

IP Phone Configuration Guide

Yeastar P-Series Software Edition

Version: v1

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Overview

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

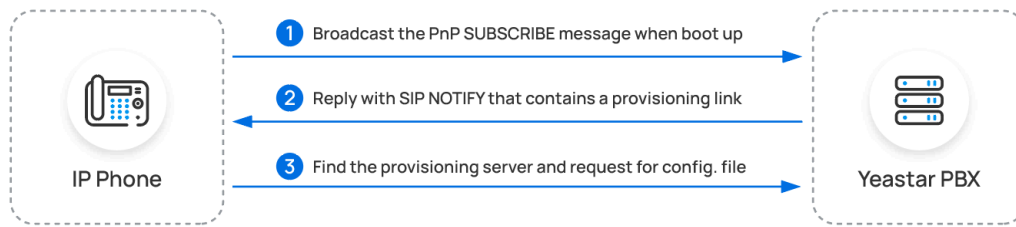
Auto Provisioning

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

PnP (Plug and Play) method

If your IP phone is deployed in the SAME subnet as the PBX and supports PnP provisioning, you can auto provision the phone via **PnP** method.

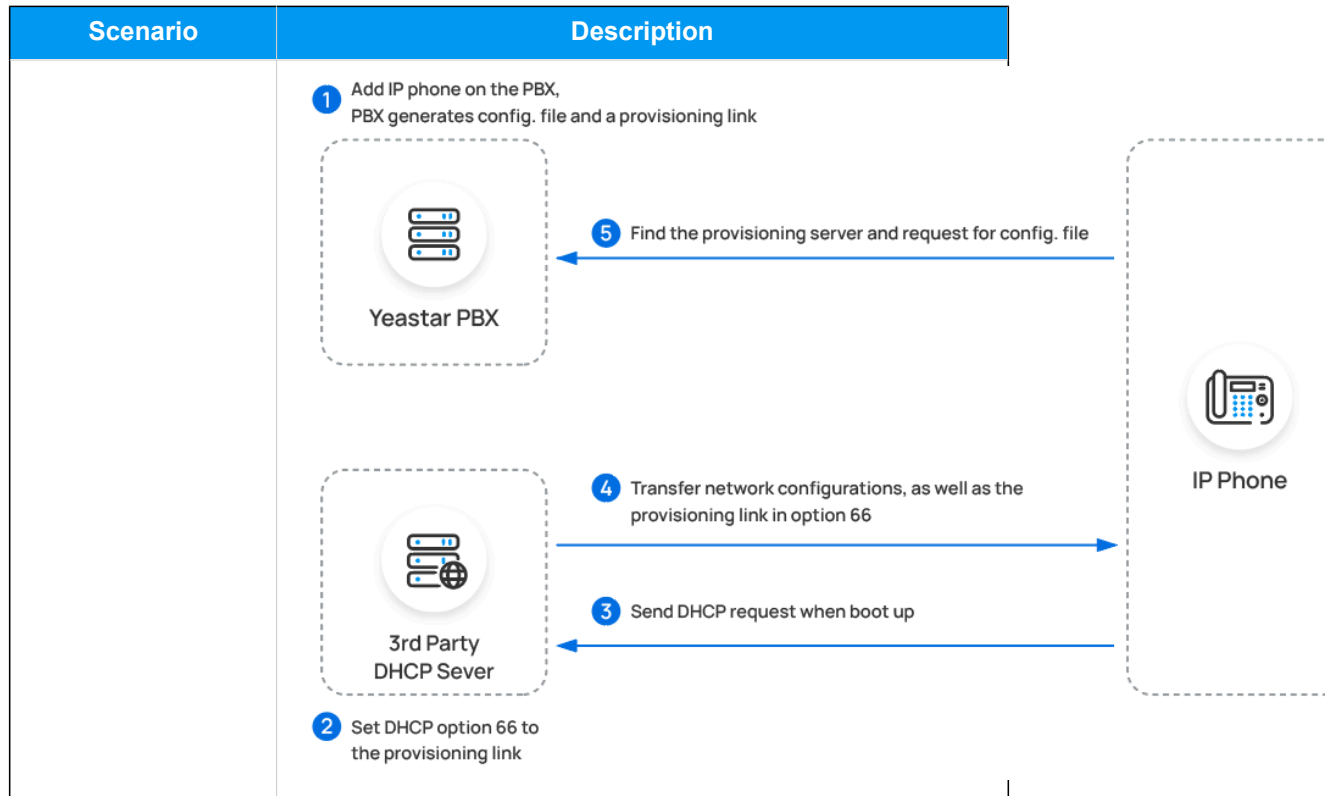
The provisioning process is shown below.



DHCP method

According to the network environment of IP phone and Yeastar PBX, you can auto provision IP phones using the PBX's built-in DHCP server or a third-party DHCP server:

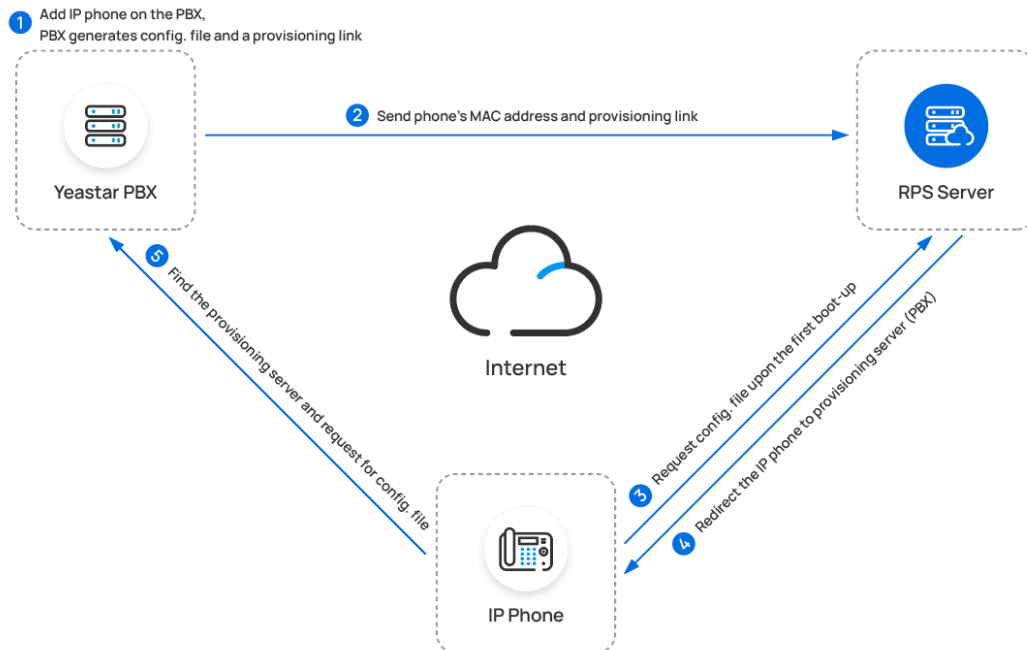
| Scenario | Description |
|---|---|
| IP phone is deployed in the SAME subnet as the PBX, but does NOT support PnP provisioning | <p>In this scenario, you can use the PBX's built-in DHCP server. The provisioning process is shown below:</p> <p>The diagram illustrates the DHCP provisioning process using the PBX's built-in DHCP server. The process consists of five steps:</p> <ol style="list-style-type: none"> 1 Add IP phone on the PBX, PBX generates config. file and a provisioning link: The PBX generates a configuration file and a provisioning link. 2 The DHCP option 66 is set to the provisioning link automatically: The DHCP option 66 is set to the provisioning link automatically. 3 Send DHCP request when boot up: The IP Phone sends a DHCP request when it boots up. 4 Transfer network configurations, as well as the provisioning link in option 66: The PBX Built-in DHCP Server transfers network configurations and the provisioning link in option 66 to the IP Phone. 5 Find the provisioning server and request for config. file: The IP Phone finds the provisioning server and requests a configuration file. |
| IP phone and PBX are deployed in DIFFERENT subnets | <p>In this scenario, you can use a third-party DHCP server. The provisioning process is shown below:</p> |



RPS (Redirection and Provisioning Service) method

If your IP phone is deployed in remote network, you can provision the phone via **RPS** method, either using public IP address or Yeastar FQDN of the PBX.

