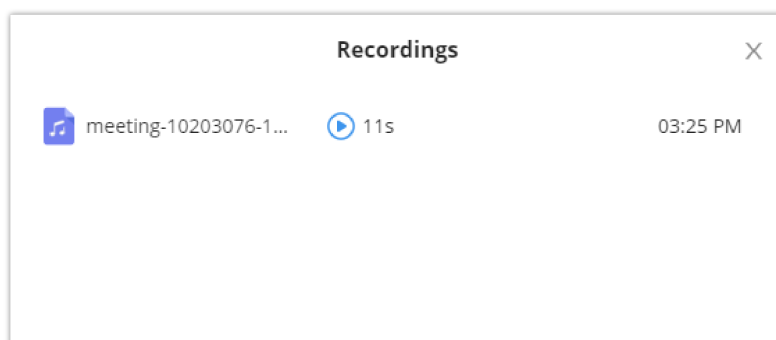
Only the meeting's host can record the meeting, and he/she will be the only one who can access the recording once the meeting is finished.

After the meeting is finished, the host can check the recording by navigating to the meeting tab, then selecting the meeting, and after that click on the recording's icon on the top right-hand corner. Please see the screenshot below.



*Meeting's Info*

The recording files will appear with the possibility to play them, download, or delete them.




*The recordings of the meeting*


#### Note

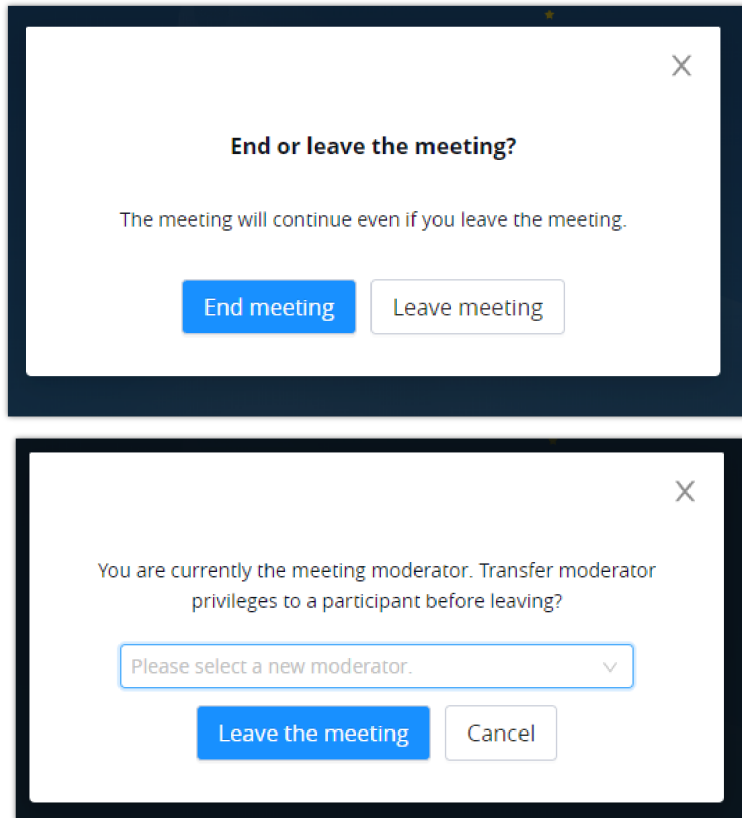
If the ongoing meeting does not support enabling the video recording function, the audio recording will be performed instead

## Manage Meeting

### End Meeting

When a meeting participant clicks on  to end the meeting, the participant will leave the meeting immediately.

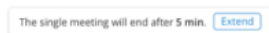
When a moderator clicks on  to end the meeting, a prompt will be displayed asking the moderator to confirm whether to leave the meeting only or end the meeting. If the moderator selects leave meeting only, Wave Web will request the moderator to select another participant to be the moderator. After that, the user will leave the meeting while the meeting is still ongoing for the other participants. If the moderator selects ending the meeting, all participants will be disconnected from the meeting.



End Meeting as Moderator

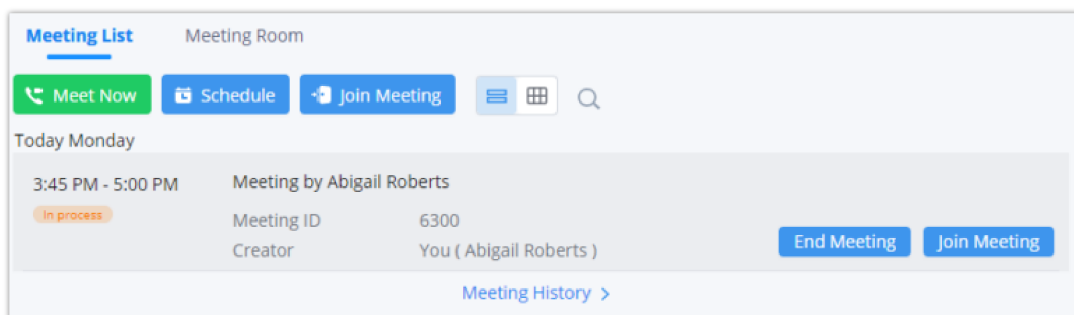
#### Note

- If there is only one participant in the meeting, and the total duration of the meeting reaches 30 minutes, the specific participant will be prompted to continue the meeting Create a group chat after successfully scheduling the meeting. Messages created during the meeting will be automatically synced to the group after the meeting.



- When the meeting duration is about to reach 12 hours and the meeting host is still in the meeting, the meeting interface of the host will be prompted to extend the meeting. The meeting host can click to extend the meeting for another 12 hours. The meeting can only be extended once. After another 12 hours, the meeting will be ended. If the meeting host is not in the meeting, the meeting will be ended when the meeting duration reaches 12 hours.

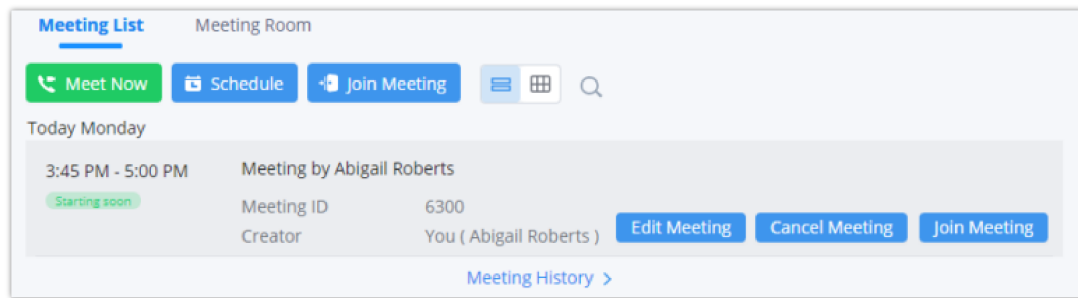
You can also end an ongoing meeting by going to **Meetings**, hovering the mouse cursor over the meeting you would like to end then clicking on End meeting.



Ongoing Meeting

- **Edit a scheduled meeting**

The user can edit a meeting after it has been scheduled, to change its name, meeting room type, time, recurrence, password, and invitees. To edit a meeting, the user should navigate to the **Meetings** tab on Wave, then hover the mouse cursor over the meeting that they want to edit, then select *Edit Meeting*.



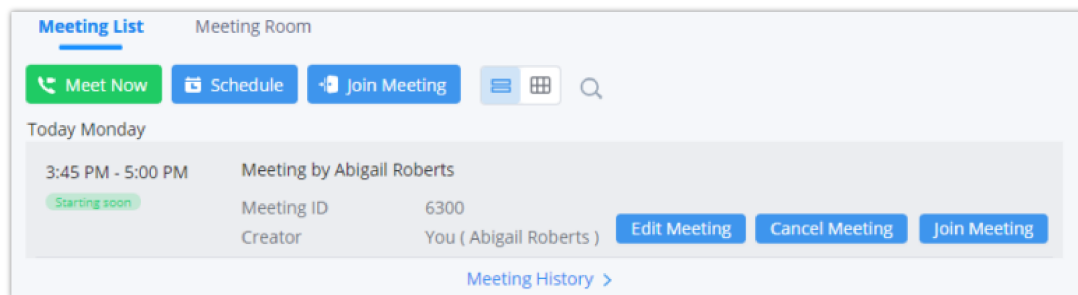
*Edit Scheduled Meeting*

#### Note

Please note that once the meeting has started, it cannot be edited.

#### Cancel meeting

The user can cancel a meeting after it has been scheduled. To do that, the user should navigate to the **Meetings** tab and then hover the mouse cursor over a specific meeting then click on *Cancel Meeting*.



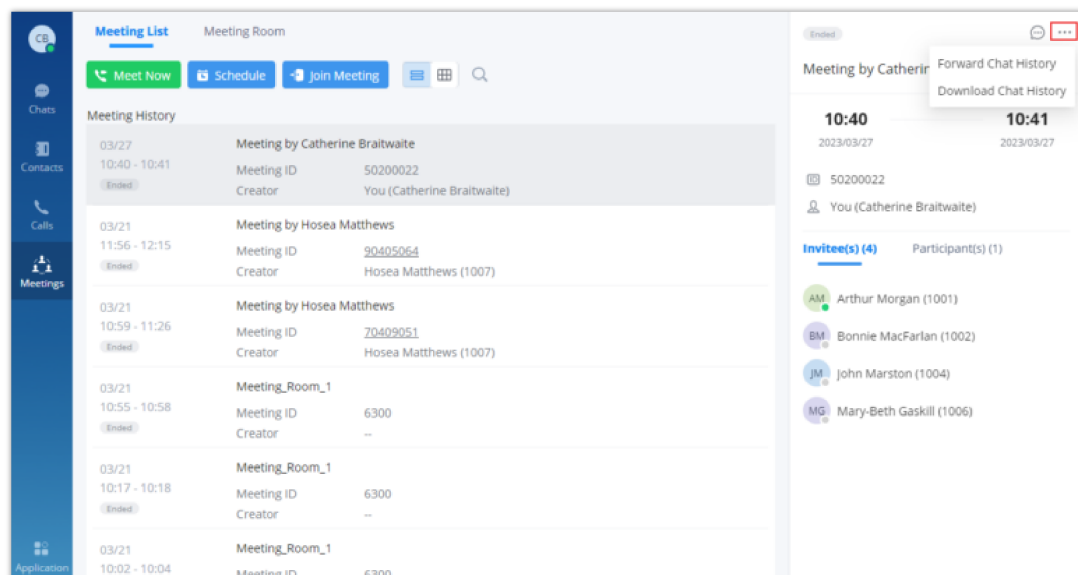
*Cancel Meeting*

#### Note

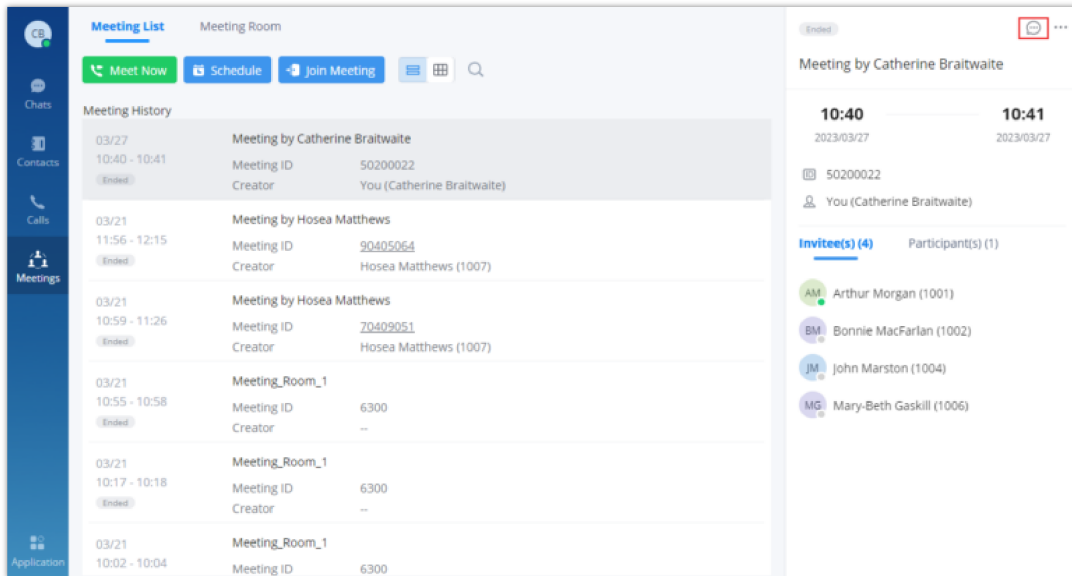
Please note that once the meeting has started, it cannot be canceled.

## Meeting Chat Group

After a meeting has ended, the user can choose to forward the history of the chat during the meeting to an existing group, or he/she can choose to download it. Please see the screenshot below.



Another option to choose from is to create a chat group after the meeting has ended, and the history of the chat during the meeting will be forwarded automatically.

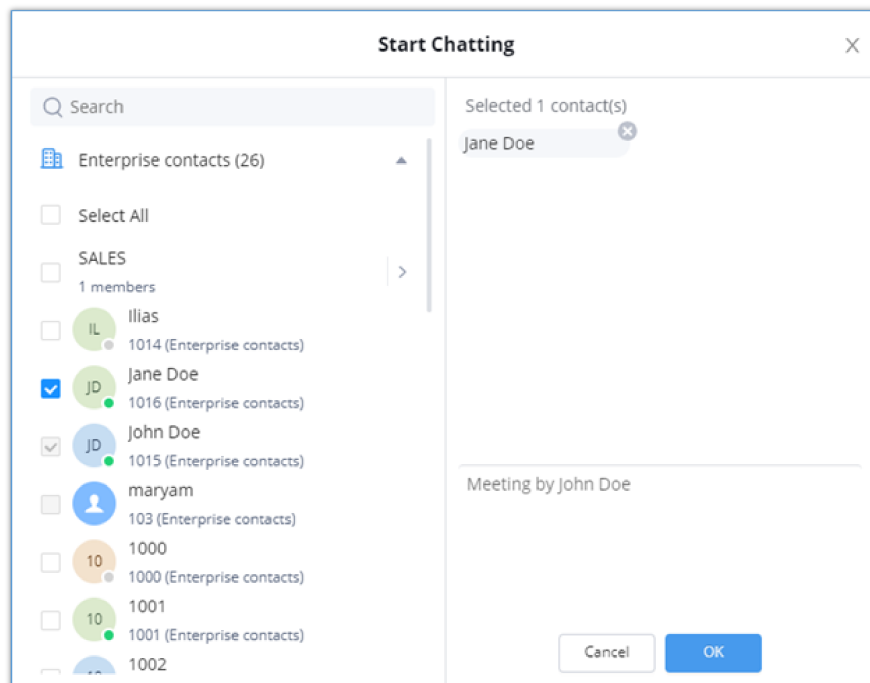


Create a Group Chat After The Meeting

### Note

Please note that only the host of the meeting can create the group chat and forward the chat history.

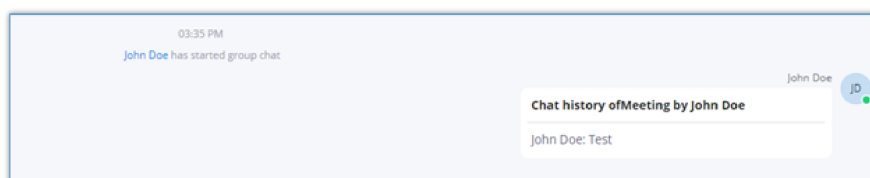
Once that's clicked, a window will appear with the members of the meeting selected, with the possibility to add any users that were not in the meeting:



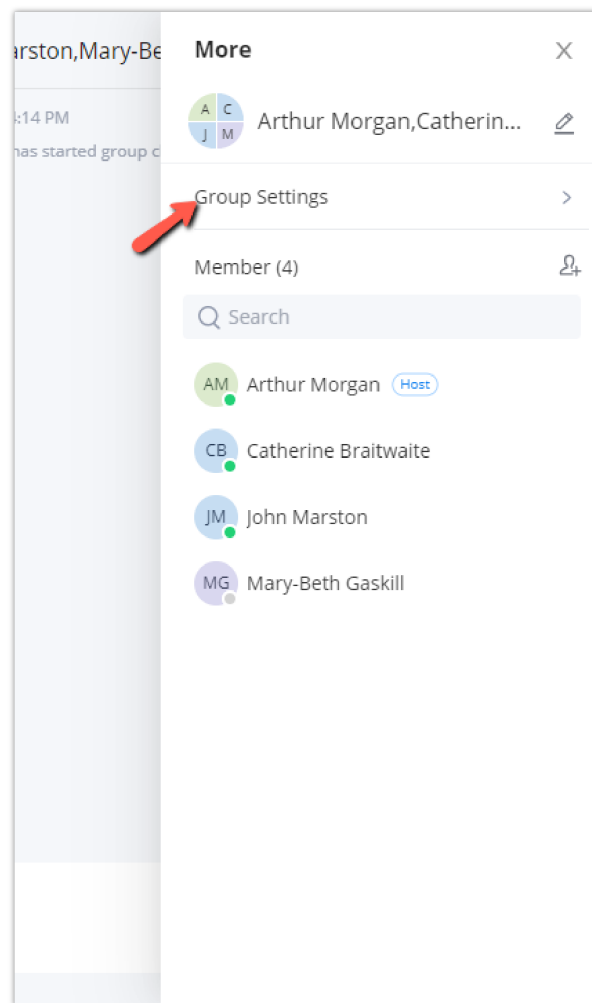
Choose the Participants

Press "OK" to create the group and forward the chat history of the meeting.

The group will be created, and the chat history will be displayed similar to the image below.

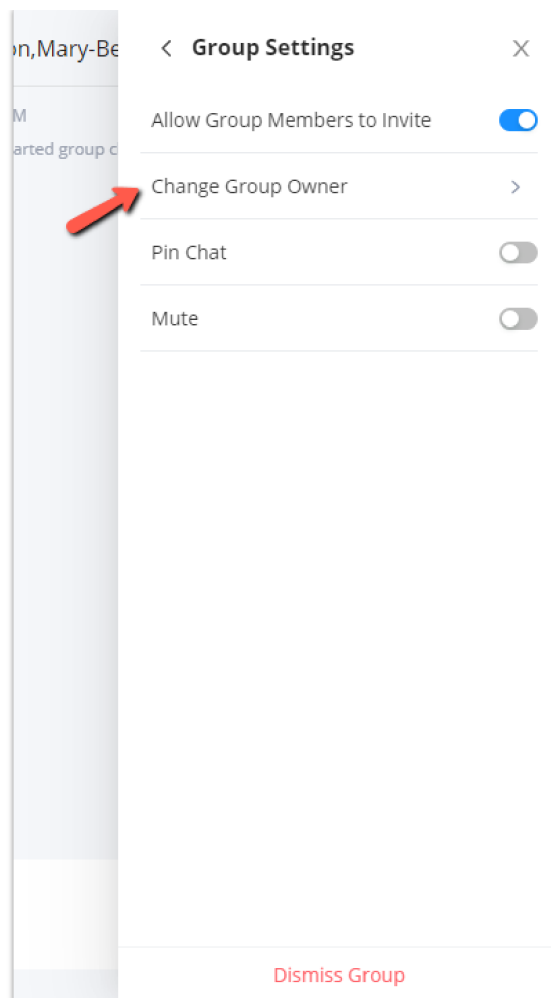


At any point, the host of the group can relegate his/her role to another member by going to "Group Settings" as the figure below shows:



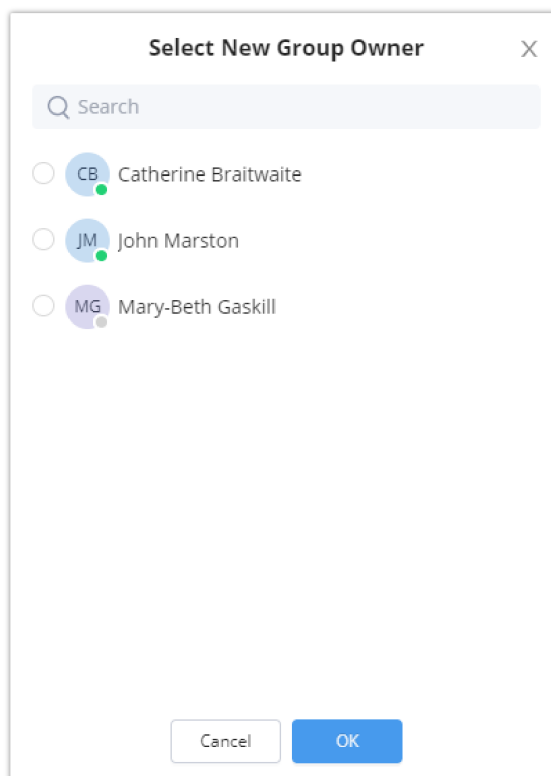
Chat Group Sidebar

Then select "Change Group Owner":



*Group Settings*

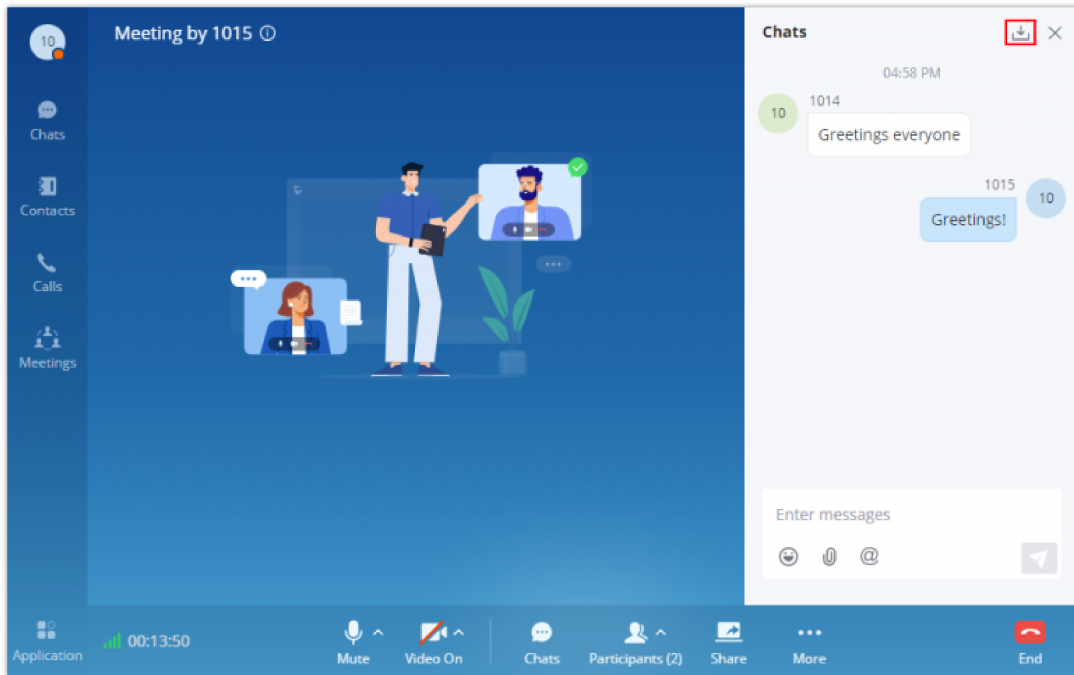
Then choose the new group owner among the existing members of the group.



*Select New Group Owner*

## Download The Chat History

During a meeting, the host can download the chat history at any point of time. To do that, the host needs to open the chat sidebar in the meeting screen and then click on the download button on the top right corner of the screen, as the screenshot below shows.



