

IP Phone Configuration Guide

Yeastar P-Series Cloud Edition

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Overview

Yeastar P-Series Cloud Edition supports most SIP-based IP phones, allowing you to configure IP phones to work with the PBX system. This topic describes different configuration methods (including phone provisioning and extension registration) to help you understand the configuration process between IP phones and Yeastar P-Series Cloud Edition, and offers the detailed configuration guides for the IP phones of many popular phone vendors.

Configuration methods

Yeastar supports multiple configuration methods to help you connect your IP phones to Yeastar PBX, as the following table shows.

Methods	Description
Auto Provisioning	<p>Provision a large number of identical IP phones at one time to complete general settings (preferences, codecs, etc) and extension registration, which significantly improves deployment efficiency. In addition, the IP phones can be managed centrally on Yeastar P-Series Cloud Edition.</p> <p>This method is applicable for IP phones that support Auto Provisioning.</p>
Manual Provisioning	<p>Provision IP phones one by one by manually entering a PBX-provided provisioning link on the phone's web interface, so as to complete general settings (preference, codecs, etc) and extension registration.</p> <p>This method is mainly used for IP phones that do NOT support RPS auto provisioning.</p>
Manual Registration	<p>Register PBX extension(s) on an IP phone, without additional phone auto provisioning.</p> <p>This method is applicable for IP phones that are compatible with the standard SIP protocol.</p>

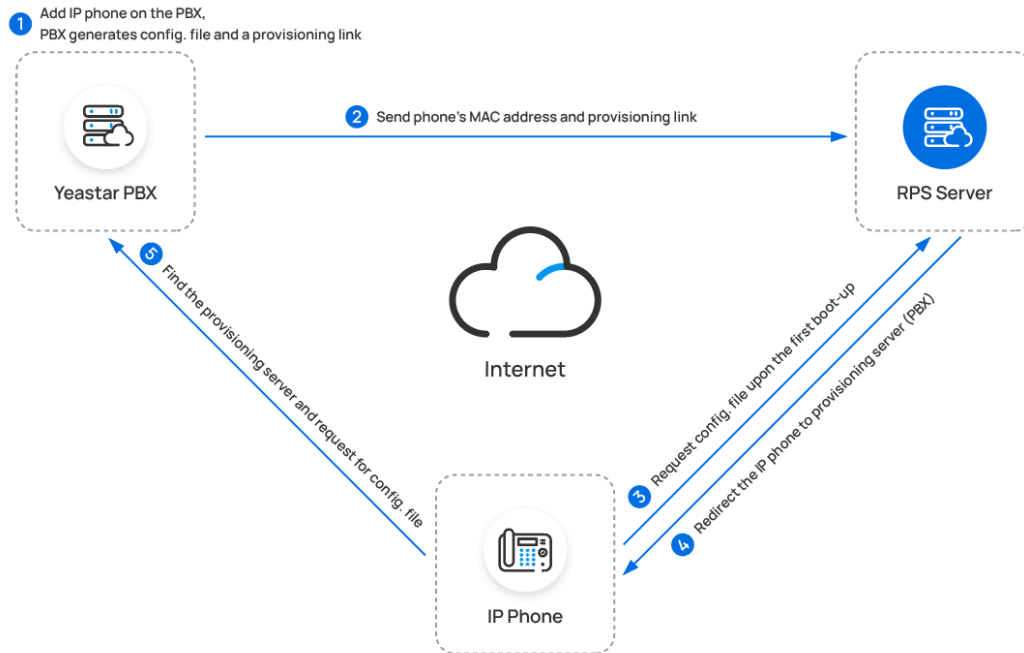
Auto Provisioning

Yeastar supports to auto provision IP phones via **RPS** and **DHCP** methods, you can select the most suitable auto provisioning method according to the IP phone compatibility.

RPS (Redirection and Provisioning Service) method

You can provision IP phones via **RPS** method.

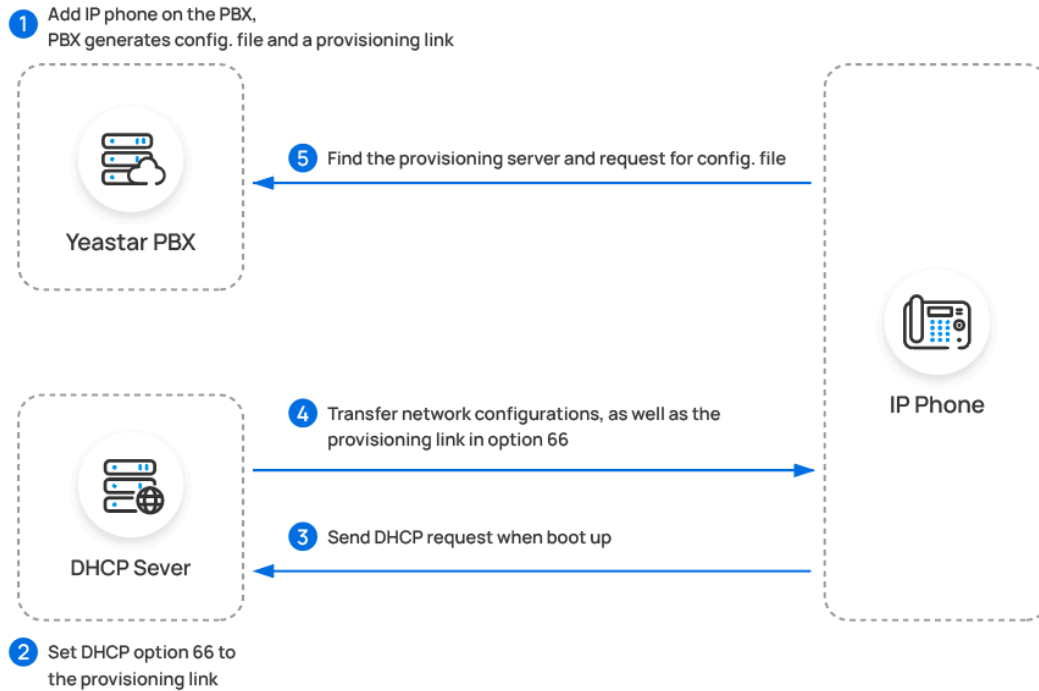
The provisioning process is shown below:



DHCP method

If you need to provision a large number of identical IP phones, but the phones do NOT support RPS provisioning, you can utilize DHCP option 66 to deliver a PBX-provided provisioning link to the IP phones. In this way, the phones can retrieve configurations from the PBX using the given link.

The provisioning process is shown below:



Manual Provisioning

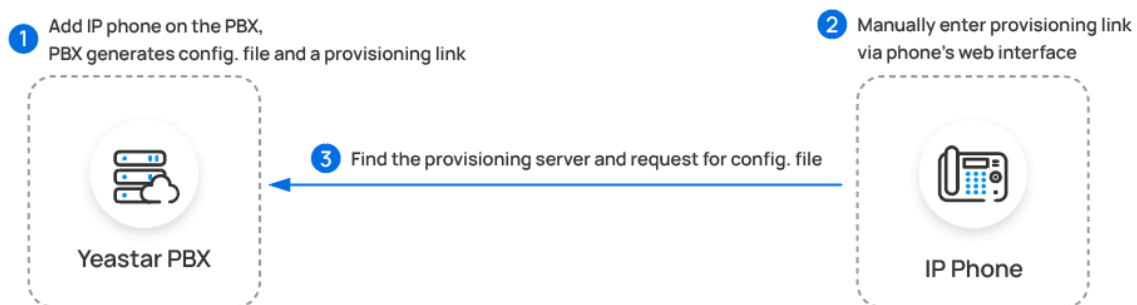
For an IP phone that does NOT support **RPS** provisioning, you can manually provision the IP phone with Yeastar PBX by entering a PBX-provided provisioning link on the phone's web interface.



Note:

Use the [DHCP option 66](#) if you need to provision a large number of identical IP phones.

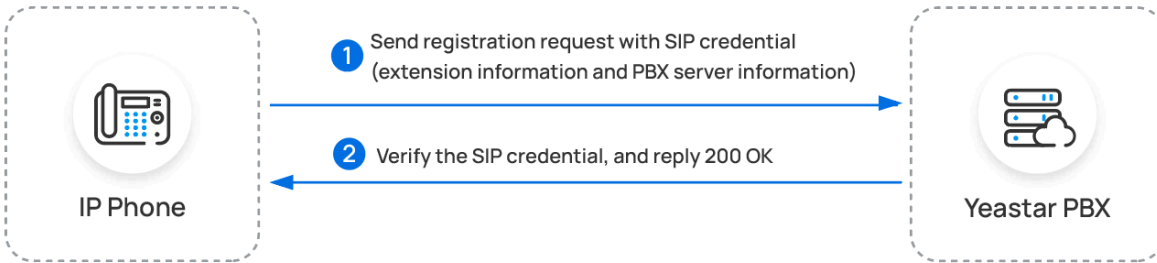
The provisioning process is shown below:



Manual Registration

You can manually register IP phones to Yeastar PBX by entering the SIP credentials (extension information and PBX server information) on the phone's web interface.

The registration process is shown below:



Configuration guides

Based on the configuration methods mentioned above, the following configuration guides offer detailed instructions to assist you in configuring IP phones from various phone vendors.

Yealink Auto Provisioning Manual Registration	Fanvil Auto Provisioning Manual Registration	snom Auto Provisioning Manual Registration
Gigaset Auto Provisioning	GRANDSTREAM Provisioning Manual Registration	Htek Auto Provisioning Manual Registration
tiptel Auto Provisioning Manual Registration	Alcatel-Lucent Enterprise Provisioning Manual Registration	FLYINGVOICE Auto Provisioning Manual Registration
Mitel Provisioning Manual Registration	DINSTAR Manual Registration	

Yealink

Auto Provision Yealink IP Phone with Yeastar P-Series Cloud Edition

This topic takes Yealink SIP-T53W (firmware: 96.85.0.5) as an example to introduce how to auto provision a Yealink IP phone with Yeastar P-Series Cloud Edition.

Requirements

The firmwares of **Yealink IP phone** and **Yeastar PBX** meet the requirements listed in [Auto Provisioning - Supported Devices](#).

Prerequisites

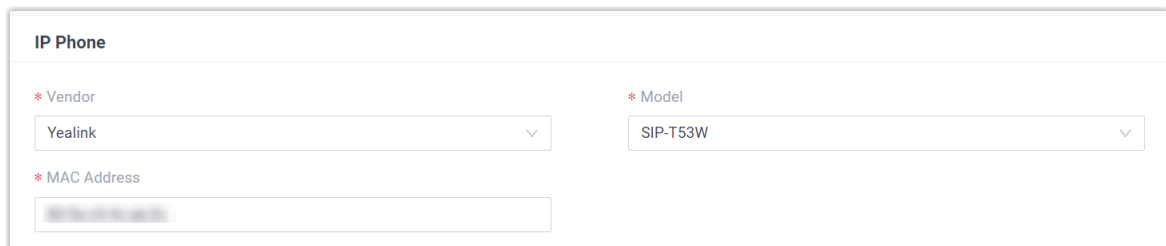
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

Procedure

- [Step 1. Add the Yealink IP phone on PBX](#)
- [Step 2. Trigger the IP phone to complete provisioning](#)

Step 1. Add the Yealink IP phone on PBX

1. Log in to PBX web portal, go to **Auto Provisioning > Phones**.
2. Click **Add > Add**.
3. In the **IP Phone** section, enter the following phone information.



The screenshot shows a web form titled "IP Phone" with three required fields marked with red asterisks:

- * Vendor:** A dropdown menu with "Yealink" selected.
- * Model:** A dropdown menu with "SIP-T53W" selected.
- * MAC Address:** A text input field containing a blurred MAC address.

- **Vendor:** Select **Yealink**.
- **Model:** Select the phone model. In this example, select **SIP-T53W**.

- **MAC Address:** Enter the MAC address of the IP phone.
4. In the **Options** section, configure the following settings.

Options

* Template

YSDP_YealinkT5

Provisioning Link

https://docs.example.yeastarcloud.com:443/api/autopvision/H70R

☒ Authentication for the First-time Auto Provisioning

- **Template:** Select a desired template from the drop-down list.

**Note:**

You can select the default template corresponding to the phone model, or customize your own template. For more information, see [Create a Custom Auto Provisioning Template](#).

- **Provisioning Link:** A provisioning link is automatically generated, which points to the location where the phone's configuration file is stored.
- **Authentication for the First-time Auto Provisioning:** If enabled, users are requested to fill in authentication information on the IP phones before triggering the first-time provisioning.

**Note:**

We recommend that you keep this option selected.

5. In the **Assign Extension** section, assign an extension to the IP phone.

Assign Extension

* Select Extension

3000-Leo Ball

**Tip:**

If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.

- To release the extension from the associated IP phone, see [Release an Extension from a Provisioned IP Phone](#).
- To register the extension to the phone without releasing it from the previously associated one, you need to [configure the concurrent registra-](#)



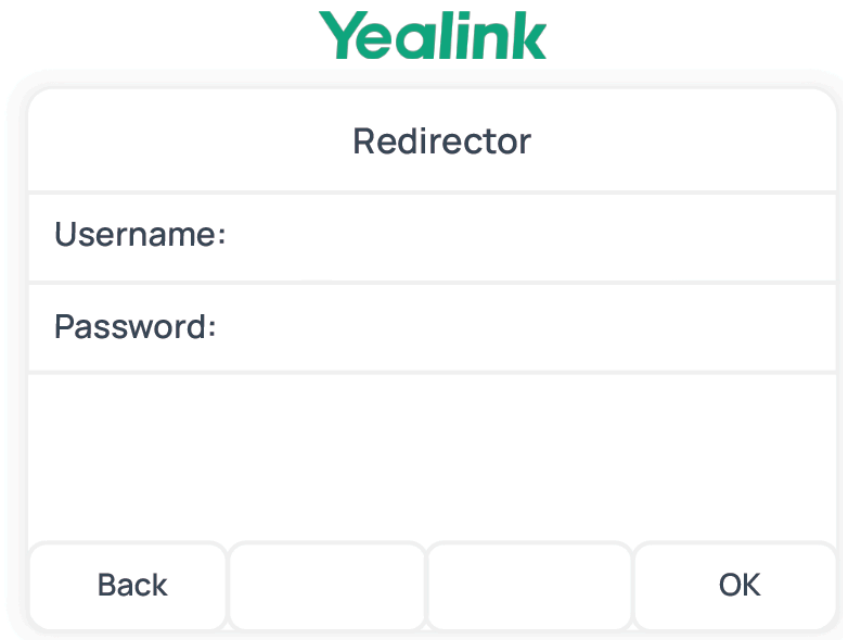
[tion setting for the extension](#), as the PBX only allows an extension to register with one SIP endpoint by default.

6. Click **Save**.

The PBX will send an event notification of **RPS Request Success**.

Step 2. Trigger the IP phone to complete provisioning

1. Reboot the IP phone.
2. If you have enabled **Authentication for the First-time Auto Provisioning** on the PBX, enter the authentication credential on the IP phone.



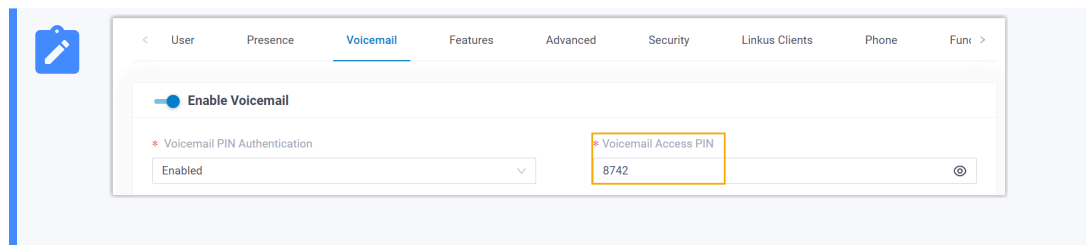
The image shows the Yealink Redirector login screen. At the top is the Yealink logo in green. Below it is a white box with a light gray border. Inside the box, the word "Redirector" is centered at the top. Below this are two input fields: "Username:" and "Password:". At the bottom of the box are four buttons: "Back", a blank button, another blank button, and "OK".

- **Username:** Enter the extension number that is assigned to the phone.
- **Password:** Enter the extension's Voicemail Access PIN.



Note:

You can check the Voicemail Access PIN in the **Voicemail** tab on the extension's configuration page.



Result

- The IP phone automatically downloads the configurations from the PBX and applies the settings.
- The extension is successfully registered on the IP phone. You can check the registration status on **Auto Provisioning > Phone** on the PBX web portal.

<input type="checkbox"/>	Status	Extension	Name	Vendor	Model	Phone Password	Operations
<input type="checkbox"/>		3000	Leo Ball	Yealink	SIP-T53W	*****@	

Related information

[Allow Users to Query Contacts on IP Phones](#)

[Auto Provision LDAP for IP Phones](#)

[Auto Provision Yealink Expansion Module with Yeastar P-Series Cloud Edition](#)

Auto Provision Yealink Expansion Module with Yeastar P-Series Cloud Edition

This topic takes Yealink T53W as an example to describe how to provision Yealink expansion module with Yeastar P-Series Cloud Edition, so as to add extra programmable keys.

Requirements

Refer to the table below to learn about the supported Yealink IP phone models for different expansion modules, as well as the required phone provisioning templates.

Expansion Module	Phone model	Phone provisioning template
EXP40	T46S, T48S	YSDP_YealinkT4 (1.0.5 or later)
	T46G, T48G	YSDP_YealinkT4xG (1.0.4 or later)

Expansion Module	Phone model	Phone provisioning template
EXP43	T43U, T46U, T48U	YSDP_YealinkT4 (1.0.5 or later)
EXP50	SIP-T53, SIP-T53W, SIP-T54W, SIP-T57W	YSDP_YealinkT5 (1.0.5 or later)
	SIP-T56A	YSDP_YealinkT56 (1.0.5 or later)
	SIP-T58, SIP-T58W	YSDP_YealinkT58 (1.0.5 or later)

Prerequisites

- The Yealink expansion module is connected to a Yealink IP phone.
- [The Yealink IP phone is connected to Yeastar P-Series Cloud Edition via Auto Provisioning](#)

Supported methods

- [Provision function keys for Yealink expansion module via web interface](#)
- [Provision function keys for Yealink expansion module using auto provisioning template](#)

Provision function keys for Yealink expansion module via web interface

On PBX web portal, you can easily customize function keys by directly selecting key types from the menu and setting up specific operation for each function key.



Note:

Yeastar P-Series Cloud Edition supports to add up to **120** function keys on PBX web portal.

1. Add and configure function keys.
 - a. Log in to PBX web portal, go to **Extension and Trunk > Extension**, edit the desired extension.
 - b. Click **Function Keys** tab.
 - c. Click **Add** to add and configure function keys for the expansion module.



Note:

Function key settings that **exceed the supported programmable keys of the IP phone** will be automatically applied to the connected expansion



module. For example, Yealink T53W supports 21 programmable keys, then the function key settings starting from the 22nd key will take effect on the expansion module.

Function Key	Type	Value	Label	Operations	Sort
Key 1	BLF	*99	Global Business Hours		
Key 2	BLF	*042001	Phillip Huff		
Key ...					
Key 21	Park & Retrieve	6000	Park-6000		
Key 22	Check Voicemail	2008-Anna Simmons	VM-Anna Simmons		

+ Add

- **Type:** Select a key type.
- **Value:** Configure a desired value based on the key type.
- **Label:** Optional. Enter a label, which will be displayed on the LCD screen.

d. Click **Save**.

2. Reprovision the IP phone.

a. On PBX web portal, go to **Auto Provisioning > Phones**.

b. Click  beside the phone.

c. In the pop-up window, click **OK**.

Provision function keys for Yealink expansion module using auto provisioning template

If you are familiar with the configuration parameters of IP phone, you can bulk configure function keys in a template file, via which the function key settings will be applied on the phone and expansion module automatically, thus saving time and effort.



Important:

As custom auto provisioning template is created based on the default phone provisioning template, make sure that you have updated the default template of the desired phone model to the [required version](#) on PBX (Path: **Auto Provisioning > Resource Repository > Default Templates**).

1. Create a custom auto provisioning template.

- a. Log in to PBX web portal, go to **Auto Provisioning > Resource Repository > Custom Templates**.
- b. Click **Add**.
- c. In the **Basic** section, set the basic information.
 - **Template Name:** Enter a name to help you identify the template.
 - **Source Default Template:** Search and select the [default template of the phone model](#). In this example, select **YSDP_YealinkT5**.
 - **Template Type:** Select **Advanced**.
 - **Remark:** Optional. Add a note for the template.
- d. **Optional:** In the **Preference, Distinctive Ringtone, Codecs, and LDAP Directory** sections, configure the settings according to your needs.
- e. In the second text box of the **Customize Configuration Parameters in Text** section, select the specific phone model, then refer to specific IP phone's configuration parameter explanations to add function key settings for the expansion module.



Note:

Function key settings that **exceed the supported programmable keys of the IP phone** will be automatically applied to the connected expansion module. For example, Yealink T53W supports 21 programmable keys, then the function key settings starting from the 22nd key will take effect on the expansion module.

The configuration parameters below are used to configure function keys, which will define the value of the variables in the custom template: {{FunctionKeySyntax}}.
If you need to provision function keys, please do not remove the variables from the custom template.

SIP-T53 SIP-T53W SIP-T54W SIP-T57W


```
#FUNCTIONKEY21
linekey 21.type = {{FunctionKeyType_21}}
linekey 21.line = {{FunctionKeyLine_21}}
linekey 21.value = {{FunctionKeyCodeValue_21}}{{FunctionKeyValue_21}}
linekey 21.label = {{FunctionKeyLabel_21}}
linekey 21.extension = {{FunctionKeyCodeExtension_21}}

expansion_module 1.key 1.type = {{FunctionKeyType_22}}
expansion_module 1.key 1.line = {{FunctionKeyLine_22}}
expansion_module 1.key 1.value = {{FunctionKeyCodeValue_22}}{{FunctionKeyValue_22}}
expansion_module 1.key 1.label = {{FunctionKeyLabel_22}}
expansion_module 1.key 1.extension = {{FunctionKeyCodeExtension_22}}

expansion_module 1.key 2.type = {{FunctionKeyType_23}}
expansion_module 1.key 2.line = {{FunctionKeyLine_23}}
expansion_module 1.key 2.value = {{FunctionKeyCodeValue_23}}{{FunctionKeyValue_23}}
expansion_module 1.key 2.label = {{FunctionKeyLabel_23}}
expansion_module 1.key 2.extension = {{FunctionKeyCodeExtension_23}}

expansion_module 1.key 3.type = {{FunctionKeyType_24}}
expansion_module 1.key 3.line = {{FunctionKeyLine_24}}
expansion_module 1.key 3.value = {{FunctionKeyCodeValue_24}}{{FunctionKeyValue_24}}
```

2. Apply the template to the phone.
 - a. On PBX web portal, go to **Auto Provisioning > Phones**, edit the desired phone.
 - b. In the **Options** section, select the template from the **Template** drop-down list.

- c. Click **Save**.
3. Reprovision the IP phone.
 - a. On PBX web portal, go to **Auto Provisioning > Phones**.
 - b. Click  beside the phone.
 - c. In the pop-up window, click **OK**.

Manually Register Yealink IP Phone with Yeastar P-Series Cloud Edition

This topic takes Yealink SIP-T53W (firmware: 96.85.0.5) as an example to introduce how to manually register an extension on a Yealink IP phone.

Supported devices


The Yealink IP phones that are compatible with SIP (Session Initiation Protocol).



Procedure

- [Step 1. Gather registration information on Yeastar PBX](#)
- [Step 2. Register extension on Yealink IP phone](#)

Step 1. Gather registration information on Yeastar PBX

Log in to PBX web portal, gather the following information for extension registration.