The provisioning process is shown below:



Manual Provisioning

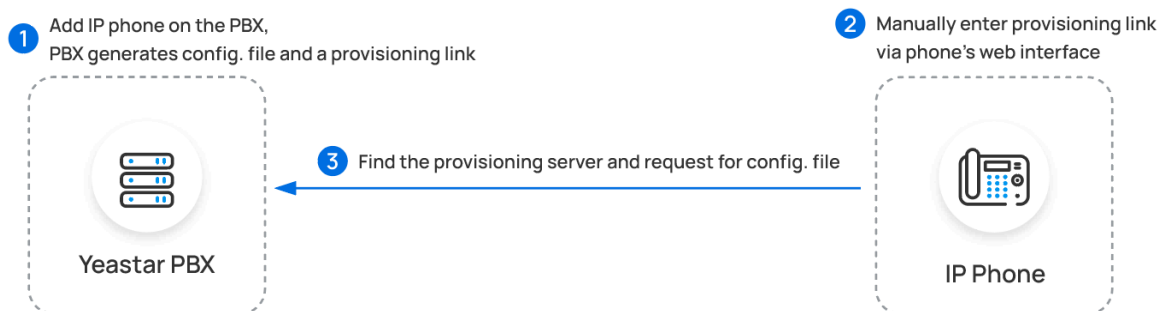
For an IP phone that does NOT support **RPS** provisioning, you can manually provision the IP phone with Yeastar PBX by entering a PBX-provided provisioning link on the phone's web interface.



Note:

Use the DHCP option 66 if you need to provision a large number of identical IP phones.

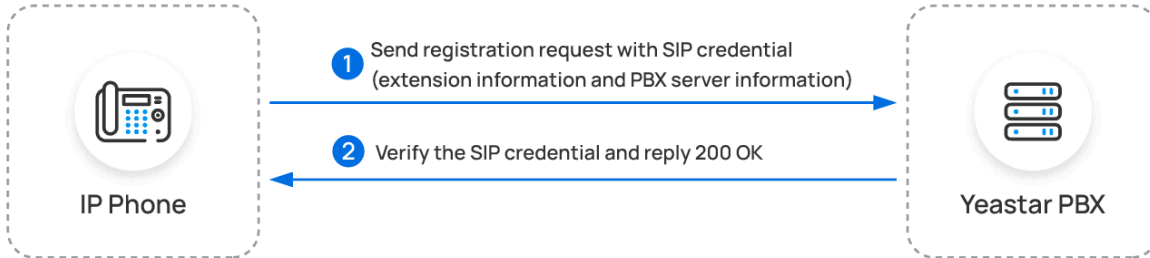
The provisioning process is shown below:



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.

| | | |
|---|---|---|
|  Auto Provisioning Manual Registration |  Auto Provisioning Manual Registration |  Auto Provisioning |
|  Auto Provisioning |  Auto Provisioning Manual Registration |  Auto Provisioning |
|  Auto Provisioning Manual Registration |  Auto Provisioning Manual Registration |  Auto Provisioning Manual Registration |
|  Auto Provisioning Manual Registration |  Auto Provisioning Manual Registration |  Auto Provisioning |

| | | |
|---|---|---|
| | | Manual Registration |
|  Auto Provisioning Manual Registration |  Auto Provisioning Manual Registration |  Auto Provisioning Manual Registration |
|  Auto Provisioning |  Auto Provisioning |  Provisioning |
|  Auto Provisioning | | |

Yealink

Auto Provision Yealink IP Phone with Yeastar P-Series Software 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 Software 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 | Supported Auto Provisioning Method |
|-------|---------------------|---------------------|---|
| AX83H | 180.86.0.5 or later | 83.16.0.25 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| AX86R | 180.86.0.5 or later | 83.18.0.59 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| CP920 | 78.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| CP925 | 148.86.0.5 or later | 83.5.0.9 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------------|----------------------|---------------------|--|
| | | | <ul style="list-style-type: none"> • Provision Link |
| CP960 | 73.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| CP965 | 143.86.0.5 or later | 83.5.0.9 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-CP935W | 149.86.0.5 or later | 83.5.0.9 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T19P_E2 | 53.84.0.125 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T20P | 9.73.0.50 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T21_E2 | 52.84.0.125 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T21P_E2 | 52.84.0.125 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T22P | 7.73.0.50 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T23G | 44.84.0.125 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T23P | 44.84.0.125 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|----------|----------------------|---------------------|--|
| SIP-T26P | 6.73.0.50 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T27G | 69.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T28P | 2.73.0.50 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T29G | 46.83.0.120 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T30 | 124.85.0.15 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T30P | 124.85.0.15 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T31 | 124.85.0.15 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T31G | 124.85.0.15 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T31P | 124.85.0.15 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T31W | 124.86.0.75 or later | 83.11.0.56 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T32G | 32.70.0.125 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|----------|----------------------|---------------------|--|
| | | | <ul style="list-style-type: none"> • DHCP • Provision Link |
| SIP-T33G | 124.85.0.15 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T33P | 124.85.0.15 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T34W | 124.86.0.75 or later | 83.12.0.23 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T38G | 38.70.0.185 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T40G | 76.84.0.125 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T40P | 54.84.0.125 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T41P | 36.83.0.120 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T41S | 66.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T41U | 108.85.0.39 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T42G | 29.83.0.120 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|----------|----------------------|---------------------|--|
| SIP-T42S | 66.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T42U | 108.85.0.39 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T43U | 108.85.0.39 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T44U | 108.86.0.90 or later | 83.10.0.32 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T44W | 108.86.0.90 or later | 83.10.0.32 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T46G | 28.83.0.120 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T46S | 66.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T46U | 108.85.0.39 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T48G | 35.83.0.120 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T48S | 66.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T48U | 108.85.0.39 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|----------|----------------------|---------------------|--|
| | | | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| SIP-T52S | 70.84.0.70 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T53 | 96.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T53W | 96.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T54S | 70.84.0.70 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T54W | 96.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T56A | 58.83.0.15 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T57W | 96.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T58 | 58.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T58W | 150.86.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T73W | 185.87.0.15 or later | 83.19.0.70 or later | <ul style="list-style-type: none"> • PnP • DHCP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|----------|----------------------|---------------------|--|
| | | | <ul style="list-style-type: none"> • RPS • Provision Link |
| SIP-T73U | 185.87.0.15 or later | 83.19.0.70 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T74W | 185.87.0.15 or later | 83.19.0.70 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T74U | 185.87.0.15 or later | 83.19.0.70 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T77U | 185.87.0.15 or later | 83.19.0.70 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T85W | 185.87.0.15 or later | 83.19.0.70 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T87W | 185.87.0.15 or later | 83.19.0.70 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T88W | 192.87.0.5 or later | 83.19.0.70 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T88V | 192.87.0.5 or later | 83.19.0.70 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| T64LTE | 132.86.0.25 or later | 83.16.0.71 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| T67LTE | 132.86.0.35 or later | 83.16.0.71 or later | <ul style="list-style-type: none"> • PnP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|--------------------------------------|----------------------|---------------------|--|
| | | | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| VP59 | 91.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| W60B (W53P, W41P, W60P, CP930W-Base) | 77.83.0.85 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| W70B (W79P, W76P, W73P) | 146.85.0.20 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| W75DM | 175.85.0.5 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| W80B | W80DM-103.83.0.80 | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| W90DM | 130.85.0.15 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |

