IP Phone Configuration Guide

Yeastar P-Series Cloud Edition

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Contents

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.

Method	Description
Auto Provisioning	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. This method is applicable for IP phones that support Auto Provisioning.
Manual Provisioning	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. This method is mainly used for IP phones that do NOT support **RPS** auto provisioning.
Manual Registration	Register PBX extension(s) on an IP phone, without additional phone auto provisioning. This method is applicable for IP phones that are compatible with the standard SIP protocol.

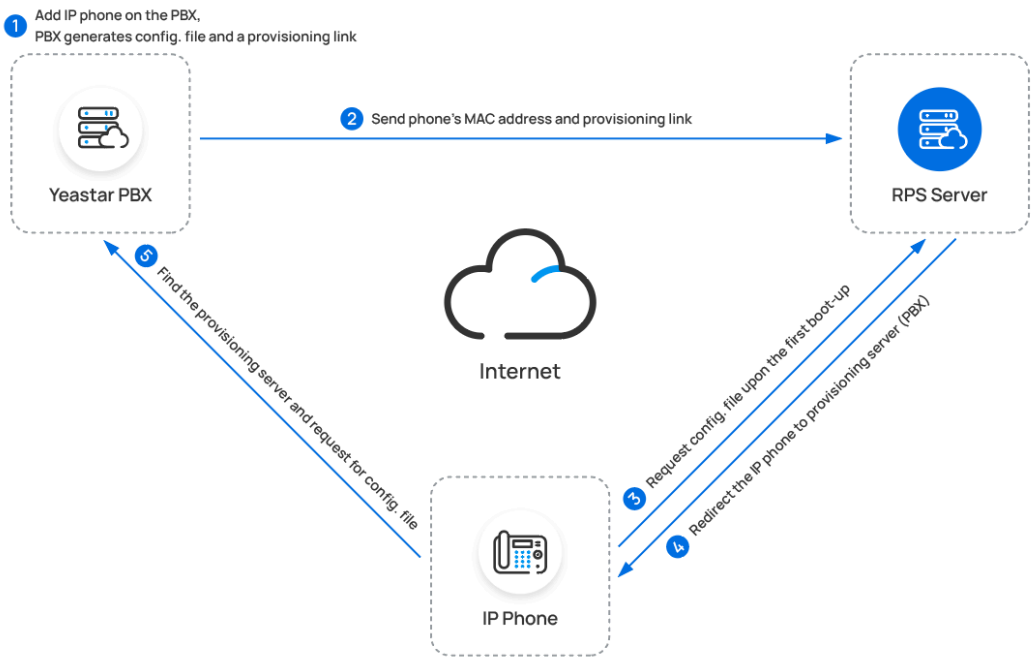
Auto Provisioning

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.

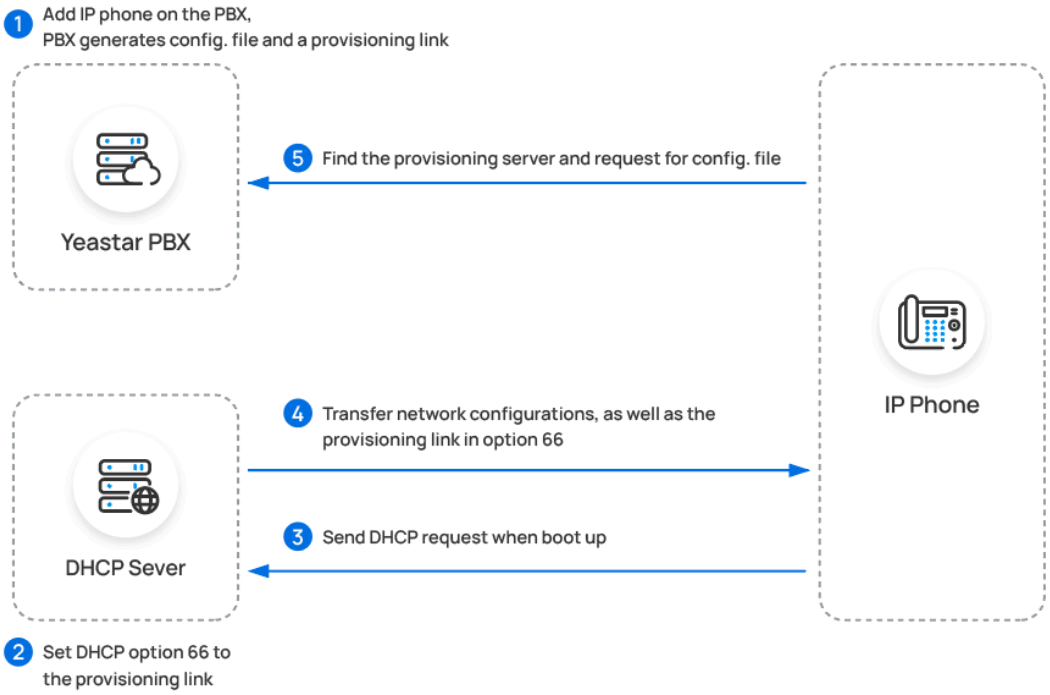
The provisioning process is shown below:



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:

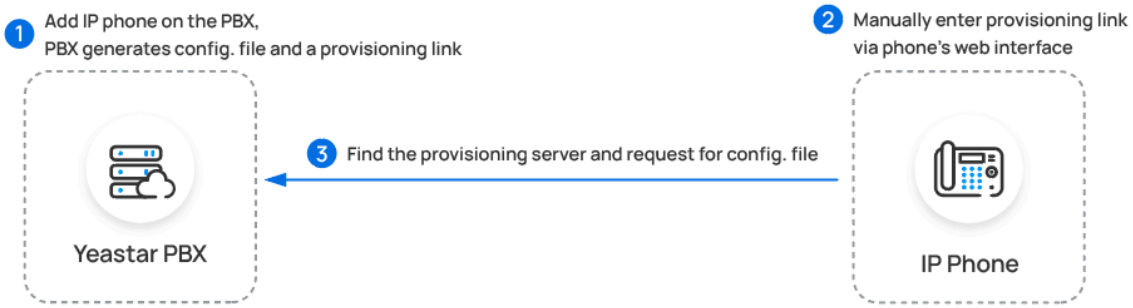


Manual Provisioning

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.

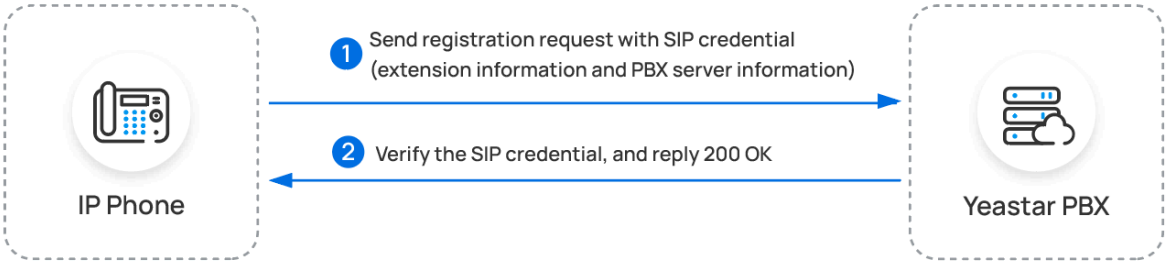
The provisioning process is shown below:



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	AVAYA Provisioning
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

poly Auto Provisioning Manual Registration	Wildix Provisioning Manual Registration	NEC Provisioning
UNIFY Provisioning	ФЛАТ ПРО Provisioning	

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.

> **Note:**
> Yealink IP phones running firmware **V87** or later require a mandatory password change on first use. To ensure smooth provisioning, it is recommended to enable automatic random password generation for phones in the Auto Provisioning global settings. Alternatively, after adding a Yealink IP phone to the PBX, you can configure an administrator password for it individually on the phone configuration page, as described in this topic.

Requirements

The firmwares of **Yealink IP phone** and **Yeastar PBX** meet the following requirements.

Model	Phone Requirement	PBX Requirement
AX83H	180.86.0.5 or later	84.16.0.25 or later
AX86R	180.86.0.5 or later	84.18.0.59 or later
CP920	78.85.0.5 or later	84.5.0.86 or later
CP925	148.86.0.5 or later	84.5.0.86 or later
CP960	73.85.0.5 or later	84.5.0.86 or later
CP965	143.86.0.5 or later	84.5.0.86 or later
SIP-CP935W	149.86.0.5 or later	84.6.0.24 or later
SIP-T19P_E2	53.84.0.125 or later	84.5.0.86 or later
SIP-T20P	9.73.0.50 or later	84.18.0.102 or later
SIP-T21_E2	52.84.0.125 or later	84.5.0.86 or later
SIP-T21P_E2	52.84.0.125 or later	84.5.0.86 or later
SIP-T22P	7.73.0.50 or later	84.18.0.102 or later

Model	Phone Requirement	PBX Requirement
SIP-T23P	44.84.0.125 or later	84.5.0.86 or later
SIP-T23G	44.84.0.125 or later	84.5.0.86 or later
SIP-T26P	6.73.0.50 or later	84.18.0.102 or later
SIP-T27G	69.85.0.5 or later	84.5.0.86 or later
SIP-T28P	2.73.0.50 or later	84.18.0.102 or later
SIP-T29G	46.83.0.120 or later	84.5.0.86 or later
SIP-T30	124.85.0.15 or later	84.5.0.86 or later
SIP-T30P	124.85.0.15 or later	84.5.0.86 or later
SIP-T31	124.85.0.15 or later	84.5.0.86 or later
SIP-T31G	124.85.0.15 or later	84.5.0.86 or later
SIP-T31P	124.85.0.15 or later	84.5.0.86 or later
SIP-T31W	124.86.0.75 or later	84.12.0.32 or later
SIP-T32G	32.70.0.125 or later	84.18.0.102 or later
SIP-T33G	124.85.0.15 or later	84.5.0.86 or later
SIP-T33P	124.85.0.15 or later	84.5.0.86 or later
SIP-T34W	124.86.0.75 or later	84.12.0.32 or later
SIP-T38G	38.70.0.185 or later	84.18.0.102 or later
SIP-T40P	54.84.0.125 or later	84.5.0.86 or later
SIP-T40G	76.84.0.125 or later	84.5.0.86 or later
SIP-T41P	36.83.0.120 or later	84.5.0.86 or later
SIP-T41S	66.85.0.5 or later	84.5.0.86 or later
SIP-T41U	108.85.0.39 or later	84.5.0.86 or later
SIP-T42G	29.83.0.120 or later	84.5.0.86 or later
SIP-T42S	66.85.0.5 or later	84.5.0.86 or later
SIP-T42U	108.85.0.39 or later	84.5.0.86 or later
SIP-T43U	108.85.0.39 or later	84.5.0.86 or later
SIP-T44U	108.86.0.90 or later	84.10.0.32 or later
SIP-T44W	108.86.0.90 or later	84.10.0.32 or later
SIP-T46G	28.83.0.120 or later	84.5.0.86 or later
SIP-T46S	66.85.0.5 or later	84.5.0.86 or later
SIP-T46U	108.85.0.39 or later	84.5.0.86 or later

Model	Phone Requirement	PBX Requirement
SIP-T48G	35.83.0.120 or later	84.5.0.86 or later
SIP-T48S	66.85.0.5 or later	84.5.0.86 or later
SIP-T48U	108.85.0.39 or later	84.5.0.86 or later
SIP-T52S	70.84.0.70 or later	84.5.0.86 or later
SIP-T53	96.85.0.5 or later	84.5.0.86 or later
SIP-T53W	96.85.0.5 or later	84.5.0.86 or later
SIP-T54S	70.84.0.70 or later	84.5.0.86 or later
SIP-T54W	96.85.0.5 or later	84.5.0.86 or later
SIP-T56A	58.83.0.15 or later	84.5.0.86 or later
SIP-T57W	96.85.0.5 or later	84.5.0.86 or later
SIP-T58	58.85.0.5 or later	84.5.0.86 or later
SIP-T58W	150.86.0.5 or later	84.5.0.86 or later
SIP-T73W	185.87.0.15 or later	84.19.0.70 or later
SIP-T73U	185.87.0.15 or later	84.19.0.70 or later
SIP-T74W	185.87.0.15 or later	84.19.0.70 or later
SIP-T74U	185.87.0.15 or later	84.19.0.70 or later
SIP-T77U	185.87.0.15 or later	84.19.0.70 or later
SIP-T85W	185.87.0.15 or later	84.19.0.70 or later
SIP-T87W	185.87.0.15 or later	84.19.0.70 or later
SIP-T88W	192.87.0.5 or later	84.19.0.70 or later
SIP-T88V	192.87.0.5 or later	84.19.0.70 or later
VP59	91.85.0.5 or later	84.5.0.86 or later
W60B (W53P, W41P, W60P, CP930W-Base)	77.83.0.85 or later	84.5.0.86 or later
W70B (W79P, W76P, W73P)	146.85.0.20 or later	84.5.0.86 or later
W75DM	175.85.0.5 or later	84.14.0.26 or later
W80B	W80DM-103.83.0.80	84.5.0.86 or later
W90DM	130.85.0.15 or later	84.5.0.86 or later
T64LTE	132.86.0.25 or later	84.16.0.71 or later
T67LTE	132.86.0.35 or later	84.16.0.71 or later

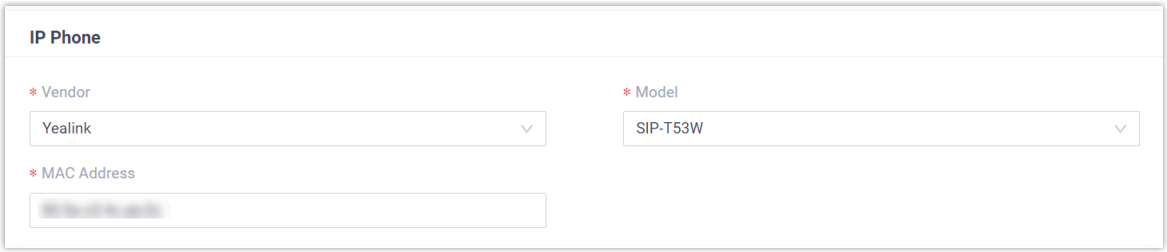
Prerequisites

- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

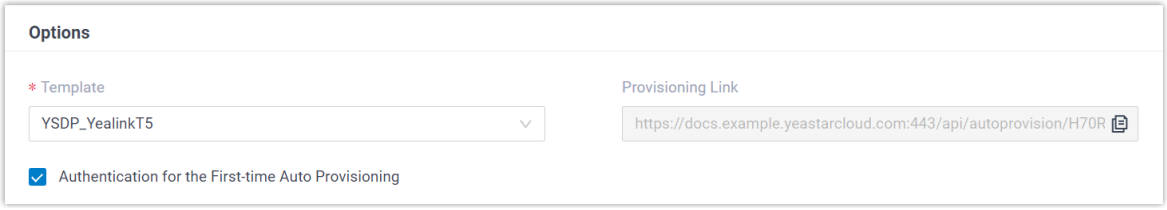
Procedure

Step 1. Add the Yealink IP phone on PBX

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 **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.



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

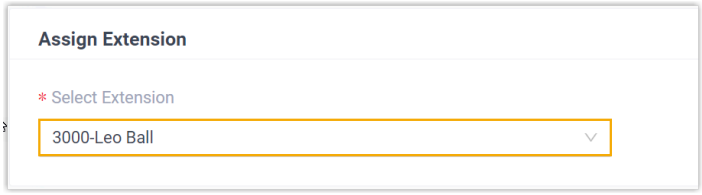
> **Note:**

> 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.



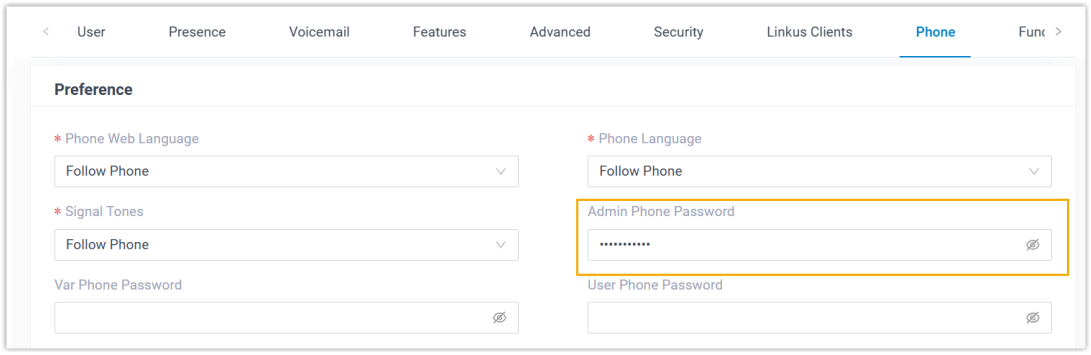
> **Tip:**
> If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.
> - To release the extension from the associated IP phone, see Release an Extension from a Provisioned IP Phone.
> - To register the extension to the phone 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**.

   The PBX will send an event notification of **RPS Request Success**.
7. Set a password for Admin account.

> **Note:**
> If automatic random password generation for phones is enabled, this step can be skipped.

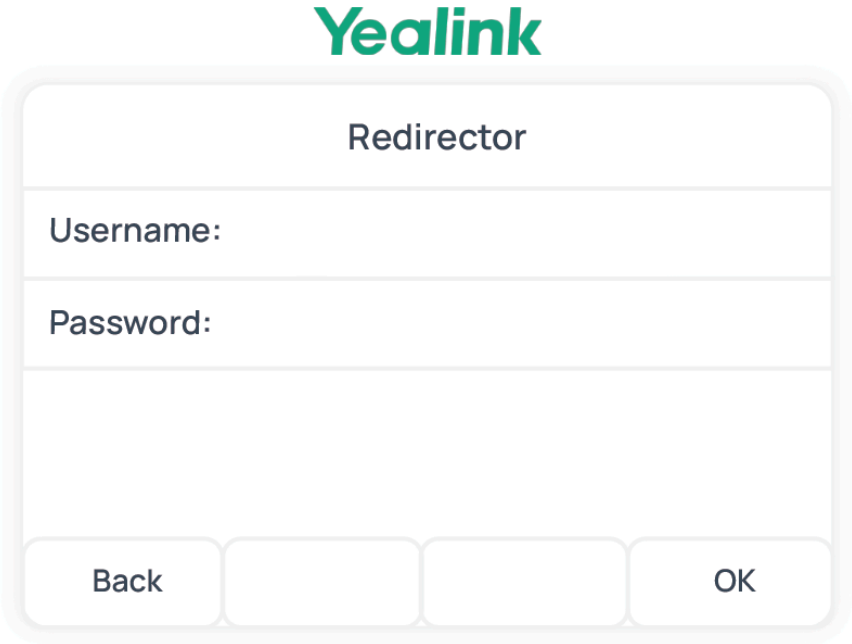
a. Click beside the IP phone.
b. In the **Preference** section, set a password in the **Admin Phone Password** field.



c. Click **Save**.

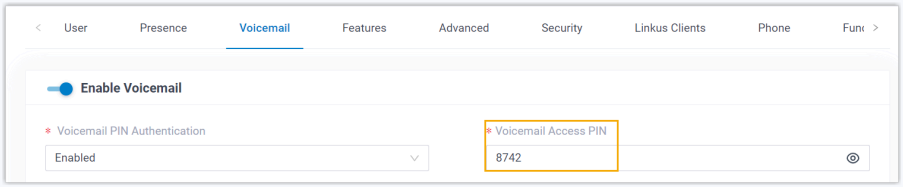
Step 2. Trigger the IP phone to complete provisioning

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.



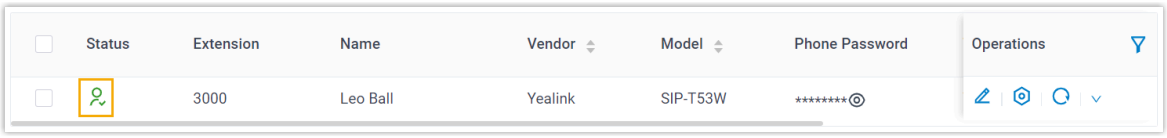
- **Username**: Enter the extension number that is assigned to the phone.

- **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.



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)
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)
EXP55	SIP-T73W / SIP-T73U / SIP-T74W / SIP-T74U / SIP-T77U	YSDP_YealinkT7 (`1.0.0` or later)
	SIP-T85W / SIP-T87W	YSDP_YealinkT8 (`1.0.0` or later)
	SIP-T88W / SIP-T88V	YSDP_YealinkT88X (`1.0.0` 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

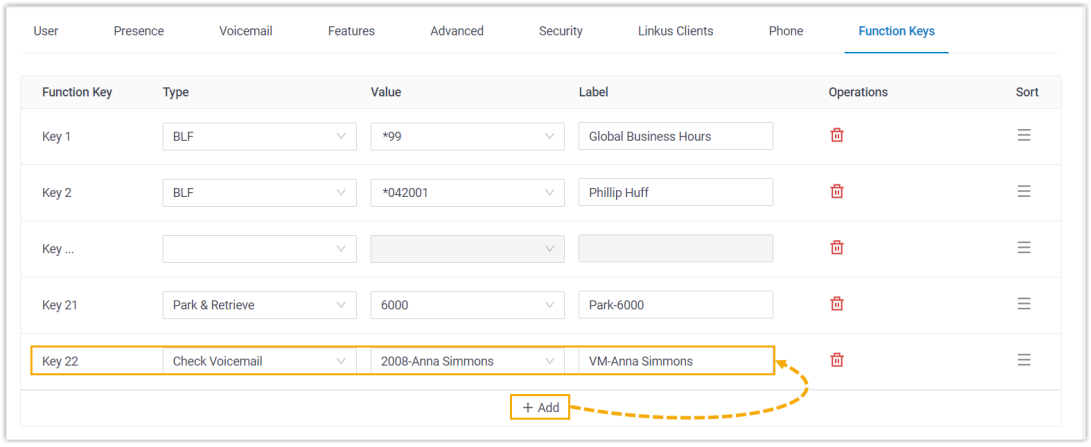
On PBX web portal, you can easily customize function keys by directly selecting key types from the menu and setting up specific operation for each function key.

> **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.



- **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**.

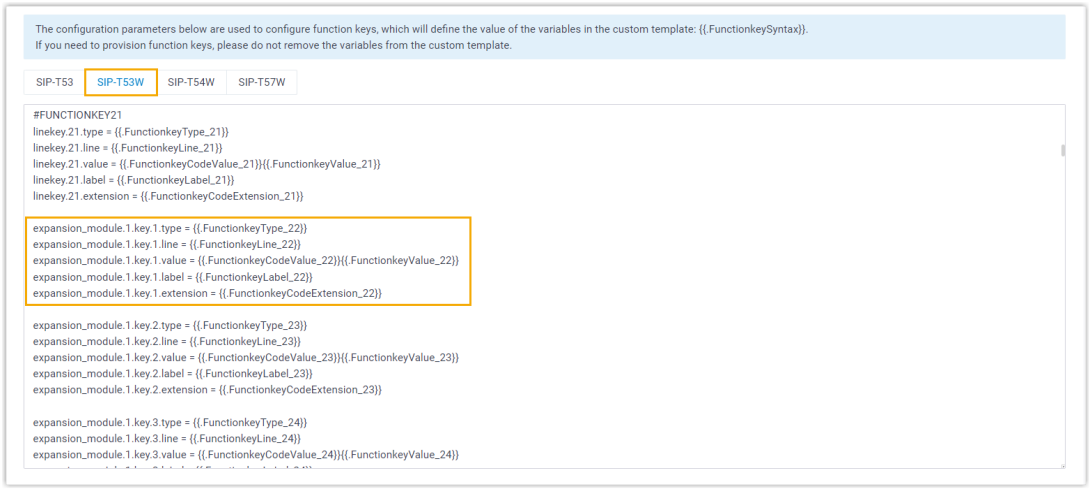
Provision function keys for Yealink expansion module using auto provisioning template

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.



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).

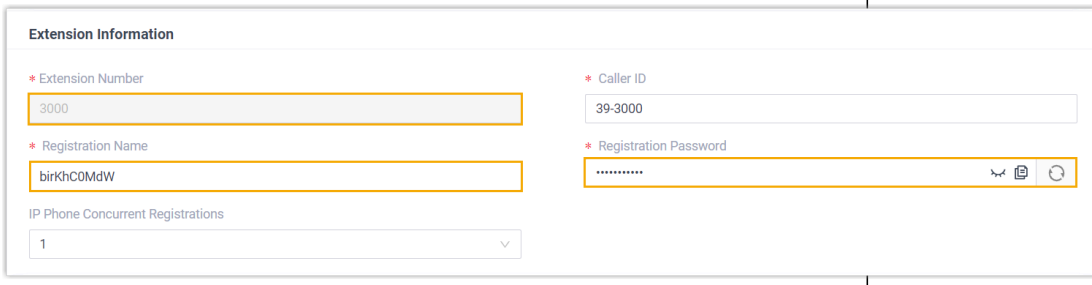
Procedure

Step 1. Gather registration information on Yeastar PBX

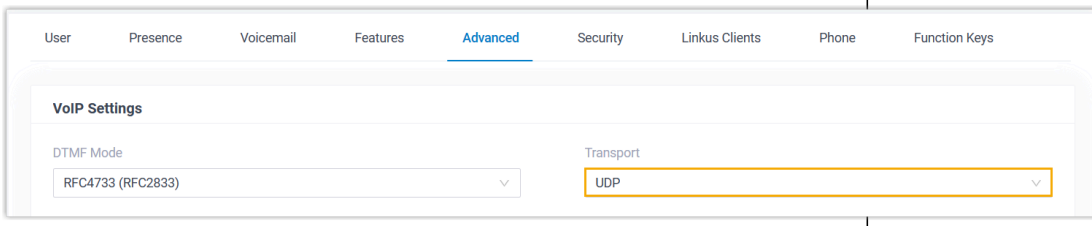
Log in to PBX web portal, gather the following information for extension registration.

<table>
<tr><th>Information</th><th>Instruction</th></tr>
<tr><td>Extension information</td><td>Go to Extension and Trunk > Extension >  > User > Extension Information, note down the following information:

• Extension Number
• Registration Name
• Registration Password

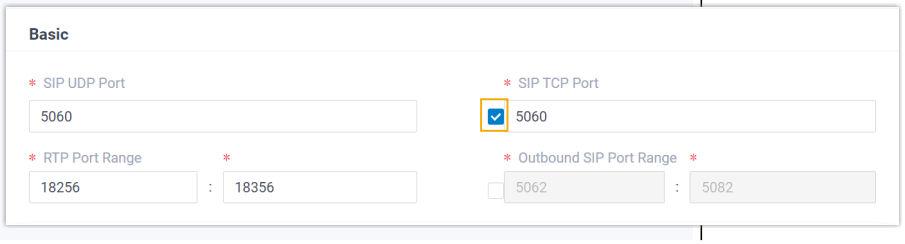
  </td></tr>
<tr><td>Transport protocol</td><td>Go to Extension and Trunk > Extension >  > Advanced > VoIP Settings > Transport, note down the transport protocol of the extension.

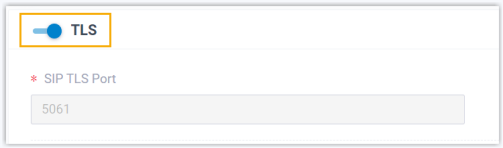
In this example, the extension use UDP transport protocol.

Note:

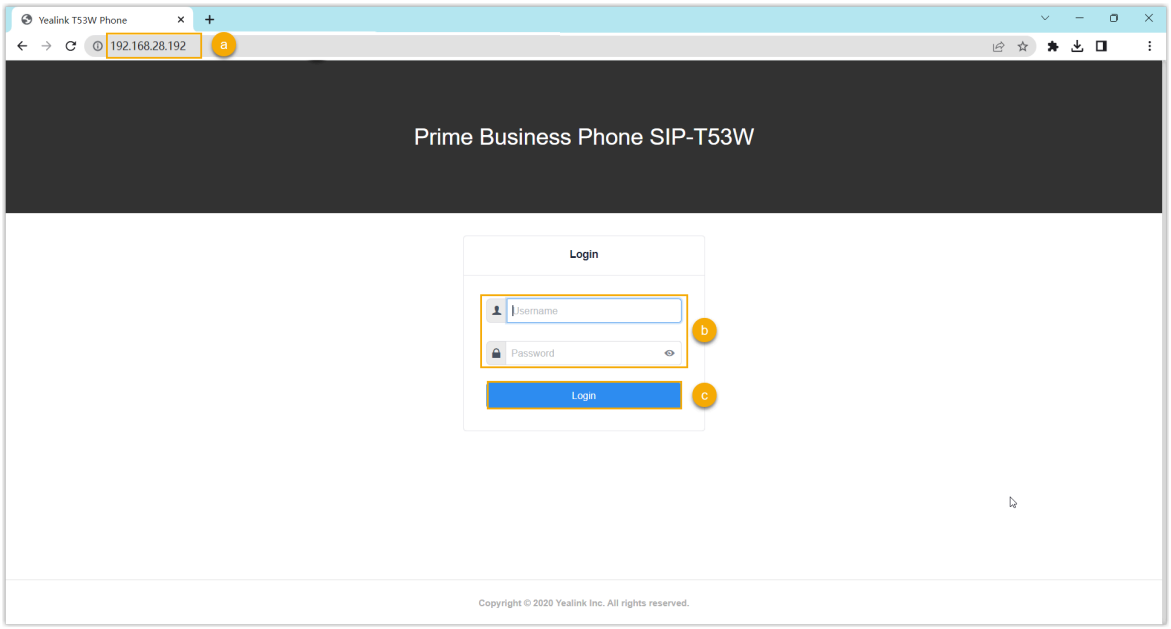
• If the extension uses TCP transport protocol, make sure that the SIP TCP port is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > General > Basic).

  </td></tr>
</table>

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

Step 2. Register extension on Yealink IP phone

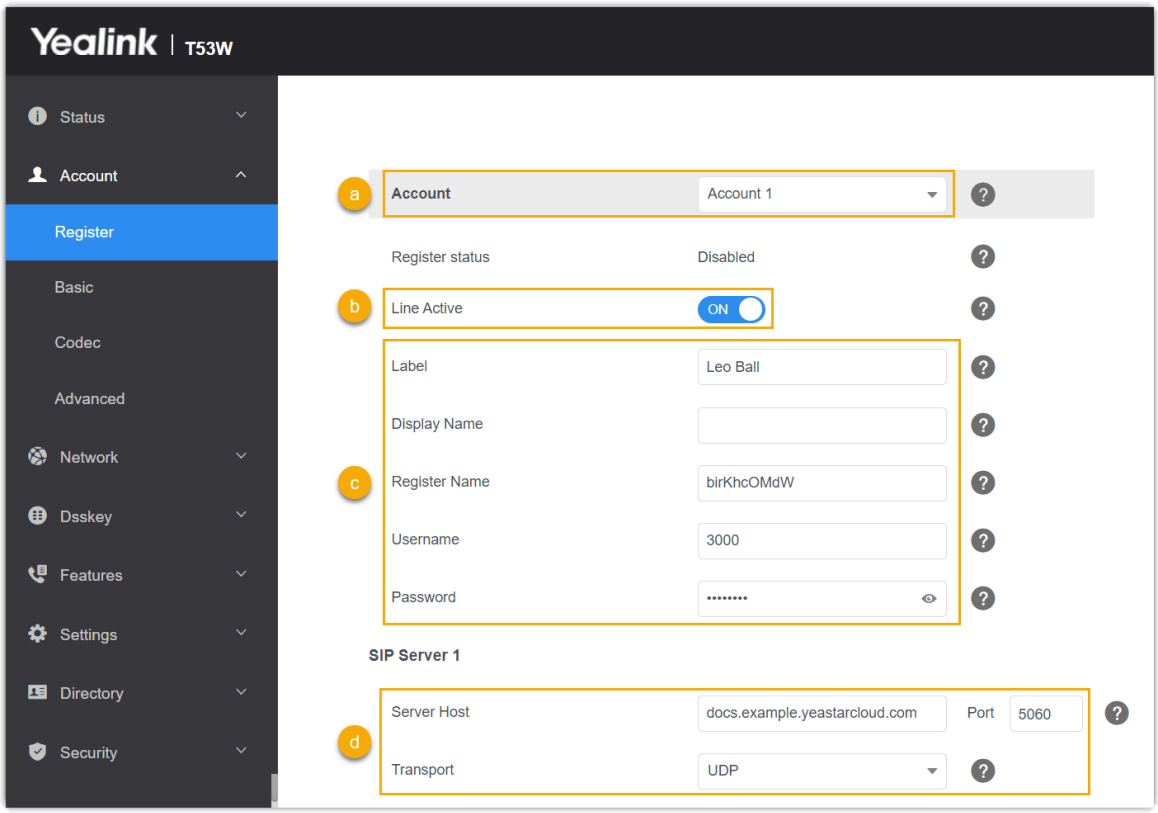
1. Log in to the web interface of the Yealink IP phone.



   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**.

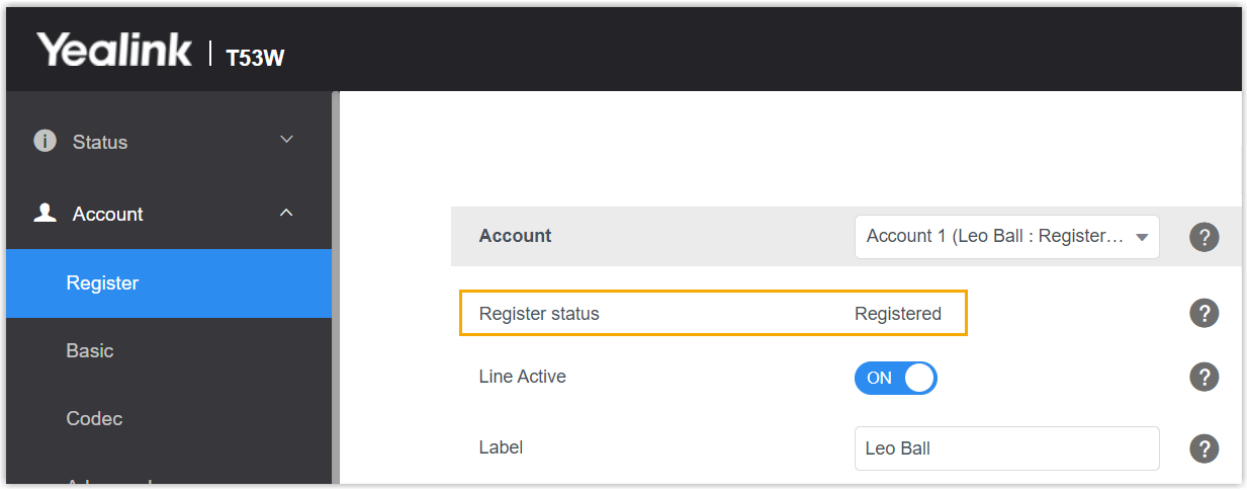
2. On the left navigation bar, go to **Account > Register**, and complete the registration configurations.



   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.



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 following requirements.

Model	Phone Requirement	PBX Requirement
A10	2.12.4 or later	84.11.0.22 or later
A10W	2.12.4 or later	84.11.0.22 or later
A12V	2.12.50.1 or later	84.14.0.26 or later
A212	2.12.49.6 or later	84.14.0.26 or later
A308i	2.6.10.1177 or later	84.14.0.26 or later
A32	2.6.0.408 or later	84.5.0.86 or later
A32i	2.6.0.408 or later	84.5.0.86 or later
A320	2.6.0.1402 or later	84.11.0.22 or later
A320i	2.6.0.1402 or later	84.11.0.22 or later
FH-S01	2.12.8 or later	84.9.0.20 or later
H1	2.12.1 or later	84.10.0.32 or later
H1-2 Wire	2.12.1 or later	84.20.0.74 or later
H2U	2.4.7 or later	84.5.0.86 or later
H2U-V2	2.4.7.6 or later	84.5.0.86 or later
H3	2.12.1.7334 or later	84.5.0.86 or later
H3W	2.4.4 or later	84.5.0.86 or later
H4	1.0.8 or later	84.14.0.26 or later
H4W	1.0.8 or later	84.14.0.26 or later
H5	2.12.1.7334 or later	84.5.0.86 or later

Model	Phone Requirement	PBX Requirement
H5W	2.4.4 or later	84.5.0.86 or later
H6	1.0.8 or later	84.14.0.26 or later
H6W	1.0.8 or later	84.14.0.26 or later
H603W	2.14.0.11 or later	84.14.0.26 or later
i10	1.2.7 or later	84.5.0.86 or later
i10D	1.2.7 or later	84.5.0.86 or later
i10S	2.4.4 or later	84.5.0.86 or later
i10SD	2.4.4 or later	84.5.0.86 or later
i10SV	2.4.4 or later	84.5.0.86 or later
i10V	1.2.7 or later	84.5.0.86 or later
i11S	1.2.7 or later	84.5.0.86 or later
i11SV	2.4.4 or later	84.5.0.86 or later
i12	2.8.2.7009 or later	84.5.0.86 or later
i16V	2.8.2.7009 or later	84.5.0.86 or later
i16S	2.4.4 or later	84.5.0.86 or later
i16SV	2.4.4 or later	84.5.0.86 or later
i18S	2.8.2.7009 or later	84.5.0.86 or later
i20S	2.8.2.7009 or later	84.5.0.86 or later
i23S	2.8.2.7009 or later	84.5.0.86 or later
i30	2.8.2.7009 or later	84.5.0.86 or later
i31S	2.8.2.7009 or later	84.5.0.86 or later
i32V	2.8.2.7009 or later	84.5.0.86 or later
i33V	2.8.2.7009 or later	84.5.0.86 or later
i33VF	2.8.2.7009 or later	84.5.0.86 or later
i504	2.12.43.13 or later	84.6.0.24 or later
i505	2.6.6.391 or later	84.11.0.22 or later
i506W	2.12.43.13 or later	84.6.0.24 or later
i507W	2.6.6.394 or later	84.11.0.22 or later
i51	2.8.13 or later	84.5.0.86 or later
i51W	2.8.13 or later	84.5.0.86 or later
i52	2.8.13 or later	84.5.0.86 or later

Model	Phone Requirement	PBX Requirement
i52W	2.8.13 or later	84.5.0.86 or later
i53	2.8.13 or later	84.5.0.86 or later
i53W	2.8.13 or later	84.5.0.86 or later
i55A	1.0.0.45 or later	84.8.0.25 or later
i56A	0.3.0.21 or later	84.5.0.86 or later
i57A	1.0.0.46 or later	84.8.0.25 or later
i60	2.12.50.16 or later	84.6.0.24 or later
i61	2.4.0 or later	84.6.0.24 or later
i62	2.4.0 or later	84.6.0.24 or later
i63	2.4.0 or later	84.6.0.24 or later
i64	2.4.0 or later	84.6.0.24 or later
i67	2.12.50.5 or later	84.8.0.25 or later
i68	2.8.40.22 or later	84.8.0.25 or later
PA2	2.8.2.7009 or later	84.5.0.86 or later
PA2S	2.8.11 or later	84.5.0.86 or later
PA3	2.4.4 or later	84.5.0.86 or later
V50P	2.12.20.4 or later	84.14.0.26 or later
V60P	2.12.20.3 or later	84.14.0.26 or later
V60W	2.12.20.3 or later	84.14.0.26 or later
V61G	2.12.18.8 or later	84.14.0.26 or later
V61W	2.12.18.8 or later	84.14.0.26 or later
V62	2.4.10 or later	84.6.0.24 or later
V62G	2.12.18.8 or later	84.14.0.26 or later
V62W	2.12.18.8 or later	84.14.0.26 or later
V62 Pro	2.12.18.2 or later	84.14.0.26 or later
V63	2.12.16.19 or later	84.11.0.22 or later
V64	2.4.10 or later	84.6.0.24 or later
V65	2.12.2.4 or later	84.7.0.17 or later
V66	2.12.18.4 or later	84.14.0.26 or later
V66 Pro	2.12.18.4 or later	84.14.0.26 or later
V67	2.6.0 or later	84.6.0.24 or later

Model	Phone Requirement	PBX Requirement
W610W	2.12.0 or later	84.11.0.22 or later
W611W	pvt-2.8 or later	84.8.0.25 or later
W620W	2.16.2 or later	84.11.0.22 or later
W710D	1.18.11 or later	84.14.0.26 or later
W710H	1.0.14.5 or later	84.14.0.26 or later
X1S / X1SP	2.2.12 or later	84.5.0.86 or later
X1SG	2.2.12 or later	84.5.0.86 or later
X2/X2P	2.14.0.7386 or later	84.5.0.86 or later
X2C/X2CP	2.14.0.7386 or later	84.5.0.86 or later
X210	2.2.11 or later	84.5.0.86 or later
X210-V2	2.12.1.3 or later	84.7.0.17 or later
X210i	2.2.11 or later	84.5.0.86 or later
X210i-V2	2.12.1.3 or later	84.7.0.17 or later
X3SG	2.2.12 or later	84.5.0.86 or later
X3S/X3SP/X3G	2.14.0.7386 or later	84.5.0.86 or later
X3S Lite / X3SP Lite	2.4.5 or later	84.5.0.86 or later
X3S Pro / X3SP Pro	2.4.5 or later	84.5.0.86 or later
X3SW	2.4.5 or later	84.5.0.86 or later
X3SG Lite	2.4.5 or later	84.5.0.86 or later
X3SG Pro	2.4.5 or later	84.5.0.86 or later
X3U	2.2.12 or later	84.5.0.86 or later
X3U Pro	2.4.5 or later	84.5.0.86 or later
X301	2.12.2 or later	84.8.0.25 or later
X301G	2.12.2 or later	84.8.0.25 or later
X301W	2.12.2 or later	84.8.0.25 or later
X303	2.12.2 or later	84.8.0.25 or later
X303G	2.12.2 or later	84.8.0.25 or later
X303W	2.12.2 or later	84.8.0.25 or later
X303-2 WIRE	1.0.3 or later	84.14.0.26 or later
X305	2.12.1.6 or later	84.8.0.25 or later
X4/X4G	2.14.0.7386 or later	84.5.0.86 or later

Model	Phone Requirement	PBX Requirement
X4U	2.2.11 or later	84.5.0.86 or later
X4U-V2	2.12.1 or later	84.6.0.24 or later
X5U	2.2.11 or later	84.5.0.86 or later
X5U-V2	2.12.1 or later	84.6.0.24 or later
X5S	2.2.1 or later	84.5.0.86 or later
X6	2.2.1 or later	84.5.0.86 or later
X6U	2.2.11 or later	84.5.0.86 or later
X6U-V2	2.12.1 or later	84.6.0.24 or later
X7	2.2.11 or later	84.5.0.86 or later
X7A	2.2.0.229 or later	84.5.0.86 or later
X7C	2.2.11 or later	84.5.0.86 or later
X7-V2	2.12.1.3 or later	84.7.0.17 or later
X7C-V2	2.12.1.3 or later	84.7.0.17 or later
Y501	2.12.4 or later	84.11.0.22 or later
Y501W	2.12.4 or later	84.11.0.22 or later
Y501-Y	2.12.4 or later	84.11.0.22 or later
Y501W-Y	2.12.4 or later	84.11.0.22 or later

Prerequisites

- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

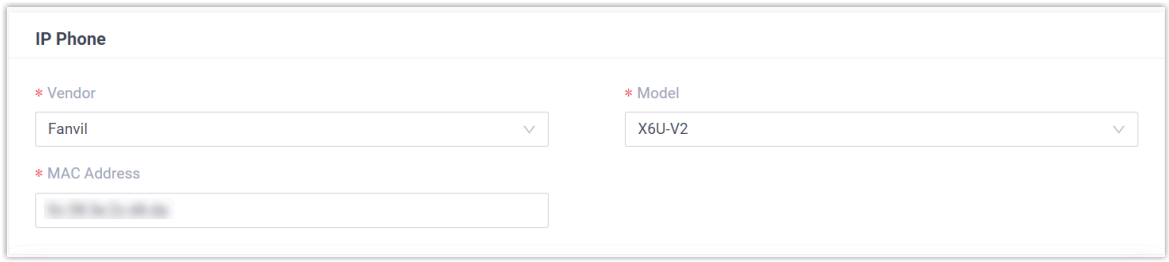
Procedure

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

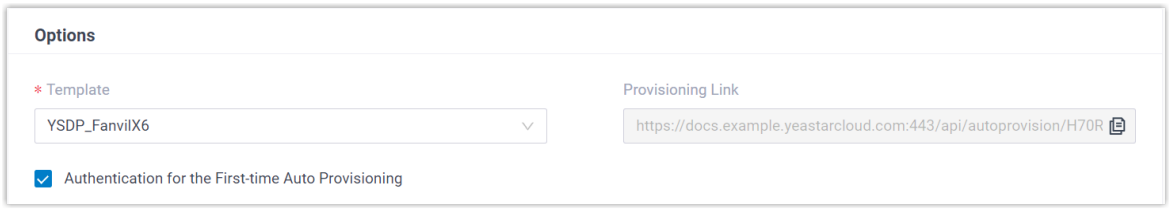
1. Log in to PBX web portal, go to **Auto Provisioning > Phones**.
2. Click **Add > Add**.

3. In the **IP Phone** section, enter the following phone information.



   - **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.



   - **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.

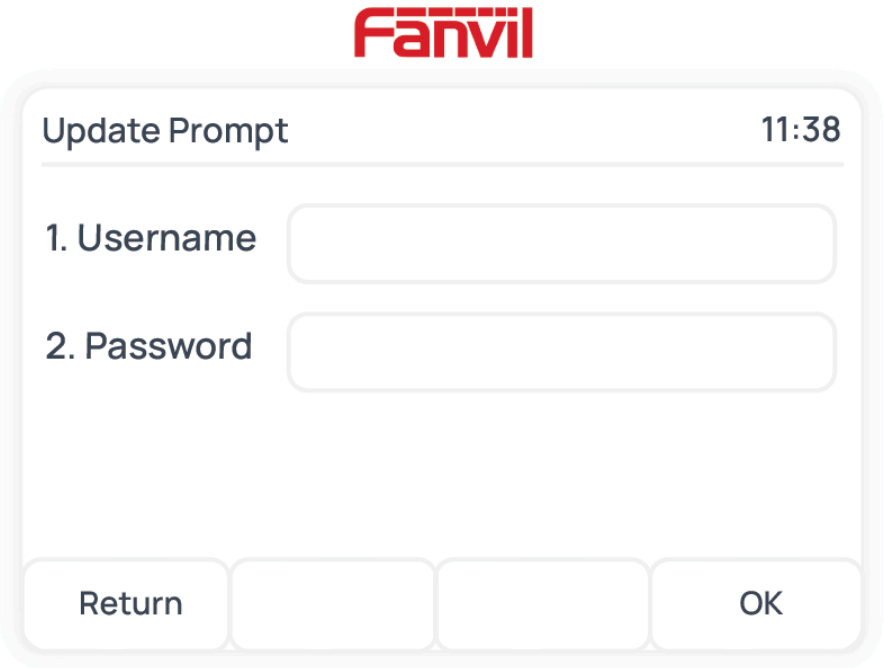
> **Tip:**
> If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.
>
> - To release the extension from the associated IP phone, see Release an Extension from a Provisioned IP Phone.
> - To register the extension to the phone 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**.