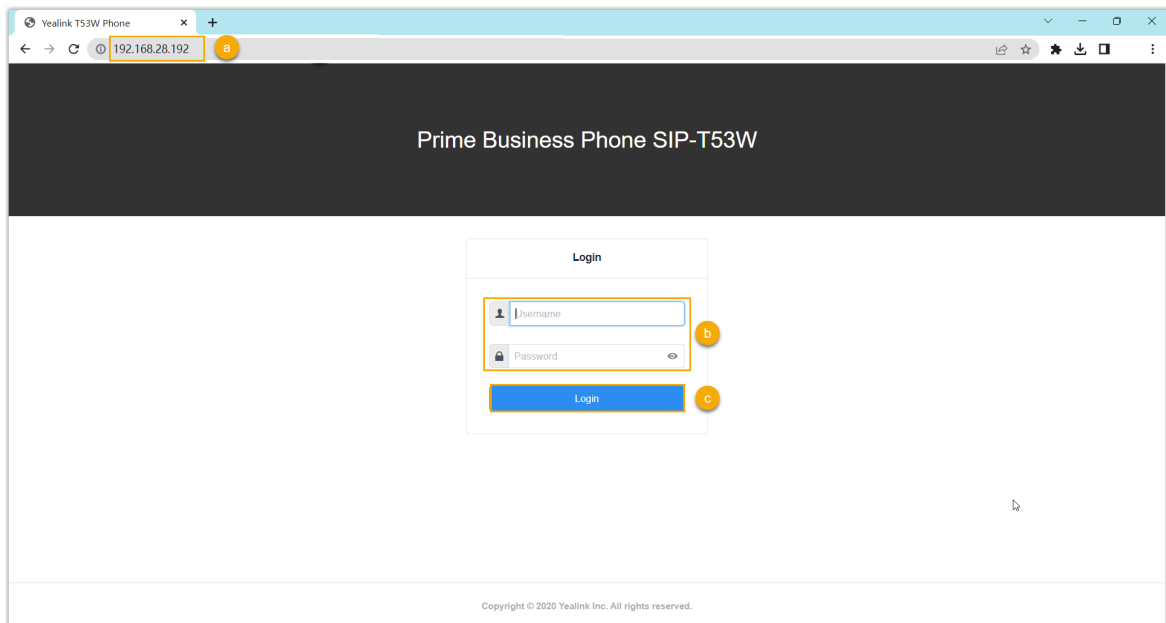
Information	Instruction
Extension information	<p>Go to Extension and Trunk > Extension >  > User > Extension Information, note down the following information:</p> <ul style="list-style-type: none"> • Extension Number • Registration Name • Registration Password

Information	Instruction
	<div data-bbox="540 262 1607 518"> <p>Extension Information</p> <p>* Extension Number 3000</p> <p>* Registration Name birKhC0MdW</p> <p>IP Phone Concurrent Registrations 1</p> <p>* Caller ID 39-3000</p> <p>* Registration Password *****</p> </div>
Transport protocol	<p>Go to Extension and Trunk > Extension >  > Advanced > VoIP Settings > Transport, note down the transport protocol of the extension.</p> <p>In this example, the extension use UDP transport protocol.</p> <div data-bbox="540 724 1607 934"> <p>User Presence Voicemail Features Advanced Security Linkus Clients Phone Function Keys</p> <p>VoIP Settings</p> <p>DTMF Mode RFC4733 (RFC2833)</p> <p>Transport UDP</p> </div> <p> Note:</p> <ul style="list-style-type: none"> If the extension uses TCP transport protocol, make sure that the SIP TCP port is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > General > Basic). <div data-bbox="706 1239 1599 1459"> <p>Basic</p> <p>* SIP UDP Port 5060</p> <p>* SIP TCP Port <input checked="" type="checkbox"/> 5060</p> <p>* RTP Port Range 18256 : 18356</p> <p>* Outbound SIP Port Range <input type="checkbox"/> 5062 : 5082</p> </div> <ul style="list-style-type: none"> If the extension uses TLS transport protocol, make sure that the TLS is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > TLS). <div data-bbox="706 1606 1201 1753"> <p><input checked="" type="checkbox"/> TLS</p> <p>* SIP TLS Port 5061</p> </div>
PBX domain name	The domain name of the PBX.

Information	Instruction
	In this example, we use the PBX domain name <code>docs.example.yeastarcloud.com</code> for extension registration.
SIP registration port	The SIP registration port is 5060.

Step 2. Register extension on Yealink IP phone

1. Log in to the web interface of the Yealink IP phone.



- a. In the browser's address bar, enter the IP address of the IP phone.
 - b. Enter the username `admin` and the associated password.
In this example, enter the default password `admin`.
 - c. Click **Login**.
2. On the left navigation bar, go to **Account > Register**, and complete the registration configurations.

- a. In the **Account** drop-down list, select an available account.
- b. Turn on the switch of **Line Active** to activate the account.
- c. Enter the extension information.
 - **Label**: Enter the name associated with the account, which will be displayed on the phone screen.
 - **Register Name**: Enter the registration name of the extension.
 - **Username**: Enter the extension number.
 - **Password**: Enter the registration password of the extension.
- d. Enter the PBX server information.
 - **Server Host**: Enter the domain name of the PBX.
 - **Port**: Enter the SIP registration port of the PBX.
 - **Transport**: Select the transport protocol of the extension. In this example, select **UDP**.

3. Click **Confirm**.

Result

The extension is registered successfully. You can check the registration status in the **Register status** field.

Yealink | T53W

Status

Account

Register

Basic

Codec

Account

Account 1 (Leo Ball : Register...)

?

Register status

Registered

?

Line Active

ON

?

Label

Leo Ball

?

Fanvil

Auto Provision Fanvil IP Phone with Yeastar P-Series Cloud Edition

This topic takes Fanvil X6U-V2 (firmware: 2.12.1) as an example to introduce how to auto provision a Fanvil IP phone with Yeastar P-Series Cloud Edition.

Requirements

The firmwares of **Fanvil IP phone** and **Yeastar PBX** meet the requirements listed in [Auto Provisioning - Supported Devices](#).

Prerequisites

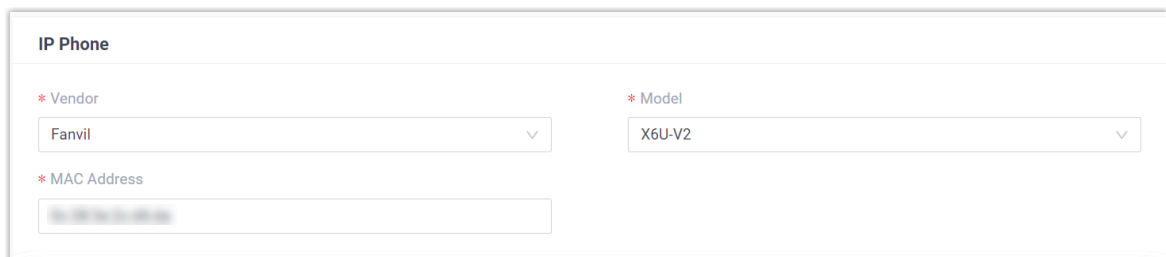
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

Procedure

1. [Step 1. Add the Fanvil IP phone on PBX](#)
2. [Step 2. Trigger the IP phone to complete provisioning](#)

Step 1. Add the Fanvil IP phone on PBX

1. Log in to PBX web portal, go to **Auto Provisioning > Phones**.
2. Click **Add > Add**.
3. In the **IP Phone** section, enter the following phone information.



The screenshot shows a web form titled "IP Phone" with three required fields marked with red asterisks:

- * Vendor:** A dropdown menu with "Fanvil" selected.
- * Model:** A dropdown menu with "X6U-V2" selected.
- * MAC Address:** A text input field with a blurred placeholder.

- **Vendor:** Select **Fanvil**.
- **Model:** Select the phone model. In this example, select **X6U-V2**.

- **MAC Address:** Enter the MAC address of the IP phone.
4. In the **Options** section, configure the following settings.

Options

* Template

YSDP_FanvilX6

Provisioning Link

https://docs.example.yeastarcloud.com:443/api/autoprovision/H70R

☒ Authentication for the First-time Auto Provisioning

- **Template:** Select a desired template from the drop-down list.

**Note:**

You can select the default template corresponding to the phone model, or customize your own template. For more information, see [Create a Custom Auto Provisioning Template](#).

- **Provisioning Link:** A provisioning link is automatically generated, which points to the location where the phone's configuration file is stored.
- **Authentication for the First-time Auto Provisioning:** If enabled, users are requested to fill in authentication information on the IP phones before triggering the first-time provisioning.

**Note:**

We recommend that you keep this option selected.

5. In the **Assign Extension** section, assign an extension to the IP phone.

Assign Extension

* Select Extension

3000-Leo Ball

**Tip:**

If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.

- To release the extension from the associated IP phone, see [Release an Extension from a Provisioned IP Phone](#).
- To register the extension to the phone without releasing it from the previously associated one, you need to [configure the concurrent registra-](#)



[tion setting for the extension](#), as the PBX only allows an extension to register with one SIP endpoint by default.

6. Click **Save**.

The PBX will send an event notification of **RPS Request Success**.

Step 2. Trigger the IP phone to complete provisioning

1. Reboot the IP phone.
2. If you have enabled **Authentication for the First-time Auto Provisioning** on the PBX, enter the authentication credential on the IP phone.



Update Prompt

11:38

1. Username

2. Password

Return

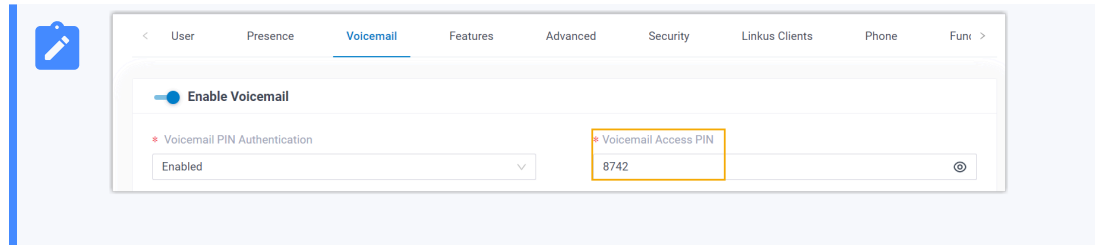
OK

- **Username:** Enter the extension number that is assigned to the phone.
- **Password:** Enter the extension's Voicemail Access PIN.



Note:

You can check the Voicemail Access PIN in the **Voicemail** tab on the extension's configuration page.



Result

- The IP phone automatically downloads the configurations from the PBX and applies the settings.
- The extension is successfully registered on the IP phone. You can check the registration status on **Auto Provisioning > Phone** on the PBX web portal.

<input type="checkbox"/>	Status	Extension	Name	Vendor	Model	Phone Password	Operations
<input type="checkbox"/>		3000	Leo Ball	Fanvil	X6U-V2	*****@	

Related information

[Auto Provision LDAP for IP Phones](#)

Manually Register Fanvil IP Phone with Yeastar P-Series Cloud Edition

This topic takes Fanvil X6U-V2 (firmware: 2.12.1) as an example to introduce how to manually register an extension on a Fanvil IP phone.

Supported devices


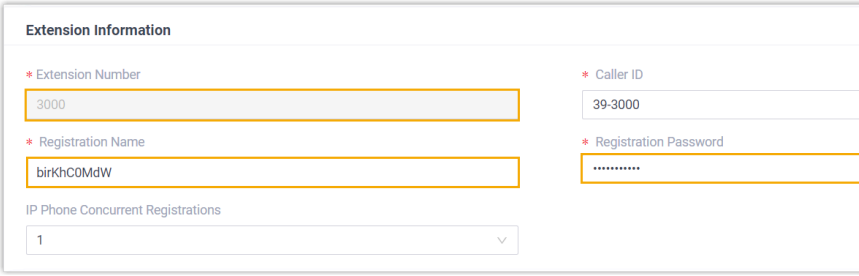

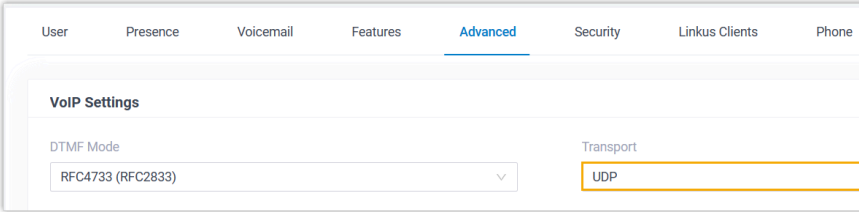
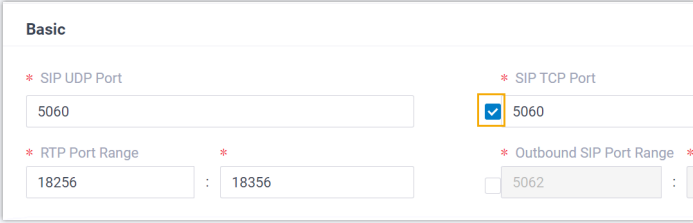
The Fanvil IP phones that are compatible with SIP (Session Initiation Protocol).


Procedure

- [Step 1. Gather registration information on Yeastar PBX](#)
- [Step 2. Register extension on Fanvil IP phone](#)

Step 1. Gather registration information on Yeastar PBX

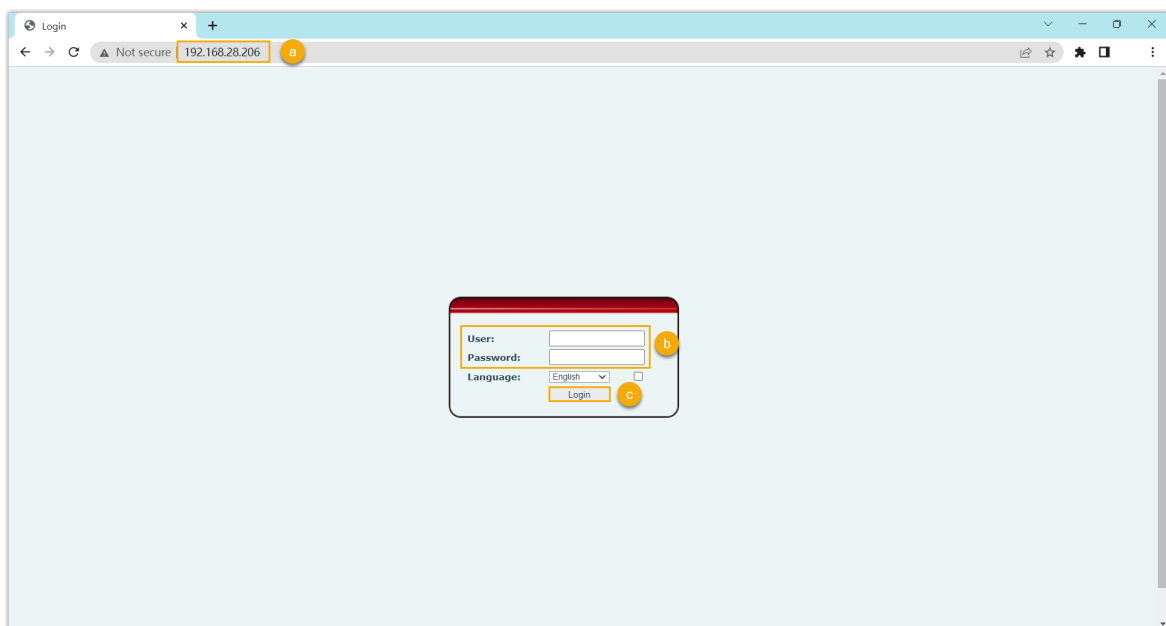
Log in to PBX web portal, gather the following information for extension registration.

Information	Instruction
Extension information	<p>Go to Extension and Trunk > Extension >  > User > Extension Information, note down the following information:</p> <ul style="list-style-type: none"> • Extension Number • Registration Name • Registration Password 
Transport protocol	<p>Go to Extension and Trunk > Extension >  > Advanced > VoIP Settings > Transport, note down the transport protocol of the extension.</p> <p>In this example, the extension use UDP transport protocol.</p>  <div data-bbox="560 1270 609 1323"> </div> <p>Note:</p> <ul style="list-style-type: none"> • If the extension uses TCP transport protocol, make sure that the SIP TCP port is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > General > Basic).  <ul style="list-style-type: none"> • If the extension uses TLS transport protocol, make sure that the TLS is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > TLS).

Information	Instruction
	 <div> <div>TLS</div> <div>* SIP TLS Port</div> <div>5061</div> </div>
PBX domain name	<p>The domain name of the PBX.</p> <p>In this example, we use the PBX domain name <code>docs.example.yeastarcloud.com</code> for extension registration.</p>
SIP registration port	The SIP registration port is 5060.

Step 2. Register extension on Fanvil IP phone

1. Log in to the web interface of the Fanvil IP phone.



- a. In the browser's address bar, enter the IP address of the IP phone.
- b. Enter the username `admin` and the associated password.

In this example, enter the default password `admin`.

- c. Click **Login**.
2. On the left navigation bar, go to **Line > SIP**, and select an available account.

Fanvil X6U

SIP SIP Hotspot Dial Plan Action Plan Basic Settings RTCP-XR

System
Network
Line
Phone settings

Line SIP1

Register Settings >>

Line Status: Inactive Activate: ☐

Username: Authentication User:

Display name: Authentication Password:

Realm: Server Name:

3. In the **Register Settings** section, complete the registration configurations.

Fanvil X6U

SIP SIP Hotspot Dial Plan Action Plan Basic Settings RTCP-XR

System
Network
Line
Phone settings
Phonebook
Call logs
Function Key

Line SIP1

Register Settings >>

Line Status: Inactive Activate: ☒

Username: 3000 Authentication User: birKhcOMdW

Display name: Leo Ball Authentication Password: *****

Realm: Server Name:

SIP Server 1:

Server Address: docs.example.yeastarcloud.

Server Port: 5060

Transport Protocol: UDP

Registration Expiration: 3600 second(s)

SIP Server 2:

Server Address:

Server Port: 5060

Transport Protocol: UDP

Registration Expiration: 3600 second(s)

a. Select the checkbox of **Activate** to activate the account.

b. Enter the extension information.

- **Username:** Enter the extension number.
- **Display Name:** Enter the name associated with the account, which will be displayed on the phone screen.
- **Authentication User:** Enter the registration name of the extension.
- **Authentication Password:** Enter the registration password of the extension.

c. Enter the PBX server information.

- **Server Address:** Enter the domain name of the PBX.
- **Server Port:** Enter the SIP registration port of the PBX.
- **Transport Protocol:** Select the transport protocol of the extension. In this example, select **UDP**.

4. At the bottom of the page, click **Apply**.

Result

The extension is registered successfully. You can check the registration status on the **Line Status** field.

The screenshot shows the Fanvil X6U web portal interface. On the left is a red sidebar with navigation links: System, Network, Line (selected), Phone settings, Phonebook, Call logs, and Function Key. The top navigation bar includes tabs for SIP, SIP Hotspot, Dial Plan, Action Plan, Basic Settings, and RTCP-XR. The main content area is titled 'Line' with a dropdown menu set to 'SIP1'. Below this, the 'Register Settings >>' section shows the 'Line Status' as 'Registered' (highlighted with a yellow box). Other fields include Username (3000), Display name (Leo Ball), and Realm. To the right, there are checkboxes for 'Activate' (checked) and fields for 'Authentication User' (UeT6tFqfaK), 'Authentication Password' (masked), and 'Server Name'. Below these are two sections for 'SIP Server 1' and 'SIP Server 2', each with fields for Server Address, Server Port (5060), Transport Protocol (UDP), and Registration Expiration (3600 seconds).

Monitor Extension Status by BLF Key on Fanvil IP Phone

This topic takes Fanvil X6U-V2 (firmware: 2.12.1) as an example to describe how to configure a BLF key for auto-provisioned Fanvil IP phone on PBX web portal, so as to monitor the call status and DND (Do Not Disturb) presence status of a specific extension.

Prerequisites

The phone is connected to Yeastar P-Series Cloud Edition via Auto Provisioning, and has been assigned an extension.

For more information, see [Auto Provision Fanvil IP Phone with Yeastar P-Series Cloud Edition](#).

Step 1. Set up a function key for extension monitoring

1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, edit the extension that is assigned to the phone.
2. Click the **Function Keys** tab.

3. Configure a function key to monitor the status of an extension.

The following figure shows a configuration example of monitoring extension 1004.

Function Key	Type	Value	Label	Operations
Key 1	BLF	1004-Kristin Hale	1004-ExtStatus	
+ Add				

- **Type:** Select **BLF**.
 - **Value:** In the drop-down list, select an extension to monitor.
 - **Label:** Optional. Enter a value, which will be displayed on the phone screen.
4. Click **Save**.

Step 2. Apply the configuration to the Fanvil IP phone

1. Go to **Auto Provisioning > Phones**, click beside the desired phone.

<input type="checkbox"/>	Status	Extension	Name	Vendor	Model	IP Address	Phone Password	Operations
<input type="checkbox"/>		3000	Leo Ball	Fanvil	X6U-V2	-	*****@	

The system prompts you whether to reprovision the phone.

2. In the pop-up window, click **OK**.

Result

- The LED of the BLF key shows the real-time status of extension 1004:
 - **Solid Green:** The extension is being monitored, and the status is idle.
 - **Solid Red:** The extension is sending a call or is in a call.
 - **Solid Yellow:** The extension is in DND (Do Not Disturb) status.



Note:

If your Fanvil IP phone does not support differentiated DND status indication, the DND status is indicated by **Solid Red**. For more information regarding the supported phone models and firmware versions, contact your Fanvil IP phone provider.

- **Flashing Red:** The extension is ringing.
- **LED off:** The BLF key configuration failed, the extension is not being monitored.

- You can press the BLF key on the phone to achieve the followings:
 - Place a call to the monitored extension.
 - Pick up the monitored extension's incoming calls.



Note:

To achieve this, make sure that the Extension Pickup feature code is enabled (Path: **Call Features > Feature Code > Call Pickup > Extension Pickup**).

Related information

[Linkus Web Client Guide - Configure Function Keys](#)

[Linkus Desktop Client Guide - Configure Function Keys](#)

Snom

Auto Provision Snom IP Phone with Yeastar P-Series Cloud Edition

This topic takes Snom D865 (firmware: 10.1.137.15) as an example to introduce how to provision a Snom IP phone with Yeastar P-Series Cloud Edition.

Requirements

The firmwares of **Snom IP phone** and **Yeastar PBX** meet the requirements listed in [Auto Provisioning - Supported Devices](#).

Prerequisites

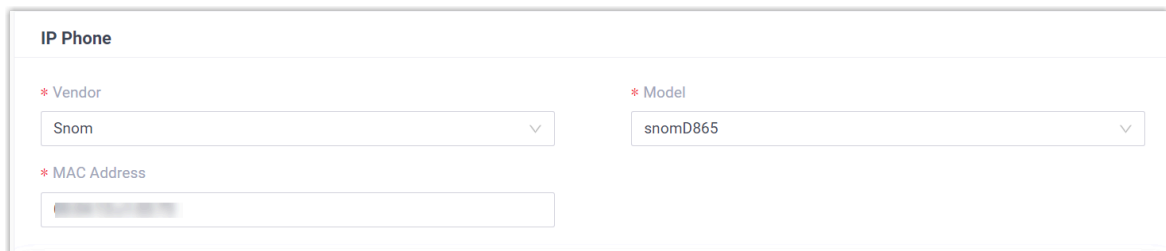
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

Procedure

- [Step 1. Add the Snom IP phone on PBX](#)
- [Step 2. Trigger the IP phone to complete provisioning](#)

Step 1. Add the Snom IP phone on PBX

1. Log in to PBX web portal, go to **Auto Provisioning > Phones**.
2. Click **Add > Add**.
3. In the **IP Phone** section, enter the following phone information.



The screenshot shows a web form titled "IP Phone" with three fields: "Vendor" (a dropdown menu with "Snom" selected), "Model" (a dropdown menu with "snomD865" selected), and "MAC Address" (a text input field with a blurred value).

- **Vendor:** Select **Snom**.
- **Model:** Select a phone model. In this example, select **snomD865**.

- **MAC Address:** Enter the MAC address of the IP phone.
4. In the **Option** section, configure the following settings.

Options

* Template

YSDP_SnomD

Provisioning Link

https://docs.example.yeastarcloud.com:443/api/autoprovision/grobc

☒ Authentication for the First-time Auto Provisioning

- **Template:** Select a desired template from the drop-down list.

**Note:**

You can select the default template corresponding to the phone model, or customize your own template. For more information, see [Create a Custom Auto Provisioning Template](#).

- **Provisioning Link:** A provisioning link is automatically generated, which points to the location where the phone's configuration file is stored.
- **Authentication for the First-time Auto Provisioning:** If enabled, users are requested to fill in authentication information on the IP phones before triggering the first-time provisioning.

**Note:**

We recommend that you keep this option selected.

5. In the **Assign Extension** section, assign an extension to the IP phone.

Assign Extension

* Select Extension

3000-Leo Ball

**Tip:**

If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.

- To release the extension from the associated IP phone, see [Release an Extension from a Provisioned IP Phone](#).
- To register the extension to the phone without releasing it from the previously associated one, you need to [configure the concurrent registra-](#)



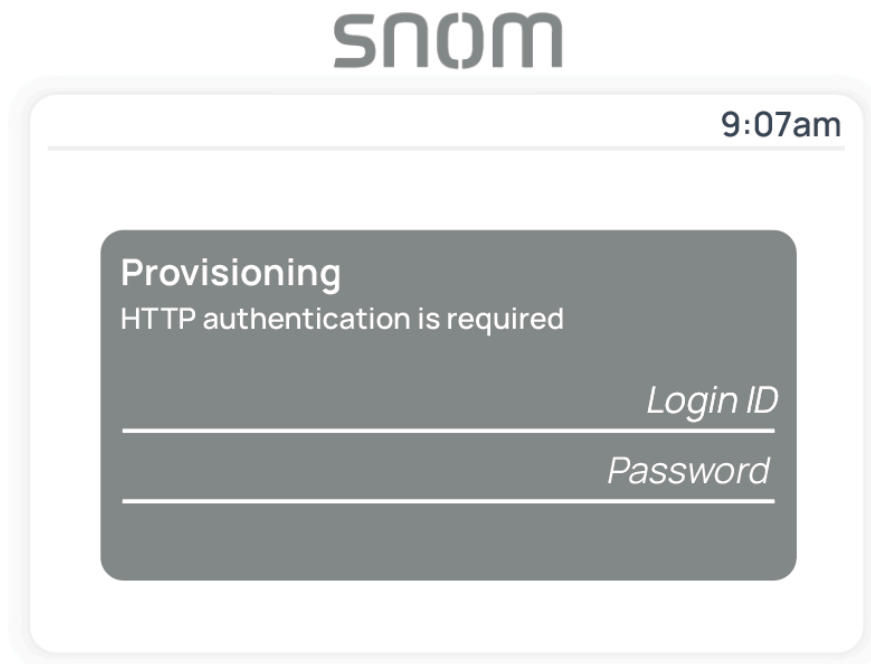
[tion setting for the extension](#), as the PBX only allows an extension to register with one SIP endpoint by default.