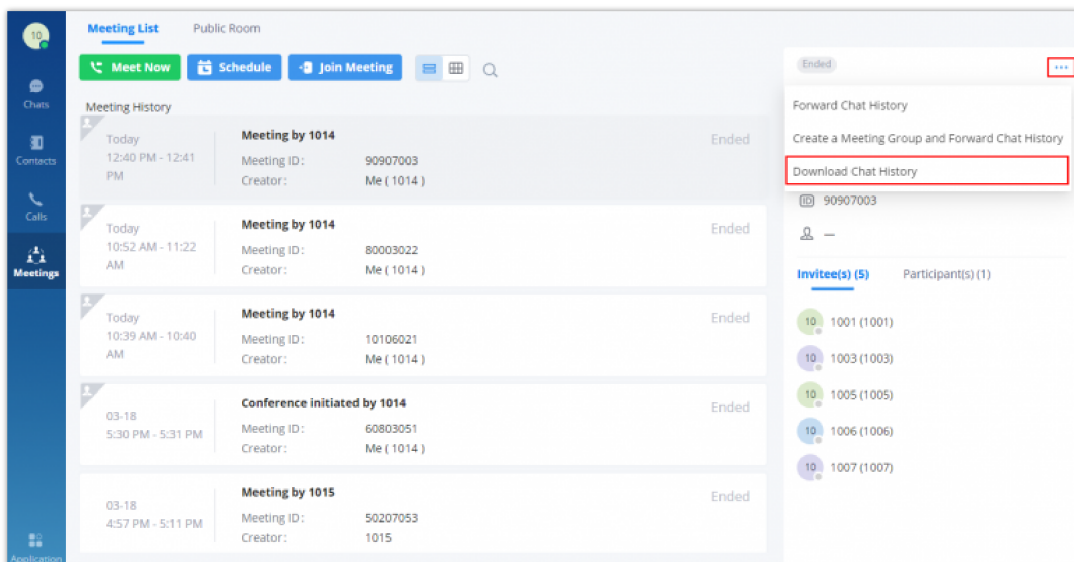
*Download the Chat History File During The Meeting*

The chat history will be downloaded as a .txt file

#### Note

Only the host is allowed to download the chat history.

If the host wishes to download the chat history after the meeting has ended, then he/she needs to navigate to the "Meetings" tab, then click on three dots in the top right corner of the window, and select "Download chat history"



*Download Chat History After The Meeting Has Ended*

## MEETING MANAGEMENT

### Schedule Virtual Meeting

Wave web users can schedule meetings after logging in with the SIP extension number and SIP registration password. Click on Meetings on the left panel and select "Schedule Meeting" at the top. A new window to edit scheduled meetings will be prompted.






Schedule Meeting

X

\* Subject: Meeting by John Marston

Meeting Room: ☐ Use public meeting rooms

\* Time: 2022-08-05  Please select the time 

\* Recurrence: No Repeat 

Password: Please enter a number of at least 4 digits

Invitees: Please enter meeting invitees here,press Enter to separate

Add

Cancel

OK

### Schedule Meeting

Schedule Meeting Options	
Subject	Configure meeting subject.
Conference Type	Select video or audio conference.
Meeting Room	<p>The user can select to use a public meeting room.</p> <ul style="list-style-type: none"> <li>● <b>Disable:</b> The meeting will use a random meeting number.</li> <li>● <b>Enable:</b> The meeting will use the public meeting room number. The meeting number will be selected from the existing audio/video meeting room.</li> </ul>
Time	<p>Select the date and time for the meeting.</p> <p><b>Note:</b> Please avoid time conflict on schedules in the same meeting room.</p>
Recurrence	<p>Choose when to repeat a scheduled meeting:</p> <ul style="list-style-type: none"> <li>● <b>No Repeat:</b> The meeting is scheduled once with no recurrence</li> <li>● <b>Every Day:</b> The meeting is scheduled daily at the same time</li> <li>● <b>Weekly:</b> The meeting is scheduled weekly on the same day of the week</li> <li>● <b>Monthly:</b> The meeting is scheduled monthly on the same day of the month</li> <li>● <b>Custom:</b> The meeting can be scheduled either every N days or N weeks</li> </ul>
Password	Configure the password for participants to join a meeting. The password must be at least 4 digits.
Invitees	<p>Defines the extensions or emails of the members to attend a scheduled conference. After adding one invitee, click on ENTER to confirm.</p> <p><b>Note:</b></p>

	<p>-If the invitee's extension does not have email configured on the UCM extension setting, the user can click on "(Add Email)" to add email for this invitee.</p> <p>-To remove an invitee, click on "x" for the invitee.</p> <p>The user can click the "Add" button to add the participants from contacts or groups.</p>
<b>Meeting Agenda</b>	Set the agenda of the scheduled meeting. (Up to 500 characters)
<b>Host Settings</b>	
<b>Host</b>	This is used to select a meeting host.
<b>Email</b>	This is the host email address.
<b>Host Code</b>	This is used to configure the host code. The password must be at least 4 digits.
<b>Advanced Settings</b>	
<b>Time Zone</b>	Defines the time zone of the scheduled meeting. The default setting is the time zone of the current client.
<b>Email Reminder (minutes)</b>	<p>If configured, email reminders will be sent out x minutes before the start of the conference.</p> <p><b>Note:</b> After editing the time of a single recurrence of a scheduled meeting, a cancellation email will now be sent out followed by a meeting update email.</p>
<b>Allow participants to invite</b>	If enabled, any participant in the meeting can invite other parties.
<b>Allowed to override Host Mute</b>	If enabled, the participants will be able to unmute themselves after the host has muted them.
<b>Auto-call Participants</b>	If enabled, invited participants will be called when the meeting starts.
<b>Create Meeting Group</b>	<p>Create a group chat after successfully scheduling the meeting.</p> <p>Messages created during the meeting will be automatically synced to the group after the meeting.</p>

#### *Schedule Meeting Specifications*

After the meeting is scheduled, it will be listed on the meetings page. Meeting participants will receive an email notification for the scheduled meeting. At the same time, the system will send the meeting assistant message to the invitees automatically.

Meeting List

Public Room

Meet Now

Schedule

Join Meeting

Chats

Contacts

Calls

Meetings

Application

Today Monday

12:00 PM - 12:30 PM

Meeting by Arthur Morgan

Meeting ID 40001062

Creator Me ( Arthur Morgan )

Meeting History >

Not started yet

Meeting by Arthur Morgan

12:00 PM

2022/08/08

30m

12:30 PM

2022/08/08

40001062

1968 (Host Code)

Me (Arthur Morgan)

Scheduled Meeting

GRANDSTREAM

CONNECTING THE WORLD

The meeting you are hosting has been succesfully updated, please see below for details.

test

Time 2021-01-25 15:15 -- 2021-01-25 15:45

Time Zone Etc/GMT-1 (GMT+1:00)

Moderator 1000

Moderator Code 1532

Room 6301

Join Meeting (From Inside Corporate Office)

Join Meeting (From Outside Corporate Office)

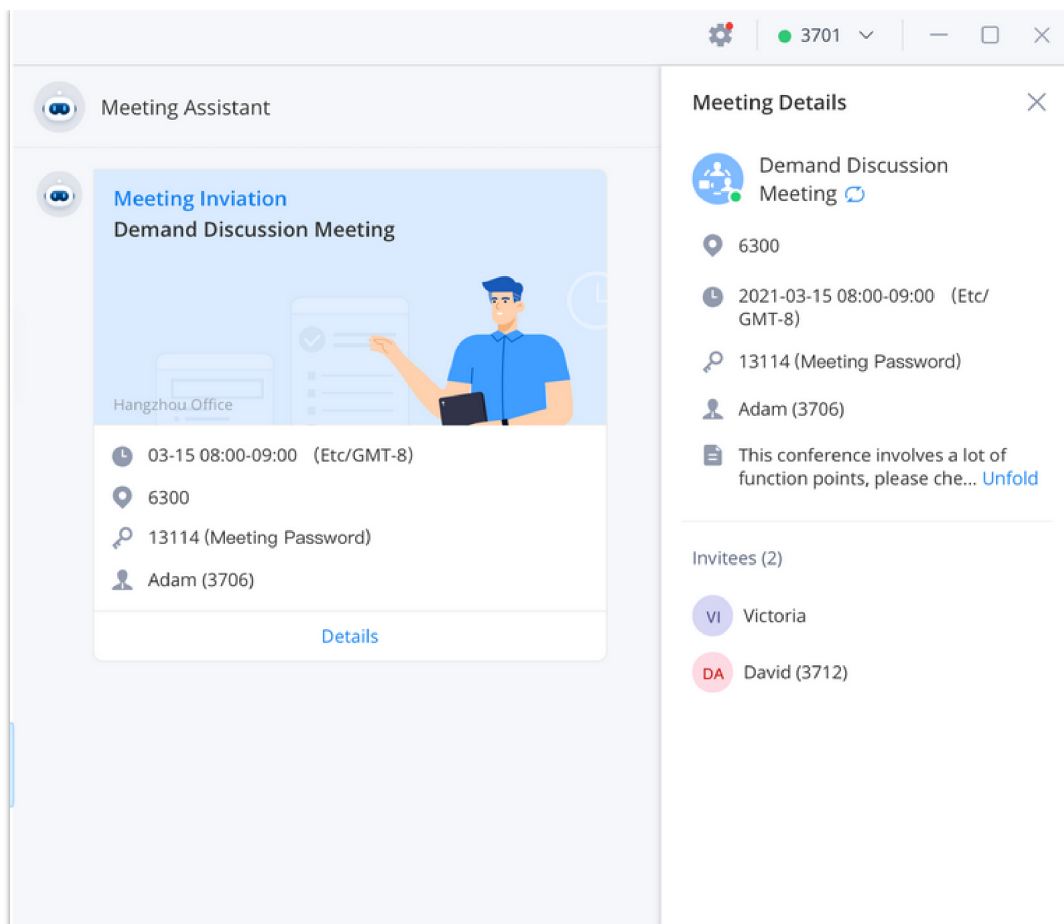
Please open the link address with [Chrome](#) or [Firefox](#) browser.

Scan to join the meeting

Company Info | Contact Us

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Scheduled Meeting Email Notification

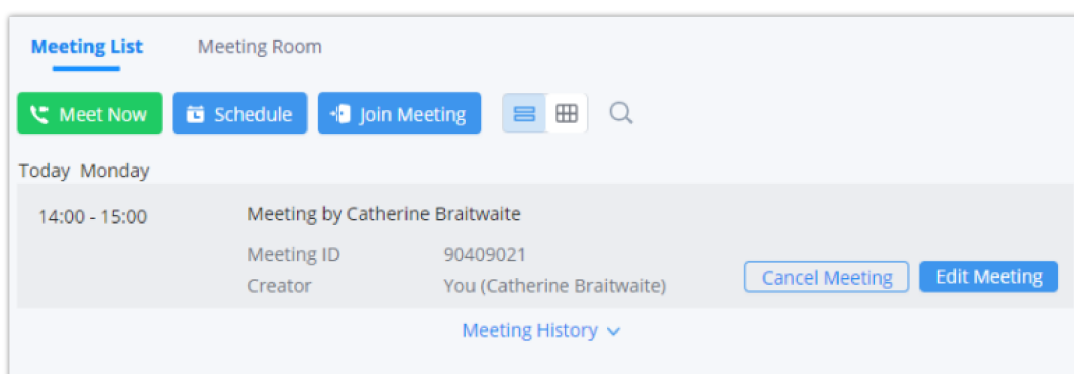


Meeting Assistant Interface

If meeting schedule information is modified, participants will receive an email update. An email reminder will also be sent to the participants at the configured email reminder time. If the meeting has been modified, the meeting reminder will be sent to the participants through the meeting assistant.

To join the meeting, the Wave user can click on the link in the email notification to join the meeting directly, or the Wave mobile app user can scan the QR code in the email notification to join the meeting as well. The user can click the meeting assistant message to enter the meeting.

The user who created the meeting can also cancel the meeting before it has started.



Cancel a Scheduled Meeting

When the user clicks "Cancel Meeting", the user can specify a reason why the meeting was canceled. This will prompt the user to the reason for cancellation.

Cancel Meeting

Cancel the meeting?

Reason for cancellation

Cancel

OK

Reason for Cancellation

## Schedule Onsite Meeting

The users can schedule onsite meetings by going to **Meetings** and clicking on **Schedule**.

WAVE

CB

Chats

Contacts

Calls

Meetings

Application

Schedule Meeting

\* Subject: Meeting by Catherine Braitwaite

\* Meeting Room Type: Onsite Meeting Room

\* Meeting Room: Meeting\_Room

\* Time: 2022-11-08 5:30 PM-6:00 PM

\* Recurrence: Weekly

Invitees:

Please enter meeting invitees here,press Enter to separate

New

Cancel

OK

<b>Subject</b>	Enter the subject of the meeting.
<b>Meeting Room Type</b>	Select Onsite Meeting room.
<b>Meeting Room</b>	Select the meeting room on which the meeting will take place.
<b>Time</b>	Select the duration of the onsite meeting.
<b>Recurrence</b>	Select the recurrence of this meeting. The options are <i>Daily</i> , <i>Weekly</i> , and <i>Monthly</i>
<b>Invitees</b>	Select the invitees to this meeting.

## Meeting Agenda

When scheduling a meeting, the host can configure an agenda name for the meeting to be reminded of the purpose of that meeting.

Schedule Meeting

\* Subject: Meeting by John Doe

Meeting Room:
☐ Use public meeting rooms

\* Time: 2022-01-06 5:00 PM-5:45 PM

\* Recurrence: No Repeat

Password: Please enter a number of at least 4 digits

Invitees: Please enter meeting invitees here,press Enter to separate

Add

Meeting Agenda: Weekly Meeting

Cancel

OK

Schedule Meeting Parameters

After creating the meeting, you can check the agenda in the meeting details tab. Please see the screenshot below:

Meeting List

Public Room

Meet Now

Schedule

Today

5:00 PM - 5:45 PM

Meeting by John Doe

Meeting ID: 60304093  
Creator: Me (John Doe)

Meeting History >

Meeting by John Doe

60304093  
1/6 05:00 PM-05:45 PM  
6423 (Host Code)  
Me (John Doe)  
Weekly Meeting

Meeting Details

When the meeting starts, the user can click to view the meeting details to check the meeting agenda. Please see the screenshot below:

Weekly Meeting

Weekly Meeting

40802031

Weekly Meeting

Expand

Effective Duration

01:59:36

Local URL

https://192.168.5.3:8090/#/invite/anonymous/40802031/1641827322/0/0

Remote URL

https://maucm.b.gdms.cloud/#/invite/anonymous/40802031/1641827322/0/0

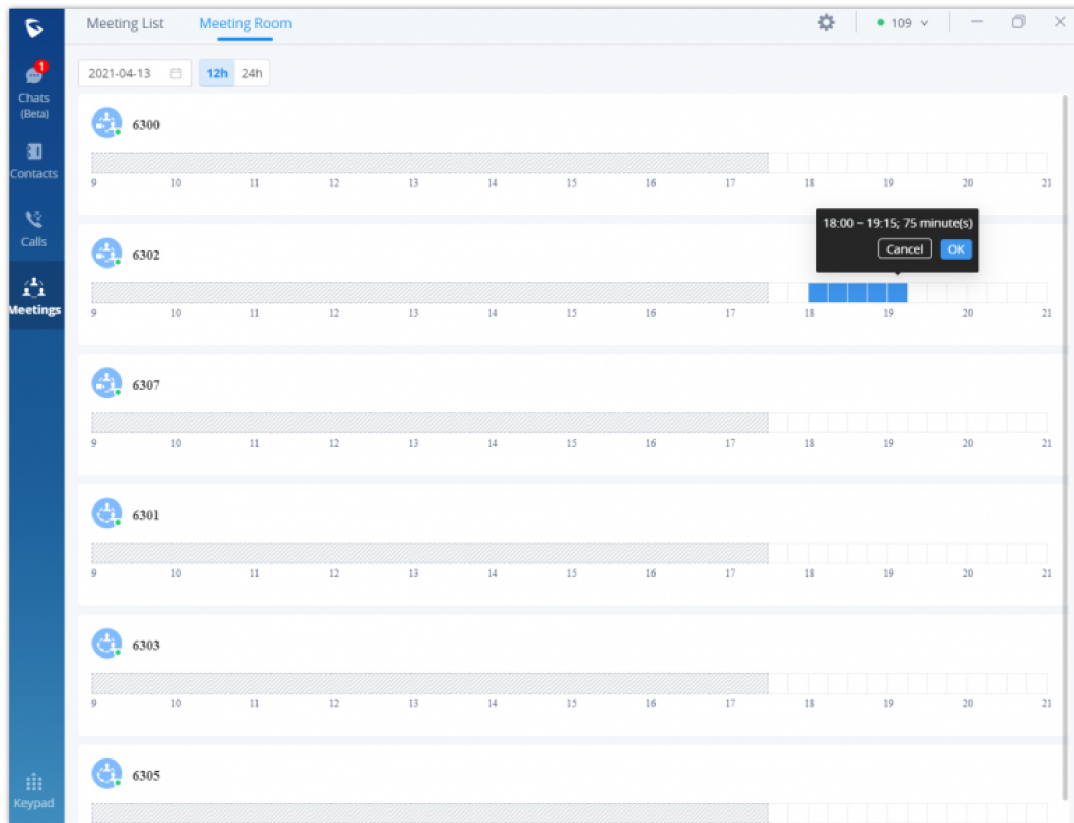
Copy

Download QR Code

Meeting Agenda

## PUBLIC MEETING ROOM

The user can click the “Meeting” menu on the left side of the Wave application main interface to open the meeting interface. The user can click the “Public Meeting Room” tab on the top of the meeting interface to access the list of the public meeting rooms in the current UCM. Please see the figure below:



*Public Meeting Room List*

The timeline is displayed under each public meeting room. The blank field represents the vacant period, and the blue field represents the period that has been scheduled. It supports clicking to switch the date  and the time range displayed in the timeline by clicking “12h/24h”.

The user can select a specific meeting room and click the button  to access the public meeting room. If there is a meeting in the current public meeting room, the user will be directed to the current meeting. If there is no meeting in the current meeting room, the user will join the meeting as a participant.

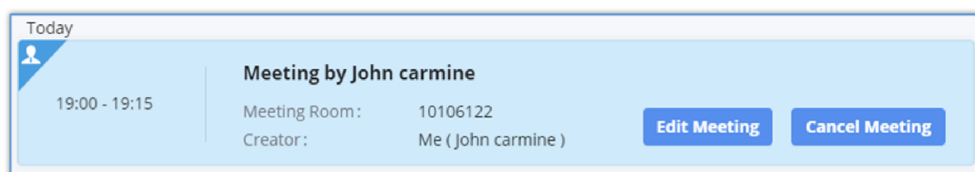
## Edit/Cancel Meeting

Only the meeting creator can edit/cancel the meeting.

**Step 1.** The user can click the “Meeting” button on the left side of the main interface to access the meeting list interface.

**Step 2.** Find the “Not started” meeting in the calendar.

**Step 3.** Move the cursor to the meeting and click “Edit Meeting” or “Cancel Meeting.”



*Edit/Cancel Meeting*

**Step 4.** After editing/canceling the meeting, the user can click the “OK” button to apply the changes, and the meeting modification notification will be sent to the invitees immediately.

## Note

If the user edits any information of the meeting, including invitees, meeting property, if the user selects the email notification option, the system will send the emails to all invitees automatically.

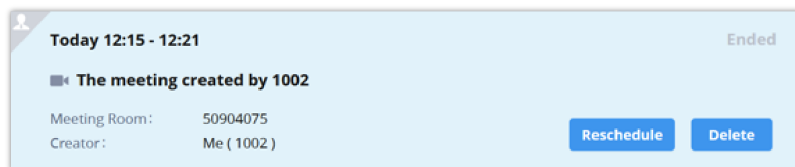
## Reschedule Meeting

For the “Ended” meetings, the user can reschedule the meetings from the Wave application.

**Step 1.** The user can click the “Meeting” button on the left side of the main interface to access the meeting list interface.

**Step 2.** Find the “Ended” meeting in the calendar.

**Step 3.** Move the cursor to the meeting and click the “Reschedule” button or click the “Reschedule” button on the meeting details interface.




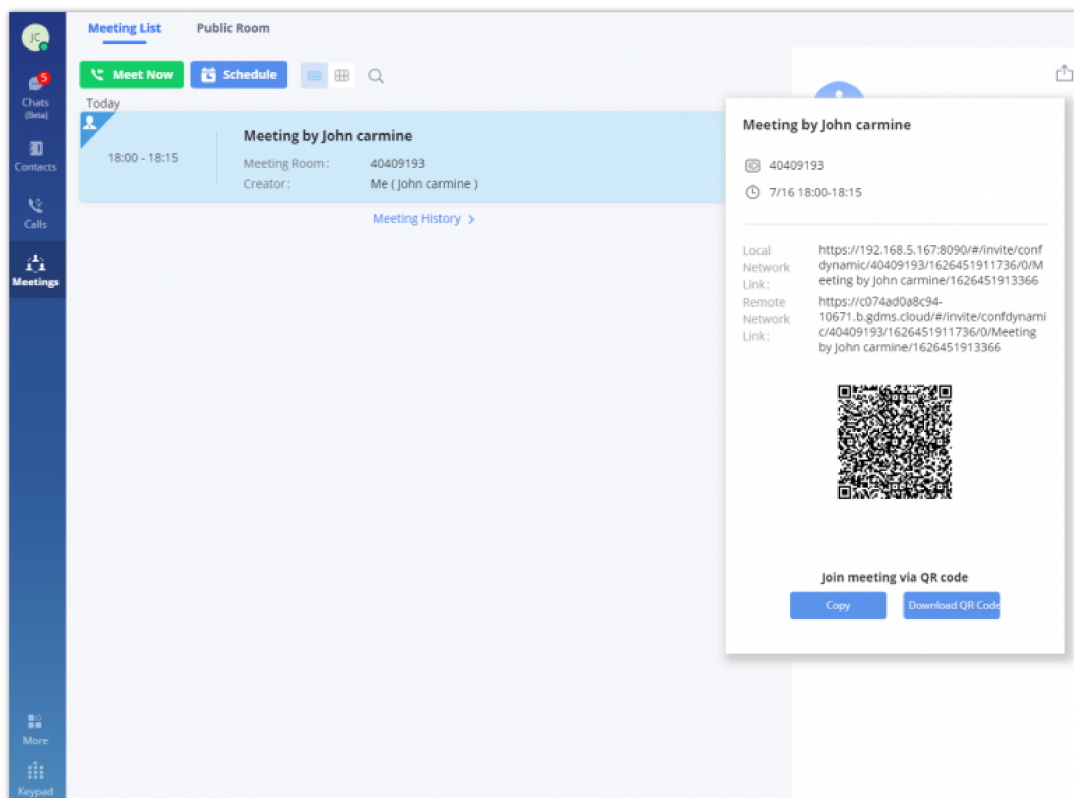
*Rescheduling Meeting*

**Step 4.** The user will be directed to the meeting rescheduling interface, and the current meeting subject, invitees, and meeting property information will be filled in the corresponding fields automatically.

**Step 5.** The user can click the “Schedule Meeting” button to reschedule the meeting as a new meeting.

## Share Meeting

In the meeting details interface, the user can click the share button  on the right upper corner to copy the meeting information, or the user can download the meeting QR code, and send the meeting information to the contacts through chat, email, etc.

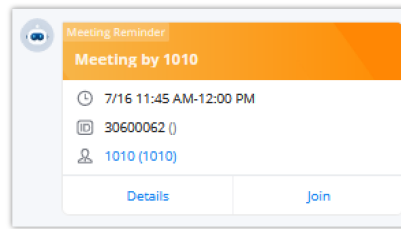


*Share Meeting*



## Join Meeting

**Method 1:** In the chat interface in the Wave application, the user can click “**Meeting Assistant**” to find the meeting notification which will be sent to the invitees 10 minutes before the meeting starting time, and click the “**Join**” button to join the meeting.



*Join via Meeting Notification*

**Method 2:** In the meeting list in the Wave application, the user can find the meeting which has invited the user and click “Join” to join the meeting.

**Method 3:** In the “Public Meeting Room” list of the meeting interface in the Wave application, the user can click to join the public meeting room directly.