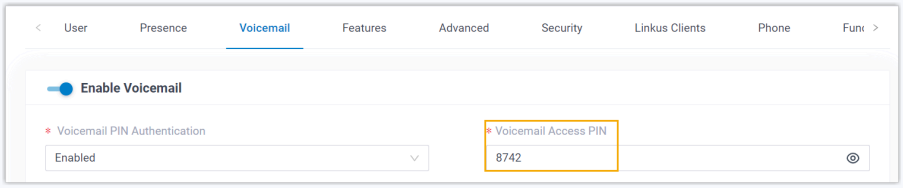
   The PBX will send an event notification of **RPS Request Success**.

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.

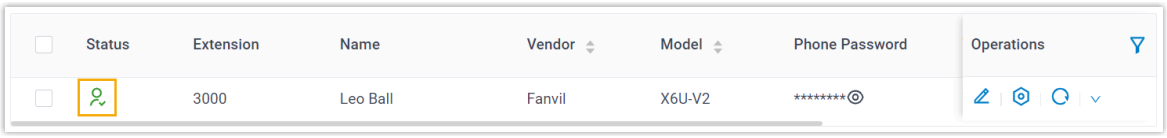


- **Username**: Enter the extension number that is assigned to the phone.
- **Password**: Enter the extension's Voicemail Access PIN.

> **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.



Related information

Auto Provision LDAP for IP Phones

Auto Provision Fanvil 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 the Fanvil DECT base station with Yeastar P-Series Cloud Edition, so that the Fanvil 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 **Fanvil DECT base station** and **Yeastar PBX** meet the following requirements.

Note:
For more information about the compatible **Fanvil DECT handsets**, see Compatibility between Fanvil DECT products.

Base Station	Version Requirement	PBX Requirement
W710D	1.18.11 or later	84.14.0.26 or later
W710H	1.0.14.5 or later	84.14.0.26 or later

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

Device Model	Firmware Version
Fanvil DECT base station	
W710D	v1.18.11
Fanvil DECT handset	

Device Model	Firmware Version
W610D	v1.16.2

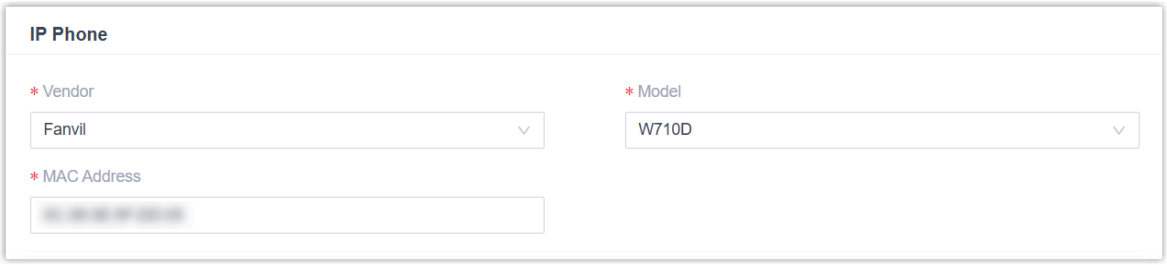
Prerequisites

- Make sure that there is only one DHCP server running in the subnet where the Fanvil DECT system (base station and handset) is deployed, or the base station would fail to obtain an IP address.
- Downloadand install the Fanvil Device Manager (an IP scanning tool) on your computer that is on the same subnet as the Fanvil DECT system.
- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- Gather information of the Fanvil DECT base station, including Vendor, Model, and MAC address.

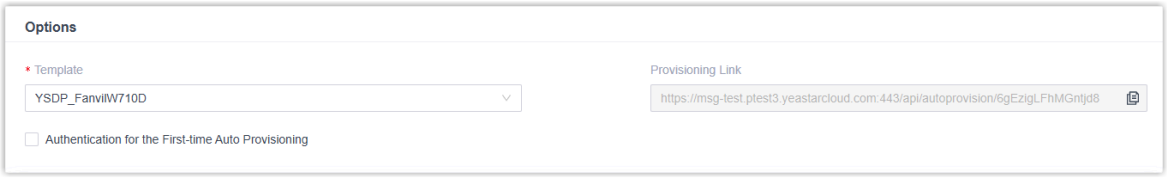
Step 1. Add the Fanvil DECT base station on PBX

On PBX web portal, add the DECT base station, configure the provisioning settings, and assign extensions to the DECT handsets.

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.



   - **Vendor**: Select **Fanvil**.
   - **Model**: Select the device model. In this example, select **W710D**.
   - **MAC Address**: Enter the MAC address of the DECT base station.
4. In the **Options** section, configure the following settings.



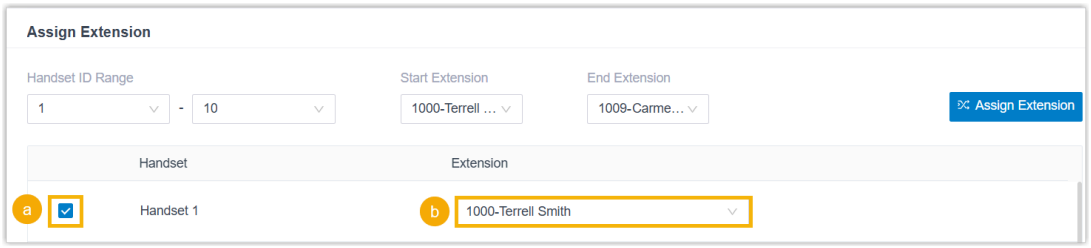
- **Template**: Select a desired template from the drop-down list.

> **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.

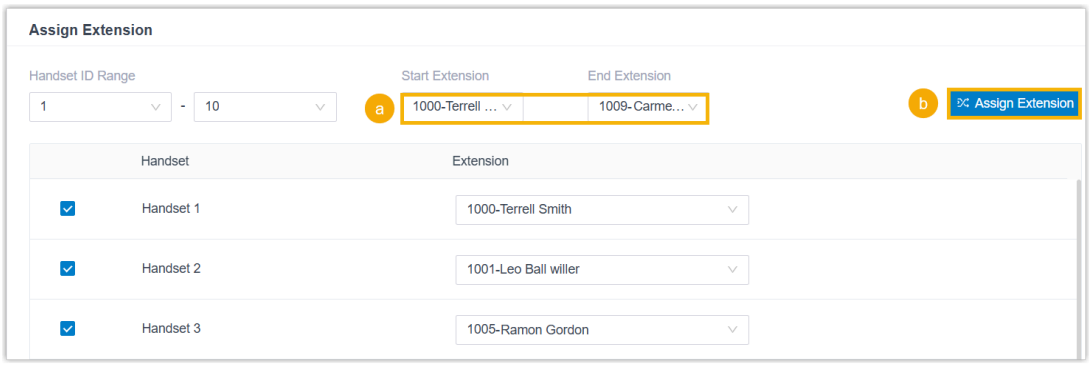
- **Provisioning Link**: A provisioning link is automatically generated, which points to the location where the phone's configuration file is stored.
- **Authentication for the First-time Auto Provisioning**: Unselect the checkbox.

> **Note:**
> To successfully connect the DECT base station to the Yeastar PBX, it is necessary to disable this option.

5. In the **Assign Extension** section, assign extensions for the DECT handsets according to your needs.
   - To assign extensions one by one, do as follows:



     a. Select the checkbox of the desired handset.
     b. In the **Extension** drop-down list, select the desired extension.
   - To assign extensions in bulk, do as follows:



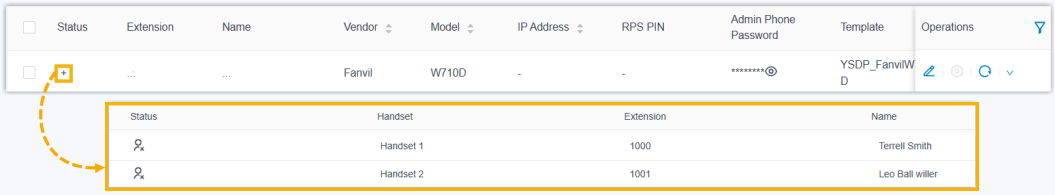
a. In the **Start Extension** and **End Extension** drop-down lists, set the extension range.
b. Click **Assign Extension**.

   Handsets are automatically enabled and assigned with the specified extensions in sequence.

> **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.
>
> 
>

Step 2. Obtain the IP address of the Fanvil DECT base station

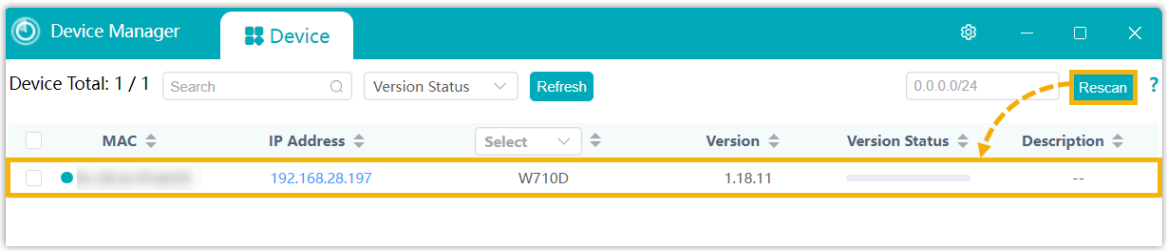
On the DECT base station, use the device button to reset the device, so that the base station can obtain an IP address from the DHCP server in the subnet.

1. Press and hold the **Reset Key** on the DECT base station for at least 10 seconds until all three LEDs start flashing rapidly, then release the button.

The DECT base station is reset, and it takes several minutes for the device to boot up. After booted up, the three LEDs are solidly lit, indicating that the DECT base station gets an IP address from the DHCP server and automatically downloads configurations from the PBX.

2. Open the Fanvil Device Manager (an IP scanning tool) and click **Rescan**.

   The DECT base station appears in the **Device** list along with its IP address.

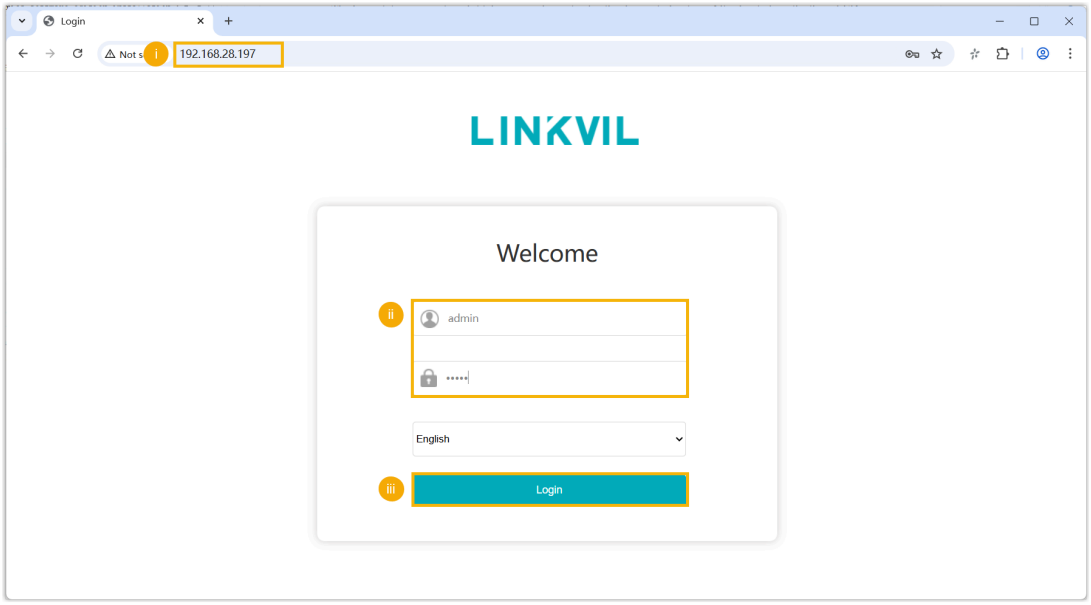


Step 3. Pair the Fanvil DECT handset with the DECT base station

Enable the registration mode of the DECT base station, then pair the DECT handset with it.

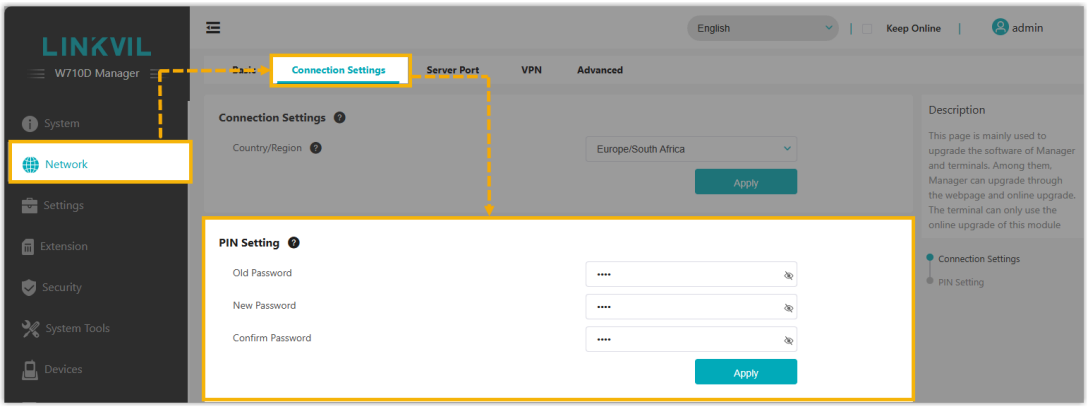
1. On the web interface of the DECT base station, enable the registration mode of the base station.
   a. Access the web interface of the DECT base station using its IP address.

> **Note:**
> The default username and password are both `admin`.



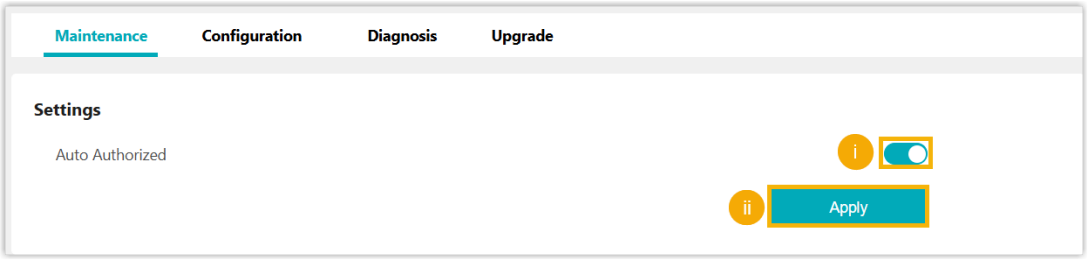
b. **Optional:** Go to **Network > Connection Settings > PIN Settings**, change the default PIN code to enhance the registration security.

> **Note:**
> In this example, the default PIN code of the W710D base station is `1234`.



c. Go to **Devices > Maintenance**.

d. In the **Settings** section, turn on the **Auto Authorized** and click **Apply**.



The registration mode of DECT base station is enabled.

2. On the DECT handset, pair with the DECT base station.

a. Go to **Menu > Network > Available Network**.

b. Press **Scan** to detect the DECT base station.

The RFPI (Radio Fixed Part Identity) of the DECT base station is displayed on the screen.

c. Press **Link** and enter the PIN code of the DECT base station to complete pairing.

In this example, enter the default PIN code of the W710D base station `1234`.

When successfully paired, a ✓ icon appears next to the base station's RFPI.

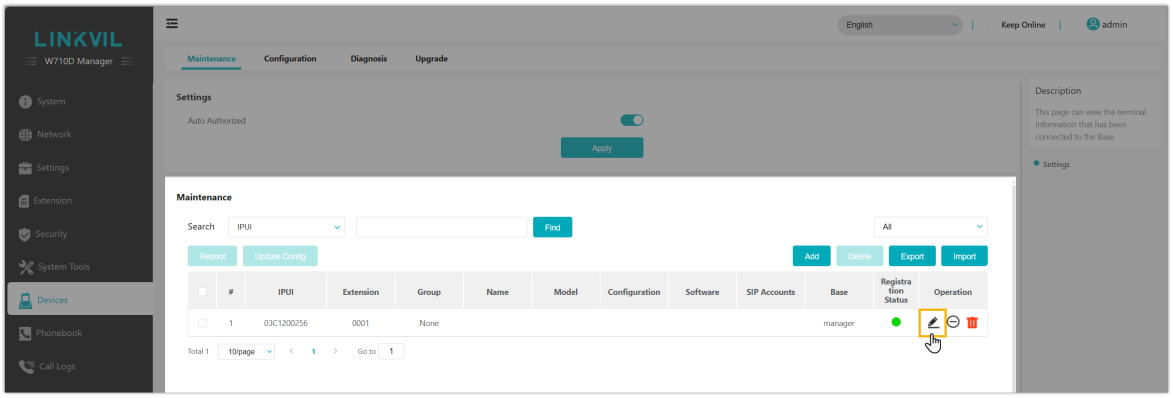
Step 4. Register the Fanvil DECT handset to an extension

On the DECT base station, register the handset to the desired extension.

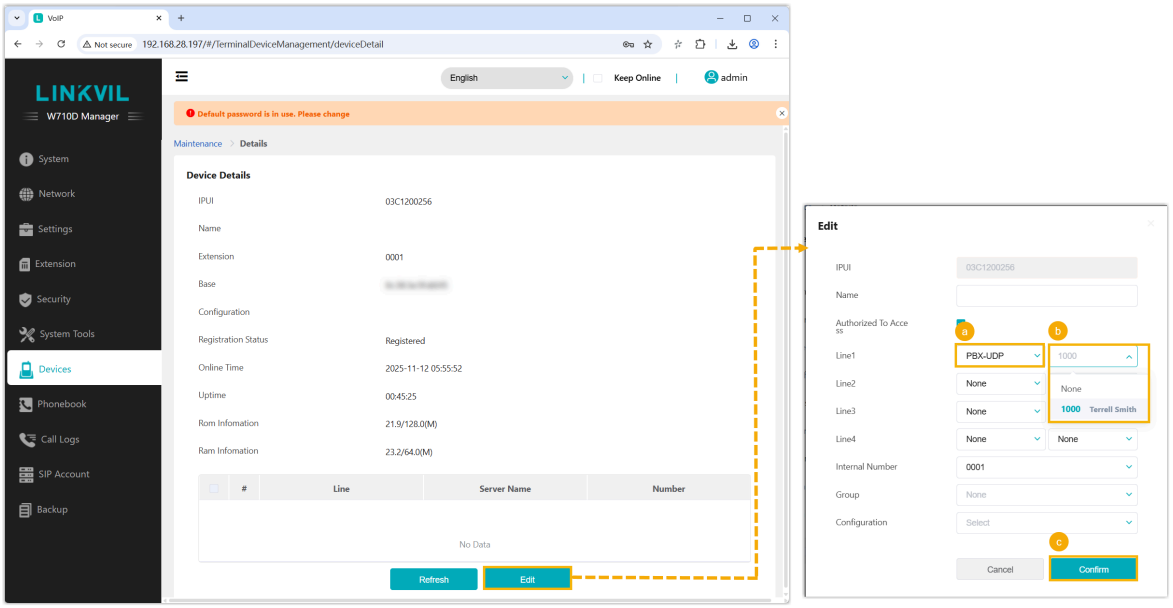
1. On the web interface of the DECT base station, go to **Devices > Maintenance > Maintenance**.

   The paired handset appears in the list.

2. Click  to edit the desired DECT handset.



3. In the device details page, click **Edit** and complete the following settings in the pop-up window.



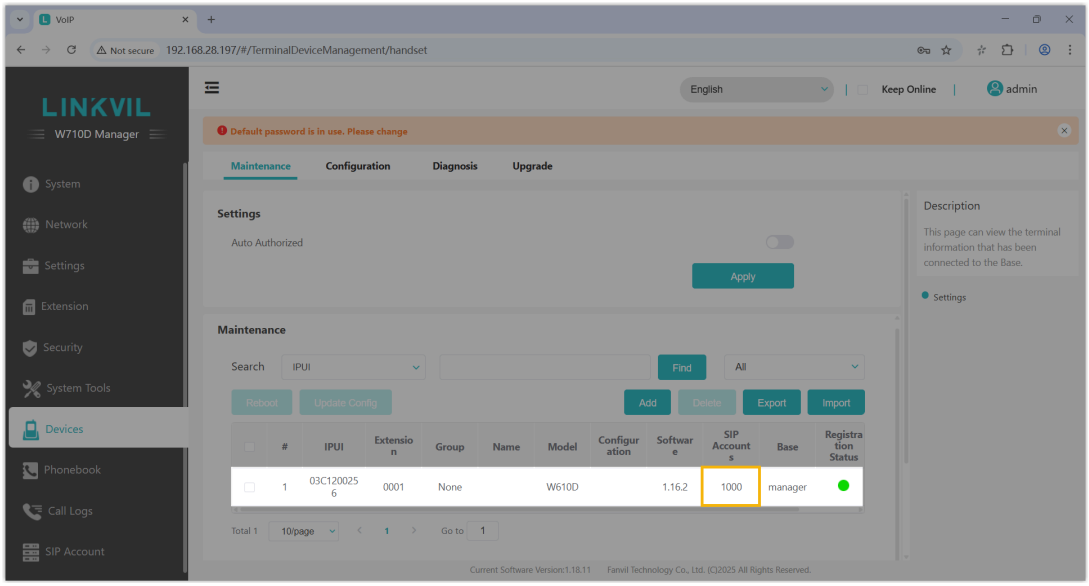
   a. In the first drop-down list of **Line1**, select the transport protocol corresponding to the desired extension.

> **Note:**
> You can check the extension's transport protocol on PBX web portal (Path: **Extension and Trunk > Extension > Advanced > VoIP Settings > Transport**).

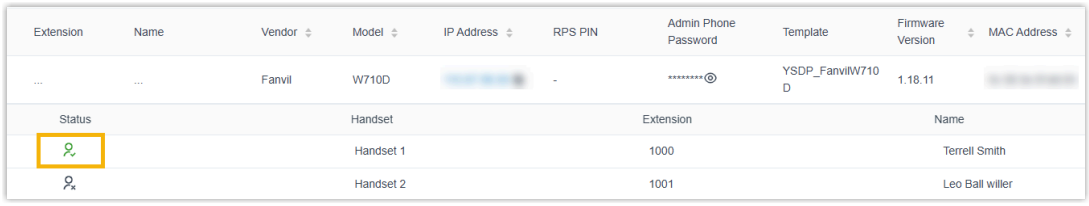
b. In the second drop-down list of **Line1**, select the desired extension.
c. Click **Confirm**.

Result

- The handset are successfully registered to the DECT base station, and associated with the assigned PBX extension via the base station.
  - On the web interface of the DECT base station, the handset displays its assigned extension number (Path: **Devices > Maintenance > Maintenance**).



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



  - On the DECT handset, the name of the assigned extension is displayed on the home screen.

- The registered DECT handset can be used as an extension to make and receive calls.

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.

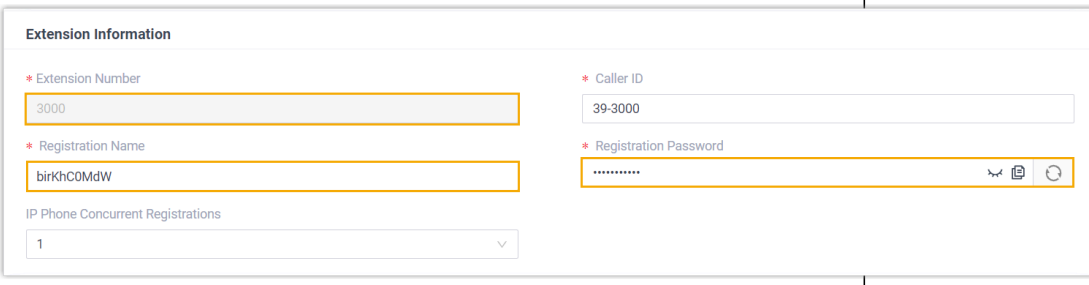
Supported devices

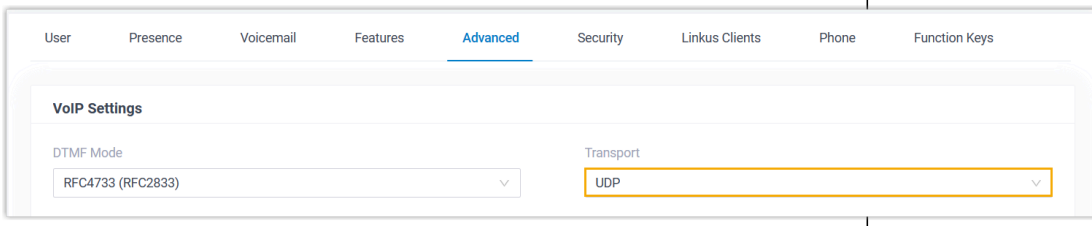
The Fanvil IP phones that are compatible with SIP (Session Initiation Protocol).

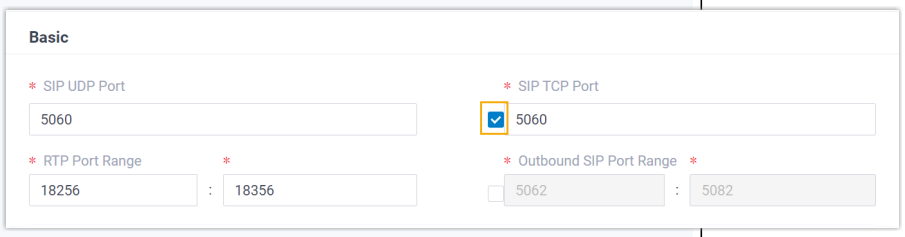
Procedure

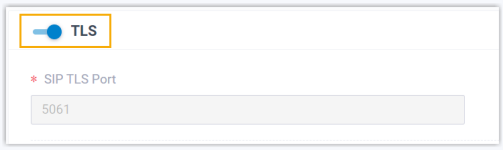
Step 1. Gather registration information on Yeastar PBX

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

Information	Instruction
Extension information	Go to **Extension and Trunk > Extension >**  **> User > Extension Information**, note down the following information: • Extension Number • Registration Name • Registration Password 
Transport protocol	Go to **Extension and Trunk > Extension >**  **> Advanced > VoIP Settings > Transport**, note down the transport protocol of the extension. In this example, the extension use UDP transport protocol.

<table>
<tr><th>Information</th><th>Instruction</th></tr>
<tr><td></td><td>


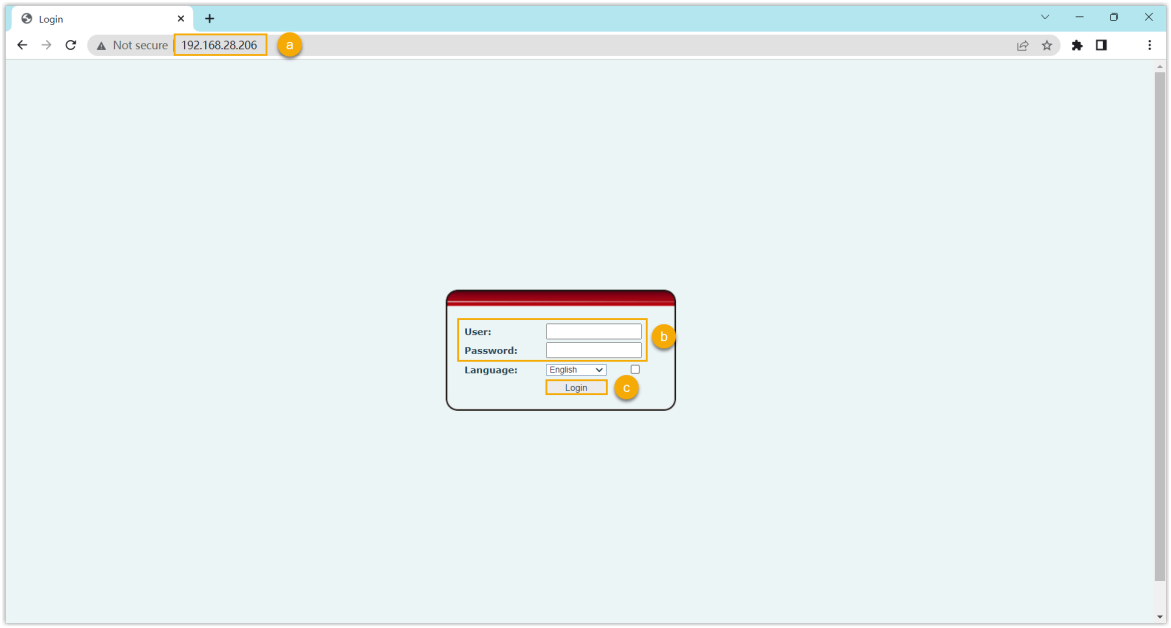
Note:
• If the extension uses TCP transport protocol, make sure that the SIP TCP port is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > General > Basic).


• 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).


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

Step 2. Register extension on Fanvil IP phone

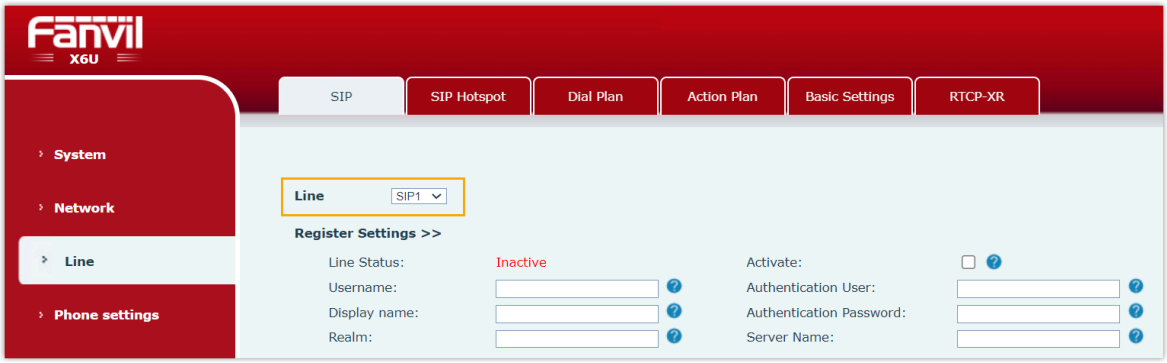
1. Log in to the web interface of the Fanvil IP phone.



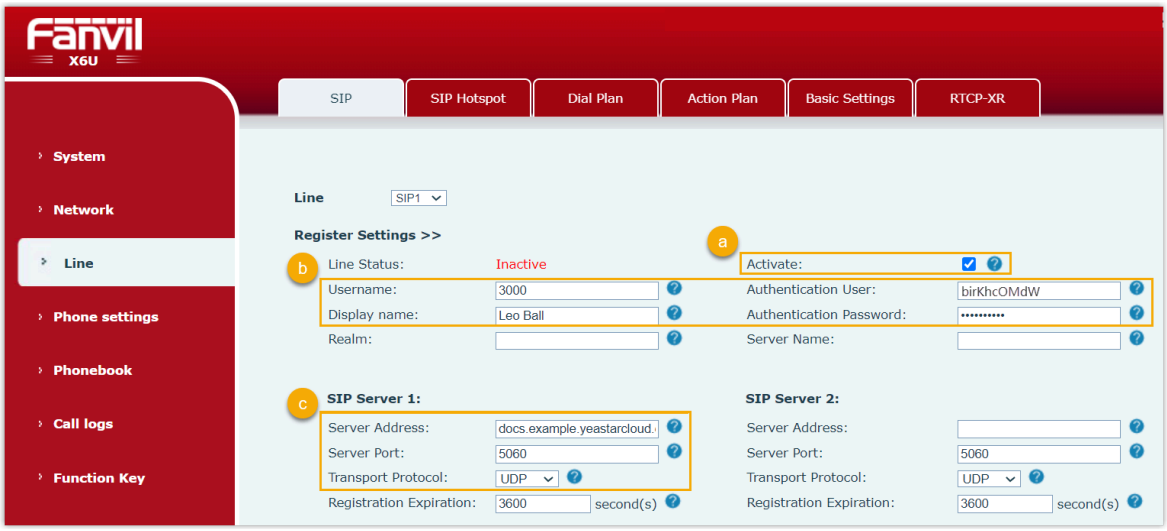
a. In the browser's address bar, enter the IP address of the IP phone.
b. Enter the username `admin` and the associated password.

   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.



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

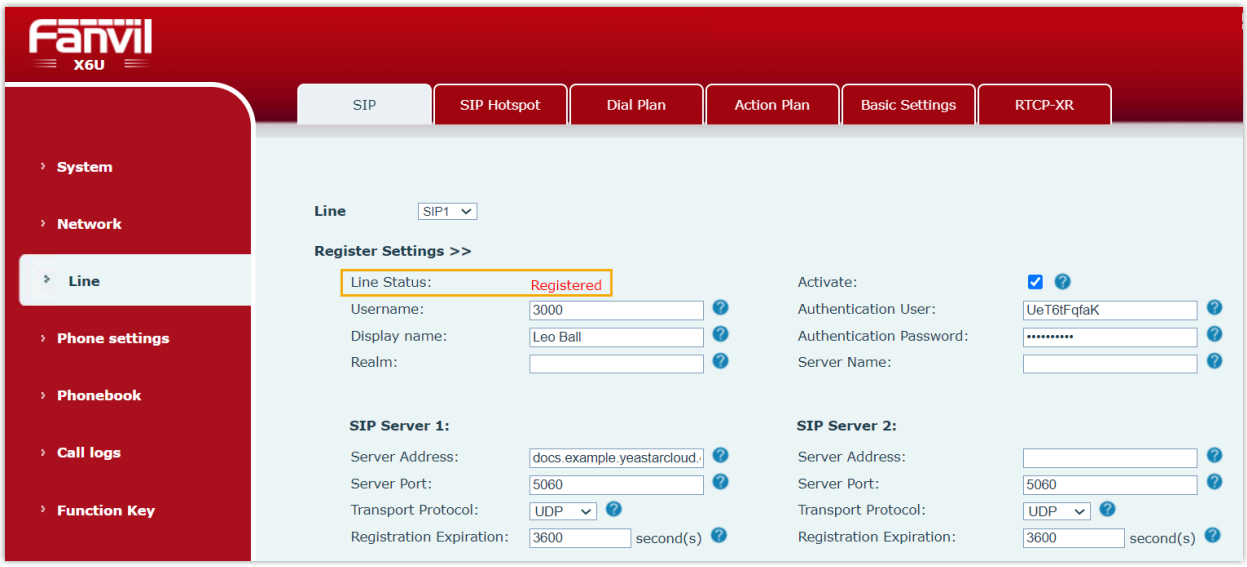


a. Select the checkbox of **Activate** to activate the account.
b. Enter the extension information.
    - **Username**: Enter the extension number.
    - **Display Name**: Enter the name associated with the account, which will be displayed on the phone screen.
    - **Authentication User**: Enter the 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.



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

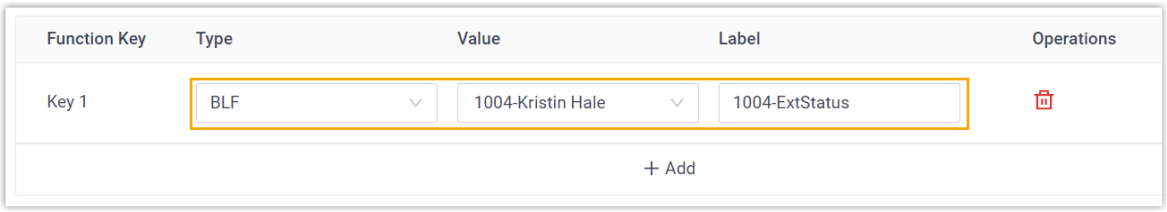
The phone is connected to Yeastar P-Series Cloud Edition via Auto Provisioning, and has been assigned an extension.

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.

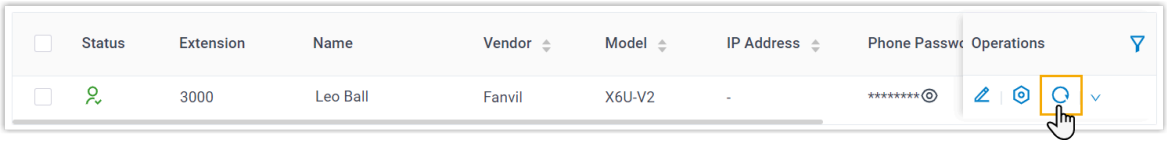


- **Type**: Select **BLF**.
- **Value**: In the drop-down list, select an extension to monitor.
- **Label**: Optional. Enter a value, which will be displayed on the phone screen.

4. Click **Save**.

Step 2. Apply the configuration to the Fanvil IP phone

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



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 extension is not registered, or the extension has been deleted from the PBX system.

- 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

Avaya

Provision Avaya IP Phone with Yeastar P-Series Cloud Edition

This topic takes Avaya J139 (firmware: 4.1.5.0.6) as an example to describe how to provision Avaya IP phone with Yeastar P-Series Cloud Edition.

Requirements

The firmwares of **Avaya IP phone** and **Yeastar PBX** meet the following requirements.

Model	Phone Requirement	PBX Requirement
J129	4.1.1.0.7 or later	84.16.0.70 or later
J139	4.1.1.0.7 or later	84.16.0.70 or later
J159	4.1.1.0.7 or later	84.16.0.70 or later
J169	4.1.1.0.7 or later	84.16.0.70 or later
J179	4.1.1.0.7 or later	84.16.0.70 or later
J189	4.1.1.0.7 or later	84.16.0.70 or later
9608	7.1.15.2.1 or later	84.16.0.70 or later

Prerequisites

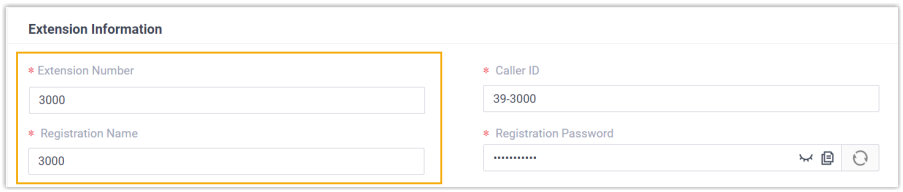
- Prepare a DHCP server in the subnet where the IP phone is located to provide an IP address for the IP phone.

  > **Note:**
  > Make sure that there is only one DHCP server running in the subnet, or the IP phone would fail to obtain an IP address.

- RESET the IP phone if it is previously used.
- Gather information of IP phone, including Vendor, Model, and MAC address.
- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).

- Set the registration name to the same as the extension number for the extension that will be assigned to the IP phone (Path: **Extension and Trunk > Extension >**  **> User > Extension Information**).

> **Important:**
> Due to the IP phone's limitation, the extension's **Registration Name** must be the same as the **Extension Number**; otherwise, the registration will FAIL.



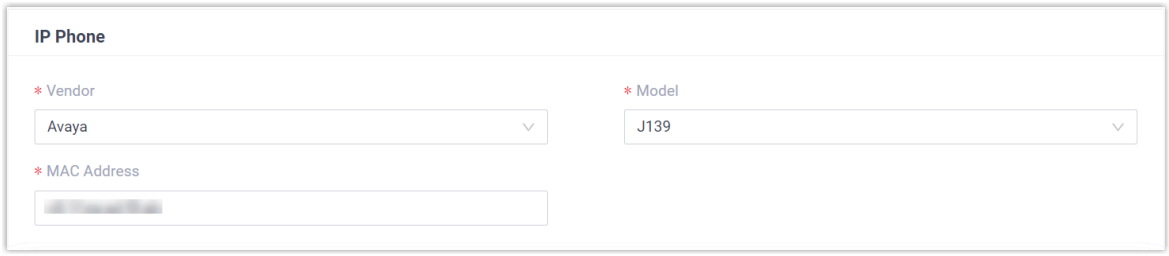
Procedure

- Step 1. Add the Avaya IP phone on PBX
- Step 2. Configure DHCP option 242 on DHCP server

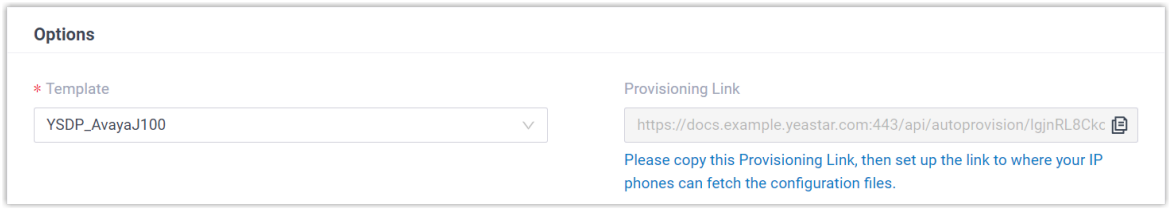
Step 1. Add the Avaya IP phone on PBX

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 **Avaya**.
   - **Model**: Select the phone model. In this example, select **J139**.
   - **MAC Address**: Enter the MAC address of the IP phone.
4. In the **Options** section, configure the following settings.



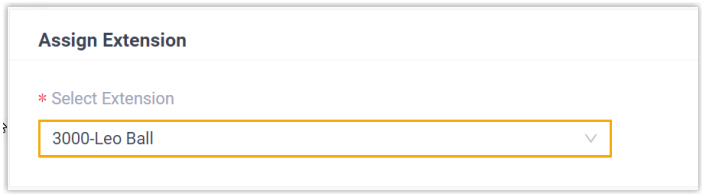
- **Template**: Select a desired template from the drop-down list.

> **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 and displayed in this field. This provisioning link 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.

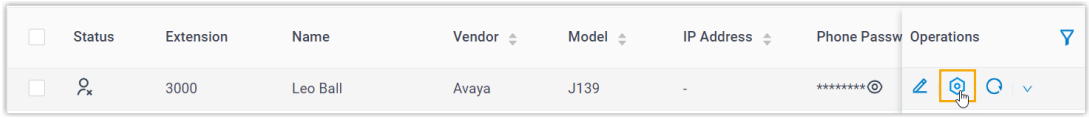


> **Tip:**
> If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.
>
> - To release the extension from the associated IP phone, see Release an Extension from a Provisioned IP Phone.
> - To register the extension to the phone 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.

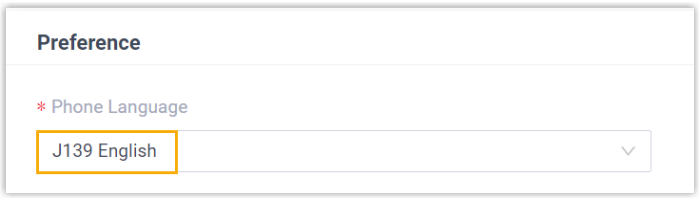
6. Click **Save**.

The IP phone is added and displayed in the Auto Provisioning phone list.

7. Set the phone language for the IP phone.
    a. In the Auto Provisioning phone list, click beside the Avaya IP phone.



    b. In the phone configuration page, scroll down to the **Preference** section, and select the desired phone language based on the phone model.



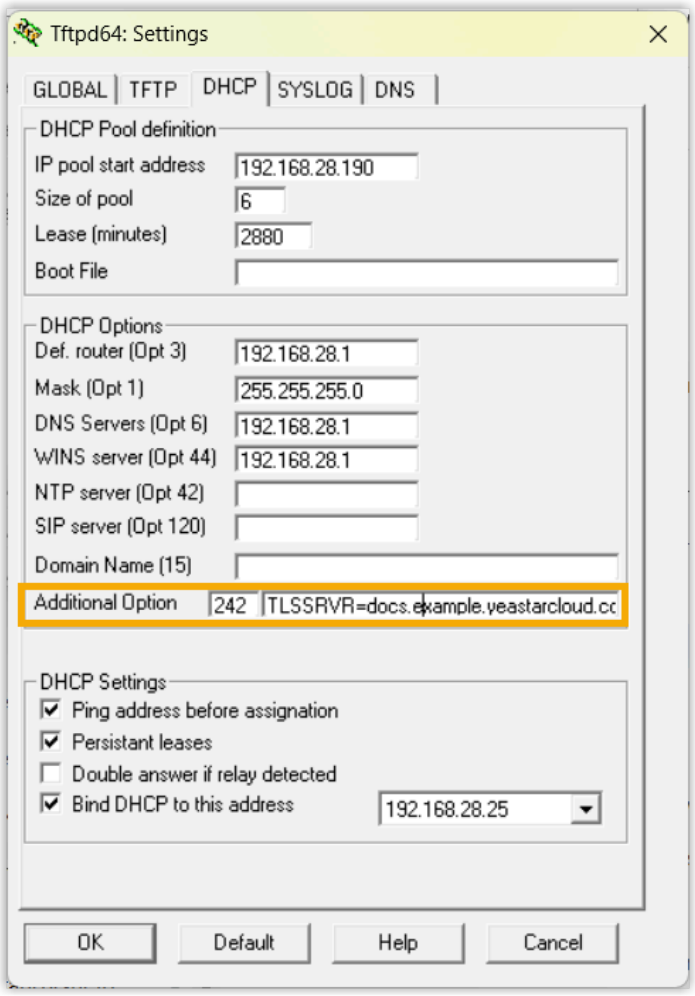
    c. Click **Save**.

Step 2. Configure DHCP option 242 on DHCP server

Configure DHCP option 242 to point to the PBX. This allows the Avaya IP phone to automatically retrieve its configuration files from the PBX.

The following instructions take Tftpd64 DHCP server as an example to show how to configure the option 242.

1. On the running Tftpd64 software, go to **Settings > DHCP > DHCP Options**.
2. Add option 242 and define the location of the configuration files.



a. In the **Additional Option** field, enter `242`.
b. In the string value field, enter the [provisioning link obtained from the PBX] in the following format:

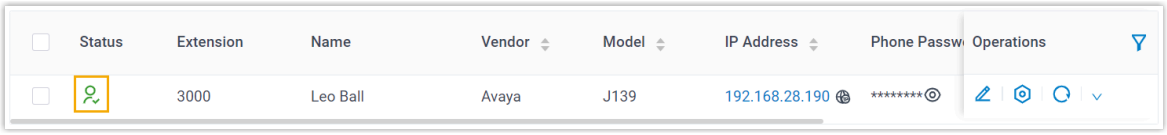
```
TLSSRVR=yeastardocs.ras.yeastar.com,TLSDIR=api/autoprovision/lgjnRL8CkoYFXWJd,TLSPORT=443,SIG=2
```

- **TLSSRVR**: The domain name of the PBX.
- **TLSDIR**: The file path on the PBX (e.g. `api/autoprovision/lgjnRL8CkoYFXWJd`).
- **TLSPORT**: The server port of the PBX.
- **SIG**: The software version of the Avaya IP phone. Set the value to 2.

3. Click **OK** to save the settings.

Results

- After rebooting the IP phone, 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.



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 following requirements.