6. Click **Save**.

The PBX will send an event notification of **RPS Request Success**.

Step 2. Trigger the IP phone to complete provisioning

1. Reboot the IP phone.
2. If you have enabled **Authentication for the First-time Auto Provisioning** on the PBX, enter the authentication credential on the IP phone.

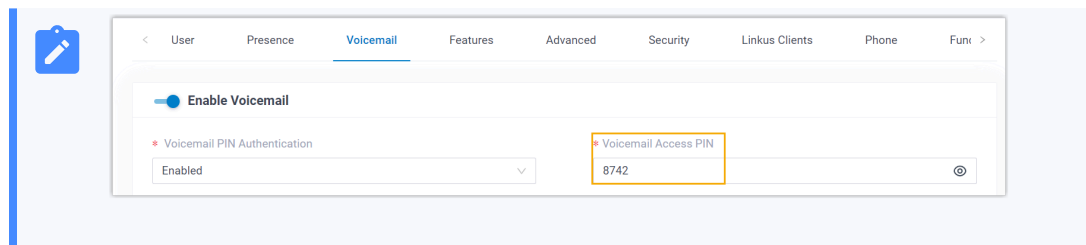


- **Login ID:** Enter the extension number that is assigned to the phone.
- **Password:** Enter the extension's Voicemail Access PIN.








Note:

You can check the Voicemail Access PIN in the **Voicemail** tab on the extension's configuration page.



Result

- The IP phone automatically downloads the configurations from the PBX and applies the settings.
- The extension is successfully registered on the IP phone. You can check the registration status on **Auto Provisioning > Phone** on the PBX web portal.

<input type="checkbox"/>	Status	Extension	Name	Vendor	Model	Phone Password	Operations
<input type="checkbox"/>		3000	Leo Ball	Snom	snomD865	*****	   

Related information

[Auto Provision LDAP for IP Phones](#)

Manually Register Snom IP Phone with Yeastar P-Series Cloud Edition

This topic takes Snom D865 (firmware: 10.1.137.15) as an example to introduce how to manually register an extension on a Snom IP phone.

Supported devices


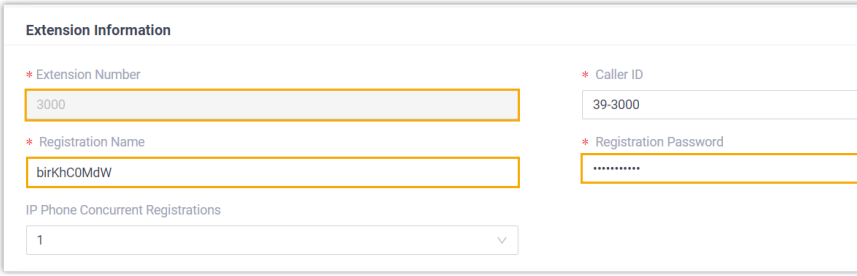

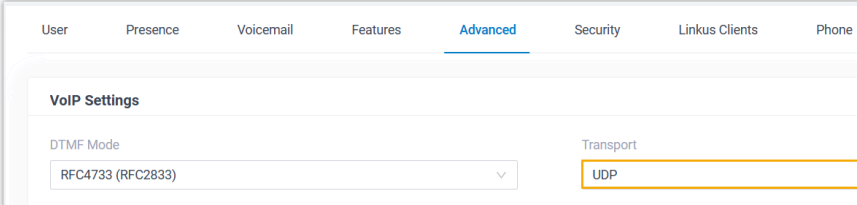
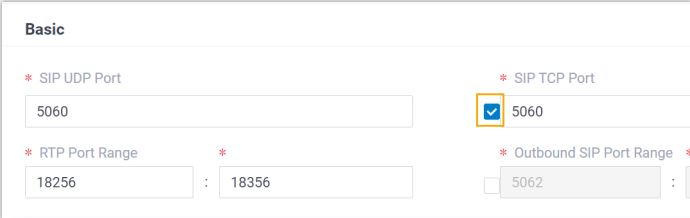
The Snom IP phones that are compatible with SIP (Session Initiation Protocol).


Procedure

- [Step 1. Gather registration information on Yeastar PBX](#)
- [Step 2. Register extension on Snom IP phone](#)

Step 1. Gather registration information on Yeastar PBX

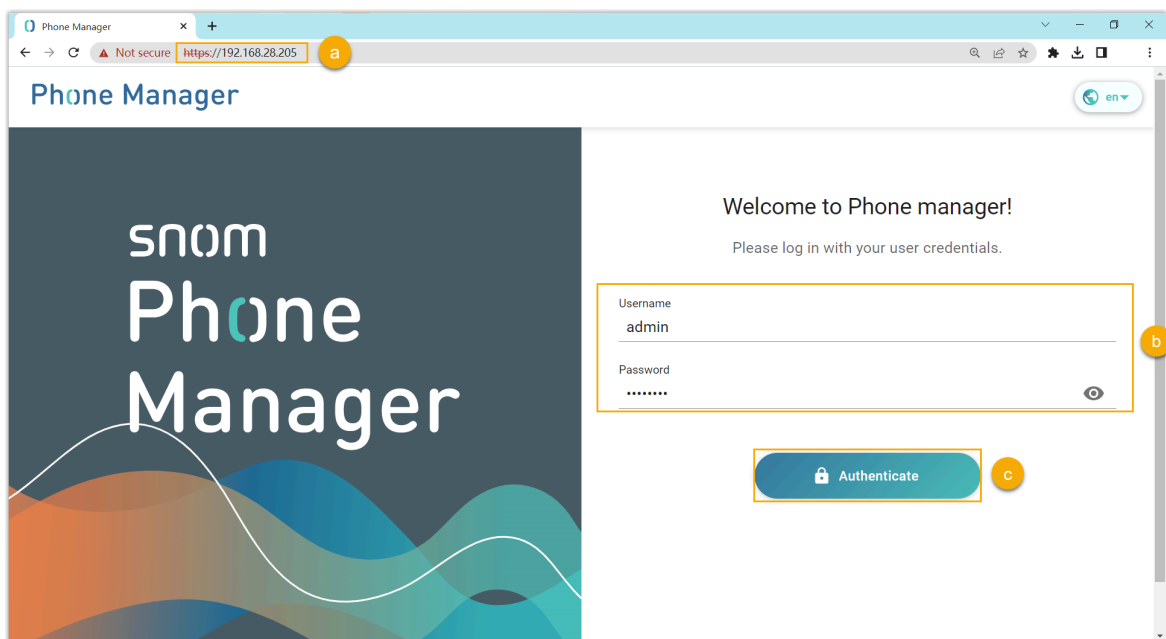
Log in to PBX web portal, gather the following information for extension registration.

Information	Instruction
Extension information	<p>Go to Extension and Trunk > Extension >  > User > Extension Information, note down the following information:</p> <ul style="list-style-type: none"> • Extension Number • Registration Name • Registration Password 
Transport protocol	<p>Go to Extension and Trunk > Extension >  > Advanced > VoIP Settings > Transport, note down the transport protocol of the extension.</p> <p>In this example, the extension use UDP transport protocol.</p>  <div data-bbox="560 1270 609 1323"> </div> <p>Note:</p> <ul style="list-style-type: none"> • If the extension uses TCP transport protocol, make sure that the SIP TCP port is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > General > Basic).  <ul style="list-style-type: none"> • If the extension uses TLS transport protocol, make sure that the TLS is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > TLS).

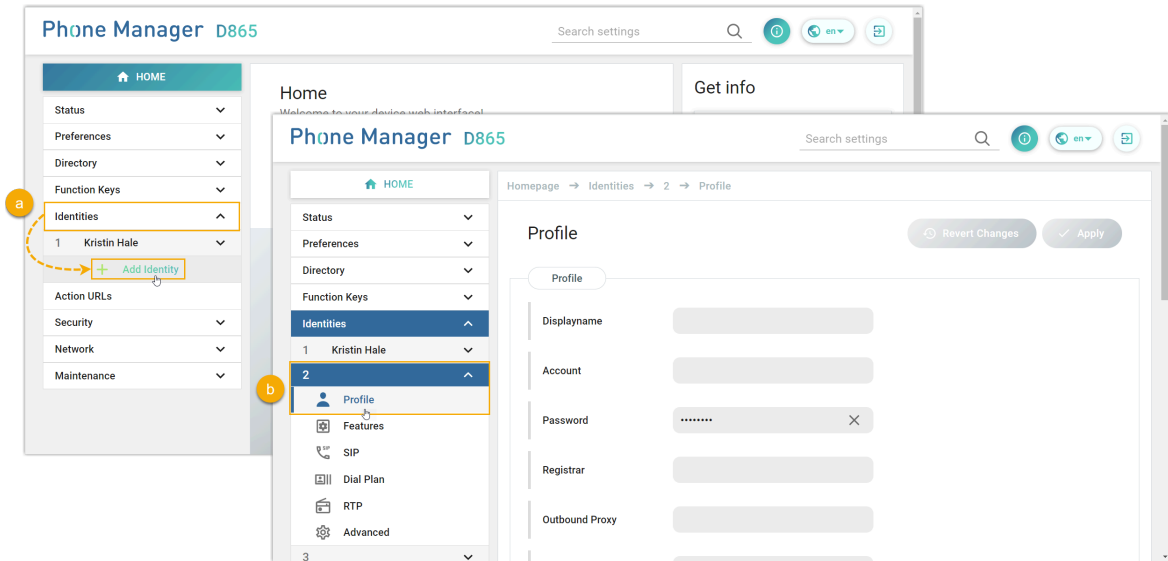
Information	Instruction
	 <div> <div>TLS</div> <div>* SIP TLS Port</div> <div>5061</div> </div>
PBX domain name	<p>The domain name of the PBX.</p> <p>In this example, we use the PBX domain name <code>docs.example.yeastarcloud.com</code> for extension registration.</p>
SIP registration port	The SIP registration port is 5060.

Step 2. Register extension on Snom IP phone

1. Log in to the web interface of the Snom IP phone.



- a. In the browser's address bar, enter the IP address of the IP phone.
 - b. Enter the username `admin` and the associated password.
 - c. Click **Authenticate**.
2. Add an identity for the extension.



- a. On the left navigation bar, go to **Identities**, and click **Add Identity**.
- b. Select an available identity, and go to the **Profile** page.
3. Complete the registration configurations.

Homepage → Identities → 2 → Profile

Profile

Profile

Displayname	Leo Ball
Account	3000
Password X
Registrar	docs.example.yeastarcloud.com:5C
Outbound Proxy	docs.example.yeastarcloud.com:5C
Failover Identity	None
Hidden Identity	Off <input checked="" type="checkbox"/> On
Authentication Username	birKhC0MdW

- **Displayname:** Enter the name associated with the account, which will be displayed on the phone screen.
- **Account:** Enter the extension number.
- **Password:** Enter the registration password of the extension.
- **Registrar:** Enter the domain name of the PBX along with the SIP registration port.
- **Outbound Proxy:** Enter the domain name of the PBX, along with the SIP registration port and the transport protocol of the extension.



Note:

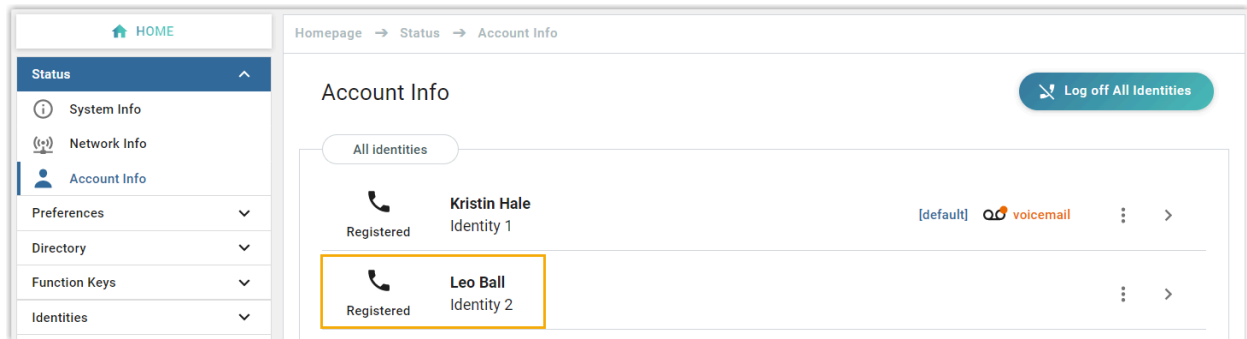
The format should be *PBX domain name:sip registration port;transport=udp/tcp/tls*. For example, docs.example.yeastarcloud.com:5060;transport=udp.

- **Authentication Username:** Enter the registration name of the extension.

4. At the top-right corner of the **Profile** page, click **Apply**.

Result

The extension is registered successfully. You can check the registration status on **Status > Account Info** on the phone's web interface.



Gigaset

Auto Provision Gigaset DECT System with Yeastar P-Series Cloud Edition

A DECT system consists of two parts, DECT base station and DECT handsets (namely DECT phones). This topic describes how to provision Gigaset DECT base station with Yeastar P-Series Cloud Edition, so that the Gigaset DECT handsets can be connected to the PBX via the base station, allowing users to utilize the handsets as PBX extensions to make and receive calls.

Requirements

The firmwares of **Gigaset DECT base station** and **Yeastar PBX** meet the requirements listed in [Auto Provisioning - Supported Devices](#).

The device model and firmware version of the Gigaset DECT system used in this example are shown in the table below.

Device Model	Firmware Version
Gigaset DECT base station	
N870 IP PRO	v2.38.1
Gigaset DECT handset	
S650H PRO	v114.074.04
SL750H PRO	v116.074.04

Prerequisites

- Make sure that there is only one DHCP server running in the subnet where the Gigaset DECT system (base station and handset) is deployed, or the base station would fail to obtain an IP address.
- Gather information of the Gigaset DECT base station, including Vendor, Model, and MAC address.

Step 1. Add the Gigaset DECT base station on PBX

Add the DECT base station on PBX. The PBX will generate a configuration file based on the device's MAC address.

1. Log in to PBX web portal, go to **Auto Provisioning > Phones**.
2. Click **Add > Add**.
3. In the **IP Phone** section, enter the following information.

IP Phone

* Vendor

Gigaset

* Model

Gigaset N870 IP PRO

* MAC Address

- **Vendor:** Select **Gigaset**.
 - **Model:** Select the device model. In this example, select **Gigaset N870 IP PRO**.
 - **MAC Address:** Enter the MAC address of the DECT base station.
4. In the **Options** section, configure the following settings.

Options

* Template

YSDP_GigasetN870

Provisioning Link

https://docs.example.yeastarcloud.com:443/api/autoprovision/H70R

- **Template:** Select a desired template from the drop-down list.



Note:

You can select the default template corresponding to the phone model, or customize your own template. For more information, see [Create a Custom Auto Provisioning Template](#).

- **Provisioning Link:** A provisioning link is automatically generated, which points to the location where the phone's configuration file is stored.
5. In the **Assign Extension** section, assign extensions for the DECT handsets.
 - To assign extensions one by one, select the checkbox of the corresponding handset, then select the desired extension in the **Extension** drop-down list.

Assign Extension

Handset ID Range: 1 - 250 Start Extension: 1000-Kristin Hale End Extension: 3000-Leo Ball [Assign Extension](#)

Handset	Extension
<input checked="" type="checkbox"/> Handset 1	<input type="text" value="1000-Kristin Hale"/>
<input checked="" type="checkbox"/> Handset 2	<input type="text" value="3000-Leo Ball"/>

- To assign extensions in bulk, set the extension range in **Start Extension** and **End Extension**, then click **Assign Extension**.

Assign Extension

Handset ID Range: 1 - 250 Start Extension: 1000-Kristin Hale End Extension: 3000-Leo Ball [Assign Extension](#)

Handset	Extension
<input type="checkbox"/> Handset 1	<input type="text"/>
<input type="checkbox"/> Handset 2	<input type="text"/>

In this example, assign extension 1000 to Handset 1 and extension 3000 to Handset 2.



Tip:

If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.

- To release the extension from the associated IP phone, see [Release an Extension from a Provisioned IP Phone](#).
- To register the extension to the phone without releasing it from the previously associated one, you need to [configure the concurrent registration setting for the extension](#), as the PBX only allows an extension to register with one SIP endpoint by default.



6. **Optional:** Configure other settings according to your needs.





7. Click **Save**.



The DECT base station is added to the PBX, and displayed in the Auto Provisioning phone list; The PBX will send an event notification of **RPS Request Success**.



Tip:

 You can click  in front of the DECT base station to see the extensions assigned to the DECT handsets.

<input type="checkbox"/>	Status	Extension	Name	Vendor	Model	Phone Password	Template	Operations
<input type="checkbox"/>		Gigaset	Gigaset N870 IP PRO	-	YSDP_GigasetN	  

Status	Handset	Extension	Name
	Handset 1	1000	Kristin Hale
	Handset 2	3000	Leo Ball

Step 2. Enable dynamic IP setting for Gigaset DECT base station

On the DECT base station, use the device button to change the device role, so that the base station can obtain an IP address from a DHCP server in the subnet.

1. Press and hold the device button for at least 10 seconds until both LEDs switch off, then release the button.

The device is now in programming mode.

2. Short press the device button until both LEDs become blue, then release the button.

The device role is switched to **Integrator/DECT Manager** with dynamic IP setting enabled.

3. Press and hold the device button until both LEDs turn red, then release the button.

The base station is reset, and it takes several minutes for the device to boot up with the selected device role; After booted up, the device gets an IP address from the DHCP server and automatically downloads configurations from the PBX.

Step 3. Register the Gigaset DECT handsets to the DECT base station

Enable the registration mode of DECT base station and confirm the registration on DECT handsets, so that the Gigaset DECT handsets can be registered to the DECT base station.

1. Log in to the web interface of DECT base station.

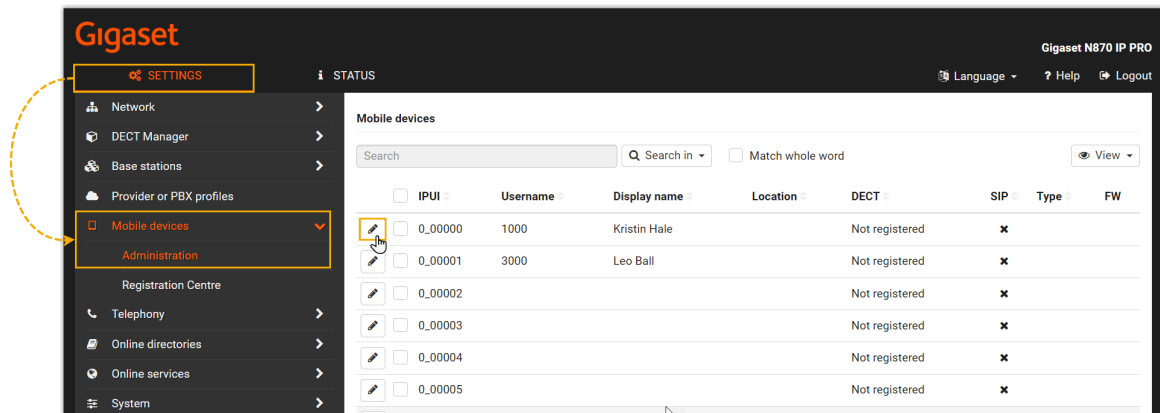
- a. In the browser's address bar, enter the IP address of the base station.
 - b. Enter the username `admin` and the default password `admin`.
 - c. Click **Login**.
2. Change the default password, select a radio frequency band, then click **Set**.

**Note:**

For the DECT radio band, select the radio frequency band used in your region.

You are redirected to the web interface of the DECT base station.

3. Under the **SETTINGS** tab, go to **Mobile devices > Administration**, click  to edit a handset with an extension assigned.



a. In the **RegStatus** drop-down list, select **To register**.

Mobile device

IPUI ?

0_00002

RegStatus ?

To register

Authentication Code (PIN) ?

0000

Generate random PIN

b. In the **Authentication Code (PIN)** field, set and note down a PIN code, which will be used on handset later for registration.

In this example, use the default PIN code 0000.

Mobile device

IPUI ?

0_00002

RegStatus ?

To register

Authentication Code (PIN) ?

0000

Generate random PIN

c. Scroll down to the bottom, click **Register now**.

Feature key synchronization

Feature key synchronization ? ☐ Yes ☒ No

☐ Register now

Set Cancel

4. Repeat [the above steps](#) to edit other handsets with extensions assigned until all the handsets are in **To register** status.
5. Go to **Mobile devices > Registration Centre > DECT Managers**, complete the following settings.

Gigaset

SETTINGS **STATUS**

- Network >
- DECT Manager >
- Base stations >
- Provider or PBX profiles >
- Mobile devices** (highlighted)
 - Administration
 - Registration Centre** (highlighted)
 - Telephony >
 - Online directories >
 - Online services >
 - System >

Mobile devices

with RegStatus: "To register" ?	2
with RegStatus: "Registering" ?	0
Total ?	250

DECT Managers

with Registrations Window open ?	0
Total ?	1
Current time ?	2024-02-04 14:47:45

- a. In the **Registration duration** section, set how long the DECT base station should stay in registration mode.

In this example, keep the default value (3 minutes).

Registration duration ?

0 d

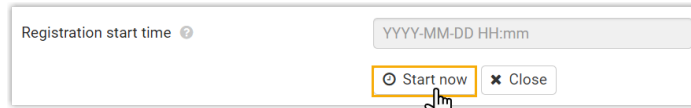
0 h

3 min (highlighted)

0 s

- b. In the **Registration start time** section, enable the registration mode of DECT base station.

- To start registration right now, click **Start now**.

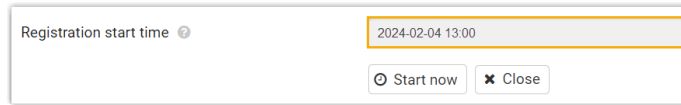


Registration start time ?

YYYY-MM-DD HH:mm

☐ Start now ☒ Close

- To schedule a time to start registration, set a time in the **Registration start time** field, then click **Set** at the bottom of the page.



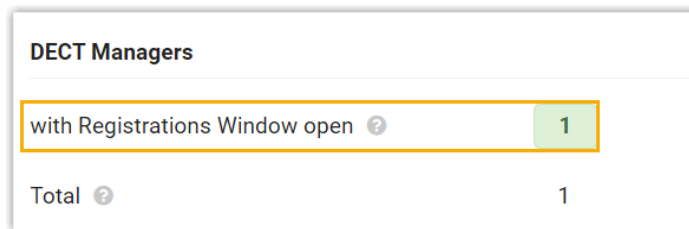
Registration start time ?

2024-02-04 13:00

☐ Start now ☒ Close

In this example, click **Start now**.

The **with Registrations Window open** field displays **1**, indicating that the DECT base station is in registration mode at the given time duration.



DECT Managers	
with Registrations Window open ?	1
Total ?	1

6. Confirm registration on DECT handset.

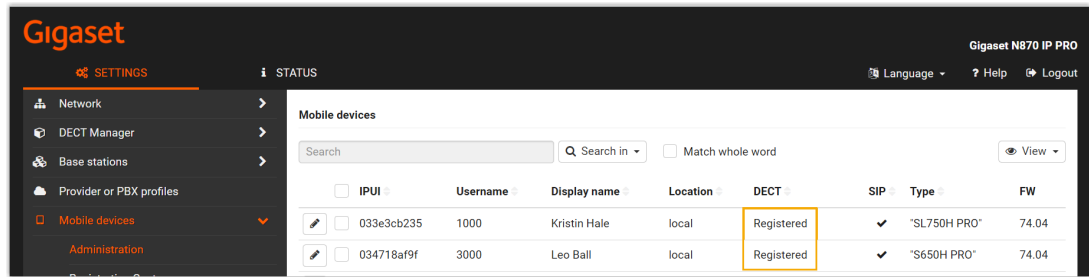
- On the handset, go to **Menu > Settings > Registration > Register Handset**.

The DECT handset starts to search for a base station that is in registration mode. When it finds the base station, there is a prompt asking you to enter a system PIN.

- Enter the [PIN code obtained from the base station](#), and press **OK**.

Result

- The handsets are successfully registered to the DECT base station, and associated with the assigned PBX extensions via the base station.
 - On the web interface of DECT base station, you can check the registration status of the handsets on **SETTINGS > Mobile devices > Administration**.



- On PBX web portal, you can check the registration status of the extensions on **Auto Provisioning > Phones**.

<input type="checkbox"/>	Status	Extension	Name	Vendor	Model	Phone Password	Template	Firmware Version	MAC Address	Operations
<input type="checkbox"/>	Gigaset	Gigaset N870 IP PRO	-	YSDP_GigasetN870	-	...	
	Status	Handset	Extension	Name						
		Handset 1	1000	Kristin Hale						
		Handset 2	3000	Leo Ball						

- The registered DECT handsets can be used as extensions to make and receive calls.

Grandstream

Provision Grandstream IP Phone with Yeastar P-Series Cloud Edition

This topic takes Grandstream GPR2602 (firmware: 1.0.3.67) as an example to introduce how to provision a Grandstream IP phone with Yeastar P-Series Cloud Edition.

Supported devices

The firmwares of **Grandstream IP Phone** and **Yeastar PBX** meet the requirements listed in [Auto Provisioning - Supported Devices](#).