Scenarios

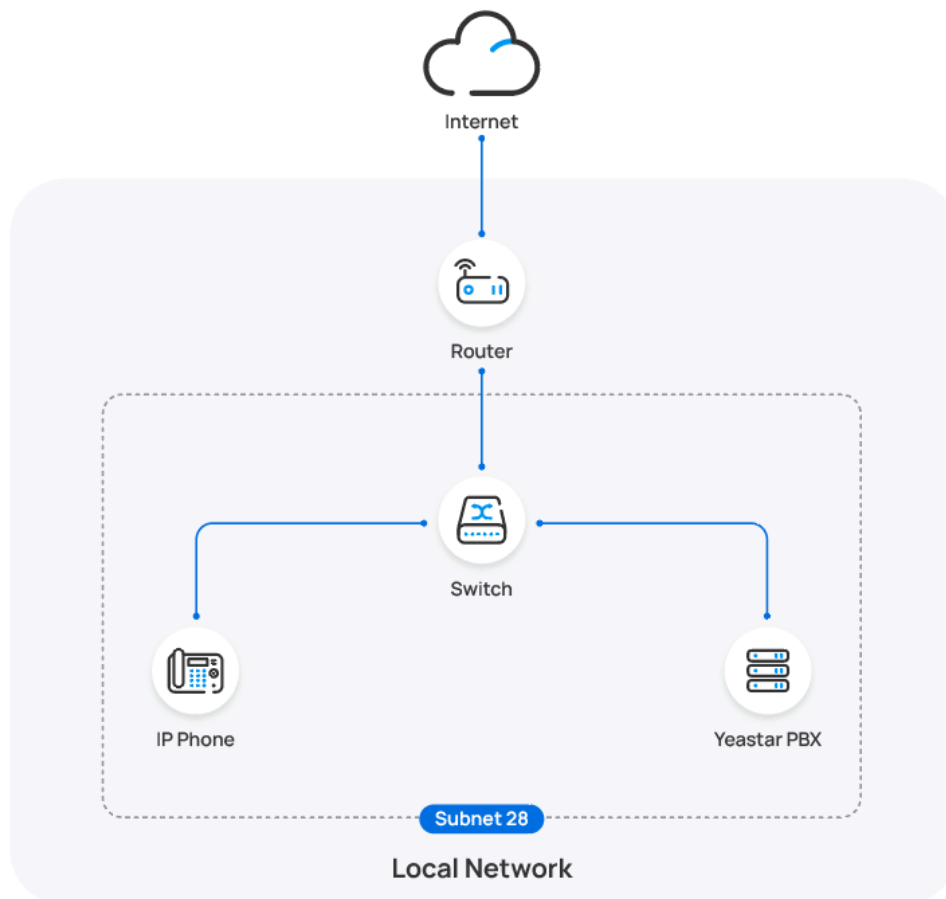
The provisioning methods and operations vary depending on the network environment of **Yealink IP Phone** and **Yeastar PBX**, as the following table shows.

| Scenario | Description |
|---|---|
| IP Phone and PBX are in the SAME subnet (LAN) | <p>In this scenario, you can provision the Yealink IP phone with the PBX via PnP method.</p> <p>For more information, see Auto provision a Yealink IP phone in the same subnet (PnP).</p> |

| Scenario | Description |
|---|--|
| IP Phone and PBX are in DIFFERENT subnets (LAN) | In this scenario, you can provision the Yealink IP phone with the PBX via DHCP method . For more information, see Auto provision a Yealink IP phone in the different subnets (DHCP) . |
| IP Phone and PBX are in DIFFERENT network | In this scenario, you can provision the Yealink IP phone with the PBX via RPS method . For more information, see Auto provision a Yealink IP phone in remote network (RPS) . |

Auto provision a Yealink IP phone in the same subnet (PnP)

In this example, the Yealink IP phone (IP: 192.168.28.192) and the Yeastar PBX (IP: 192.168.28.39) are both deployed in subnet 28.




Prerequisites






- Make sure that you have [downloaded the template](#) for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- If the IP phone is previously used, you need to RESET the IP phone, then re-configure the network settings for the phone.

Procedure

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

The IP phones detected by the PBX via PnP are displayed in the phone list.

2. Click  beside the Yealink IP phone.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|---|------------|------------|---------|----------|----------------|-------------|---|
| <input type="checkbox"/> |  | Unassigned | Unassigned | Yealink | SIP-T53W | 192.168.28.192 | - |     |

3. **Optional:** In the **Options** section, select a desired template from the **Template** 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](#).

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

Assign Extension

* Select Extension

3000-Leo Ball



Note:

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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).



- To assign the extension to the phone without releasing it from the previously associated device, you can [configure the concurrent registration setting for the extension](#), as the PBX only allows an extension to register with one SIP endpoint by default.


5. Click **Save**.

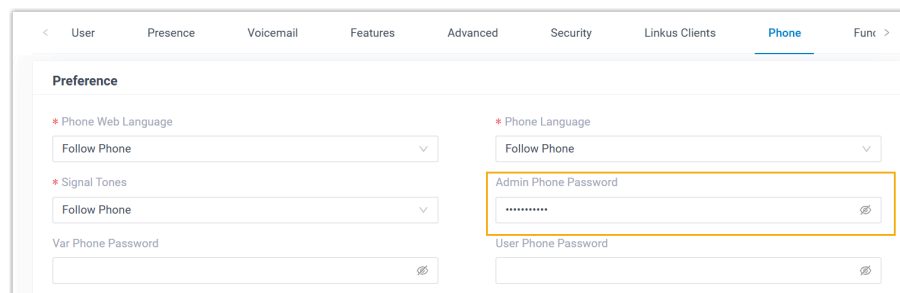
6. Set a password for Admin account.



Note:

If [automatic random password generation for phones](#) is enabled, this step can be skipped.

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



The screenshot shows the 'Preference' section of the PBX web portal. It includes tabs for User, Presence, Voicemail, Features, Advanced, Security, Linkus Clients, and Phone. The 'Phone' tab is selected. Under the 'Preference' heading, there are several fields: 'Phone Web Language' (set to 'Follow Phone'), 'Phone Language' (set to 'Follow Phone'), 'Signal Tones' (set to 'Follow Phone'), 'Var Phone Password', 'Admin Phone Password' (highlighted with a yellow box and containing a masked password), and 'User Phone Password'.

c. Click **Save**.

Result



Note:

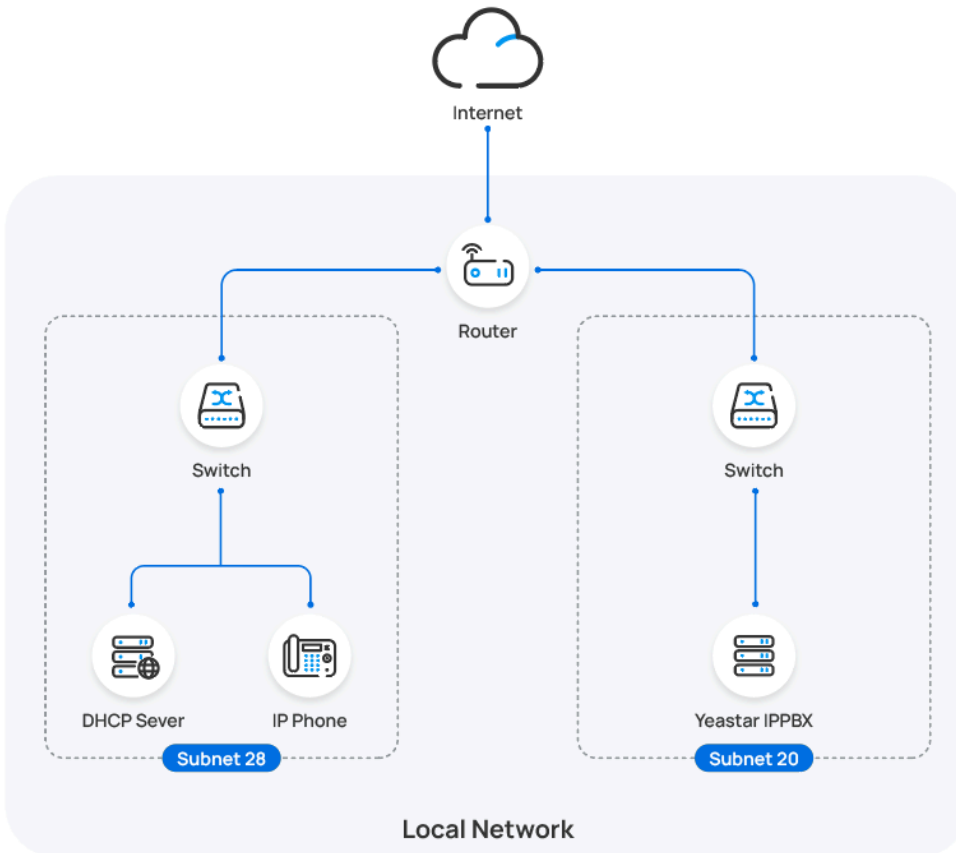
Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

- 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** in PBX web portal.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|--------|-----------|----------|---------|----------|----------------|-------------|------------|
| <input type="checkbox"/> | | 3000 | Leo Ball | Yealink | SIP-T53W | 192.168.28.192 | - | |

Auto provision a Yealink IP phone in the different subnets (DHCP)

In this example, the Yealink IP phone and a DHCP server are deployed in subnet 28, while the Yeastar PBX (IP: 192.168.20.58) is deployed in subnet 20.