Model	Phone Requirement	PBX Requirement
D120	10.1.54.13 or later	84.5.0.86 or later
D140	10.1.148.1 or later	84.12.0.34 or later
D150	10.1.148.1 or later	84.12.0.34 or later
D315	10.1.73.16 or later	84.5.0.86 or later
D335	10.1.73.16 or later	84.5.0.86 or later
D385	10.1.73.16 or later	84.5.0.86 or later
D710	8.9.3.80 or later	84.19.0.22 or later
D712	8.9.3.61 or later	84.19.0.22 or later
D713	10.1.73.16 or later	84.6.0.46 or later
D715	10.1.33.33 or later	84.19.0.22 or later
D717	10.1.73.16 or later	84.5.0.86 or later
D720	8.9.3.80 or later	84.19.0.22 or later
D725	10.1.175.16 or later	84.19.0.22 or later
D735	10.1.73.16 or later	84.5.0.86 or later
D765	10.1.73.16 or later	84.5.0.86 or later
D785	10.1.73.16 or later	84.5.0.86 or later
D810	10.1.198.22 or later	84.5.0.86 or later
D812	10.1.184.14 or later	84.12.0.30 or later
D815	10.1.184.14 or later	84.12.0.30 or later

Model	Phone Requirement	PBX Requirement
D862	10.1.137.15 or later	84.9.0.22 or later
D865	10.1.137.15 or later	84.9.0.22 or later
D892	10.1.214.2 or later	84.5.0.86 or later
D895	10.1.214.0 or later	84.5.0.86 or later
E303	1.0.2.5 or later	84.14.0.26 or later
HD100	1.0.0.3-0 or later	84.14.0.26 or later
HD101	1.0.0.3-0 or later	84.14.0.26 or later
HD300 (HD30L)	1.0.0.7 or later	84.14.0.26 or later
HD331	1.0.2.5-0 or later	84.14.0.26 or later
HD350W	1.0.0.3-0 or later	84.14.0.26 or later
HD351W	1.0.0.3-0 or later	84.14.0.26 or later
HM201	1.0.0.3-0 or later	84.14.0.26 or later
M100 KLE	1.0.5.7 or later	84.14.0.24 or later
M500	1.12.2 or later	84.14.0.24 or later
M300	BSV530B2 or later	84.8.0.25 or later
M400	BSV610B5 or later	84.8.0.25 or later
M900	BSV530B7 or later	84.8.0.25 or later
SP800	10.1.169.15 or later	84.17.0.60 or later
PA1+	10.1.184.15 or later	84.17.0.60 or later

Prerequisites

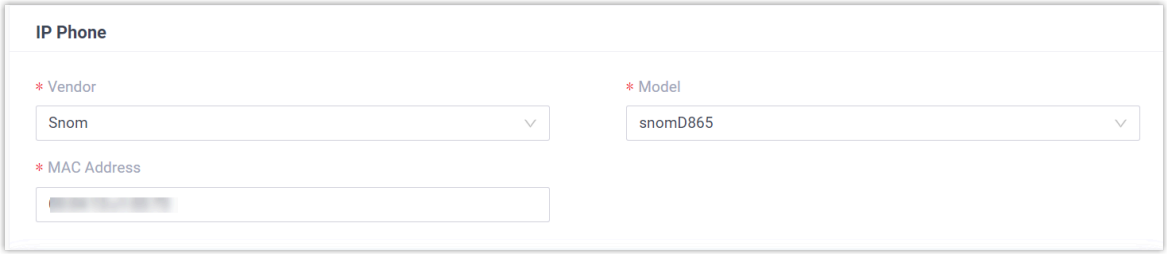
- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

Procedure

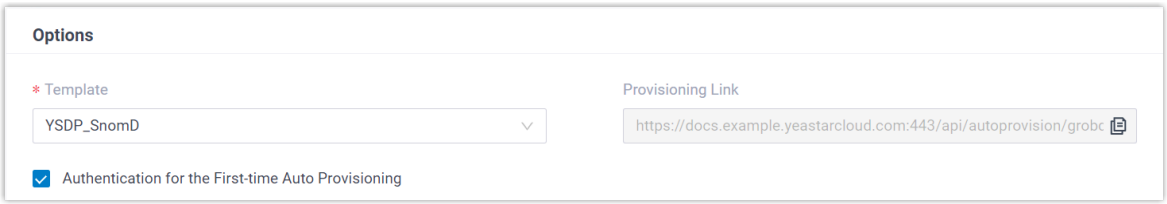
- Step 1. Add the Snom IP phone on PBX
- Step 2. Trigger the IP phone to complete provisioning

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.



   - **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.



   - **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.

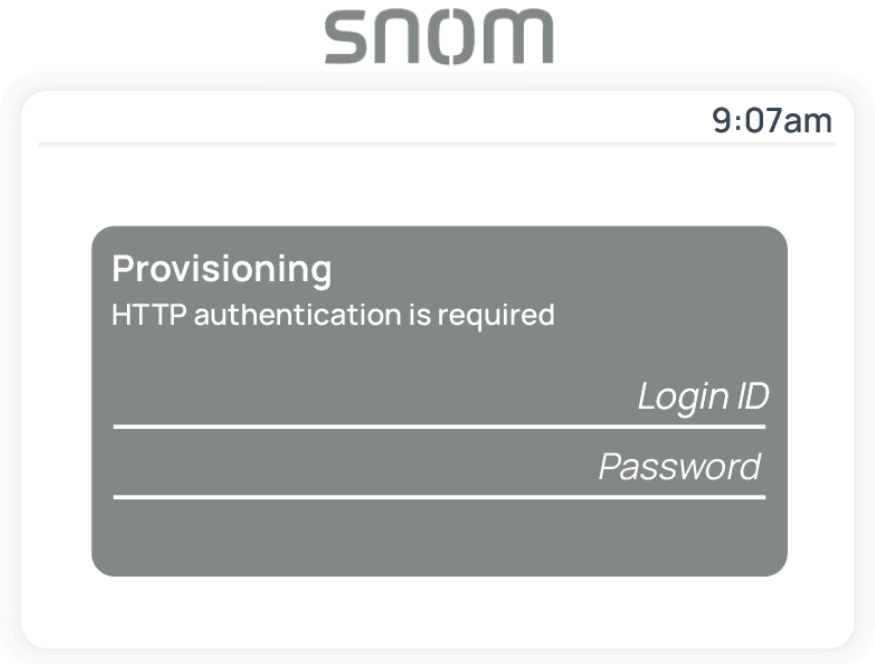
> **Tip:**
> If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.
>
> - To release the extension from the associated IP phone, see Release an Extension from a Provisioned IP Phone.
> - To register the extension to the phone 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**.

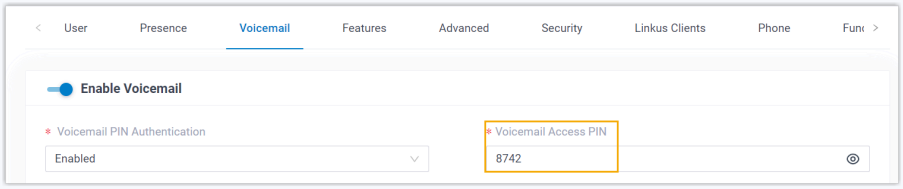
   The PBX will send an event notification of **RPS Request Success**.

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.

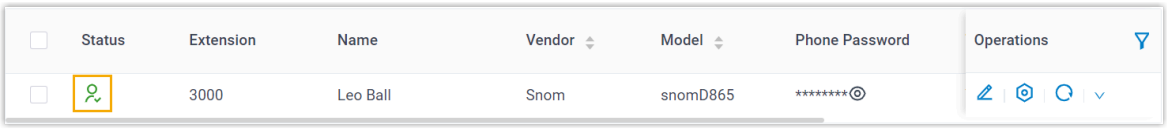


- **Login ID**: Enter the extension number that is assigned to the phone.
- **Password**: Enter the extension's Voicemail Access PIN.

> **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.



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).

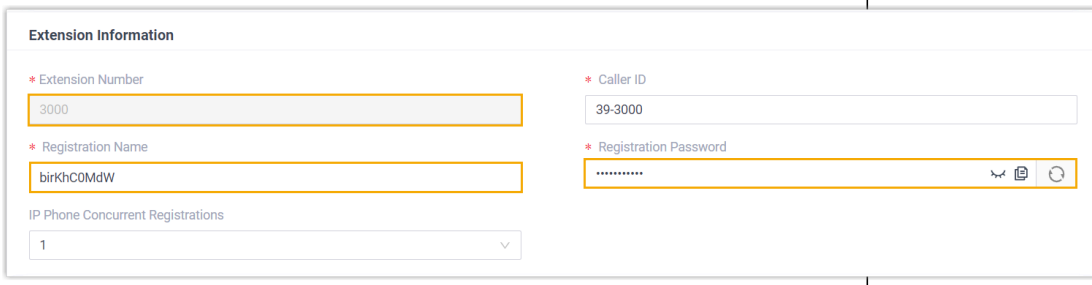
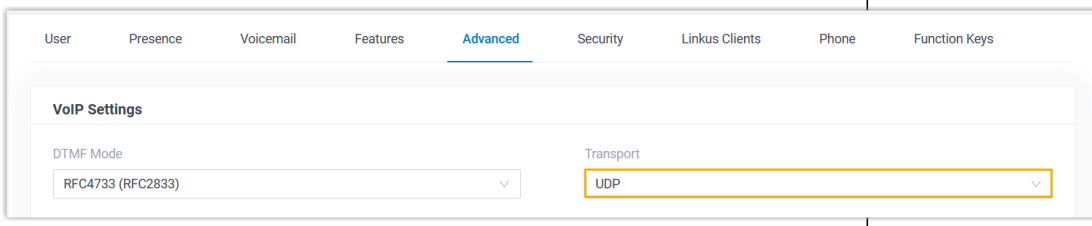
Procedure

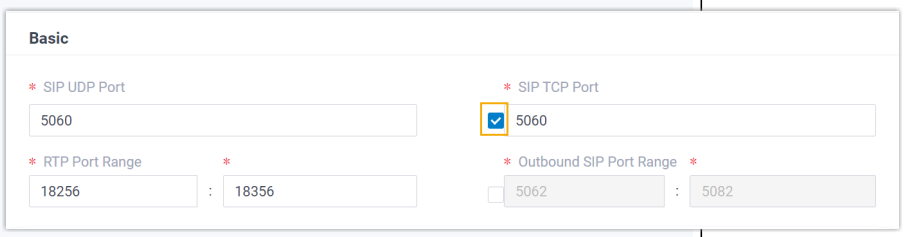
- Step 1. Gather registration information on Yeastar PBX
- Step 2. Register extension on Snom IP phone

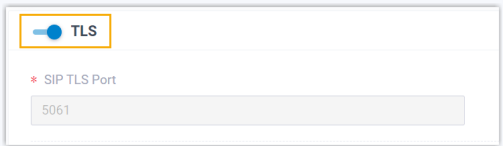
Step 1. Gather registration information on Yeastar PBX

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

Information	Instruction
Extension information	Go to **Extension and Trunk > Extension >**  **> User > Extension Information**, note down the following information: • Extension Number • Registration Name • Registration Password

<table>
<tr><th>Information</th><th>Instruction</th></tr>
<tr><td></td><td> 
</td></tr>
<tr><td>Transport protocol</td><td>Go to Extension and Trunk > Extension >   > Advanced > VoIP Settings > Transport, note down the transport protocol of the extension.
In this example, the extension use UDP transport protocol.
 

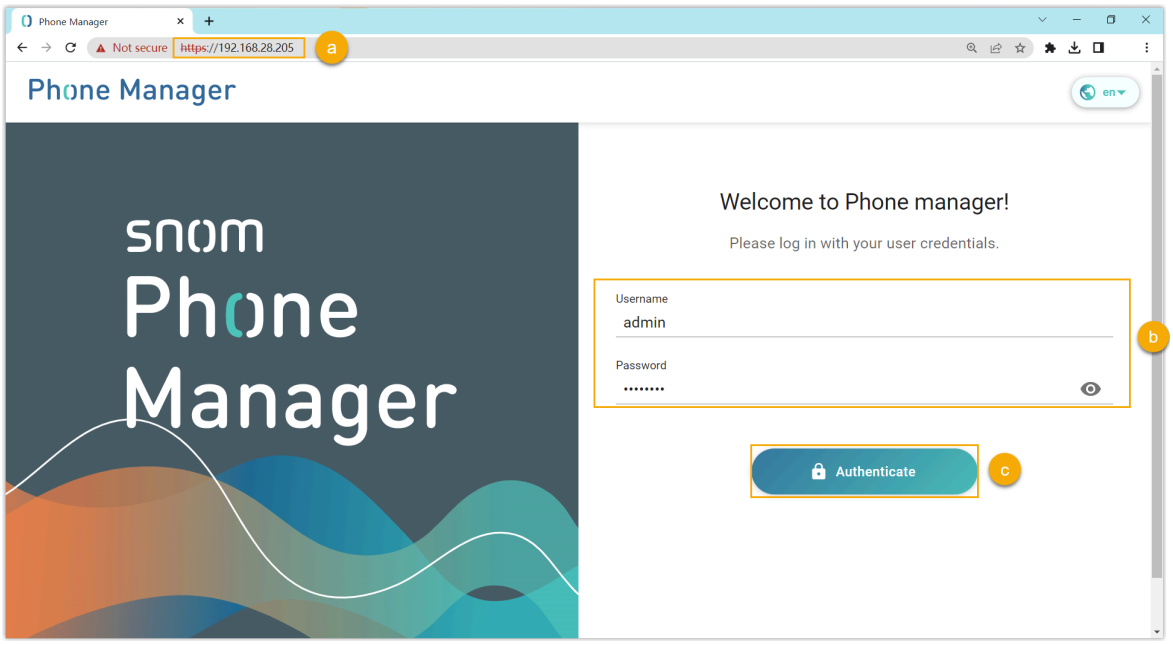
Note:
• If the extension uses TCP transport protocol, make sure that the SIP TCP port is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > General > Basic).
 

• 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).
 
</td></tr>
<tr><td>PBX domain name</td><td>The domain name of the PBX.</td></tr>
</table>

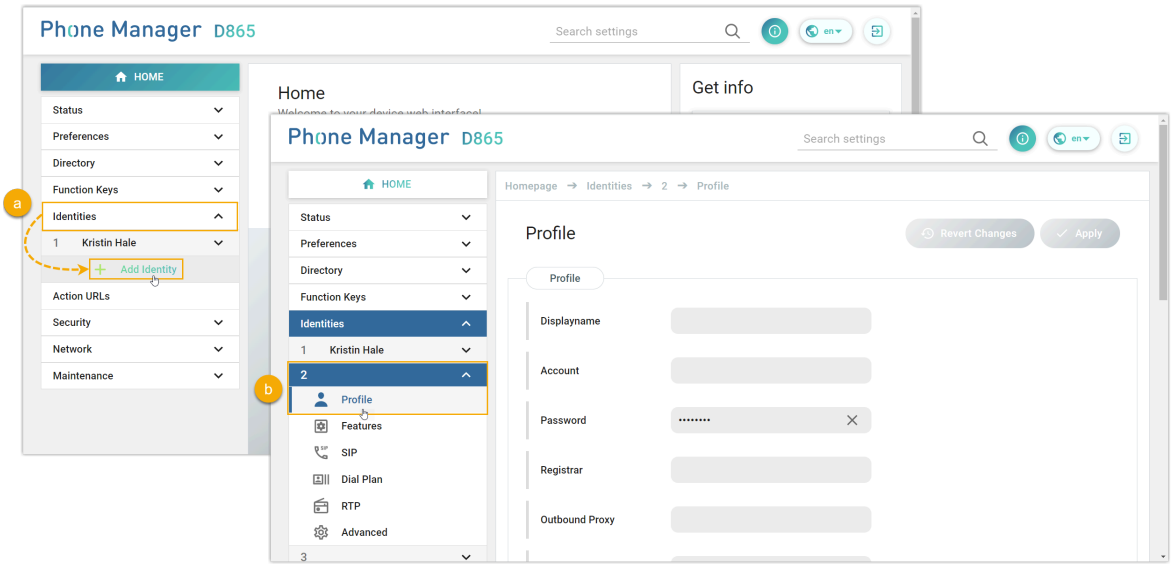
Information	Instruction
	In this example, we use the PBX domain name `docs.example.yeastarcloud.com` for extension registration.
SIP registration port	The SIP registration port is 5060.

Step 2. Register extension on Snom IP phone

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



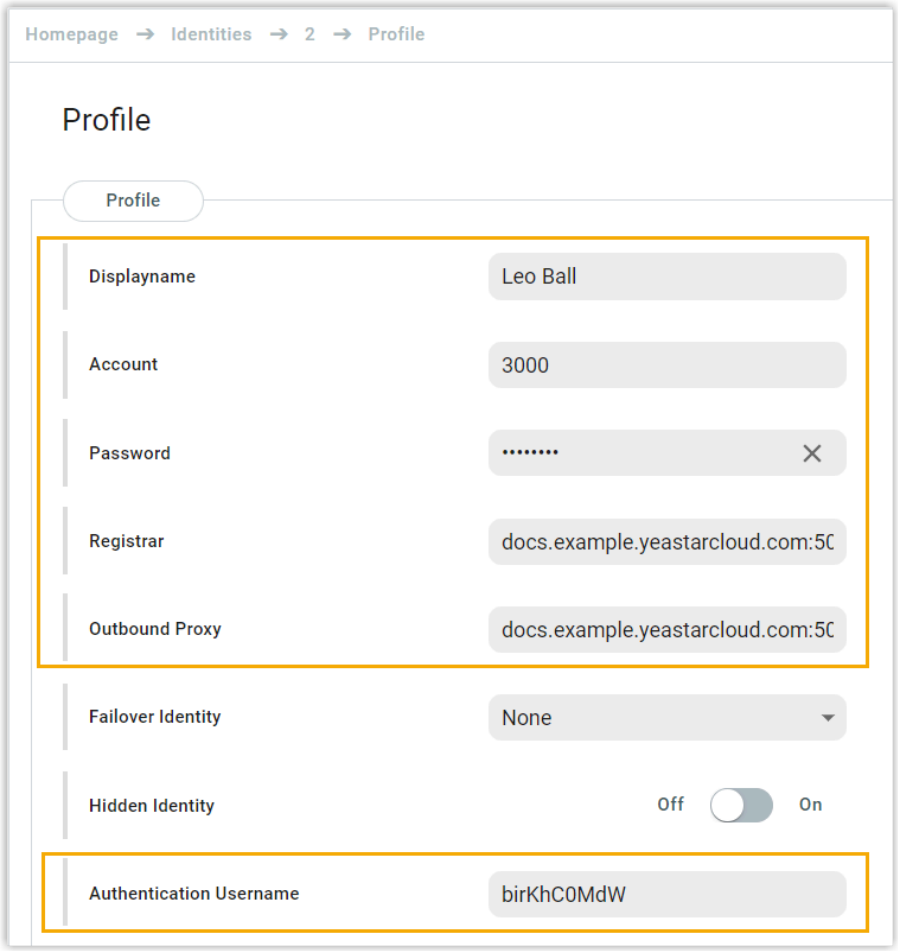
   a. In the browser's address bar, enter the IP address of the IP phone.
   b. Enter the username `admin` and the associated password.
   c. Click **Authenticate**.
2. Add an identity for the extension.



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.



- **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.
- **Registar**: 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.

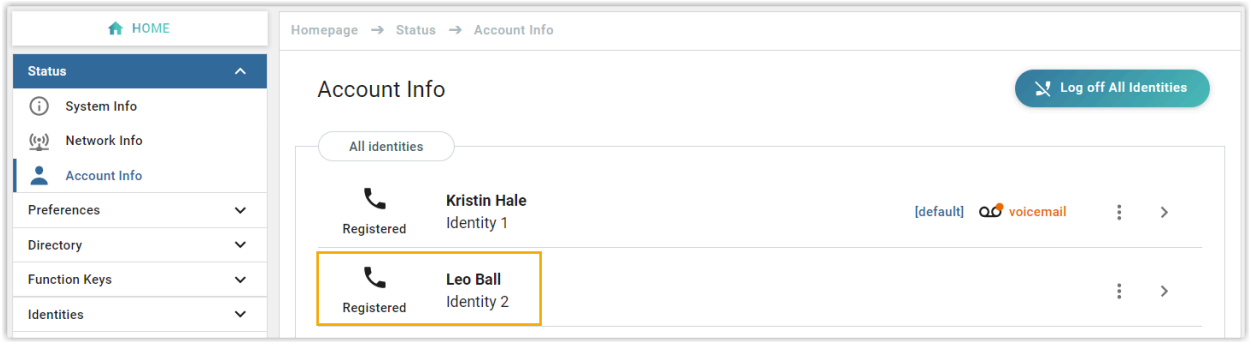
> **Note:**
> The format should be *`PBX domain name:sip registration port;transport=udp/tcp/tls`*. For example, `docs.example.yeastarcloud.com:5060;transport=udp`.

- **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 following requirements.

> **Note:**
> For more information about the compatible **Gigaset DECT handsets**, see Compatibility between Gigaset DECT products.

Base station	Version Requirement	PBX Requirement
N870 IP PRO	2.38.1 or later	84.5.0.86 or later
N670 IP PRO	2.38.1 or later	84.5.0.86 or later
N610 IP PRO	2.52.0 or later	84.5.0.86 or later

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

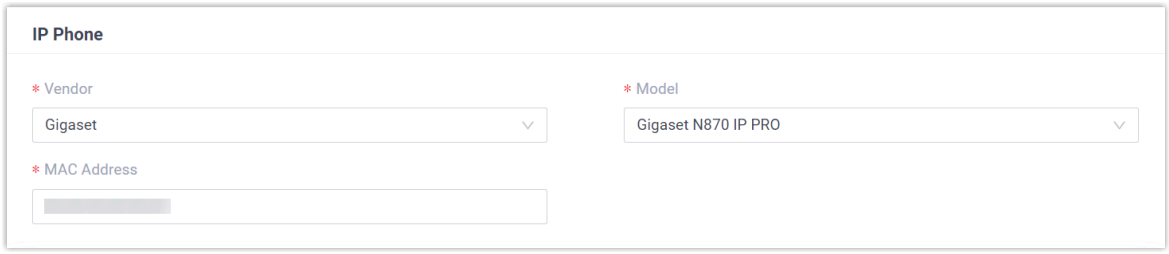
Prerequisites

- Ensure there is only one DHCP server in the same subnet as the Gigaset DECT system (base station and handset) to assign IP for the base station; otherwise, the base station would fail to obtain an IP address.
- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- Gather information of the Gigaset DECT base station, including Vendor, Model, and MAC address.

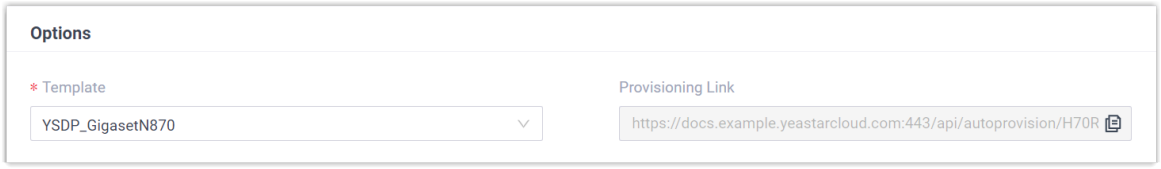
Step 1. Add the Gigaset DECT base station on PBX

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.



   - **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.



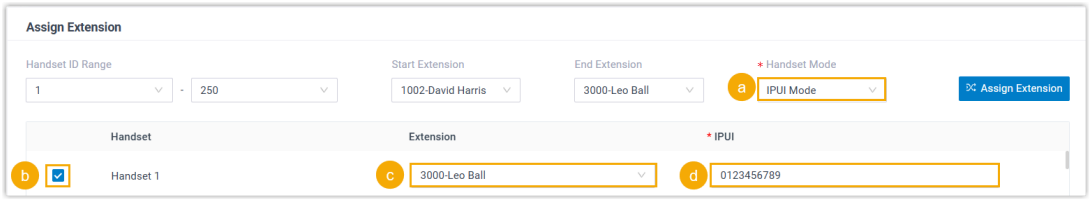
   - **Template**: Select a desired template from the drop-down list.

> **Note:**

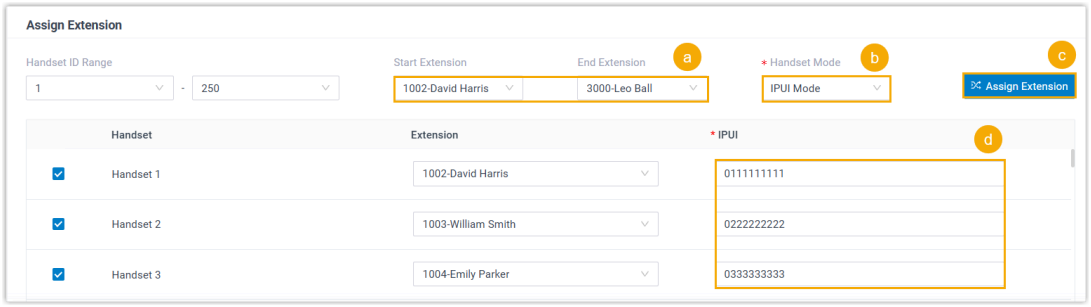
> You can select the default template corresponding to the phone model, or customize your own template. For more information, see Create a Custom Auto Provisioning Template.

- **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, do as follows:



     a. In the **Handset Mode** drop-down list, select the mode via which you want to associate the handsets.
        - **Fixed Number Mode**: Associate the handset with a specific extension number.
        - **IPUI Mode**: Associate the handset using its unique IPUI codes.
     b. Select the checkbox of the desired handset.
     c. In the **Extension** drop-down list, select the desired extension.
     d. If you use IPUI mode, enter the IPUI code of the handset in the **IPUI** field.
   - To assign extensions in bulk, do as follows:



     a. In the **Start Extension** and **End Extension** drop-down lists, set the extension range.
     b. In the **Handset Mode** drop-down list, select the mode via which you want to associate the handsets.
        - **Fixed Number Mode**: Associate the handsets with specific extension numbers.
        - **IPUI Mode**: Associate the handsets using their unique IPUI codes.
     c. Click **Assign Extension**.

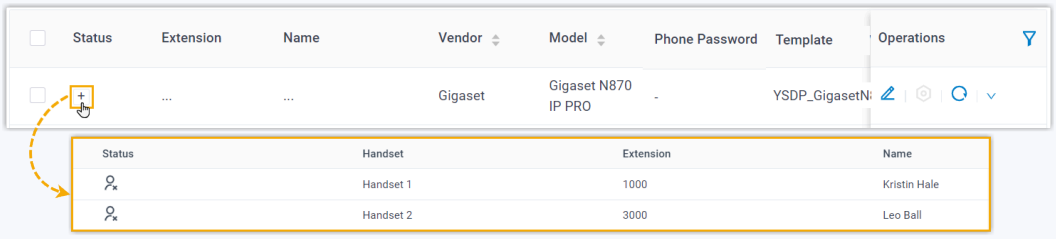
Handsets are automatically enabled and assigned with the specified extensions in sequence.

d. If you use IPUI mode, enter the IPUI codes of the handsets in the **IPUI** field.

> **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.
>
> 
>

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.

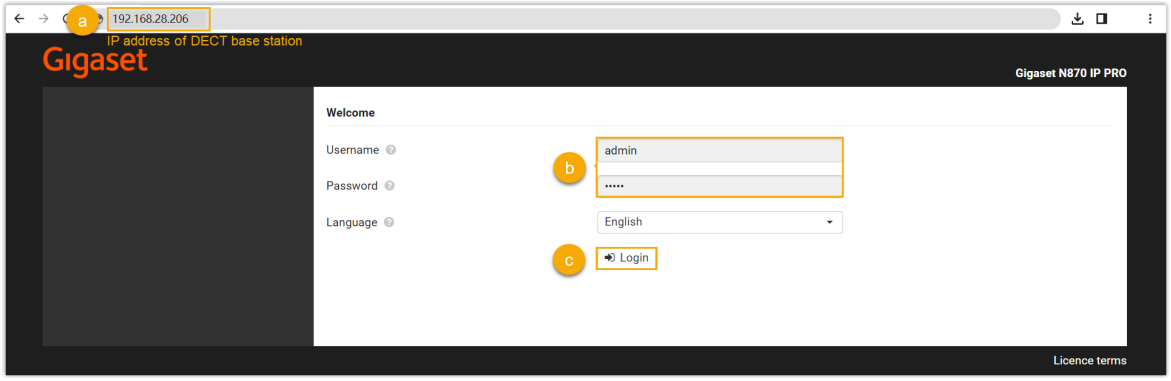
3. Press and hold the device button until both LEDs turn red, then release the button.

   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.

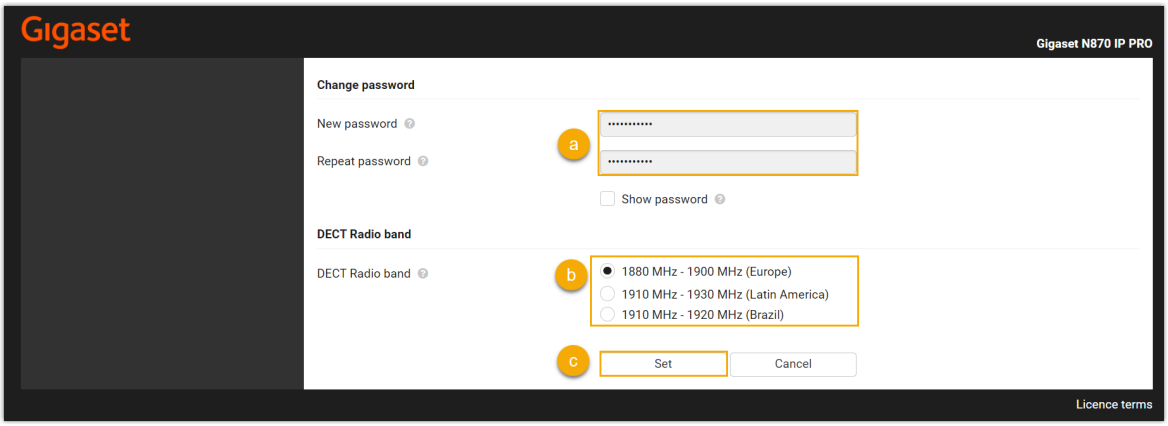
1. Log in to the web interface of DECT base station.



   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**.

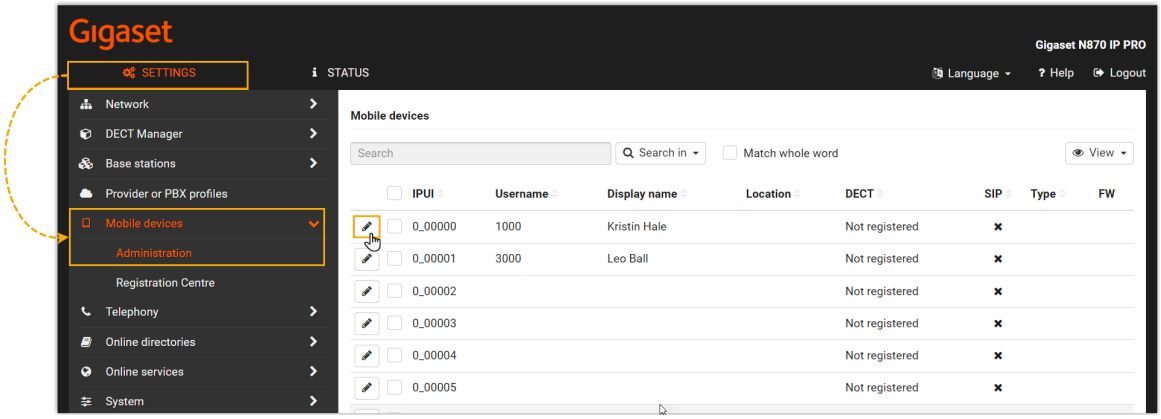
2. Change the default password, select a radio frequency band, then click **Set**.

> **Note:**
> For the DECT radio band, select the radio frequency band used in your region.

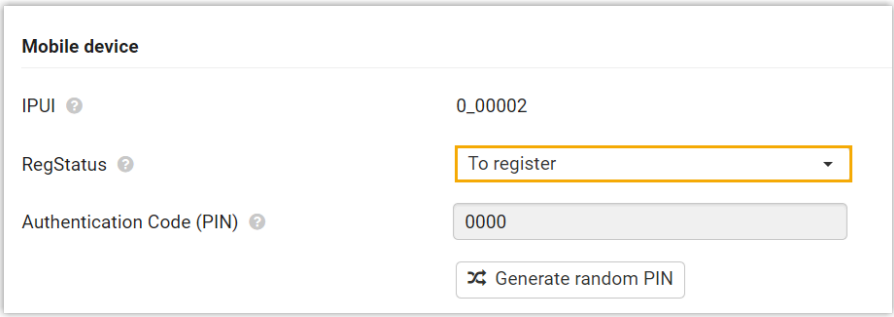


You are redirected to the web interface of the DECT base station.

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

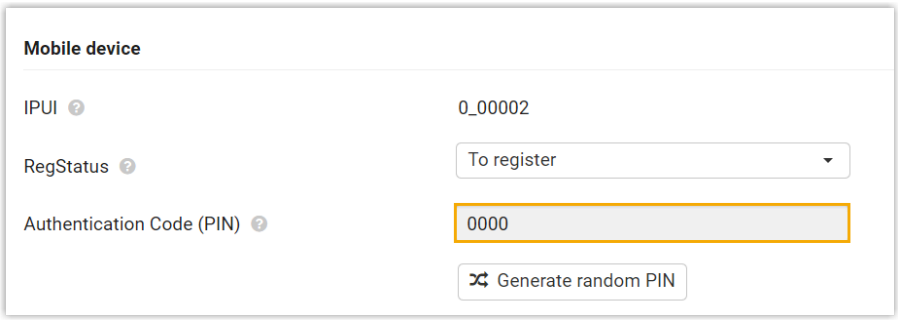


a. In the **RegStatus** drop-down list, select **To register**.

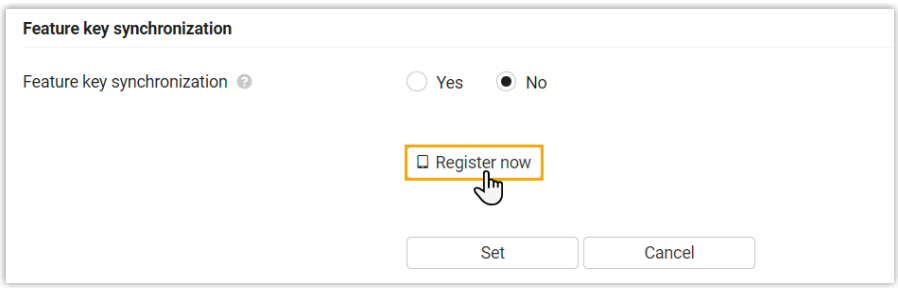


b. In the **Authentication Code (PIN)** field, set and note down a PIN code, which will be used on handset later for registration.

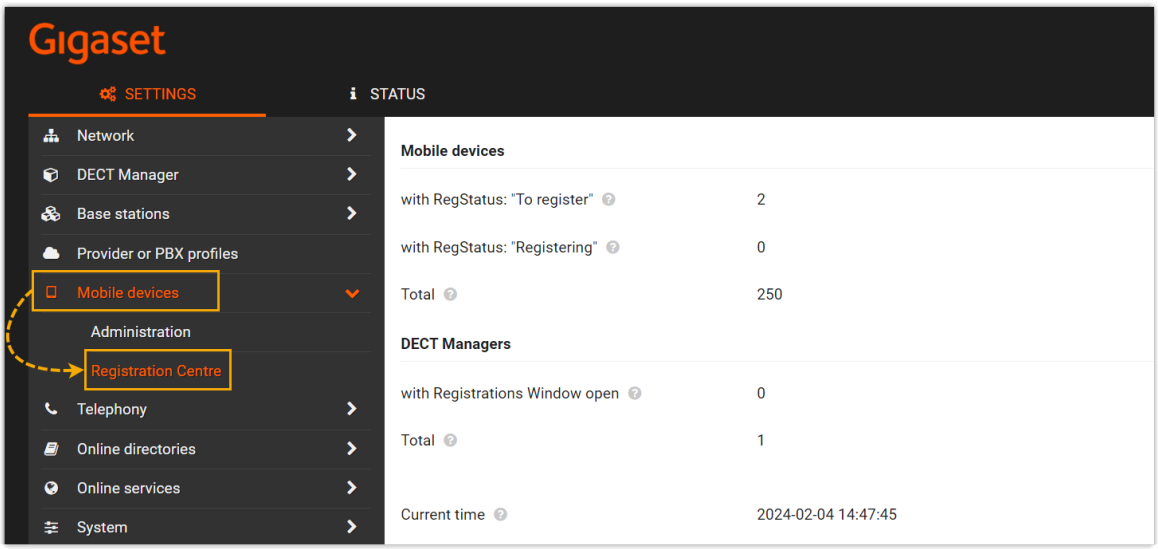
   In this example, use the default PIN code `0000`.



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

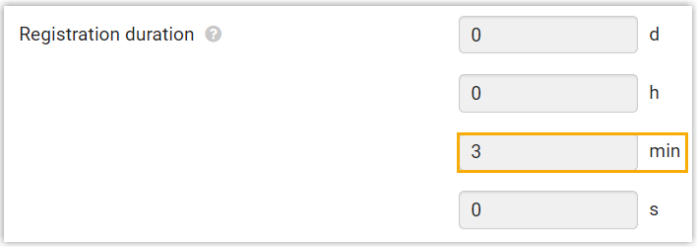


4. Repeat the above steps to edit other handsets with extensions assigned until all the handsets are in **To register** status.
5. Go to **Mobile devices > Registration Centre > DECT Managers**, complete the following settings.



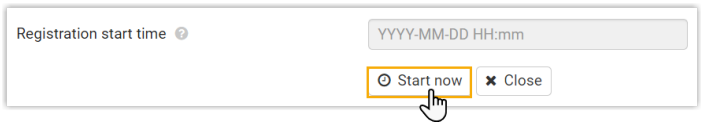
a. In the **Registration duration** section, set how long the DECT base station should stay in registration mode.

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

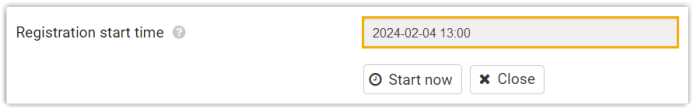


b. In the **Registration start time** section, enable the registration mode of DECT base station.

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

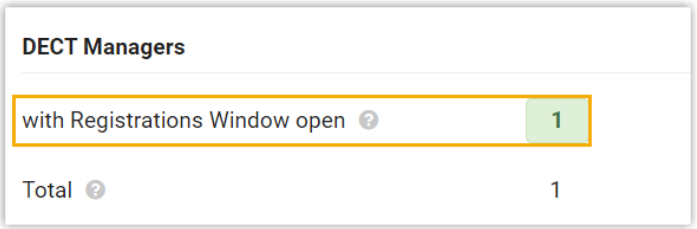


- To schedule a time to start registration, set a time in the **Registration start time** field, then click **Set** at the bottom of the page.



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.



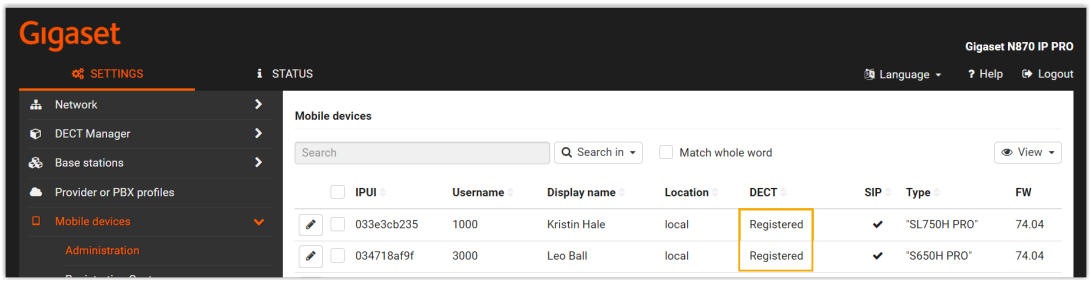
6. Confirm registration on DECT handset.
   a. On the handset, go to **Menu > Settings > Registration > Register Handset**.

   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.

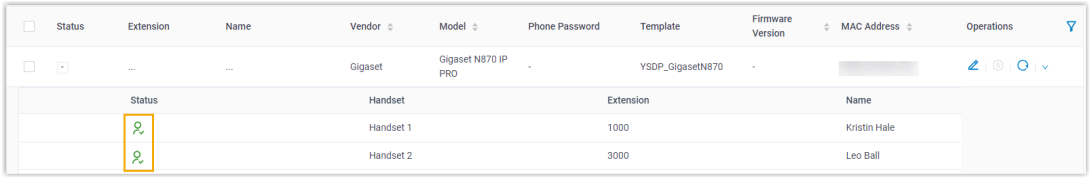
   b. Enter the PIN code obtained from the base station, and press **OK**.

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**.



- 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.

Requirements

The firmwares of **Grandstream IP Phone** and **Yeastar PBX** meet the following requirements.

Model	Phone Requirement	PBX Requirement
GXP1610	1.0.7.13 or later	84.9.0.18 or later
GXP1620	1.0.7.13 or later	84.9.0.18 or later
GXP1625	1.0.7.13 or later	84.9.0.18 or later
GXP1628	1.0.7.13 or later	84.9.0.18 or later
GXP1630	1.0.7.13 or later	84.9.0.18 or later
GXP2130	1.0.11.16 or later	84.9.0.18 or later
GXP2135	1.0.11.16 or later	84.9.0.18 or later
GXP2140	1.0.11.16 or later	84.9.0.18 or later
GXP2160	1.0.11.16 or later	84.9.0.18 or later
GXP2170	1.0.11.16 or later	84.9.0.18 or later
GAC2500	1.0.3.45 or later	84.11.0.22 or later
GAC2570	1.0.1.36 or later	84.11.0.22 or later
GRP2601	1.0.3.63 or later	84.9.0.18 or later
GRP2601P	1.0.3.63 or later	84.9.0.18 or later
GRP2602	1.0.3.63 or later	84.9.0.18 or later
GRP2602P	1.0.3.63 or later	84.9.0.18 or later
GRP2602G	1.0.3.63 or later	84.9.0.18 or later
GRP2602W	1.0.3.63 or later	84.9.0.18 or later
GRP2603	1.0.3.63 or later	84.9.0.18 or later

Model	Phone Requirement	PBX Requirement
GRP2603P	1.0.3.63 or later	84.9.0.18 or later
GRP2604	1.0.3.63 or later	84.9.0.18 or later
GRP2604P	1.0.3.63 or later	84.9.0.18 or later
GRP2612	1.0.7.25 or later	84.9.0.18 or later
GRP2612P	1.0.7.25 or later	84.9.0.18 or later
GRP2612G	1.0.7.25 or later	84.9.0.18 or later
GRP2612W	1.0.7.25 or later	84.9.0.18 or later
GRP2613	1.0.7.25 or later	84.9.0.18 or later
GRP2614	1.0.7.25 or later	84.9.0.18 or later
GRP2615	1.0.7.25 or later	84.9.0.18 or later
GRP2616	1.0.7.25 or later	84.9.0.18 or later
GRP2624	1.0.7.25 or later	84.9.0.18 or later
GRP2634	1.0.7.25 or later	84.9.0.18 or later
GRP2670	1.0.7.25 or later	84.9.0.18 or later
GHP610	1.0.1.71 or later	84.18.0.18 or later
GHP610W	1.0.1.71 or later	84.17.0.17 or later
GHP611	1.0.1.71 or later	84.18.0.18 or later
GHP611W	1.0.1.71 or later	84.17.0.17 or later
GHP620	1.0.1.71 or later	84.18.0.18 or later
GHP620W	1.0.1.71 or later	84.17.0.17 or later
GHP621	1.0.1.71 or later	84.18.0.18 or later
GHP621W	1.0.1.71 or later	84.17.0.17 or later
GHP630	1.0.1.71 or later	84.18.0.18 or later
GHP630W	1.0.1.40 or later	84.17.0.17 or later
GHP631	1.0.1.40 or later	84.18.0.18 or later
GHP631W	1.0.1.45 or later	84.17.0.17 or later
WP825	1.0.11.67 or later	84.17.0.17 or later

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

- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

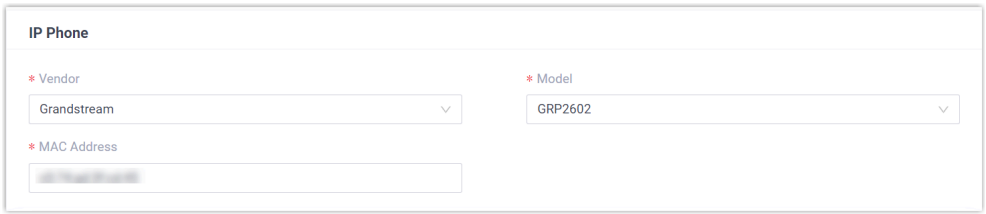
Procedure

- 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

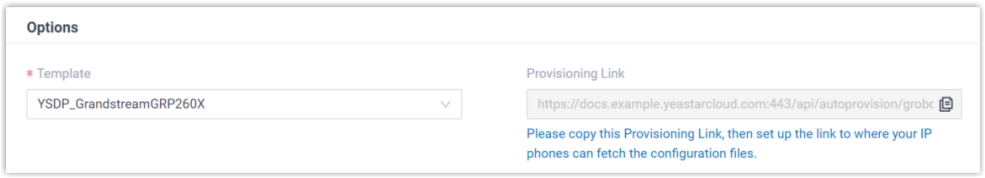
Add the IP phone on PBX. The PBX will generate a configuration file based on the phone's MAC address.

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.



- **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.



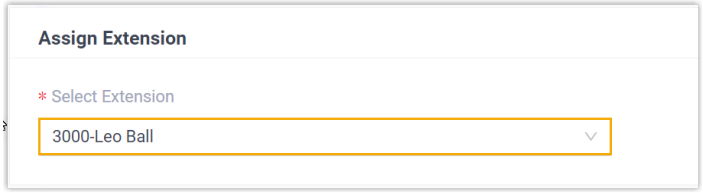
- **Template**: Select a desired template from the drop-down list.

> **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.