Scenarios

The provisioning methods and operations vary depending on your provisioning needs, as the following table shows:

Scenario	Description
Provision a SINGLE Grandstream IP phone	In this scenario, you can manually add a provisioning link provided by Yeastar PBX to the phone. In this way, the phone can retrieve configurations from the PBX using the given link. For more information, see Manually provision a Grandstream IP phone .
Provision MULTIPLE Grandstream IP phones	In this scenario, you can utilize DHCP option 66 to deliver the provisioning link offered by Yeastar PBX to the IP phones. In this way, the phones can retrieve configurations from the PBX using the given link. For more information, see Auto provision multiple Grandstream IP phones .

Manually provision a Grandstream IP phone

Prerequisites

- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

Procedure

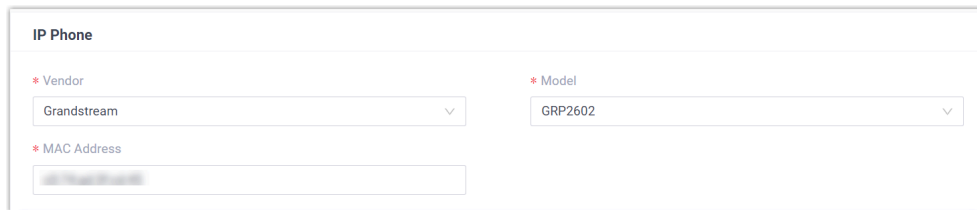
- [Step 1. Add the Grandstream IP phone on PBX](#)

- [Step 2. Configure provisioning server on the Grandstream IP phone](#)

Step 1. Add the Grandstream IP phone on PBX

Add the IP phone on PBX. The PBX will generate a configuration file based on the phone's MAC address.

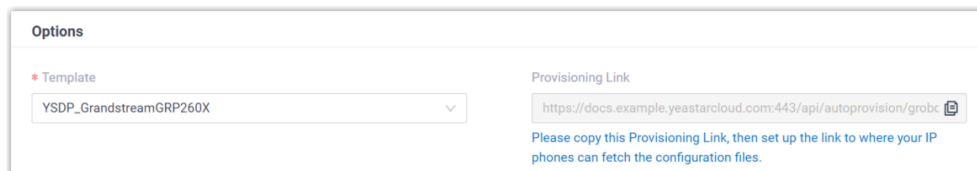
1. Log in to PBX web portal, go to **Auto Provisioning > Phones**.
2. Click **Add > Add**.
3. In the **IP Phone** section, enter the following phone information.



The screenshot shows a form titled "IP Phone". It contains three fields:

- * Vendor:** A dropdown menu with "Grandstream" selected.
- * Model:** A dropdown menu with "GRP2602" selected.
- * MAC Address:** A text input field containing a blurred MAC address.

- **Vendor:** Select **Grandstream**.
 - **Model:** Select a phone model. In this example, select **GRP2602**.
 - **MAC Address:** Enter the MAC address of the IP phone.
4. In the **Options** section, configure the following settings.



The screenshot shows a form titled "Options". It contains two main sections:

- * Template:** A dropdown menu with "YSDP_GrandstreamGRP260X" selected.
- Provisioning Link:** A text area containing the URL "https://docs.example.yeastarcloud.com:443/api/autoprovision/grob" with a copy icon. Below the text area, there is a note: "Please copy this Provisioning Link, then set up the link to where your IP phones can fetch the configuration files."

- **Template:** Select a desired template from the drop-down list.



Note:

You can select the default template corresponding to the phone model, or customize your own template. For more information, see [Create a Custom Auto Provisioning Template](#).

- **Provisioning Link:** A provisioning link is automatically generated, which points to the location where the phone's configuration file is stored.



Note:



Note down the provisioning link, as you will use it later.

5. In the **Assign Extension** section, assign an extension to the IP phone.



Tip:

If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.

- To release the extension from the associated IP phone, see [Release an Extension from a Provisioned IP Phone](#).
- To register the extension to the phone without releasing it from the previously associated one, you need to [configure the concurrent registration setting for the extension](#), as the PBX only allows an extension to register with one SIP endpoint by default.

6. Click **Save**.

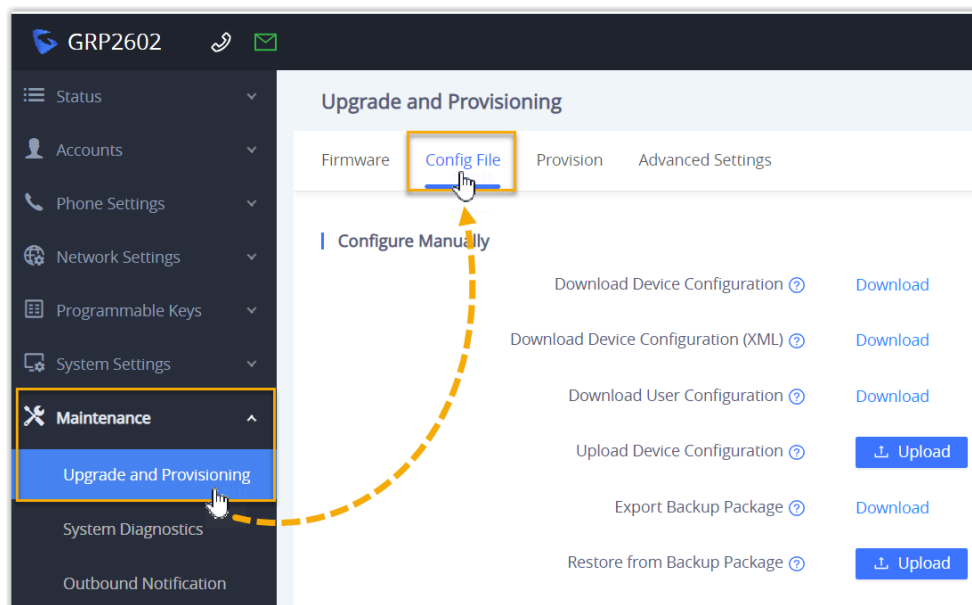
Step 2. Configure provisioning server on the Grandstream IP phone

Manually configure provisioning server for the Grandstream IP phone using the provisioning link provided by the PBX.

1. Log in to the web interface of the Grandstream IP phone.



- a. In the browser's address bar, enter the IP address of the IP phone.
 - b. Enter the username `admin` and the associated password.
 - c. Click **Login**.
2. On the left navigation bar, go to **Maintenance > Upgrade and Provisioning > Config File**.



3. In the **Configure via Network** section, complete the following configurations.

Configure via Network

a

Config Upgrade via ⓘ HTTPS

Config Server Path ⓘ docs.example.yeastarcloud.com:443/api/autopri

Config Server Username ⓘ

Config Server Password ⓘ

Always Authenticate before Challenge ⓘ ☐

Config File Prefix ⓘ

Config File Postfix ⓘ

Authenticate Conf File ⓘ ☐

XML Config File Password ⓘ

b

Save Save and Apply Reset

a. Enter the information of the provisioning server.

- **Config Upgrade via:** Select **HTTPS**.
- **Config Server Path:** Paste the provisioning link obtained from PBX.



Note:

You should remove the prefix `https://` before pasting the link into the field.

b. Click **Save and Apply**.






Result



Note:

Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

- After the IP phone is rebooted, it automatically downloads the configurations from the PBX and applies the settings.
- The extension is successfully registered on the IP phone. You can check the registration status on **Auto Provisioning > Phone** on the PBX web portal.

<input type="checkbox"/>	Status	Extension	Name	Vendor	Model	Phone Password	Template	Operations
<input type="checkbox"/>		3000	Leo Ball	Grandstream	GRP2602	*****@	YSDP_GrandstreamGR P260X	   

What to do next

By default, Grandstream IP phone enables all available codecs for its accounts, which may lead to issues with outgoing calls. Therefore, it is recommended to remove unnecessary codecs for the account that has been registered with the PBX extension.

For more information, see [Remove Unnecessary Codecs for Grandstream IP Phone](#).

Auto provision multiple Grandstream IP phones

Prerequisites

- Make sure that there is only one DHCP server in the subnet where the IP phones are deployed, or the IP phones may fail to obtain IP addresses.
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

Procedure

- [Step 1. Add the Grandstream IP phone on PBX](#)
- [Step 2. Configure DHCP option 66 on DHCP server](#)

Step 1. Add the Grandstream IP phone on PBX

Add the IP phone on PBX. The PBX will generate a configuration file based on the phone's MAC address.

1. Log in to PBX web portal, go to **Auto Provisioning > Phones**.
2. Click **Add > Add**.
3. In the **IP Phone** section, enter the following phone information.

IP Phone

* Vendor: Grandstream

* Model: GRP2602

* MAC Address: [blurred]

- **Vendor:** Select **Grandstream**.
- **Model:** Select a phone model. In this example, select **GRP2602**.
- **MAC Address:** Enter the MAC address of the IP phone.

4. In the **Options** section, configure the following settings.

Options

* Template: YSDP_GrandstreamGRP260X

Provisioning Link: <https://docs.example.yeastarcloud.com:443/api/autopvision/grob...>

Please copy this Provisioning Link, then set up the link to where your IP phones can fetch the configuration files.

- **Template:** Select a desired template from the drop-down list.



Note:

You can select the default template corresponding to the phone model, or customize your own template. For more information, see [Create a Custom Auto Provisioning Template](#).

- **Provisioning Link:** A provisioning link is automatically generated, which points to the location where the phone's configuration file is stored.



Note:

Note down the provisioning link, as you will use it later.

5. In the **Assign Extension** section, assign an extension to the IP phone.

Assign Extension

* Select Extension: 3000-Leo Ball



Tip:



If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.

- To release the extension from the associated IP phone, see [Release an Extension from a Provisioned IP Phone](#).
- To register the extension to the phone without releasing it from the previously associated one, you need to [configure the concurrent registration setting for the extension](#), as the PBX only allows an extension to register with one SIP endpoint by default.

6. Click **Save**.

Step 2. Configure DHCP option 66 on DHCP server

In the subnet where the IP phone is deployed, use the generated provisioning link to configure option 66 on the DHCP Server.

1. On PBX web portal, copy the provisioning link from the phone's detail page.

The screenshot shows a web interface with a section titled "Options". On the left, there is a dropdown menu labeled "* Template" with the selected option "YSDP_GrandstreamGRP260X". On the right, there is a field labeled "Provisioning Link" containing the URL "https://docs.example.yeastarcloud.com:443/api/autoprovion/grobc". Below the link field, there is a note: "Please copy this Provisioning Link, then set up the link to where your IP phones can fetch the configuration files."

2. On the DHCP server, set up option 66 with the provisioning link.

In this example, the configuration is shown below:

Interfaces » LAN

General Settings | Advanced Settings | Firewall Settings | **DHCP Server**

General Setup | **Advanced Settings** | IPv6 Settings | IPv6 RA Settings

Dynamic DHCP ☒
 ? Dynamically allocate DHCP addresses for clients. If disabled, only clients having static leases will be served.

Force ☐
 ? Force DHCP on this network even if another server is detected.

IPv4-Netmask 255.255.255.0
 ? Override the netmask sent to clients. Normally it is calculated from the subnet that is served.

DHCP-Options 6,223.5.5.5
 66,https://docs.example.yeastarcloud.com:443/api/autoprovision/grobqJzKfIoVg12
 ? Define additional DHCP options, for example "6,192.168.2.1,192.168.2.2" which advertises different DNS servers to clients.

Dismiss Save

Result



Note:

Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

- After the IP phone is rebooted, it gets an IP address from the DHCP server, downloads the configurations from the PBX via the provisioning link, and applies the settings automatically.
- The extension is successfully registered on the IP phone. You can check the registration status on **Auto Provisioning > Phone** on the PBX web portal.

<input type="checkbox"/>	Status	Extension	Name	Vendor	Model	Phone Password	Template	Operations
<input checked="" type="checkbox"/>		3000	Leo Ball	Grandstream	GRP2602	*****@	YSDP_GrandstreamGRP260X	

What to do next

By default, Grandstream IP phone enables all available codecs for its accounts, which may lead to issues with outgoing calls. Therefore, it is recommended to remove unnecessary codecs for the account that has been registered with the PBX extension.

For more information, see [Remove Unnecessary Codecs for Grandstream IP Phone](#).

Related information

[Auto Provision LDAP for IP Phones](#)

Manually Register Grandstream IP Phone with Yeastar P-Series Cloud Edition

This topic takes Grandstream GPR2602 (firmware: 1.0.3.67) as an example to introduce how to manually register an extension on a Grandstream IP phone.

Supported devices


The Grandstream IP phones that are compatible with SIP (Session Initiation Protocol).



Procedure

- [Step 1. Gather registration information on Yeastar PBX](#)
- [Step 2. Register extension on Grandstream IP phone](#)

Step 1. Gather registration information on Yeastar PBX

Log in to PBX web portal, gather the following information for extension registration.

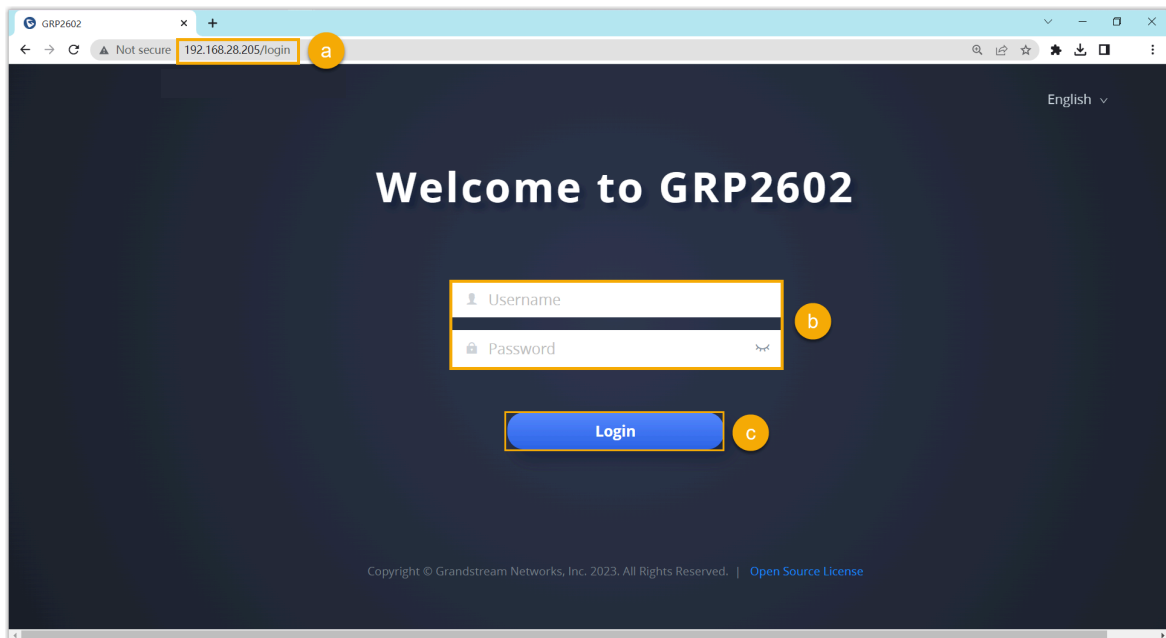
Information	Instruction
Extension information	<p>Go to Extension and Trunk > Extension >  > User > Extension Information, note down the following information:</p> <ul style="list-style-type: none">• Extension Number• Registration Name• Registration Password

Information	Instruction
	<div data-bbox="540 258 1607 522"> <p>Extension Information</p> <p>* Extension Number 3000</p> <p>* Registration Name birKhC0MdW</p> <p>IP Phone Concurrent Registrations 1</p> <p>* Caller ID 39-3000</p> <p>* Registration Password *****</p> </div>
Transport protocol	<p>Go to Extension and Trunk > Extension >  > Advanced > VoIP Settings > Transport, note down the transport protocol of the extension.</p> <p>In this example, the extension use UDP transport protocol.</p> <div data-bbox="540 724 1607 934"> <p>User Presence Voicemail Features Advanced Security Linkus Clients Phone Function Keys</p> <p>VoIP Settings</p> <p>DTMF Mode RFC4733 (RFC2833)</p> <p>Transport UDP</p> </div> <p> Note:</p> <ul style="list-style-type: none"> If the extension uses TCP transport protocol, make sure that the SIP TCP port is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > General > Basic). <div data-bbox="706 1239 1599 1459"> <p>Basic</p> <p>* SIP UDP Port 5060</p> <p>* SIP TCP Port <input checked="" type="checkbox"/> 5060</p> <p>* RTP Port Range 18256 : 18356</p> <p>* Outbound SIP Port Range <input type="checkbox"/> 5062 : 5082</p> </div> <ul style="list-style-type: none"> If the extension uses TLS transport protocol, make sure that the TLS is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > TLS). <div data-bbox="706 1606 1201 1753"> <p><input checked="" type="checkbox"/> TLS</p> <p>* SIP TLS Port 5061</p> </div>
PBX domain name	The domain name of the PBX.

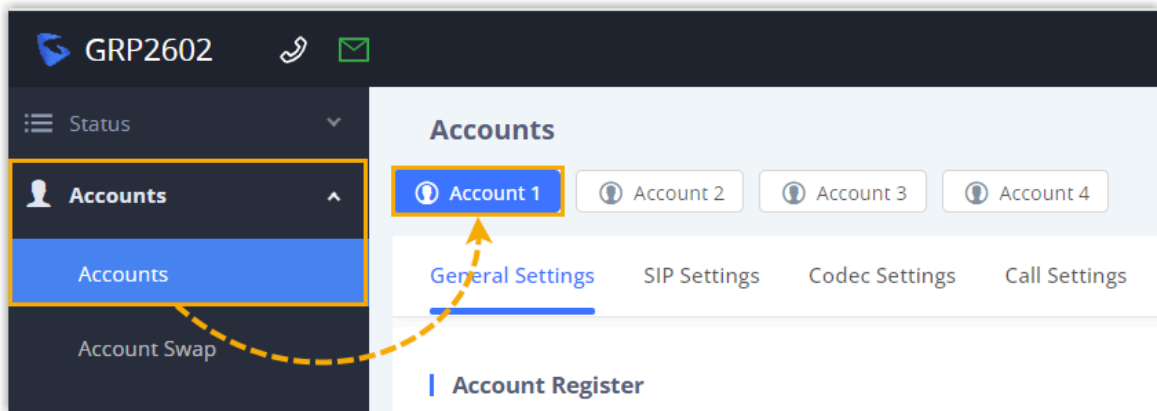
Information	Instruction
	In this example, we use the PBX domain name <code>docs.example.yeastarcloud.com</code> for extension registration.
SIP registration port	The SIP registration port is 5060.

Step 2. Register extension on Grandstream IP phone

1. Log in to the web interface of the Grandstream IP phone.



- a. In the browser's address bar, enter the IP address of the IP phone.
 - b. Enter the username `admin` and the associated password.
 - c. Click **Login**.
2. On the left navigation bar, go to **Accounts > Accounts**, and select an available account.



3. In the **General Settings** tab, complete the registration configurations.

Account Active ?	<input checked="" type="checkbox"/>
Account Name ?	<input type="text" value="Leo Ball"/>
SIP Server ?	<input type="text" value="docs.example.yeastarcloud.com:5060"/>
Secondary SIP Server ?	<input type="text"/>
Outbound Proxy ?	<input type="text"/>
Secondary Outbound Proxy ?	<input type="text"/>
SIP User ID ?	<input type="text" value="3000"/>
SIP Authentication ID ?	<input type="text" value="birKhCOMdW"/>
SIP Authentication Password ?	<input type="password" value="....."/>
Name ?	<input type="text"/>
Tel URI ?	<input type="text" value="Disabled"/>

- **Account Active:** Select the checkbox to activate the account.
- **Account Name:** Enter the name associated with the account, which will be displayed on the phone screen.

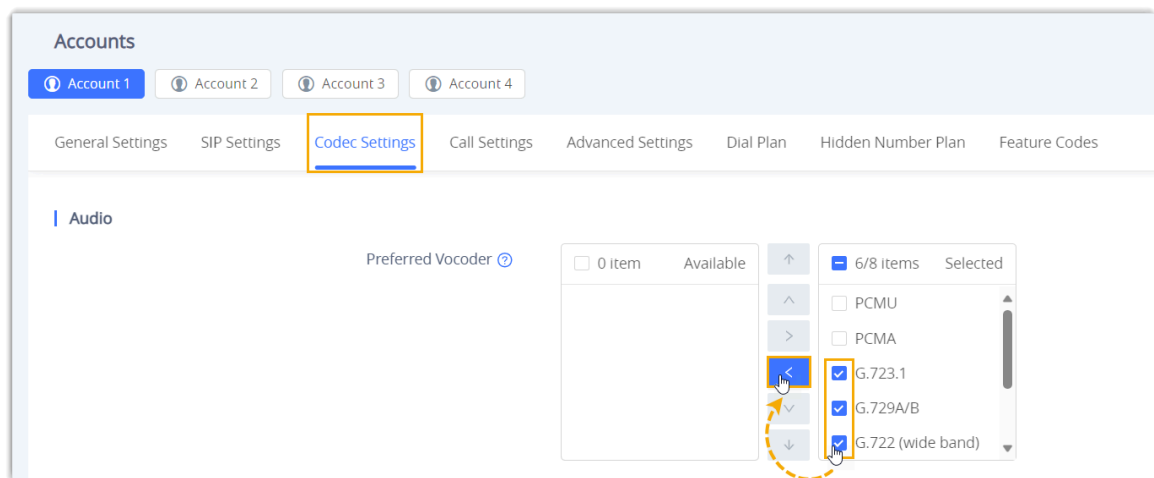
- **SIP Server:** Enter the domain name of the PBX along with the SIP registration port.
- **SIP User ID:** Enter the extension number.
- **SIP Authentication ID:** Enter the registration name of the extension.
- **SIP Authentication Password:** Enter the registration password of the extension.

4. In the **Codec Settings** tab, remove unnecessary codecs for the account.



Note:

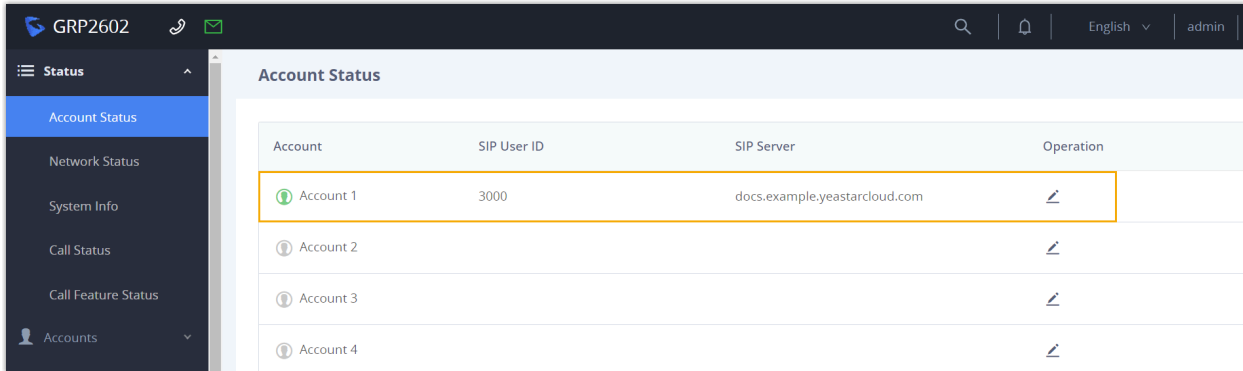
By default, Grandstream IP phone enables all available codecs for its accounts, which may lead to issues with outgoing calls. Therefore, it is recommended to remove unnecessary codecs for the account that has been registered with the PBX extension.



5. Click **Save and Apply**.

Result

The extension is registered successfully. You can check the registration status on **Status > Account Status** on the phone's web interface.



Account	SIP User ID	SIP Server	Operation
Account 1	3000	docs.example.yeastarcloud.com	
Account 2			
Account 3			
Account 4			


Remove Unnecessary Codecs for Grandstream IP Phone

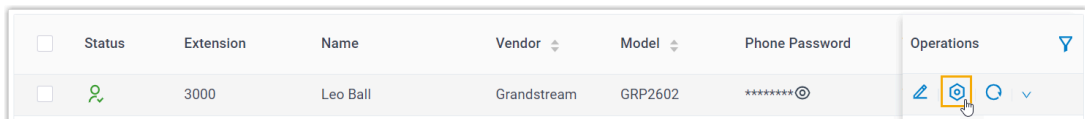
By default, Grandstream IP phone enables all available codecs for its accounts, which may lead to issues with outgoing calls. Therefore, it is recommended to remove unnecessary codecs for the account that has been registered with the PBX extension.


Prerequisites

You have [Provision Grandstream IP Phone with Yeastar P-Series Cloud Edition](#).

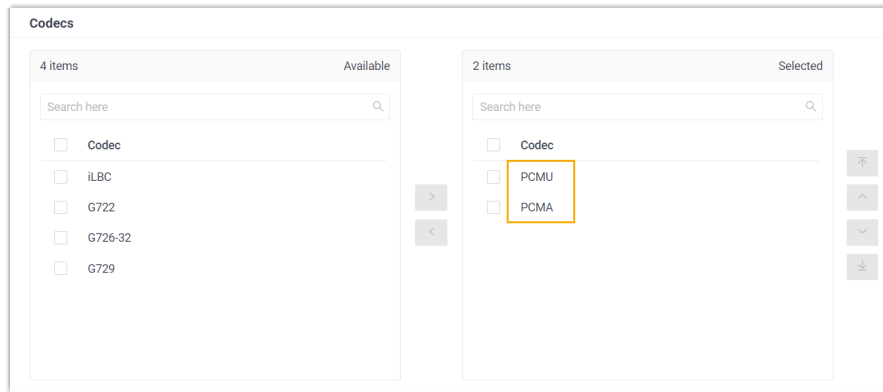
Procedure

1. Configure the codecs settings for the IP phone on PBX.
 - a. Log in to PBX web portal, go to **Auto Provisioning > Phones**.
 - b. Click  beside the Grandstream IP phone.