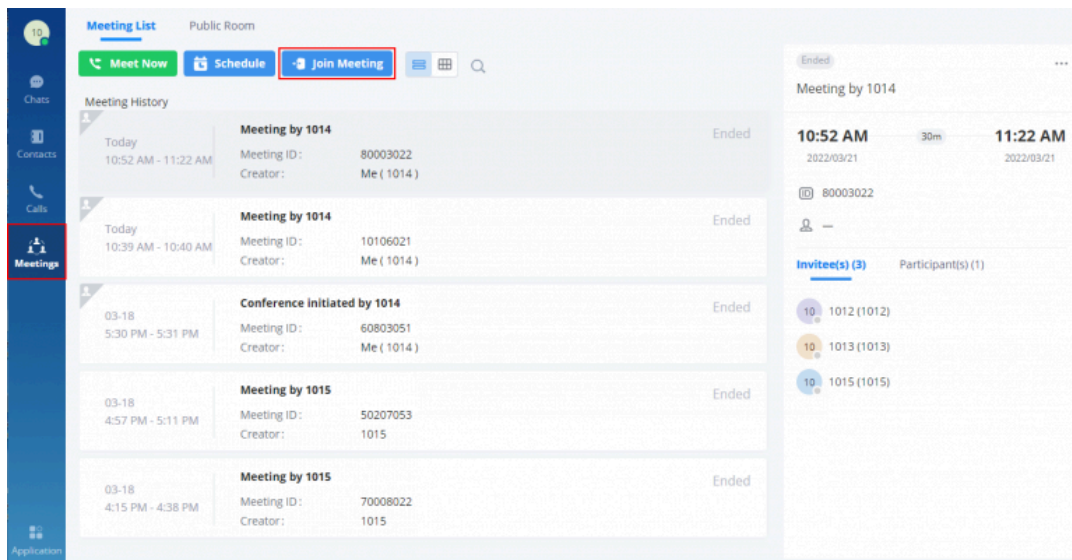
**Method 4:** The user can enter the meeting number to join the meeting directly through the dial panel.

**Method 5:** The user can join the meeting by clicking the “Join” button in the meeting invitation email.

## Join Meeting via Link

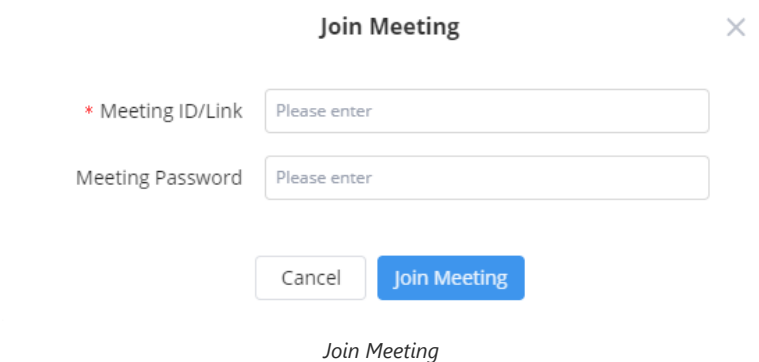
If users do not have a UCM extension to log in to Wave web, the users can join the meeting via a link. The link can be obtained from the meeting invitation email or from the meeting organizer/participant who shares the link directly.

The users can use the link to join the meeting by going to “Meeting” tab then click on “Join Meeting”



*Meeting Lists*

This prompt will appear then paste the link and enter the password if the meeting room is locked, if not leave the password text field empty.



**Join Meeting** ✕

\* Meeting ID/Link

Meeting Password


*Join Meeting*

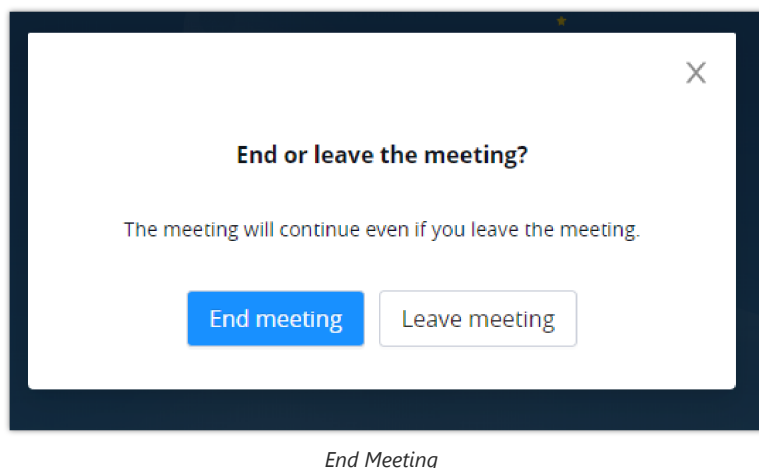
Then click on "Join Meeting"

After the users join the meeting via the link, the users can change the display name after opening the participant list and selecting the current name.

## End Meeting

When a meeting participant clicks on  to end meeting, the participant will leave the meeting immediately.

When a moderator clicks on  to end meeting, a prompt will be displayed asking the moderator to confirm whether to leave meeting only or end the meeting. If the moderator selects leaving meeting only, Wave web will request the moderator to select another participant to be the moderator. After that, the user will leave the meeting while the meeting is still ongoing for the other participants. If the moderator selects ending the meeting, all participants will be disconnected from the meeting.

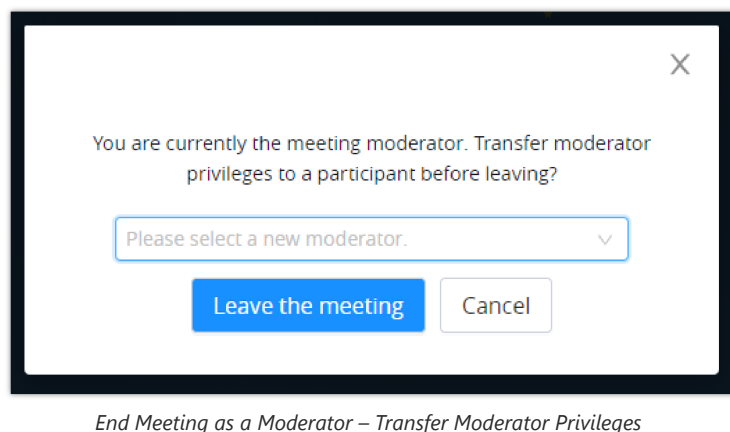


✕

**End or leave the meeting?**

The meeting will continue even if you leave the meeting.

*End Meeting*



✕

You are currently the meeting moderator. Transfer moderator privileges to a participant before leaving?

▼

*End Meeting as a Moderator – Transfer Moderator Privileges*

### Note

- If there is only one participant in the meeting, and the total duration of the meeting reaches 30 minutes, the specific participant will be prompted whether to continue the meeting. Create a group chat after successfully scheduling the meeting. Messages created during the meeting will be automatically synced to the group after the meeting.

The single meeting will end after 5 min.

- When the meeting duration is about to reach 12 hours and the meeting host is still in the meeting, the meeting interface of the host will be prompted whether to extend the meeting. The meeting host can click to extend the meeting for another 12

hours. The meeting can only be extended once. After another 12 hours, the meeting will be ended. If the meeting host is not in the meeting, the meeting will be ended when the meeting duration reaches 12 hours.

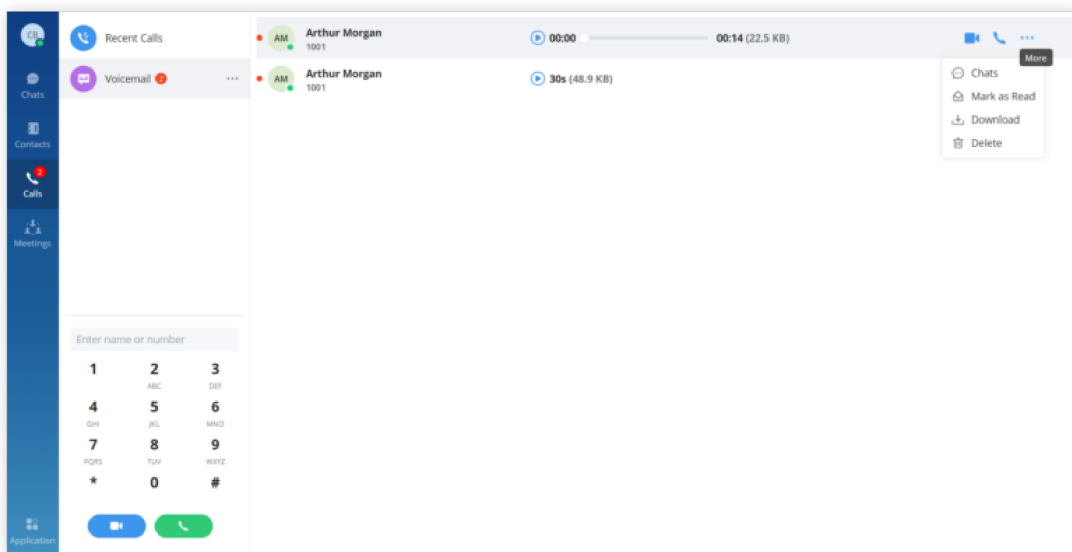
## VOICEMAIL

Users can click on the **“Call”** menu on the left side of the Wave application UI and click the **“Voicemail”** menu to view all voicemails of the current Wave account.

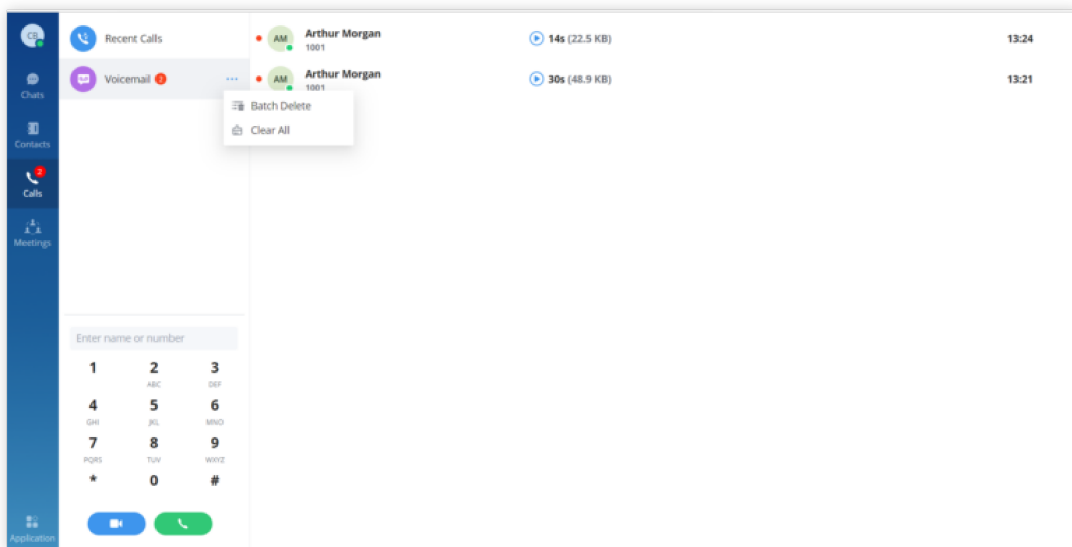
In the **“Voicemail”** module, users can check all voicemails received by the account, including the common voicemail and urgent voicemail.

Users can play the voicemail, set the voicemail to read, mark as read, download/delete (one by one, by batch, all at once) the voicemail.

Users can also dial the contacts and send messages to the contacts from this interface. Please refer to the screenshot below for the voicemail interface:

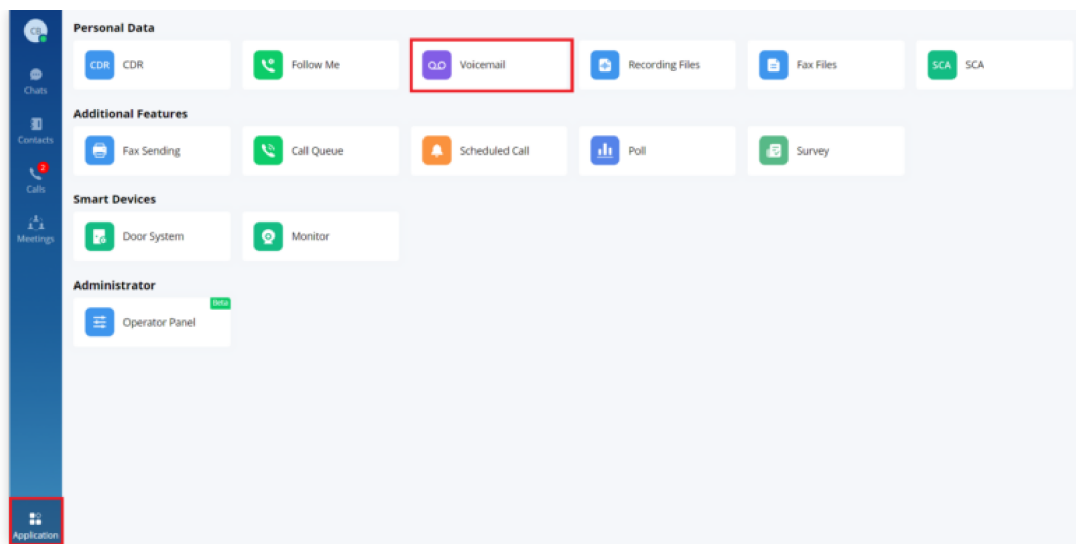


*Voicemail Interface – More*



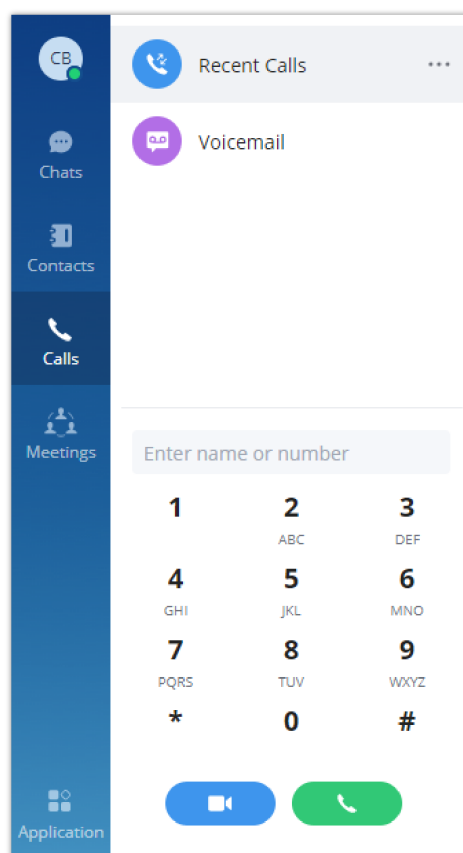
*Delete Voicemails*

Users can click the **“Application”** menu on the left panel and click on the **“Voicemail”** module to access the user portal interface on the UCM Web UI.



Application Menu – Voicemail

After logging in to Wave web, users can enter the voicemail access code to listen to voicemail.



Open keypad on Wave Web Page

1. Open the keypad on Wave web, and enter the voicemail access code. For example, \*98 is the default feature code on UCM for users to access the voicemail box.
2. Follow the IVR from UCM to enter the voicemail box and password.
3. If the password is correct, users will be able to hear voicemail options and listen to the voicemail.

#### Note

The voicemail access code and voicemail password are pre-configured in UCM. Please contact UCM admin to obtain the voicemail access code and password.

# CONTACTS

Using the Wave Contacts feature, you can browse two repertoires of contacts. The first one is Enterprise Contacts. In this repertoire, you will be able to see all the extensions registered on the UCM, LDAP server as well as extensions from peered UCM devices. The second type of contact is Personal Contacts, in this category the user can add his/her contacts.

## Search Contacts

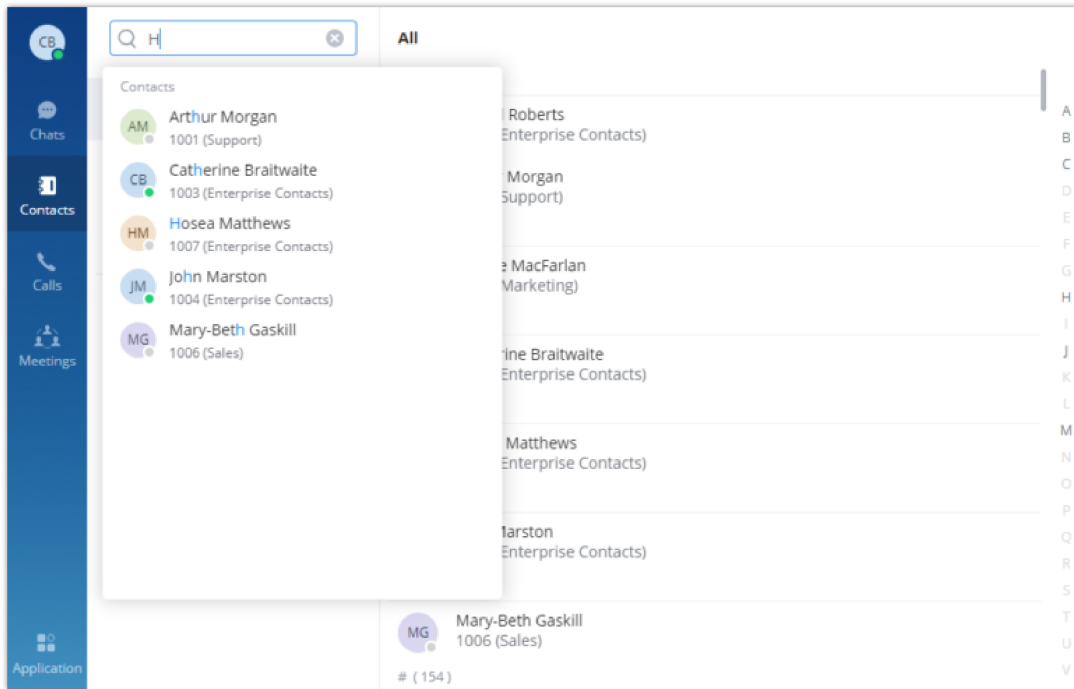
Users can enter a username or number to search contacts. On the search result, users can click to view contact details, click on



to initiate a video call, or click on



to initiate an audio call.

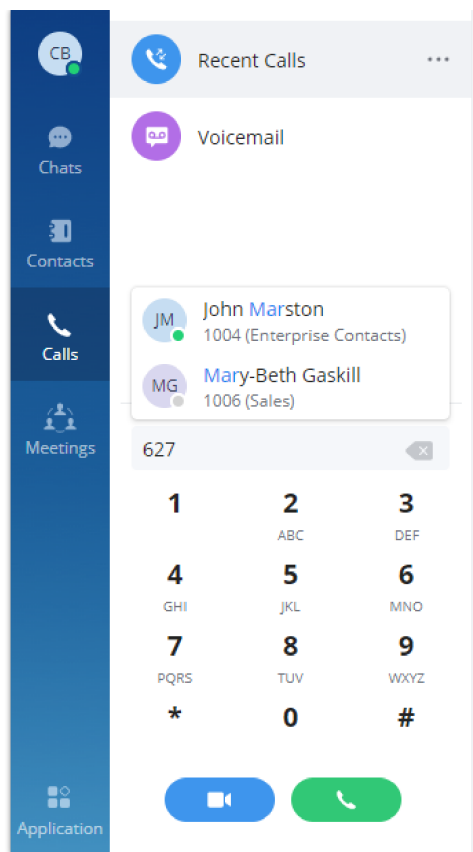


Contacts

### Note

The contacts displayed in the Grandstream Wave web portal contain UCM extensions (based on contact privilege settings), meeting room extensions, and LDAP contacts (based on the UCM's LDAP phonebook settings). (Refer to the UCM630x/A User Manual for more details)

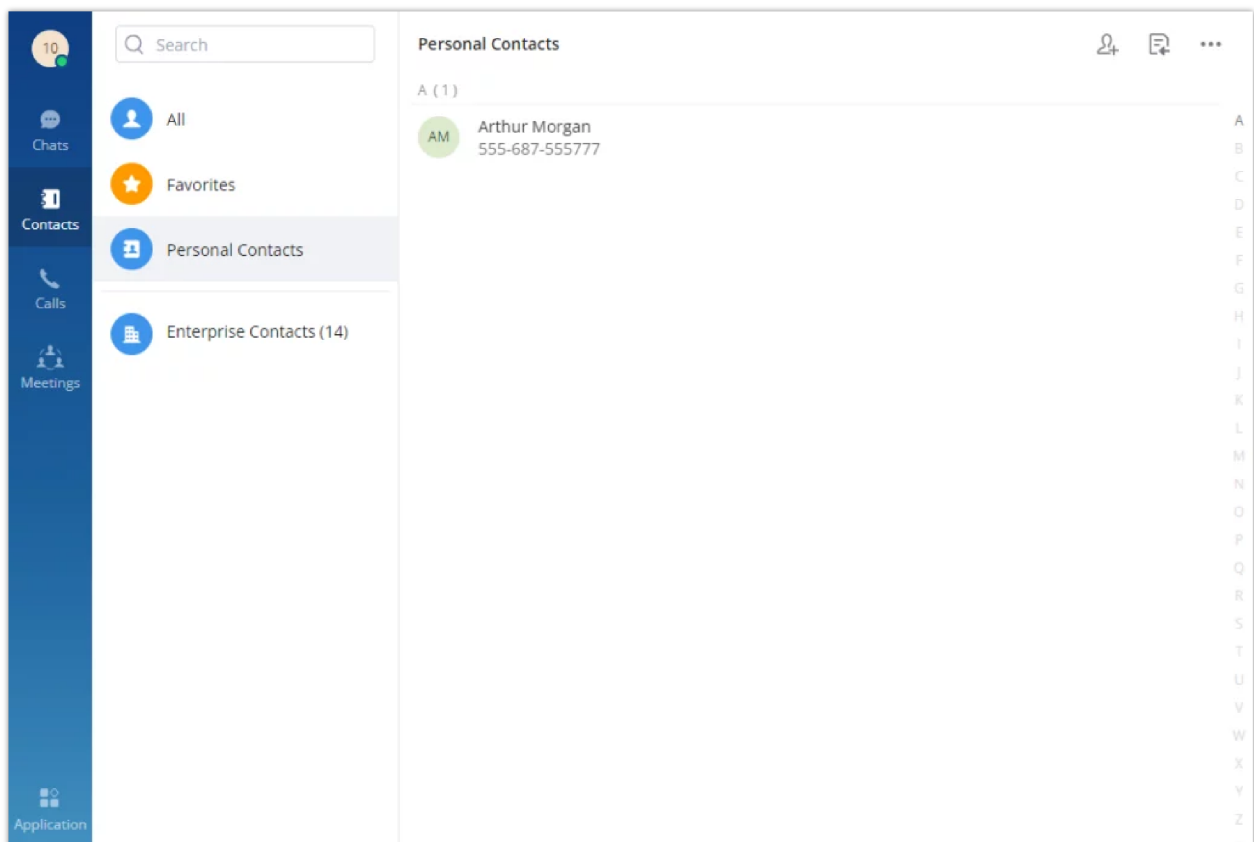
The user can also use the T9 contact search by entering the numbers which map to the dial pad letters existing in the contact name as the example below shows.



T9 Contact Matching

#### Personal Contacts

Users can search for specific contact or a specific number to dial under Contact Tab and Recent Calls Tab.