Prerequisites

- Make sure that there is only one DHCP server running in the subnet where the IP phone is deployed, or the IP phone would fail to obtain an IP address.
- Make sure that the IP phone and PBX can communicate with each other over the subnets.

- 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.

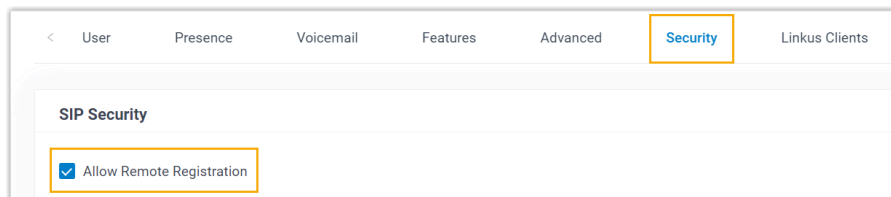
Procedure

- [Step 1. Enable Remote Registration feature for the extension on PBX](#)
- [Step 2. Add the Yealink IP phone on PBX](#)
- [Step 3. Configure DHCP option 66 on DHCP server](#)

Step 1. Enable Remote Registration feature for the extension on PBX

Enable the Remote Registration feature for the extension to be assigned to the phone, so that the extension can be registered in a different subnet.

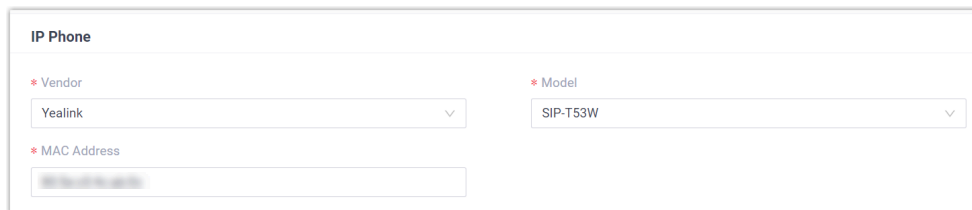
1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, edit the desired extension.
2. Click **Security** tab, select the checkbox of **Allow Remote Registration** in the **SIP Security** section.



3. Click **Save** and **Apply**.

Step 2. Add the Yealink IP phone on PBX

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



IP Phone

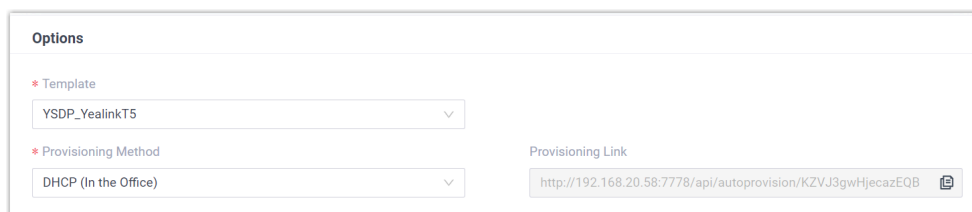
* Vendor: Yealink

* Model: SIP-T53W

* MAC Address: [blurred]

- **Vendor:** Select **Yealink**.
- **Model:** Select the phone model. In this example, select **SIP-T53W**.
- **MAC Address:** Enter the MAC address of the IP phone.

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



Options

* Template: YSDP_YealinkT5

* Provisioning Method: DHCP (In the Office)

Provisioning Link: http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB

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



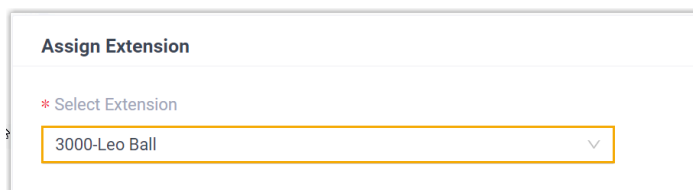
Note:

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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.



Assign Extension

* Select Extension: 3000-Leo Ball



Note:



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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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**.

7. Set a password for Admin account.



Note:

If [automatic random password generation for phones](#) is enabled, this step can be skipped.

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

The screenshot shows the 'Preference' section of the PBX web portal. It contains several settings: 'Phone Web Language' (set to 'Follow Phone'), 'Phone Language' (set to 'Follow Phone'), 'Signal Tones' (set to 'Follow Phone'), 'Var Phone Password', and 'Admin Phone Password'. The 'Admin Phone Password' field is highlighted with a yellow box and contains a masked password (*****). There is also a 'User Phone Password' field at the bottom right.

c. Click **Save**.

Step 3. 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.

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

Options

* Template
YSDP_YealinkT5

* Provisioning Method
DHCP (In the Office)

Provisioning Link
http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB

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

In this example, the configuration on a router's DHCP server is shown below.

Interfaces » LAN

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

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

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

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

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

DHCP-Options

6,223.5.5.5

66,http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB

Define additional DHCP options, for example "6,192.168.2.1,192.168.2.2" which advertises different DNS servers to clients.

Dismiss Save

Result



Note:

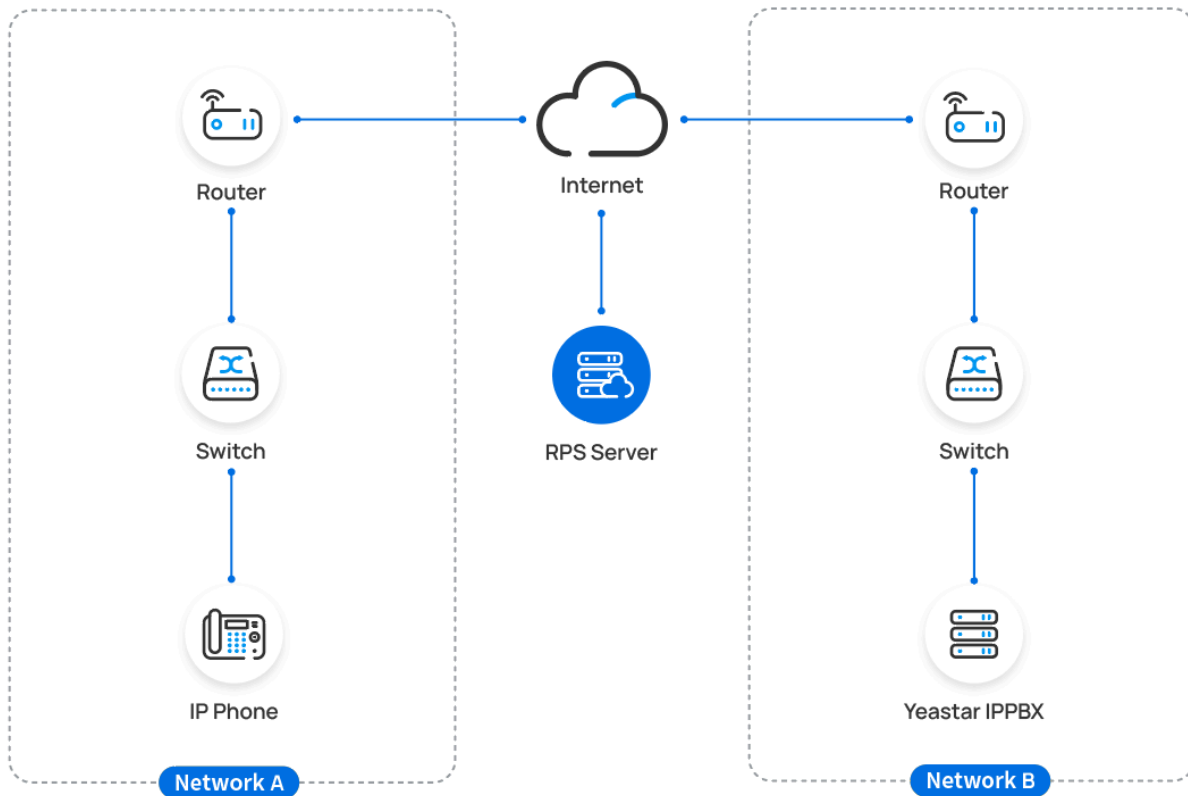
Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