<input type="checkbox"/>	Status	Extension	Name	Vendor	Model	Phone Password	Operations
<input type="checkbox"/>		3000	Leo Ball	Grandstream	GRP2602	*****@	

- c. In the phone configuration page, scroll down to the **Codecs** section.
 - d. Select the necessary codecs from the **Available** box to the **Selected** box.



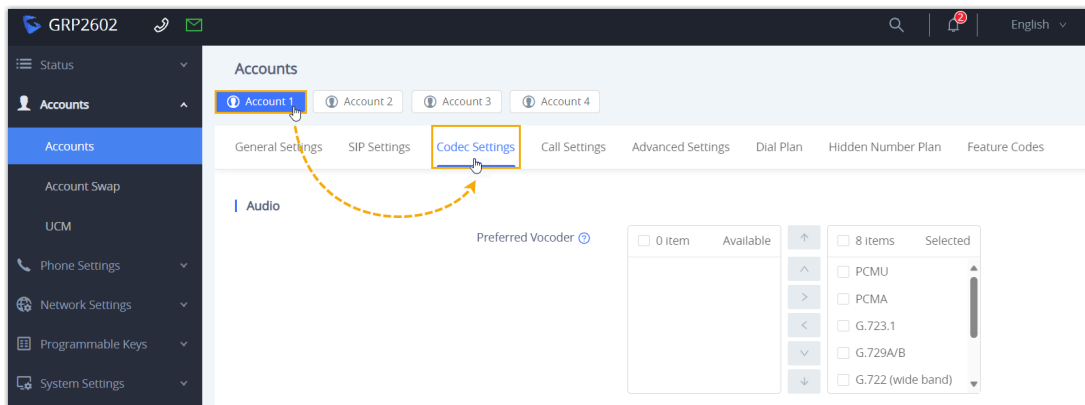
- e. Click **Save**.
2. Configure the codec settings on the IP phone.



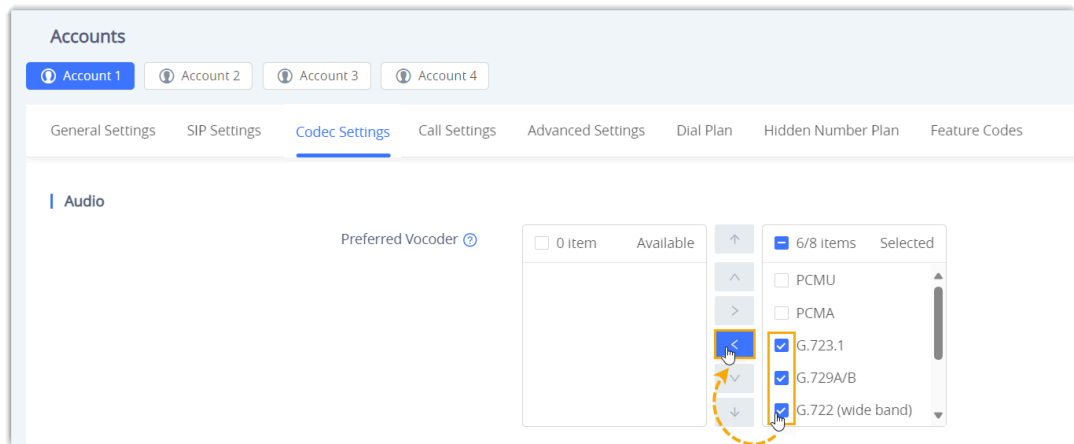
Note:

Due to the restriction of the Grandstream IP phone, the PBX is not able to remove the codecs enabled on the IP phone via auto provisioning. Therefore, you need to manually remove unnecessary codecs via the phone's web interface to match the settings on the PBX.

- a. Log in to the phone's web interface via its IP address.
- b. On the left navigation bar, go to **Accounts > Accounts**.
- c. Click the desired account, then enter the **Codec Settings** tab.



- d. In the **Preferred Vocoder** field, move unnecessary codecs from the **Selected** box to the **Available** box.



e. Click **Save and Apply**.

Htek

Auto Provision Htek IP Phone with Yeastar P-Series Cloud Edition

This topic takes Htek UC921G (firmware: 2.0.4.8.18) as an example to introduce how to auto-provision an Htek IP phone with Yeastar P-Series Cloud Edition.

Requirements

The firmwares of **Htek IP phone** and **Yeastar PBX** meet the requirements listed in [Auto Provisioning - Supported Devices](#).

Prerequisites

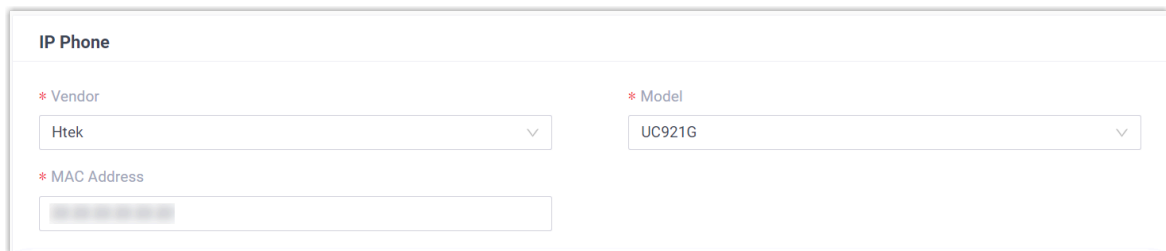
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

Procedure

- [Step 1. Add the Htek IP phone on PBX](#)
- [Step 2. Trigger the IP phone to complete provisioning](#)

Step 1. Add the Htek IP phone on PBX

1. Log in to PBX web portal, go to **Auto Provisioning > Phones**.
2. Click **Add > Add**.
3. In the **IP Phone** section, enter the following phone information.



The screenshot shows a web form titled "IP Phone" with three fields: "Vendor" (dropdown menu with "Htek" selected), "Model" (dropdown menu with "UC921G" selected), and "MAC Address" (text input field with a blurred value).

- **Vendor:** Select **Htek**.
- **Model:** Select the phone model. In this example, select **UC921G**.

- **MAC Address:** Enter the MAC address of the IP phone.
4. In the **Options** section, configure the following settings.

Options

* Template: YSDP_HtekUC9XX

Provisioning Link: <https://docs.example.yeastarcloud.com:443/api/autoprovision/grobc>

☒ Authentication for the First-time Auto Provisioning

- **Template:** Select a desired template from the drop-down list.



Note:

You can select the default template corresponding to the phone model, or customize your own template. For more information, see [Create a Custom Auto Provisioning Template](#).

- **Provisioning Link:** A provisioning link is automatically generated, which points to the location where the phone's configuration file is stored.
- **Authentication for the First-time Auto Provisioning:** If enabled, users are requested to fill in authentication information on the IP phones before triggering the first-time provisioning.



Note:

We recommend that you keep this option selected.

5. In the **Assign Extension** section, assign an extension to the IP phone.

Assign Extension

* Select Extension: 3000-Leo Ball



Tip:

If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.

- To release the extension from the associated IP phone, see [Release an Extension from a Provisioned IP Phone](#).
- To register the extension to the phone without releasing it from the previously associated one, you need to [configure the concurrent registra-](#)




[tion setting for the extension](#), as the PBX only allows an extension to register with one SIP endpoint by default.

6. Click **Save**.

The PBX will send an event notification of **RPS Request Success**.

Step 2. Trigger the IP phone to complete provisioning

1. Reboot the IP phone.
2. If you have enabled **Authentication for the First-time Auto Provisioning** on the PBX, enter the authentication credential on the IP phone.



1. User Name:

2. Password:

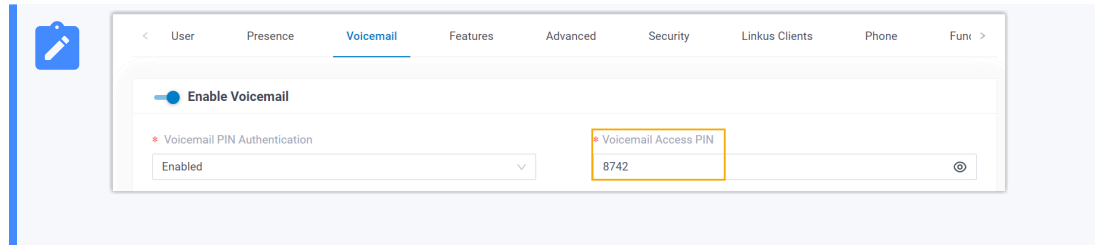
Back Save

- **User Name:** Enter the extension number that is assigned to the phone.
- **Password:** Enter the extension's Voicemail Access PIN.








Note:

You can check the Voicemail Access PIN in the **Voicemail** tab on the extension's configuration page.



Result

- The IP phone automatically downloads the configurations from the PBX and applies the settings.
- The extension is successfully registered on the IP phone. You can check the registration status on **Auto Provisioning > Phone** on the PBX web portal.

<input type="checkbox"/>	Status	Extension	Name	Vendor	Model	Phone Password	Operations
<input type="checkbox"/>		3000	Leo Ball	Htek	UC921G	-	   

Related information

[Auto Provision LDAP for IP Phones](#)

Manually Register Htek IP Phone with Yeastar P-Series Cloud Edition

This topic takes Htek UC921G (firmware: 2.0.4.8.18) as an example to introduce how to manually register an extension on an Htek IP phone.

Supported devices


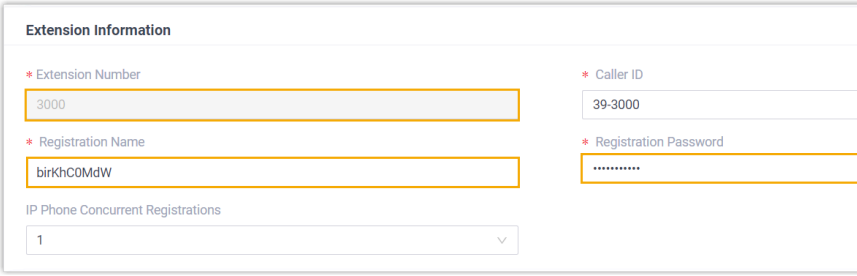

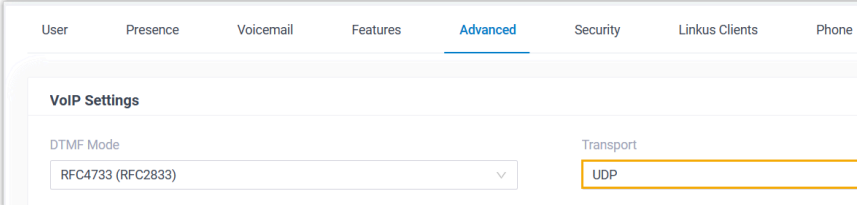
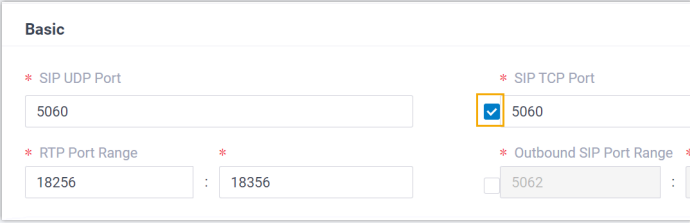
The Htek IP phones that are compatible with SIP (Session Initiation Protocol).

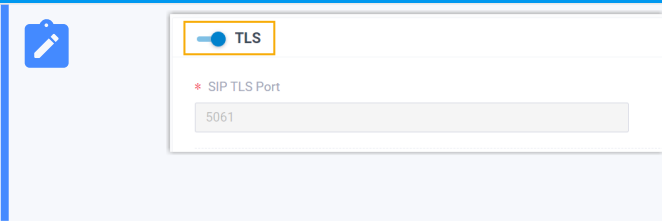
Procedure

- [Step 1. Gather registration information on Yeastar PBX](#)
- [Step 2. Register extension on Htek IP phone](#)

Step 1. Gather registration information on Yeastar PBX

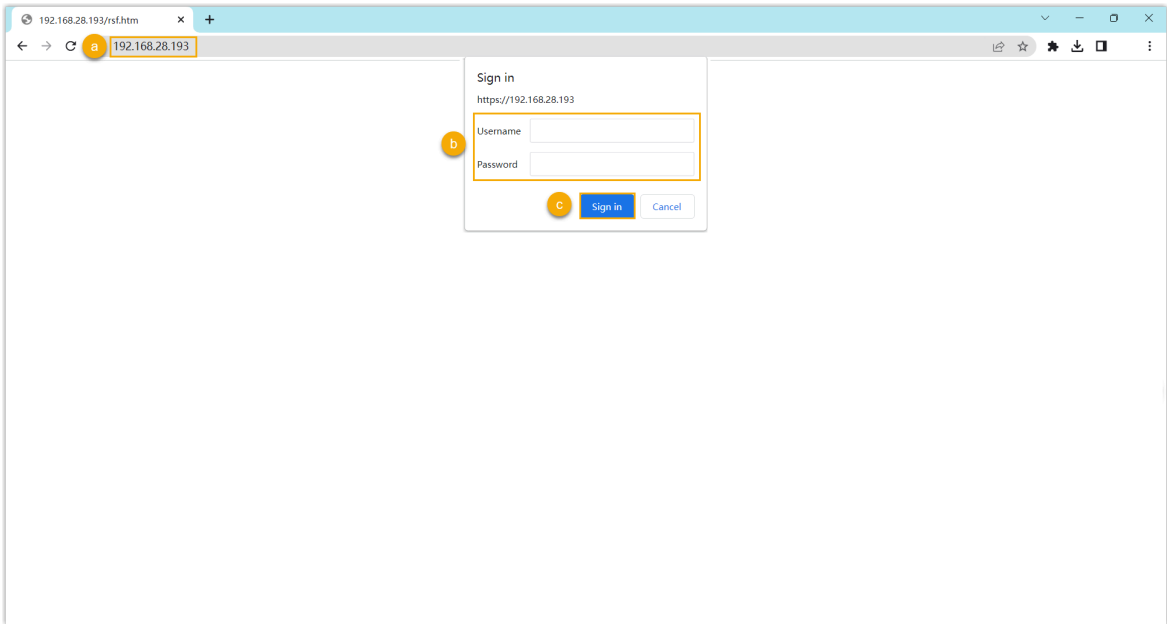
Log in to PBX web portal, gather the following information for extension registration.

Information	Instruction
Extension information	<p>Go to Extension and Trunk > Extension >  > User > Extension Information, note down the following information:</p> <ul style="list-style-type: none"> • Extension Number • Registration Name • Registration Password  <p>The screenshot shows the 'Extension Information' form with the following fields highlighted with orange boxes:</p> <ul style="list-style-type: none"> Extension Number: 3000 Registration Name: birKhC0MdW Caller ID: 39-3000 Registration Password: (masked with dots) IP Phone Concurrent Registrations: 1
Transport protocol	<p>Go to Extension and Trunk > Extension >  > Advanced > VoIP Settings > Transport, note down the transport protocol of the extension.</p> <p>In this example, the extension use UDP transport protocol.</p>  <p>The screenshot shows the 'VoIP Settings' form with the 'Transport' tab selected. The 'Transport' dropdown is highlighted with an orange box and shows 'UDP'.</p> <p>Note:</p> <ul style="list-style-type: none"> • If the extension uses TCP transport protocol, make sure that the SIP TCP port is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > General > Basic).  <p>The screenshot shows the 'Basic' settings for SIP TCP Port. The 'SIP TCP Port' checkbox is checked, and the 'SIP TCP Port' field is set to 5060. The 'SIP UDP Port' is set to 5060. The 'RTP Port Range' is 18256 to 18356. The 'Outbound SIP Port Range' is 5062 to 5082.</p> <ul style="list-style-type: none"> • If the extension uses TLS transport protocol, make sure that the TLS is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > TLS).

Information	Instruction
	
PBX domain name	The domain name of the PBX. In this example, we use the PBX domain name <code>docs.example.yeastarcloud.com</code> for extension registration.
SIP registration port	The SIP registration port is 5060.

Step 2. Register extension on Htek IP phone

1. Log in to the web interface of the Htek IP phone.



- a. In the browser's address bar, enter the IP address of the IP phone.
- b. Enter the username `admin` and the associated password.

In this example, enter the default password `admin`.
- c. Click **Sign in**.

2. Go to **Profile > Basic**, edit the profile for registration.

- a. Complete the following settings

Htek | Home | Profile | Account | Network | Function Keys | Settings

Basic | Codec | Advanced

Profile | Profile 2

* Primary SIP Server: docs.example.yeastarcloud.com ?

Failover SIP Server: ?

Prefer Primary SIP Server: ☒ No ☐ Yes ?

Outbound Proxy: ?

Backup Outbound Proxy: ?

* SIP Transport: ☒ UDP ☐ TCP ☐ TLS ?

NAT Traversal: ☐ No ☒ No, but send keep alive ☐ STUN

- **Primary SIP Server:** Enter the domain name of the PBX.
- **SIP Transport:** Select the transport protocol of the extension. In this example, select **UDP**.

b. At the bottom of the page, click **SaveSet**.

3. Go to **Account > Basic**, complete the following settings.

Htek | Home | Profile | Account | Network | Function Keys | Settings

Basic

Account | Account 2

Account Status: Disabled

* Account Active: ☐ No ☒ Yes

Profile: Profile 2

Label: Leo Ball ?

* SIP User ID: 3000 ?

* Authenticate ID: birKhcOMdW ?

* Authenticate Password: ***** ?

Name: ?

Local SIP Port: 5060 ?

Use Random Port: ☒ No ☐ Yes

a. In the **Account** drop-down list, select an available account.

b. In the **Account Active** field, select **Yes** to activate the account.

c. In the **Profile** drop-down list, select [the profile edited in step 2](#).

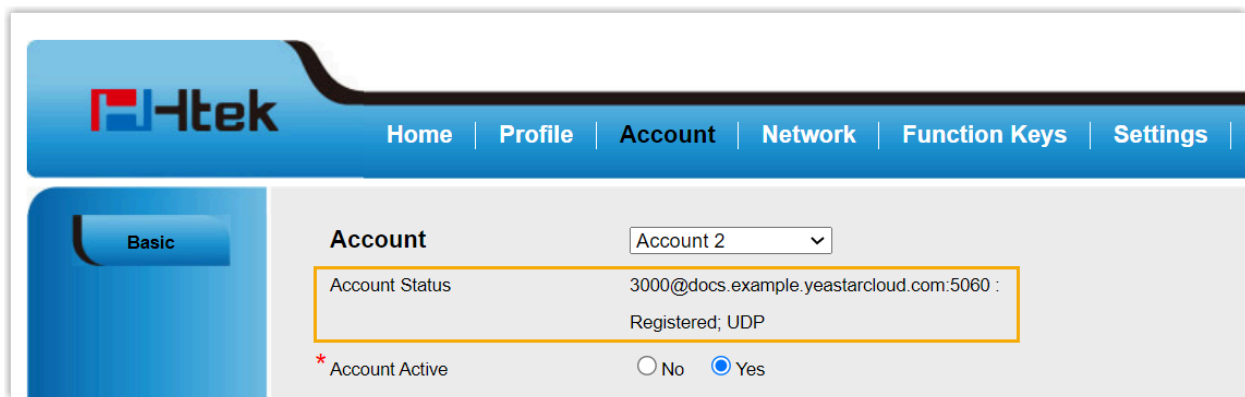
d. Enter the extension information,

- **Label:** Enter the name associated with the account, which will be displayed on the phone screen.
- **SIP User ID:** Enter the extension number.
- **Authenticate ID:** Enter the registration name of the extension.
- **Authenticate Password:** Enter the registration password of the extension.
- **Local SIP Port:** Enter the SIP registration port.

e. At the bottom of the page, click **SaveSet**.

Result

The extension is registered successfully. You can check the registration status in the **Account Status** field.



The screenshot shows the Htek web interface. The top navigation bar includes links for Home, Profile, Account, Network, Function Keys, and Settings. The 'Account' section is active, and a dropdown menu shows 'Account 2'. The 'Account Status' field is highlighted with a yellow box and contains the text '3000@docs.example.yeastarcloud.com:5060 : Registered; UDP'. Below this, the 'Account Active' status is indicated with a red asterisk and two radio buttons: 'No' and 'Yes', with 'Yes' being the selected option.

Tiptel

Auto Provision Tiptel IP Phone with Yeastar P-Series Cloud Edition

This topic takes Tiptel 3310 (firmware: 2.42.6.5.55) as an example to introduce how to auto provision a Tiptel IP phone with Yeastar P-Series Cloud Edition.

Requirements

The firmwares of **Tiptel IP phone** and **Yeastar PBX** meet the requirements listed in [Auto Provisioning - Supported Devices](#).

Prerequisites

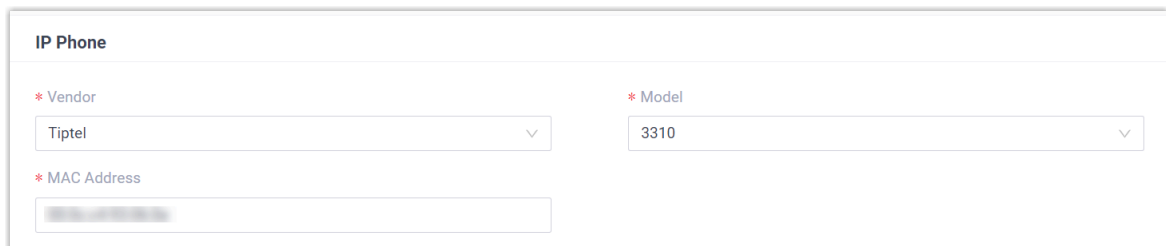
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

Procedure

- [Step 1. Add the Tiptel IP phone on PBX](#)
- [Step 2. Trigger the IP phone to complete provisioning](#)

Step 1. Add the Tiptel IP phone on PBX

1. Log in to PBX web portal, go to **Auto Provisioning > Phones**.
2. Click **Add > Add**.
3. In the **IP Phone** section, enter the following phone information.



IP Phone

* Vendor: Tiptel

* Model: 3310

* MAC Address: [blurred]

- **Vendor:** Select **Tiptel**.
- **Model:** Select the phone model. In this example, select **3310**.

- **MAC Address:** Enter the MAC address of the IP phone.
4. In the **Options** section, configure the following settings.

Options

* Template

YSDP_Tiptel

Provisioning Link

https://docs.example.yeastarcloud.com:443/api/autoprovision/grobc

☒ Authentication for the First-time Auto Provisioning

- **Template:** Select a desired template from the drop-down list.



Note:

You can select the default template corresponding to the phone model, or customize your own template. For more information, see [Create a Custom Auto Provisioning Template](#).

- **Provisioning Link:** A provisioning link is automatically generated, which points to the location where the phone's configuration file is stored.
- **Authentication for the First-time Auto Provisioning:** If enabled, users are requested to fill in authentication information on the IP phones before triggering the first-time provisioning.



Note:

We recommend that you keep this option selected.

5. In the **Assign Extension** section, assign an extension to the IP phone.

Assign Extension

* Select Extension

3000-Leo Ball



Tip:

If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.

- To release the extension from the associated IP phone, see [Release an Extension from a Provisioned IP Phone](#).
- To register the extension to the phone without releasing it from the previously associated one, you need to [configure the concurrent registra-](#)



[tion setting for the extension](#), as the PBX only allows an extension to register with one SIP endpoint by default.

6. Click **Save**.

The PBX will send an event notification of **RPS Request Success**.

Step 2. Trigger the IP phone to complete provisioning

1. Reboot the IP phone.
2. If you have enabled **Authentication for the First-time Auto Provisioning** on the PBX, enter the authentication credential on the IP phone.



1. UserName:

2. Password:

Back

Save

- **UserName:** Enter the extension number that is assigned to the phone.
- **Password:** Enter the extension's Voicemail Access PIN.








Note:

You can check the Voicemail Access PIN in the **Voicemail** tab on the extension's configuration page.

The screenshot shows the 'Voicemail' tab in a configuration interface. It includes a toggle for 'Enable Voicemail' and a dropdown for 'Voicemail PIN Authentication' set to 'Enabled'. The 'Voicemail Access PIN' field is highlighted with a yellow box and contains the value '8742'.

Result

- The IP phone automatically downloads the configurations from the PBX and applies the settings.
- The extension is successfully registered on the IP phone. You can check the registration status on **Auto Provisioning > Phone** on the PBX web portal.

<input type="checkbox"/>	Status	Extension	Name	Vendor	Model	Phone Password	Operations
<input type="checkbox"/>		3000	Leo Ball	Tiptel	3310	-	   

Related information

[Auto Provision LDAP for IP Phones](#)

Manually Register Tiptel IP Phone with Yeastar P-Series Cloud Edition

This topic takes Tiptel 3310 (firmware: 2.42.6.5.55) as an example to introduce how to manually register an extension on a Tiptel IP phone.

Supported devices


The Tiptel IP phones that are compatible with SIP (Session Initiation Protocol).