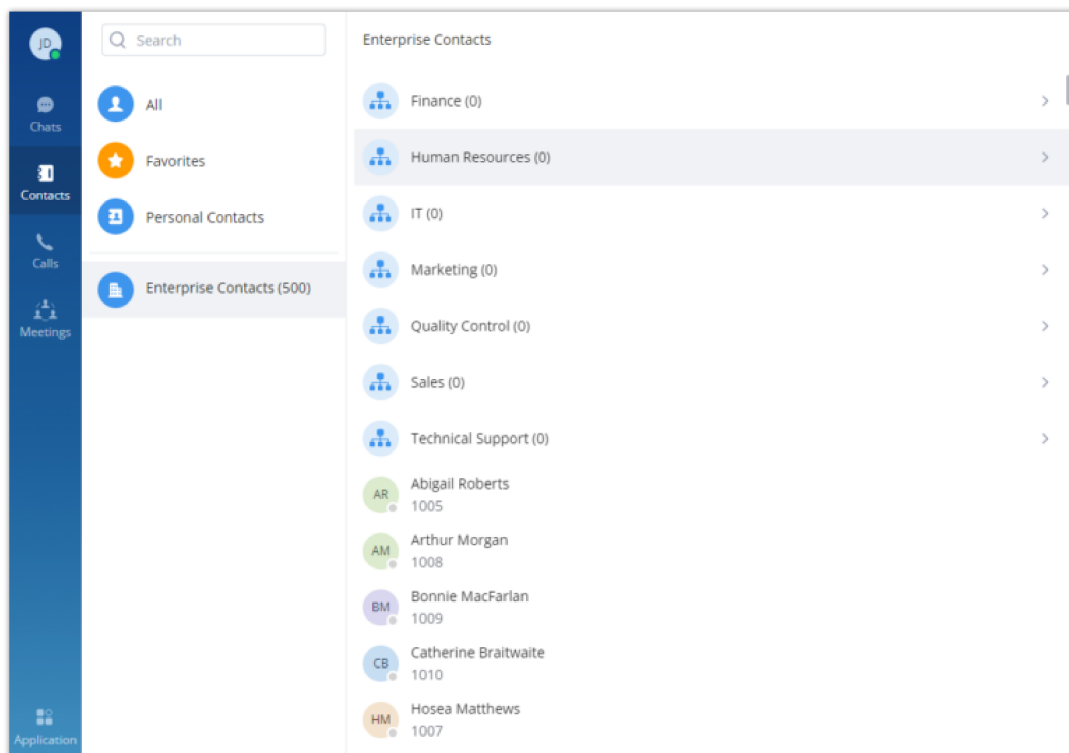
Contact Search

- : Add personal contact
- : Click on this icon to import a list of contacts
- : Export the list of personal contacts
- : Delete selected personal contacts



## Note

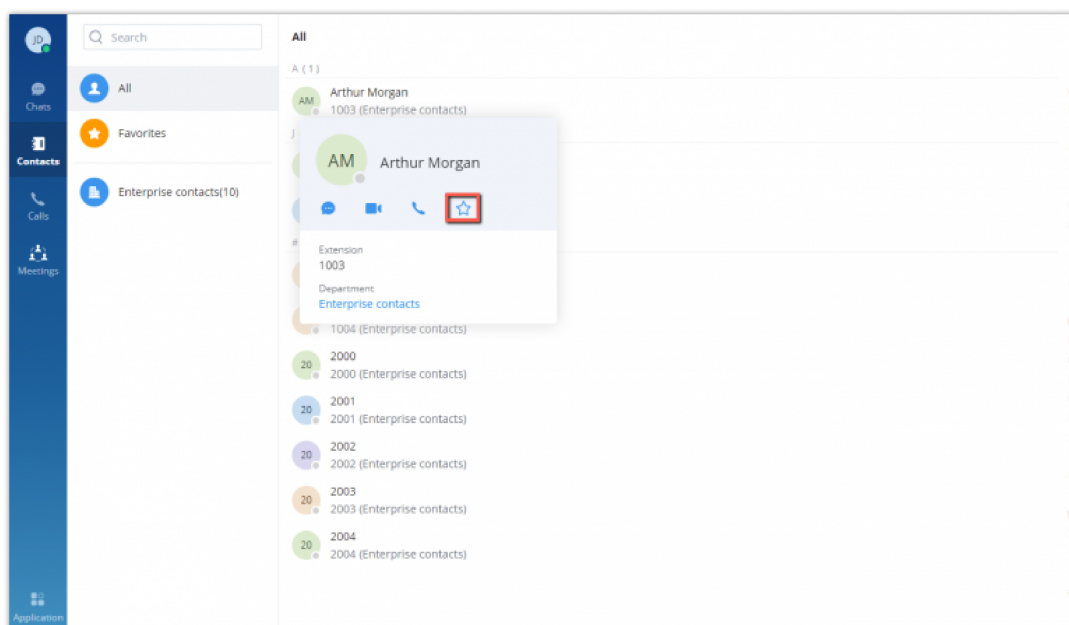
The user can add up to 200 personal contacts.

### Enterprise Contacts



*Enterprise Contacts*

1. In the search bar, enter the number or username to search.
2. Click on the search result. The details of this contact will show on the right.
3. For the search result, click on  to make a video call and click on  to make an audio call.
4. Also, by clicking on the contact, you can add it to your favorite contact tab as shown below.





*Favorite Contacts*

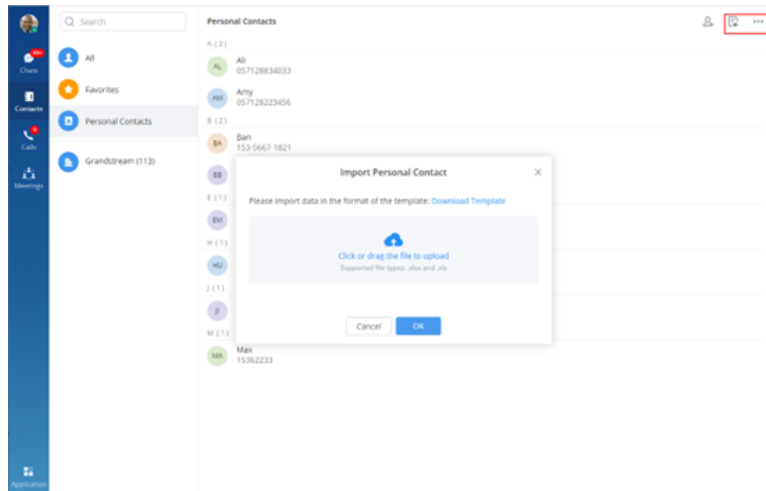
## Note

The contacts displayed in the Grandstream Wave web portal contain UCM extensions (based on contact privilege settings), meeting room extensions, and LDAP contacts (based on the UCM's LDAP phonebook settings). (Refer to the UCM630x/A User Manual for more details)

## Import/Export Personal Contacts

You can click the button  on the right upper corner to import contacts to Personal Contacts in batches. You can also click the button  to select the exported contacts or delete contacts in batches.

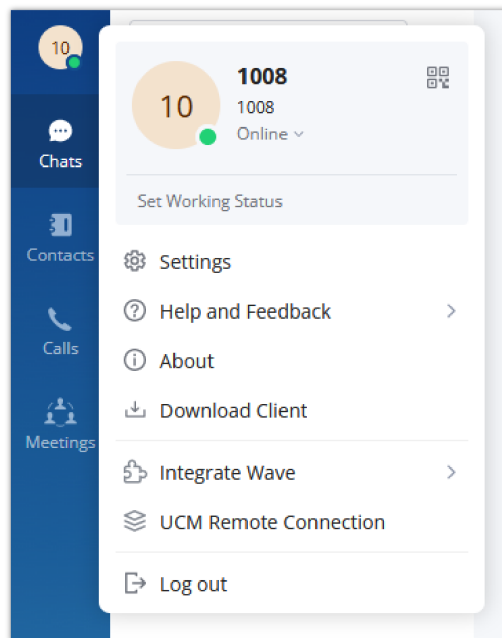
**Note:** It is recommended to import contacts in the template format to prevent import errors.



*Import Personal Contacts*

## SETTINGS MENU

The Settings menu is on the left side of the Wave application's main UI. Users can click the user icon to open the Settings menu, the menu includes Account Information, Account Settings, Call Settings, Audio/Video Device, Language, Launch on system startup option, Help and Feedback, Export logs option, About, Download mobile client, Integrate Wave, UCM Remote Connection and Log out options.

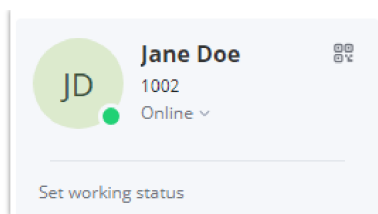


*Settings Menu*

## Account Information

The Account information screenshot is shown as follows:





Account Information

- The Account Information interface displays the username, QR code, SIP number, and personal status.
- Users can scan the SIP account QR code with the Wave mobile version to quickly log in to the account.
- Users can set their personal status, which can be divided into account status and working status, and the status will be displayed in the contacts book and chat module.

## Settings

### General

### Account Settings

The account settings allow you to change the “Account Info” or the “Account Password”.

#### Account Settings

##### Account Info

Open the account configuration page to modify settings

Edit

##### Account Password

Change your account password

Change

Account Settings

#### ◦ Account Info

Press the “Edit” button to be redirected to the account settings interface in the UCM management platform, and you can go to the “**Personal Configuration**” tab to fill in the personal basic information. Then, the updated information will be saved and applied to the Wave application.

UCM6301 | Personal Config

Please navigate to [Maintenance->Login Settings->Change Password/Email](#) page and configure the Email Address field. This email address can be used to retrieve the account password.

UCM6301 RC Services 1008

**Account Settings**

Personal Config Change Password

Username 1008

Fax

Email Address

First Name

Last Name

Home Number

Mobile Number +1

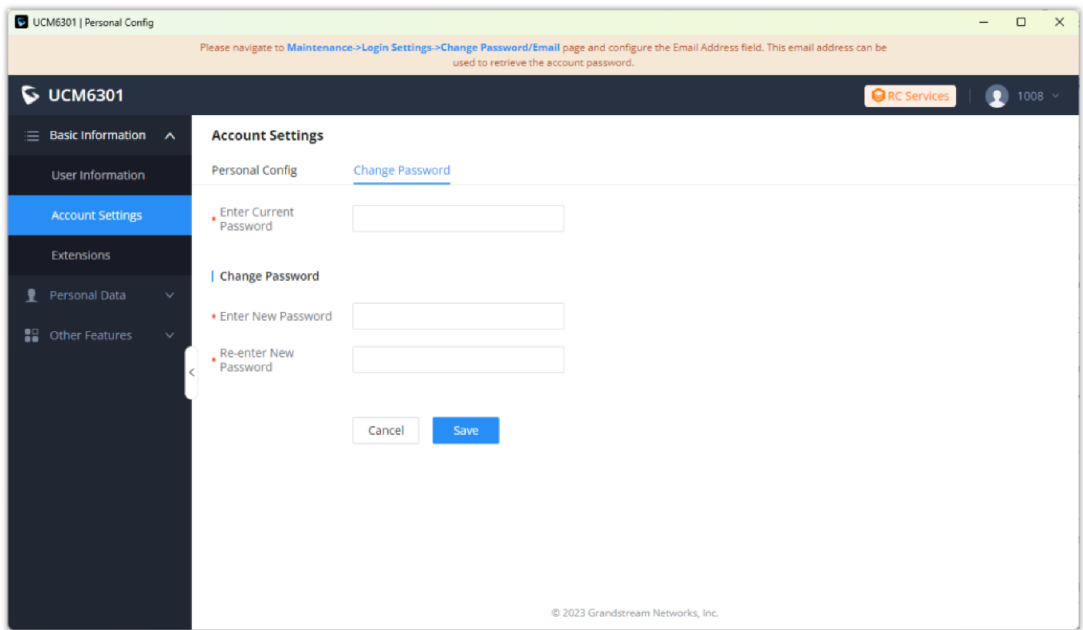
Cancel Save

© 2023 Grandstream Networks, Inc.

Account Settings – Personal Config

#### ◦ Account Password

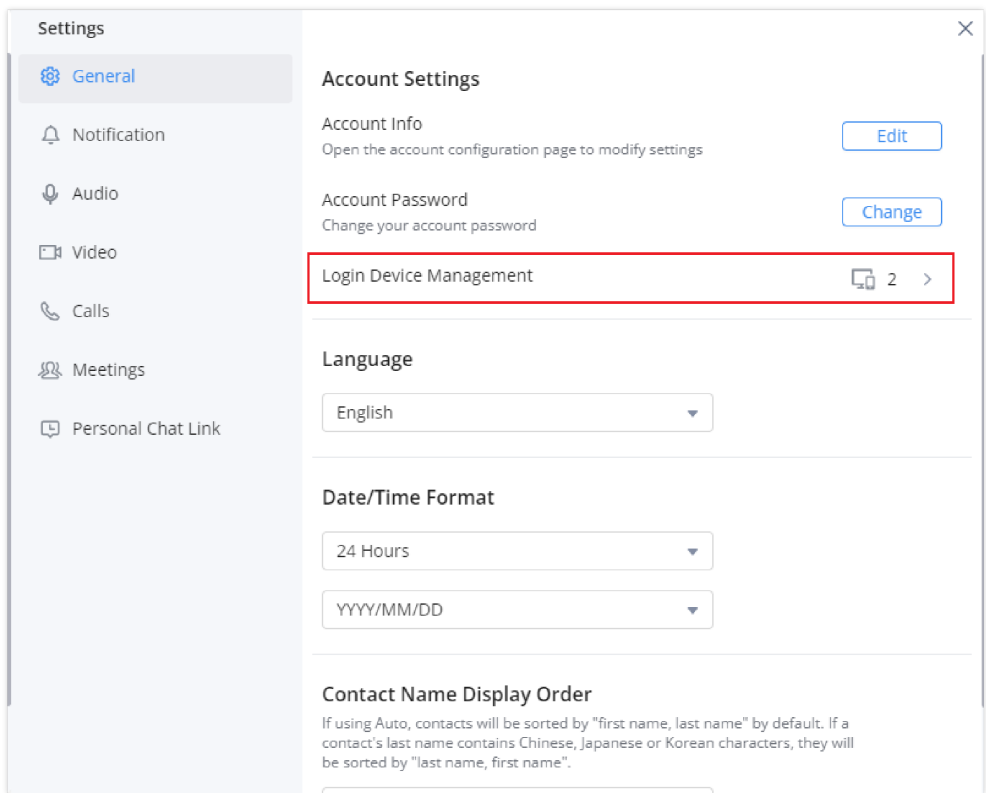
Press the “Change” button to be redirected to the account settings interface in the UCM management platform, and you can go to “**Change Password**” tab to update your Wave account password.



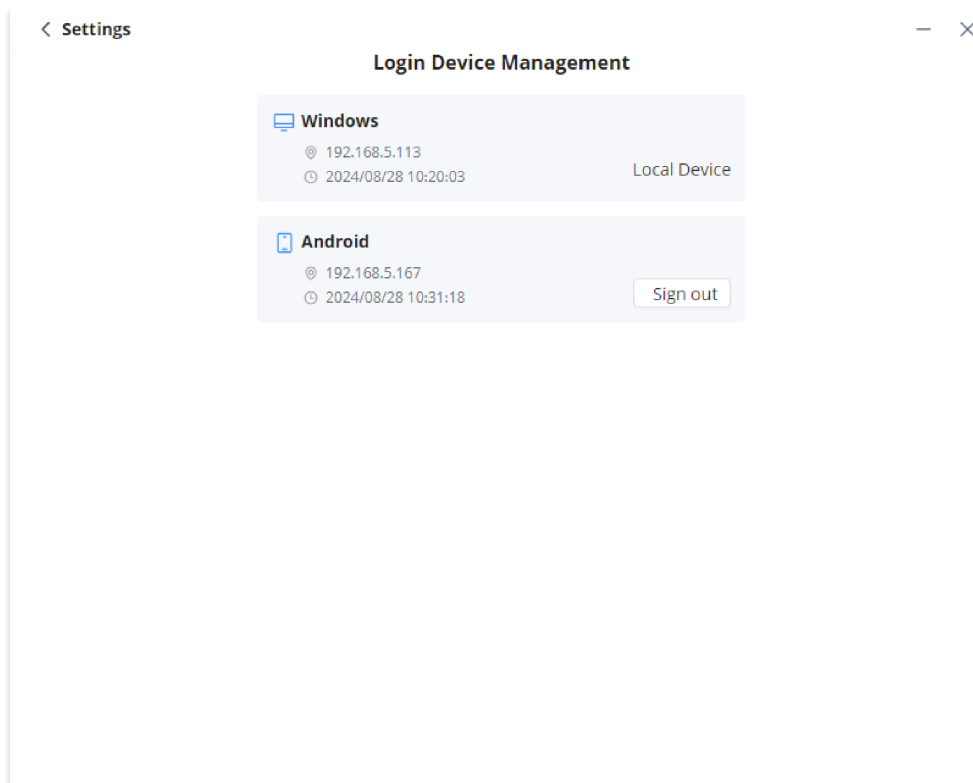
Account Settings – Change Password

### Login Device Management

In this section, the user can view the open sessions for their extensions. We highly recommend that the user checks this setting regularly. In case any open session raises suspicion for the user, the user can terminate the session and quickly change their password.



Wave General Settings



*Logged-in Sessions*

#### Note

If the user wishes to terminate a session, he/she can click on "Sign Out"

## Language

The Wave application supports English, Chinese, French, Spanish (Latin America), Spanish (Spain), Italian, Greek, Arabic, Russian, German, Polish, Portuguese, Vietnamese, Thai, Czech, Turkish, Dutch, and Hebrew.

### Language

English ▼

*Language*

#### Note

Users cannot set the language during the call.

## Date/Time Format

The Wave application allows you to change the date and time format.

Date/Time Format

Time Format: 12 Hours ▼

Date Format: YYYY/MM/DD ▼

Cancel OK

*Date/Time Format*

Time Format options are:

- 12 Hours
- 24 Hours

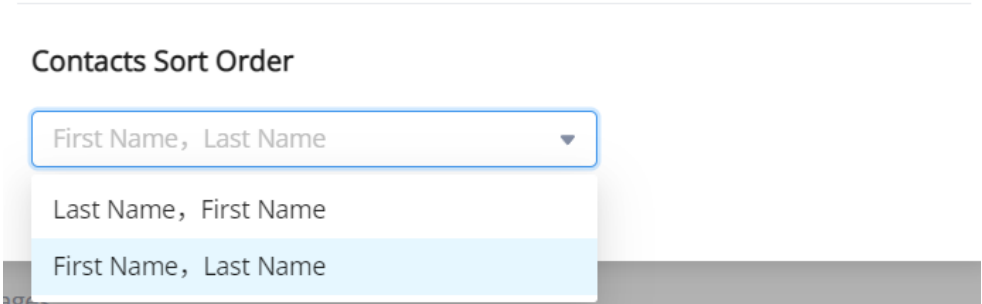
Date Format options are:

- YYYY/MM/DD
- DD/MM/YYYY
- MM/DD/YYYY

**Contacts Sort Order**

This option configures the sorting order of the Wave Contacts. Two options are available:

- First Name, Last Name
- Last name, First Name



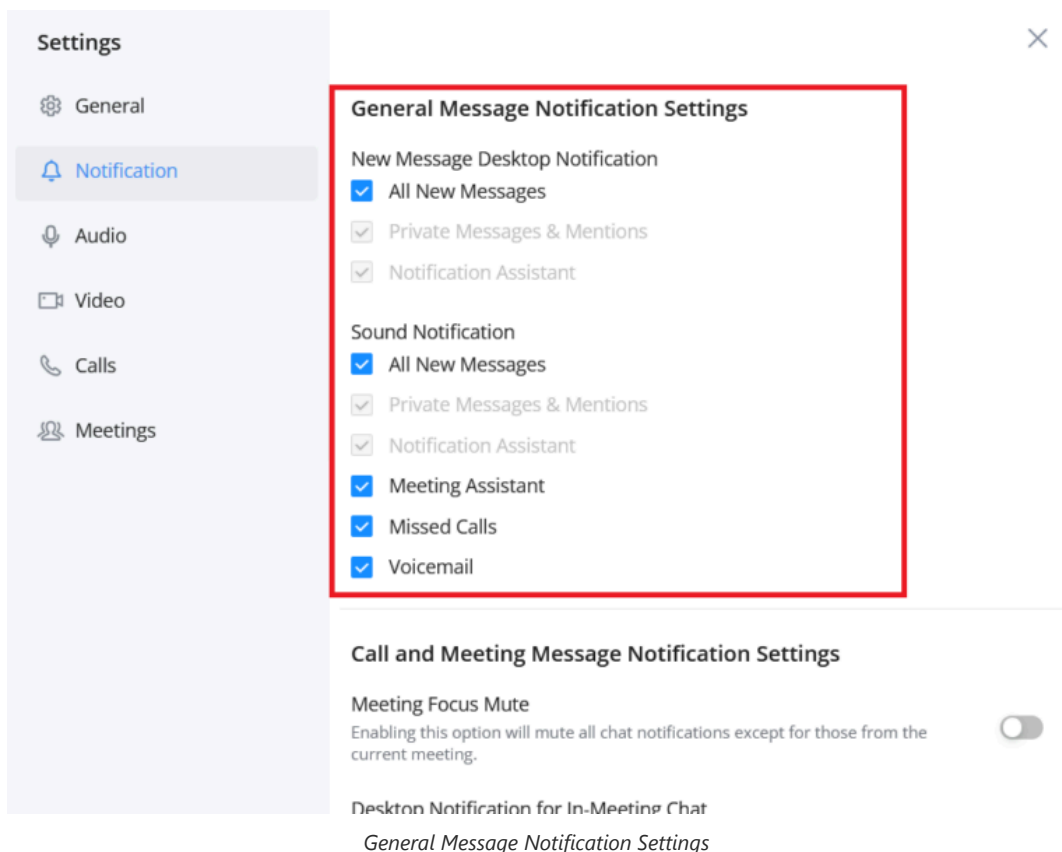
*Contacts Sort Order*

**Notification Settings**

Wave can be configured to notify the user based on the preferences set. The user can set the preference to be notified for all the messages exchanged in the groups he/she is part of, direct messages, mentions or none at all.

The user can also configure Wave to play a notification sound when they receive a message, when they received an incoming call, or when they receive a reminder of a meeting.

**General Message Notification Settings**



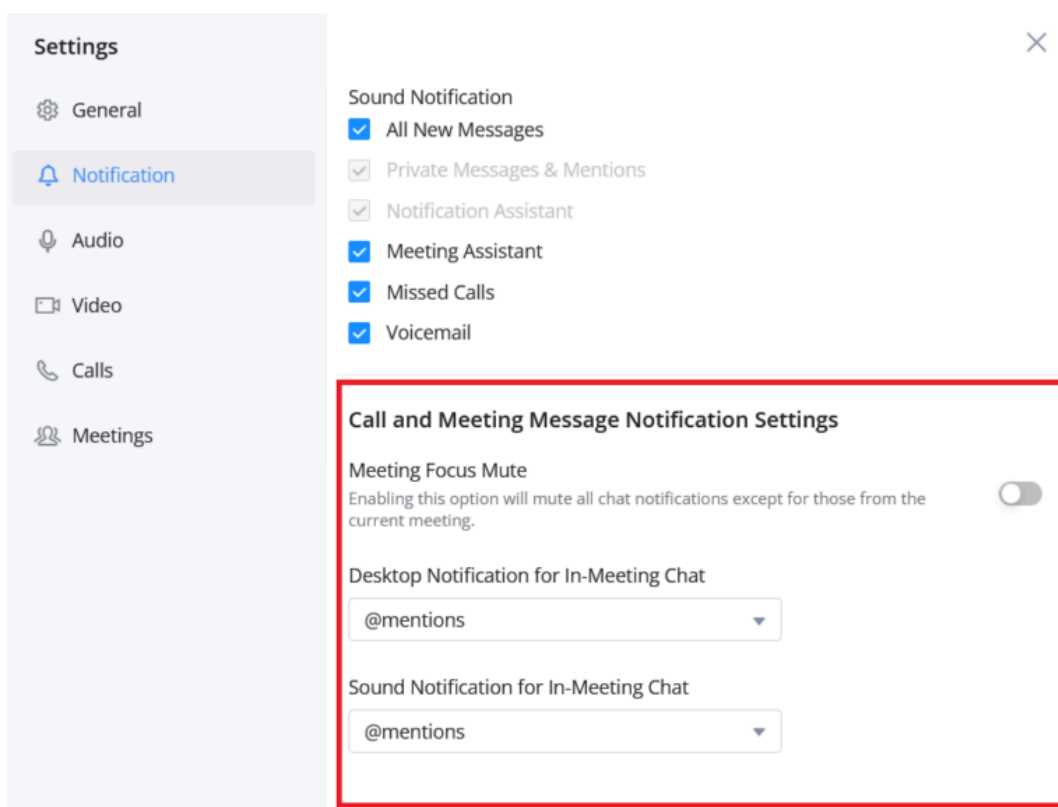
- **New Message Desktop Notification**

Check/uncheck Desktop Notification for “All New Messages”, “Private Messages & Mentions”, “Notification Assistant”.