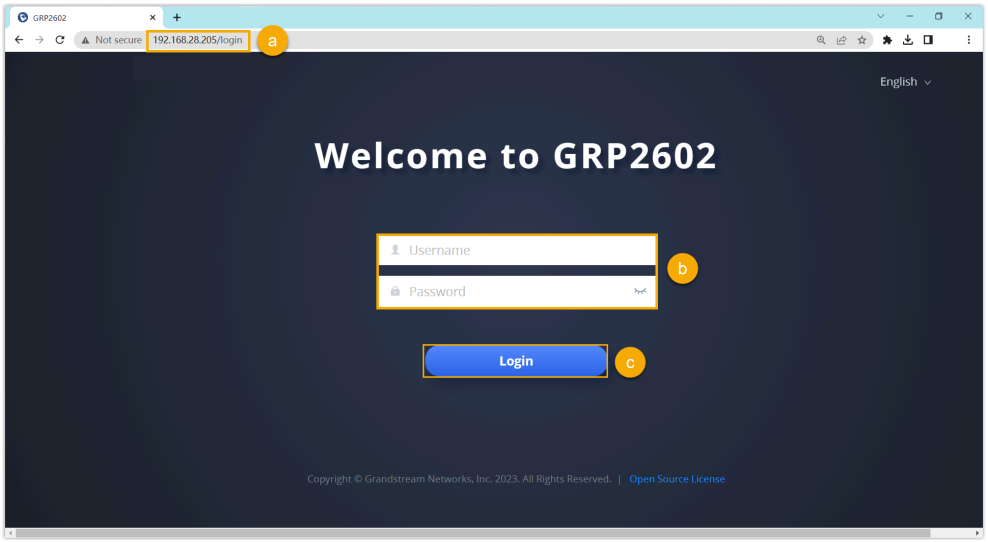
> • To register the extension to the phone without releasing it from the previously associated one, you need to configure the concurrent registration setting for the extension, as the PBX only allows an extension to register with one SIP endpoint by default.

6. Click **Save**.

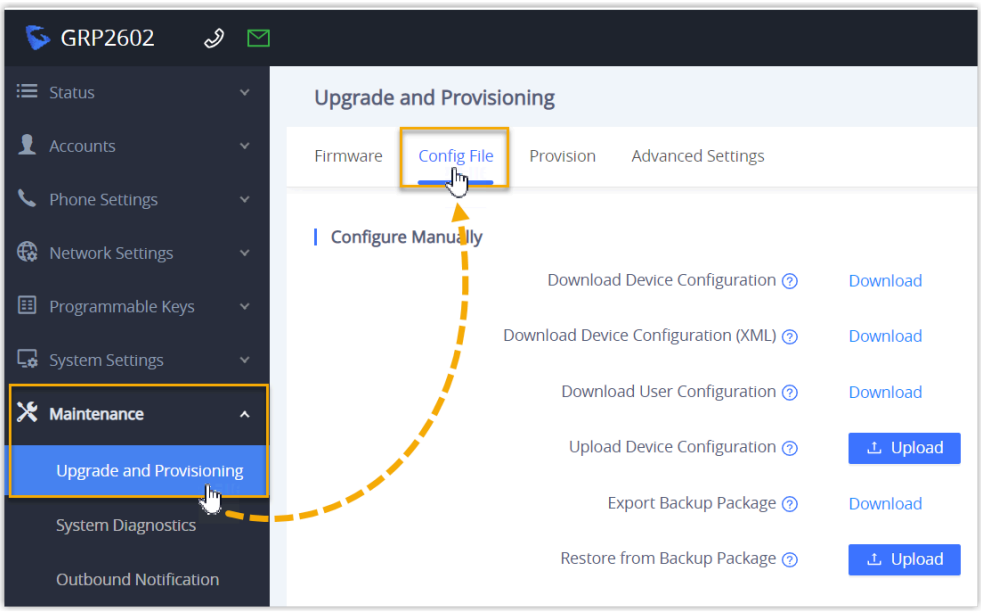
Step 2. Configure provisioning server on the Grandstream IP phone

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

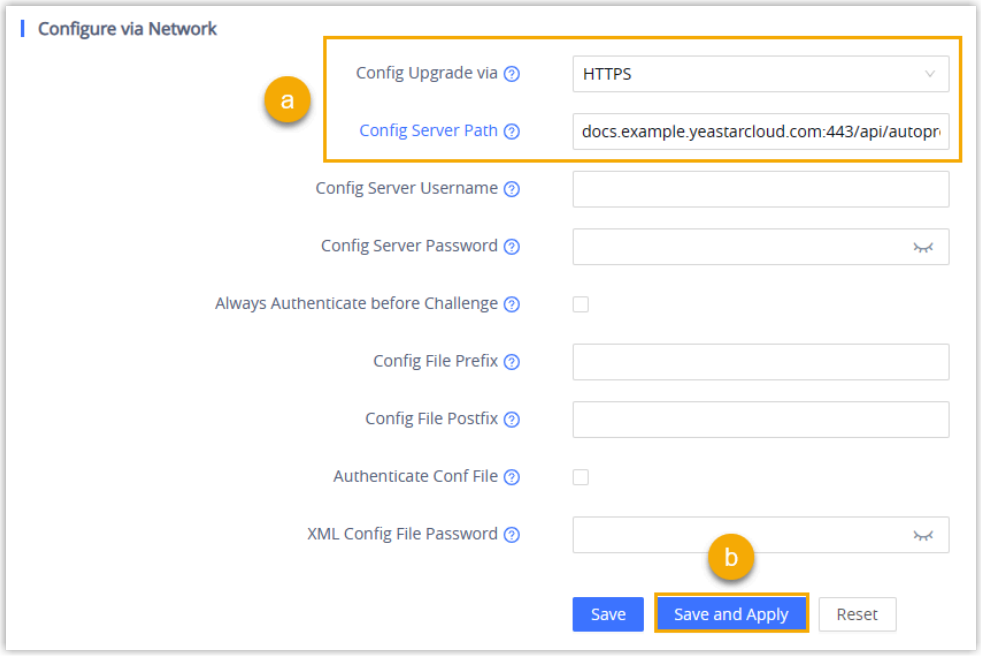
1. Log in to the web interface of the Grandstream IP phone.



   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.



a. Enter the information of the provisioning server.

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

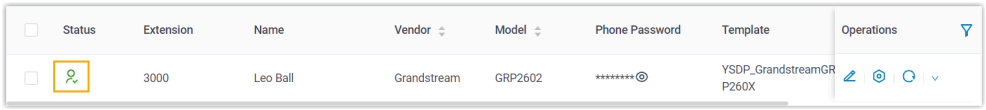
> **Note:**
> You should remove the prefix `https://` before pasting the link into the field.

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.



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.

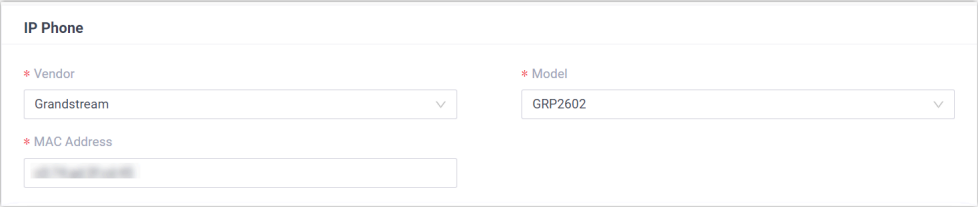
- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

Procedure

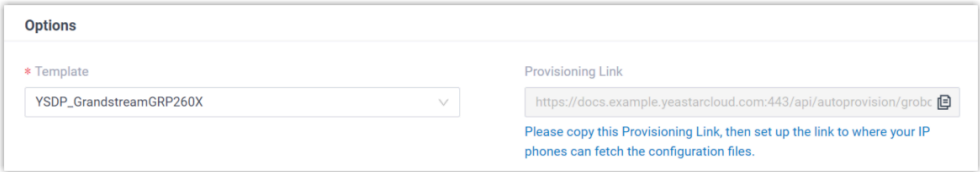
Step 1. Add the Grandstream IP phone on PBX

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 **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.



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

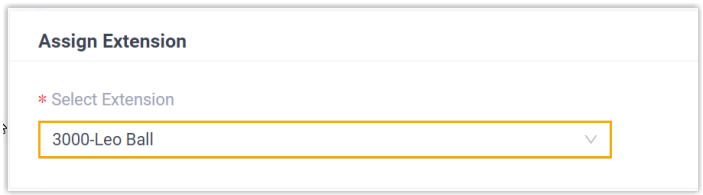
> **Note:**

> 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.



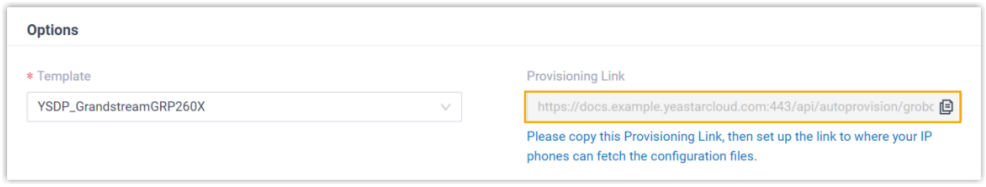
> **Tip:**
> If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.
>
> - To release the extension from the associated IP phone, see Release an Extension from a Provisioned IP Phone.
> - To register the extension to the phone 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

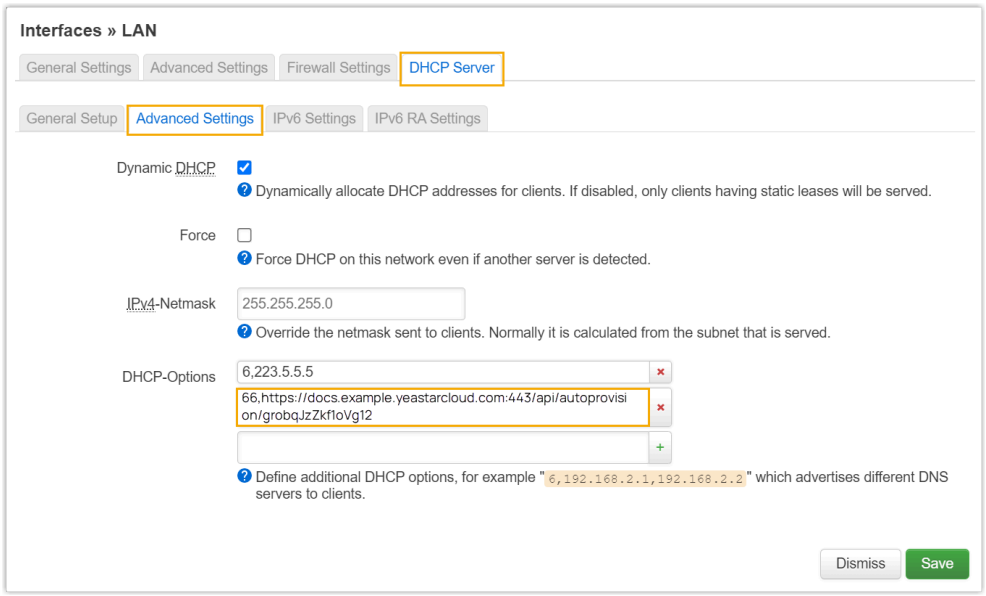
In the subnet where the IP phone is deployed, use the generated provisioning link to configure option 66 on the DHCP Server.

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



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

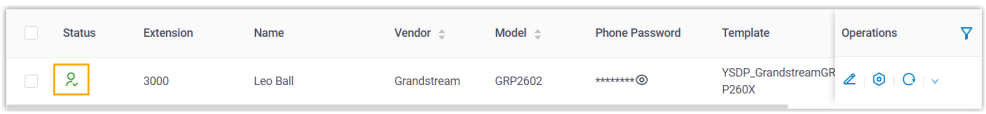
   In this example, the configuration is shown below:



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.



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

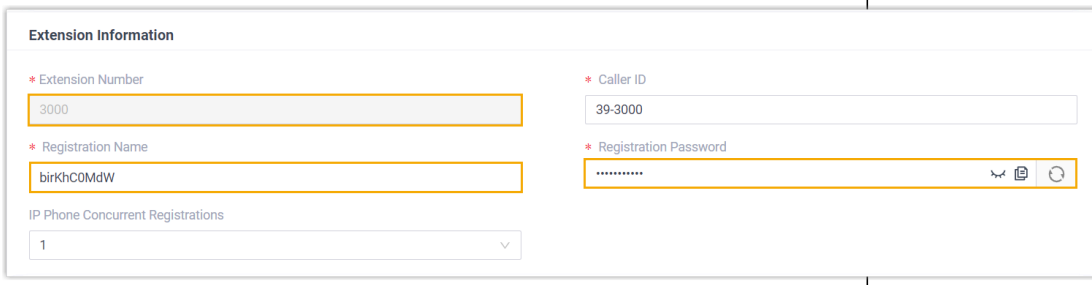
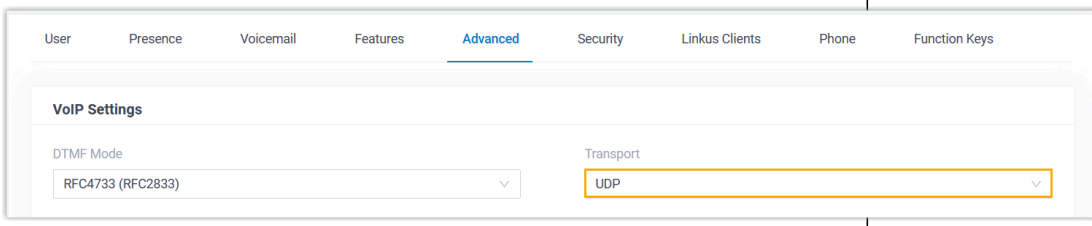
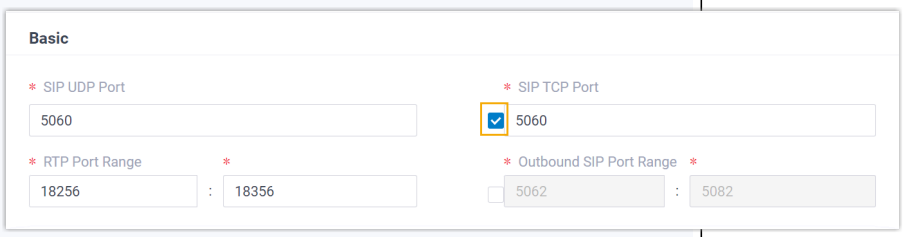
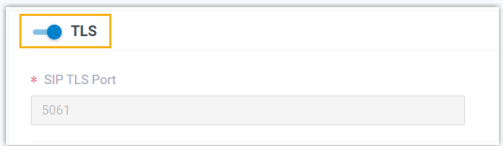
The Grandstream IP phones that are compatible with SIP (Session Initiation Protocol).

Procedure

Step 1. Gather registration information on Yeastar PBX

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

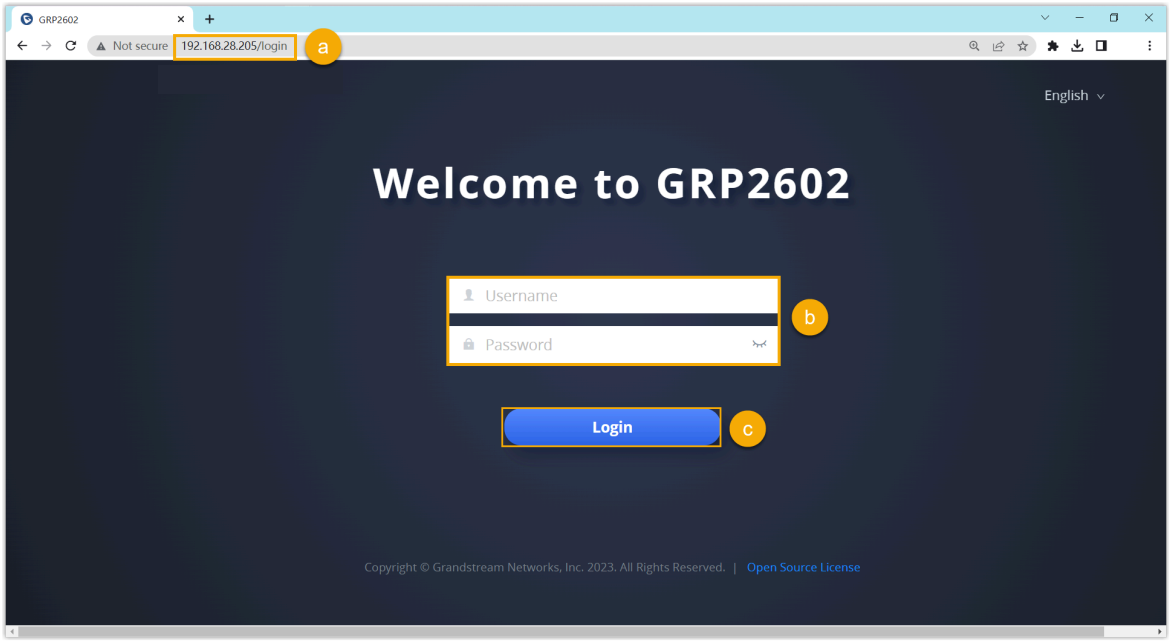
Information	Instruction
Extension information	Go to **Extension and Trunk > Extension >**  **> User > Extension Information**, note down the following information: • Extension Number • Registration Name • Registration Password

Information	Instruction
	
Transport protocol	Go to **Extension and Trunk > Extension >**  **> Advanced > VoIP Settings > Transport**, note down the transport protocol of the extension. In this example, the extension use UDP transport protocol.  **Note:** • 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**). 
PBX domain name	The domain name of the PBX.

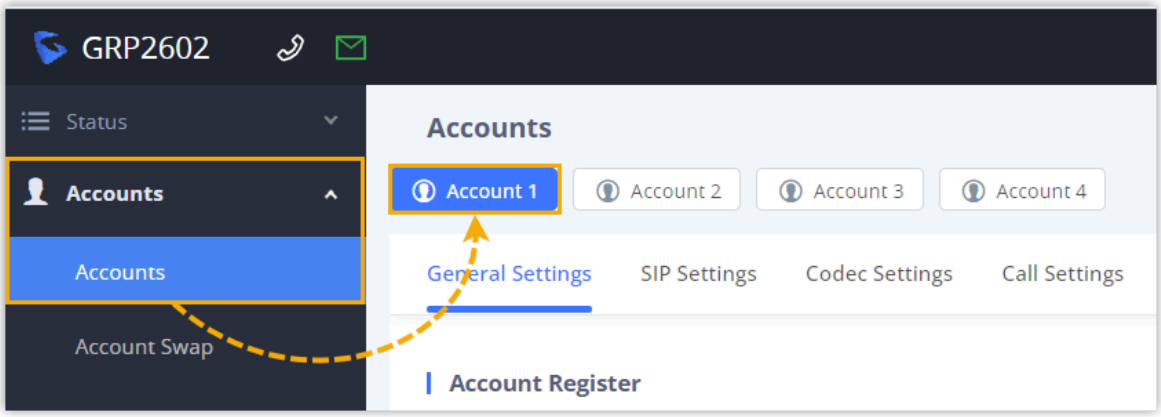
Information	Instruction
	In this example, we use the PBX domain name `docs.example.yeastarcloud.com` for extension registration.
SIP registration port	The SIP registration port is 5060.

Step 2. Register extension on Grandstream IP phone

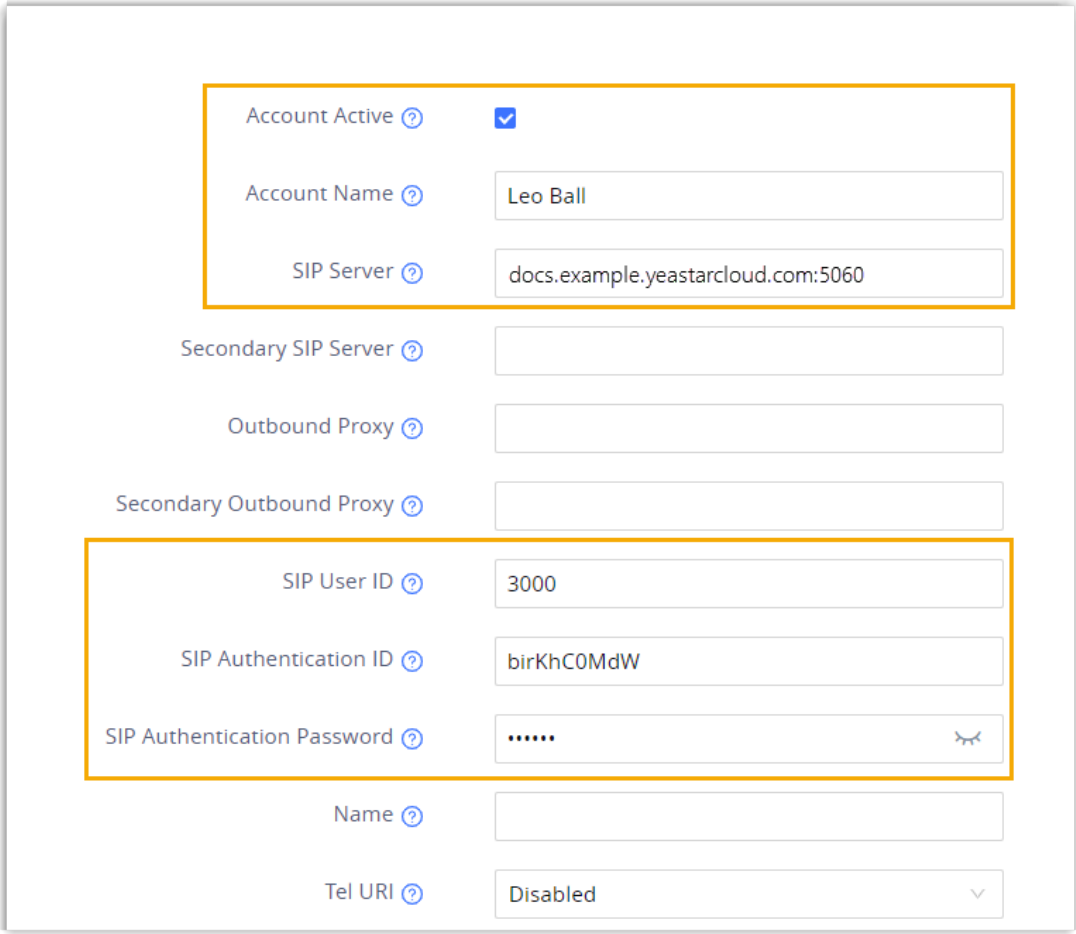
1. Log in to the web interface of the Grandstream IP phone.



   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.

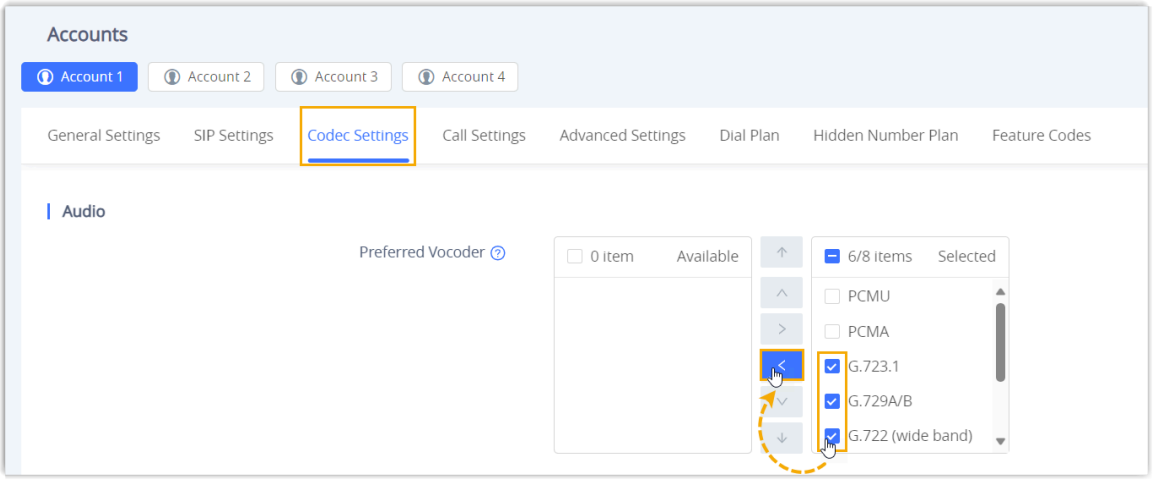


- **Account Active**: Select the checkbox to activate the account.
- **Account Name**: Enter the name associated with the account, which will be displayed on the phone screen.

- **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.

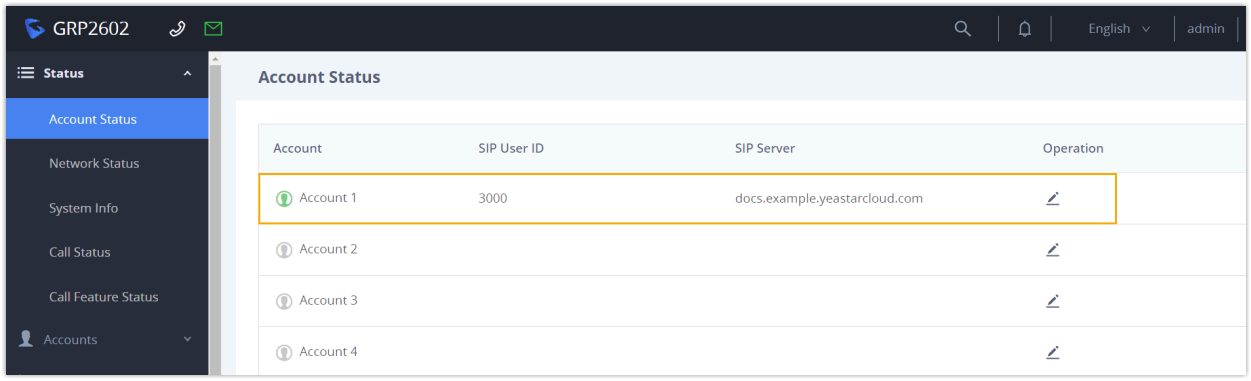
> **Note:**
> By default, Grandstream IP phone enables all available codecs for its accounts, which may lead to issues with outgoing calls. Therefore, it is recommended to remove unnecessary codecs for the account that has been registered with the PBX extension.



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.



Remove Unnecessary Codecs for Grandstream IP Phone

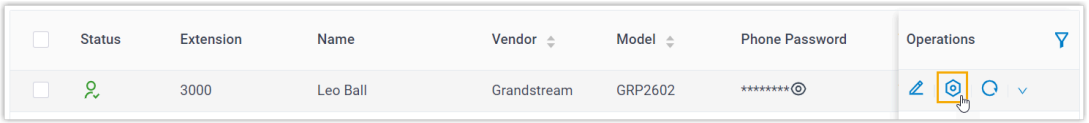
By default, Grandstream IP phone enables all available codecs for its accounts, which may lead to issues with outgoing calls. Therefore, it is recommended to remove unnecessary codecs for the account that has been registered with the PBX extension.

Prerequisites

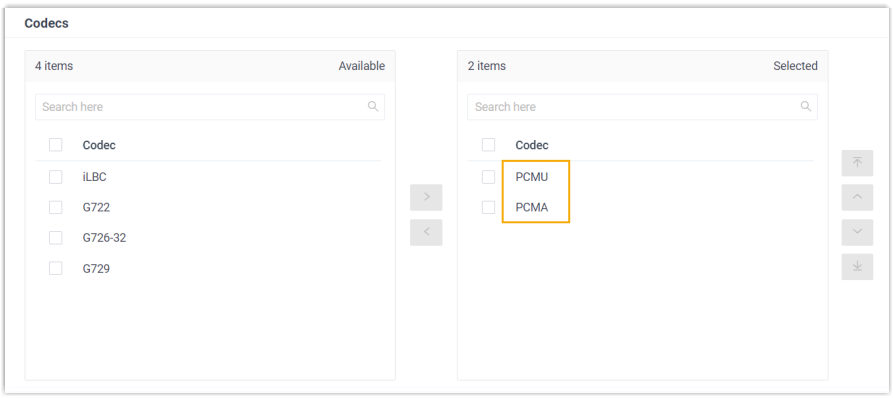
You have Provision Grandstream IP Phone with Yeastar P-Series Cloud Edition.

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.



    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.

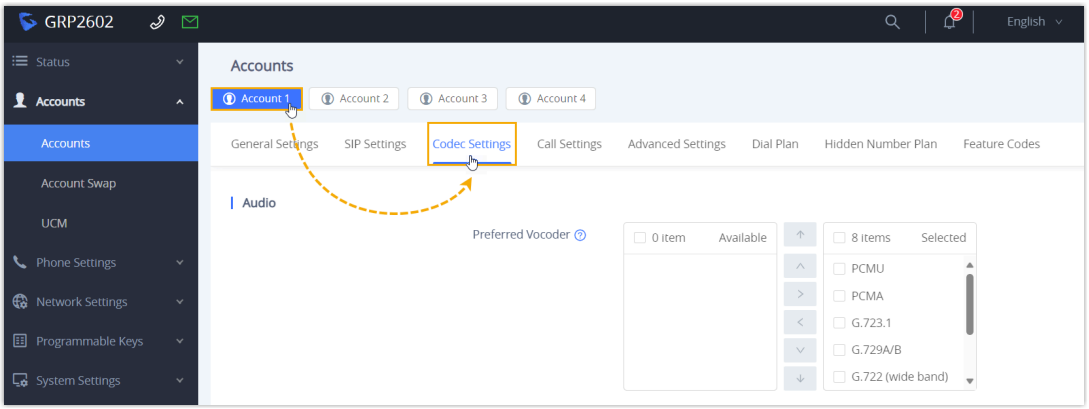


e. Click **Save**.

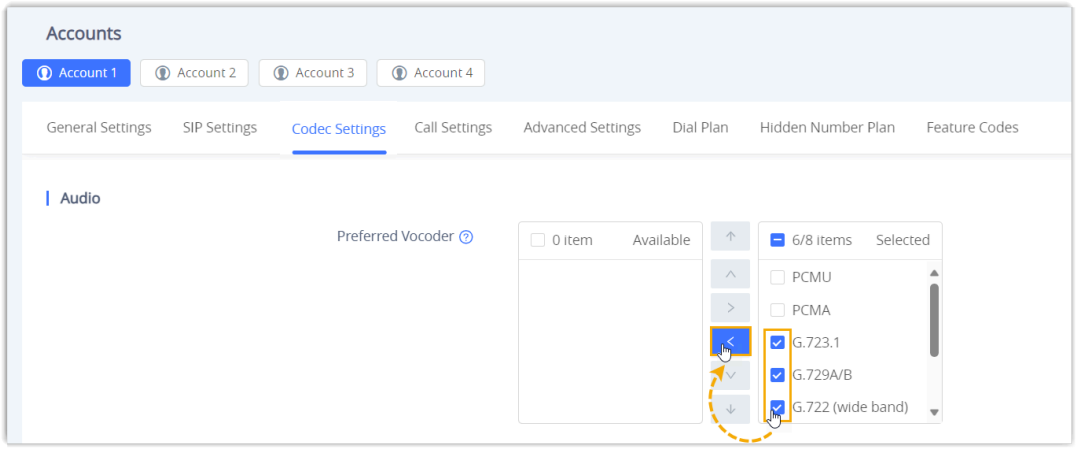
2. Configure the codec settings on the IP phone.

> **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 following requirements.

Model	Phone Requirement	PBX Requirement
UC803T	2.0.4.4.33 or later	84.5.0.86 or later
UC902	2.0.4.8.18 or later	84.5.0.86 or later
UC902S	2.0.4.8.18 or later	84.5.0.86 or later
UC903	2.0.4.8.18 or later	84.5.0.86 or later
UC912	2.0.4.8.18 or later	84.5.0.86 or later
UC912G	2.0.4.8.18 or later	84.5.0.86 or later
UC912E	2.0.4.8.18 or later	84.5.0.86 or later
UC921	2.0.4.8.18 or later	84.5.0.86 or later
UC921G	2.0.4.8.18 or later	84.5.0.86 or later
UC923	2.0.4.8.18 or later	84.5.0.86 or later
UC923U	2.0.4.8.18 or later	84.5.0.86 or later
UC924	2.0.4.8.18 or later	84.5.0.86 or later
UC924E	2.0.4.8.18 or later	84.5.0.86 or later
UC924U	2.0.4.8.18 or later	84.5.0.86 or later
UC924W	2.0.4.8.18 or later	84.5.0.86 or later
UC926	2.0.4.8.18 or later	84.5.0.86 or later
UC926E	2.0.4.8.18 or later	84.5.0.86 or later
UC926U	2.0.4.8.18 or later	84.5.0.86 or later
UCV10	5.42.1.6.30b58 or later	84.12.0.32 or later

Model	Phone Requirement	PBX Requirement
UCV20	5.42.1.6.30b79 or later	84.12.0.32 or later
UCV50	5.42.1.6.30b62 or later	84.12.0.32 or later
UCV52	5.42.1.6.30b68 or later	84.12.0.32 or later
UCV53	5.42.1.6.32R76 or later	84.12.0.32 or later

Prerequisites

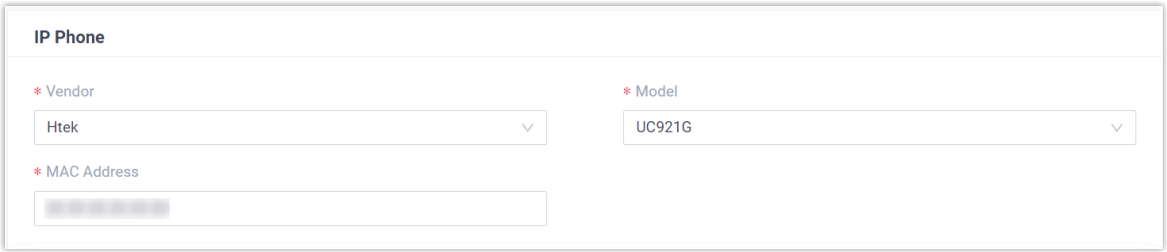
- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

Procedure

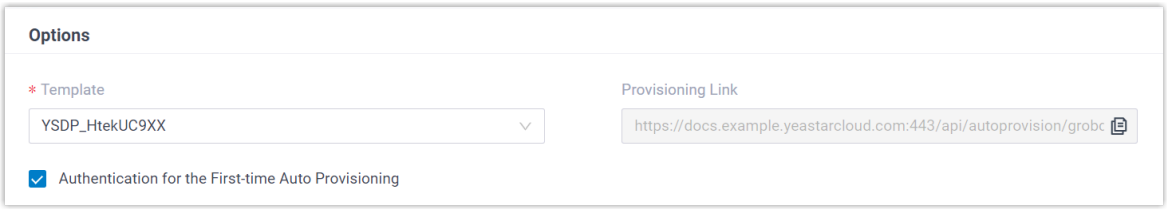
- Step 1. Add the Htek IP phone on PBX
- Step 2. Trigger the IP phone to complete provisioning

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.



   - **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.



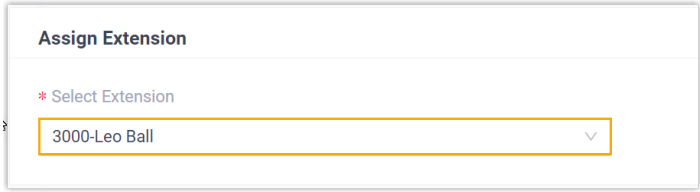
- **Template**: Select a desired template from the drop-down list.

> **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.



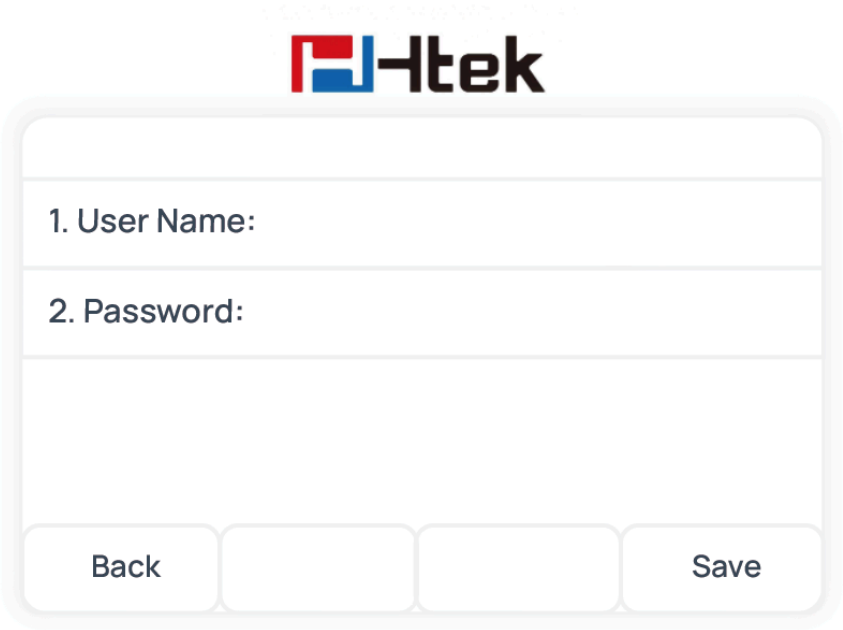
> **Tip:**
> If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.
>
> - To release the extension from the associated IP phone, see Release an Extension from a Provisioned IP Phone.
> - To register the extension to the phone 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**.

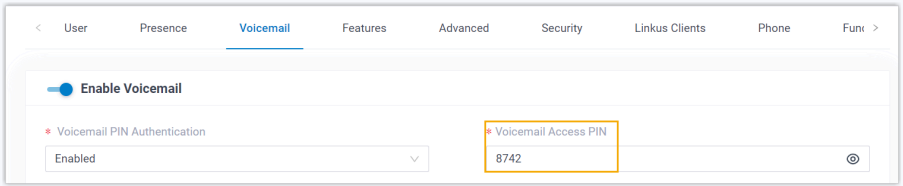
   The PBX will send an event notification of **RPS Request Success**.

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.

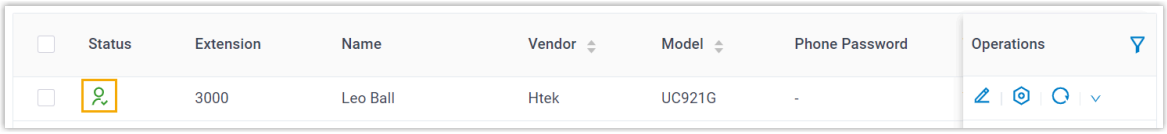


- **User Name**: Enter the extension number that is assigned to the phone.
- **Password**: Enter the extension's Voicemail Access PIN.

> **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.



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).

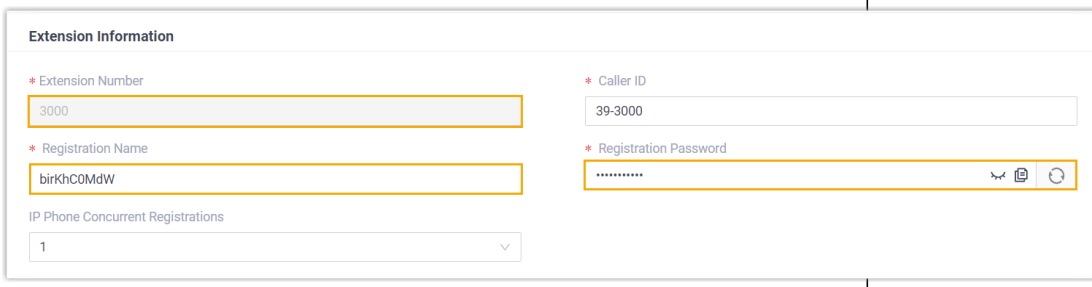
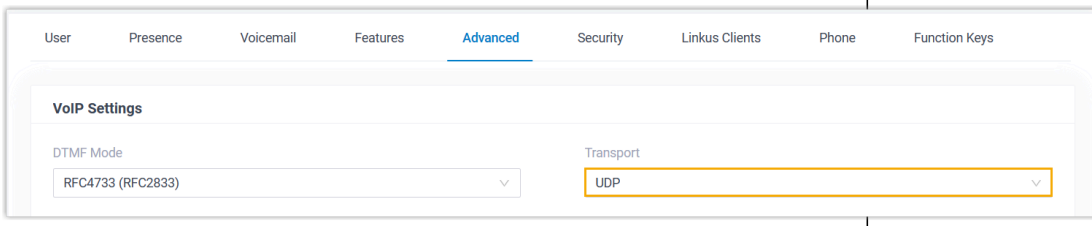
Procedure

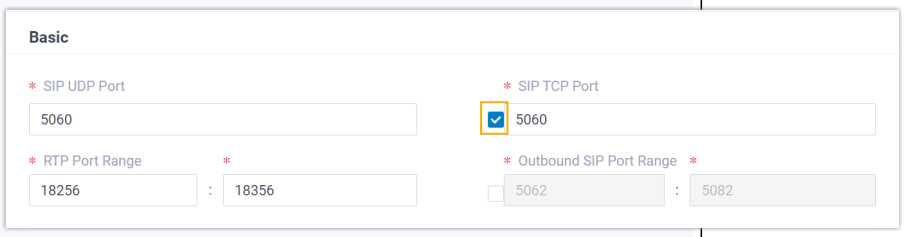
- Step 1. Gather registration information on Yeastar PBX
- Step 2. Register extension on Htek IP phone

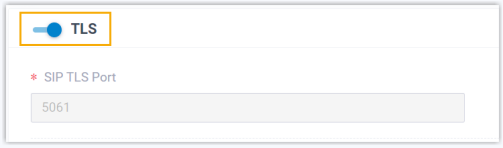
Step 1. Gather registration information on Yeastar PBX

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

Information	Instruction
Extension information	Go to **Extension and Trunk > Extension >**  **> User > Extension Information**, note down the following information: • Extension Number • Registration Name

<table>
<tr><th>Information</th><th>Instruction</th></tr>
<tr><td></td><td>• Registration Password
 
</td></tr>
<tr><td>Transport protocol</td><td>Go to Extension and Trunk > Extension >   > Advanced > VoIP Settings > Transport, note down the transport protocol of the extension.
In this example, the extension use UDP transport protocol.
 

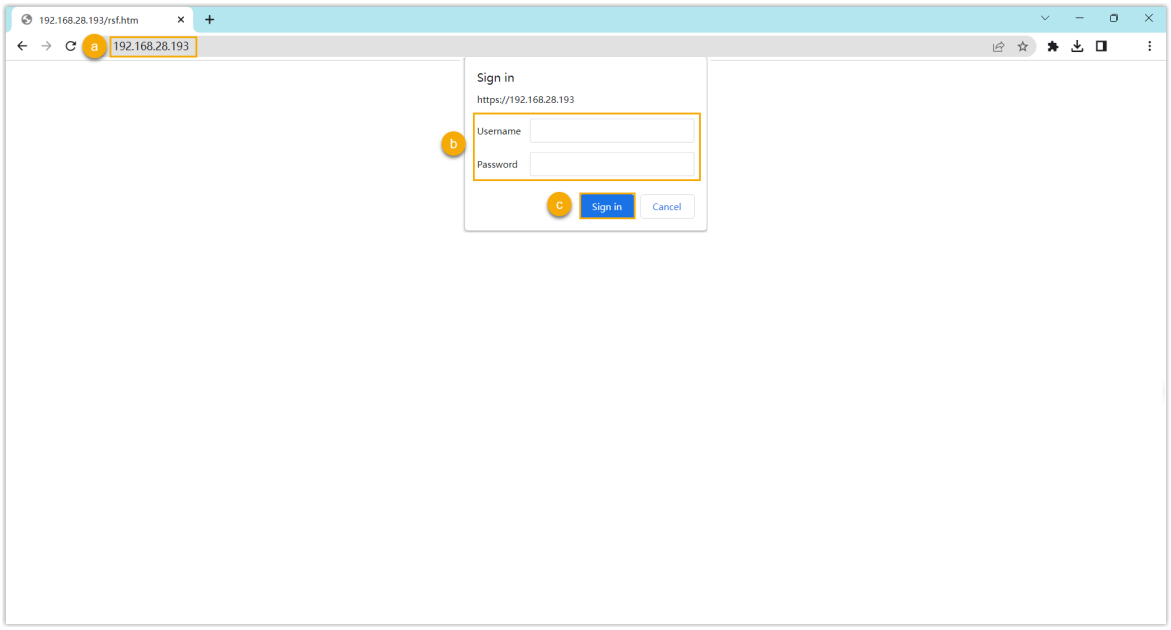
Note:
• If the extension uses TCP transport protocol, make sure that the SIP TCP port is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > General > Basic).
 

• 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).
 
</td></tr>
</table>

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

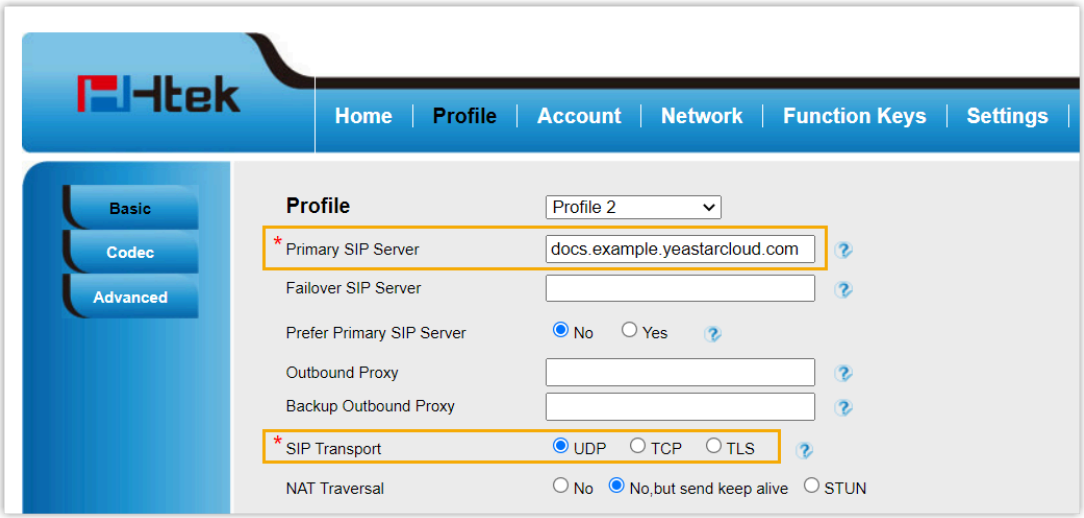
Step 2. Register extension on Htek IP phone

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.

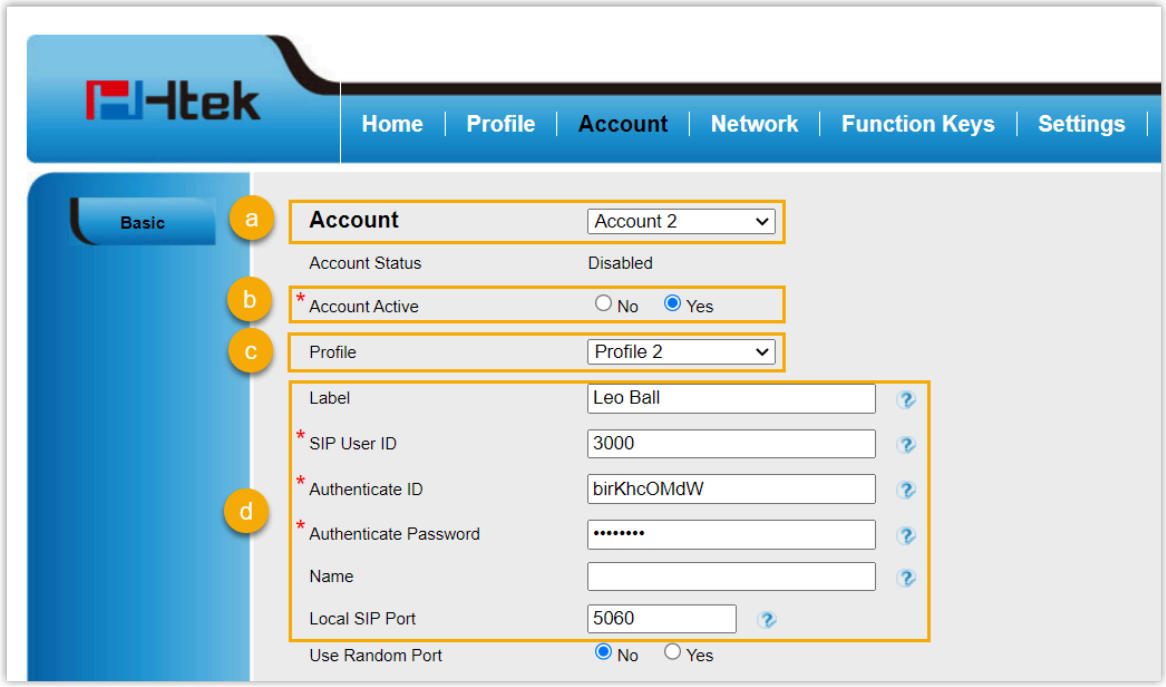
      In this example, enter the default password `admin`.
   c. Click **Sign in**.
2. Go to **Profile > Basic**, edit the profile for registration.
   a. Complete the following settings



- **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.