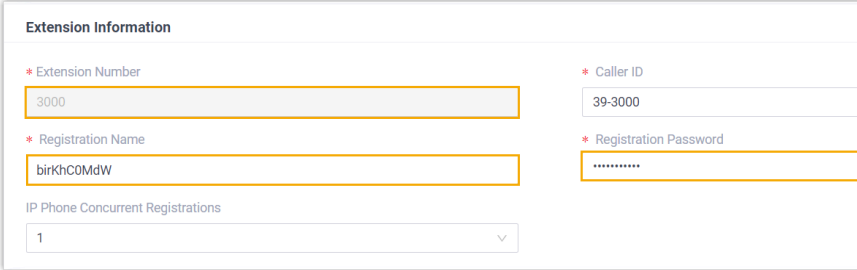

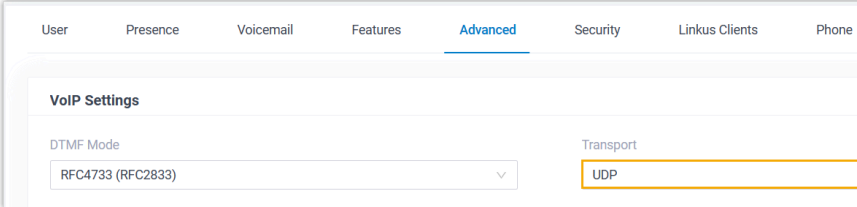
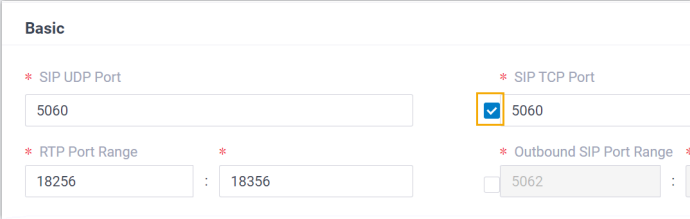
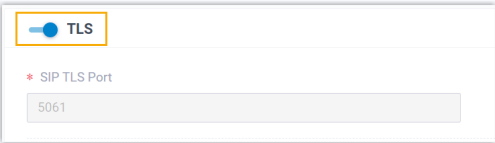
Procedure

- [Step 1. Gather registration information on Yeastar PBX](#)
- [Step 2. Register extension on Tiptel IP phone](#)

Step 1. Gather registration information on Yeastar PBX

Log in to PBX web portal, gather the following information for extension registration.

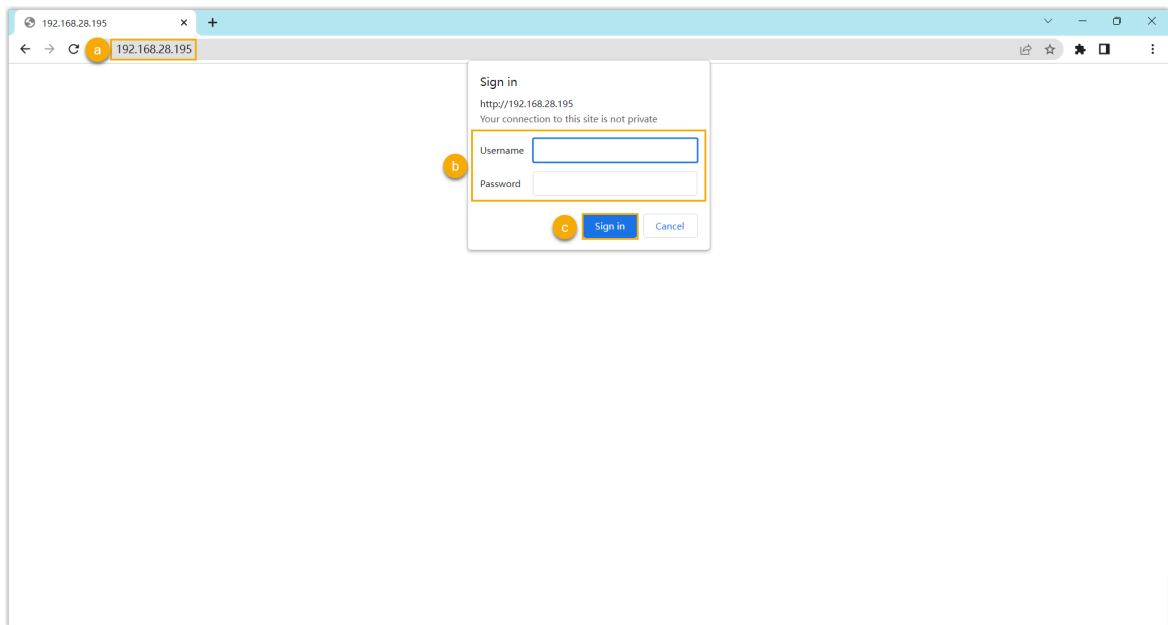
Information	Instruction
Extension information	<p>Go to Extension and Trunk > Extension  > User > Extension Information, note down the following information:</p> <ul style="list-style-type: none"> • Extension Number • Registration Name

Information	Instruction
	<p>• Registration Password</p> 
Transport protocol	<p>Go to Extension and Trunk > Extension >  > Advanced > VoIP Settings > Transport, note down the transport protocol of the extension.</p> <p>In this example, the extension use UDP transport protocol.</p>  <p>Note:</p> <ul style="list-style-type: none"> • If the extension uses TCP transport protocol, make sure that the SIP TCP port is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > General > Basic).  <ul style="list-style-type: none"> • If the extension uses TLS transport protocol, make sure that the TLS is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > TLS). 

Information	Instruction
PBX domain name	The domain name of the PBX. In this example, we use the PBX domain name <code>docs.example.yeastarcloud.com</code> for extension registration.
SIP registration port	The SIP registration port is 5060.

Step 2. Register extension on Tiptel IP phone

1. Log in to the web interface of the Tiptel IP phone.



- a. In the browser's address bar, enter the IP address of the IP phone.
 - b. Enter the username `admin` and the associated password.

In this example, enter the default password `admin`.
 - c. Click **Sign in**.
2. Go to **Profile > Basic**, edit the profile for registration.
 - a. Complete the following settings.

tiptel Home | Profile | Account | Network | Function Keys

Basic
Codec
Advanced

Profile Profile 1

* Primary SIP Server docs.example.yeastarcloud.com ?

Failover SIP Server ?

Prefer Primary SIP Server ☒ No ☐ Yes ?

Current SIP Server

DHCP SIP Server ☒ No ☐ Yes

Outbound Proxy ?

Backup Outbound Proxy ?

* SIP Transport ☒ UDP ☐ TCP ☐ TLS ?

NAT Traversal ☐ No ☒ No, but send keep alive ☐ STUN

- **Primary SIP Server:** Enter the domain name of the PBX.
- **SIP Transport:** Select the transport protocol of the extension. In this example, select **UDP**.

b. At the bottom of the page, click **SaveSet**.

3. Go to **Account > Basic**, complete the following settings.

- a. In the **Account** drop-down list, select an available account.
- b. In the **Account Active** field, select **Yes** to activate the account.
- c. In the **Profile** drop-down list, select [the profile edited in step 2](#).
- d. Enter the extension information.
 - **Label:** Enter the name associated with the account, which will be displayed on the phone screen.
 - **SIP User ID:** Enter the extension number.
 - **Authenticate ID:** Enter the registration name of the extension.
 - **Authenticate Password:** Enter the registration password of the extension.
 - **Local SIP Port:** Enter the SIP registration port.
- e. At the bottom of the page, click **SaveSet**.

Result

The extension is registered successfully. You can check the registration status in the **Account status** field.

tiptel

Home | Profile | Account | Network | Function Keys

Basic

Account

Account 1

Account Status3000@docs.example.yeastarcloud.com:5060 :Registered; UDP

* Account Active☐ No☒ Yes

Alcatel-Lucent Enterprise (ALE)

Provision Alcatel Lucent Enterprise (ALE) IP Phone with Yeastar P-Series Cloud Edition

This topic takes Alcatel Lucent Enterprise M3 (firmware: 2.13.39.000.2217) as an example to describe how to provision Alcatel Lucent Enterprise IP phone with Yeastar P-Series Cloud Edition.

Requirements

The firmwares of **ALE IP Phone** and **Yeastar PBX** meet the requirements listed in [Auto Provisioning - Supported Devices](#).

Scenarios

The provisioning methods and operations vary depending on your provisioning needs, as the following table shows:

Scenario	Description
Provision a SINGLE ALE IP phone	<p>In this scenario, you can manually add a provisioning link provided by Yeastar PBX to the phone. In this way, the phone can retrieve configurations from the PBX using the given link.</p> <p>For more information, see Manually provision an ALE IP phone.</p>
Provision MULTIPLE ALE IP phones	<p>In this scenario, you can utilize DHCP option 66 to deliver the provisioning link offered by Yeastar PBX to the IP phones. In this way, the phones can retrieve configurations from the PBX using the given link.</p> <p>For more information, see Auto provision multiple ALE IP phones.</p>

Manually provision an ALE IP phone

Prerequisites

- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

Procedure

- [Step 1. Add the ALE IP phone on PBX](#)
- [Step 2. Configure provisioning server address on the phone](#)

Step 1. Add the ALE IP phone on PBX

Add the IP phone on PBX. The PBX will generate a configuration file based on the phone's MAC address.

1. Log in to PBX web portal, go to **Auto Provisioning > Phones**.
2. Click **Add > Add**.
3. In the **IP Phone** section, configure phone information as follows:

The screenshot shows the 'IP Phone' configuration form. It has three main fields: 'Vendor' with a dropdown menu showing 'Alcatel-Lucent Enterprise', 'Model' with a dropdown menu showing 'M3', and 'MAC Address' with a text input field containing a masked address.

- **Vendor:** Select **Alcatel-Lucent Enterprise**.
 - **Model:** Select the phone model. In this example, select **M3**.
 - **MAC Address:** Enter the MAC address of the IP phone.
4. In the **Options** section, configure the following settings.

The screenshot shows the 'Options' configuration form. It has a 'Template' dropdown menu set to 'YSDP_AleMyriad' and a 'Provisioning Link' text input field containing the URL 'https://docs.test.yeastarcloud.com:443/api/autoprovision/gVvUsLAC'. Below the link, there is a note: 'Please copy this Provisioning Link, then set up the link to where your IP phones can fetch the configuration files.'

- **Template:** Select a desired template from the drop-down list.



Note:

You can select the default template corresponding to the phone model, or customize your own template. For more information, see [Create a Custom Auto Provisioning Template](#).

- **Provisioning Link:** A provisioning link is automatically generated, which points to the location where the phone's configuration file is stored.



Note:



Note down the provisioning link, as you will use it later.

5. In the **Assign Extension** section, assign an extension to the IP phone.

Assign Extension

* Select Extension

3000-Leo Ball



Tip:

If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.

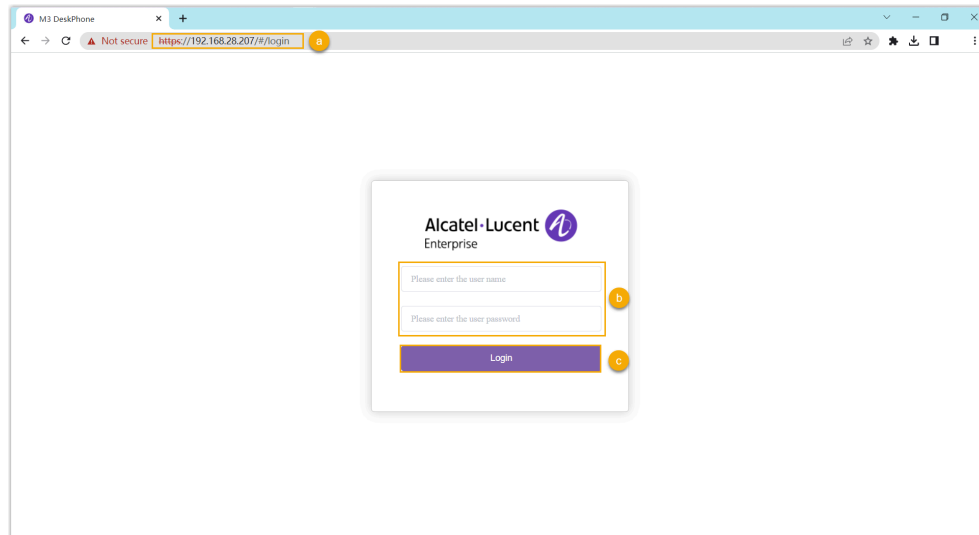
- To release the extension from the associated IP phone, see [Release an Extension from a Provisioned IP Phone](#).
- To register the extension to the phone without releasing it from the previously associated one, you need to [configure the concurrent registration setting for the extension](#), as the PBX only allows an extension to register with one SIP endpoint by default.

6. Click **Save**.

Step 2. Configure provisioning server address on the phone

Manually configure provisioning server for the Grandstream IP phone using the provisioning link provided by the PBX.

1. Log in to the web interface of the ALE IP phone.



a. In the browser's address bar, enter the IP address of the IP phone.

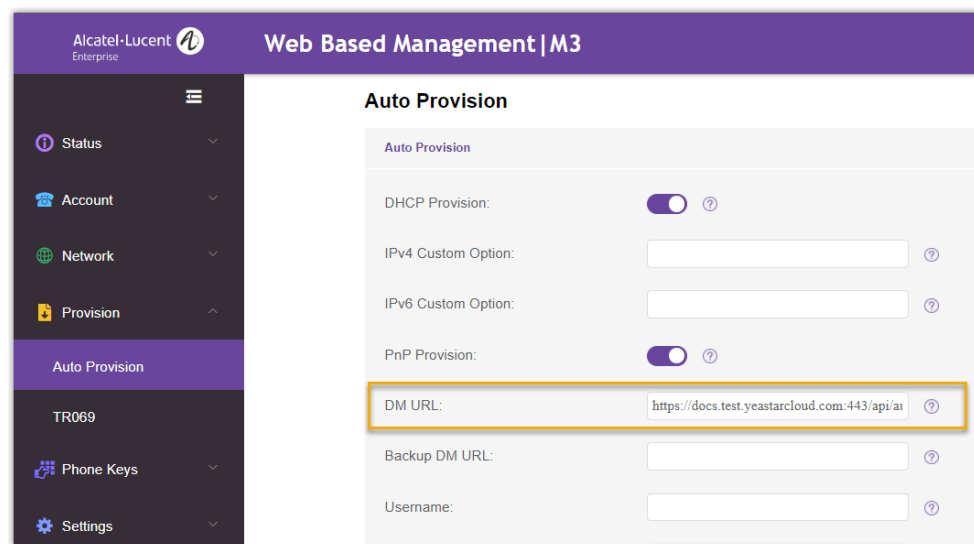
b. Enter the username `admin` and the associated password.

In this example, enter the default password `123456`.

c. Click **Login**.

2. On the left navigation bar, go to **Provision > Auto Provision**.

3. In the **DM URL** field, paste the provisioning link.



4. Click **Submit**.






5. Click **Auto Provision Now**.

Result

**Note:**

Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

- After the IP phone is rebooted, it automatically downloads the configurations from the PBX and applies the settings.
- The extension is successfully registered on the IP phone. You can check the registration status on **Auto Provisioning > Phone** on the PBX web portal.

<input type="checkbox"/>	Status	Extension	Name	Vendor	Model	Phone Password	Operations
<input type="checkbox"/>		3000	Leo Ball	Alcatel-Lucent Enterprise	M3	*****@	   

Auto provision multiple ALE IP phones

Prerequisites

- Make sure that there is only one DHCP server in the subnet where the IP phones are deployed, or the IP phones may fail to obtain IP addresses.
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

Procedure

- [Step 1. Add the IP phone on the PBX](#)
- [Step 2. Configure DHCP option 66 on the router](#)

Step 1. Add the IP phone on the PBX

Add the IP phone on PBX. The PBX will generate a configuration file based on the phone's MAC address.

1. Log in to PBX web portal, go to **Auto Provisioning > Phones**.
2. Click **Add > Add**.
3. In the **IP Phone** section, configure phone information as follows:

IP Phone

* Vendor: Alcatel-Lucent Enterprise

* Model: M3

* MAC Address: [Redacted]

- **Vendor:** Select **Alcatel-Lucent Enterprise**.
- **Model:** Select the phone model. In this example, select **M3**.
- **MAC Address:** Enter the MAC address of the IP phone.

4. In the **Options** section, configure the following settings.

Options

* Template: YSDP_AleMyriad

Provisioning Link: <https://docs.test.yeastarcloud.com:443/api/autoprovision/gVvUsLAC>

Please copy this Provisioning Link, then set up the link to where your IP phones can fetch the configuration files.

- **Template:** Select a desired template from the drop-down list.



Note:

You can select the default template corresponding to the phone model, or customize your own template. For more information, see [Create a Custom Auto Provisioning Template](#).

- **Provisioning Link:** A provisioning link is automatically generated, which points to the location where the phone's configuration file is stored.



Note:

Note down the provisioning link, as you will use it later.

5. In the **Assign Extension** section, assign an extension to the IP phone.

Assign Extension

* Select Extension: 3000-Leo Ball



Tip:



If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.

- To release the extension from the associated IP phone, see [Release an Extension from a Provisioned IP Phone](#).
- To register the extension to the phone without releasing it from the previously associated one, you need to [configure the concurrent registration setting for the extension](#), as the PBX only allows an extension to register with one SIP endpoint by default.

6. Click **Save**.

Step 2. Configure DHCP option 66 on the router

In the subnet where the IP phone is deployed, use the generated provisioning link to configure option 66 on the DHCP Server.

1. On PBX web portal, copy the provisioning link from the phone's detail page.

The screenshot shows a web interface with a section titled "Options". Under "Options", there is a dropdown menu labeled "* Template" with the value "YSDP_AleMyriad" selected. To the right of this, there is a "Provisioning Link" section. It contains a text box with the URL "https://docs.test.yeastarcloud.com:443/api/autoprovision/gVvUsLA". To the right of the text box is a copy icon. Below the text box, there is a blue instruction: "Please copy this Provisioning Link, then set up the link to where your IP phones can fetch the configuration files."

2. On the DHCP server, set up option 66 with the provisioning link.

In this example, the configuration is shown below.

Interfaces » LAN

General Settings | Advanced Settings | Firewall Settings | **DHCP Server**

General Setup | **Advanced Settings** | IPv6 Settings | IPv6 RA Settings

Dynamic DHCP ☒
 ? Dynamically allocate DHCP addresses for clients. If disabled, only clients having static leases will be served.

Force ☐
 ? Force DHCP on this network even if another server is detected.

IPv4-Netmask 255.255.255.0
 ? Override the netmask sent to clients. Normally it is calculated from the subnet that is served.

DHCP-Options 6,223.5.5.5
 66,https://docs.test.yeastarcloud.com:443/api/autoprovision/gVvUsLADybldHwPX
 ? Define additional DHCP options, for example "6,192.168.2.1,192.168.2.2" which advertises different DNS servers to clients.

Dismiss Save

Result



Note:

Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

- After the IP phone is rebooted, it gets an IP address from the DHCP server, downloads the configurations from the PBX via the provisioning link, and applies the settings automatically.
- The extension is successfully registered on the IP phone. You can check the registration status on **Auto Provisioning > Phone** on the PBX web portal.

<input type="checkbox"/>	Status	Extension	Name	Vendor	Model	Phone Password	Operations
<input type="checkbox"/>		3000	Leo Ball	Alcatel-Lucent Enterprise	M3	*****@	

Related information

[Auto Provision LDAP for IP Phones](#)

Manually Register Alcatel-Lucent Enterprise (ALE) Phone with Yeastar P-Series Cloud Edition

This topic takes Alcatel-Lucent Enterprise M3 (firmware: 2.13.39.000.2217) as an example to introduce how to manually register an extension on an Alcatel-Lucent Enterprise (ALE) IP phone.

Supported devices


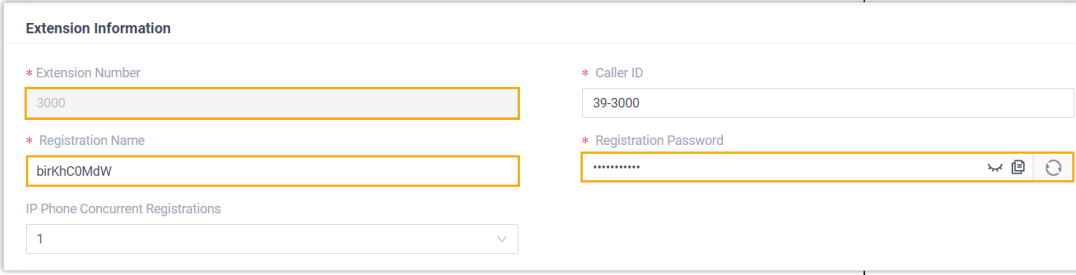

The Alcatel-Lucent Enterprise IP phones that are compatible with SIP (Session Initiation Protocol).

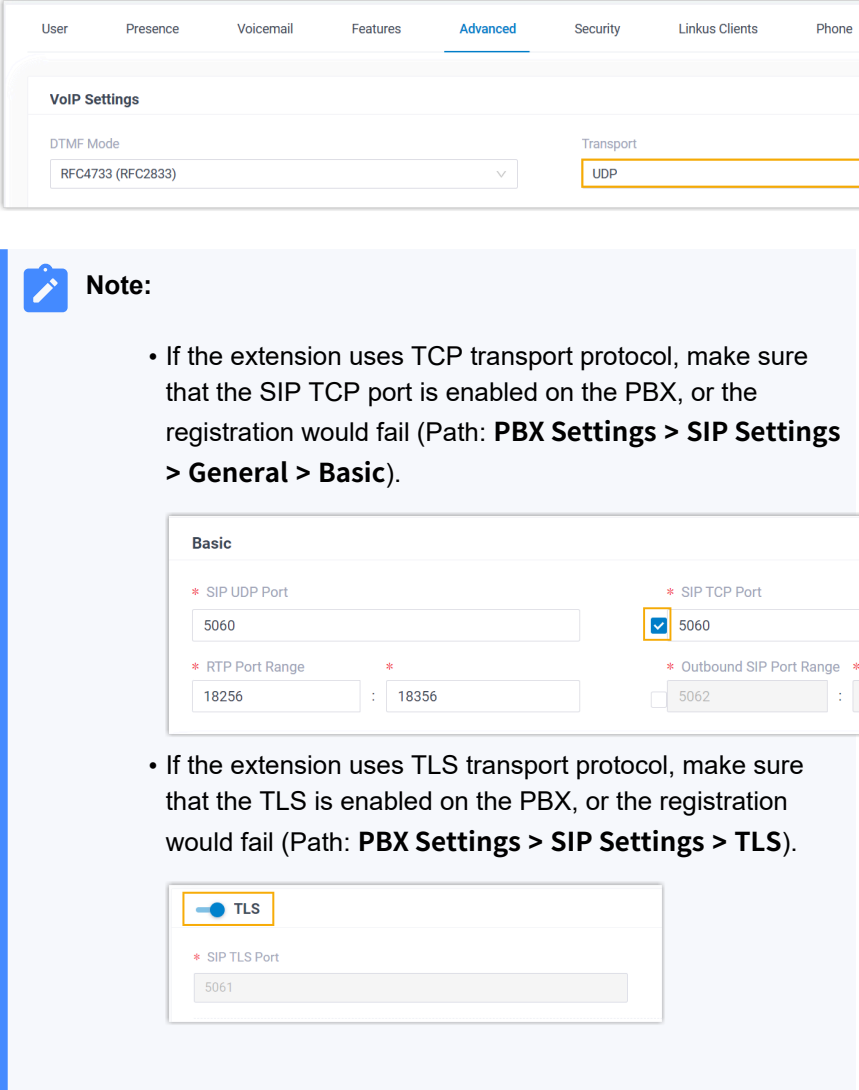
Procedure

- [Step 1. Gather registration information on Yeastar PBX](#)
- [Step 2. Register extension on ALE IP phone](#)

Step 1. Gather registration information on Yeastar PBX

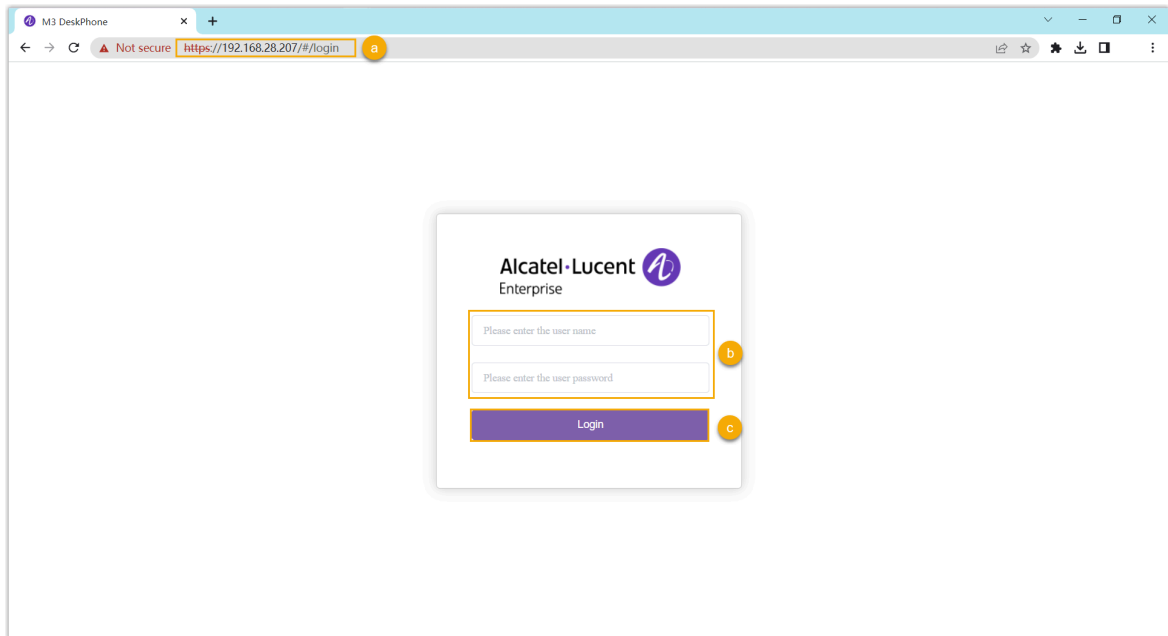
Log in to PBX web portal, gather the following information for extension registration.