- **Sound Notification**

Check/uncheck Notification Sound for “All New Messages”, “Private Messages & Mentions”, “Notification Assistant”, “Meeting Assistant”, “Missed Calls” and/or “Voicemail”

## Call and Meeting Message Notification Settings



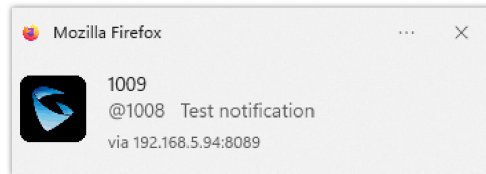
Call and Meeting Message Notification Settings

- **Meeting Focus Mute**

Enabling this option will mute all chat notifications except for those from the current meeting.

- **Desktop Notification for In-Meeting Chat**

Select the condition to display the Desktop Notification for In-Meeting Chat: “All New Messages”, “@mentions” or “None”. The desktop notification looks as below:



*Desktop Notification for In-Meeting Chat*

- **Sound Notification for In-Meeting Chat**

Select the condition to play the Sound Notification for In-Meeting Chat: “All New Messages”, “@mentions” or “None”.

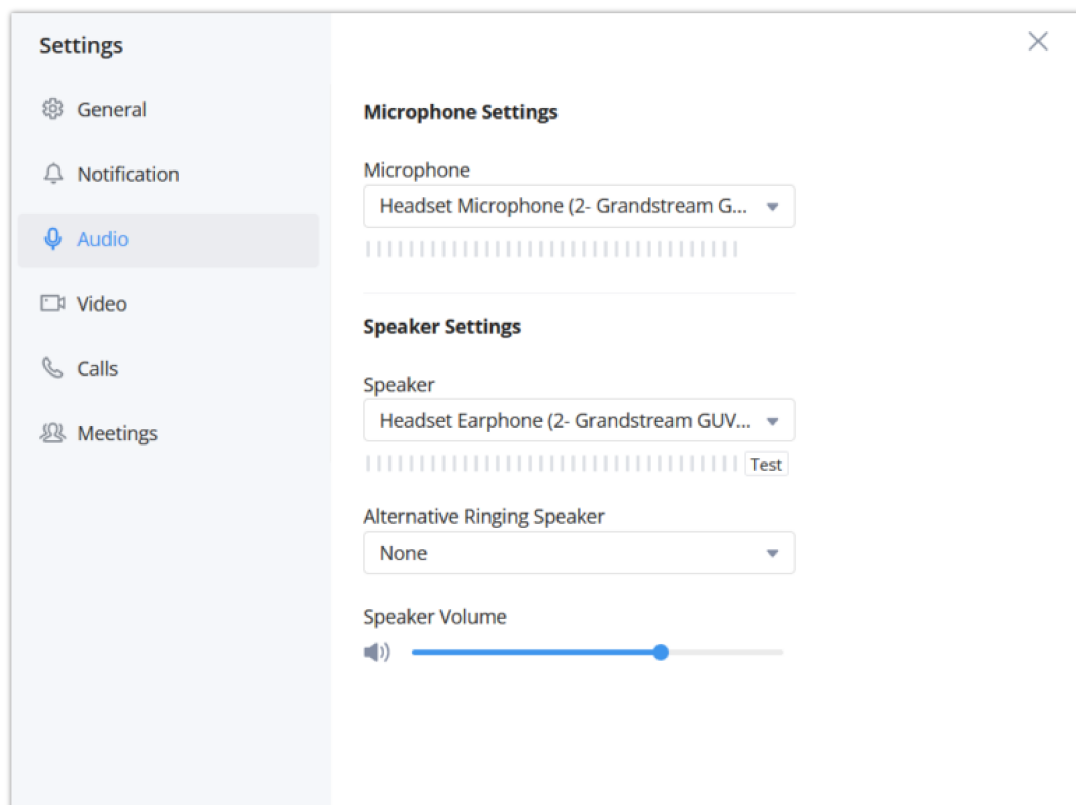
## Audio Settings

When the device is connected to multiple audio devices, the user can select the audio device through audio settings.

For PC client users, the application allows users to select an alternative ringing speaker. When the user receives an incoming call, the preferred and alternative speakers ring at the same time.

**Reference Scenario:** The PC connects to a headphone, but the user does not wear the headphone. The alternative ringing speaker is set, when the user receives an incoming call, the user can hear the ring tone from the PC’s built-in speaker.

**Step 1:** The user can click the user icon to enter the settings menu, and click “**Audio**” to enter the microphone/speaker settings interface, as the figure shows below:



*Audio Settings*

**Step 2:** Go to the “**Alternative Ringing Speaker**” option and click to set the alternative speaker.

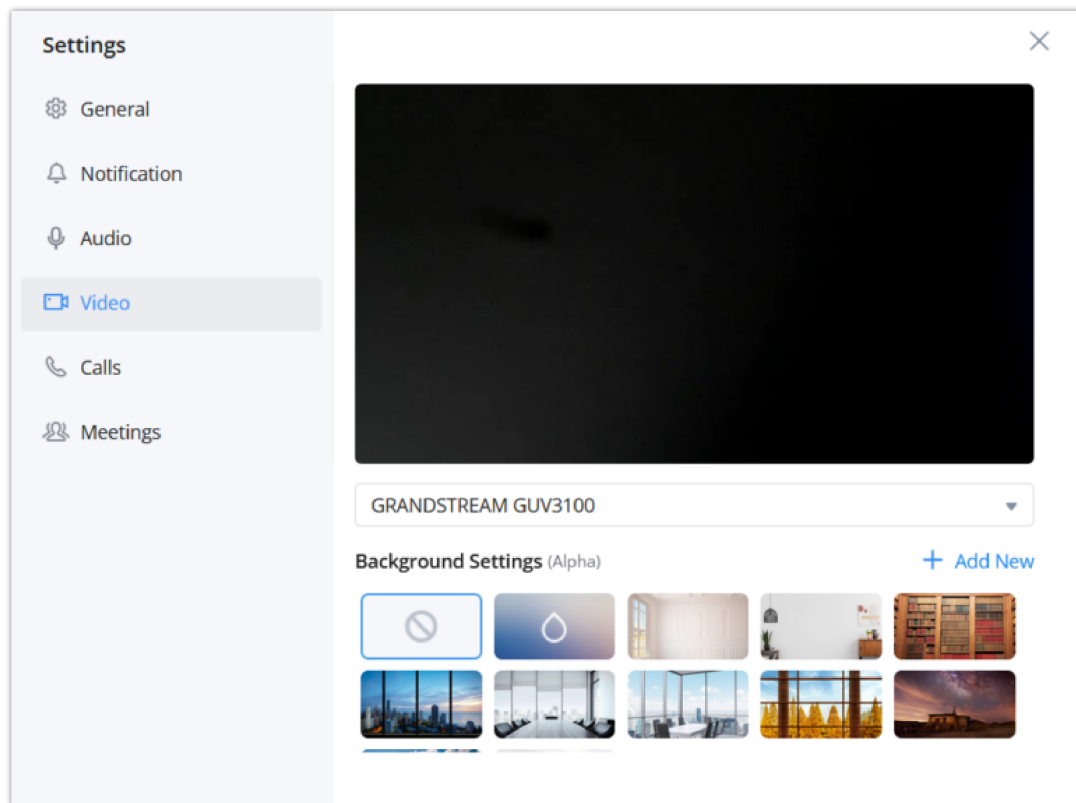
**Step 3:** Click the “**OK**” button to apply the changes. The preferred and alternative speakers will ring at the same time when there is an incoming call.

### Note

1. When the user first logs into the Wave application, the system will ask the user to set up an audio device.
2. The Wave users can enable noise detection and reeducation mode function during the meeting (Two “Noise Suppression Levels” are supported: Medium and High).
3. When the call is established, only the preferred speaker device will be used.

## Video Settings

The Video settings screenshot is shown below:



Video Settings

When the PC connects to multiple camera devices, the user can select the video device by “Video Settings”. The user can also set the virtual background in the Wave application.

**Step 1:** The user can click the user icon to enter the settings menu and click “**Video**” to enter the camera settings interface, as the figure shows below.

**Step 2:** The user can select the camera and set the virtual background.

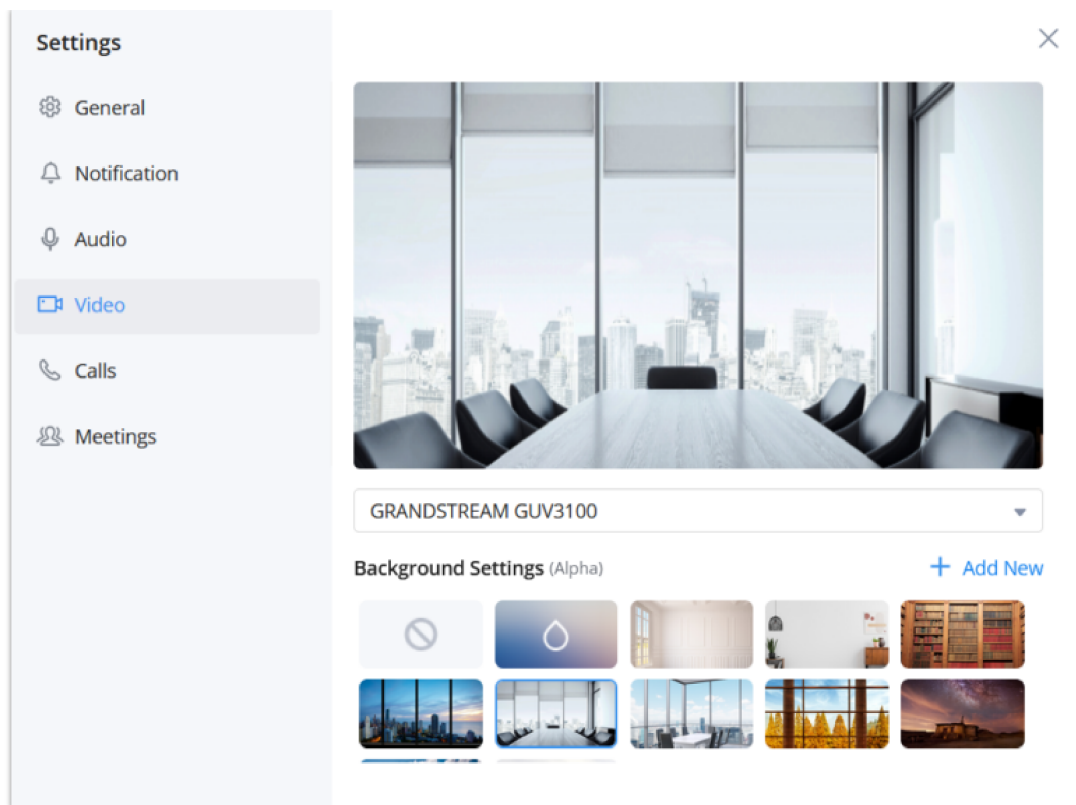
**Step 3:** The user can view the preview result and save/apply the changes. When the virtual background is set, the setting will be saved locally in the application, and the virtual background will be applied for each call/meeting.

When the user first-time logs into the Wave application, the system will ask the user to set up a video device.

## Virtual Background Settings

In meetings and peer-to-peer calls, the user can set the virtual background in the application locally and the virtual background will replace the background in the camera and send it to the remote client.

**Step 1:** The user can click the user icon to enter the settings menu, and click “**Video**” to enter the camera settings interface, as the figure shows below.



*Virtual Background*

**Step 2:** Users can select the images in the library or customize the uploaded images to create a virtual background.

**Step 3: Customize Uploaded Image:** Click the button [+ Add New](#) on the virtual background settings interface to open the local file selection window, and the user can select and customize the image to upload.

**Step 4:** The user can view the preview result and save/apply the changes. When the virtual background is set, the setting will be saved locally in the application, and the virtual background will be applied for each call/meeting.

- Remove Background
- Fuzzy Background

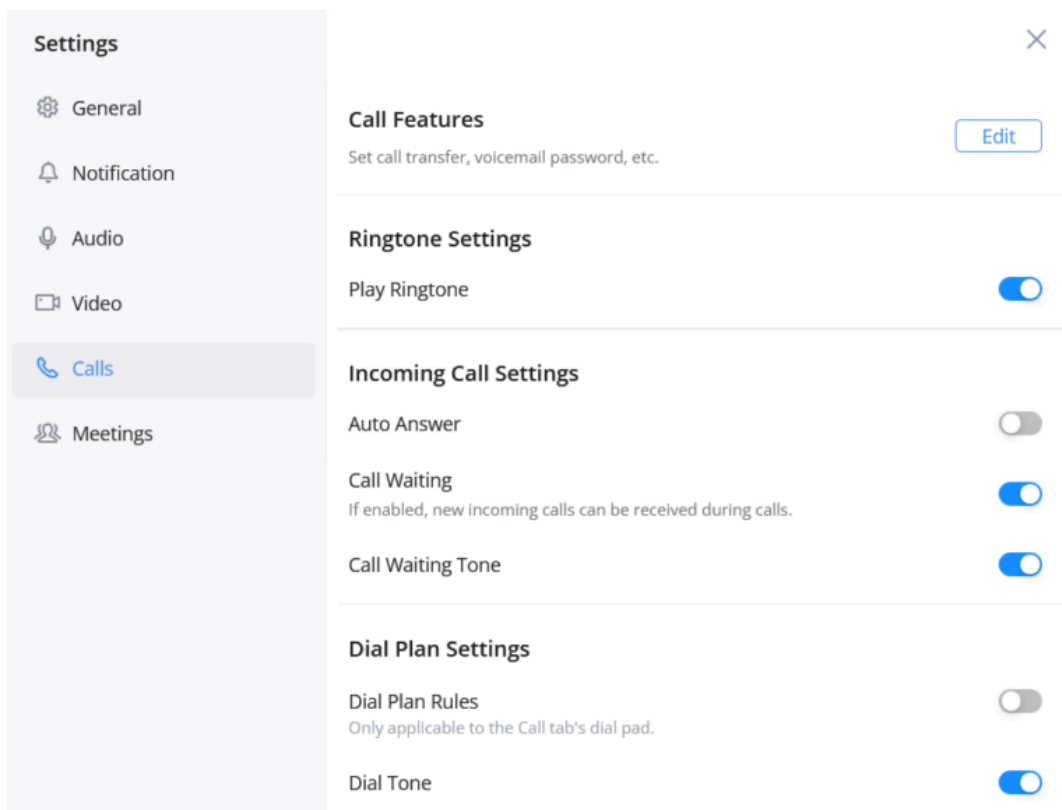
There is no background image by default. The limit of the size of the custom uploaded image is 20MB, and the upper limit of the image amount is 10 images. Users can upload images for multiple times. Each uploaded image will generate a new background, the length and width of the image is adaptive 16:9 and the image will be saved locally. The suggested fuzzy background color should be set to avoid being similar to the color of the actual scene and clothes.

## Calls Settings

### Call Features

Set Call Transfer, voicemail password, etc. Press the "Edit" button to be redirected to the UCM management page.





Calls Settings

## Ringtone Settings

- **Play Ringtone:** Check/uncheck to whether play the ringtone.
- **Call Ringtone:** Select the ringtone to play for incoming calls. Custom ringtone is supported.

## Incoming Call Settings

- **Auto answer:** Enable this option to have Wave answer the calls received automatically.
- **Call Waiting:** If enabled, new incoming calls can be received during calls.
- **Call Waiting Tone:** If enabled, a tone will be played when there is a call waiting.

## Dial Plan Settings

### Dial Plan Settings

#### Dial Plan Rules

Only applicable to the Call tab's dial pad.



#### Dial Plan Settings

{ x+ | \+x+ | \*x+ | \*xx\*x+ | x+\*x+\*x+\*x+ | x+\*x+\*x+\*x+\*x+ }

[Edit](#) | [Reset to Default](#)

#### Ignore Dial Plan

If enabled, outgoing calls will ignore dial plan rules.



#### Dial Tone



Dial Plan Settings

- **Dial Plan Rules**

Enable/disable dial plan rules. Only applicable to the Call tab's dial pad.

- **Dial Plan Settings**

Set the dial plan rules grammar for the number dialed. You can either enable the dial plan to have Wave take it into consideration, or ignore completely when dialing numbers.

Here are the valid values:

**1, 2, 3, 4, 5, 6, 7, 8, 9, 0, \*, #, T, +, A-Z, a-z**

Dial Plan rules:

- xx – Any 2-digit number
- xx+ – At least 2-digit number
- xx. – At least 1-digit number
- xx? – 1-digit or 2-digit number
- ^ – Reject
- T – Delay call after matching
- | – Or
- + – Add + to the number
- [3-5] – Dial the number 3, 4, or 5
- [147] – Dial the number 1, 4, or 7
- <2=011> – When the dial number is 2, it is replaced with 011
- Set \{x+\} – All digital numbers to make outgoing calls
- "+character" – It indicates a fixed character. **Note:** it does not need to be added in front of \* and #, and it cannot be added in front of T^,; and |
- Set \{X+\} Allow all 0-9, A-Z, a-z inputs with at least one character

**Example:**

- Example 1: {[369]11 | 1617xxxxxx} – Allow 311, 611, 911, any 10-digit call that starts with 1617 to make the outgoing calls.
- Example 2: {^1900x+ | <=1617>xxxxxx} – It will refuse to dial numbers starting with 1900, and adding the prefix 1617 when dialing any 7-digit number
- Example 3: \{ax+\} – It will dial a number starting with a and followed by at least 1-digit

- **Ignore Dial Plan**

If enabled, outgoing calls will ignore dial plan rules.

- **Dial Tone**

Enable this option to play a tone for each key when dialing a number using the number pad.

## Call Interface Customization

The call interface customization allows users to customize the call toolbar buttons display and to add call features shortcuts.

### Call Interface Customization

#### Call Toolbar

Customize the buttons displayed on the bottom bar

[Edit](#)

#### Call Features Shortcuts

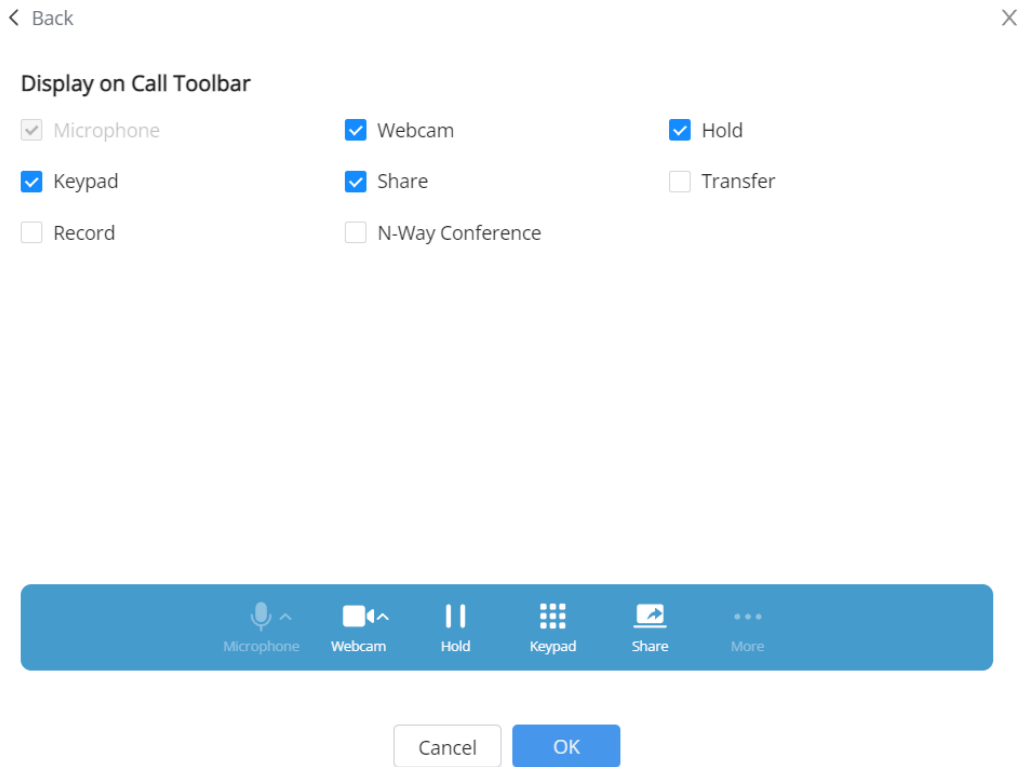
Add quick operations to the call interface

[Add](#)

## ○ Call Toolbar

You can also customize the buttons to be displayed at the bottom toolbar of the call interface, and put common buttons at the bottom bar and display permanently. You can set up **Settings** → **Calls**, and select the preferred buttons to be displayed.

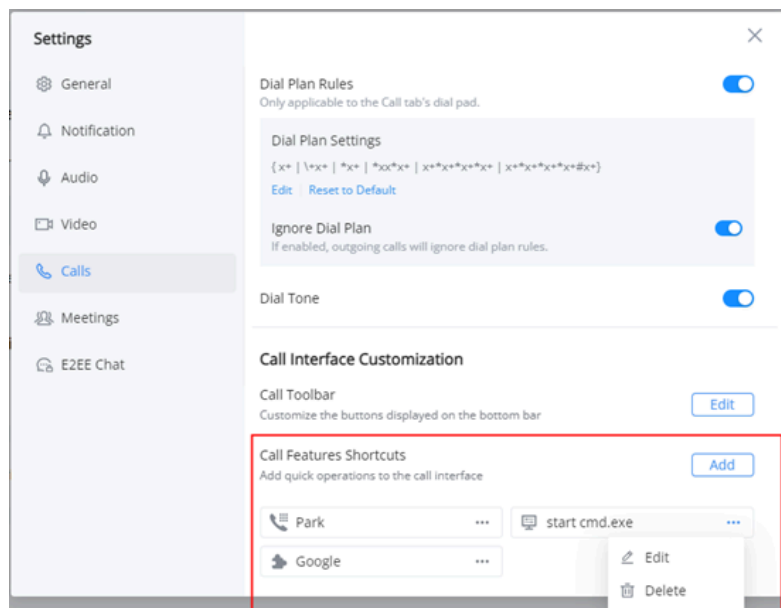
Press "Edit" to customize the call toolbar.



Call Toolbar Customization

## ○ Call Feature Shortcuts

You can set shortcut keys such as DTMF and add-in commands, which are commonly used on the call interface. After the shortcut keys are set, you can perform operations during a call or meeting with one click. Users can configure this feature in **Settings** → **Calls**.



Call Features Shortcuts

### Add Feature Shortcut

\* Button Name:

Type:

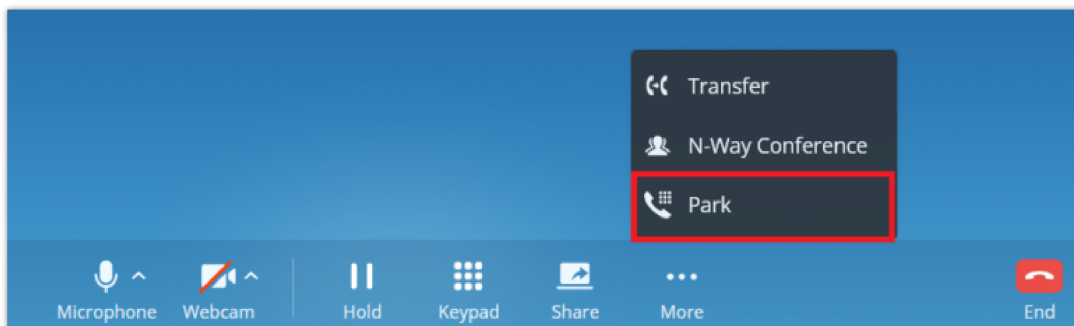
\* Service Code:

Cancel

OK

### Add Shortcuts

After setting the shortcut key, you can click the "More" option on the Call/Meeting interface to view the key.