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

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|--------|-----------|----------|---------|----------|------------|-------------|------------|
| <input type="checkbox"/> | | 3000 | Leo Ball | Yealink | SIP-T53W | - | - | |

Auto provision a Yealink IP phone in remote network (RPS)

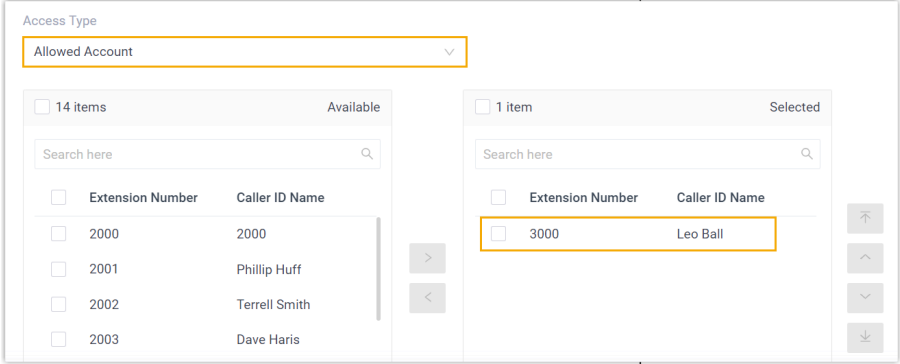
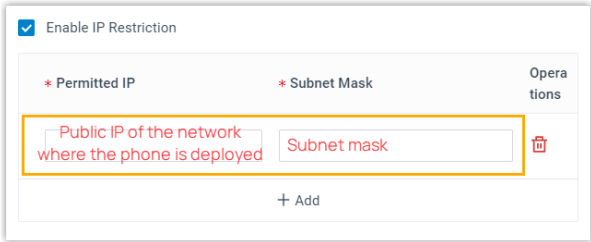
In this example, the Yealink IP phone and the Yeastar PBX are deployed in different network.



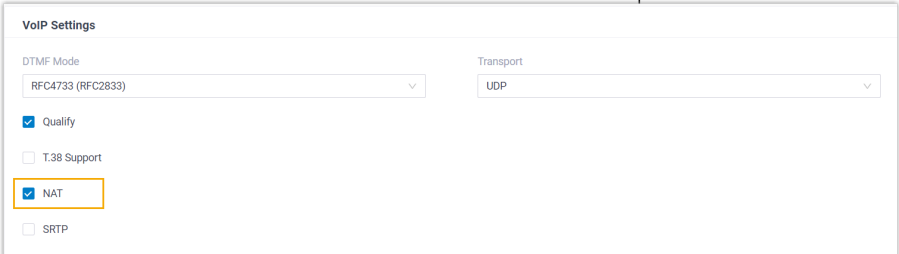

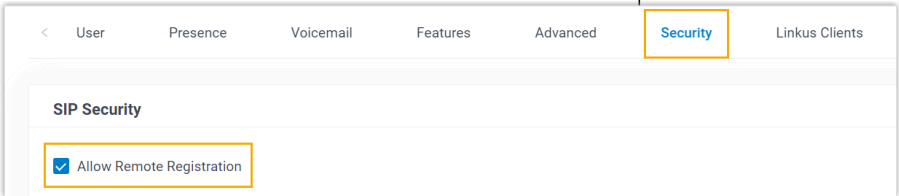


Prerequisites

Yeastar P-Series Software Edition supports to auto provision a Yealink phone remotely either using **Yeastar FQDN** or using **Public IP address / domain name**. According to the provisioning method you intend to use, make sure that you have completed the corresponding setup shown below.

| Method | Setting |
|--------------------|--|
| Using Yeastar FQDN | <ul style="list-style-type: none"> Subscribe to Enterprise Plan or Ultimate Plan for the PBX and ensure the FQDN is available. Grant remote access permission for extension to be registered and the remote IP phones: |

| Method | Setting |
|---|---|
| | <ul style="list-style-type: none"> ◦ Grant remote SIP access permission for the extension, so that the extension can be registered remotely via FQDN (Path: System > Network > Yeastar FQDN > Features > SIP Access).  <ul style="list-style-type: none"> ◦ If you have enabled IP restriction for Yeastar FQDN remote Web access, make sure that you have added the phone's IP address to the permitted IP list, so that the phone can obtain configuration files from the PBX (Path: System > Network > Yeastar FQDN > Features > Remote Access > Web Access).  <ul style="list-style-type: none"> • 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. |
| Using Public IP address / external host / Yeastar domain name | <ul style="list-style-type: none"> • Configure PBX network for remote access by a public IP address, by an external host domain name, or by a Yeastar domain name. <div style="background-color: #fff9c4; padding: 10px; border: 1px solid #f0e68c;"> <p>Important:</p> <p>The following PBX ports MUST be forwarded for RPS provisioning.</p> <ul style="list-style-type: none"> ◦ RTP ports ◦ SIP port </div> |

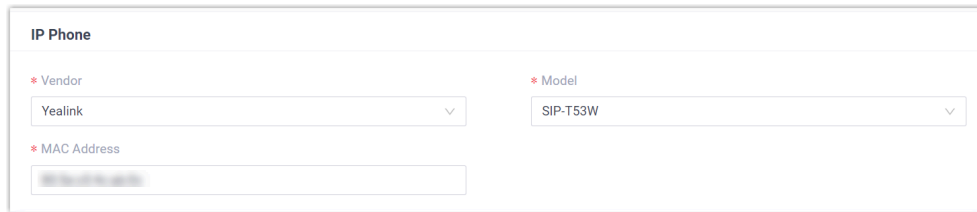
| Method | Setting |
|--------|--|
| | <div>  <ul style="list-style-type: none"> ◦ Web Server port </div> <ul style="list-style-type: none"> • Set up the extension for remote registration. <ul style="list-style-type: none"> ◦ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT). <div>  </div> <ul style="list-style-type: none"> ◦ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration). <div>  </div> <ul style="list-style-type: none"> • 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 Yealink IP phone on PBX](#)
- [Step 2. Trigger the IP phone to complete provisioning](#)

Step 1. Add the Yealink IP phone on PBX

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



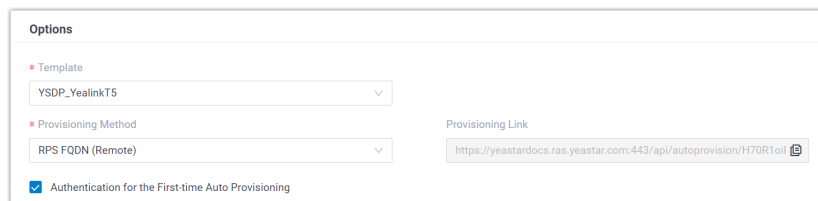
The form is titled "IP Phone". It contains three fields:

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

- **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.