Information	Instruction
Extension information	<p>Go to Extension and Trunk > Extension >  > User > Extension Information, note down the following information:</p> <ul style="list-style-type: none"> • Extension Number • Registration Name • Registration Password 
Transport protocol	<p>Go to Extension and Trunk > Extension >  > Advanced > VoIP Settings > Transport, note down the transport protocol of the extension.</p> <p>In this example, the extension use UDP transport protocol.</p>

Information	Instruction
	 <p>The screenshot shows the 'Advanced' tab of the 'VoIP Settings' page. The 'DTMF Mode' is set to 'RFC4733 (RFC2833)' and the 'Transport' is set to 'UDP'. A note box contains the following information:</p> <p>Note:</p> <ul style="list-style-type: none"> If the extension uses TCP transport protocol, make sure that the SIP TCP port is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > General > Basic). If the extension uses TLS transport protocol, make sure that the TLS is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > TLS). <p>Below the note, there are two configuration panels. The first panel, titled 'Basic', shows the following settings:</p> <ul style="list-style-type: none"> SIP UDP Port: 5060 SIP TCP Port: <input checked="" type="checkbox"/> 5060 RTP Port Range: 18256 : 18356 Outbound SIP Port Range: <input type="checkbox"/> 5062 : 5082 <p>The second panel, titled 'TLS', shows the following settings:</p> <ul style="list-style-type: none"> TLS: <input checked="" type="checkbox"/> SIP TLS Port: 5061
PBX domain name	<p>The domain name of the PBX.</p> <p>In this example, we use the PBX domain name <code>docs.example.yeastarcloud.com</code> for extension registration.</p>
SIP registration port	<p>The SIP registration port is 5060.</p>

Step 2. Register extension on ALE IP phone

1. Log in to the web interface of the ALE IP phone.



- a. In the browser's address bar, enter the IP address of the IP phone.
 - b. Enter the username `admin` and the associated password.
In this example, enter the default password `123456`.
 - c. Click **Login**.
2. On the left navigation bar, go to **Account > Basic**, and complete the following registration configurations.
 - a. In the **Account** drop-down list, select an available account, then enable the **Account Active** option.

A screenshot of the 'Basic' configuration page. It features a section titled 'Basic' with a light blue header. Below the header, there are two configuration items: 'Account:' with a dropdown menu showing 'Account1 (Not registered)' and 'Account Active:' with a toggle switch that is currently turned on (blue) and a help icon (question mark).

- b. Enter the extension information.

SIP Label Name:	<input type="text" value="Leo Ball"/>	?
Display Name:	<input type="text"/>	?
User Name:	<input type="text" value="3000"/>	?
Register Name:	<input type="text" value="birKhcOMdW"/>	?
Password:	<input type="password" value="....."/>	?

- **SIP Label Name:** Enter the name associated with the account, which will be displayed on the phone screen.
 - **User Name:** Enter the extension number.
 - **Register Name:** Enter the registration name of the extension.
 - **Password:** Enter the registration password of the extension.
- c. Enter the PBX's information and set the registration period.

SIP Server:	<input type="text" value="docs.example.yeastarcloud.com"/>	?
SIP Server Port:	<input type="text" value="5060"/>	?
Register Expire Time:	<input type="text" value="3600"/>	?
Transport Mode:	<input type="text" value="UDP"/>	?

- **SIP Server:** Enter the domain name of the PBX.
- **SIP Server Port:** Enter the SIP registration port of the PBX. In this example, enter 5060.
- **Register Expire Time:** Optional. Configure the registration period.



Tip:



You can check the available range of the registration time on **PBX Settings > SIP Settings > General > SIP Endpoint Registration Timer** in the PBX web portal.

- **Transport Mode:** Select the transport protocol of the extension. In this example, select **UDP**.

d. Click **Submit**.

Result

The extension is registered successfully. You can check the registration status in the **Account Status** field.

Account:	Account1 (Leo Ball : Registered) 
Account Active:	<input checked="" type="checkbox"/> 
Account Status:	Registered

Flyingvoice

Auto Provision Flyingvoice IP Phone with Yeastar P-Series Cloud Edition

This topic takes Flyingvoice P20P (firmware: V0.8.18.6) as an example to introduce how to auto provision a Flyingvoice IP phone with Yeastar P-Series Cloud Edition.

Requirements

The firmwares of **Flyingvoice IP phone** and **Yeastar PBX** meet the requirements listed in [Auto Provisioning - Supported Devices](#).

Prerequisites

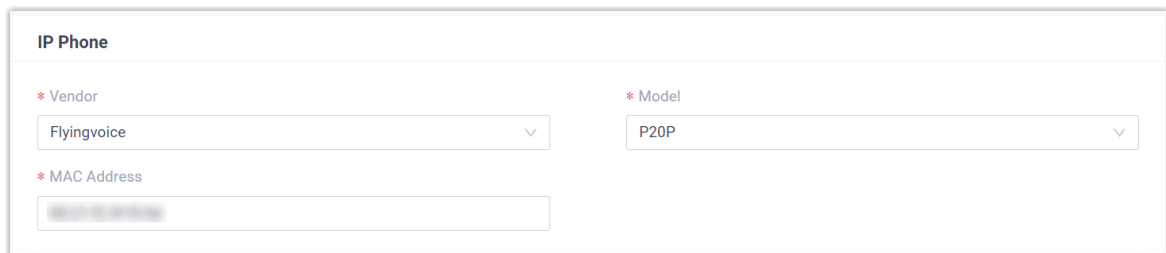
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

Procedure

- [Step 1. Add the Flyingvoice IP phone on PBX](#)
- [Step 2. Trigger the IP phone to complete provisioning](#)

Step 1. Add the Flyingvoice IP phone on PBX

1. Log in to PBX web portal, go to **Auto Provisioning > Phones**.
2. Click **Add > Add**.
3. In the **IP Phone** section, enter the following phone information.



IP Phone

* Vendor: Flyingvoice

* Model: P20P

* MAC Address: 00:00:00:00:00:00

- **Vendor:** Select **Flyingvoice**.
- **Model:** Select the phone model. In this example, select **P20P**.

- **MAC Address:** Enter the MAC address of the IP phone.
4. In the **Options** section, configure the following settings.

Options

* Template

YSDP_FlyingvoiceP2

Provisioning Link

https://docs.example.yeastarcloud.com:443/api/autopvision/grobc

☒ Authentication for the First-time Auto Provisioning

- **Template:** Select a desired template from the drop-down list.



Note:

You can select the default template corresponding to the phone model, or customize your own template. For more information, see [Create a Custom Auto Provisioning Template](#).

- **Provisioning Link:** A provisioning link is automatically generated, which points to the location where the phone's configuration file is stored.
- **Authentication for the First-time Auto Provisioning:** If enabled, users are requested to fill in authentication information on the IP phones before triggering the first-time provisioning.



Note:

We recommend that you keep this option selected.

5. In the **Assign Extension** section, assign an extension to the IP phone.

Assign Extension

* Select Extension

3000-Leo Ball



Tip:

If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.

- To release the extension from the associated IP phone, see [Release an Extension from a Provisioned IP Phone](#).
- To register the extension to the phone without releasing it from the previously associated one, you need to [configure the concurrent registra-](#)



[tion setting for the extension](#), as the PBX only allows an extension to register with one SIP endpoint by default.

6. Click **Save**.

The PBX will send an event notification of **RPS Request Success**.

Step 2. Trigger the IP phone to complete provisioning

1. Reboot the IP phone.

After boot-up, the phone screen displays an HTTP Authentication prompt.

2. Press **OK**.

You are redirected to the **Auto Provision** page.

3. In the **Auto Provision** page, complete the following configurations.

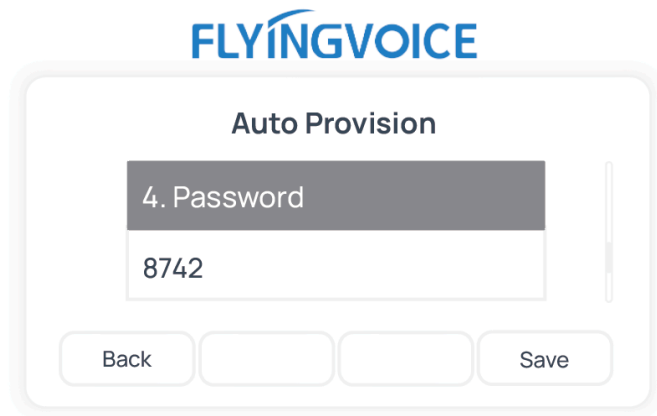
- a. Scroll down to the **User Name** field, enter the extension number that is assigned to the phone.

- b. Scroll down to the **Password** field, enter the extension's Voicemail Access PIN.



Tip:

You can check the Voicemail Access PIN in the **Voicemail** tab on the extension's configuration page.



FLYINGVOICE

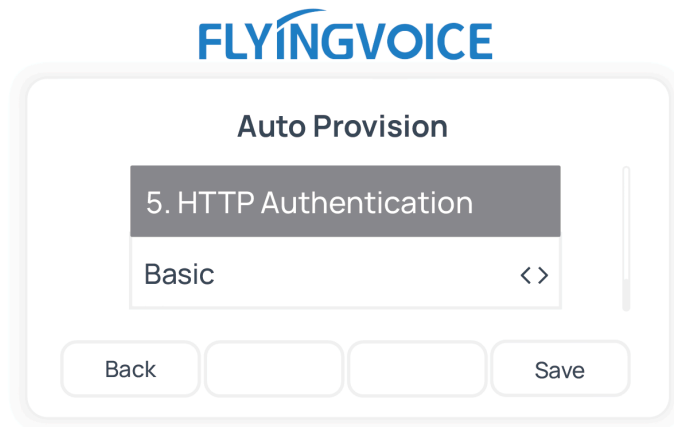
Auto Provision

4. Password

8742

Back Save

c. Scroll down to the **HTTP Authentication** field, select **Basic**.



FLYINGVOICE

Auto Provision

5. HTTP Authentication

Basic <>

Back Save






d. Press **Save** to save the configurations.

The phone screen displays a prompt, asking whether to update now.

e. Press **OK** to trigger the update.

Result

- The IP phone automatically downloads the configurations from the PBX and applies the settings.
- The extension is successfully registered on the IP phone. You can check the registration status on **Auto Provisioning > Phone** on the PBX web portal.

<input type="checkbox"/>	Status	Extension	Name	Vendor	Model	Phone Password	Operations
<input type="checkbox"/>		3000	Leo Ball	Flyingvoice	P20P	*****@	   

Related information

[Auto Provision LDAP for IP Phones](#)

Manually Register Flyingvoice IP Phone with Yeastar P-Series Cloud Edition

This topic takes Flyingvoice P20P (firmware: V0.8.18.6) as an example to introduce how to manually register an extension on a Flyingvoice IP phone.

Supported devices


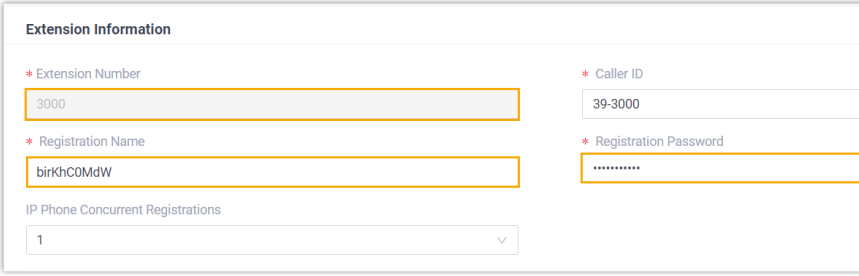

The Flyingvoice IP phones that are compatible with SIP (Session Initiation Protocol).

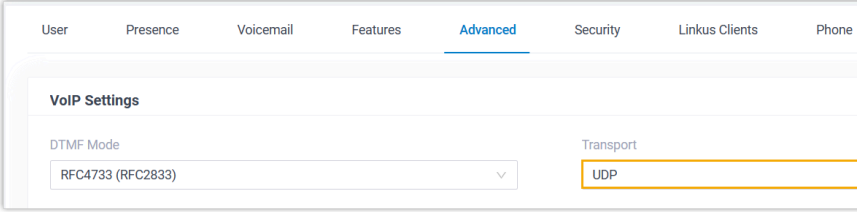
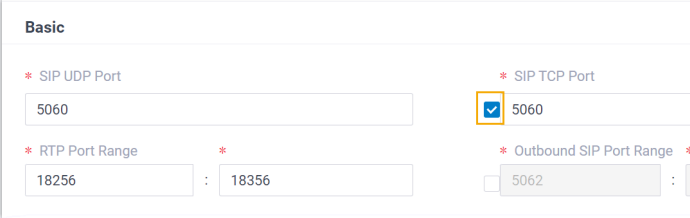
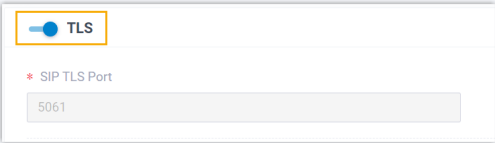
Procedure

- [Step 1. Gather registration information on Yeastar PBX](#)
- [Step 2. Register extension on Flyingvoice IP phone](#)

Step 1. Gather registration information on Yeastar PBX

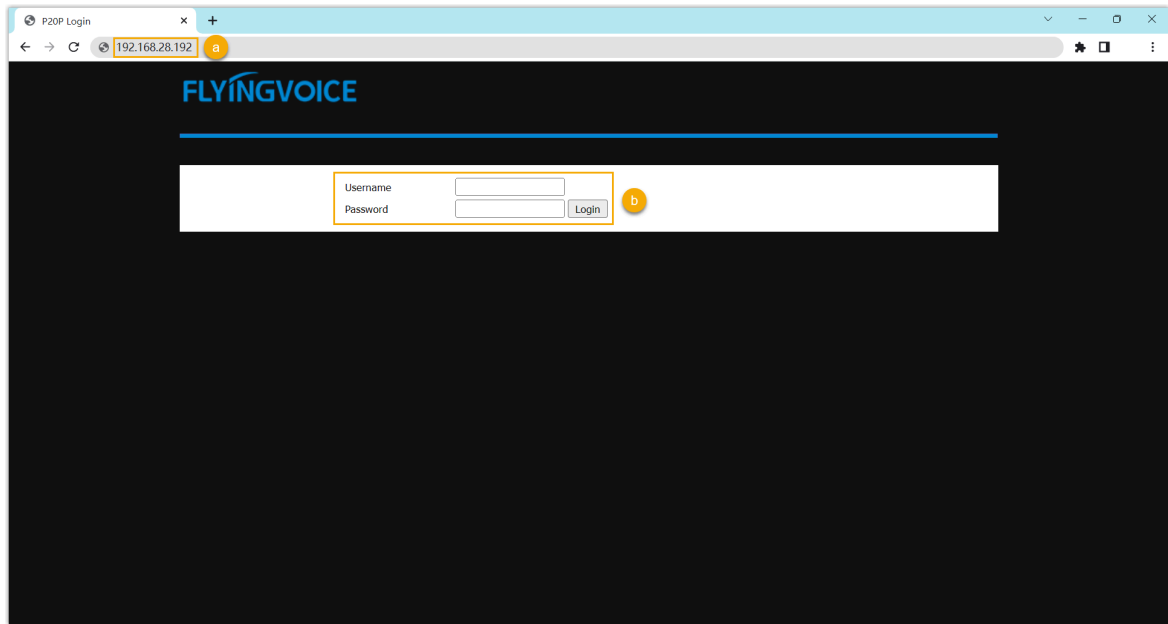
Log in to PBX web portal, gather the following information for extension registration.

Information	Instruction
Extension information	<p>Go to Extension and Trunk > Extension >  > User > Extension Information, note down the following information:</p> <ul style="list-style-type: none"> • Extension Number • Registration Name • Registration Password 
Transport protocol	<p>Go to Extension and Trunk > Extension >  > Advanced > VoIP Settings > Transport, note down the transport protocol of the extension.</p>

Information	Instruction
	<p>In this example, the extension use UDP transport protocol.</p>  <p>Note:</p> <ul style="list-style-type: none"> • If the extension uses TCP transport protocol, make sure that the SIP TCP port is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > General > Basic).  <ul style="list-style-type: none"> • If the extension uses TLS transport protocol, make sure that the TLS is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > TLS). 
PBX domain name	<p>The domain name of the PBX.</p> <p>In this example, we use the PBX domain name <code>docs.example.yeastarcloud.com</code> for extension registration.</p>
SIP registration port	<p>The SIP registration port is 5060.</p>

Step 2. Register extension on Flyingvoice IP phone

1. Log in to the web interface of the Flyingvoice IP phone.



- a. In the browser's address bar, enter the IP address of the IP phone.
- b. Enter the username `admin` and the associated password, then click **Login**.

In this example, enter the default password `admin`.

2. Go to the **SIP Account** tab, complete the registration configurations.

FLYINGVOICE

Status Network Wireless **SIP Account** Phone Administration

Line 1 **Line 2** SIP Settings VoIP QoS Ring

Basic

Register Status

Register Status Disable

Basic Setup

Line Enable Enable

Subscriber Information

Display Name Leo Ball Phone Number 3000

Account birKhcOMdW Password

Proxy and Registration

Proxy Server docs.example.yeastar Proxy Port 5060

Outbound Server Outbound Port 5060

Backup Outbound Server Backup Outbound Port 5060

Allow DHCP Option 120 to Override SIP Server Disable Transport UDP

- a. Select an available line.
 - b. In the **Line Enable** drop-down list, select **Enable**.
 - c. In the **Subscriber Information** section, enter the extension information.
 - **Display Name:** Enter the name associated with the account, which will be displayed on the phone screen.
 - **Phone Number:** Enter the extension number.
 - **Account:** Enter the registration name of the extension.
 - **Password:** Enter the registration password of the extension.
 - d. In the **Proxy and Registration** section, enter the PBX server information.
 - **Proxy Server:** Enter the domain name of the PBX.
 - **Proxy Port:** Enter the SIP registration port of the PBX.
3. At the bottom of the page, click **Save & Apply**.

Result

The extension is registered successfully. You can check the registration status in the **Register status** field.

Status	Network	Wireless	SIP Account	Phone	Administration
Line 1	Line 2	SIP Settings	VoIP QoS	Ring	
Basic					
Register Status					
Register Status		Registered			
Basic Setup					
Line Enable		Enable ▼			

Mitel

Provision Mitel IP Phones with Yeastar P-Series Cloud Edition

This topic takes Mitel 6867i (firmware: 5.0.0.1018) as an example to describe how to provision a Mitel IP phone with Yeastar P-Series Cloud Edition.

Requirements and restrictions

Requirements

The firmwares of **Mitel IP phone** and **Yeastar PBX** meet the requirements listed in [Auto Provisioning - Supported Devices](#).

Restrictions

The following features are NOT available on the provisioned Mitel IP phones:

- LDAP Directory
- Specific types of PBX function keys, including **LDAP Directory**, **DTMF**, **Intercom** and **Park & Retrieve**.

Scenarios

The provisioning methods and operations vary depending on your provisioning needs, as the following table shows:

Scenario	Description
Provision a SINGLE Mitel IP phone	<p>In this scenario, you can manually add a provisioning link provided by Yeastar PBX to the phone. In this way, the phone can retrieve configurations from the PBX using the given link.</p> <p>For more information, see Manually provision a Mitel IP phone.</p>
Provision MULTIPLE Mitel IP phones	<p>In this scenario, you can utilize DHCP option 66 to deliver the provisioning link offered by Yeastar PBX to the IP phones. In this way, the phones can retrieve configurations from the PBX using the given link.</p> <p>For more information, see Auto Provision multiple Mitel IP phones.</p>

Manually provision a Mitel IP phone

Prerequisites

- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

Procedure

- [Step 1. Add the Mitel IP phone on PBX](#)
- [Step 2. Configure provisioning server on the Mitel IP phone](#)
- [Step 3. Turn off certificate validation on the phone](#)

Step 1. Add the Mitel IP phone on PBX

Add the IP phone on PBX. The PBX will generate a configuration file based on the phone's MAC address.

1. Log in to PBX web portal, go to **Auto Provisioning > Phones**.
2. Click **Add > Add**.
3. In the **IP Phone** section, enter the following phone information.

- **Vendor:** Select **Mitel**.
 - **Model:** Select the phone model. In this example, select **6867i**.
 - **MAC Address:** Enter the MAC address of the IP phone.
4. In the **Options** section, configure the auto provision settings.

- **Template:** Select a desired template from the drop-down list.



Note:

You can select the default template corresponding to the phone model, or customize your own template. For more



information, see [Create a Custom Auto Provisioning Template](#).

- **Provisioning Link:** A provisioning link is automatically generated, which points to the location where the phone's configuration file is stored.



Note:

Note down the provisioning link, as you will use it later.

5. In the **Assign Extension** section, assign an extension to the IP phone.

Assign Extension

* Select Extension

3000-Leo Ball



Tip:

If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.

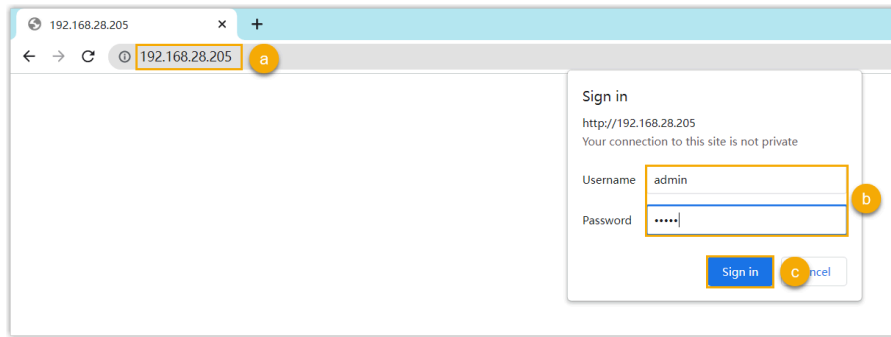
- To release the extension from the associated IP phone, see [Release an Extension from a Provisioned IP Phone](#).
- To register the extension to the phone without releasing it from the previously associated one, you need to [configure the concurrent registration setting for the extension](#), as the PBX only allows an extension to register with one SIP endpoint by default.

6. Click **Save**.

Step 2. Configure provisioning server on the Mitel IP phone

Manually configure provisioning server in the Mitel IP phone's web interface using the provisioning link provided by the PBX.

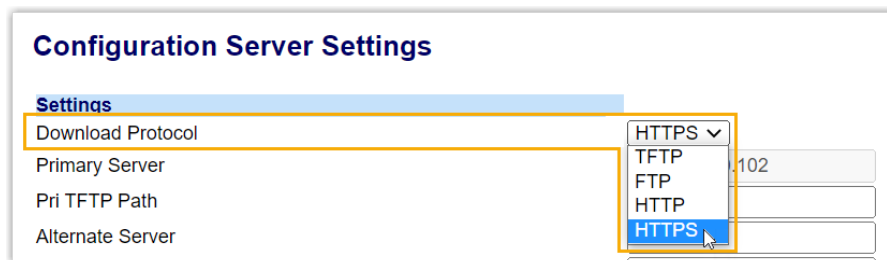
1. Log in to the web interface of the Mitel IP phone.



- a. In the browser's address bar, enter the IP address of the IP phone.
- b. Enter the username `admin` and the associated password.

In this example, enter the default password `22222`.

- c. Click **Sign in**.
2. On the left navigation bar, go to **Advanced Settings > Configuration Server**, then complete the following settings:
 - a. In the **Download Protocol** drop-down list, select **HTTPS**.



- b. Enter the provisioning link in the corresponding fields:

HTTPS Server	<code>docs.test.yeastarcloud.com</code>
HTTPS Path	<code>api/autoprovision/gVvUsLADybIdHwPX</code>
HTTPS Port	<code>443</code>

- **HTTPS Server:** Enter the domain name of the PBX. In this example, enter `docs.test.yeastarcloud.com`.
 - **HTTPS Path:** Enter the HTTPS path provided in the URL. In this example, enter `api/autoprovision/gVvUsLADybIdHwPX`.
 - **HTTPS Port:** Enter the HTTPS port of the PBX. In this example, enter `443`.
- c. Click **Save Settings**.

Step 3. Turn off certificate validation on the phone

Some older Mitel phones don't have certain necessary certificates, so they would not be able to download configuration files from the PBX due to the certification validation issue. In this case, you have to turn off the certificate validation on the IP phone to bypass the authentication between the PBX and the phone.



Important:

It is strongly recommended that you use a trusted certificate, as disabling server validation may introduce security risks on the network.

1. On the IP phone web interface, go to **Advanced Settings > Network > HTTPS Settings**, disable **Validate Certificates**.