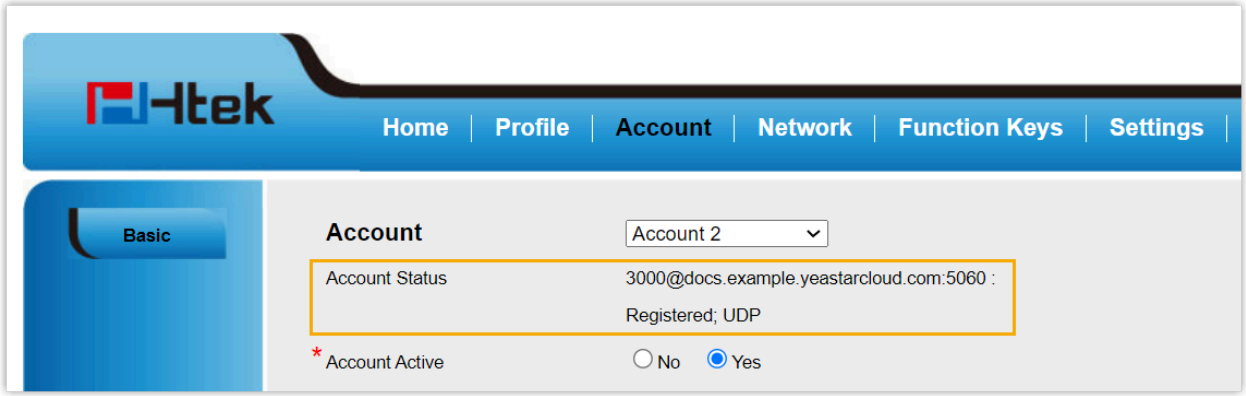
c. In the **Profile** drop-down list, select the profile edited in step 2.

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

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 following requirements.

Model	Phone Requirement	PBX Requirement
3310	2.42.6.5.55 or later	84.7.0.17 or later
3320	2.42.6.5.55 or later	84.7.0.17 or later
3330	2.42.6.5.55 or later	84.7.0.17 or later
3340	2.42.6.5.55 or later	84.7.0.17 or later

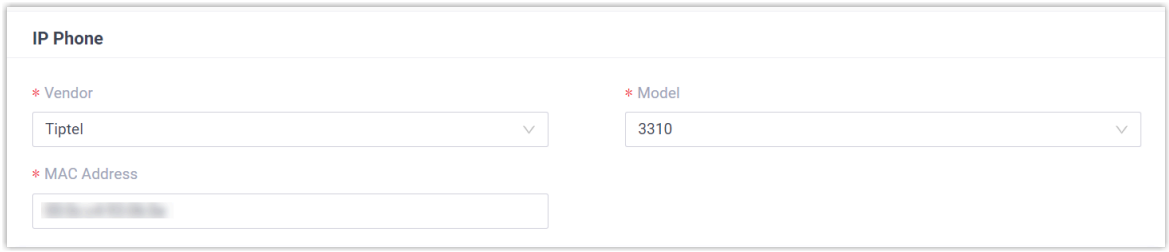
Prerequisites

- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

Procedure

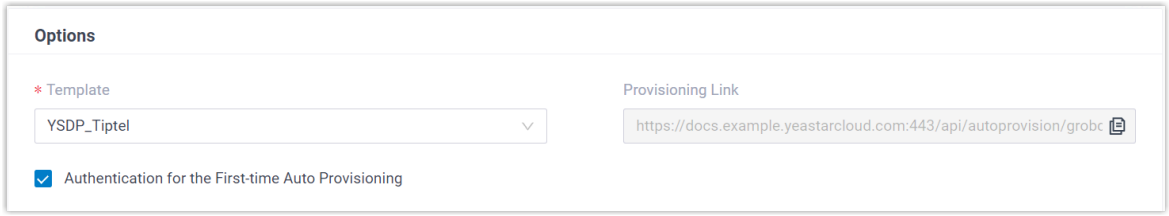
Step 1. Add the Tiptel IP phone on PBX

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 **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.



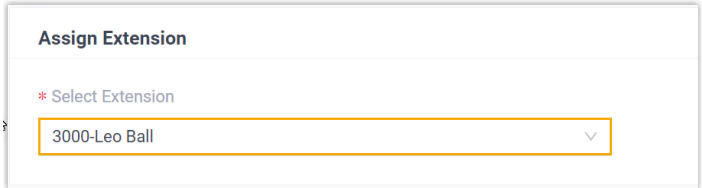
- **Template**: Select a desired template from the drop-down list.

> **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.



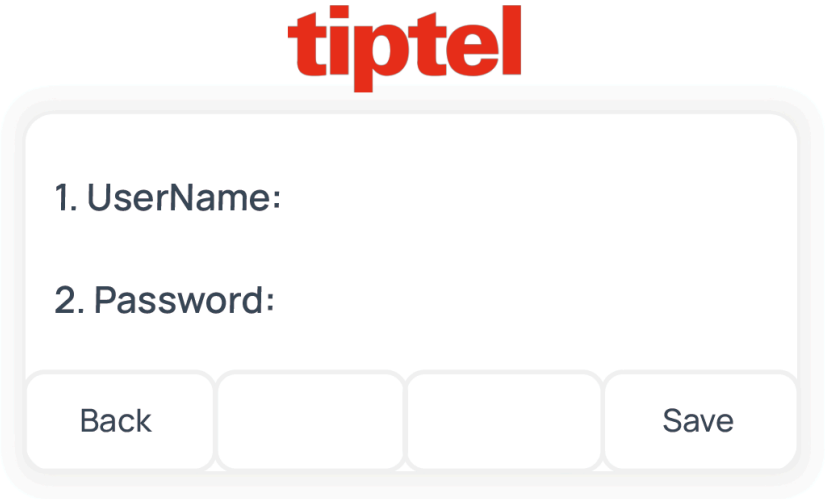
> **Tip:**
> If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.
> - To release the extension from the associated IP phone, see Release an Extension from a Provisioned IP Phone.
> - To register the extension to the phone 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**.

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

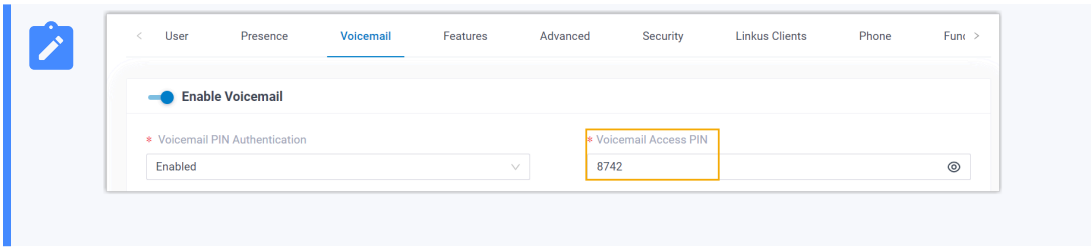
Step 2. Trigger the IP phone to complete provisioning

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.



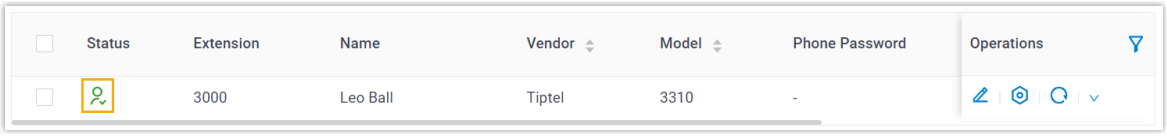
- **UserName**: Enter the extension number that is assigned to the phone.
- **Password**: Enter the extension's Voicemail Access PIN.

> **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.



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

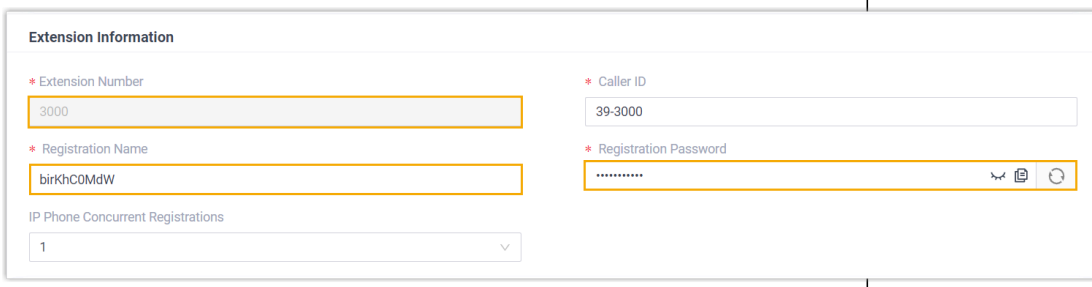
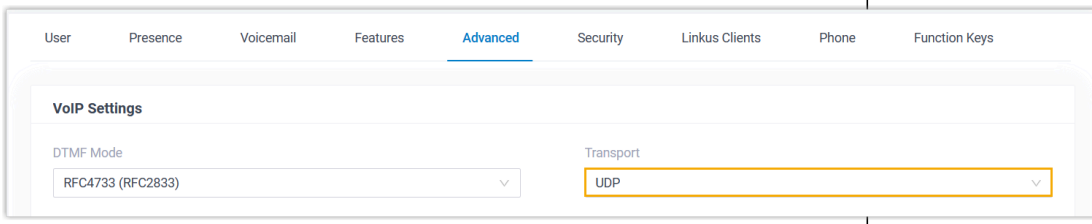
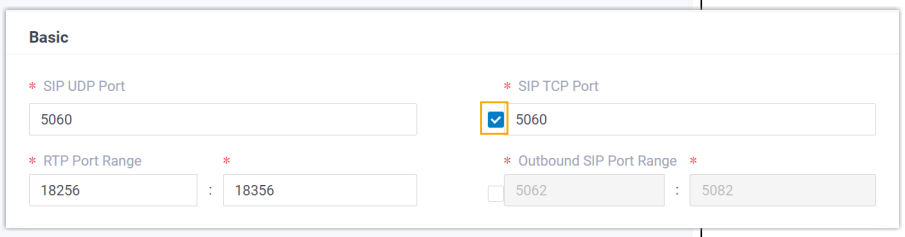
The Tiptel IP phones that are compatible with SIP (Session Initiation Protocol).

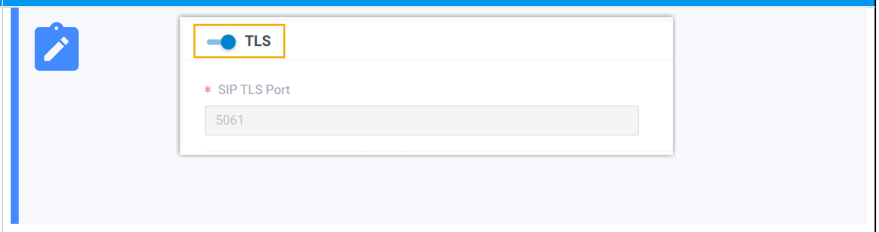
Procedure

- Step 1. Gather registration information on Yeastar PBX
- Step 2. Register extension on Tiptel IP phone

Step 1. Gather registration information on Yeastar PBX

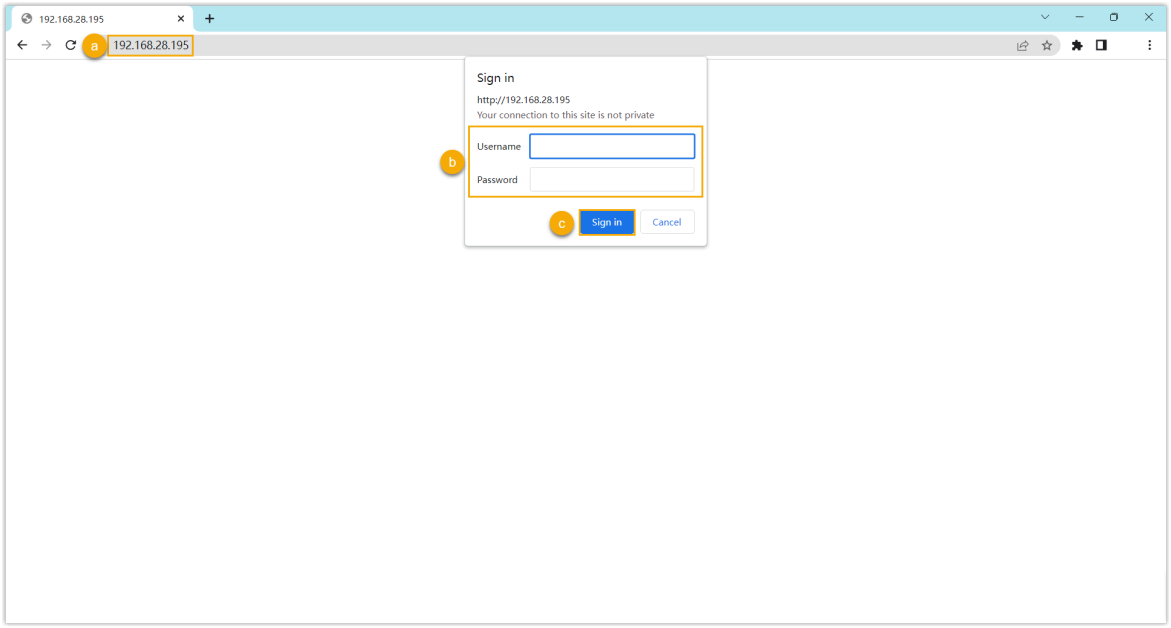
Log in to PBX web portal, gather the following information for extension registration.

Information	Instruction
Extension information	Go to **Extension and Trunk > Extension >**  **> User > Extension Information**, note down the following information: • Extension Number • Registration Name • Registration Password 
Transport protocol	Go to **Extension and Trunk > Extension >**  **> Advanced > VoIP Settings > Transport**, note down the transport protocol of the extension. In this example, the extension use UDP transport protocol.  **Note:** • 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**).

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

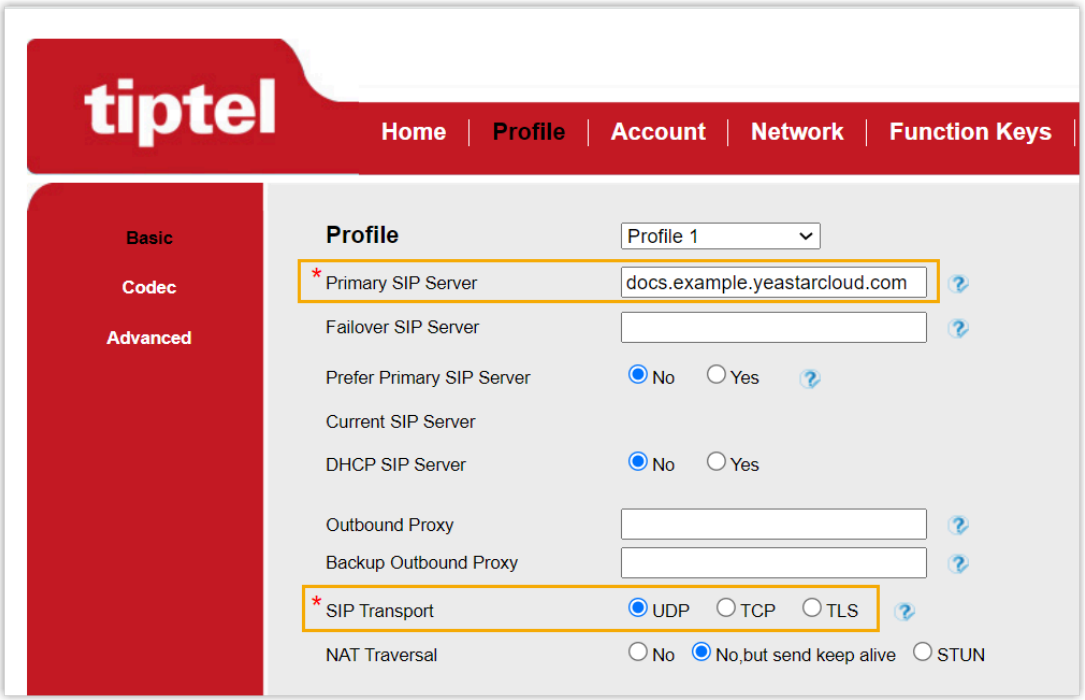
Step 2. Register extension on Tiptel IP phone

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.

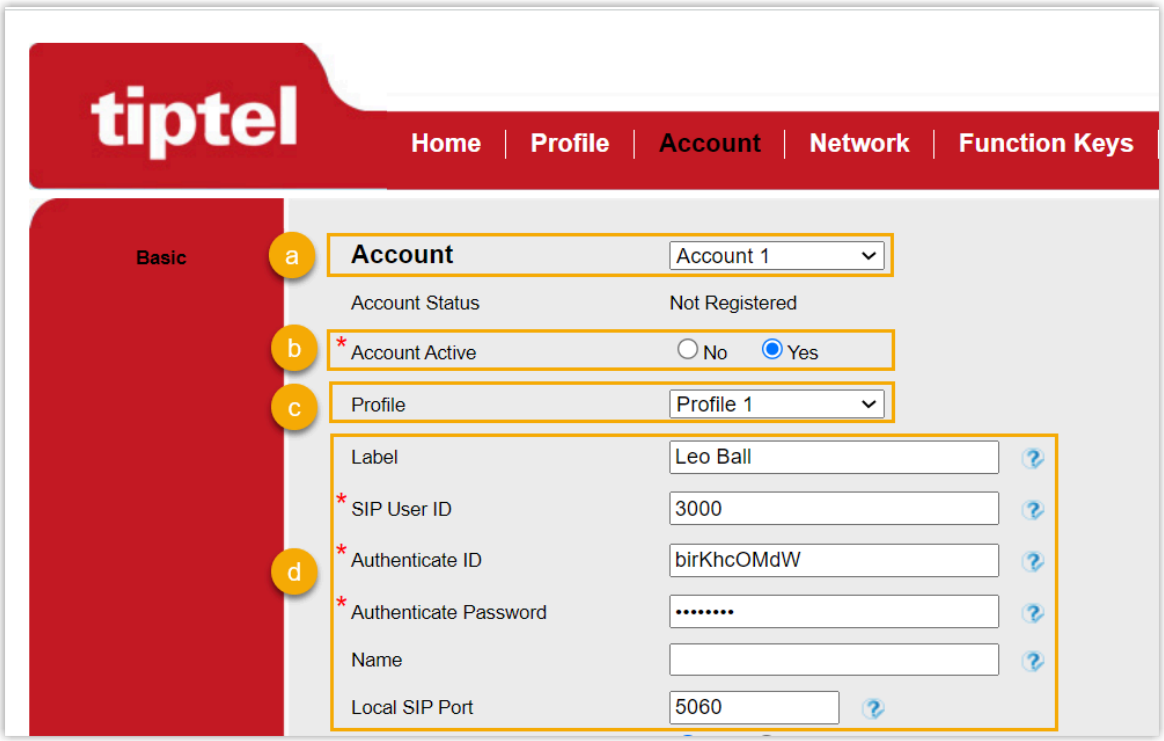
      In this example, enter the default password `admin`.
   c. Click **Sign in**.
2. Go to **Profile > Basic**, edit the profile for registration.
   a. Complete the following settings.



- **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**.

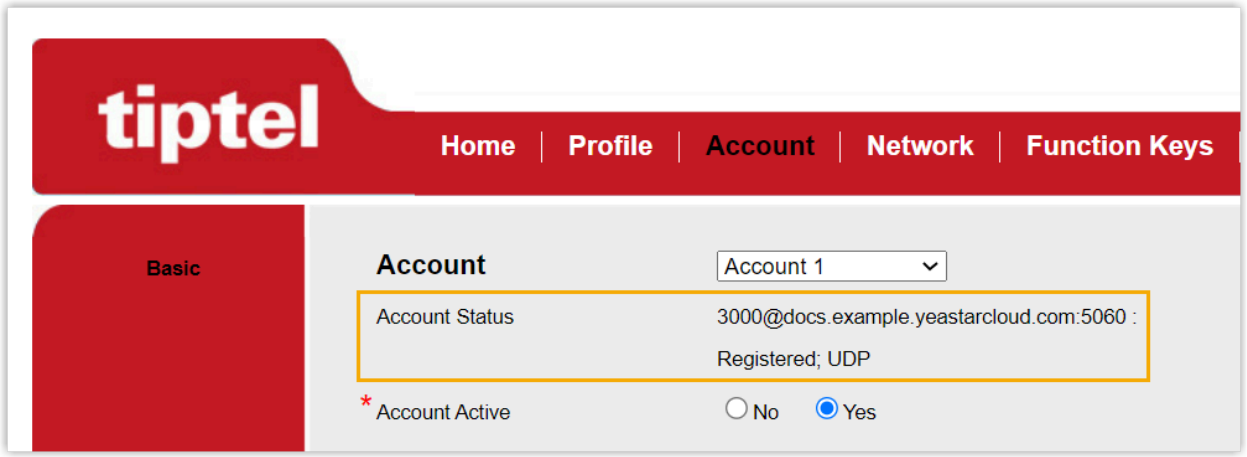
3. Go to **Account > Basic**, complete the following settings.



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 Status
3000@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 following requirements.

Model	Phone Requirement	PBX Requirement
H2	2.10.00.0001083 or later	84.9.0.18 or later
H2P	2.10.00.0001083 or later	84.9.0.18 or later
H3P	2.12.43.010.2272 or later	84.9.0.18 or later
H3G	2.12.43.010.2272 or later	84.9.0.18 or later
H6	2.12.43.010.2272 or later	84.9.0.18 or later
M3	2.13.37.000.2202 or later	84.9.0.18 or later
M3s	2.15.10.000.3000 or later	84.18.0.18 or later
M5	2.13.37.000.2202 or later	84.9.0.18 or later
M5s	2.15.10.000.3000 or later	84.18.0.18 or later
M7	2.13.37.000.2202 or later	84.9.0.18 or later
M7s	2.15.10.000.3000 or later	84.18.0.18 or later
M7s-Pro	2.15.10.000.3000 or later	84.18.0.18 or later
M8	2.13.32.000.1535 or later	84.9.0.18 or later

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	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 an ALE IP phone.
Provision MULTIPLE ALE 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 ALE IP phones.

Manually provision an ALE IP phone

Prerequisites

- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

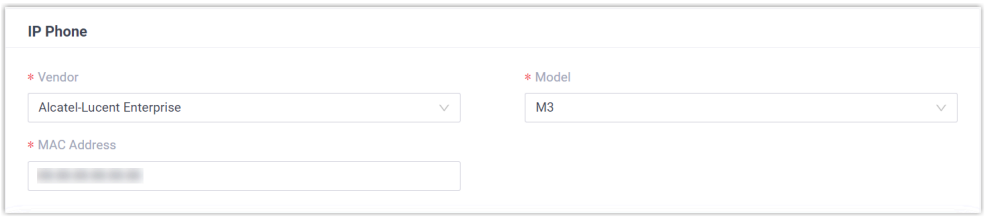
Procedure

- 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

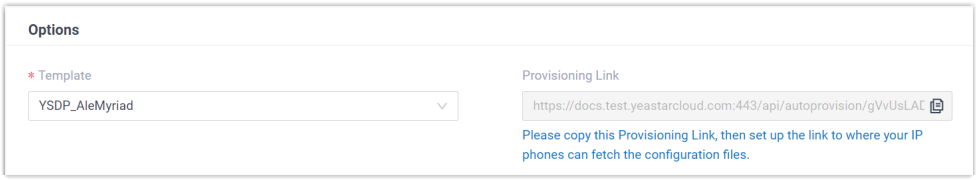
Add the IP phone on PBX. The PBX will generate a configuration file based on the phone's MAC address.

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:



- **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.



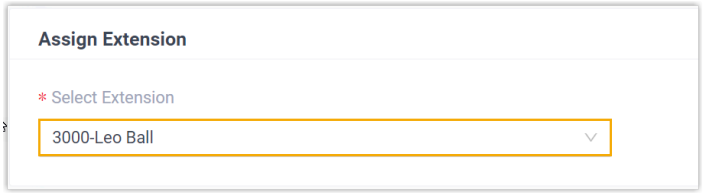
- **Template**: Select a desired template from the drop-down list.

> **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.

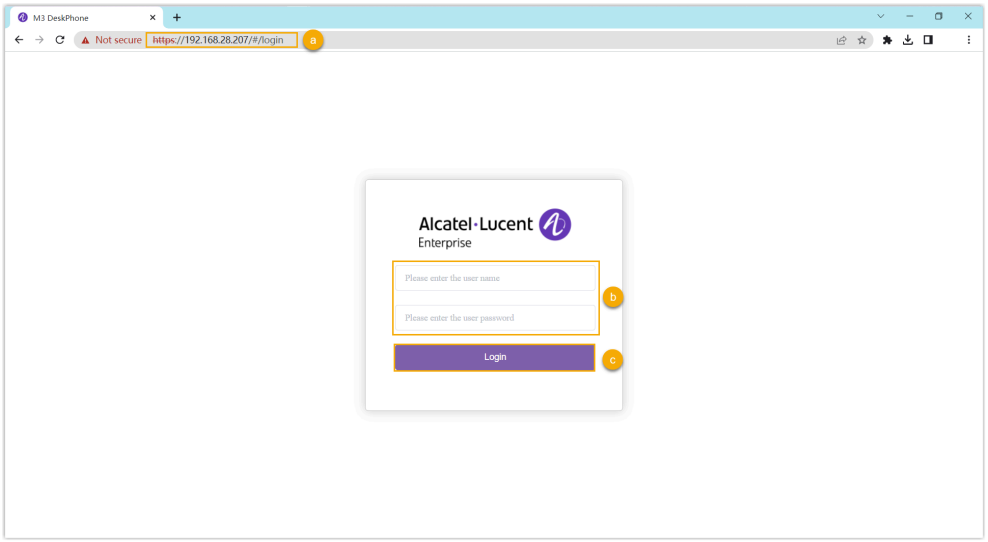
> • To register the extension to the phone without releasing it from the previously associated one, you need to configure the concurrent registration setting for the extension, as the PBX only allows an extension to register with one SIP endpoint by default.

6. Click **Save**.

Step 2. Configure provisioning server address on the phone

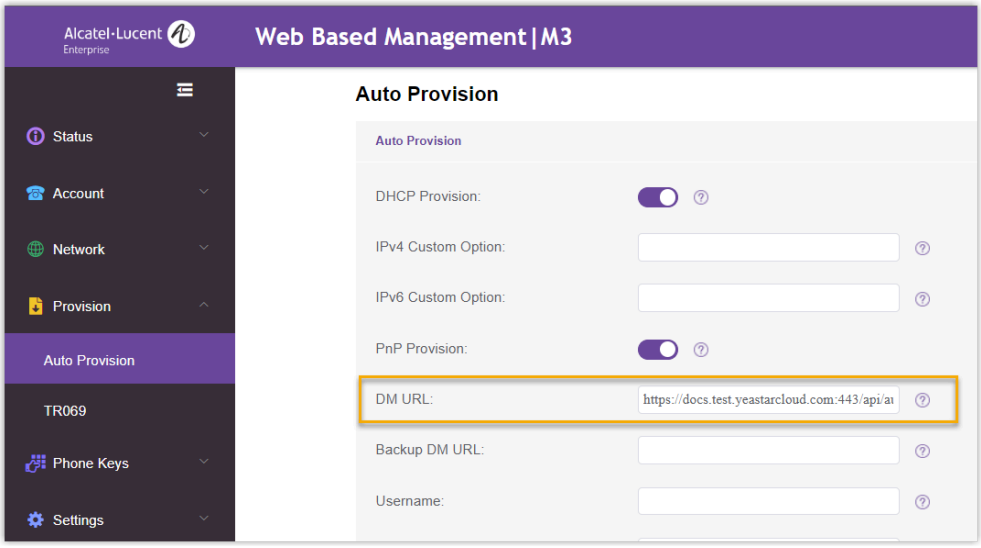
Manually configure provisioning server for the Grandstream IP phone using the provisioning link provided by the PBX.

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.

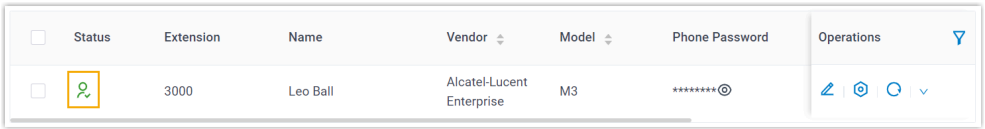


4. Click **Submit**.
5. Click **Auto Provision Now**.

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.



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.

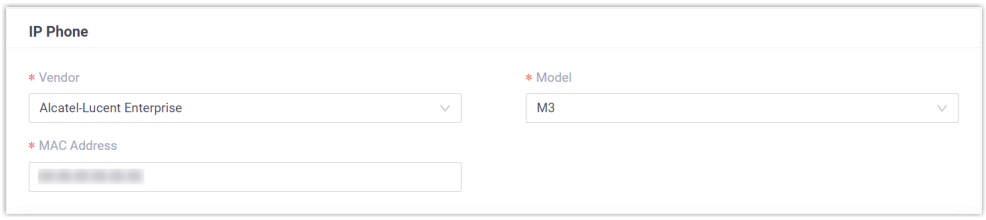
- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

Procedure

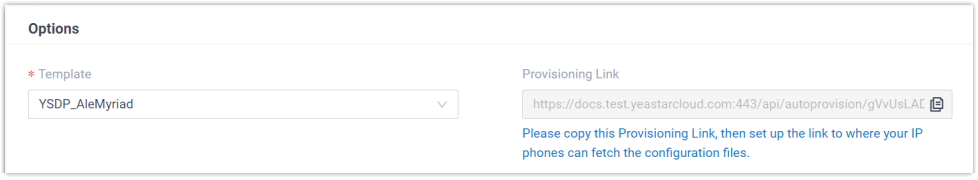
Step 1. Add the IP phone on the PBX

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:



   - **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.



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

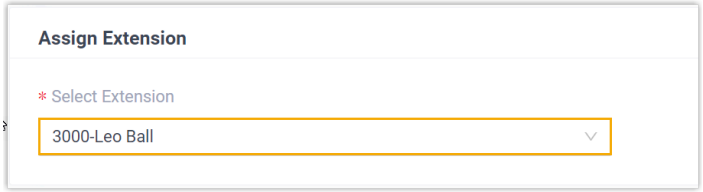
> **Note:**

> 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.



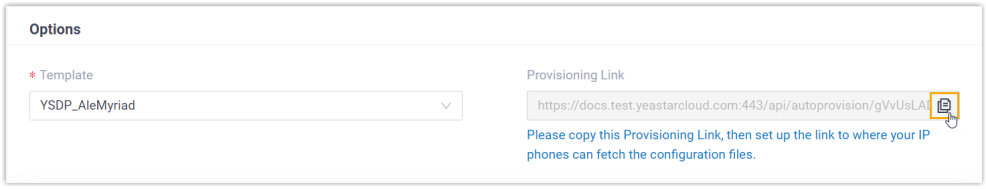
> **Tip:**
> If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.
>
> - To release the extension from the associated IP phone, see Release an Extension from a Provisioned IP Phone.
> - To register the extension to the phone 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 the router

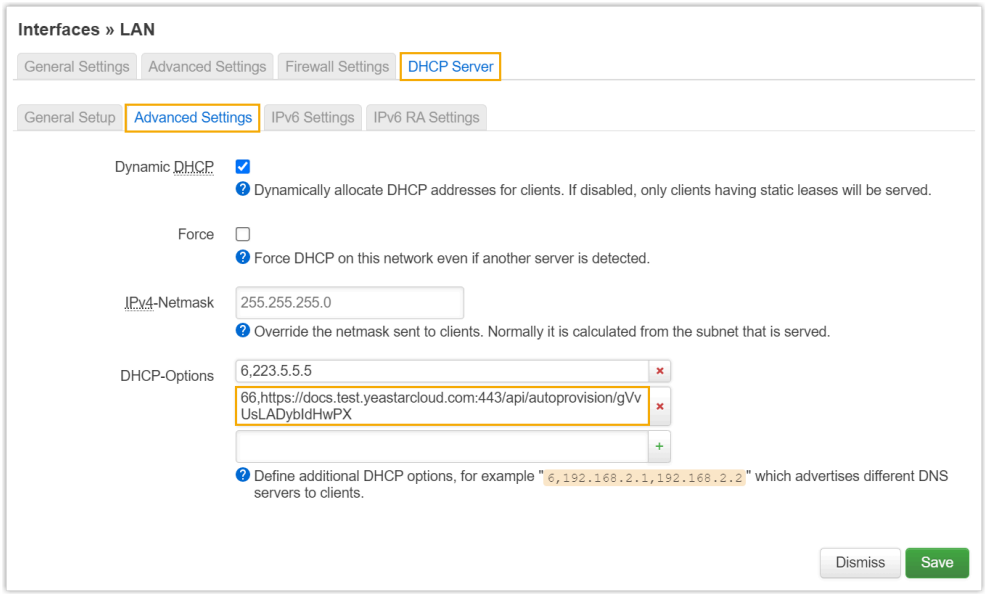
In the subnet where the IP phone is deployed, use the generated provisioning link to configure option 66 on the DHCP Server.

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



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

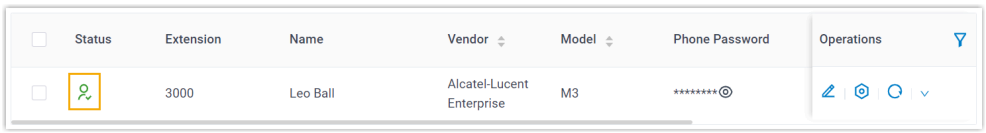
   In this example, the configuration is shown below.



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.



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

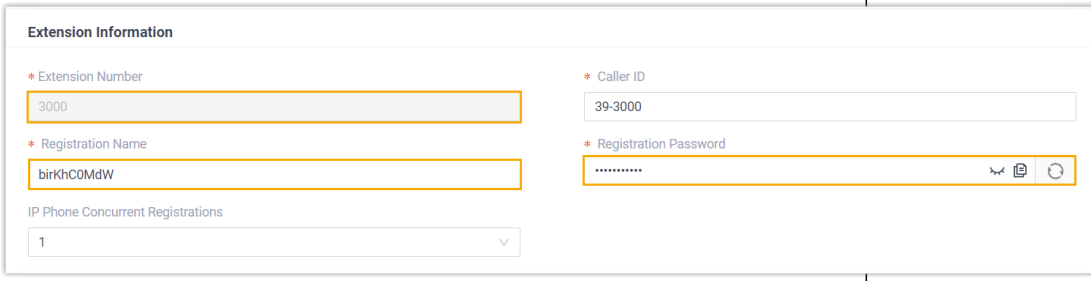
The Alcatel-Lucent Enterprise IP phones that are compatible with SIP (Session Initiation Protocol).

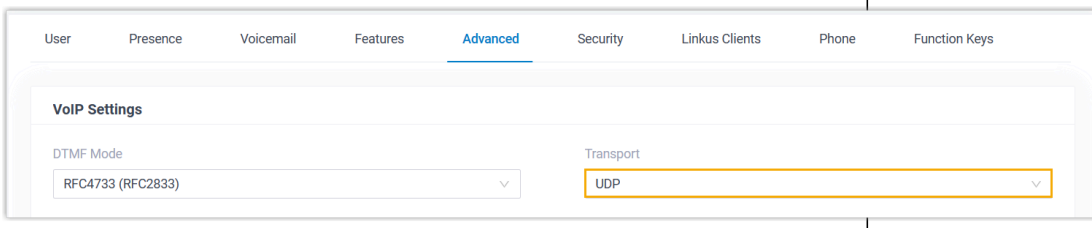
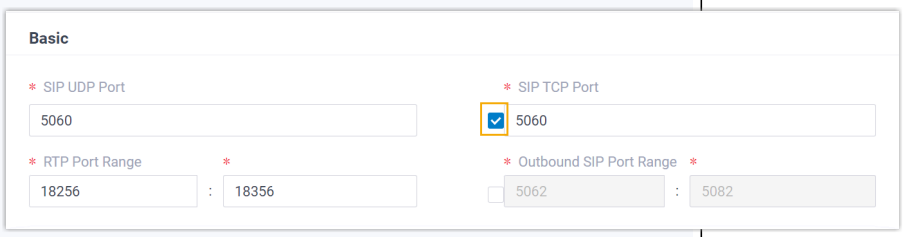
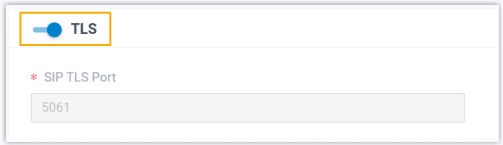
Procedure

- Step 1. Gather registration information on Yeastar PBX
- Step 2. Register extension on ALE IP phone

Step 1. Gather registration information on Yeastar PBX

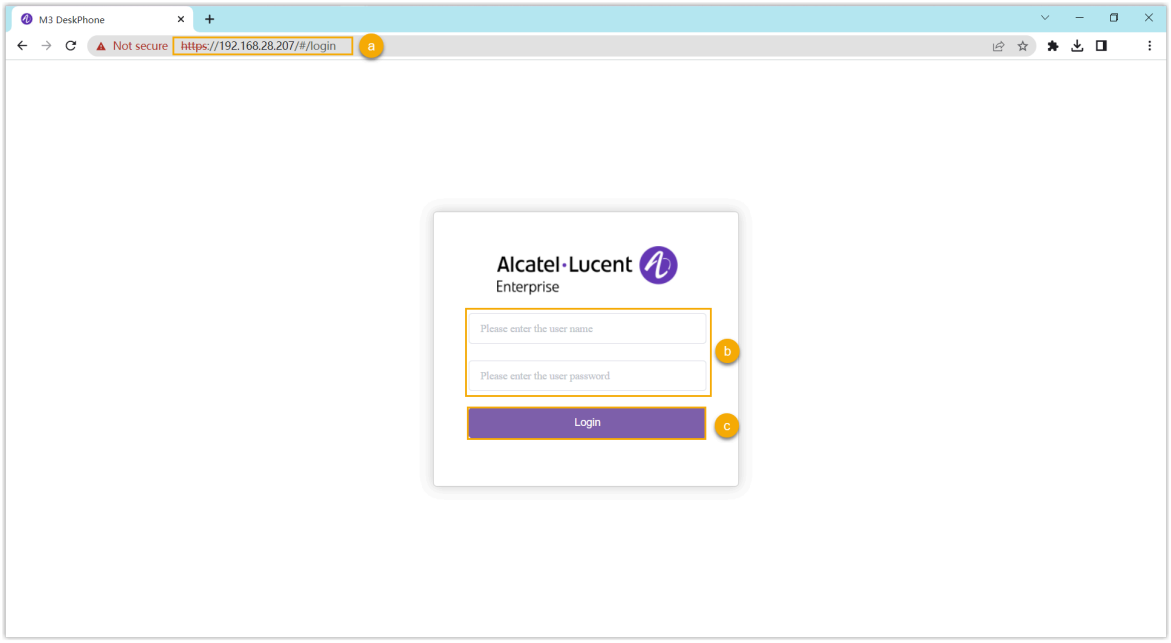
Log in to PBX web portal, gather the following information for extension registration.

Information	Instruction
Extension information	Go to **Extension and Trunk > Extension >**  **> User > Extension Information**, note down the following information: • Extension Number • Registration Name • Registration Password 

<table>
<tr><th>Information</th><th>Instruction</th></tr>
<tr><td>Transport protocol</td><td>Go to Extension and Trunk > Extension >  > Advanced > VoIP Settings > Transport, note down the transport protocol of the extension.
In this example, the extension use UDP transport protocol.
 
Note:
• 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).
  </td></tr>
<tr><td>PBX domain name</td><td>The domain name of the PBX.
In this example, we use the PBX domain name <code>docs.example.yeastarcloud.com</code> for extension registration.</td></tr>
<tr><td>SIP registration port</td><td>The SIP registration port is 5060.</td></tr>
</table>

Step 2. Register extension on ALE IP phone

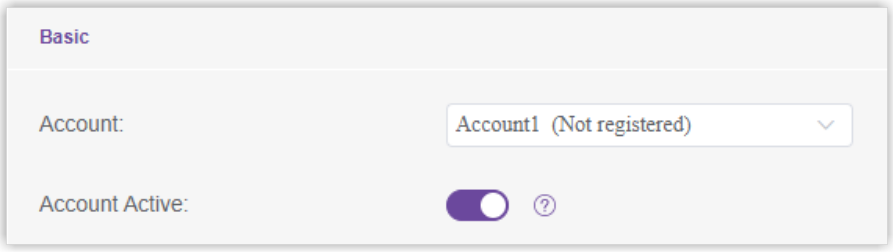
1. Log in to the web interface of the ALE IP phone.



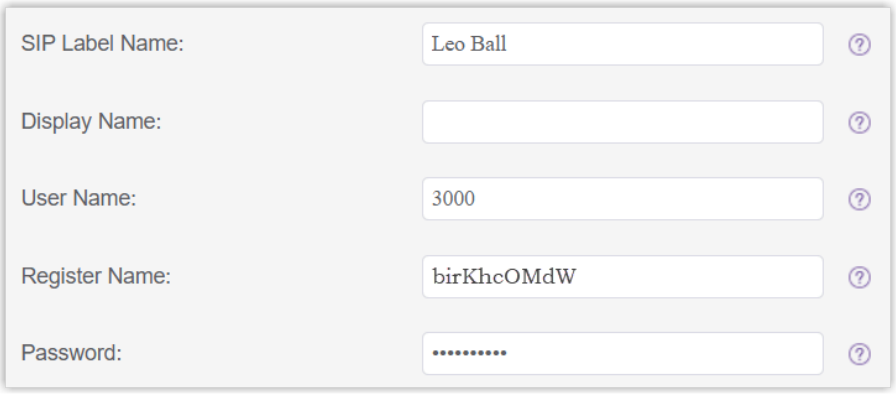
a. In the browser's address bar, enter the IP address of the IP phone.
b. Enter the username `admin` and the associated password.

   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.

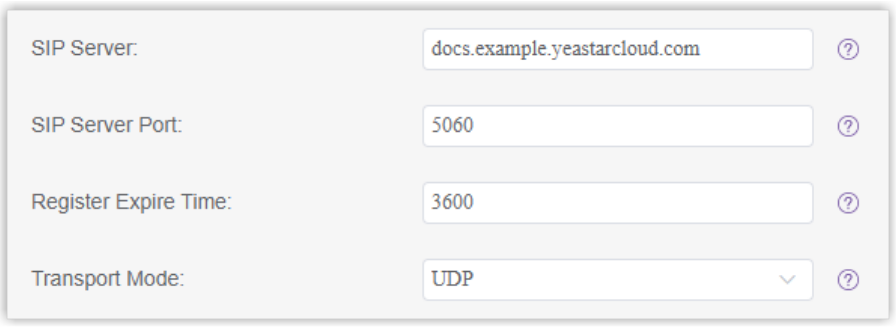


   b. Enter the extension information.



- **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**: 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.

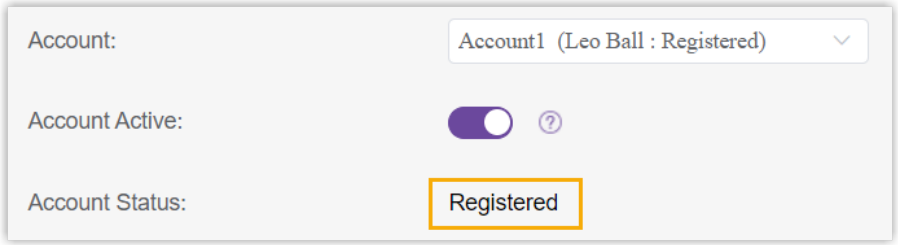
> **Tip:**
> You can check the available range of the registration time on **PBX Settings > SIP Settings > General > SIP Endpoint Registration Timer** in the PBX web portal.

- **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.



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 following requirements.