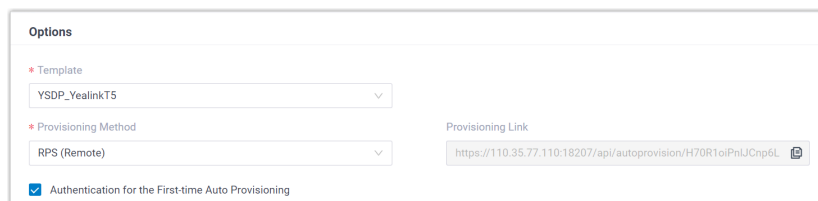
Figure 1. **RPS using Yeastar FQDN**



The form is titled "Options". It contains the following fields:

- * Template:** A dropdown menu with "YSDP_YealinkT5" selected.
- * Provisioning Method:** A dropdown menu with "RPS FQDN (Remote)" selected.
- Provisioning Link:** A text input field containing the URL "https://yeastardocs.ras.yeastar.com:443/api/autoprovision/H70R1oi".
- ☒ **Authentication for the First-time Auto Provisioning**

Figure 2. **RPS using Public IP Address / External Host domain name / Yeastar Domain**



The form is titled "Options". It contains the following fields:

- * Template:** A dropdown menu with "YSDP_YealinkT5" selected.
- * Provisioning Method:** A dropdown menu with "RPS (Remote)" selected.
- Provisioning Link:** A text input field containing the URL "https://110.35.77.110:18207/api/autoprovision/H70R1oiPnJCnp6L".
- ☒ **Authentication for the First-time Auto Provisioning**

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



Note:

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

- **Provisioning Method:** Select **RPS FQDN (Remote)** or **RPS (Remote)** according to your need.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link points to the location where the phone's configuration file is stored.

- **Authentication for the First-time Auto Provisioning:** If enabled, users are requested to fill in authentication information on the IP phones before triggering the first-time provisioning.

**Note:**

We recommend that you keep this option selected.

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

Assign Extension

* Select Extension

3000-Leo Ball

**Note:**

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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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.

The screenshot shows the 'Phone' configuration page in a web interface. The 'Preference' section contains several settings. The 'Admin Phone Password' field is highlighted with a yellow border, indicating it is the current focus for configuration.

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.



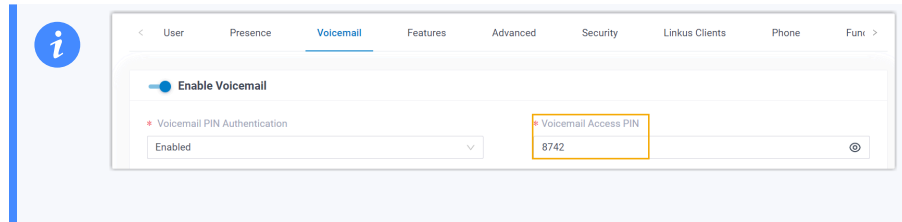
The dialog box titled 'Invalid Provisioning Credential' is shown. It has two input fields labeled 'Username:' and 'Password:'. At the bottom, there are two buttons: 'Back' and 'OK'.

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



Tip:

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



Result

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

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|--------|-----------|----------|---------|----------|------------|-------------|------------|
| <input type="checkbox"/> | | 3000 | Leo Ball | Yealink | SIP-T53W | - | - | |

Related information

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

[Auto Provision LDAP for IP Phones](#)

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

[Auto Provision Yealink DECT Phones with Yeastar P-Series Software Edition](#)

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

This topic takes Yealink T53W as an example to describe how to provision Yealink expansion module with Yeastar P-Series Software 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) |

| Expansion Module | Phone model | Phone provisioning template |
|------------------|--|-----------------------------------|
| | 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 Software 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 Software Edition supports to add up to **120** function keys on PBX web portal.

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

c. Click **Add** to add and configure function keys for the expansion module.



Note:

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

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

[+ Add](#)

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

d. Click **Save**.

2. Reprovision the IP phone.

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

b. Click  beside the phone.

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

Provision function keys for Yealink expansion module using auto provisioning template

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



Important:



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

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

**Note:**

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

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


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

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

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

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

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

2. Apply the template to the phone.
 - a. On PBX web portal, go to **Auto Provisioning > Phones**, edit the desired phone.
 - b. In the **Options** section, select the template from the **Template** drop-down list.
 - c. Click **Save**.
3. Reprovision the IP phone.
 - a. On PBX web portal, go to **Auto Provisioning > Phones**.
 - b. Click  beside the phone.
 - c. In the pop-up window, click **OK**.

Auto Provision Yealink DECT Phones with Yeastar P-Series Software Edition

This topic describes how to provision Yealink DECT base station and DECT handsets with Yeastar P-Series Software Edition in the local network.

Requirements

The firmwares of **Yealink base station** and **Yeastar PBX** meet the following requirements.



Note:

For more information about the compatible **Yealink DECT handsets**, see [Compatibility between Yealink DECT products](#).

| Base Station | Version Requirement | PBX Requirement | Supported Auto Provisioning Method |
|--------------|----------------------------|--------------------|--|
| W60B | 77.83.0.85 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| W70B | 146.85.0.20 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| W80B | W80DM-103.83.0.80 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |

This topic takes the following Yealink devices as an example:

| Device Model | Firmware Version |
|----------------------------------|------------------|
| Yealink DECT base station | |
| Yealink W70B | 146.85.0.20 |
| Yealink DECT handset | |
| Yealink W73H | 116.85.254.20 |

Prerequisites

- Make sure that a DHCP Server is enabled in your local network to assign an IP address to the DECT base.
- Make sure that you have [downloaded the template](#) for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).

Procedure

- [Step1. Provision the DECT base station](#)
- [Step2. Register the DECT handset](#)

Step1. Provision the DECT base station

1. Power on PBX first, then power on the DECT base.
2. Log in to PBX web portal, go to **Auto Provisioning > Phones**.

The DECT base is detected.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Password | Template | Firmware Version | MAC Address | Operations |
|--------------------------|--------|-----------|------|---------|-------|----------------|----------------|------------|------------------|-------------------|------------|
| <input type="checkbox"/> | + | ... | ... | Yealink | W70B | 192.168.66.201 | - | Docs_test0 | 146.85.0.20 | 80:5e:0c:18:30:22 | |

3. Click to edit the desired DECT base station.
 - a. In the **Options** section, select a desired template from the **Template** drop-down list.
 - b. In the **Assign Extension** section, assign an extension for the DECT handset.

Assign Extension

Handset ID Range

Start Extension

End Extension

Assign Extension

| Handset | Extension |
|---|-----------|
| <input checked="" type="checkbox"/> Handset 1 | 1001 |

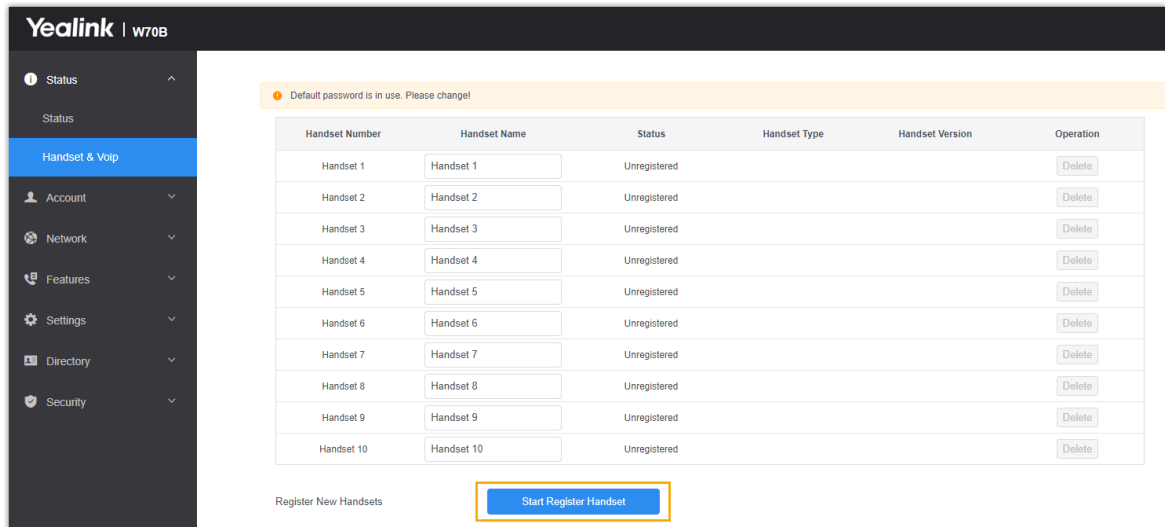
- c. Configure other settings according to your needs.
4. Click **Save**.