Network Settings	
Basic Network Settings	
DHCP	<input checked="" type="checkbox"/> Enabled
IP Address	192.168.28.205
Subnet Mask	255.255.255.0
Gateway	192.168.28.1
Primary DNS	223.5.5.5
Secondary DNS	8.8.8.8
Hostname	6867i
LAN Port	Auto Negotiation
PC Port PassThru Enable/Disable	<input checked="" type="checkbox"/> Enabled
PC Port	Auto Negotiation
Advanced Network Settings	
DHCP Download Option	Any
LLDP	<input checked="" type="checkbox"/> Enabled
LLDP packet interval	30
NAT IP	0.0.0.0
NAT SIP Port	51620
NAT RTP Port	51720
Rport (RFC 3581)	<input type="checkbox"/> Enabled
HTTPS Settings	
HTTPS Server - Redirect HTTP to HTTPS	<input type="checkbox"/> Enabled
HTTPS Server - Block XML HTTP POSTs	<input type="checkbox"/> Enabled
Client Method	TLS Preferred
Validate Certificates	<input checked="" type="checkbox"/> Enabled
Check Certificate Expiration	<input checked="" type="checkbox"/> Enabled
Check Certificate Hostnames	<input checked="" type="checkbox"/> Enabled
Trusted Certificates Filename	

2. Click **Save Settings**.
3. Reboot the phone manually.

Result

- After the IP phone is rebooted, it automatically downloads the configurations from the PBX and applies the settings.

- The extension is successfully registered on the IP phone. You can check the registration status on **Auto Provisioning > Phone** on the PBX web portal.

<input type="checkbox"/>	Status	Extension	Name	Vendor	Model	Phone Password	Operations
<input type="checkbox"/>		3000	Leo Ball	Mitel	6867i	*****@	

Auto Provision multiple Mitel IP phones

Prerequisites

- Make sure that there is only one DHCP server in the subnet where the IP phones are deployed, or the IP phones may fail to obtain IP addresses.
- RESET the IP phone if it is previously used.
- Gather information of IP phone, including Vendor, Model, and MAC address.

Procedure

- [Step 1. Add the IP phone on the PBX](#)
- [Step 2. Configure DHCP option 66 on DHCP server](#)
- [Step 3. Turn off certificate validation on the phone](#)

Step 1. Add the IP phone on the PBX

Add the IP phone on PBX. The PBX will generate a configuration file based on the phone's MAC address.

1. Log in to PBX web portal, go to **Auto Provisioning > Phones**.
2. Click **Add > Add**.
3. In the **IP Phone** section, enter the following phone information.

IP Phone

* Vendor

Mitel

* Model

6867i

* MAC Address

- **Vendor:** Select **Mitel**.
- **Model:** Select the phone model. In this example, select **6867i**.
- **MAC Address:** Enter the MAC address of the IP phone.

4. In the **Options** section, configure the auto provision settings.

- **Template:** Select a desired template from the drop-down list.



Note:

You can select the default template corresponding to the phone model, or customize your own template. For more information, see [Create a Custom Auto Provisioning Template](#).

- **Provisioning Link:** A provisioning link is automatically generated, which points to the location where the phone's configuration file is stored.



Note:

Note down the provisioning link, as you will use it later.

5. In the **Assign Extension** section, assign an extension to the IP phone.



Tip:

If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.

- To release the extension from the associated IP phone, see [Release an Extension from a Provisioned IP Phone](#).
- To register the extension to the phone without releasing it from the previously associated one, you need to [configure the concurrent registration setting for the extension](#),



as the PBX only allows an extension to register with one SIP endpoint by default.

6. Click **Save**.

Step 2. Configure DHCP option 66 on DHCP server

In the subnet where the IP phone is deployed, use the generated provisioning link to configure option 66 on the DHCP Server.

1. On PBX web portal, copy the provisioning link from the phone's detail page.

The screenshot shows a 'Options' section with a dropdown menu set to 'YSDP_Mitel68XX'. To the right, under 'Provisioning Link', the URL 'https://docs.test.yeastarcloud.com:443/api/autopvision/gVvUsLAD...' is displayed. A blue text instruction below the link reads: 'Please copy this Provisioning Link, then set up the link to where your IP phones can fetch the configuration files.'

2. On the DHCP server, set up DHCP option 66 with the provisioning link.

In this example, the configuration is shown below.

The screenshot shows the 'Interfaces » LAN' configuration page. The 'DHCP Server' tab is selected. Under 'Advanced Settings', 'Dynamic DHCP' is checked. The 'IPv4-Netmask' is set to '255.255.255.0'. In the 'DHCP-Options' section, option 66 is configured with the value 'https://docs.test.yeastarcloud.com:443/api/autopvision/gVvUsLADyblHwPX'. A '+' button is visible to add more options. At the bottom right, there are 'Dismiss' and 'Save' buttons.

Step 3. Turn off certificate validation on the phone

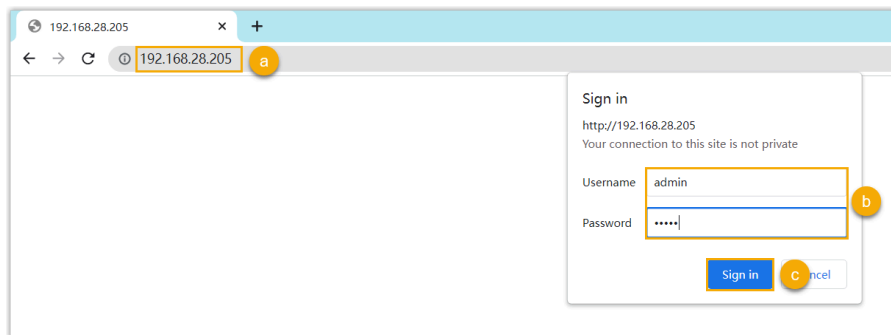
Some older Mitel phones don't have certain necessary certificates, so they would not be able to download configuration files from the PBX due to the certification validation issue. In this case, you have to turn off the certificate vali-

ation on the IP phone to bypass the authentication between the PBX and the phone.

**Important:**

It is strongly recommended that you use a trusted certificate, as disabling server validation may introduce security risks on the network.

1. Log in to the web interface of the Mitel IP phone.



- a. In the browser's address bar, enter the IP address of the IP phone.
- b. Enter the username `admin` and the associated password.

In this example, enter the default password `22222`.

- c. Click **Sign in**.

2. On the IP phone web interface, go to **Advanced Settings > Network > HTTPS Settings**, disable **Validate Certificates**.

Status

- System Information
- License Status

Operation

- User Password
- Phone Lock
- Softkeys and XML
- Keypad Speed Dial
- Directory
- Reset

Basic Settings

- Preferences
- Account Configuration
- Custom Ringtones

Advanced Settings

- Network**
- Global SIP
- Line 1
- Line 2
- Line 3
- Line 4
- Line 5
- Line 6
- Line 7
- Line 8
- Line 9
- Line 10
- Line 11
- Line 12
- Line 13
- Line 14
- Line 15
- Line 16
- Line 17
- Line 18
- Line 19
- Line 20
- Line 21

Network Settings

Basic Network Settings

- DHCP: ☒ Enabled
- IP Address: 192.168.28.205
- Subnet Mask: 255.255.255.0
- Gateway: 192.168.28.1
- Primary DNS: 223.5.5.5
- Secondary DNS: 8.8.8.8
- Hostname: 6867i
- LAN Port: Auto Negotiation
- PC Port PassThru Enable/Disable: ☒ Enabled
- PC Port: Auto Negotiation

Advanced Network Settings

- DHCP Download Option: Any
- LLDP: ☒ Enabled
- LLDP packet interval: 30
- NAT IP: 0.0.0.0
- NAT SIP Port: 51620
- NAT RTP Port: 51720
- Rport (RFC 3581): ☐ Enabled

HTTPS Settings

- HTTPS Server - Redirect HTTP to HTTPS: ☐ Enabled
- HTTPS Server - Block XML HTTP POSTs: ☐ Enabled
- Client Method: TLS Preferred
- Validate Certificates: ☐ Enabled**
- Check Certificate Expiration: ☒ Enabled
- Check Certificate Hostnames: ☒ Enabled
- Trusted Certificates Filename:

3. Click **Save Settings**.
4. Reboot the phone manually.

Result

- After the IP phone is rebooted, it gets an IP address from the DHCP server, downloads the configurations from the PBX via the provisioning link, and applies the settings automatically.
- The extension is successfully registered on the IP phone. You can check the registration status on **Auto Provisioning > Phone** on the PBX web portal.

<input type="checkbox"/>	Status	Extension	Name	Vendor	Model	Phone Password	Operations
<input type="checkbox"/>		3000	Leo Ball	Mitel	6867i	*****@	

Manually Register Mitel IP Phone with Yeastar P-Series Cloud Edition

This topic takes Mitel 6867i (firmware: 5.0.0.1018) as an example to introduce how to manually register an extension on a Mitel IP phone.

Supported devices


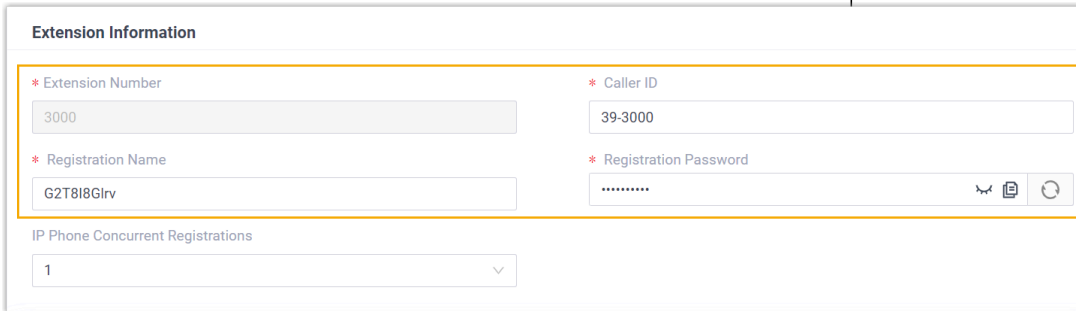

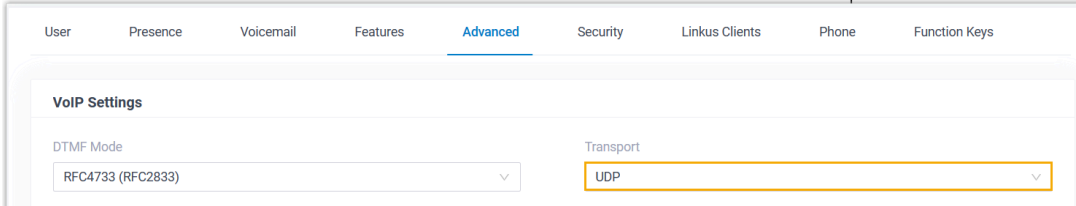
The Mitel IP phones that are compatible with SIP (Session Initiation Protocol).

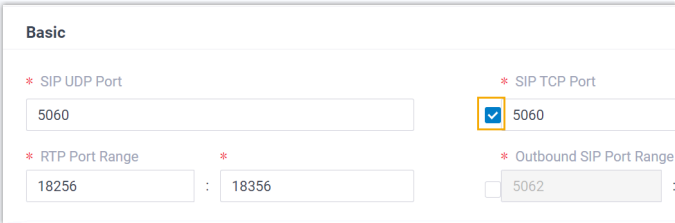
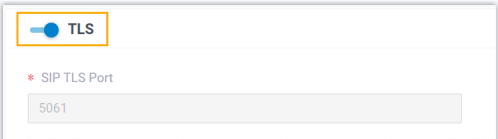
Procedure

- [Step 1. Gather registration information on Yeastar PBX](#)
- [Step 2. Register extension on Mitel IP phone](#)

Step 1. Gather registration information on Yeastar PBX

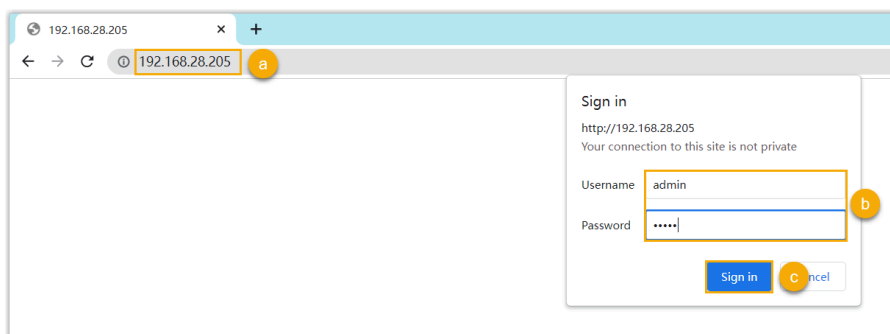
Log in to PBX web portal, gather the following information for extension registration.

Information	Instruction
Extension information	<p>Go to Extension and Trunk > Extension  > User > Extension Information, note down the following information:</p> <ul style="list-style-type: none"> • Extension Number • Caller ID • Registration Name • Registration Password 
Transport protocol	<p>Go to Extension and Trunk > Extension  > Advanced > VoIP Settings > Transport, note down the transport protocol of the extension.</p> <p>In this example, the extension use UDP transport protocol.</p> 

Information	Instruction
	<p>Note:</p> <ul style="list-style-type: none"> If the extension uses TCP transport protocol, make sure that the SIP TCP port is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > General > Basic).  <ul style="list-style-type: none"> If the extension uses TLS transport protocol, make sure that the TLS is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > TLS). 
PBX domain name	<p>The domain name of the PBX.</p> <p>In this example, we use the PBX domain name <code>docs.example.yeastarcloud.com</code> for extension registration.</p>
SIP registration port	The SIP registration port is 5060.

Step 2. Register extension on Mitel IP phone

1. Log in to the web interface of the Mitel IP phone.



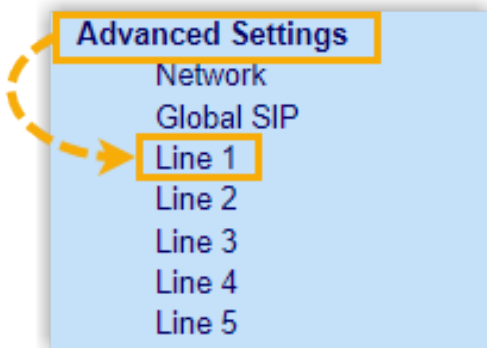
- a. In the browser's address bar, enter the IP address of the IP phone.

- b. Enter the username `admin` and the associated password.

In this example, enter the default password `22222`.

- c. Click **Sign in**.

2. On the left navigation bar, go to **Advanced Settings**, then select an available line.



3. Complete the registration configurations.

- a. In the **Basic SIP Authentication Settings** section, enter the extension information.

Basic SIP Authentication Settings	
Screen Name	Leo Ball
Screen Name 2	
Phone Number	3000
Caller ID	39-3000
Authentication Name	birKhcOMdW
Password
BLA Number	
Line Mode	Generic ▼
Call Waiting	Global ▼

- **Screen Name:** Enter the name associated with the account, which will be displayed on the phone screen.
 - **Phone Number:** Enter the extension number.
 - **Caller ID:** Optional. Enter the caller ID number of the extension, which will be displayed on the callee's device.
 - **Authentication Name:** Enter the registration name of the extension.
 - **Password:** Enter the registration password of the extension.
- b. In the **Basic SIP Network Settings** section, enter the PBX server information and set the registration period.

Basic SIP Network Settings	
Proxy Server	docs.example.yeastarcloud
Proxy Port	5060
Backup Proxy Server	0.0.0.0
Backup Proxy Port	0
Outbound Proxy Server	0.0.0.0
Outbound Proxy Port	0
Backup Outbound Proxy Server	0.0.0.0
Backup Outbound Proxy Port	0
Registrar Server	docs.example.yeastarcloud
Registrar Port	5060
Backup Registrar Server	0.0.0.0
Backup Registrar Port	0
Registration Period	1800
Conference Server URI	

- **Proxy Server:** Enter the domain name of the PBX.
- **Proxy Port:** Enter the SIP registration port of the PBX.
- **Registrar Server:** Enter the domain name of the PBX.
- **Registrar Port:** Enter the SIP registration port of the PBX.
- **Registration Period:** Optional. Set the registration period.


Tip:

You can check the available range of the registration time on **PBX Settings > SIP Settings > General > SIP Endpoint Registration Timer** in the PBX web portal.

4. Click **Save Settings**.

5. Reboot the IP phone to make the configurations take effect.

Result

The extension is registered successfully. You can check the registration status on **Status > System Information > SIP Status** on the phone's web interface.

SIP Status			
Line	SIP Account	Status	Backup Registrar Used?
1	3000@docs.example.yeastarcloud.	Registered	No

Dinstar

Manually Register Dinstar IP Phone with Yeastar P-Series Cloud Edition

This topic takes Dinstar C60S (firmware: 2.60.11.7.0) as an example to introduce how to manually register an extension on a Dinstar IP phone.

Supported devices



The Dinstar IP phones that are compatible with SIP (Session Initiation Protocol).

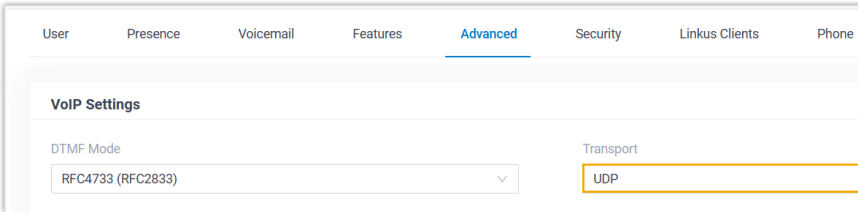
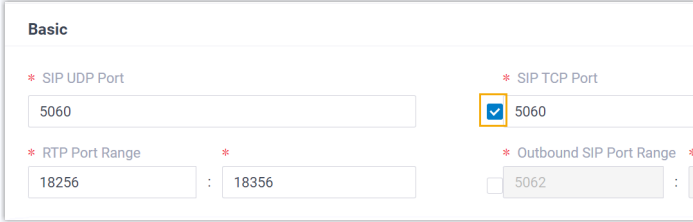
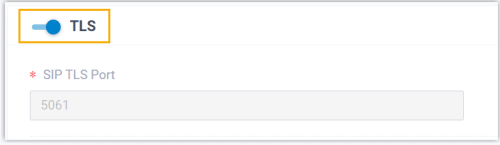
Procedure

- [Step 1. Gather registration information on Yeastar PBX](#)
- [Step 2. Register extension on Dinstar IP phone](#)

Step 1. Gather registration information on Yeastar PBX

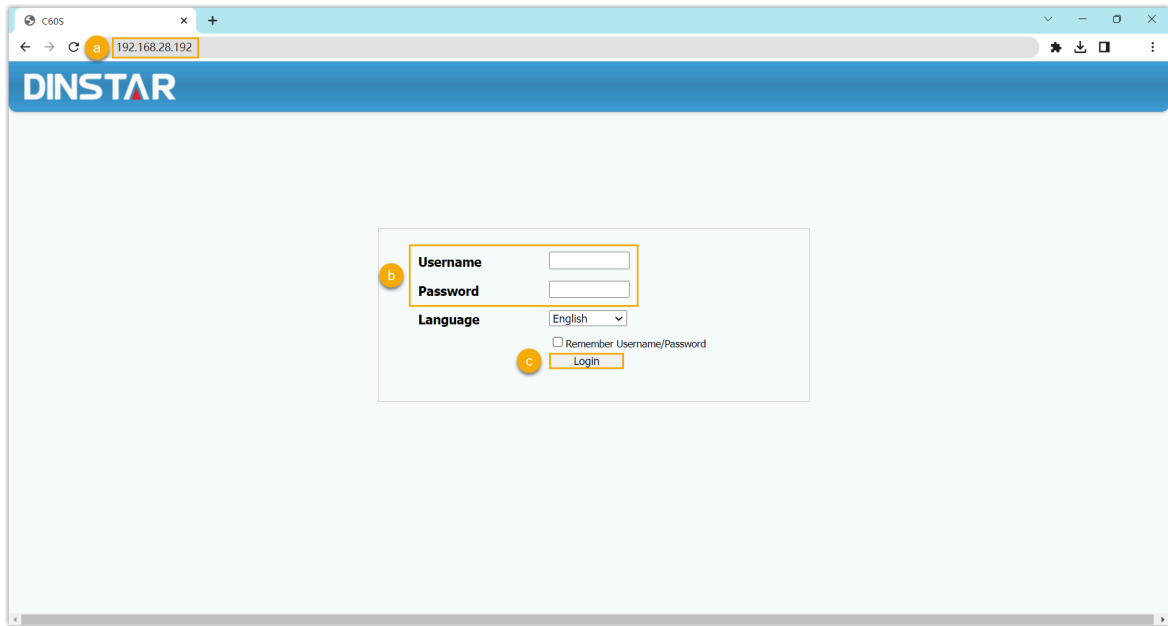
Log in to PBX web portal, gather the following information for extension registration.

Information	Instruction
Extension information	<p>Go to Extension and Trunk > Extension >  > User > Extension Information, note down the following information:</p> <ul style="list-style-type: none">• Extension Number• Registration Name• Registration Password <div><div><div>Extension Information</div><div><div>* Extension Number</div><div>3000</div></div><div><div>* Registration Name</div><div>birKhC0MdW</div></div><div><div>IP Phone Concurrent Registrations</div><div>1</div></div></div><div><div><div>* Caller ID</div><div>39-3000</div></div><div><div>* Registration Password</div><div>*****</div></div></div></div>
Transport protocol	<p>Go to Extension and Trunk > Extension >  > Advanced > VoIP Settings > Transport, note down the transport protocol of the extension.</p>

Information	Instruction
	<p>In this example, the extension use UDP transport protocol.</p>  <p>Note:</p> <ul style="list-style-type: none"> • If the extension uses TCP transport protocol, make sure that the SIP TCP port is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > General > Basic).  <ul style="list-style-type: none"> • If the extension uses TLS transport protocol, make sure that the TLS is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > TLS). 
PBX domain name	<p>The domain name of the PBX.</p> <p>In this example, we use the PBX domain name <code>docs.example.yeastarcloud.com</code> for extension registration.</p>
SIP registration port	The SIP registration port is 5060.

Step 2. Register extension on Dinstar IP phone

1. Log in to the web interface of the Dinstar IP phone.

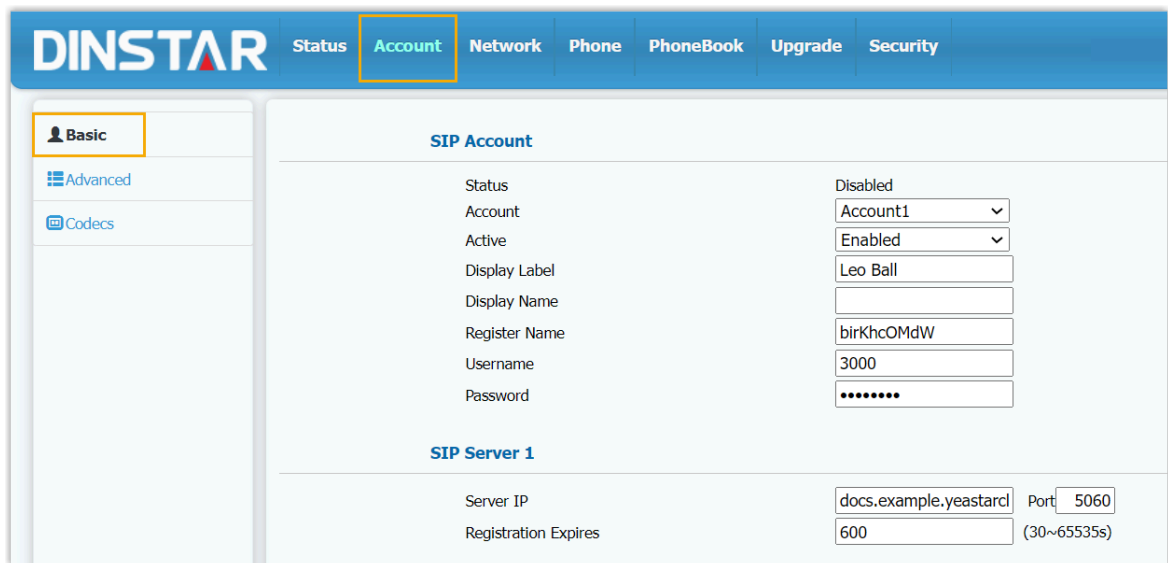


- a. In the browser's address bar, enter the IP address of the IP phone.
- b. Enter the username `admin` and the associated password.

In this example, enter the default password `admin`.

- c. Click **Login**.

2. Go to **Account > Basic**, complete the registration configurations.



- a. In the **Account** drop-down list, select an available account.
- b. In the **Active** drop-down list, select **Enabled**.
- c. Enter the extension information.

- **Display Label:** Enter the name associated with the account, which will be displayed on the phone screen.
 - **Register Name:** Enter the registration name of the extension.
 - **Username:** Enter the extension number.
 - **Password:** Enter the registration password of the extension.
- d. Enter the PBX server information.
- **Server IP:** Enter the domain name of the PBX.
 - **Port:** Enter the SIP registration port of the PBX.
3. Click **Submit**.

Result

The extension is registered successfully. You can check the registration status in the **Status** field.

The screenshot shows the Dinstar web interface with the 'Account' tab selected. The 'SIP Account' section is visible, and the 'Status' field is highlighted with a yellow box, showing 'Registered'. The other fields are as follows:

SIP Account	
Status	Registered
Account	Account1: Leo Ball ▼
Active	Enabled ▼
Display Label	Leo Ball
Display Name	
Register Name	birKhcOMdW
Username	3000
Password	••••••••