### Using Shortcuts

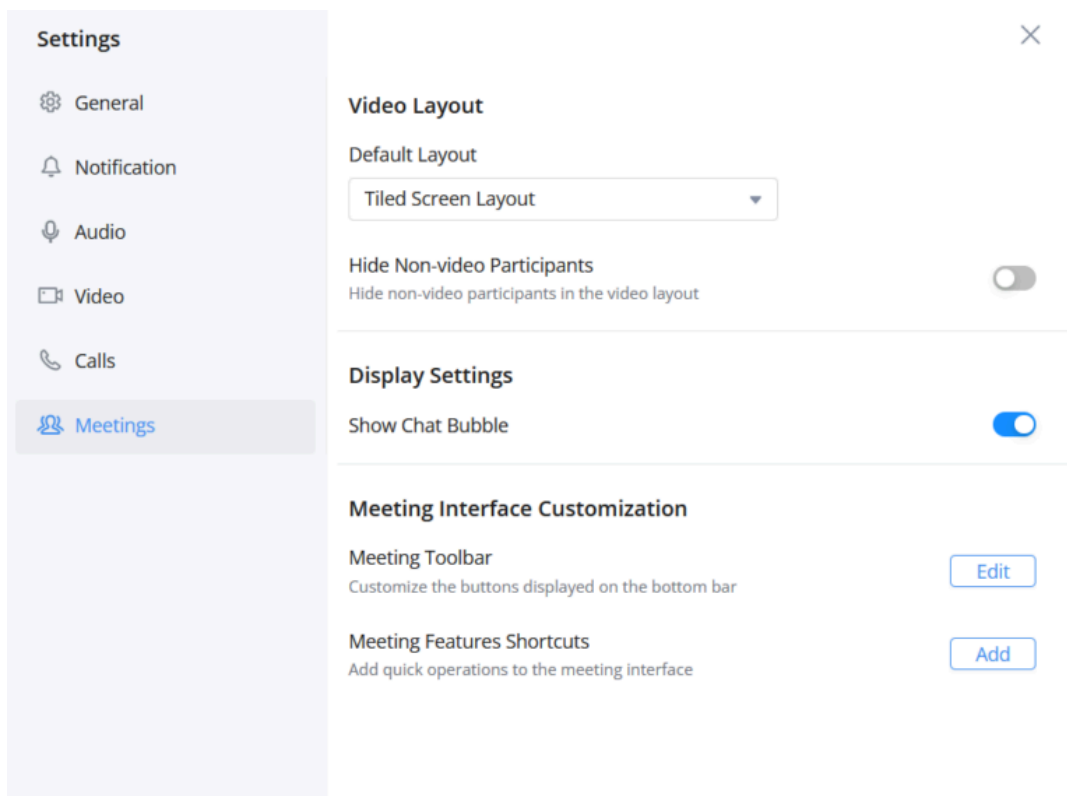
Button Name	You need to fill in the display name of the button on the interface.
Type	<ul style="list-style-type: none"><li>• <b>Dial Instructions:</b> Dial command, i.e. enter the DTMF feature code such as #72 1001 (parking on the slot 1001).</li></ul>
Command	Enter the feature code or enter the system command, or select the add-in to run.

Click the button

...

following the shortcut key on the Settings page to modify/delete the shortcut key.

## Meetings Settings



Meetings Settings

## Video Layout

- **Default Layout**

Select the default layout in Meetings: “Tiled Screen Layout” (Default) or “Speaker Layout”.

- **Hide Non-video Participants**

Check to hide non-video participants in the meeting’s video layout. (Default is disabled)

## Display Settings

- **Show Chat Bubble**

Check/uncheck to enable/disable displaying the chat bubbles during meetings. (Default is enabled)

- **Display Shared Toolbar**

Check/uncheck to enable/disable displaying the sharing toolbar. (Default is enabled)

The sharing toolbar will be displayed after sharing the screen or application.

## Meeting Interface Customization

### Meeting Interface Customization

#### Meeting Toolbar

Customize the buttons displayed on the bottom bar

Edit

#### Meeting Features Shortcuts

Add quick operations to the meeting interface

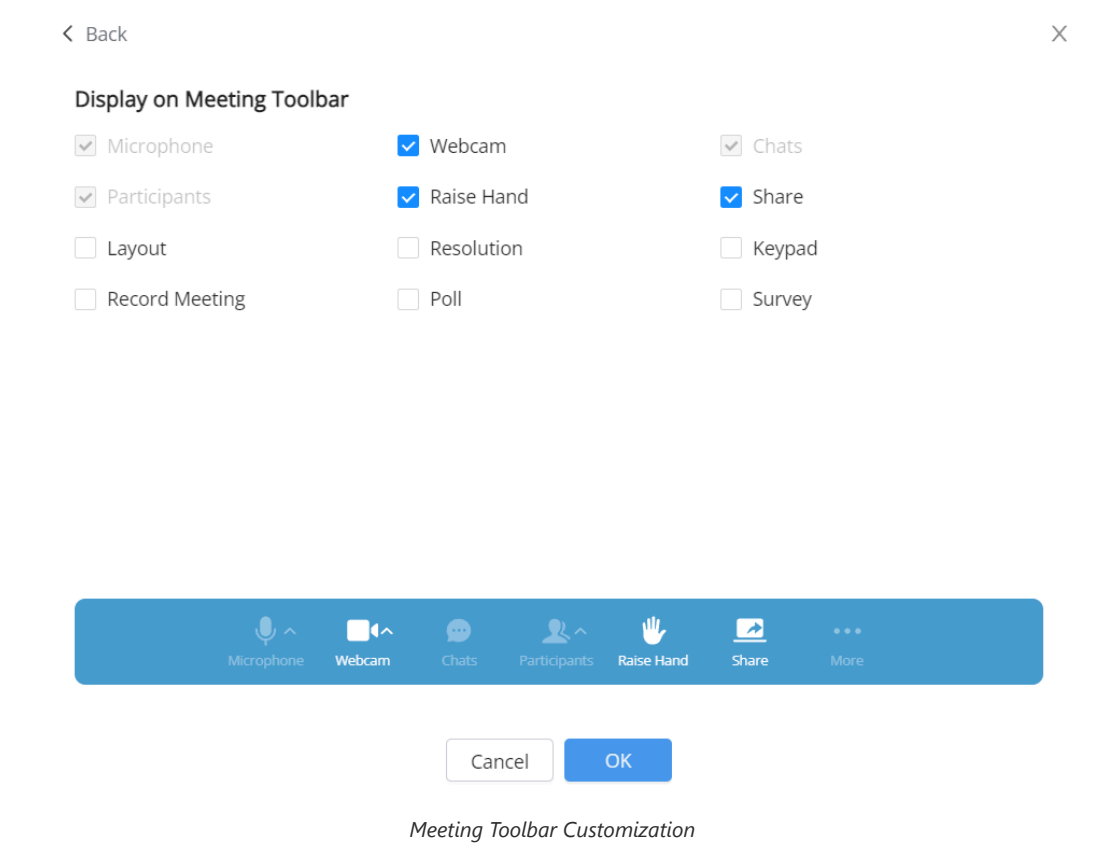
Add

Meeting Interface Customization

- **Meeting Toolbar**

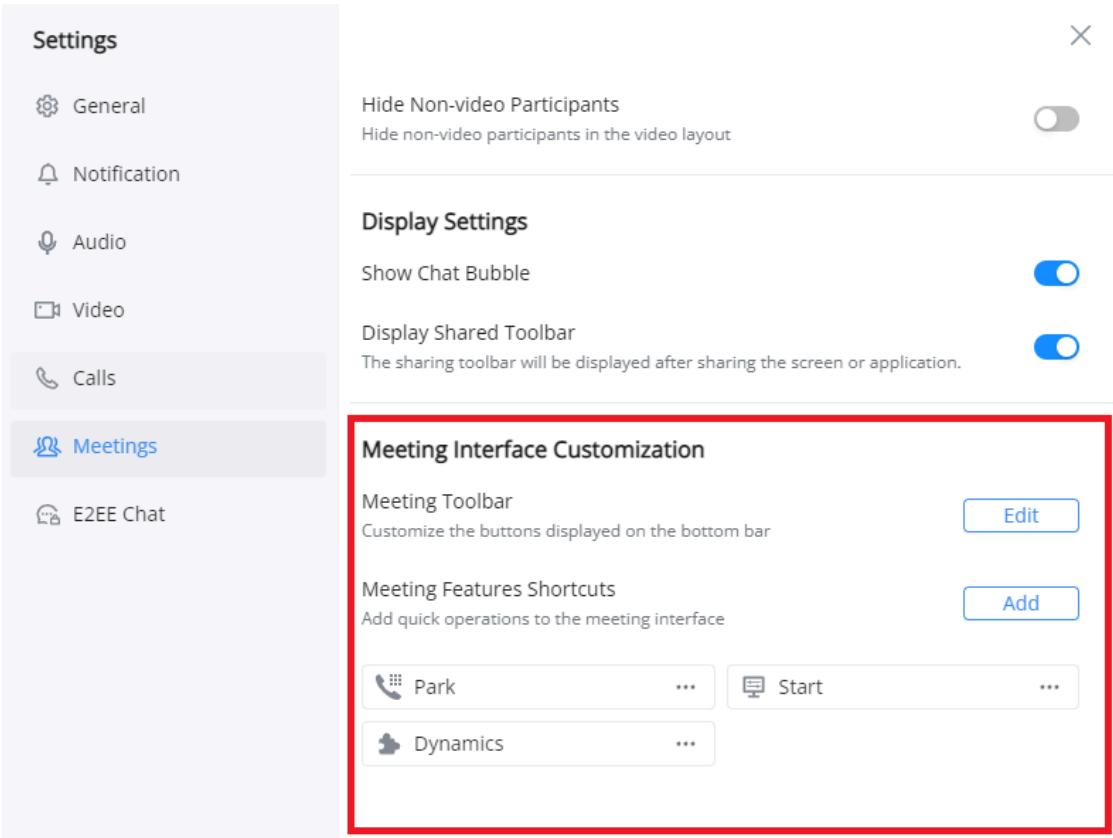
You can also customize the buttons to be displayed at the bottom toolbar of the meeting interface, and put common buttons at the bottom bar and display permanently. You can set up on **Settings** → **Meetings**, and select the preferred buttons to be displayed.

Press "Edit" to customize the meeting toolbar.

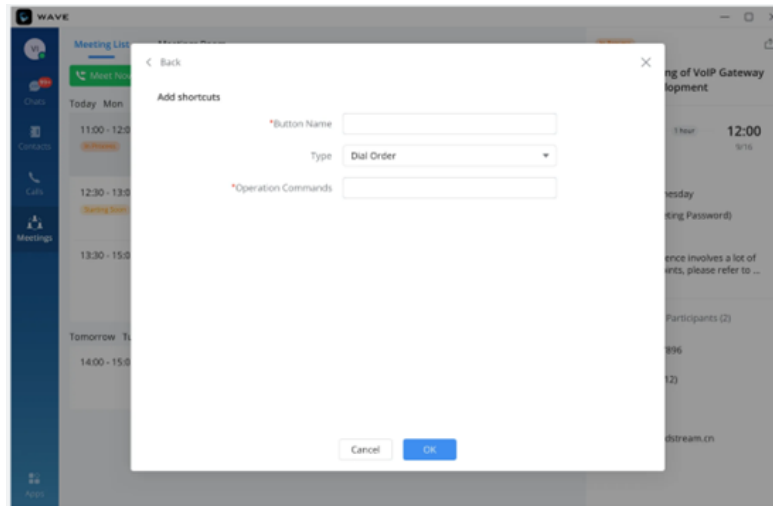


o Meeting Feature Shortcuts

You can set shortcut keys such as DTMF and add-in commands, which are commonly used on the meeting interface. After the shortcut keys are set, you can perform operations during a meeting with one click. Users can configure this feature in **Settings** → **Meetings**.

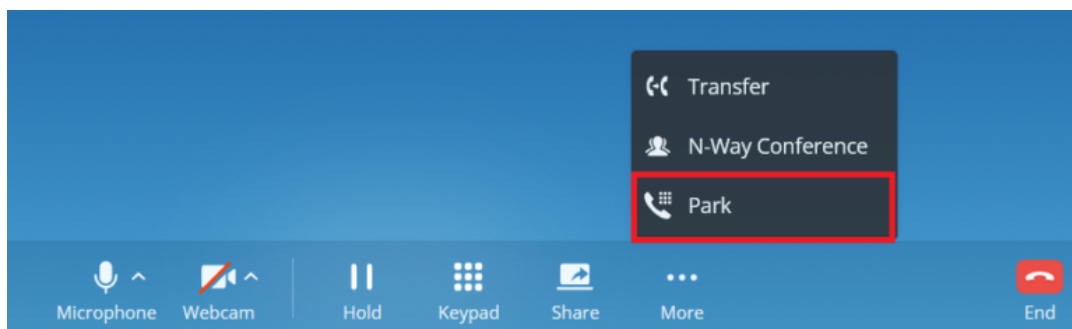


## Meeting Features Shortcuts



### Add Shortcuts

After setting the shortcut key, you can click the “More” option on the Call/Meeting interface to view the key.



### Using Shortcuts

Button Name	You need to fill in the display name of the button on the interface.
Type	<ul style="list-style-type: none"><li>● <b>Dial Instructions:</b> Dial command, i.e. enter the DTMF feature code such as #72 1001 (parking on the slot 1001).</li></ul>
Command	Enter the feature code or enter the system command, or select the add-in to run.

Click the button

\*\*\*

following the shortcut key on the Settings page to modify/delete the shortcut key.

## Help and Feedback

Users can go to the settings menu and click “**Help and Feedback**” to display the, What’s New, help, feedback, and exporting logs menu.

## What’s New

A popup window will display the new features introduced in the current version.



## Live Chat

Live Chat feature allows your customers to send messages or call you with one-click. You can create a Live Chat in your UCM and integrate links into your websites or applications to reach your customers at anytime and anywhere. [Learn More](#)

[View All](#)

[Next](#)

*Live Chat*

## User Guide

If the user has any questions while using Wave application, the user can click "**User Guide**" option to go to the official website of Grandstream and view the user guide of Wave application.

## Feedback

If the user encounters any problems with Wave application, or the user wants to share any suggestions about Wave application, the user can click "**Feedback**" option to connect to the Grandstream Feedback System. It allows users to share feedback and we can collect questions/suggestions from users, so that we can provide better using experiences for users.



Feedback

✕

\* Please enter your feedback

You can directly paste screenshots and web pictures here as attachments

+

( File type: zip, tar, rar, xls, xlsx, txt, docx, doc, jpeg, jpg, png, pdf, mp4, avi, wav, csv, gz )

☐ Upload the system log at the same time, so as to better locate the problem

Feedback Category

Select

\* Please enter your email address so that we can contact you in time.

test@gmail.com

✕

Cancel

Submit

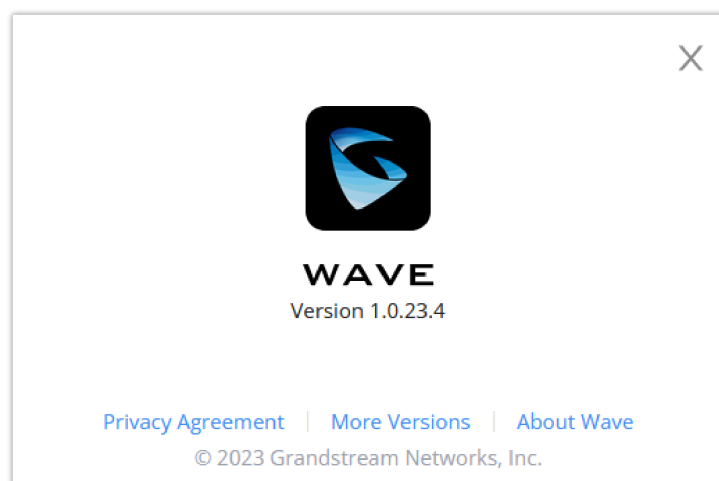
Feedback Interface

## Export Logs

Users can go to the settings interface and click the “Export Logs” option to export the application logs. If the user encounters any issues with the Wave application, the user can export the logs and save them on the PC. The exported logs can help users troubleshoot the issues so that we can offer users better user experiences.

## About

- Users can go to the settings interface and click “**About**” to get more details about the Wave application.
- Display the current version of the Wave application.
- If there is an updated application version, the user can click “**Update Version**” to upgrade the application.
- The user can click on “**Privacy Terms**” to view the privacy terms of the Wave application.
- The user can click on “**Help**” to direct to Grandstream’s Official website to view the Wave application user manual.



About

## Download Client

Users can download the Wave application from Grandstream's Official website. When the application has been downloaded to the local PC, the user can follow the instructions to install the application.

<https://fw.gdms.cloud/wave/download/>

## Intergrate Wave

Users can learn about the available Add-in API and SDK for further development to integrate Wave with other platforms. When clicked, the user will be redirected to the corresponding instruction guide.

- Add-in Development Instructions
- SDK Development Instructions

## UCM Remote Connection

Users can learn more about UCM RemoteConnect services by accessing this menu.

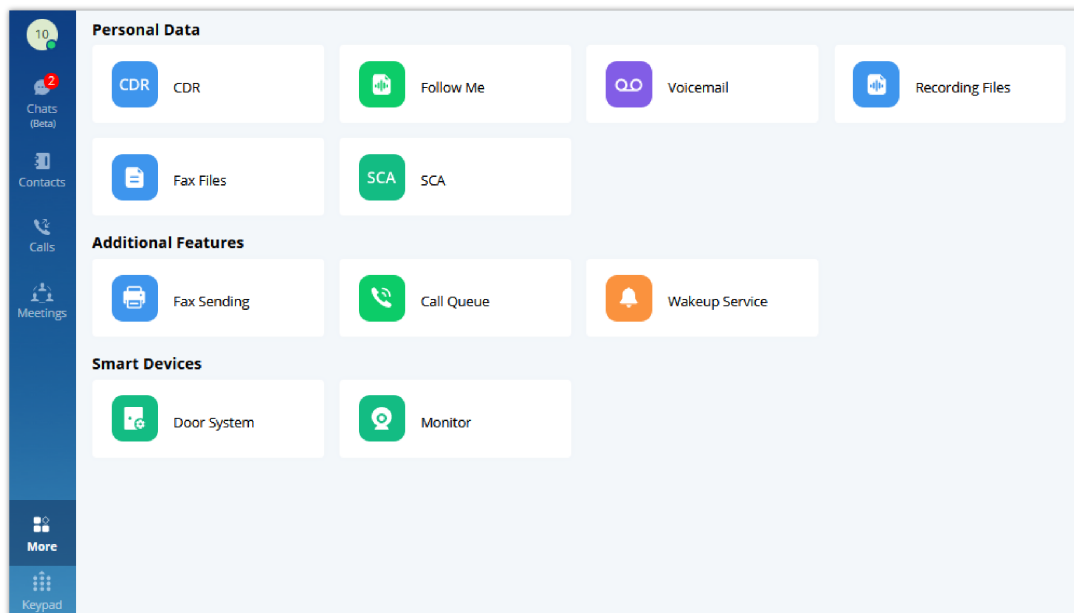
The users will be redirected to the UCMRC website: <https://ucmrc.gdms.cloud/home>

## Log out

Users can click "**Log out**" to jump to the login interface and log in again.

## MORE APPLICATIONS

More applications interface screenshot is shown below:



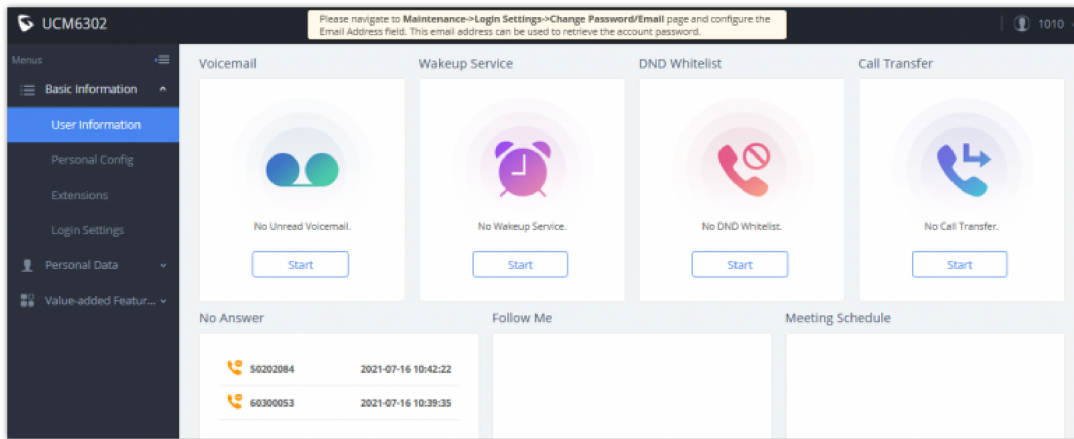
*More Applications*

Users can click the "More" button on the left menu on the main application UI to view more applications. It includes personal services, value-added services, and smart devices. Users can also set door systems and monitors according to their requirements.

## Services

The services include personal services and value-added services.

The Wave application integrates UCM's User Portal functionality. Users can directly enter the User Portal interface through the services entry. Please see the screenshot below:



*User Portal Interface*

Users can set the following personal services and value-added services:

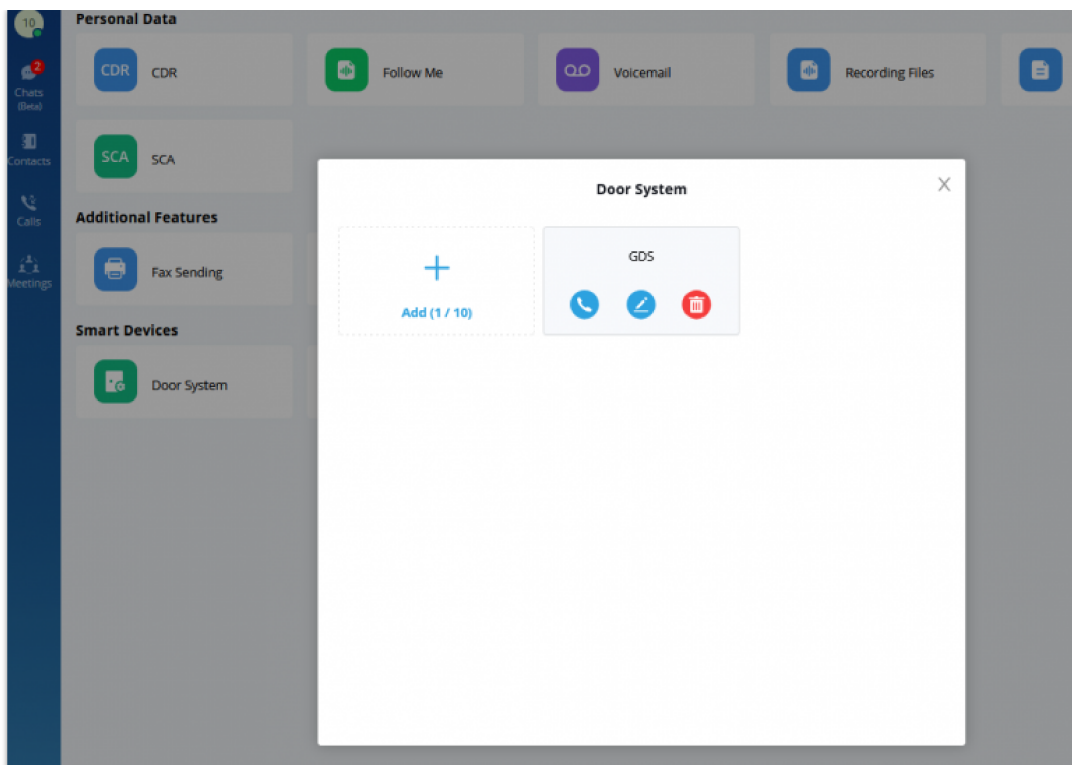
- CDR
- Follow me
- Voicemail
- Recording Files
- Fax Files
- SCA
- Fax Sending
- Call Queue
- Wakeup Service

For more information about the services, please refer to the UCM User Portal Guide on Grandstream's official website.