The handset is listed under the DECT base station.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Password | Template | Firmware Version | MAC Address | Operations |
|--------------------------|--------|-----------|-----------|---------|-------|----------------|----------------|-----------------|------------------|-------------------|------------|
| <input type="checkbox"/> | | ... | ... | Yealink | W70B | 192.168.66.201 | - | YSDP_YealinkW70 | 146.85.0.20 | 80:5e:0c:18:30:22 | |
| | | Handset | Extension | Name | | | | | | | |
| | | Handset 1 | 1001 | 1001 | | | | | | | |

Step2. Register the DECT handset

1. Click on the IP address beside the DECT base station to log in to the web interface.
2. Go to **Status > Handset & Voip** to register the handset.
3. In the **Register New Handsets** section, click **Start Register Handset**.



4. Confirm registration on DECT handset.

- a. On the handset, press **OK > Settings > Registration > Register Handset > OK**.

The handset starts to search for a DECT base, and displays the MAC address of the detected DECT base.

- b. Press **OK**.

You are requested to enter the PIN of the DECT base.

- c. Enter the PIN code, and press **Done**.



Note:

The default PIN is 0000. You can change the PIN on the DECT base web interface (Path: **Security > Base PIN**).

Base Unit PIN

Current Base PIN ?

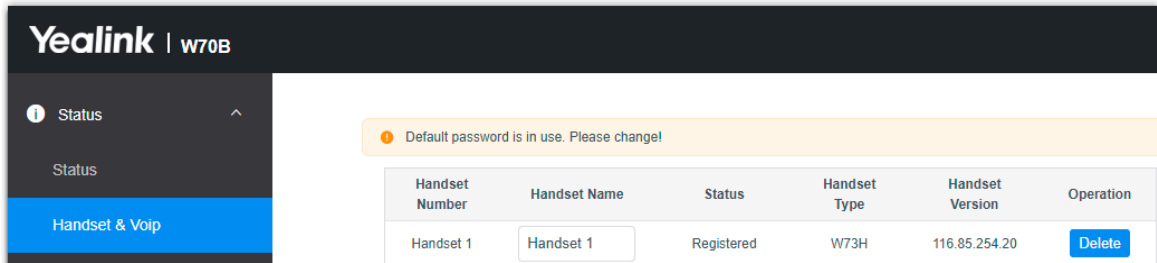
New Base PIN ?

Confirm Base PIN ?

The handset prompts **Handset Subscribed**, indicating that the handset is successfully registered.

Result

- You can manage the handset on the DECT base station web interface.



- You can use the handset as an extension to make and receive calls.

Provision Yealink IP Phones on Multiple Servers

When you want to conduct IP phone diagnostics and manage the IP phones on the Yealink device management platform, and assign extension, supply configuration files and upgrade device firmware for the IP phones on Yeastar P-Series Software Edition, you can provision the IP phones on both servers.

Applications

This topic is applied to the remote deployment of the following Yealink IP phones.

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------|---------------------|---------------------|--|
| AX83H | 180.86.0.5 or later | 83.16.0.25 or later | <ul style="list-style-type: none"> PnP DHCP RPS Provision Link |
| AX86R | 180.86.0.5 or later | 83.18.0.59 or later | <ul style="list-style-type: none"> PnP DHCP RPS Provision Link |
| CP920 | 78.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> PnP DHCP RPS Provision Link |
| CP925 | 148.86.0.5 or later | 83.5.0.9 or later | <ul style="list-style-type: none"> PnP DHCP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------------|----------------------|---------------------|--|
| | | | <ul style="list-style-type: none"> • RPS • Provision Link |
| CP960 | 73.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| CP965 | 143.86.0.5 or later | 83.5.0.9 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-CP935W | 149.86.0.5 or later | 83.5.0.9 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T19P_E2 | 53.84.0.125 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T20P | 9.73.0.50 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T21_E2 | 52.84.0.125 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T21P_E2 | 52.84.0.125 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T22P | 7.73.0.50 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T23G | 44.84.0.125 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T23P | 44.84.0.125 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|----------|----------------------|---------------------|--|
| | | | <ul style="list-style-type: none"> • Provision Link |
| SIP-T26P | 6.73.0.50 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T27G | 69.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T28P | 2.73.0.50 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T29G | 46.83.0.120 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T30 | 124.85.0.15 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T30P | 124.85.0.15 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T31 | 124.85.0.15 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T31G | 124.85.0.15 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T31P | 124.85.0.15 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T31W | 124.86.0.75 or later | 83.11.0.56 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|----------|----------------------|---------------------|--|
| SIP-T32G | 32.70.0.125 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T33G | 124.85.0.15 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T33P | 124.85.0.15 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T34W | 124.86.0.75 or later | 83.12.0.23 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T38G | 38.70.0.185 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T40G | 76.84.0.125 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T40P | 54.84.0.125 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T41P | 36.83.0.120 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T41S | 66.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T41U | 108.85.0.39 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T42G | 29.83.0.120 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|----------|----------------------|---------------------|--|
| | | | <ul style="list-style-type: none"> • Provision Link |
| SIP-T42S | 66.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T42U | 108.85.0.39 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T43U | 108.85.0.39 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T44U | 108.86.0.90 or later | 83.10.0.32 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T44W | 108.86.0.90 or later | 83.10.0.32 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T46G | 28.83.0.120 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T46S | 66.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T46U | 108.85.0.39 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T48G | 35.83.0.120 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T48S | 66.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|----------|----------------------|---------------------|--|
| SIP-T48U | 108.85.0.39 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T52S | 70.84.0.70 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T53 | 96.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T53W | 96.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T54S | 70.84.0.70 or later | 83.20.0.74 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| SIP-T54W | 96.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T56A | 58.83.0.15 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T57W | 96.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T58 | 58.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T58W | 150.86.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T73W | 185.87.0.15 or later | 83.19.0.70 or later | <ul style="list-style-type: none"> • PnP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|----------|----------------------|---------------------|--|
| | | | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| SIP-T73U | 185.87.0.15 or later | 83.19.0.70 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T74W | 185.87.0.15 or later | 83.19.0.70 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T74U | 185.87.0.15 or later | 83.19.0.70 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T77U | 185.87.0.15 or later | 83.19.0.70 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T85W | 185.87.0.15 or later | 83.19.0.70 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T87W | 185.87.0.15 or later | 83.19.0.70 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T88W | 192.87.0.5 or later | 83.19.0.70 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| SIP-T88V | 192.87.0.5 or later | 83.19.0.70 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| T64LTE | 132.86.0.25 or later | 83.16.0.71 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|--------------------------------------|----------------------|---------------------|--|
| T67LTE | 132.86.0.35 or later | 83.16.0.71 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| VP59 | 91.85.0.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| W60B (W53P, W41P, W60P, CP930W-Base) | 77.83.0.85 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| W70B (W79P, W76P, W73P) | 146.85.0.20 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| W75DM | 175.85.0.5 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| W80B | W80DM-103.83.0.80 | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| W90DM | 130.85.0.15 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |

Prerequisites

You have an account of the Yealink Device Management Platform.

Procedure

- [Step 1. Add IP phones on Yealink Device Management Platform](#)



Note:



If the IP phone is already added to the PBX, you need to remove it from PBX first.

- [Step 2. Add IP phones on the PBX](#)
- [Step 3. Configure global Auto Provisioning URL on Yealink Device Management Platform](#)

Step 1. Add IP phones on Yealink device management platform

1. Log in to the [Yealink Device Management Platform](#).
2. Go to **Device Management > Phone Device**, click **Add device** to add a phone.
 - a. Complete the following configurations.