Model	Phone Requirement	PBX Requirement
FIP10	0.7.23.1 or later	84.8.0.25 or later
FIP11C	0.7.23.1 or later	84.8.0.25 or later
FIP12WP	0.7.23.1 or later	84.8.0.25 or later
FIP13G	0.7.23.1 or later	84.8.0.25 or later
FIP14G	0.7.23.1 or later	84.8.0.25 or later
FIP15G	0.7.23.1 or later	84.8.0.25 or later
FIP15G Plus	0.7.23.1 or later	84.8.0.25 or later
FIP16	0.7.23.1 or later	84.8.0.25 or later
FIP16 Plus	0.7.23.1 or later	84.8.0.25 or later
P10	V0.7.56 or later	84.9.0.20 or later
P10P	V0.7.56 or later	84.9.0.20 or later
P10G	V0.7.56 or later	84.9.0.20 or later
P10W	V0.7.56 or later	84.9.0.20 or later
P10LTE	V0.7.56 or later	84.9.0.20 or later
P11	V0.7.56 or later	84.9.0.20 or later
P11P	V0.7.56 or later	84.9.0.20 or later
P11G	V0.7.56 or later	84.9.0.20 or later
P11W	V0.7.56 or later	84.9.0.20 or later
P11LTE	V0.7.56 or later	84.9.0.20 or later

Model	Phone Requirement	PBX Requirement
P20	V0.7.57 or later	84.9.0.20 or later
P20P	V0.7.57 or later	84.9.0.20 or later
P20W	V0.7.57 or later	84.9.0.20 or later
P20G	V0.7.57 or later	84.9.0.20 or later
P21	V0.7.57 or later	84.9.0.20 or later
P21P	V0.7.57 or later	84.9.0.20 or later
P21W	V0.7.57 or later	84.9.0.20 or later
flyphone	V0.7.57 or later	84.9.0.20 or later
P22P	V0.7.57 or later	84.9.0.20 or later
P22G	V0.7.57 or later	84.9.0.20 or later
P23G	V0.7.57 or later	84.9.0.20 or later
P23GW	V0.7.57 or later	84.9.0.20 or later
P24G	V0.7.57 or later	84.9.0.20 or later
i86Box_Basic	V0.0.16.1 or later	84.9.0.20 or later
i86Box_Indoor	V0.0.16.1 or later	84.9.0.20 or later
i86Box_2Line	V0.0.16.1 or later	84.9.0.20 or later
i86Box_PCBA	V0.0.16.1 or later	84.9.0.20 or later
i86Box_NFC	V0.0.16.1 or later	84.9.0.20 or later

Prerequisites

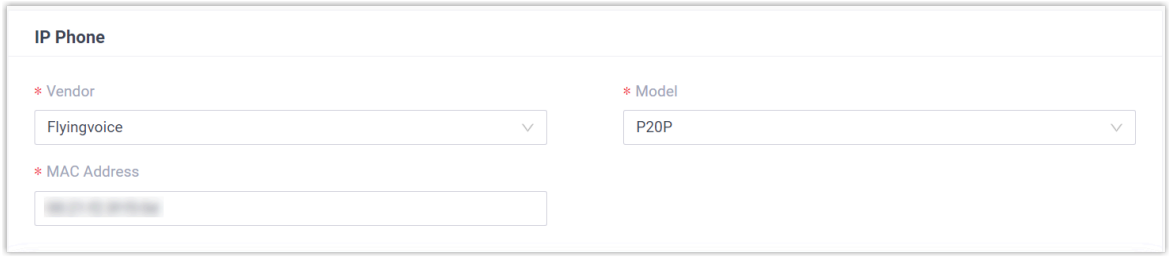
- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

Procedure

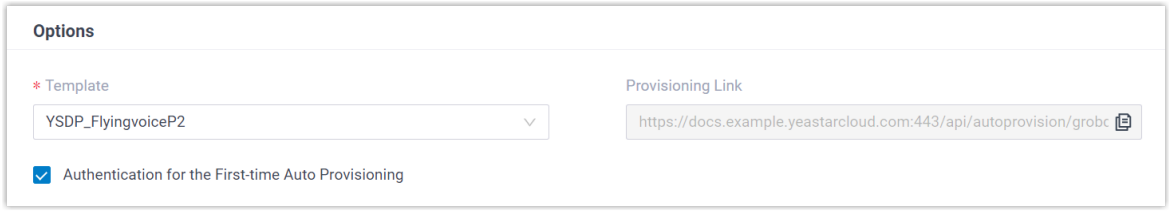
Step 1. Add the Flyingvoice IP phone on PBX

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 **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.



   - **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.

> **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**.

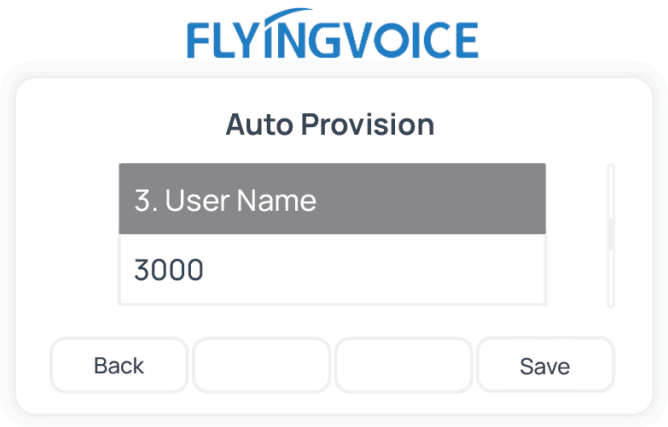
   The PBX will send an event notification of **RPS Request Success**.

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**.

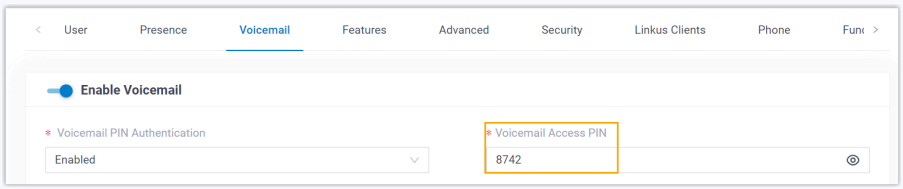
   You are redirected to the **Auto Provision** page.
3. In the **Auto Provision** page, complete the following configurations.
   a. Scroll down to the **User Name** field, enter the extension number that is assigned to the phone.

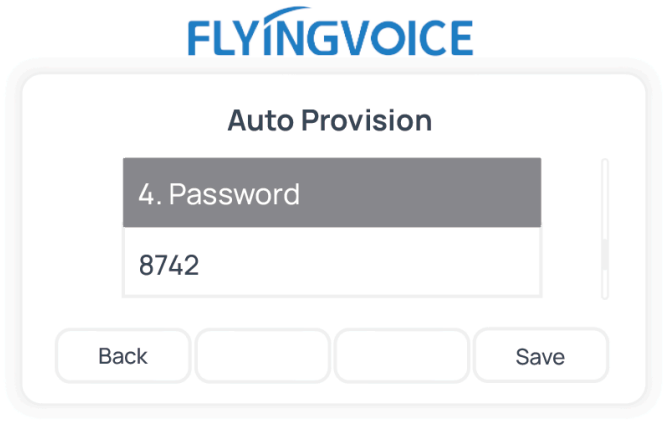


b. Scroll down to the **Password** field, enter the extension's Voicemail Access PIN.

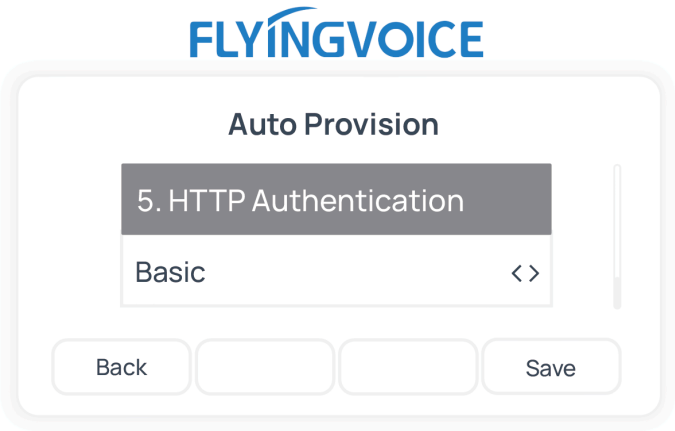
Note:

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





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



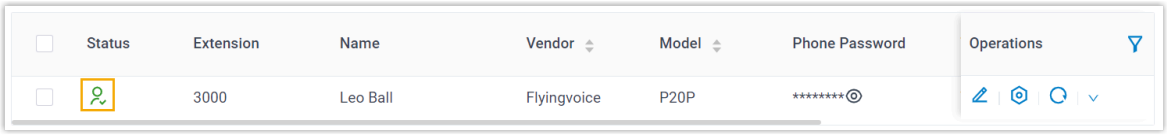
d. Press **Save** to save the configurations.

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.



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.

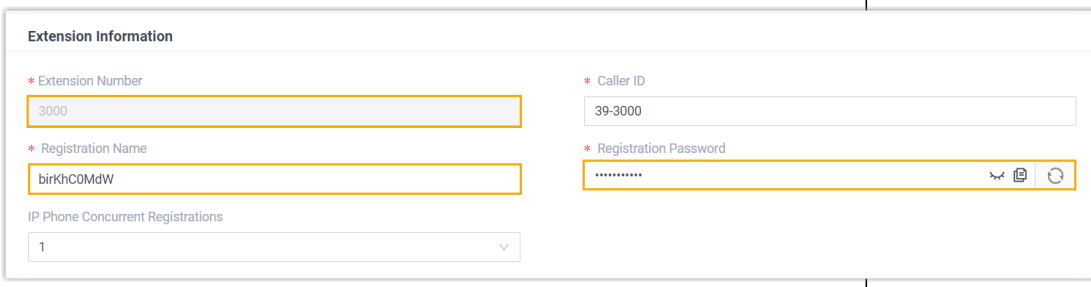
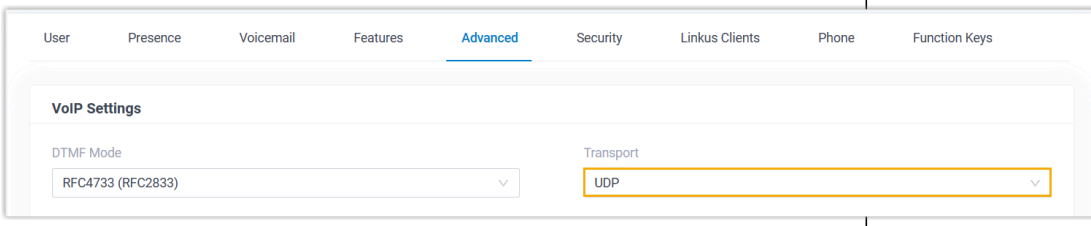
Supported devices

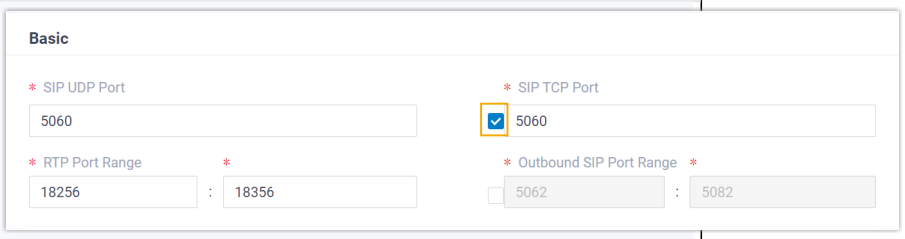
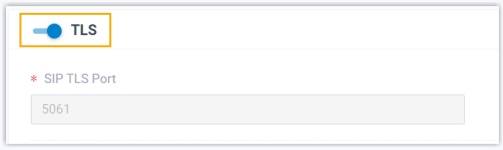
The Flyingvoice IP phones that are compatible with SIP (Session Initiation Protocol).

Procedure

Step 1. Gather registration information on Yeastar PBX

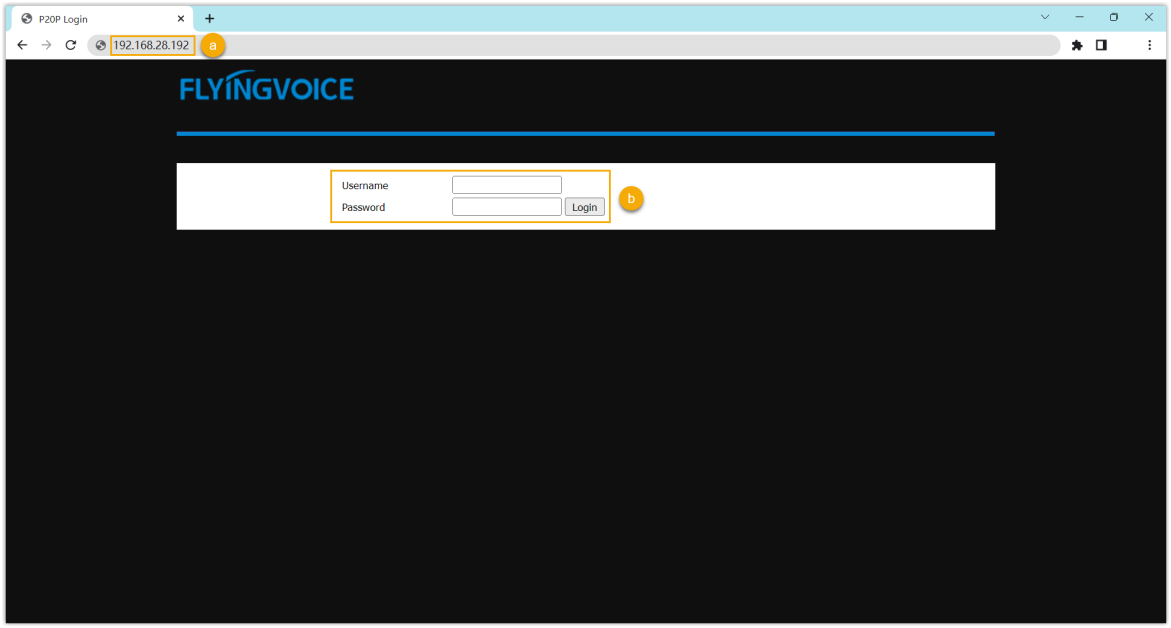
Log in to PBX web portal, gather the following information for extension registration.

Information	Instruction
Extension information	Go to **Extension and Trunk > Extension >** **> User > Extension Information**, note down the following information: • Extension Number • Registration Name • Registration Password 
Transport protocol	Go to **Extension and Trunk > Extension >** **> Advanced > VoIP Settings > Transport**, note down the transport protocol of the extension. In this example, the extension use UDP transport protocol.  **Note:** • 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**).

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

Step 2. Register extension on Flyingvoice IP phone

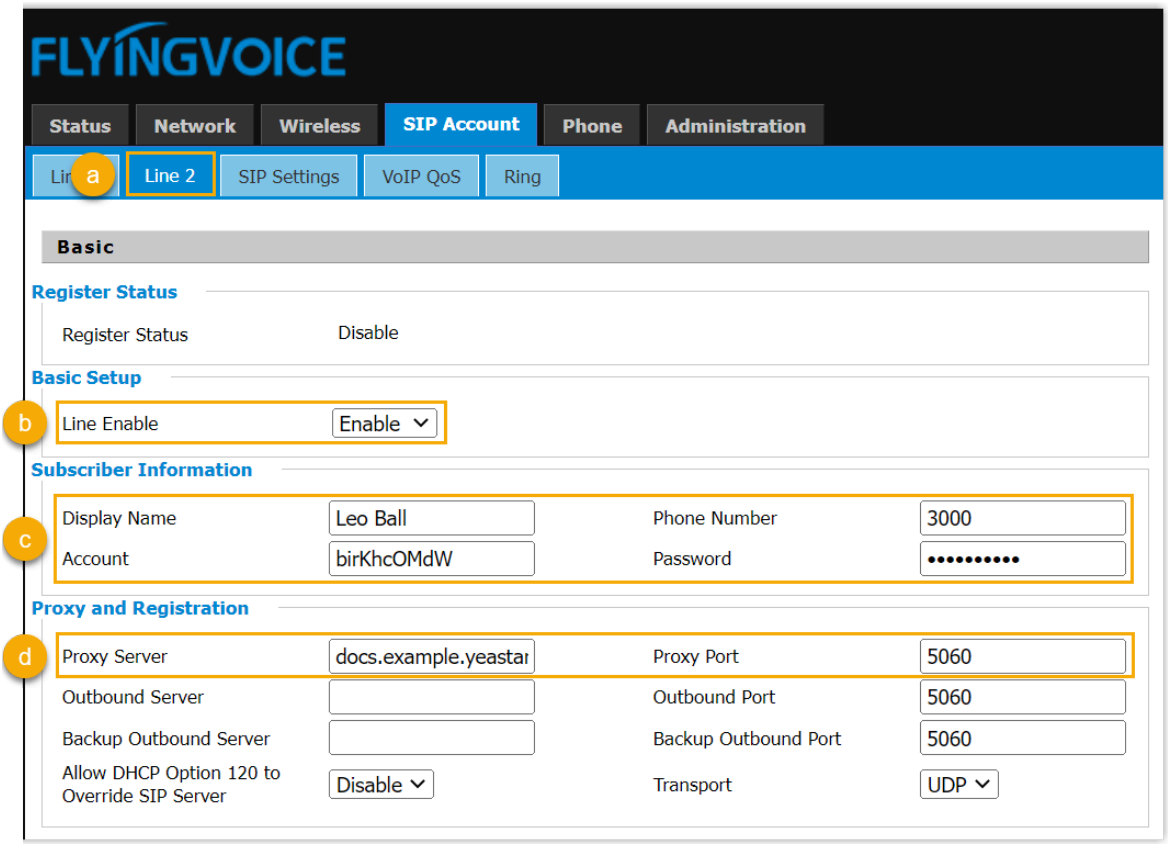
1. Log in to the web interface of the Flyingvoice IP phone.



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.

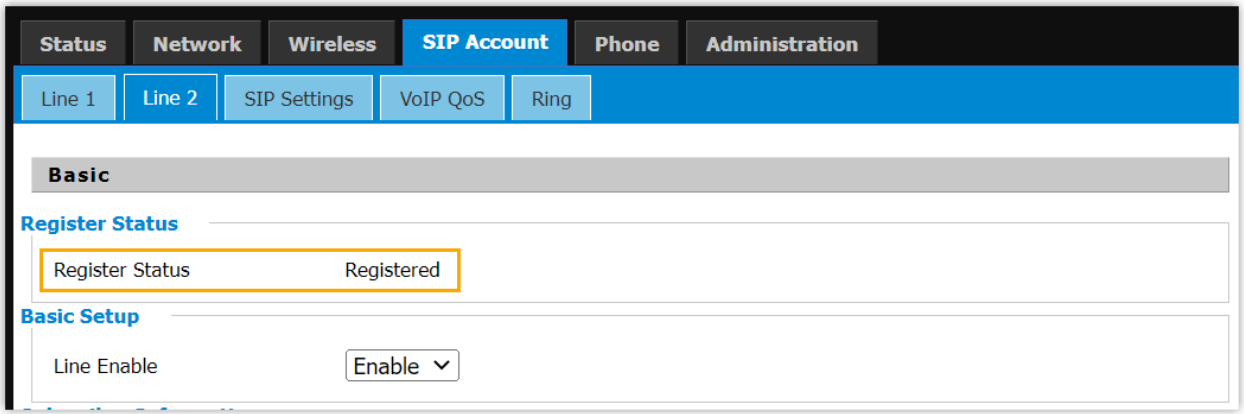


a. Select an available line.
b. In the **Line Enable** drop-down list, select **Enable**.
c. In the **Subscriber Information** section, enter the extension information.
   - **Display Name**: Enter the name associated with the account, which will be displayed on the phone screen.
   - **Phone Number**: 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.



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 following requirements.

Model	Phone Requirement	PBX Requirement
6863i	R5.1.0SP6 or later	84.11.0.22 or later
6865i	R5.1.0SP6 or later	84.11.0.22 or later
6867i	R5.1.0SP6 or later	84.11.0.22 or later
6869i	R5.1.0SP6 or later	84.11.0.22 or later
6873i	R5.1.0SP6 or later	84.11.0.22 or later
6905	6.3 SP3 or later	84.17.0.17 or later
6910	6.3 SP3 or later	84.17.0.17 or later
6915	6.3 SP3 or later	84.17.0.17 or later
6920	6.3.1 SP1 or later	84.11.0.22 or later
6930	6.3.1 SP1 or later	84.11.0.22 or later
6940	6.3.1 SP1 or later	84.11.0.22 or later
RFP 44	9.1 or later	84.18.0.18 or later
RFP 45	9.1 or later	84.18.0.18 or later
RFP 47	9.1 or later	84.18.0.18 or later
RFP 48	9.1 or later	84.18.0.18 or later

Restrictions

The PBX function keys **DTMF**, **Intercom** and **Park & Retrieve** are NOT supported on the provisioned Mitel IP phones.

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	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 Mitel IP phone.
Provision MULTIPLE Mitel 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 Mitel IP phones.

Manually provision a Mitel IP phone

Prerequisites

- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

Procedure

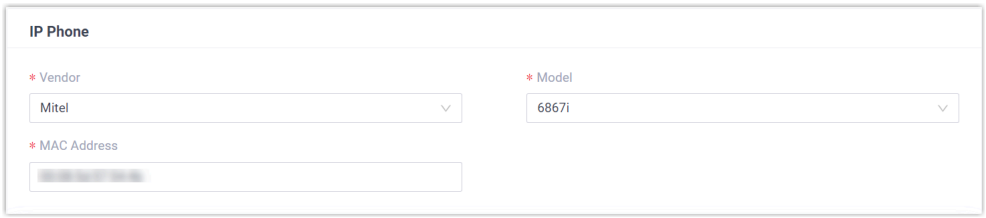
- Step 1. Add the Mitel IP phone on PBX
- Step 2. Configure provisioning server on the Mitel IP phone
- Step 3. Turn off certificate validation on the phone

Step 1. Add the Mitel IP phone on PBX

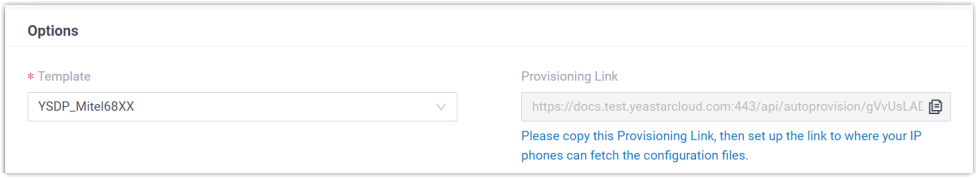
Add the IP phone on PBX. The PBX will generate a configuration file based on the phone's MAC address.

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.



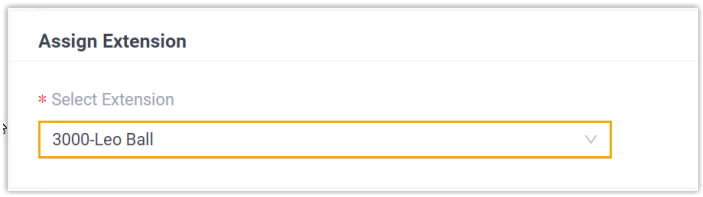
   - **Vendor**: Select **Mitel**.
   - **Model**: Select the phone model. In this example, select **6867i**.
   - **MAC Address**: Enter the MAC address of the IP phone.
4. In the **Options** section, configure the auto provision settings.



   - **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.



> **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**.

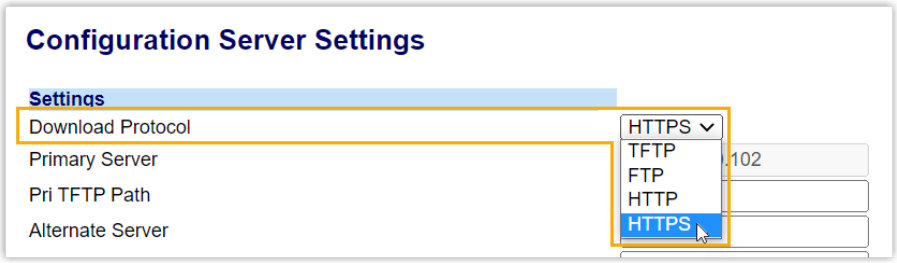
Step 2. Configure provisioning server on the Mitel IP phone

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**: 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`.

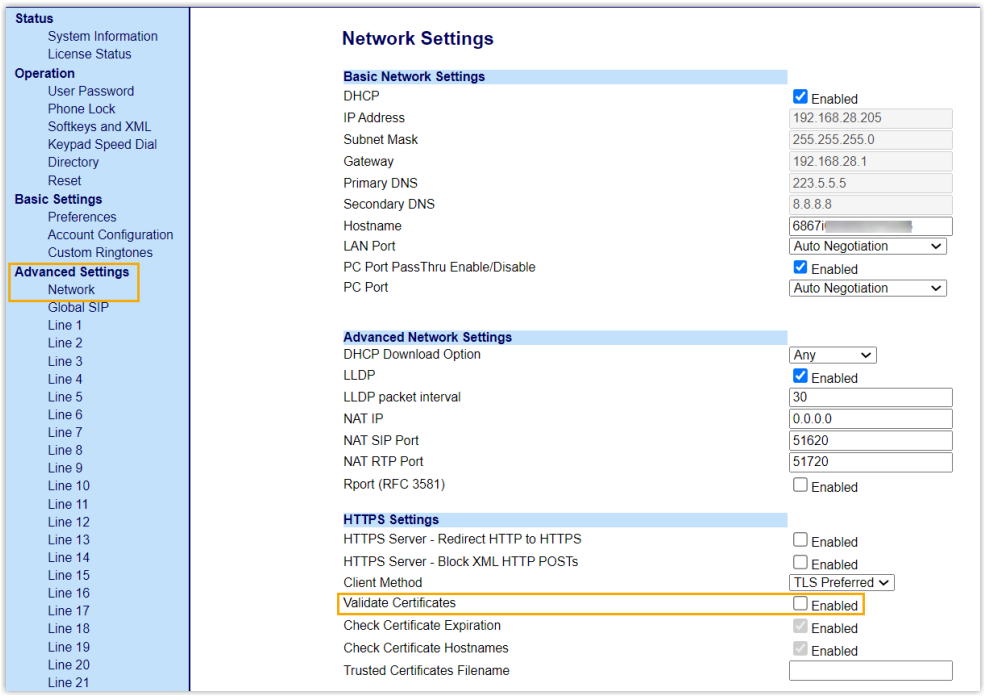
c. Click **Save Settings**.

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.

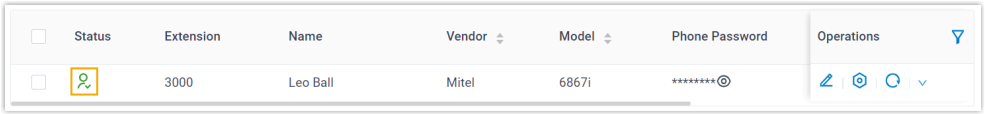
1. On the IP phone web interface, go to **Advanced Settings > Network > HTTPS Settings**, disable **Validate Certificates**.



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.



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.

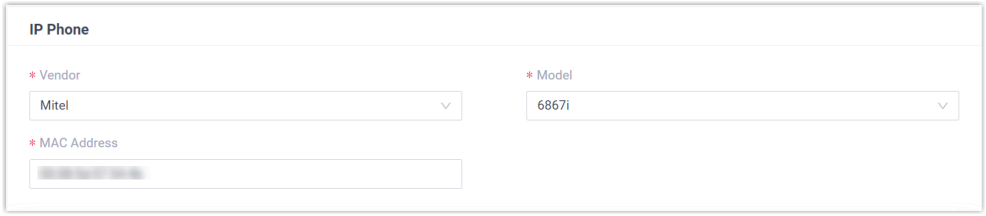
- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- RESET the IP phone if it is previously used.
- Gather information of IP phone, including Vendor, Model, and MAC address.

Procedure

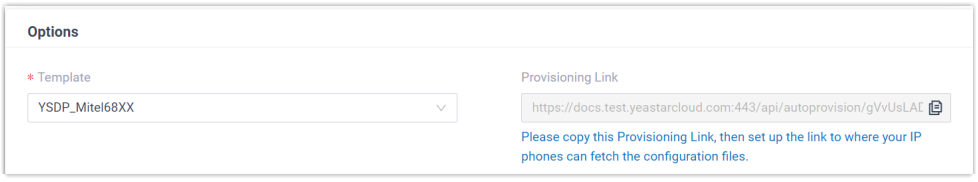
Step 1. Add the IP phone on the PBX

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.

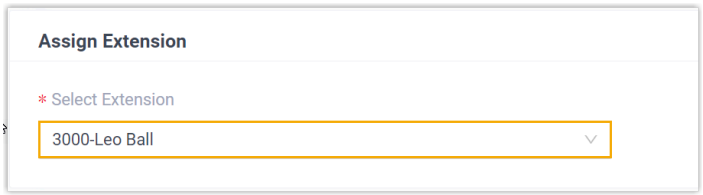
> **Note:**

> 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.



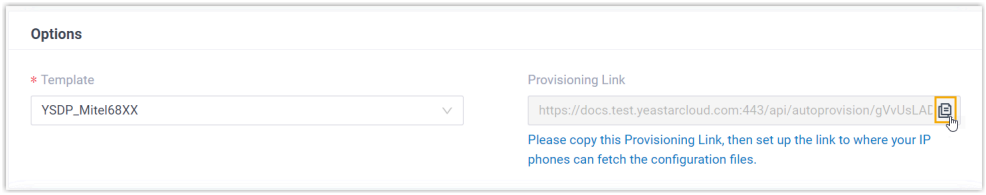
> **Tip:**
> If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.
>
> - To release the extension from the associated IP phone, see Release an Extension from a Provisioned IP Phone.
> - To register the extension to the phone 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

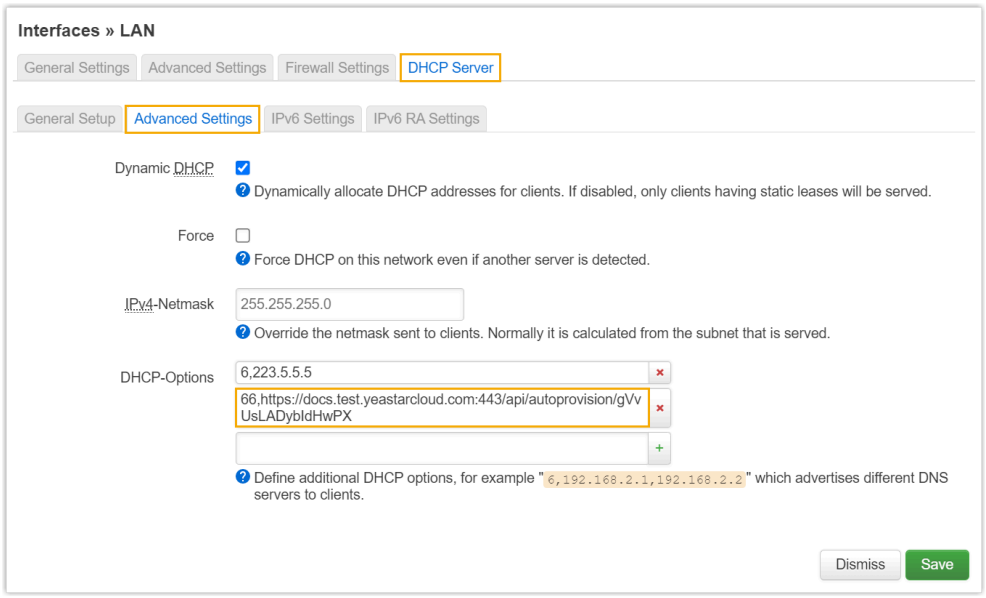
In the subnet where the IP phone is deployed, use the generated provisioning link to configure option 66 on the DHCP Server.

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



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

   In this example, the configuration is shown below.



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.

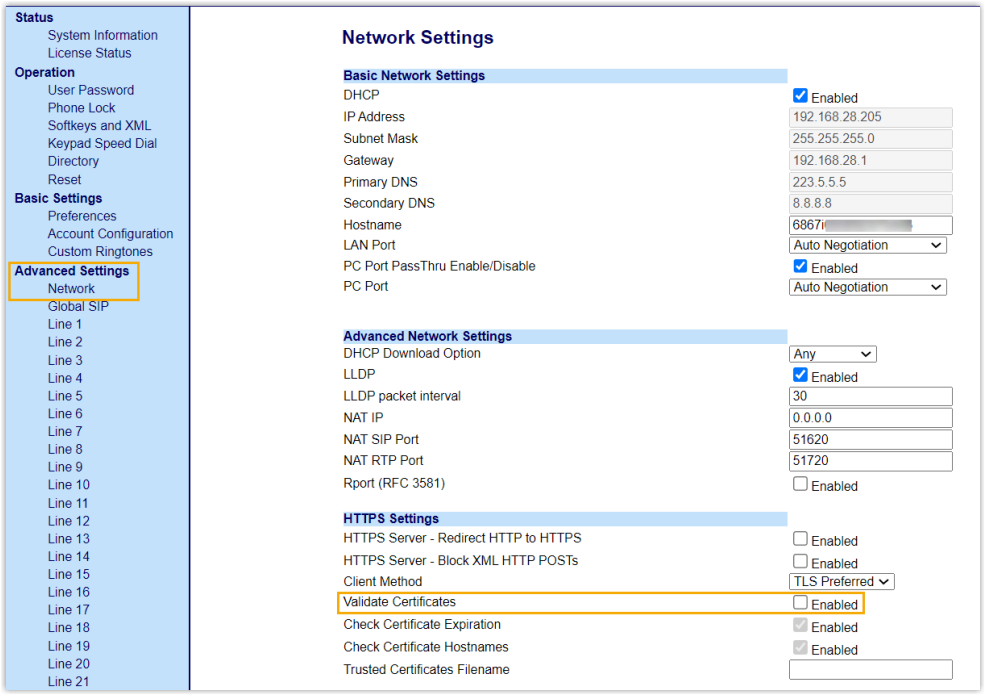
> **Important:**
> It is strongly recommended that you use a trusted certificate, as disabling server validation may introduce security risks on the network.

1. 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**.

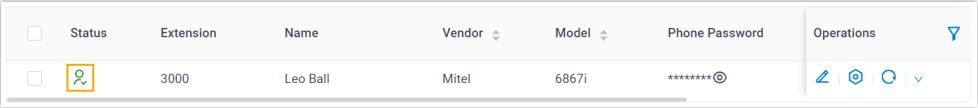
2. On the IP phone web interface, go to **Advanced Settings > Network > HTTPS Settings**, disable **Validate Certificates**.



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.



Related information

Auto Provision Mitel Expansion Module with Yeastar P-Series Cloud Edition
Provision Mitel DECT System with Yeastar P-Series Cloud Edition

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

This topic describe how to provision Mitel 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 Mitel IP phone models for different expansion modules, as well as the required phone provisioning templates.

Expansion Module	Phone model	Phone provisioning template
M685	6865i, 6867i, 6869i, 6873i	YSDP_Mitel68XX (`1.0.5` or later)
M695	6920, 6930, 6940	YSDP_Mitel69XX (`1.0.5` or later)

Prerequisites

- The Mitel expansion module is connected to a Mitel IP phone.
- The Mitel IP phone is connected to Yeastar P-Series Cloud Edition via Auto Provisioning

Supported methods

- Provision function keys for Mitel expansion module via web interface
- Provision function keys for Mitel expansion module using auto provisioning template

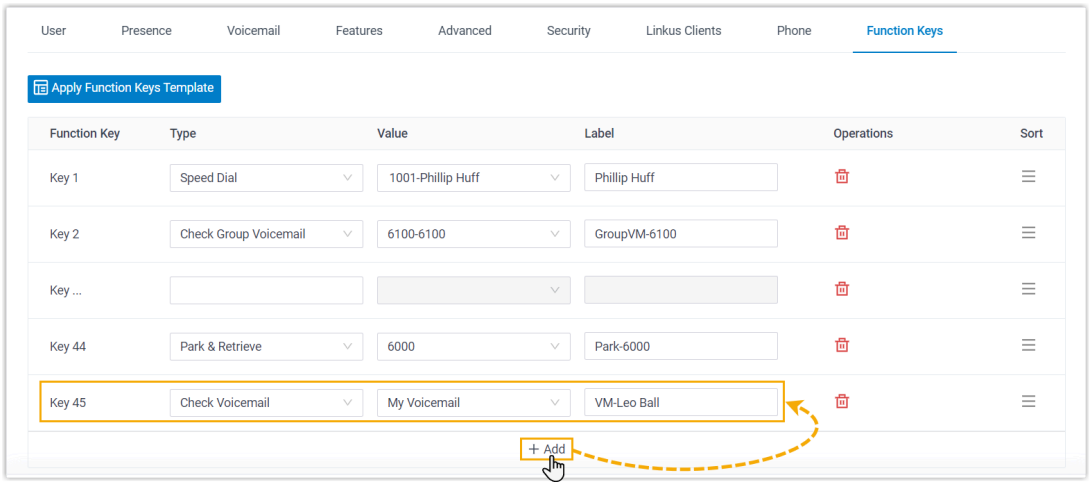
Provision function keys for Mitel expansion module via web interface

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, Mitel 6869i supports 44 programmable keys, then the function key settings starting from the 45th key will take effect on the expansion module.



- **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 Mitel expansion module using auto provisioning template

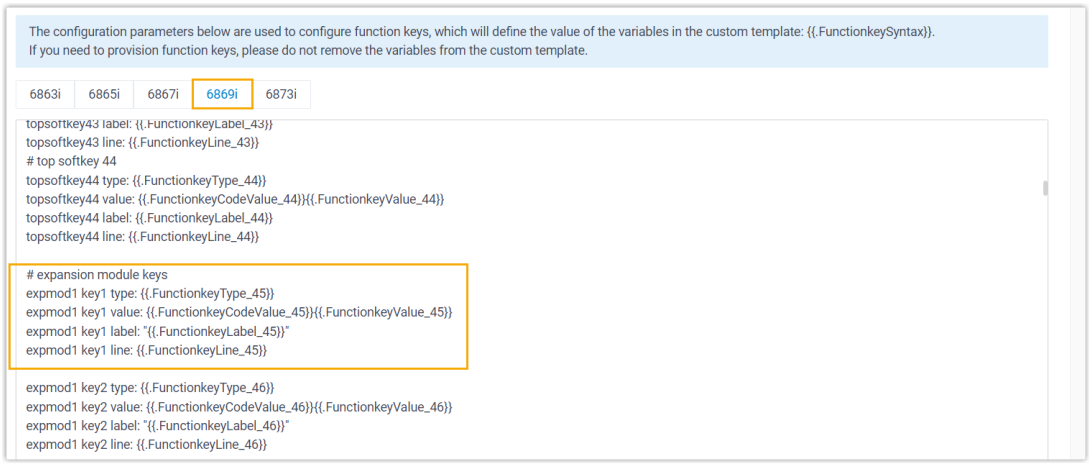
If you are familiar with the configuration parameters of IP phone, you can bulk configure function keys in a template file, via which the function key settings will be applied on the phone and expansion module automatically, thus saving time and effort.

> **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_Mitel68XX**.
      - **Template Type**: Select **Advanced**.
      - **Remark**: Optional. Add a note for the template.
   d. **Optional:** In the **Preference**, **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 con-

figuration 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, Mitel 6869i supports 44 programmable keys, then the function key settings starting from the 45th key will take effect on the expansion module.



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**.

Provision Mitel 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 the Mitel DECT base station with Yeastar P-Series Cloud Edition, so that the Mitel 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 **Mitel DECT base station** and **Yeastar PBX** meet the following requirements.

> **Note:**
> For more information about the compatible **Mitel DECT handsets**, see Compatibility between Mitel DECT products.

Base Station	Version Requirement	PBX Requirement
RFP 44	9.1 or later	84.18.0.18 or later
RFP 45	9.1 or later	84.18.0.18 or later
RFP 47	9.1 or later	84.18.0.18 or later
RFP 48	9.1 or later	84.18.0.18 or later

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

Device Model	Firmware Version
Mitel DECT base station	
RFP 44	v9.1
Mitel DECT handset	
732d	v9.0.3.33

Prerequisites

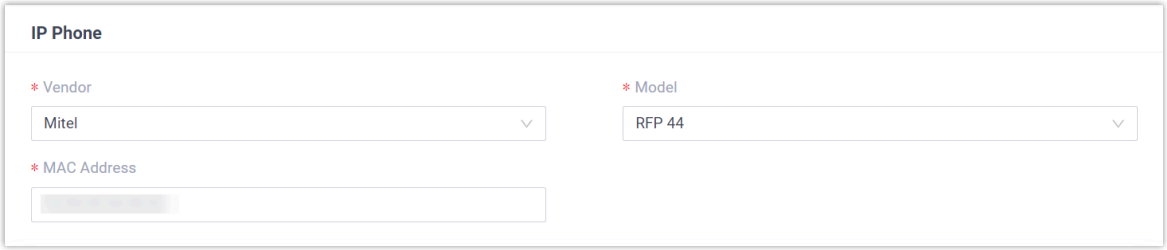
- You have configured IP address for the DECT base station and are able to access the web interface using the IP address.
- Gather information of the DECT base station, including Vendor, Model, and MAC address.
- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).

Procedure

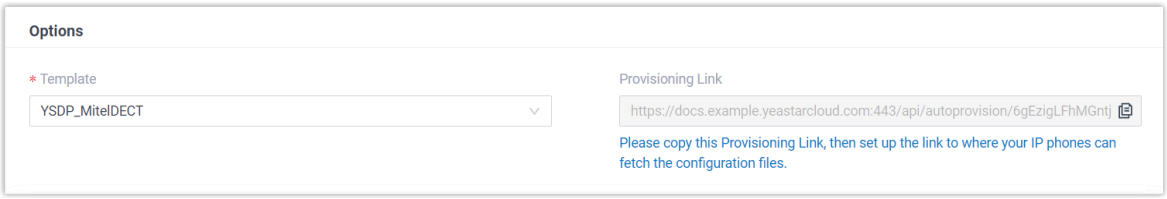
Step 1. Configure Mitel DECT base station on PBX

On PBX web portal, configure the provisioning settings for the DECT base station, and assign extensions to the DECT handsets.

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



   - **Vendor**: Select **Mitel**.
   - **Model**: Select the device model. In this example, select **RFP 44**.
   - **MAC Address**: Enter the MAC address of the DECT base station.
4. In the **Options** section, configure the following settings.



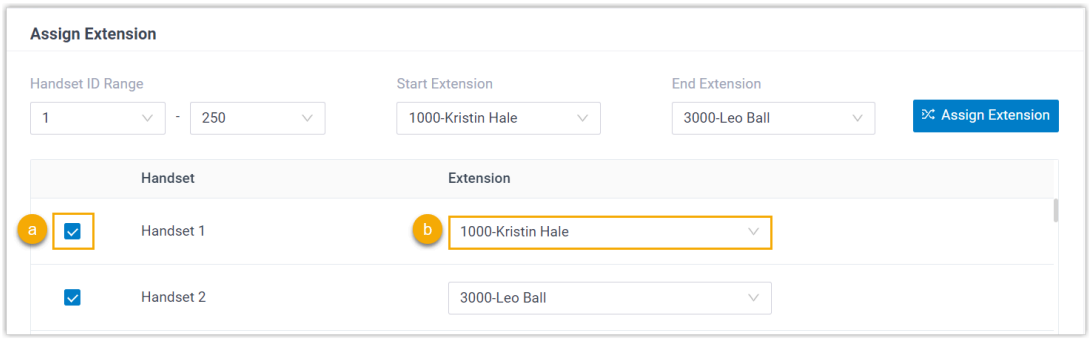
   - **Template**: Select a desired template from the drop-down list.

> **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.

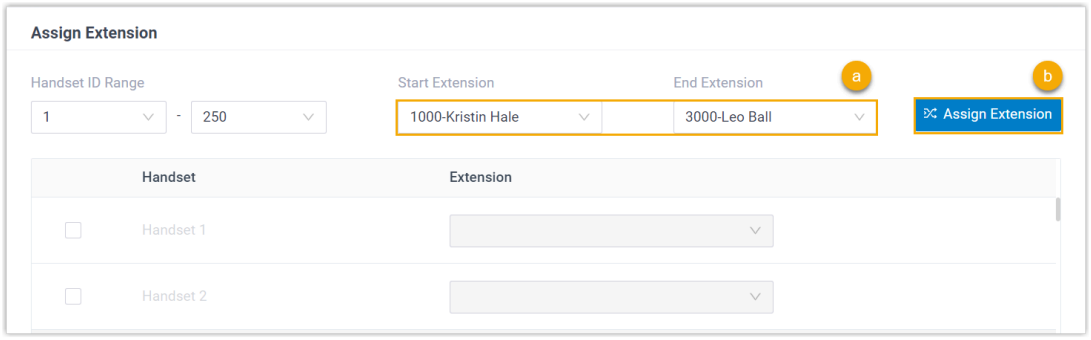
   - **Provisioning Link**: A provisioning link is automatically generated, which points to the location where the phone's configuration file is stored.

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

5. In the **Assign Extension** section, assign 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.



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



> **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.

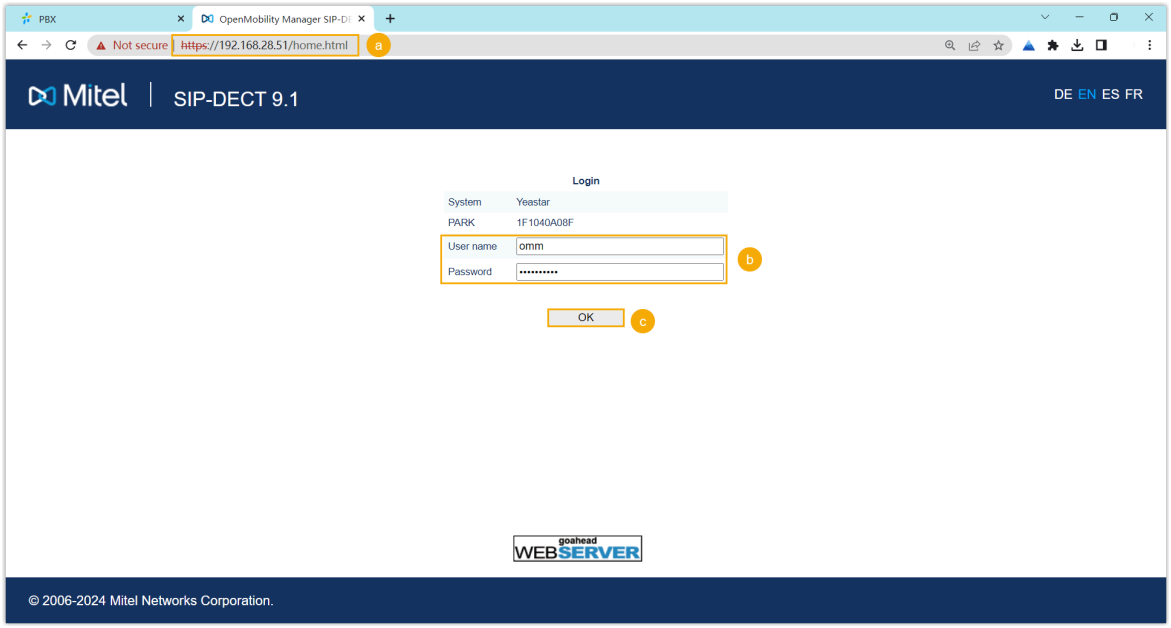
6. In the **Preference** section, select a time zone in the **Time Zone** drop-down list.
7. Complete other settings according to your needs.

8. Click **Save**.

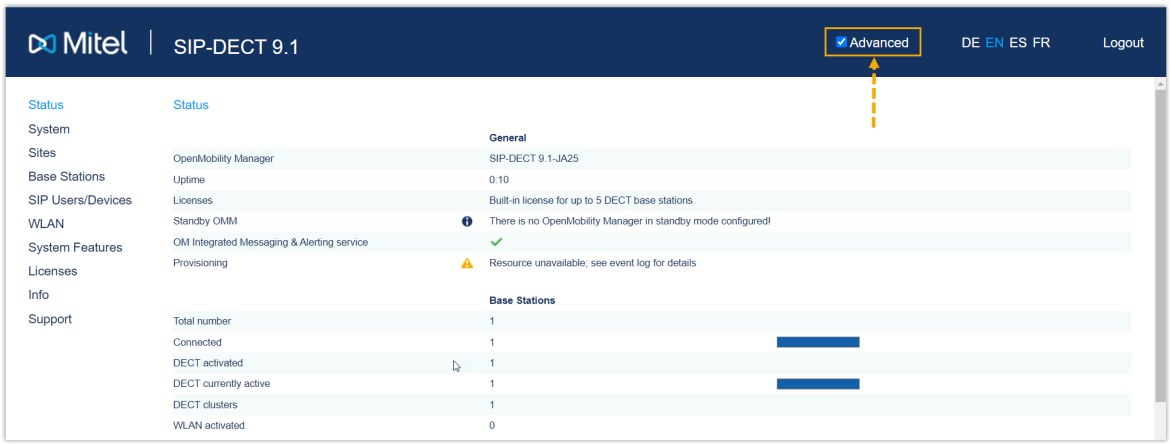
Step 2. Configure provisioning URL on Mitel DECT base station

Manually configure provisioning URL for the Mitel DECT base station using the provisioning link provided by the PBX.