## Smart Devices

### Door System

Please follow the instructions below to set up the door system:



*Door System Interface*

Users can click the “**Add**” button to set up the relevant parameters for the door system. Please see the screenshot below:

 The screenshot shows the 'Add Door System' form. On the left is a vertical sidebar with a large blue plus icon and the text 'Add (0 / 1)'. The main form area is titled 'Add Door System' and contains the following fields:
 

- \* Device Name: Please set the GDS caller name
- \* Device Number: Please set the GDS number
- Door System 1 (header):
  - Display Name: Please set the door name
  - Password: Please enter password
- Door System 2 (header):
  - Display Name: Please set the door name
  - Password: Please enter password

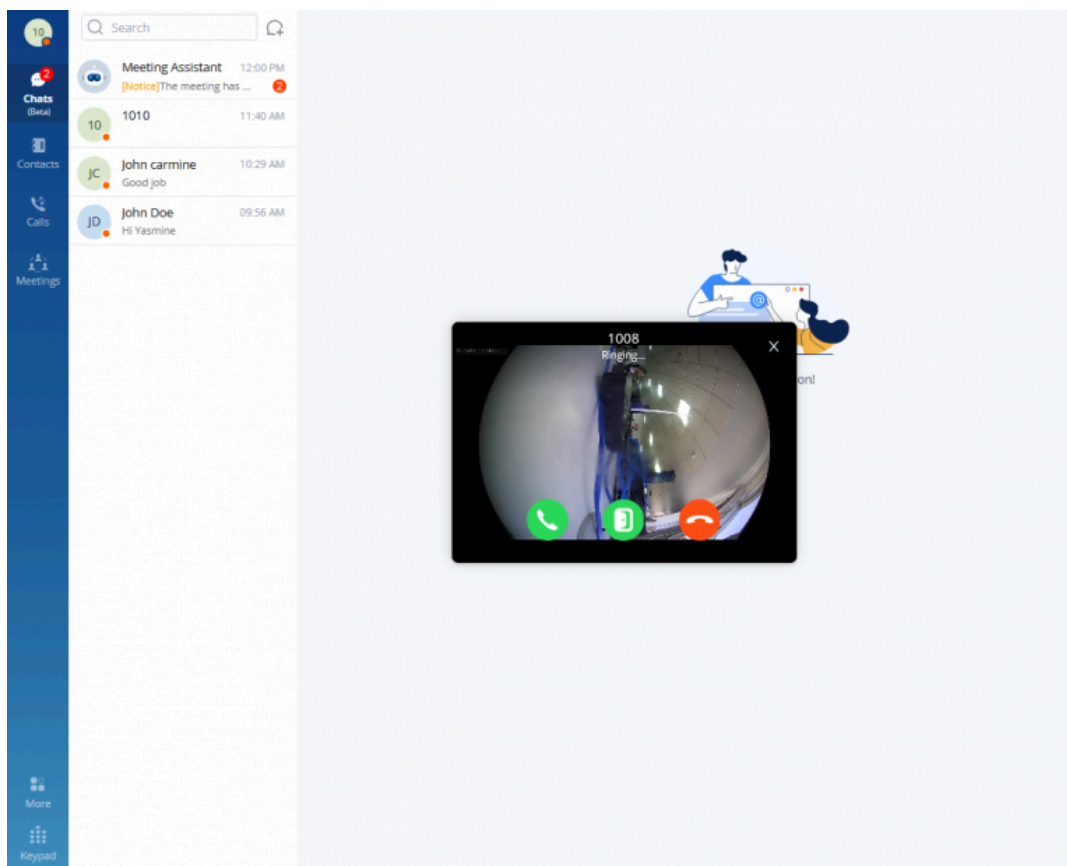
 At the bottom of the form are 'Cancel' and 'OK' buttons.

*Add Door System*


**Note:**

1. Users need to set the correct password to open the door for the door system.
2. The user needs to go to GDS Web UI → Door System Settings → Basic Settings → Enables DTMF option so that the user can see the “Open Door” option once the user receives an incoming call from the GDS device in the Wave application.

When the door system is set up, the user can receive an incoming call from the door system once someone rings the doorbell. Please see the screenshot below:



*Ringing by Door System*

The user can click  button to answer the call, and initiate the video call, as the screenshot shows below:



*Video from Door System*

Users can click  button to open the door.

#### **Note**

This function is only supported by Grandstream GDS Door System products.

# Monitor

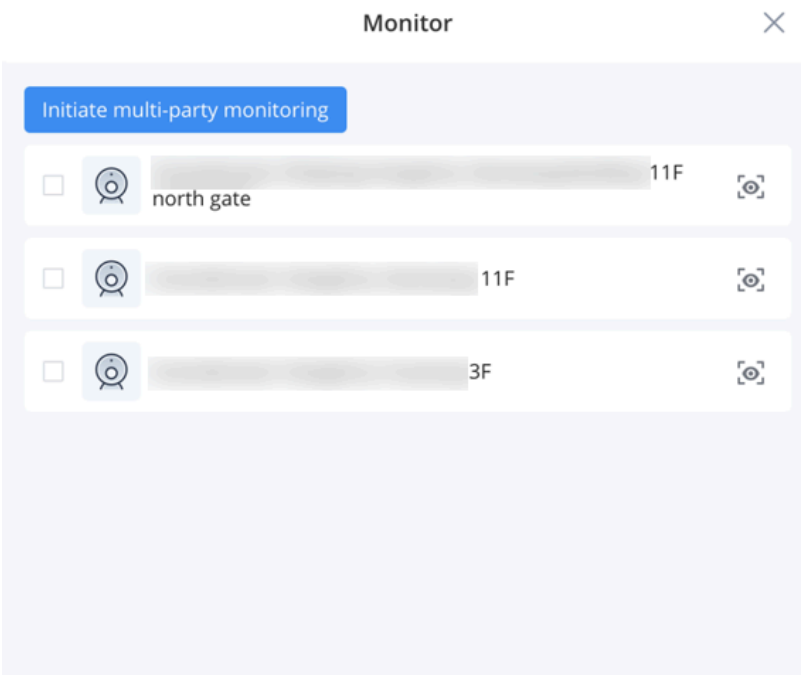
This feature allows the user to retrieve the video feed of the monitoring devices that he/she has permission to user. These devices and permissions are handled by the UCM. To know how to configure these devices on the UCM side, please refer to this guide below:

[UCM63XX Device Management Guide](#)

## Note

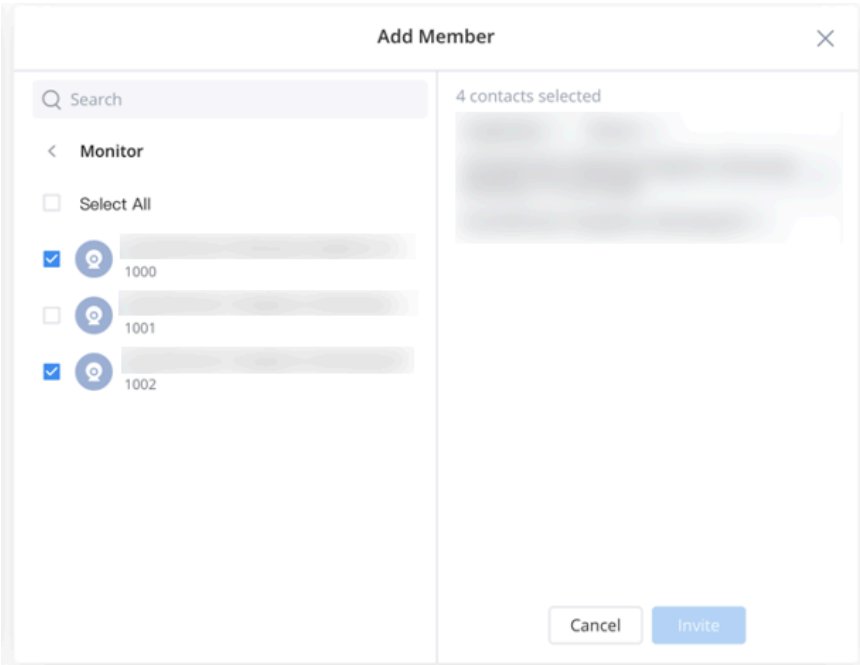
These devices are considered like any other extensions, they can be called through Wave or any other Grandstream phone. They can as well be invited to meetings as participants.

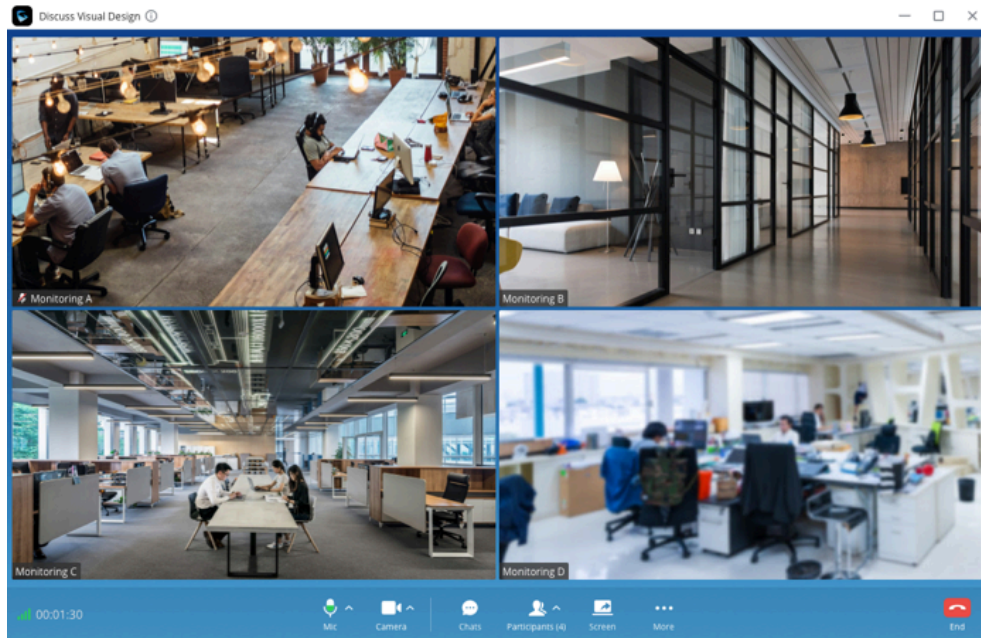
When multiple cameras are configured on the UCM, the user is allowed to access all the cameras. The user can initiate a multi-party button using one button.



Monitor

The user can select the IP camera feeds and can select an extension to invite once the call has been initiated.





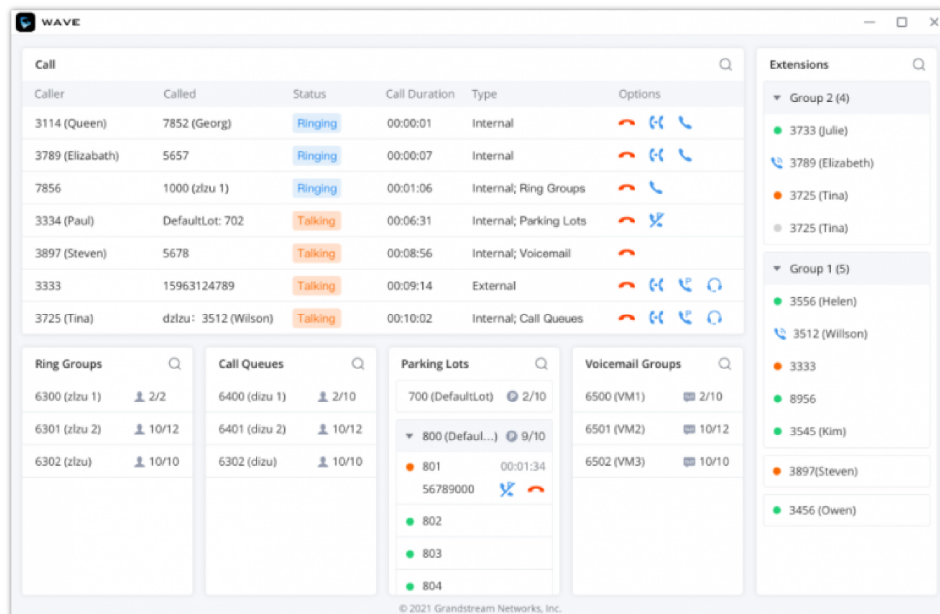
Monitoring

## Operator Panel

The Operator Panel in the Wave application is used as a call management platform, including the Extension module, Call module, Ring Group module, Call Queue module, Parking Lot module, and Voicemail Group module, as the screenshot shows below:


In the Operator Panel, the administrator who has permission can manage calls from this module. The administrator needs to get permission from the UCM Web UI → Call Features → Operator Panel and add the administrator's Wave account to the Operator Panel list before using this function. The administrator can simply click/drag the calls/extensions to manage incoming/outgoing multiple calls in real-time, it greatly improves the call management efficiency for users.

The administrator who has permission can click the **"More"** menu on the left side of the Wave application UI and click **"Operator Panel"** to access the management platform.

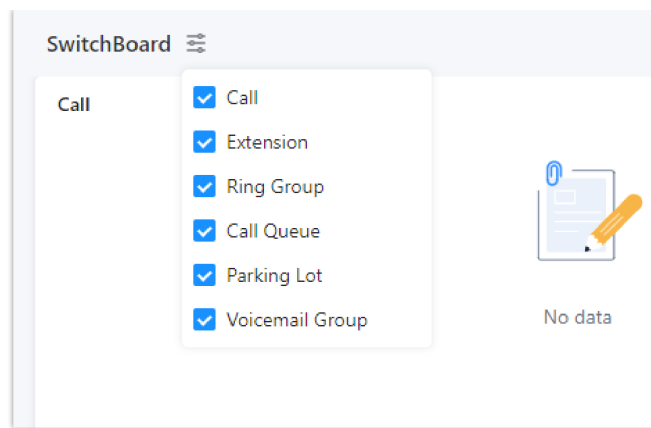


Operator Panel

The user can customize the panels that will be displayed on the board of the operator panel.

To do that, please click on the settings icon  on the top left of the operator panel, the tick off the panels you would like to hide.





*Switchboard Options*

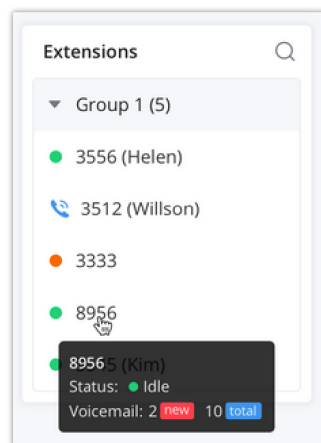
#### Note

If the user wants to use the Operator Panel function, the user needs to obtain the permission of the calls administrator from the enterprise UCM administrator. For more details, please refer to the User Guide of UCM devices on Grandstream's official website.

## Extension

The Extension list will show all extensions and extensions groups you have permission to management, including extensions/extensions group names, and the extension's status.

The administrator can move the mouse over the extension to view the status of the extension, received voicemail amount, and unread voicemail amount.



*Extension*

- ● : Idle
- 📞 : Ringing
- ● : Call in progress
- ● : Offline

## Call

The Call module displays all calls allocated to local management extensions, ring groups, call queues, parking lots, and voicemail. The administrator can pick up the call, monitor the call, transfer/park/end the call, as the screenshot shows below:



Call						
Caller	Called	Status	Call Duration	Type	Options	
3114 (Queen)	7852 (Georg)	Ringing	00:00:01	Internal	📞 🔍 📞	
3789 (Elizabeth)	5657	Ringing	00:00:07	Internal	📞 🔍 📞	
7856	1000 (zlzu 1)	Ringing	00:01:06	Internal; Ring Groups	📞 📞	
3334 (Paul)	DefaultLot: 702	Talking	00:06:31	Internal; Parking Lots	📞 🔍	
3897 (Steven)	5678	Talking	00:08:56	Internal; Voicemail	📞	
3333	15963124789	Talking	00:09:14	External	📞 🔍 📞 📞	
3725 (Tina)	dzlu: 3512 (Wilson)	Talking	00:10:02	Internal; Call Queues	📞 🔍 📞 📞	

Call Module

- 📞 : **Call Pickup**. Users can click the button to answer the call.
- 📞 : **Monitoring**. Users can click the button to monitor the call, including Call Monitoring, Whisper Monitoring, and Barge Monitoring.
- 🔍 : **Transfer**. Users can click the button to transfer the call, including Blind Transfer and Attended Transfer.
- 📞 : **Call Park**. Users can click the button to park the call to the corresponding parking lot.
- 📞 : **End**. Users can click the button to end the call.

## Call Pickup

When one of the managed extensions receives an incoming call and the call is not answered, the administrator can pick up the call on Operator Panel.

- Step 1:** The user can click 📞 button to pick up the ringing call on the Operator Panel. The system will transfer the call to the administrator.
- Step 2:** The call is answered in the administrator's client successfully.

3114 (Queen)	7852 (Georg)	Ringing	00:00:01	Internal	📞 🔍 📞	
3789 (Elizabeth)	5657	Ringing	00:00:07	Internal	📞 🔍 📞	

Call Pickup

### Note

The call pickup permission needs to be assigned in the UCM management platform → Call Features → Feature Codes → Feature Codes and enable the "Pickup on Ringing Prefix" option, the default setting is "\*\*\*". The UCM administrator can modify this option from the UCM Web UI. Once the option is enabled, the administrator can pick up all calls of managed extensions.

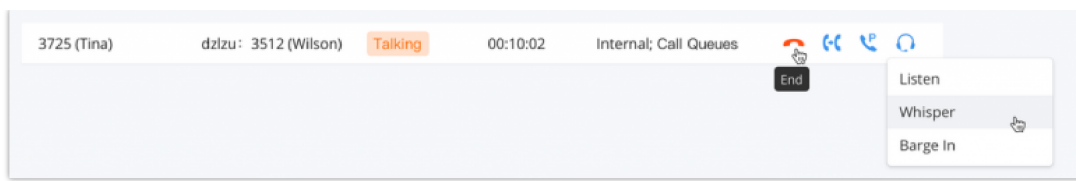
## Monitoring

The monitoring methods include Call Monitoring, Whisper Monitoring, and Barge Monitoring. The administrator can select to monitor the calls based on different service scenarios.

- Call Monitoring:** The administrator can monitor the call directly. The line of the administrator will be muted, both caller and callee cannot hear the audio from the administrator.
- Whisper Monitoring:** The administrator can select to join the caller or callee side to assist the caller or callee through the call. Only the monitored extension can hear the audio from the administrator during the call.
- Barge Monitoring:** The administrator can join the call to assist the caller and callee through the call. Both the caller and callee can hear the audio from the administrator.

**Step 1:** On the Operator Panel, select the call that the user wants to monitor.

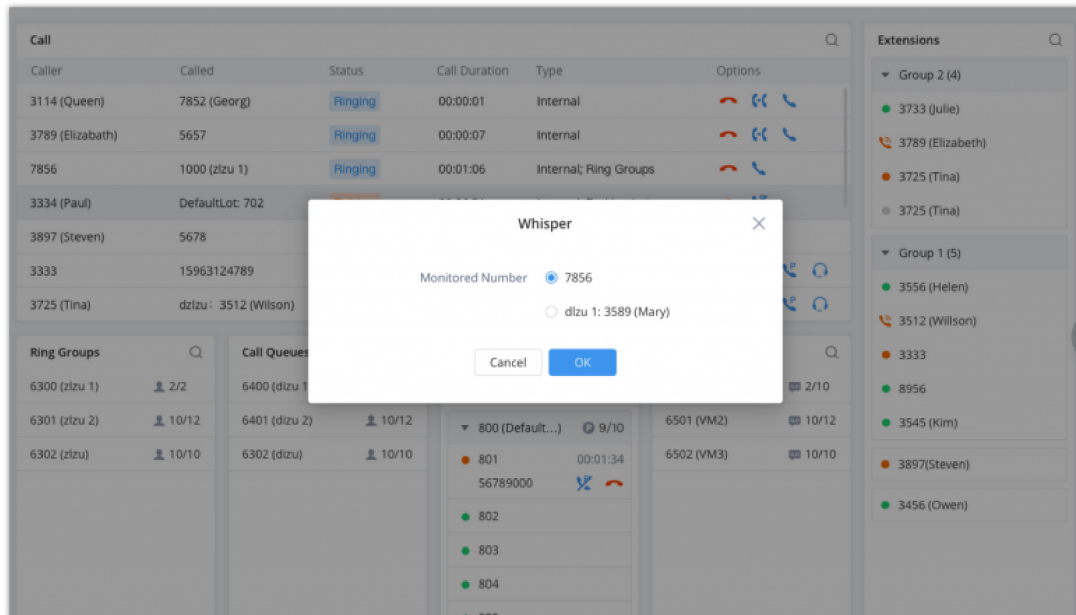
**Step 2:** Click on 📞 button, and select the monitoring method between Call Monitoring, Whisper Monitoring, and Barge Monitoring. As the screenshot shows below:



*Monitoring*

**Step 3:** Click the Call Monitoring button or Barge Monitoring button, the administrator will receive the incoming call from the caller's extension, and the administrator can click the answer button to pick up the call.

**Step 4:** Click the Whisper Monitoring button to select the monitored extension from the popup window. As the screenshot shows below:



*Whisper Monitoring*

**Step 5:** The user can click the "OK" button, and the system will send an incoming call to the administrator's extension.


**Step 6:** Once the administrator's extension receives the incoming call from the monitored extension, the administrator can click the answer button to monitor the call.

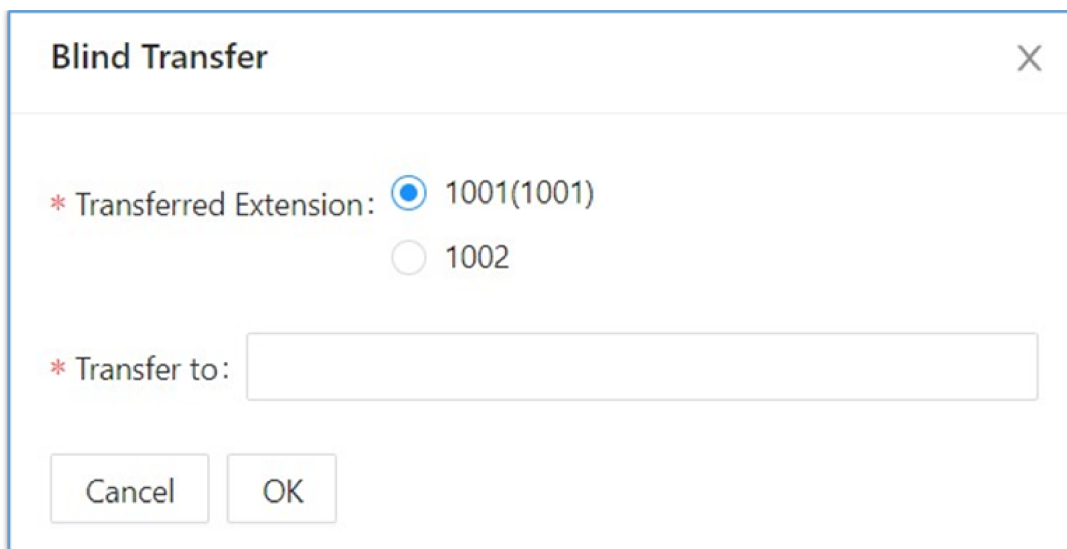
## Transfer

The administrator can transfer the selected calls via the Operator Panel, including Blind Transfer and Attended Transfer.

### Blind Transfer

**Step 1:** There is a call that is in progress between extensions 1001 and 1002.

**Step 2:** The administrator can select the call and click  button following the call, select Blind Transfer, and select the transferred extension 1001 as the screenshot shows below:



**Blind Transfer** [X]

\* Transferred Extension: ☒ 1001(1001)  
☐ 1002

\* Transfer to:

Cancel OK

*Blind Transfer*

**Step 3:** Enter the transferring target extension 1003 in the **"Transfer to"** field and click the **"OK"** button.


**Step 4:** Extension 1003 will receive the new incoming call from extension 1001.

**Step 5:** The call between extensions 1001 and 1002 will be ended. The call between extensions 1001 and 1003 will be established. The Blind Transfer is successful.

On the Operator Panel, the administrator can drag the call to the Ringing Group, Call Queue, or Voicemail Group to blind transfer the call to these groups.

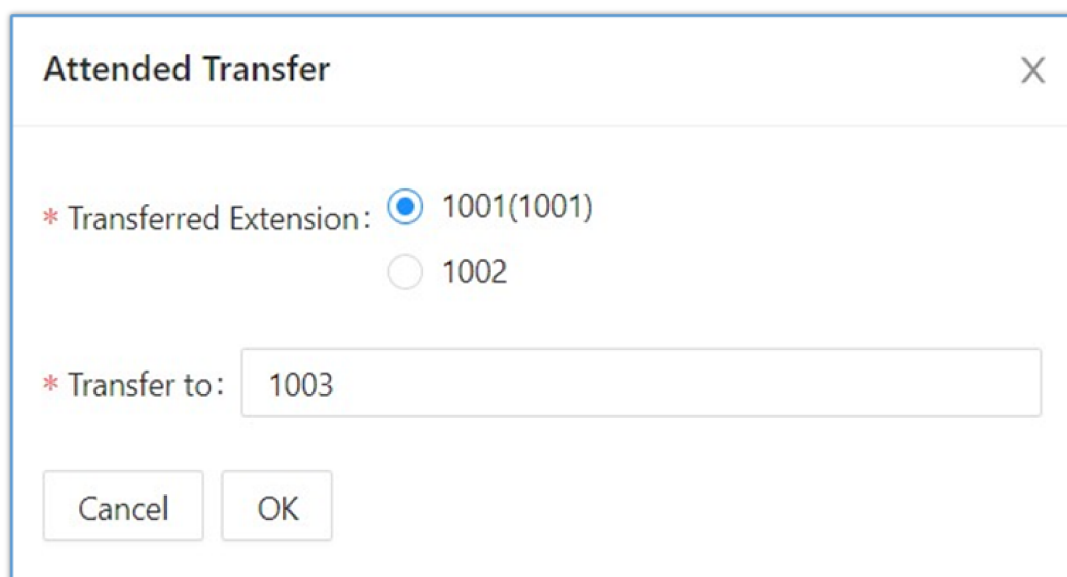
## Attended Transfer

**Step 1:** There is a call that is in progress between extensions 1001 and 1002.

**Step 2:** The administrator can select the call and click  button following the call, select Attended Transfer, and select the transferred extension 1001 as the screenshot shows below.

**Step 3:** Enter the transferring target extension 1003 in the **"Transfer to"** field and click the **"OK"** button.

**Step 4:** Extension 1003 will receive the new incoming call from extension 1002. The call for extension 1001 will be held. The call between extensions 1002 and 1003 will be established. Once extension 1003 hangs up, the call between extensions 1001 and 1002 will be resumed.



**Attended Transfer** [X]

\* Transferred Extension: ☒ 1001(1001)  
☐ 1002

\* Transfer to:

Cancel OK

*Attended Transfer*

## Note

When the administrator tries to transfer the call to a call queue, the UCM administrator needs to check the "Enable Feature Codes" option in the UCM Web UI → Call Features → Call Queue → Advanced Settings → Other Settings. Otherwise, the call queue members cannot be transferred. For more details, please refer to the UCM User Guide on Grandstream's official website.

## Call Park/Retrieve


The administrator can park the calls and retrieve the calls through the Operator Panel.

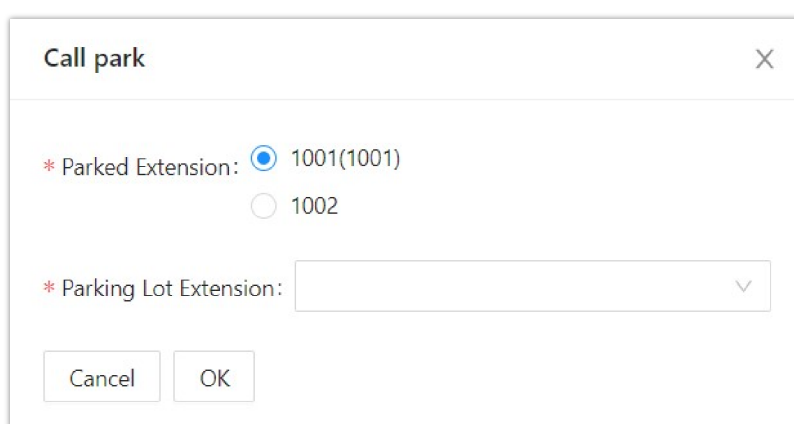
### Call Park

There are two methods to park calls.

#### Method 1:

**Step 1:** Select the call in the Operator Panel which the user wants to park.

**Step 2:** Click  button and there will be a popup window to allow the user to select the parked extension, as the figure shows below:



A dialog box titled "Call park" with a close button (X) in the top right corner. It contains two sections: "\* Parked Extension:" with two radio button options, "1001(1001)" (selected) and "1002"; and "\* Parking Lot Extension:" with a text input field and a dropdown arrow. At the bottom are "Cancel" and "OK" buttons.

Call Park

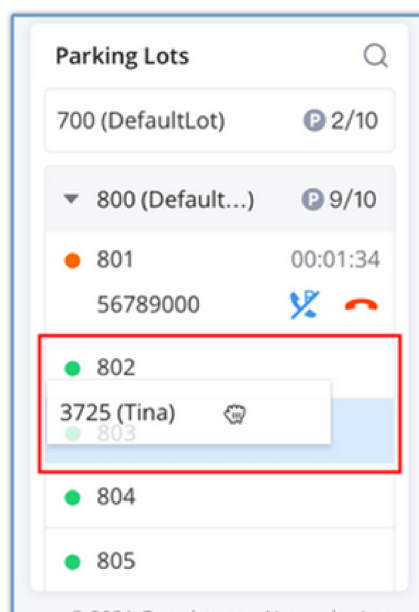
**Step 3:** Select the Parked Extension and Parking Lot Extension.

**Step 4:** Click the "OK" button to park the call to the idle parking lot.

#### Method 2:

**Step 1:** Select the call in the Operator Panel which the user wants to park.

**Step 2:** Drag the call to the idle parking lot on the Parking Lot list directly to park the call.



### Note


If the UCM administrator does not check the option “Use Parking Slot as Extension,” the user can only park the call to the parking lot extension, the parking slots including the parking extensions will not be displayed, the parking lot extension will be randomly assigned. For more details, please refer to the User Guide of UCM device on Grandstream’s official website.



## Call Retrieve

There are 2 methods to retrieve the parked calls.

### Method 1:

**Step 1:** Select the call that the user wants to retrieve in the Operator Panel.

**Step 2:** Click  button, the call will be retrieved in the administrator’s Wave account.


56789000	DefaultLot: 801	Talking	00:01:34	Internal; Parking Lots	
3334 (Paul)	DefaultLot: 702	Talking	00:06:31	Internal; Parking Lots	



Retrieve Parked Call

**Step 3:** The administrator can click to answer the call to retrieve the parked call.

### Method 2:

**Step 1:** Select the parked call that the user wants to retrieve from a busy parking lot.

**Step 2:** Click  button, the call will be retrieved in the administrator’s Wave account. As the screenshot shows below:

Parking Lots		
700 (DefaultLot)		2/10
▼ 800 (Default...)		9/10
801	00:01:34	
56789000		
802		
803		
804		
805		



Retrieve Parked Call from the Parking Lot

## End Call

**Step 1:** Select the call that the user wants to end in the Operator Panel.

**Step 2:** Click  button and click the “OK” button to end the call. As the screenshot shows below:

**Step 3:** The current call will be ended.

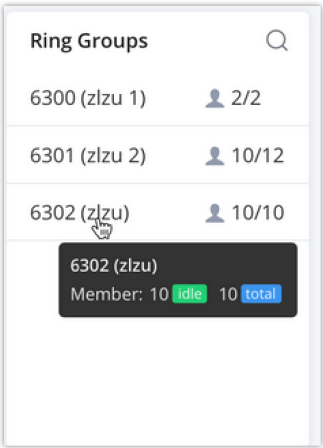
Caller	Called	Status	Call Duration	Type	Options
3114 (Queen)	7852 (Georg)	Ringling	00:00:01	Internal	
3789 (Elizabeth)	5657	Ringling	00:00:07	Internal	

End Call

## Ringling Group

The Ringling Group panel will show the information of each ringing group, including the number of free members and the total number of members.

The administrator can search the ringing group by number or name.



Ringling Group

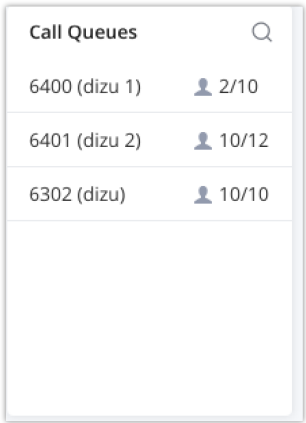
**Note**

The UCM administrator can add the ringing group in the UCM Web UI → Call Features → Ring Groups.

## Call Queue

The Call Queue panel shows the information of each call queue, including the number of free members and the total number of members.

The administrator can search the call queue by number or name.



Call Queue



**Note**

The UCM administrator can add the ringing group in the UCM Web UI → Call Features → Call Queue.

## Parking Lot

The Parking Lot panel shows the status of each parking lot (parking extension).

If the parking lot is busy, the administrator can view the parking period, parking call information, and the administrator can also end/retrieve the parked call. As the screenshot shows below:

Parking Lots	
700 (DefaultLot)	P 2/10
▼ 800 (Default...)	P 9/10
801	00:01:34
56789000	 
802	
803	
804	

*Parking Lot*



#### Note

The UCM administrator can check the option **“Use Parking Slot as Extension”** in the UCM Web UI so that the Operator Panel user can select the parking extension and view each parking lot status on the extended parking extensions list.

## Voicemail Group

The Voicemail Group panel shows the status of each voicemail group, including the name and number of each voicemail group, unread voicemail amount, and total voicemail amount.

The administrator can search the voicemail group by number or name.

Voicemail Groups	
6500 (VM1)	 2/10
6501 (VM2)	 10/12
6502 (VM3)	 10/10

*Voicemail Group*

#### Note

The UCM administrator can add the voicemail group in the UCM Web UI → Call Features → Voicemail → Voicemail group.

## Wave H5 Chrome Add-in

Wave is supported on Google Chrome as an extension that offers the core functionalities that Wave Web offers. You can use the Wave Chrome add-in to register your extension to initiate and answer calls.

To learn how to install and configure the Wave H5 add-in, please refer to the following guide.

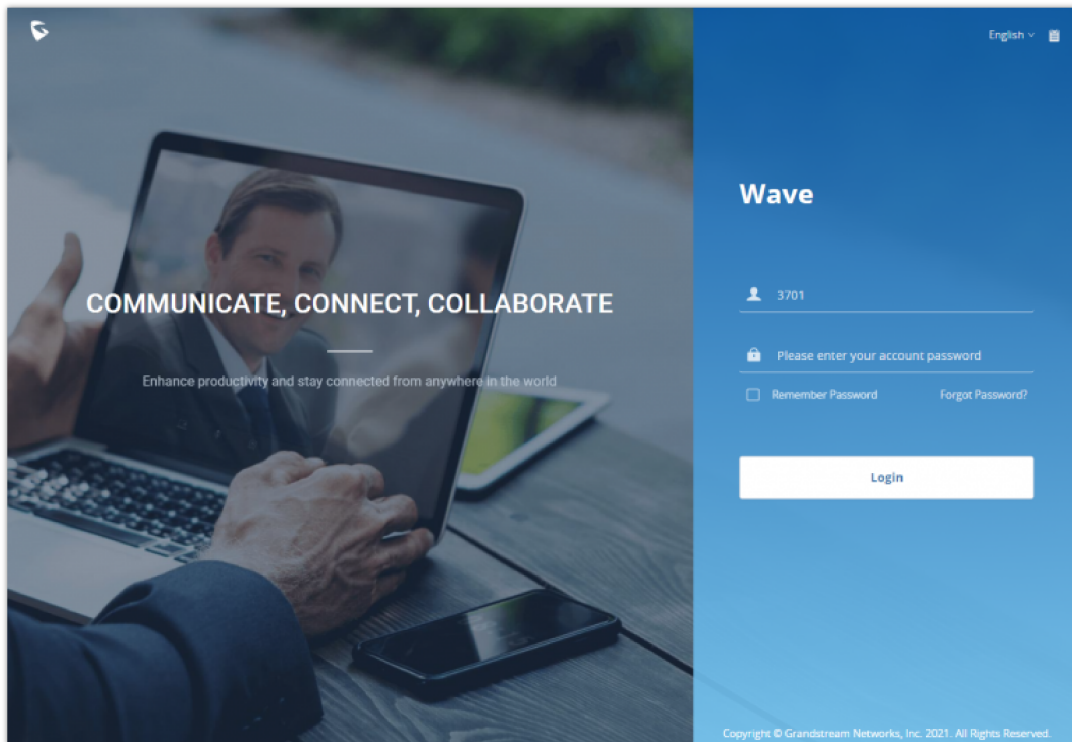
# LOGO CUSTOMIZATION

UCM needs to connect to GDMS, so an open beta plan package for RemoteConnect will be assigned to it to start with.

Once done, the administrator can log in to the UCM management platform and customize the Wave LOGO, please refer to the UCM RemoteConnect user guide for details:

[UCM RemoteConnect User Guide](#)

After customizing the logo, all Logos on the Wave page are displayed as customized Logos.



*Customized Logo Interface*

## CHANGELOG

### Version 1.0.27.12

- Added support for Multi-Factor Authentication for Wave login. [[Wave Multi-Factor Authentication](#)][[Specifications](#)][[Feature Highlights](#)]

### Version 1.0.27.7

- Added support for Personal Chat Link [[Personal Chat Link](#)]
- Added support for setting a reminder for a message [[Message Reminder](#)]
- Added support for rich text formatting [[Rich Text Formatting](#)]
- Added support for changing chat group avatar [[Change Group Avatar](#)]
- Added support for login sessions management [[Login Device Management](#)]
- Added support for sending multiple files at once [[Send Files](#)]
- Added support for multi-party monitoring [[Monitor](#)]

### Version 1.0.25.7

- The user can now pin messages in group chats. [[Pin Messages](#)]
- The user can now save messages sent or received in chat. [[Save Messages](#)]



- The user can now convert simultaneous calls received on the lines into a meeting. [[Multiple Lines](#)]
- The user can now view the read status of messages received in chat groups. [[View Unread Messages](#)]

#### **Version 1.0.23.15**

- Added Dutch language.

#### **Version 1.0.23.12**

- Whiteboard New Revision for In-meeting Sharing [[Share WhiteBoard](#)]
- Customize Shortcuts Keys in Meetings/Calls [[Call Interface Customization](#)] [[Meeting Interface Customization](#)]
- Customize Bottom Display Buttons in Meetings/Calls [[Call Interface Customization](#)] [[Meeting Interface Customization](#)]
- Merge Multiple Settings Pages to One Interface [[SETTINGS MENU](#)]
- Import/Export Personal Contacts [[Import/Export Personal Contacts](#)]
- Notification Assistant [[Notification Assistant](#)]
- Added search for the recent 6 months' meeting history. [[MEETING LIST](#)]

#### **Version 1.0.21.9**

- Users can log in to Wave Web/Desktop by scanning the QR code on Wave Mobile. [[Log in by scanning QR Code](#)]
- Raise Hand feature has been added. [[Raise Your Hand](#)] [[Multimedia Meeting](#)]
- When the host of a meeting mutes a participant, the participant can long press the space bar button to talk. [[Chat during meeting](#)]
- The users can now hide meeting participants who do not have their webcam on. [[Multimedia Meeting](#)]
- Users can now configure a dial plan on Wave. [[Application Settings](#)]
- Users can now delete call history and voicemail all at once or by batches. [[Call History](#)] [[Voicemail](#)]
- "Delivered" and "Read" messages are now supported in point-to-point chats. [[View Unread Messages](#)]
- Users can quickly delete multiple chats or choose to delete all the chats at once. [[Delete Message](#)]
- Poll and Survey features have been added. [[Create Poll/Survey](#)]
- The Operator Panel can now be customized by hiding some panels. [[Operator Panel](#)]
- Wave web now supports T9 contact search. [[Search Contacts](#)]

#### **Version 1.0.19.9**

- Calls and meeting will now use their own window. [[During a Call](#)]
- Users can now change what they are sharing without exiting the current screen share. [[Screen Sharing](#)]
- Added a call/meeting ending indicator tone.
- Added support for scheduling Onsite Meetings. [[Schedule Onsite Meetings](#)]
- Added support for canceling and editing upcoming meetings, or ending the ongoing ones. [[Manage Meeting](#)]
- Added support for forwarding multiple messages in one message, or separately. [[Forward Message](#)]
- Added support for displaying the local time in the contact's messaging window when the contact is not the same timezone as the user. [[Contact Local Time](#)]
- Added support for GSFECC, which improves audio packet loss protection capabilities.
- Added Personal Contacts. [[Contacts](#)]
- Added Wave H5 Add-in for Google Chrome. [[Wave H5 Chrome Add-in](#)]

#### **Version 1.0.17.7**

- Made several UI improvements.
- The last 10 server addresses logged into will now be remembered. These server addresses can be viewed and selected by clicking on the arrow icon in Server Address field on the login page. [[Logging In To Wave Web](#)]
- Added Notification Settings that would allow the user to select the notifications to receive from Wave. [[Settings](#)]

- Users can now drag and drop items in the application page to the wave sidebar for easy access.  
Note: Users may need to long-click on an item before it can be dragged.
- Users can now have up to 6 simultaneous calls instead of just 2.
- Improved attended transfer functionality. [[Attended Transfer](#)]
- When copy/pasting a number with special characters into the dial pad, the special characters will be automatically filtered out.
- Added the Change Group Owner option to the group chat settings to transfer ownership of the group to an existing group member. [[Meeting Group Chat](#)]
- Added additional emojis.
- Improved image viewing functionality when looking at images uploaded to chats.
- Users can now start and stop video recordings during meetings. Recordings can be viewed and played directly from Wave. If the meeting does not support video recordings, audio will be recorded instead. [[Record an Ongoing Meeting](#)]
- Users can now change the video feed layout of meetings by clicking on the More button during meetings and selecting either Speaker Layout (1 large video feed w/ others being smaller) or Tile Layout (equally sized video feeds). [[Meeting Layout](#)]
- Meeting hosts can now access options under each video feed such as muting, selecting the feed as the focus video, full screening the feed, or removing the participant from the meeting. [[Meeting Layout](#)]
- Users can now create a meeting group chat when scheduling a meeting. [[Schedule Virtual Meeting](#)]
- When there is only 1 participant in a meeting, and the meeting duration has reached 30 minutes, a prompt will appear asking whether to extend the meeting. If extended, the meeting will last another 30 minutes. Otherwise, the meeting will automatically end after 5 minutes. [[End Meeting](#)]
- If the duration of a meeting is about to reach 12 hours, and the meeting host is in the meeting, they can extend the meeting for another 12 hours once. The meeting will automatically end once another 12 hours have passed. If the meeting host is not in the meeting after the initial 12 hours, the meeting will automatically end. [[End Meeting](#)]
- Users can now transition a screenshare into a whiteboard. The last frame on the screenshare will be used as the background image of the whiteboard.
- Users can now see their own shared screen.
- Users can now also share their PC audio in addition to sharing their screens by toggling on the Share PC Audio checkbox when selecting the application or screen to share. [[Screen Sharing](#)]
- Users can now invite IP camera devices they have permission to access to meetings. Other meeting participants can view the video feed of invited IP camera devices.
- Added the Allowed to override Host Mute option to the Edit Meeting / Schedule Meeting pages → Advanced Settings page. If enabled, participants muted by the meeting host will be able to unmute themselves. [[Schedule Virtual Meeting](#)]
- The meeting start notification will no longer appear if the user is already in the meeting waiting room.

#### **Version 1.0.15.7**

- Added support for sharing whiteboard and pdf files. [[On Screen Sharing](#)]
- Added support for joining meetings via entering the correspondent link. [[Invite Participants](#)]
- Added support to control whether chat group participants can invite other users. [[Add Group Members](#)]
- Added support for voice message in instant messaging. [[Audio Message](#)]
- Added support for searching within discussions. [[Search Chat History](#)]
- Added support for downloading the chat history during and after a meeting has ended. [[Download The Chat History](#)]
- Microphone level can be checked directly when clicking "audio settings". [[Audio Settings](#)]
- Added support for searching for contacts within a specific directory.
- Added support for enabling and disabling "Dial Tone". [[Application Settings](#)]

#### **Version 1.0.13.6**

- Made several UI improvements.
- Added ability to change date and time format. [[Date/Time Format](#)]

- Added Portuguese and Vietnamese language support. [Table 1: Model specifications for Wave Web] [Language]
- Added support for recording an ongoing Wave meeting. [Record an Ongoing Meeting]
- Meeting hosts can now view the list of invited participants that don't attend a meeting. [Invitees List]
- Added new feature for creating a chat group with the members of a previous meeting. [Meeting Chat Group]
- Added *Meeting Agenda* information to the *Meeting Details* page. [Figure 79: Scheduled Meeting]
- Added support for Call Flip function. [Call Flip Function]
- Added support for restricting visibility of chat history when inviting contacts to a group chat. [Add Group Members]
- Added support for viewing contacts based on UCM contact privilege settings. [CONTACTS] [Contacts]
- LDAP phonebook contact visibility is now based on the UCM's LDAP phonebook settings. [CONTACTS] [Contacts]
- Added support for displaying all the received and sent files in one list. [Files List]
- Added more emojis. [React with Emoji]
- Added support for emoji previewing when using emoji shortcuts. [Reply quickly with an emoji shortcut]
- Added support for changing the group chat name quickly. [Change Group Name]
- Added the ability to quickly invite other participants to a meeting. [Quickly Invite Participants]
- Added support to delete messages that failed to send. [Message Failed to Send]
- Up to 500 users can be selected when creating a group chat. [Start a Group Chat]

#### **Version 1.0.11.8**

- Added Voicemail function in Wave Web. [VOICEMAIL]
- Added more functions in the Chat module. [Reply with Emoji]
- Added custom avatar function in Wave Web. [Custom Avatar]
- Added Help and Feedback module in Wave Web. [Help] [Feedback]
- Merged audio conference and video conference to Conference module. [Conference]
- Added chat bubble function during the meeting. [Bubble function]

#### **Version 1.0.9.10**

- Added support to login via user password, instead of the SIP password. [LOGGING IN TO GRANDSTREAM WAVE WEB PORTAL]
- Added support for Custom status on Wave web. [Custom Status]
- Added support for sending 5000 characters on chat. [Send Messages]
- Added support for sending Excel content. [Send Messages]
- Added support for edit sent text. [Edit the sent text]
- Added support for a member to host a meeting. [Host Meeting]
- Added support for sending DTMF under meeting. [DTMF]
- Added support to end meeting. [End Meeting]
- Added more account-related settings. [SETTINGS]
- Added support for more Applications. [MORE APPLICATIONS]
- Added support for virtual background. [Virtual Background Settings]

#### **Version 1.0.7.12**

- Added support for an email reminder when editing the time of a scheduled meeting. [Email Reminder]

#### **Version 1.0.7.9**

- Added New features in chat module: pin chatbox, mute message notice, hide chatbox, quote to reply message, delete messages. [Quote to Reply Message] [Pin Chat Box] [Hide Chat Box] [Delete Message]
- Supported multi-lines calls. [Multiple lines]

- Supported to transfer an active call to a video conference. [Transfer to Meeting Room]
- Added public meeting room list and the list will show the meeting room status in different periods. [PUBLIC MEETING ROOM]
- Added to create a meeting with a random meeting number. The meeting can be created as an instant meeting or scheduled meeting. [Meet Now]
- Supported adding participants from contacts/groups when scheduling a meeting. [Meet Now]
- Supported setting meeting subjects and adding invitees for instant meetings. [Meet Now]
- Added to display the actual meeting duration and actual participants list for the previous meetings. [MEETING ROOM]
- Added meeting assistant module. When there are new meeting invitations, meeting reminders, and meeting cancelation notifications, the meeting assistant will send messages to the host and participants. [Meeting Assistant Interface]

#### **Version 1.0.5.4**

- Added chat functions, including single chat and group chat. [CHAT]
- Support sending files, and @ for chat in meetings. [Send Messages]
- Support displaying customized LOGO. [LOGO CUSTOMIZATION]

#### **Version 1.0.3.10**

- Added favorite tab for Grandstream Wave contacts. [Contacts]
- Added reset password function. [Wave Password Recovery]
- Added Entrance Guard function. [Door System]
- Added the function of transferring a single call to a conference room. [DURING A CALL]

#### **Version 1.0.0.25**

- This is the initial version.