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

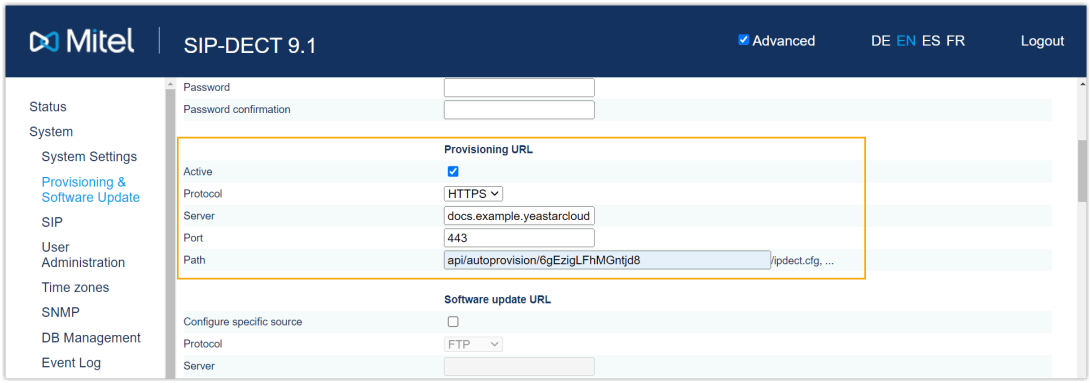


   a. In the browser's address bar, enter the IP address of the DECT base station
   b. Enter the username and the associated password.
   c. Click **OK**.
2. On the top menu, select the checkbox of **Advanced** to show the advanced settings.



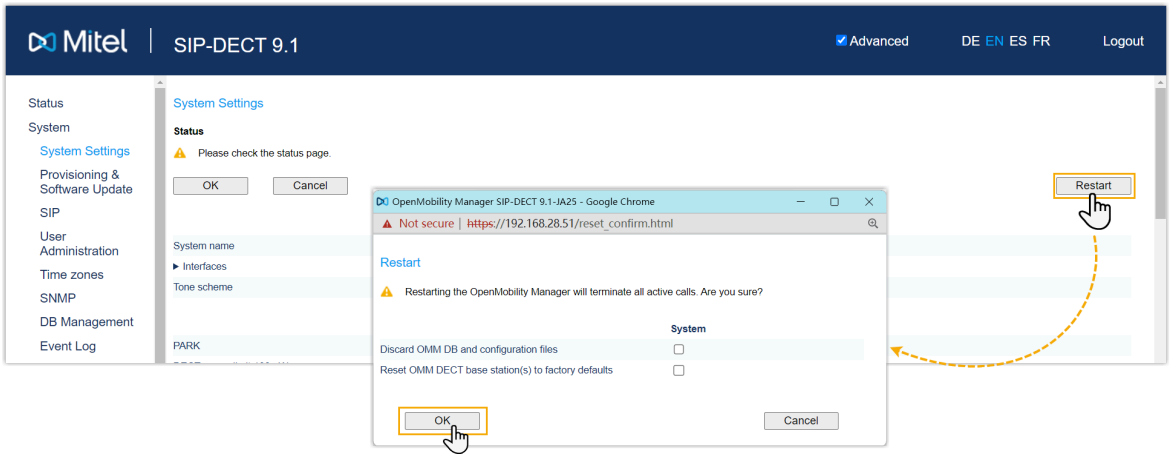
3. At the left navigation bar, go to **System > Provisioning & Software Update**.

4. In the **Provisioning URL** section, do as follows:
    a. Select the checkbox of **Active**.
    b. Complete the following settings with the provisioning link obtained from the PBX.

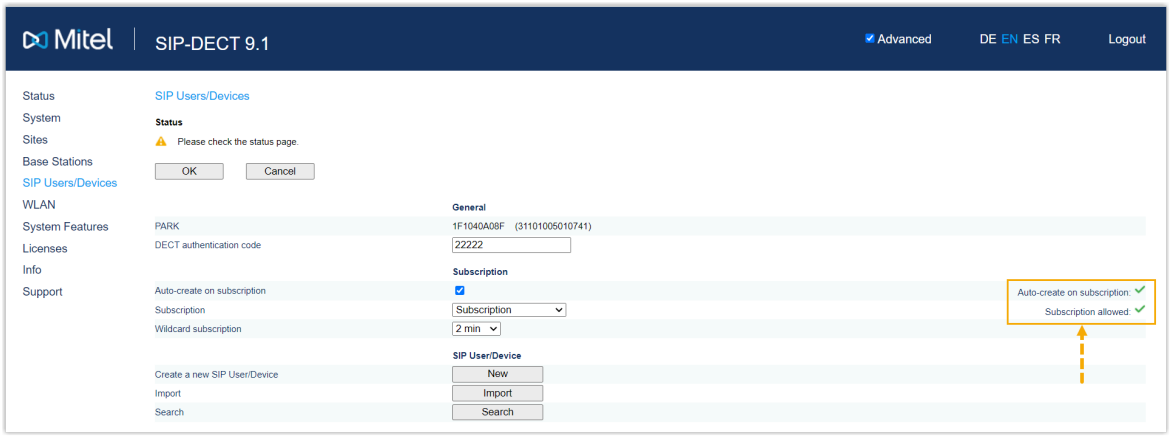


- **Protocol**: Select **HTTP** or **HTTPS** according to the prefix of the link.
- **Server**: Enter the server address (IP address or domain name).
- **Port**: Enter the server port.
- **Path**: Enter the file path (e.g. `api/autoprovision/6gEzigLFhMGntjd8`).

5. At the top of the configuration page, click **OK**.
6. Go to **System > System Settings**, click **Restart** and **OK** to trigger provisioning.

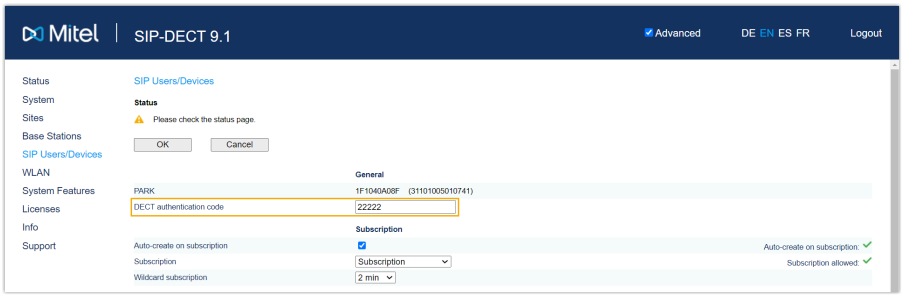


After restarting and waiting for a few minutes, the subscription status on **SIP Users/Devices > Subscription** will display ✓, indicating that the base station has successfully downloaded configuration file from the PBX.



7. In **SIP Users/Devices > General > DECT authentication code**, set an authentication code and note it down.

   This authentication code will be used later when registering the handset to the base station.



Step 3. Register a Mitel DECT handset to the DECT base station

Subscribe to the DECT base station and log in to the DECT handset, so that the DECT handset can be used as a PBX extension.

1. Subscribe to the DECT base station.
   a. On the handset, go to ••• **> System > Subscription**.

      The DECT handset starts to search for a base station. When it finds the base station, there is a prompt asking you to enter an authentication code.

   b. Enter the authentication code, then press **Next** and **Ok**.

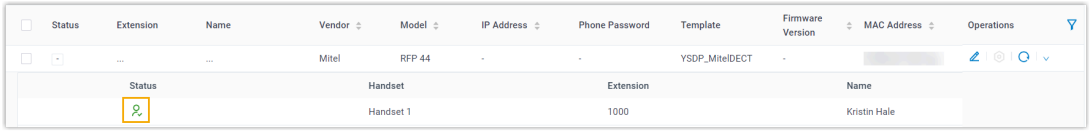
      The DECT handset prompts "success", indicating that the handset has successfully subscribed to the base station.
2. Log in to the DECT handset.
   a. On the handset, press **Log in**.

b. In the **Number** page, enter the extension number assigned to the handset, then press **Ok**.
c. In the **User login** page, enter the extension number again, then press **Ok**.

Result

- The handset is successfully subscribed to the DECT base station, and associated with the assigned PBX extension via the base station.
  - On the web interface of DECT base station, you can check the subscription status of the handset on **SIP Users/Devices > SIP user**.

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



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

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

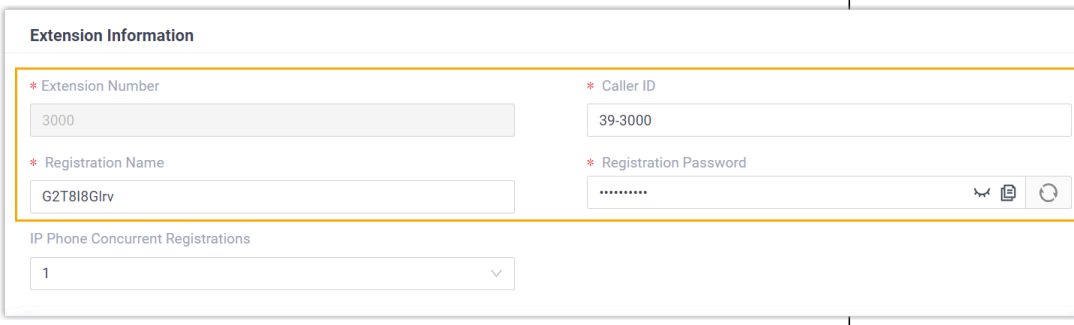
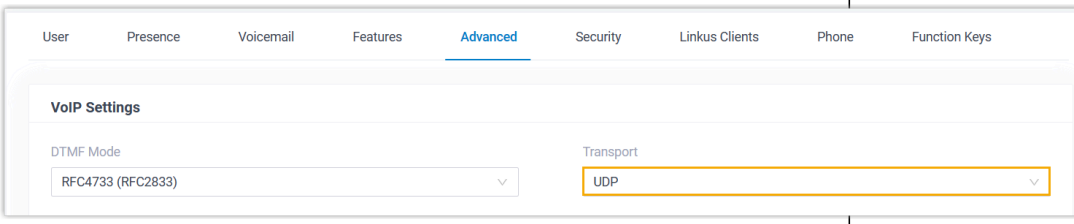
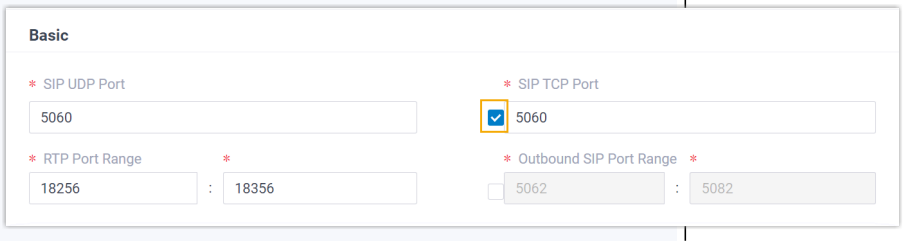
The Mitel IP phones that are compatible with SIP (Session Initiation Protocol).

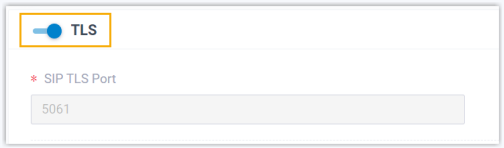
Procedure

- Step 1. Gather registration information on Yeastar PBX
- Step 2. Register extension on Mitel IP phone

Step 1. Gather registration information on Yeastar PBX

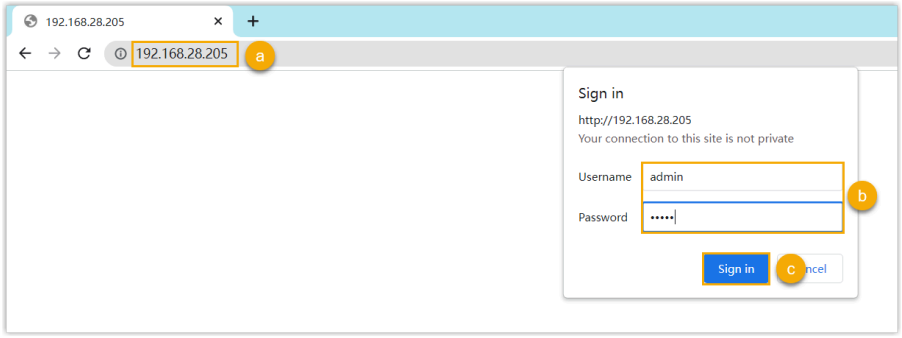
Log in to PBX web portal, gather the following information for extension registration.

Information	Instruction
Extension information	Go to **Extension and Trunk > Extension >**  **> User > Extension Information**, note down the following information: • Extension Number • Caller ID • Registration Name • Registration Password 
Transport protocol	Go to **Extension and Trunk > Extension >**  **> Advanced > VoIP Settings > Transport**, note down the transport protocol of the extension. In this example, the extension use UDP transport protocol.  **Note:** • 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**). 

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

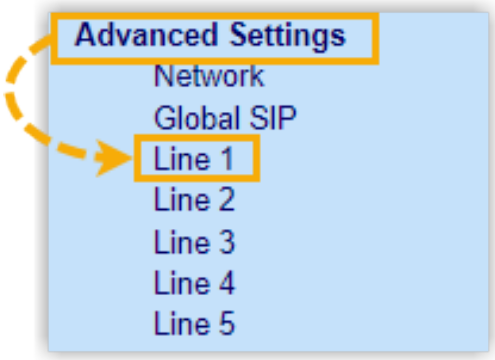
Step 2. Register extension on Mitel IP phone

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

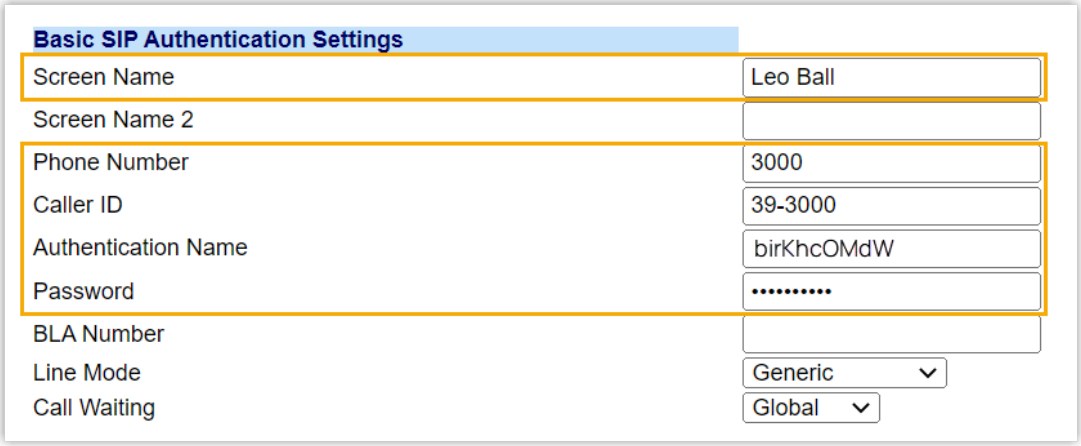


   a. In the browser's address bar, enter the IP address of the IP phone.
   b. Enter the username `admin` and the associated password.

      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.

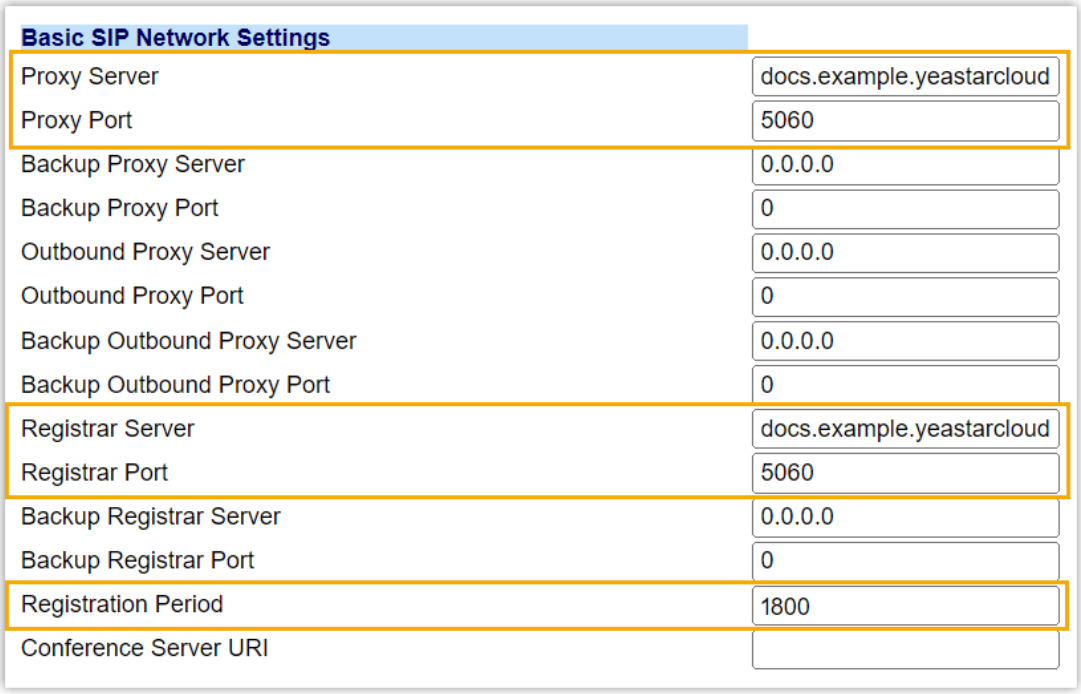


3. Complete the registration configurations.
    a. In the **Basic SIP Authentication Settings** section, enter the extension information.



- **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	

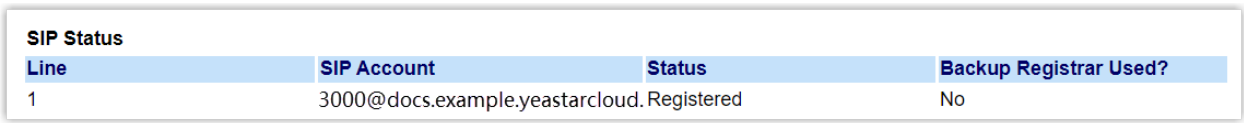
- **Proxy Server**: Enter the domain name of the PBX.
- **Proxy Port**: Enter the SIP registration port of the PBX.
- **Registrar Server**: Enter the domain name of the PBX.
- **Registrar Port**: Enter the SIP registration port of the PBX.
- **Registration Period**: Optional. Set the registration period.

> **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.

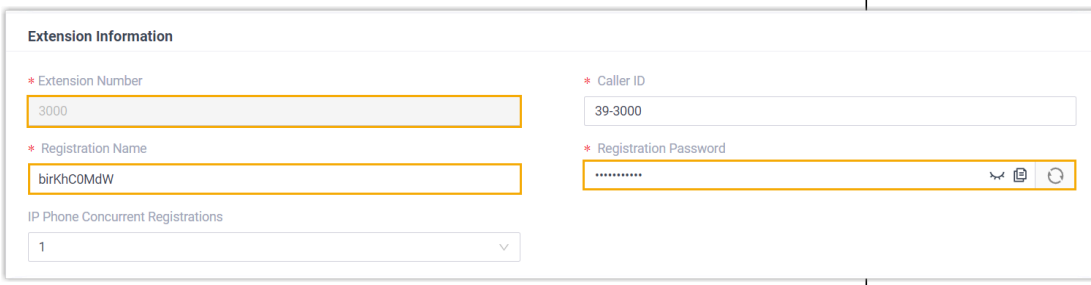
Supported devices

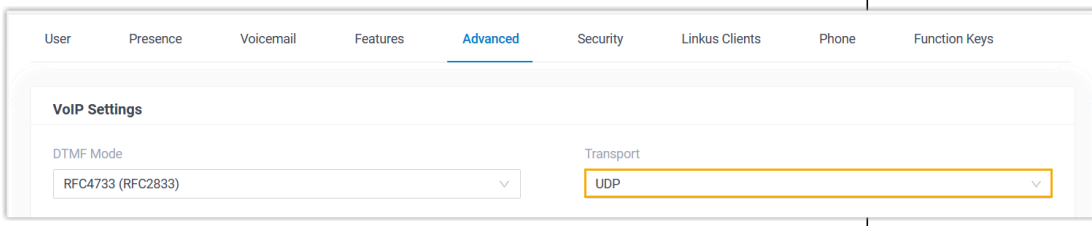
The Dinstar IP phones that are compatible with SIP (Session Initiation Protocol).

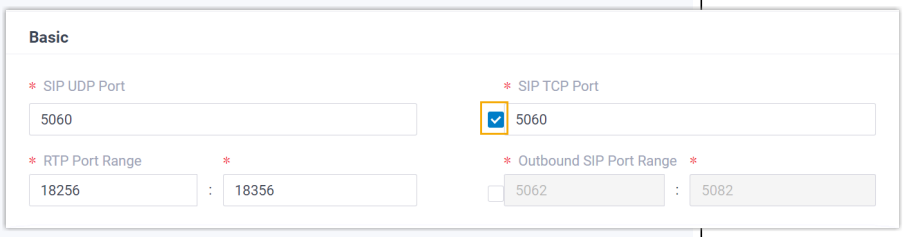
Procedure

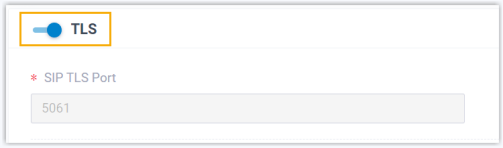
Step 1. Gather registration information on Yeastar PBX

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

Information	Instruction
Extension information	Go to **Extension and Trunk > Extension >**  **> User > Extension Information**, note down the following information: • Extension Number • Registration Name • Registration Password 
Transport protocol	Go to **Extension and Trunk > Extension >**  **> Advanced > VoIP Settings > Transport**, note down the transport protocol of the extension.

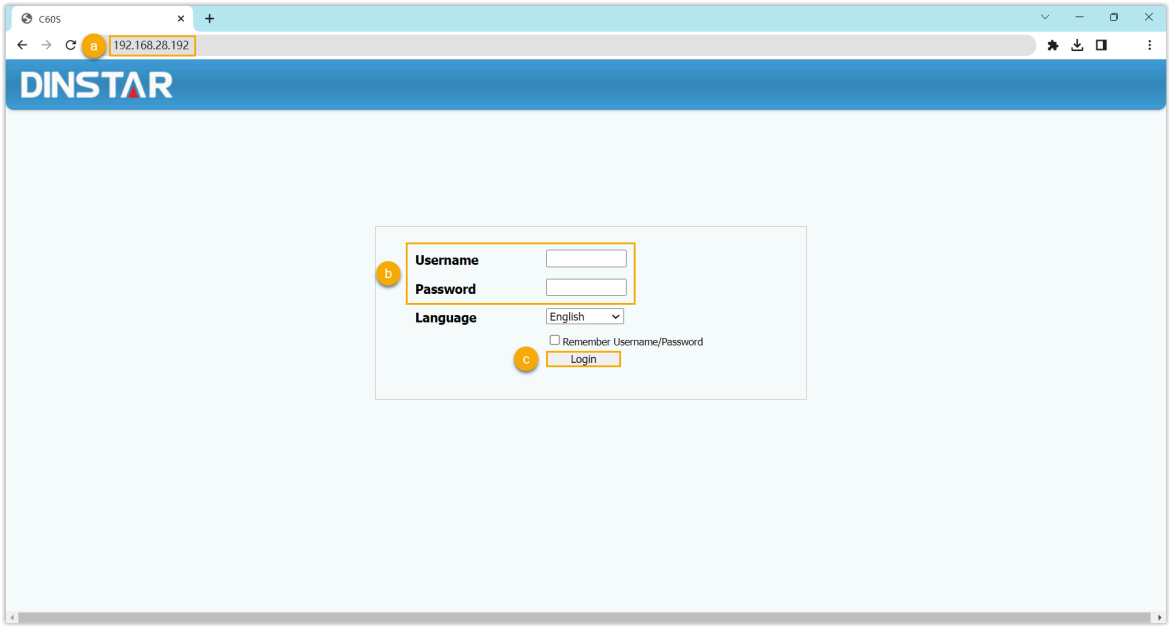
<table>
<tr><th>Information</th><th>Instruction</th></tr>
<tr><td></td><td>In this example, the extension use UDP transport protocol.
 

Note:
• 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).
 
</td></tr>
<tr><td>PBX domain name</td><td>The domain name of the PBX.
In this example, we use the PBX domain name <code>docs.example.yeastarcloud.com</code> for extension registration.</td></tr>
<tr><td>SIP registration port</td><td>The SIP registration port is 5060.</td></tr>
</table>

Step 2. Register extension on Dinstar IP phone

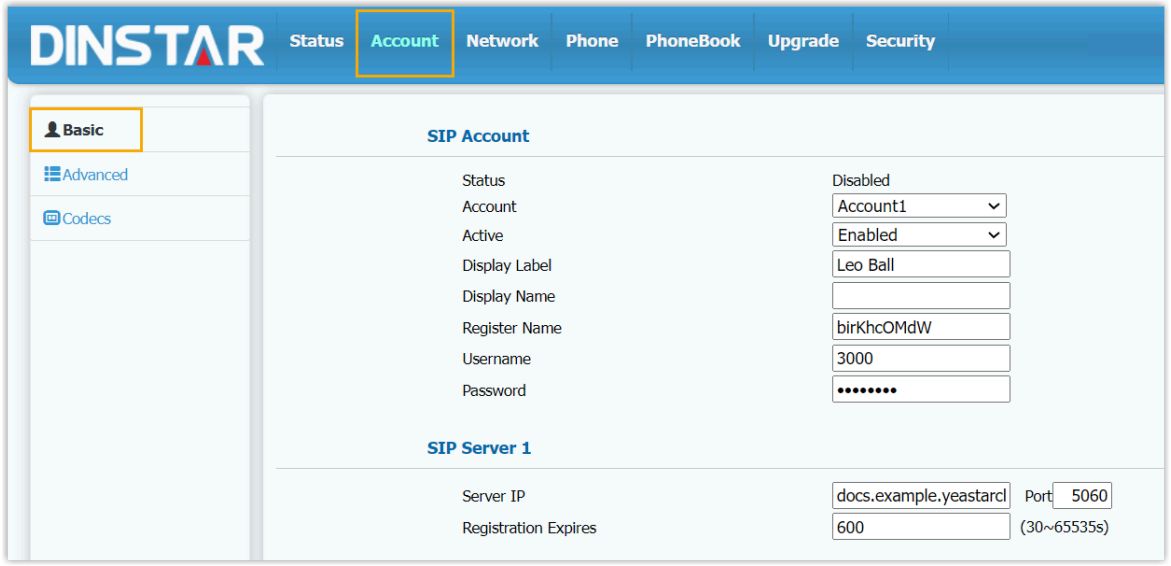
1. Log in to the web interface of the Dinstar IP phone.



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.

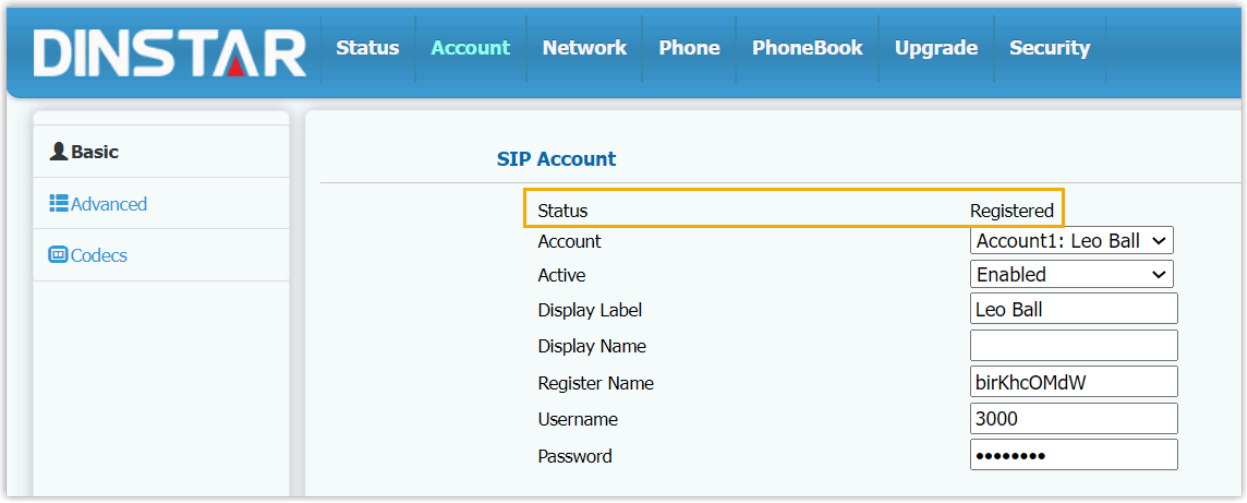
d. Enter the PBX server information.

- **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.



Poly

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

This topic takes Poly VVX_450 (firmware: 6.4.6.2494) as an example to introduce how to provision a Poly IP phone with Yeastar P-Series Cloud Edition.

Requirements

The firmwares of **Poly IP phone** and **Yeastar PBX** meet the following requirements.

Model	Phone Requirement	PBX Requirement
Edge_E100	8.0.0.15602 or later	84.15.0.22 or later
Edge_E220	8.0.0.15602 or later	84.15.0.22 or later
Edge_E300	8.0.0.15602 or later	84.15.0.22 or later
Edge_E320	8.0.0.15602 or later	84.15.0.22 or later
Edge_E350	8.0.0.15602 or later	84.15.0.22 or later
Edge_E400	8.0.0.15602 or later	84.15.0.22 or later
Edge_E450	8.0.0.15602 or later	84.15.0.22 or later
Edge_E500	8.0.0.15602 or later	84.15.0.22 or later
Edge_E550	8.0.0.15602 or later	84.15.0.22 or later
VVX_101	6.4.3.5059 or later	84.15.0.22 or later
VVX_201	6.4.3.5059 or later	84.15.0.22 or later
VVX_301	6.4.3.5059 or later	84.15.0.22 or later
VVX_310	5.9.8 or later	84.15.0.22 or later
VVX_311	6.4.3.5059 or later	84.15.0.22 or later
VVX_401	6.4.3.5059 or later	84.15.0.22 or later
VVX_410	5.9.8 or later	84.15.0.22 or later
VVX_411	6.4.3.5059 or later	84.15.0.22 or later
VVX_501	6.4.3.5059 or later	84.15.0.22 or later
VVX_601	6.4.3.5059 or later	84.15.0.22 or later

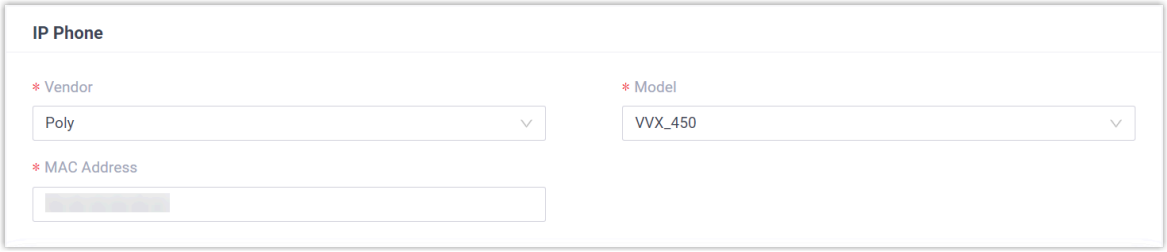
Model	Phone Requirement	PBX Requirement
VVX_150	6.4.3.5059 or later	84.15.0.22 or later
VVX_250	6.4.3.5059 or later	84.15.0.22 or later
VVX_350	6.4.3.5059 or later	84.15.0.22 or later
VVX_450	6.4.3.5059 or later	84.15.0.22 or later

Prerequisites

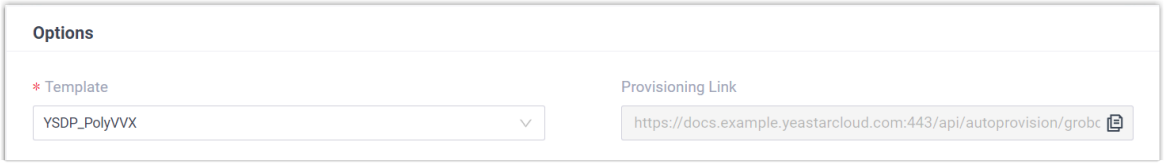
- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

Procedure

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 **Poly**.
   - **Model**: Select a phone model. In this example, select **VVX_450**.
   - **MAC Address**: Enter the MAC address of the IP phone.
4. In the **Option** section, configure the following 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.

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

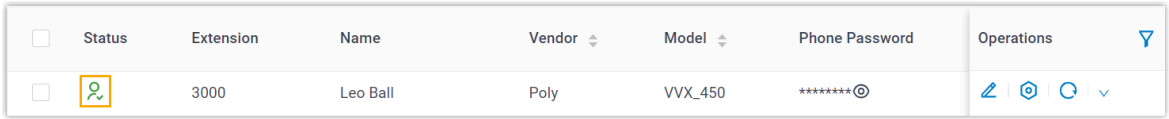
> **Tip:**
> If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.
> - To release the extension from the associated IP phone, see Release an Extension from a Provisioned IP Phone.
> - To register the extension to the phone 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**.

   The PBX will send an event notification of **RPS Request Success**.
7. Manually reboot the IP phone.

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.



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

This topic takes Poly VVX_450 (firmware: 6.4.6.2494) as an example to introduce how to manually register an extension on a Poly IP phone.

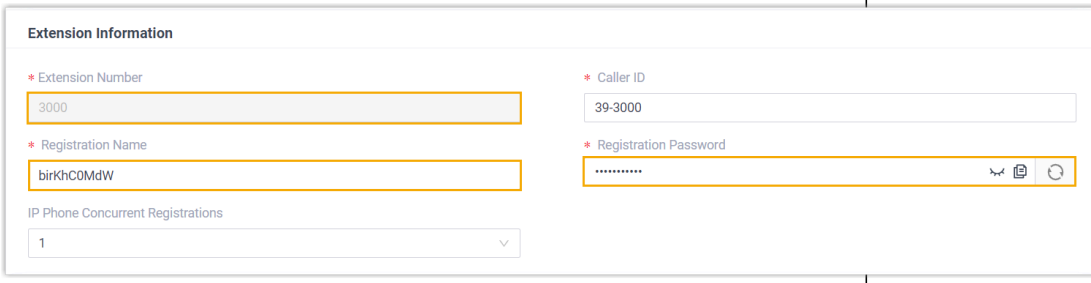
Supported devices

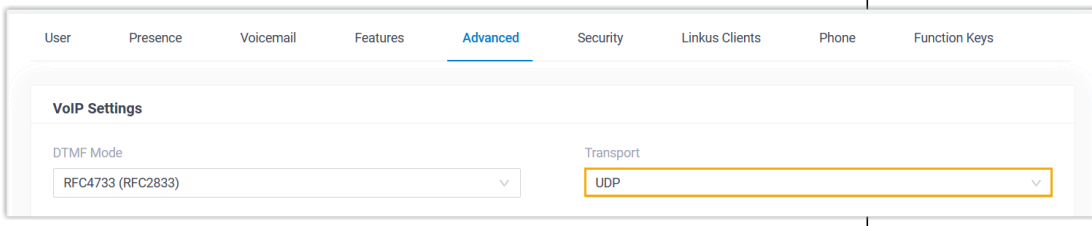
The Poly IP phones that are compatible with SIP (Session Initiation Protocol).

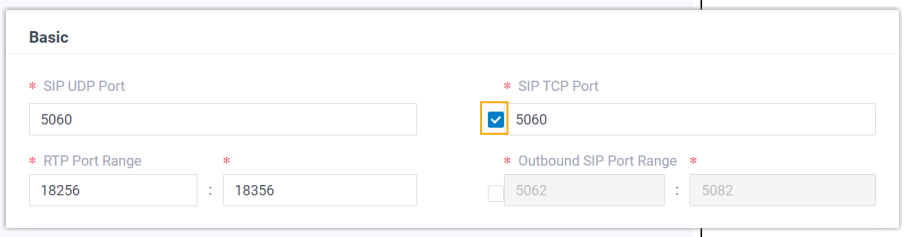
Procedure

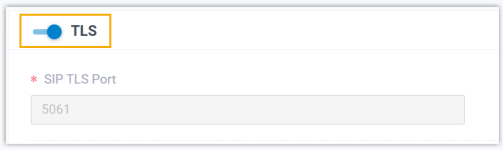
Step 1. Gather registration information on Yeastar PBX

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

Information	Instruction
Extension information	Go to **Extension and Trunk > Extension >**  **> User > Extension Information**, note down the following information: • Extension Number • Registration Name • Registration Password 
Transport protocol	Go to **Extension and Trunk > Extension >**  **> Advanced > VoIP Settings > Transport**, note down the transport protocol of the extension. In this example, the extension use UDP transport protocol.

<table>
<tr><th>Information</th><th>Instruction</th></tr>
<tr><td></td><td>


Note:
• 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).


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

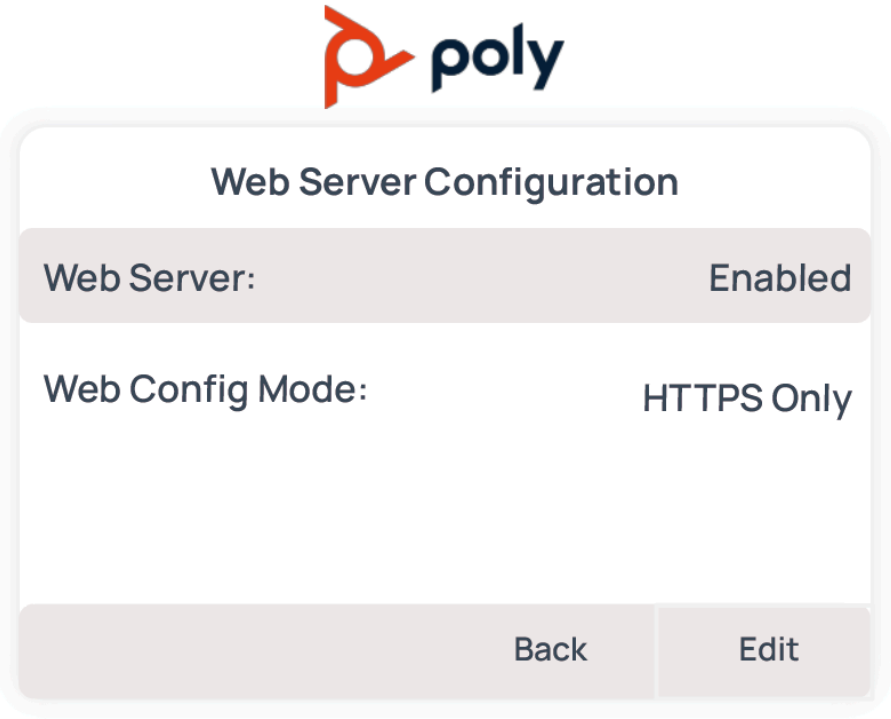
Step 2. Register extension on Poly IP phone

1. Enable the web server on the IP phone.
   a. Press on the phone to access the **Main Menu**.
   b. Go to **Settings > Advanced**.

c. In the **Enter Password** field, enter the administrator password, then press **Enter**.

In this example, enter the default administrator password `456`.

d. Go to **Administration Settings > Web Server Configuration**, and complete the following settings.



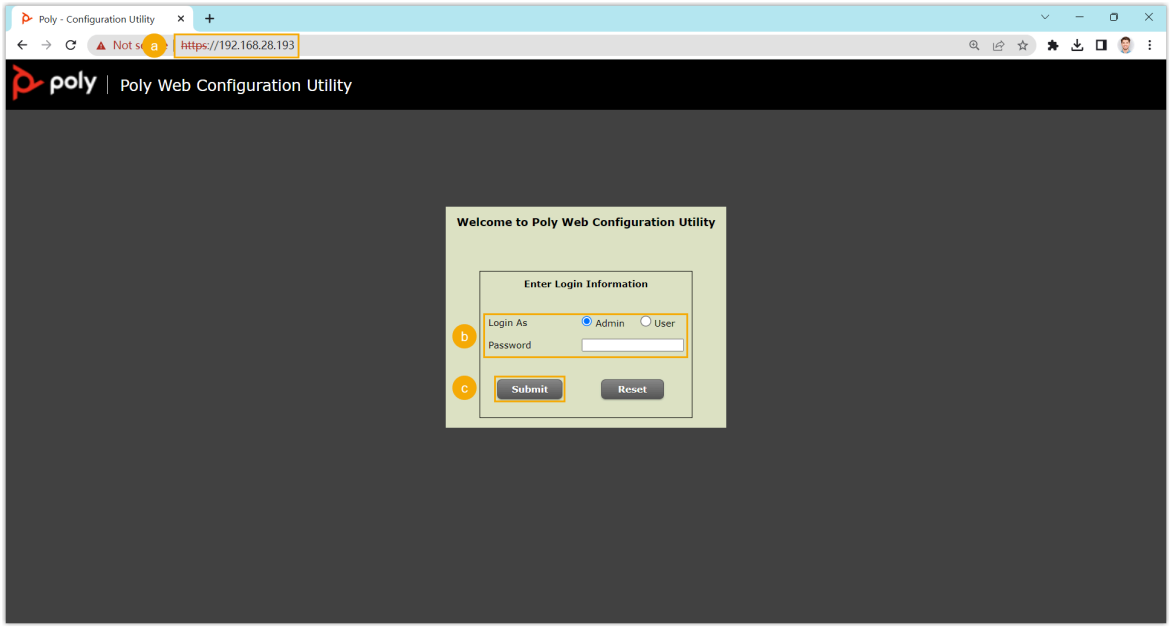
- **Web Server**: Select **Enabled**.
- **Web Config Mode**: Select the protocol according to your network requirements.

> **Note:**
> If you select **HTTPS Only**, you need to add a prefix `https://` to the beginning of the IP address when accessing the phone's web interface.

e. Press the **Back** button, and select **Save Config**.

The phone reboots automatically. After that, you can access the web interface of the phone.

2. Log in to the web interface of the Poly IP phone.

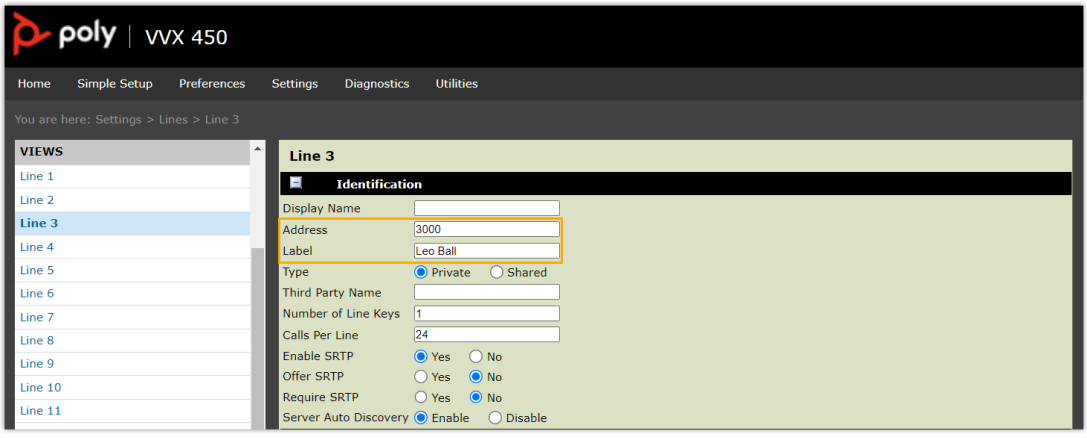


a. In the browser's address bar, enter the IP address of the IP phone.
b. Log in to your phone account.

   In this example, select the **Admin** account and enter the default administrator password `456`.

c. Click **Submit**.

3. At the top navigation bar, go to **Settings > Lines**.
4. Select a Line and complete the following settings.
   a. In the **Identification** section, enter the basic information of the extension.



- **Address**: Enter the extension number.
- **Label**: Enter the name associated with the account, which will be displayed on the phone screen.

b. In the **Authentication** section, enter the registration information of the extension.

- **User ID**: Enter the registration name of the extension.
- **Password**: Enter the registration password of the extension.

c. In the **Server 1** section, enter the PBX information.

- **Special Interop**: Select **Standard**.
- **Address**: Enter the domain name of the PBX.
- **Port**: Enter the SIP registration port of the PBX.
- **Transport**: Select the transport protocol of the extension.

5. At the bottom of the webpage, click **Save**.

Result

The extension is registered successfully. You can see displayed at the extension account on the phone screen.

Wildix

Provision Wildix IP Phone with Yeastar P-Series Cloud Edition

This topic takes Wildix WP480R3 (firmware: 63.145.10.168) as an example to describe how to provision Wildix IP phone with Yeastar P-Series Cloud Edition.

Requirements

The firmwares of **Wildix IP Phone** and **Yeastar PBX** meet the following requirements.

Model	Phone Requirement	PBX Requirement
WP410R2	50.145.6.169 or later	84.15.0.22 or later
WP480R2	55.145.6.111 or later	84.15.0.22 or later
WP480R3	63.145.10.168 or later	84.15.0.22 or later
WP480R4	65.145.6.38 or later	84.15.0.22 or later
WP490R2	59.145.6.148 or later	84.15.0.22 or later
WP490R3	67.145.8.107 or later	84.15.0.22 or later

Scenarios

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

Scenario	Description
Provision a SINGLE Wildix 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 Wildix IP phone.
Provision MULTIPLE Wildix 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 Wildix IP phones.

Manually provision a Wildix IP phone

Prerequisites

- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

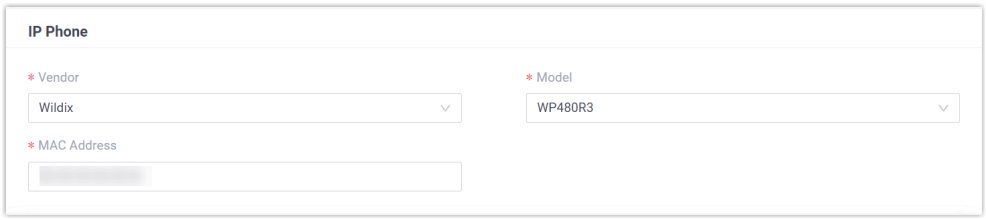
Procedure

- Step 1. Add the Wildix IP phone on PBX
- Step 2. Configure provisioning server address on the phone

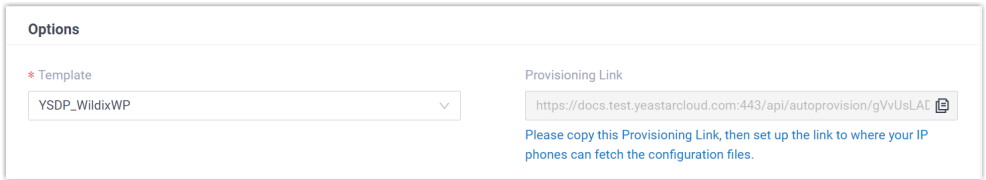
Step 1. Add the Wildix IP phone on PBX

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:



   - **Vendor**: Select **Wildix**.
   - **Model**: Select the phone model. In this example, select **WP480R3**.
   - **MAC Address**: Enter the MAC address of the IP phone.
4. In the **Options** section, configure the following settings.



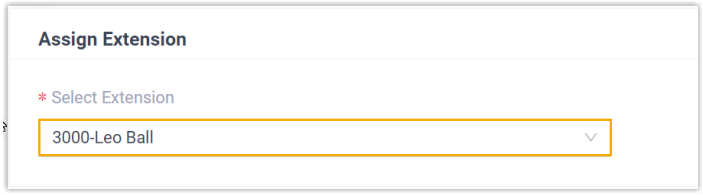
   - **Template**: Select a desired template from the drop-down list.

> **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.



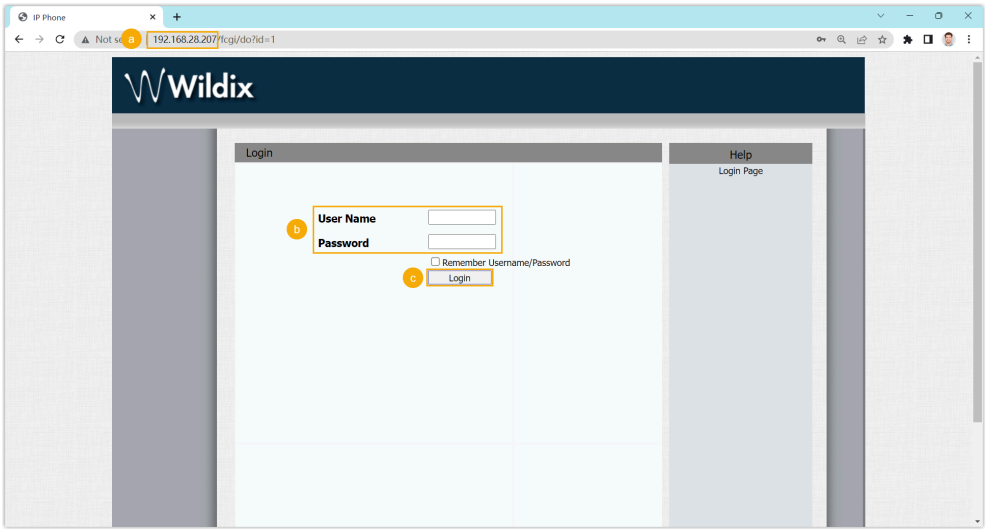
> **Tip:**
> If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.
>
> - To release the extension from the associated IP phone, see Release an Extension from a Provisioned IP Phone.
> - To register the extension to the phone 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 provisioning server address on the phone

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

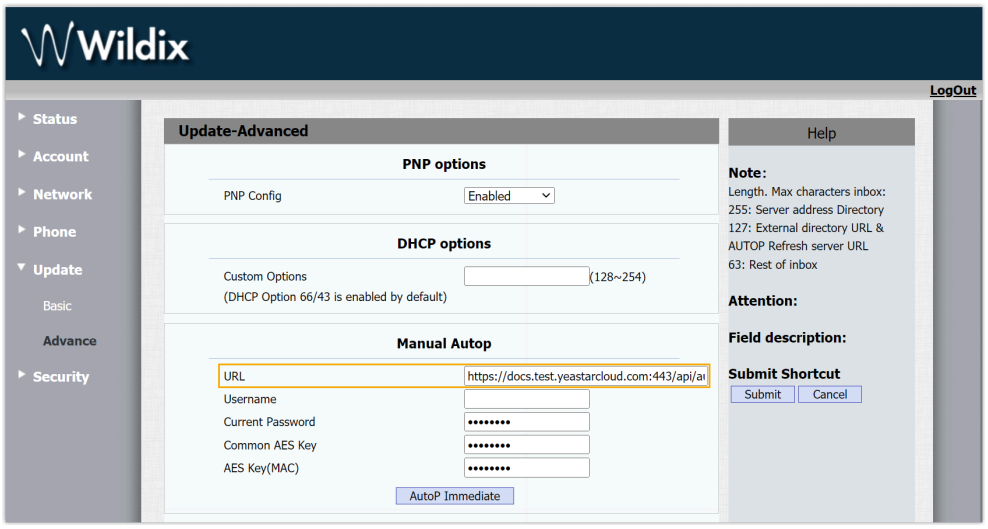
1. Log in to the web interface of the Wildix IP phone.



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

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

   c. Click **Login**.
2. On the left navigation bar, go to **Update > Advance > Manual Autop**.
3. In the **URL** field, paste the provisioning link.

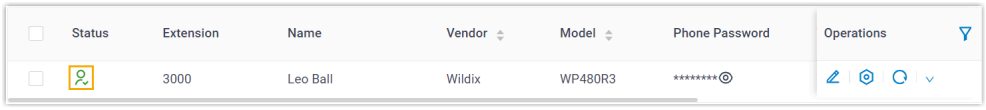


4. Click **AutoP Immediate**.

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.



Auto provision multiple Wildix 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.
- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

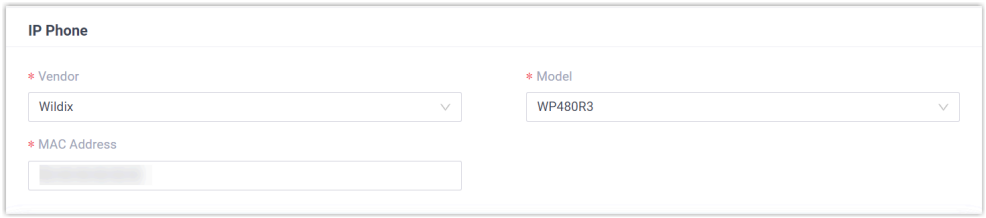
Procedure

- 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

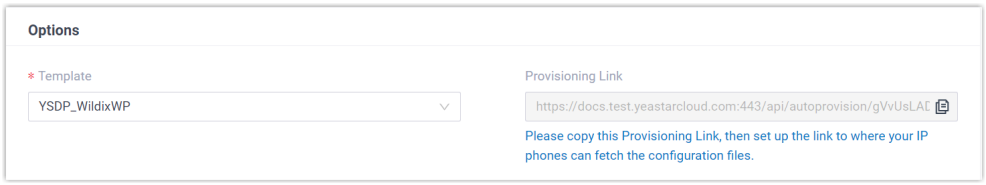
Add the IP phone on PBX. The PBX will generate a configuration file based on the phone's MAC address.

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:



- **Vendor**: Select **Wildix**.
- **Model**: Select the phone model. In this example, select **WP480R3**.
- **MAC Address**: Enter the MAC address of the IP phone.

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



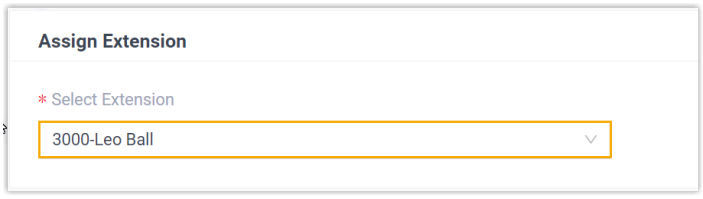
- **Template**: Select a desired template from the drop-down list.

> **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:**

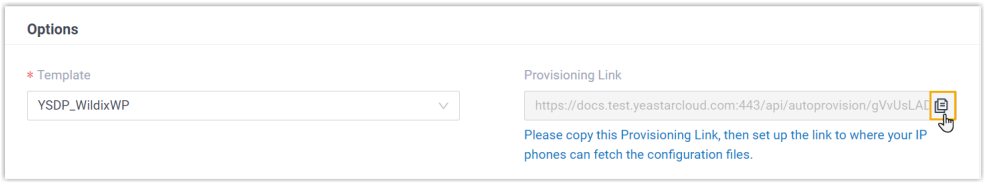
> If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.
>
> - To release the extension from the associated IP phone, see Release an Extension from a Provisioned IP Phone.
> - To register the extension to the phone without 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 the router

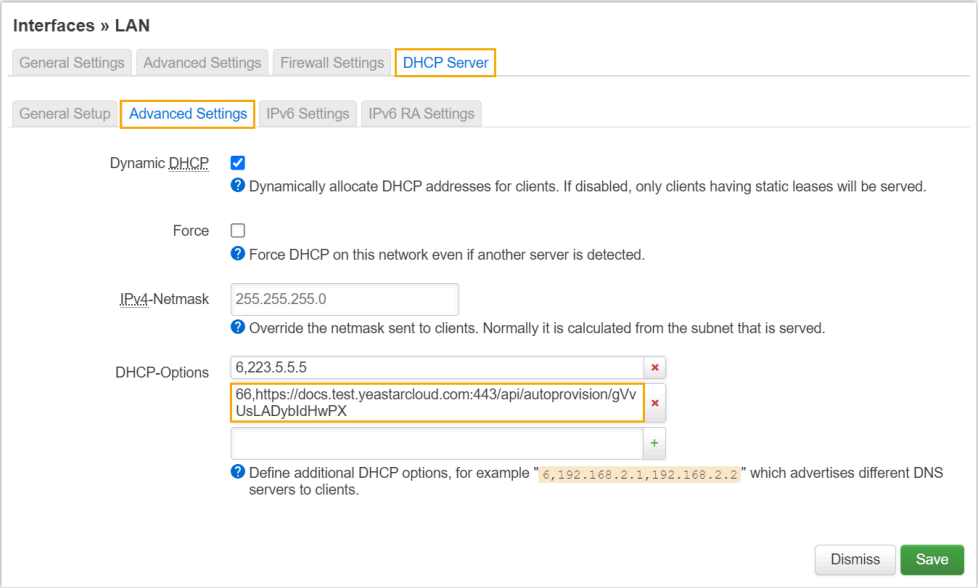
In the subnet where the IP phone is deployed, use the generated provisioning link to configure option 66 on the DHCP Server.

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



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

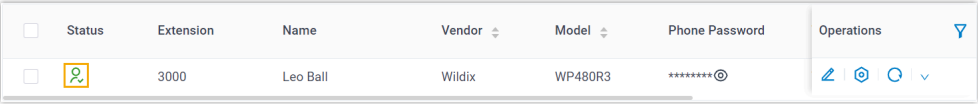
   In this example, the configuration is shown below.



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.



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

This topic takes Wildix WP480R3 (firmware: 63.145.10.168) as an example to introduce how to manually register an extension on a Wildix IP phone.

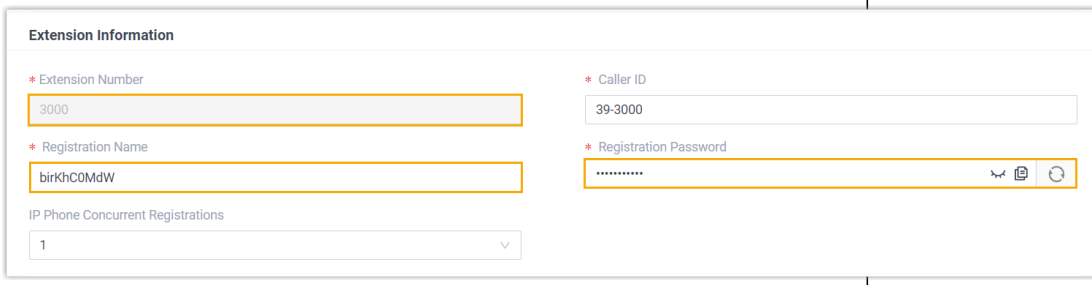
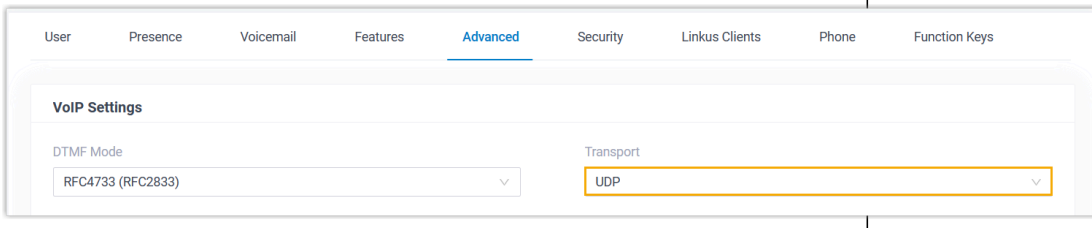
Supported devices

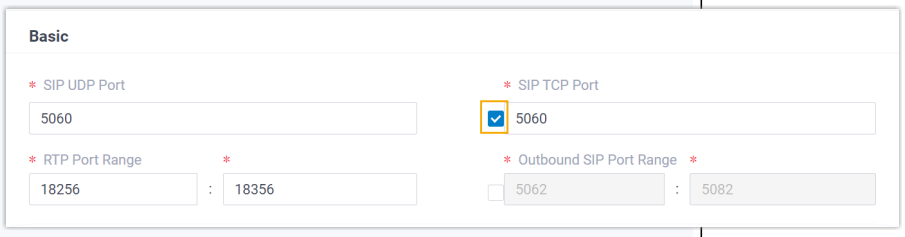
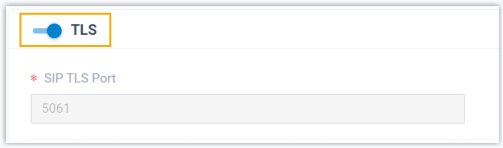
The Wildix IP phones that are compatible with SIP (Session Initiation Protocol).

Procedure

Step 1. Gather registration information on Yeastar PBX

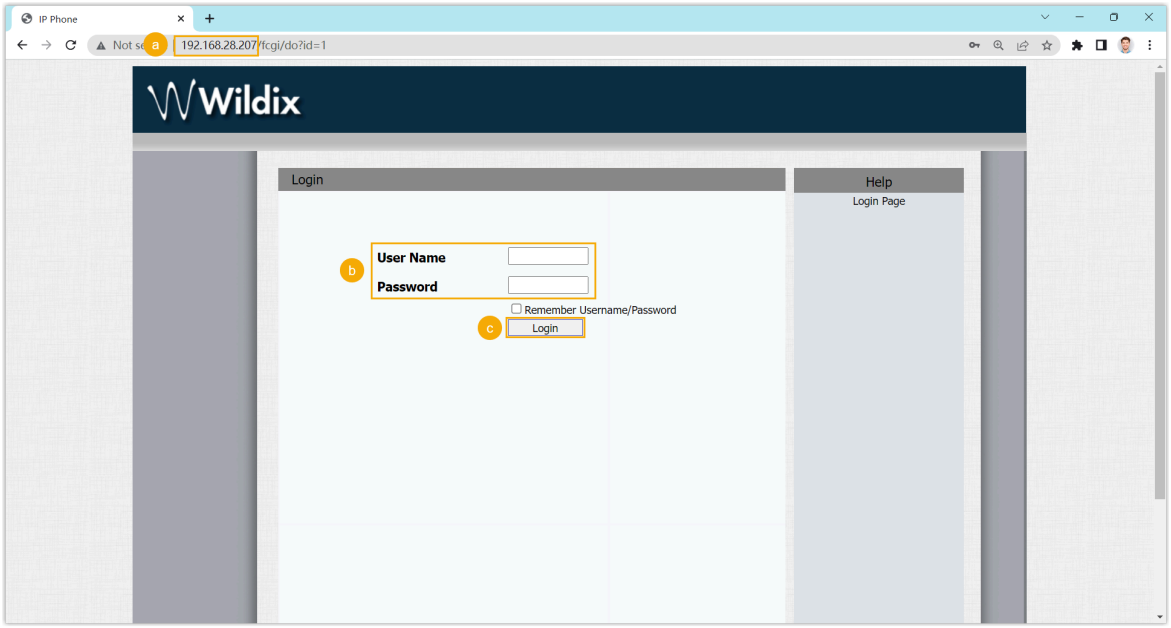
Log in to PBX web portal, gather the following information for extension registration.

Information	Instruction
Extension information	Go to **Extension and Trunk > Extension >**  **> User > Extension Information**, note down the following information: • Extension Number • Registration Name • Registration Password 
Transport protocol	Go to **Extension and Trunk > Extension >**  **> Advanced > VoIP Settings > Transport**, note down the transport protocol of the extension. In this example, the extension use UDP transport protocol.  **Note:**

Information	Instruction
	• 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**). 
PBX domain name	The domain name of the PBX. In this example, we use the PBX domain name `docs.example.yeastarcloud.com` for extension registration.
SIP registration port	The SIP registration port is 5060.

Step 2. Register extension on Wildix IP phone

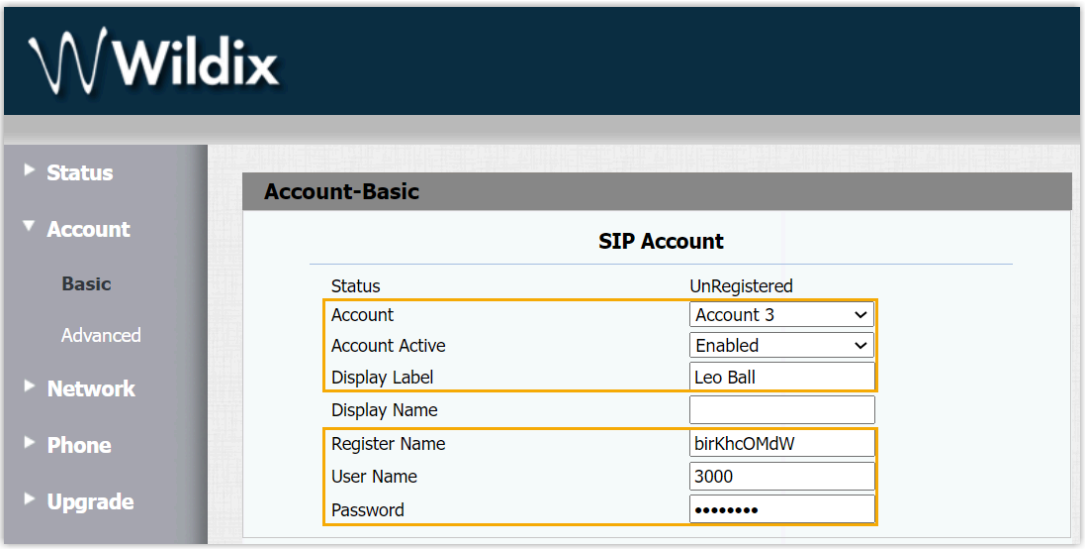
1. Log in to the web interface of the Wildix IP phone.



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

   In this example, enter the default username `admin` and password `admin`.
c. Click **Login**.

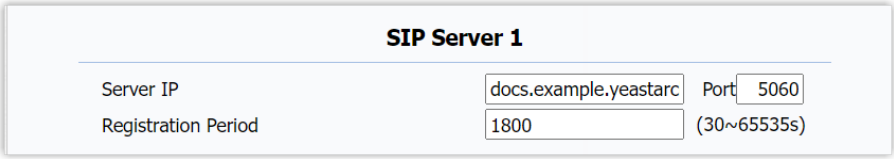
2. At the left navigation bar, go to **Account > Basic**, then complete the following settings.
   a. In the **SIP Account** section, configure an account.



- **Account**: Select an idle account.
- **Account Active**: Select **Enable** to activate the account.

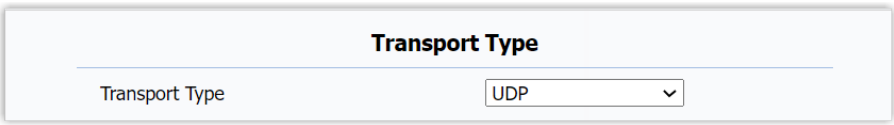
- **Display Label**: Enter the name associated with the account, which will be displayed on the phone screen.
- **Register Name**: Enter the registration name of the extension.
- **User Name**: Enter the extension number.
- **Password**: Enter the registration password of the extension.

b. In the **SIP Server 1** section, enter the PBX information.



- **Server IP**: Enter the domain name of the PBX server.
- **Port**: Enter the SIP registration port.

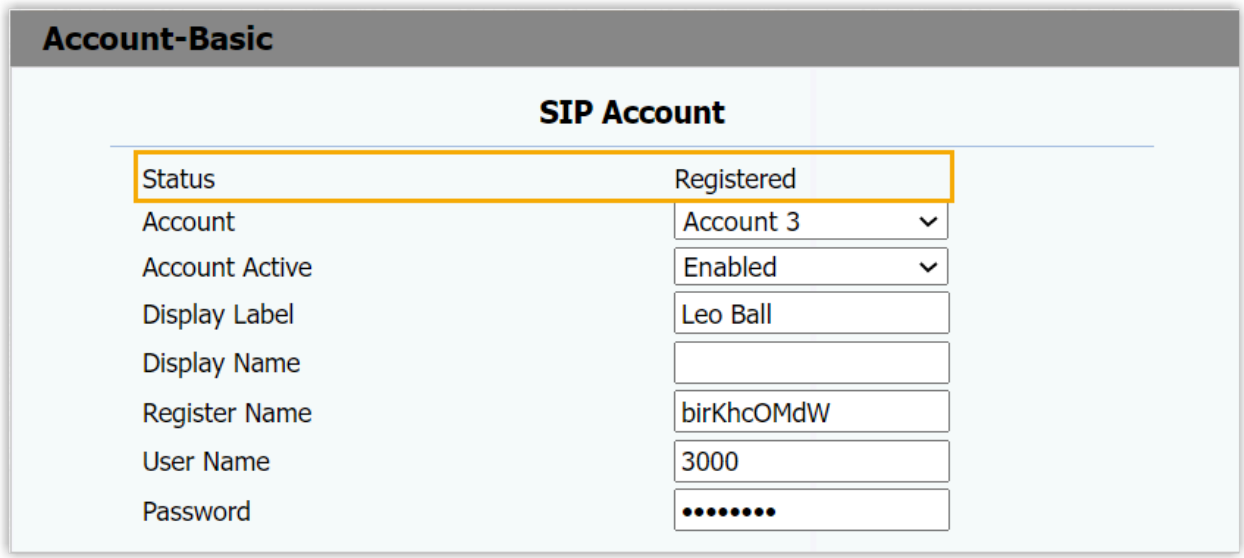
c. In the **Transport Type** section, select the transport protocol of the extension.



3. At the bottom of the page, click **Submit**.

Result

The extension is registered successfully. You can check the registration status on **SIP Account > Status**.



NEC

Provision NEC IP Phone with Yeastar P-Series Cloud Edition

This topic takes NEC DT900 ITK-12D-1P (firmware: 05.03.04.03) as an example to describe how to provision NEC IP phone with Yeastar P-Series Cloud Edition.

> **Important:**
> Due to NEC phone limitations, provisioning an NEC IP phone is only supported with a Cloud PBX whose domain name is not longer than **29** characters (excluding the prefix `https://`). If this limit is exceeded, provisioning will fail.

Requirements

The firmwares of **NEC IP phone** and **Yeastar PBX** meet the following requirements.

Model	Phone Requirement	PBX Requirement
DT700 ITL-2E-1P	03.01.64.00 or later	84.17.0.53 or later
DT700 ITL-6DE-1P	03.01.64.00 or later	84.17.0.53 or later
DT700 ITL-12D-1P	03.01.64.00 or later	84.17.0.53 or later
DT700 ITL-24D-1P	03.01.64.00 or later	84.17.0.53 or later
DT700 ITL-8LD-1P	03.01.64.00 or later	84.17.0.53 or later
DT700 ITL-8LDE-1P	03.01.64.00 or later	84.17.0.53 or later
DT700 ITL-12DG-3P	03.01.64.00 or later	84.17.0.53 or later
DT700 ITL-12CG-3P	03.01.64.00 or later	84.17.0.53 or later
DT820 ITY-6D-1P	04.04.28.14 or later	84.17.0.53 or later
DT820 ITY-8LDX-1P	04.04.28.14 or later	84.17.0.53 or later
DT820 ITY-8LCGX-1P	04.04.28.14 or later	84.17.0.53 or later
DT820 ITY-6DG-1P	04.04.28.14 or later	84.17.0.53 or later
DT820 ITY-32LDG-1P	04.04.28.14 or later	84.17.0.53 or later
DT820 ITY-32LCG-1P	04.04.28.14 or later	84.17.0.53 or later
DT900 ITK-6D-1P	05.03.04.99 or later	84.17.0.53 or later

Model	Phone Requirement	PBX Requirement
DT900 ITK-12D-1P	05.03.04.03 or later	84.17.0.53 or later
DT900 ITK-8LCX-1P	05.03.04.99 or later	84.17.0.53 or later
DT900 ITK-8TCGX-1P	05.03.04.99 or later	84.17.0.53 or later
DT900 ITK-6DG-1P	05.03.04.99 or later	84.17.0.53 or later
DT900 ITK-12DG-1P	05.03.04.99 or later	84.17.0.53 or later
DT900 ITK-32LCG-1P	05.03.04.99 or later	84.17.0.53 or later
DT900 ITK-32TCG-1P	05.03.04.99 or later	84.17.0.53 or later
DT900S ITK-6DGS-1P	05.03.04.99 or later	84.17.0.53 or later
DT900S ITK-32LCGS-1P	05.03.04.99 or later	84.17.0.53 or later
DT900S ITK-32TCGS-1P	05.03.04.99 or later	84.17.0.53 or later

Prerequisites

- Prepare a DHCP server in the subnet where the IP phone is located to provide an IP address for the IP phone.

> **Note:**
> Make sure that there is only one DHCP server running in the subnet, or the IP phone would fail to obtain an IP address.

- RESET the IP phone if it is previously used.
- Gather information of IP phone, including Vendor, Model, and MAC address.
- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).

Procedure

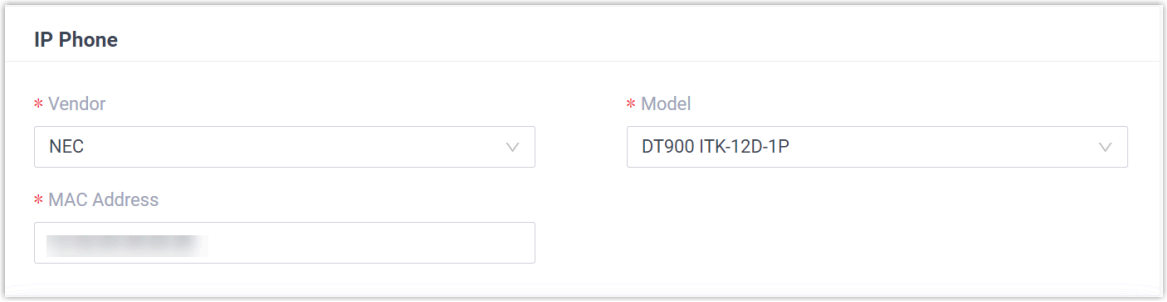
- Step 1. Add the NEC IP phone on PBX
- Step 2. Configure DHCP option 66 on DHCP server

Step 1. Add the NEC IP phone on PBX

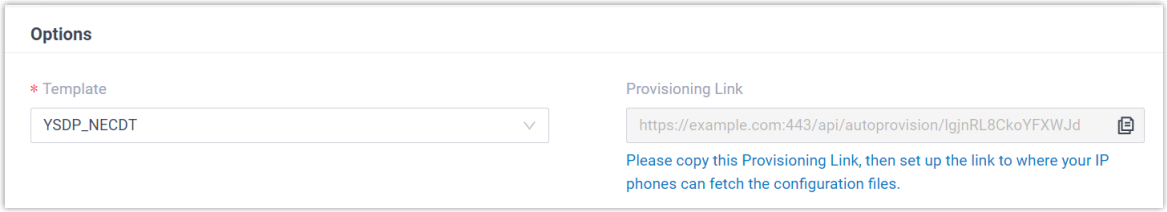
Add the IP phone on PBX. The PBX will generate a configuration file based on the phone's MAC address.

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 **NEC**.
   - **Model**: Select the phone model. In this example, select **DT900 ITK-12D-1P**.
   - **MAC Address**: Enter the MAC address of the IP phone.
4. In the **Options** section, configure the following 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 and displayed in this field. This provisioning link 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.

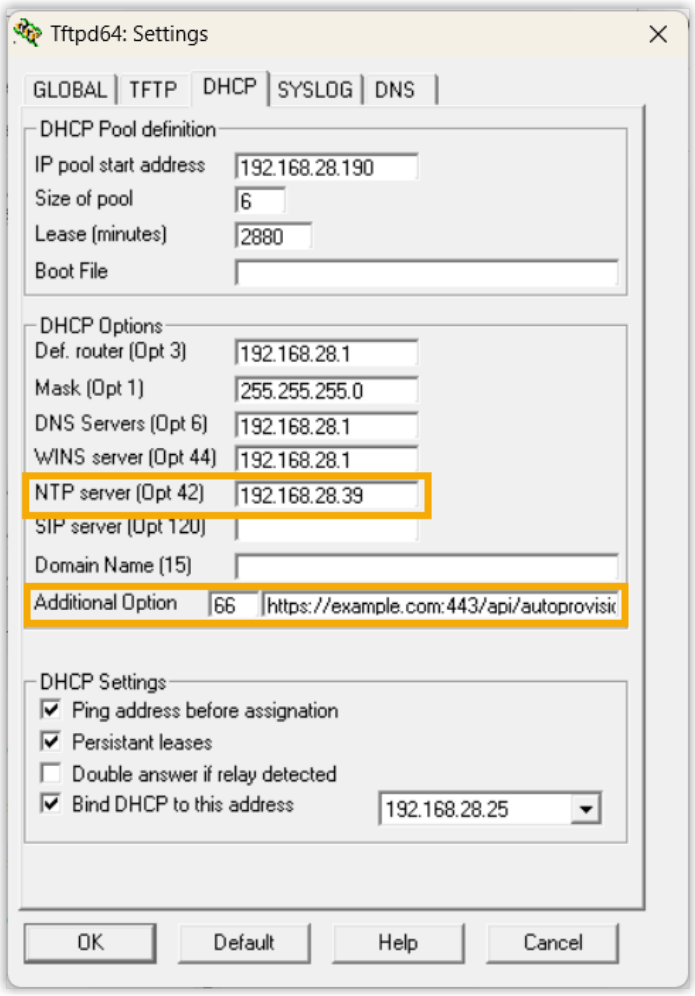
6. Click **Save**.

   The IP phone is added and displayed in the Auto Provisioning phone list.

Step 2. Configure DHCP option 66 on DHCP server

On the DHCP server, configure DHCP option 66 with the provisioning link obtained from the PBX.

1. On the running Tftpd64 software, go to **Settings > DHCP > DHCP Options**.
2. Configure the following DHCP options.

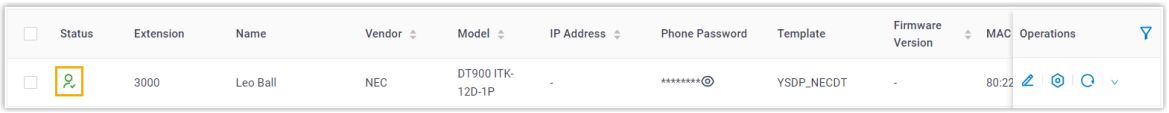


- **NTP server (Opt 42)**: Enter the IP address of an NTP server.
- **Additional Option**: Enter 66, then enter the provisioning link obtained from the PBX.

3. Click **OK** to save the settings.

Results

- After rebooting the IP phone, 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.



Status	Extension	Name	Vendor	Model	IP Address	Phone Password	Template	Firmware Version	MAC	Operations
	3000	Leo Ball	NEC	DT900 ITK-12D-1P	-	********	YSDP_NECDT	-	80:22	

Unify

Provision Unify IP Phone with Yeastar P-Series Cloud Edition

This topic takes OpenScape CP210 as an example to describe how to provision Unify IP phone with Yeastar P-Series Cloud Edition.

Requirements

The firmwares of **Unify IP phone** and **Yeastar PBX** meet the following requirements.

Model	Phone Requirement	PBX Requirement
OpenScape CP200	V2 R4.13.0 or later	84.19.0.23 or later
OpenScape CP210	V2 R0.4.0 SIP 220614 or later	84.19.0.23 or later
OpenScape CP400	V2 R4.13.0 or later	84.19.0.23 or later
OpenScape CP410	V2 R4.13.0 or later	84.19.0.23 or later

Prerequisites

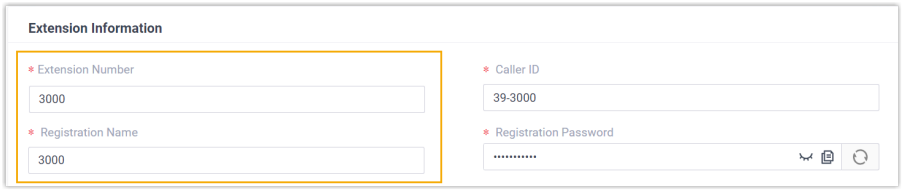
- Prepare a DHCP server in the subnet where the IP phone is located to provide an IP address for the IP phone.

  > **Note:**
  > Make sure that there is only one DHCP server running in the subnet, or the IP phone would fail to obtain an IP address.

- RESET the IP phone if it is previously used.
- Gather information of IP phone, including Vendor, Model, and MAC address.
- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- Set the registration name to the same as the extension number for the extension that will be assigned to the IP phone (Path: **Extension and Trunk > Extension** > **User > Extension Information**).

  > **Important:**

> Due to the IP phone's limitation, the extension's **Registration Name** must be the same as the **Extension Number**; otherwise, the registration will FAIL.



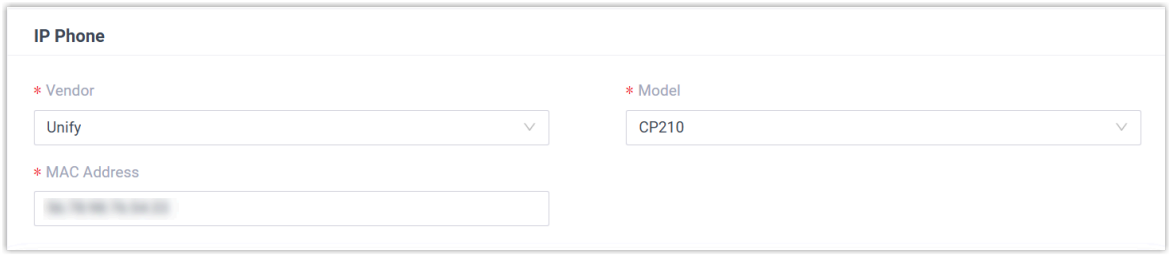
Procedure

- Step 1. Add the Unify IP phone on PBX
- Step 2. Configure DHCP option 66 on DHCP server

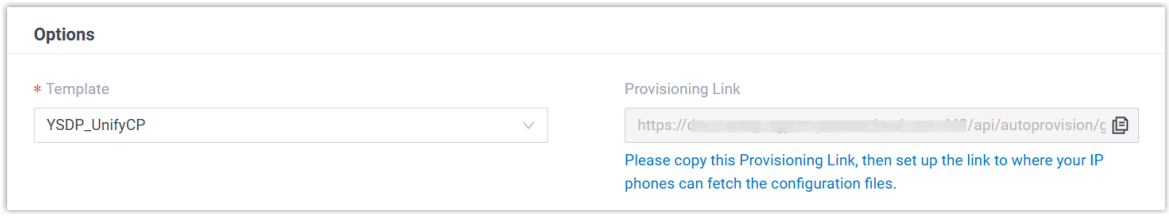
Step 1. Add the Unify IP phone on PBX

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 **Unify**.
   - **Model**: Select the phone model. In this example, select **CP210**.
   - **MAC Address**: Enter the MAC address of the IP phone.
4. In the **Options** section, configure the following 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 and displayed in this field. This provisioning link 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**.

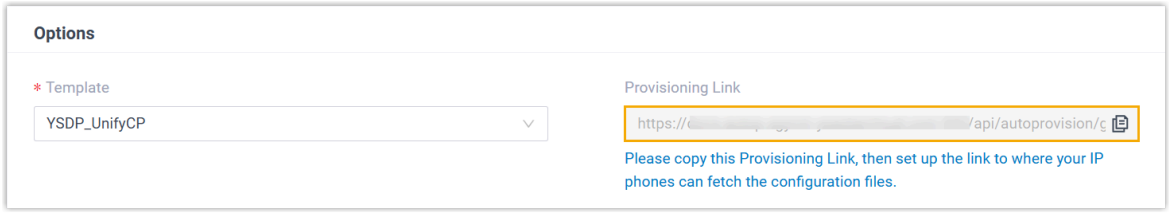
   The IP phone is added and displayed in the Auto Provisioning phone list.

Step 2. Configure DHCP option 66 on DHCP server

In this example, a DHCP server is set up in the IP phone's network to deliver the provisioning link (obtained from the PBX) to the phone.

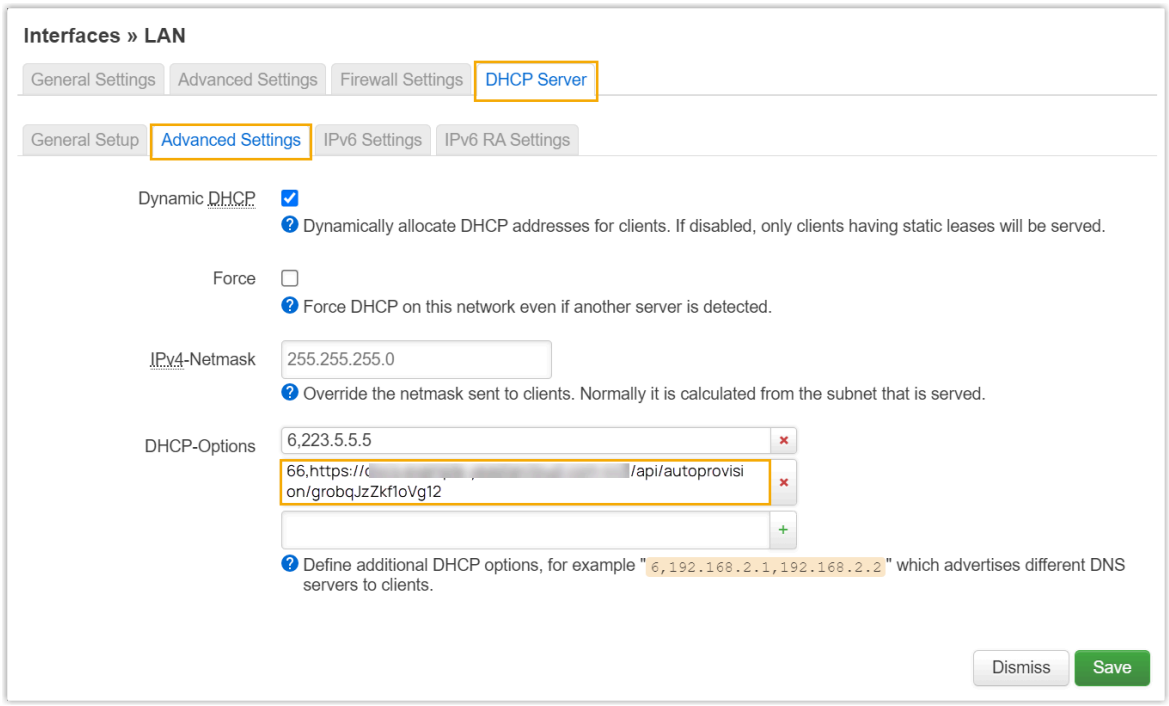
> **Note:**
> This method is suitable for bulk provisioning. For a single device, you can manually enter the provision link in the phone's web interface.

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



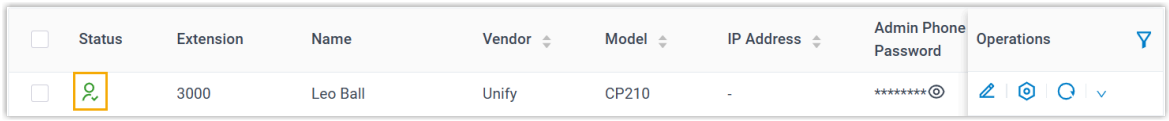
2. On the DHCP server, set up option 66 with the provisioning link.

   In this example, the configuration is shown below:



Results

- After rebooting the IP phone, 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.


Status
Extension
Name
Vendor
Model
IP Address
Admin Phone Password
Operations
3000
Leo Ball
Unify
CP210
-
****

Flat-phone

Provision Flat-Phone with Yeastar P-Series Cloud Edition

This topic takes Flat-phone B10 (firmware: 15.66.7.12.234) as an example to introduce how to provision Flat-phone with Yeastar P-Series Cloud Edition.

Requirements

The firmwares of **Flat-phone** and **Yeastar PBX** meet the following requirements.

Model	Phone Requirement	PBX Requirement
B6	15.63.11.12.234 or later	84.19.0.110 or later
B10	15.66.7.12.234 or later	84.19.0.110 or later
C10	15.60.11.12.234 or later	84.19.0.110 or later

Prerequisites

- Prepare a DHCP server to provide IP address for the IP phone.

  > **Note:**
  > 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.

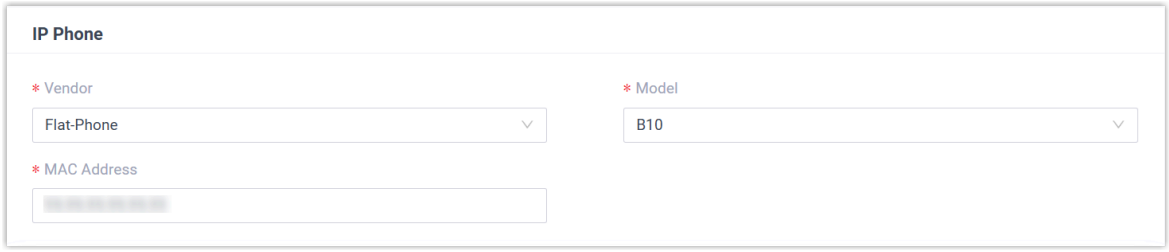
- Make sure that you have downloaded the template for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- RESET the IP phone if it is previously used.
- Gather information of the IP phone, including Vendor, Model, and MAC address.

Procedure

Step 1. Add the Flat-phone on PBX

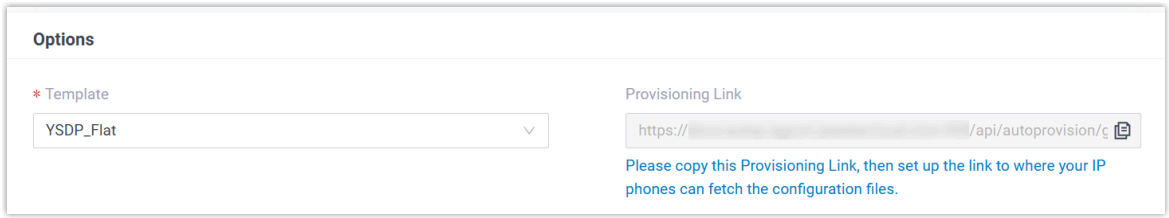
Add the IP phone on PBX. The PBX will generate a configuration file based on the phone's MAC address.

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:



   - **Vendor**: Select **Flat-Phone**.
   - **Model**: Select a phone model. In this example, select **B10**.
   - **MAC Address**: Enter the MAC address of the IP phone.

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

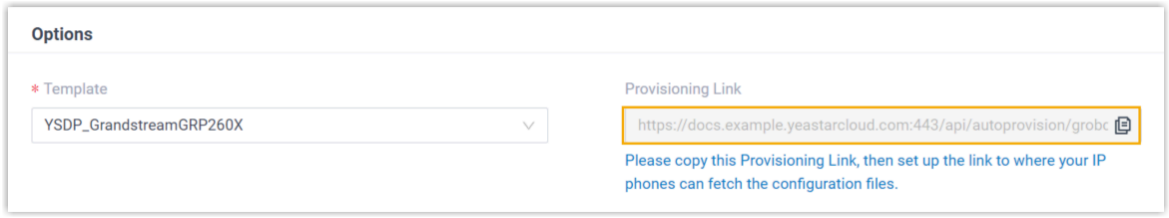
> **Tip:**
> If your desired extension is not listed in the drop-down list, it indicates that the extension has been associated with an IP phone.
> - To release the extension from the associated IP phone, see Release an Extension from a Provisioned IP Phone.
> - To register the extension to the phone 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

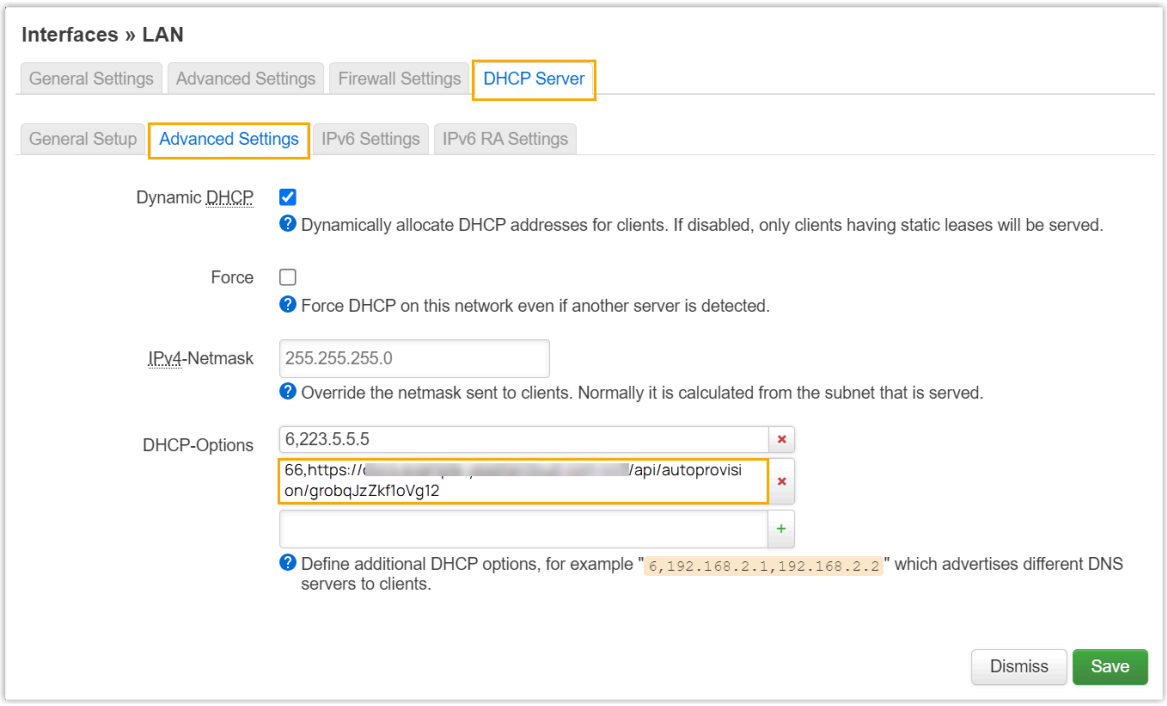
In the subnet where the IP phone is deployed, use the generated provisioning link to configure option 66 on the DHCP Server.

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



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

   In this example, the configuration is shown below:



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.