Add device

Device Name:

* Site:

* Model:

* MAC:

* Machine ID: ⓘ

Bind Account (Up to 0)

+ Add
Before you add account, please enter the correct MAC

Synchronize to RPS: ⓘ
☒

Server name:

Unique Server URL:

Username:

OK Cancel



- **Device Name:** Specify a device name.
- **Site:** Select a site in the drop-down list.
- **Model:** Select the phone model in the drop-down list.
- **MAC:** Enter the MAC address of the IP phone.
- **Machine ID:** Enter the serial number of the IP phone.

- **Synchronize to RPS:** Enable this feature to synchronize the IP phone to RPS server.

b. Click **OK**.

3. Reboot the IP phone.

The phone is connected to the Device Management Platform, and the status displays "Online" on the platform.

| | | | | | | | | | | | | | | | | | |
|--------------------------|--------------|----------|--------------|---------------|------------------|--------|----------------|------------|---|--------|---------------|---------------------------|-----------------|----------------------|-------------|-------------|------|
| 0 selected | | | | | | | | | | Delete | Site Settings | Update Configuration File | Update Firmware | Update Resource File | Auto Update | Diagnostics | More |
| <input type="checkbox"/> | MAC | Model | Public IP | Private IP | Firmware Version | Status | Account Status | Site | Operation | | | | | | | | |
| <input type="checkbox"/> | 805ec04cab0c | SIP-T53W | 112.5.64.162 | 192.168.66.59 | 96.85.0.5 | Online | -- | DM_Testing |   | | | | | | | | |

Step 2. Add IP phones on the PBX

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

IP Phone

* Vendor

Yealink

* Model

SIP-T53W

* MAC Address

- **Vendor:** Select **Yealink**.
- **Model:** Select the phone model. In this example, select **SIP-T53W**.
- **MAC Address:** Enter the MAC address of the IP phone.

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

Options

* Template

YSDP_YealinkT5

* Provisioning Method

RPS (Remote)

Provisioning Link

https://112.5.64.162:18207/api/autoprovision/H70R1oiPhJCnp6L

☒ Authentication for the First-time Auto Provisioning

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



Note:



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

- **Provisioning Method:** Select **RPS (Remote)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link points to the location where the phone's configuration file is stored.

- **Authentication for the First-time Auto Provisioning:** If enabled, users are requested to fill in authentication information on the IP phones before triggering the first-time provisioning.



Note:

We recommend that you keep this option selected.

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

Assign Extension

* Select Extension

3000-Leo Ball



Note:

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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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**.

Configure global Auto Provisioning URL on Yealink Device Management Platform

1. Log in to [Yealink Device Management Platform](#).
2. Go to **Device Configuration > Global Parameter Settings**.
3. Paste the PBX provisioning link in the **Auto Provisioning URL**.

The screenshot displays two overlapping windows from the Yealink Device Management Platform. The top window, titled 'Options', shows the 'Template' set to 'YSDP_YealinkT5' and the 'Provisioning Method' set to 'RPS (Remote)'. A checkbox for 'Authentication for the First-time Auto Provisioning' is checked. The bottom window, titled 'Global Parameter Settings', shows the 'Auto Provisioning URL' field. A yellow box highlights the 'Provisioning Link' in the top window, and a dashed orange arrow points from this box to the 'Auto Provisioning URL' field in the bottom window, indicating that the link should be copied and pasted there.

4. Click **Save and update**.
5. In the pop-up dialog box, click **OK** to update the settings.

Manually Register Yealink IP Phone with Yeastar P-Series Software 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.


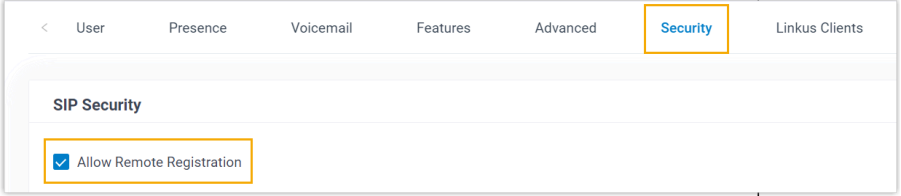
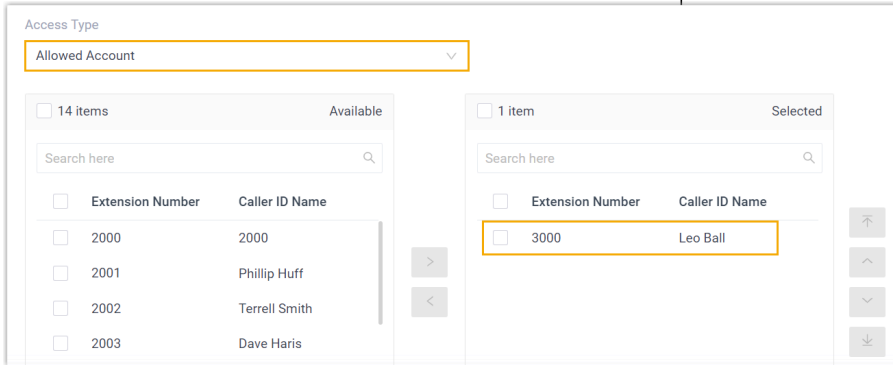

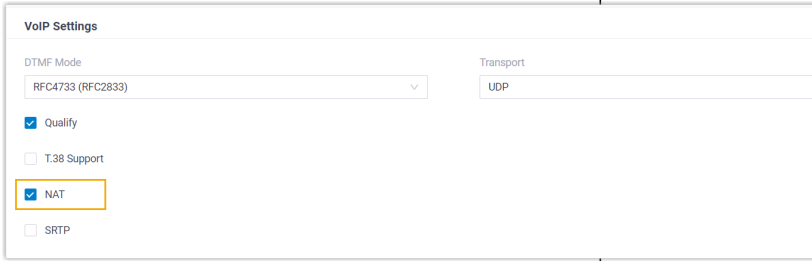

Supported devices

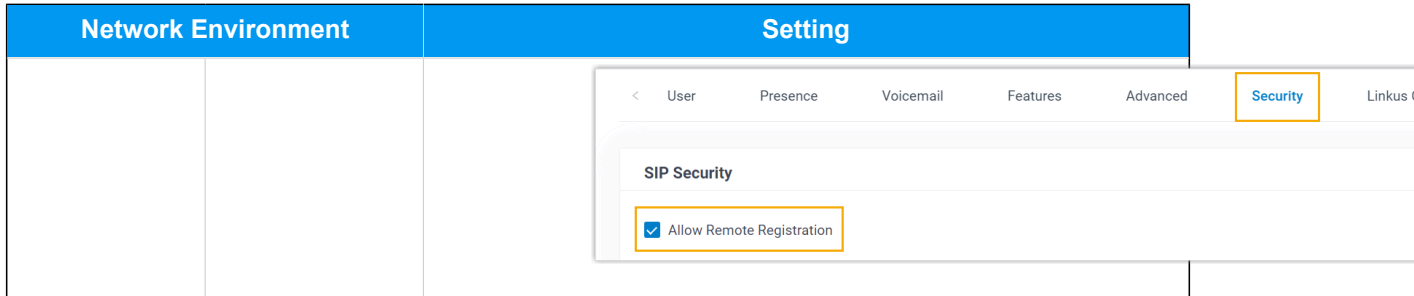
The Yealink IP phones that are compatible with SIP (Session Initiation Protocol).

Prerequisites

Make sure that you have completed the corresponding settings shown below according to the network environment of **Yealink IP phone** and **Yeastar PBX**.

| Network Environment | | Setting |
|---------------------|---------------------------------------|---------|
| Local Network | Register extension in the same subnet | / |

| Network Environment | | Setting |
|---------------------|--|--|
| | Register extension in different subnets | <p>Enable the Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).</p>  |
| Remote Network | Register extension using Yeastar FQDN | <ul style="list-style-type: none"> • Grant remote SIP access permission for the extension (Path: System > Network > Yeastar FQDN > Features > SIP Access).  |
| | Register extension using Public IP address / External Host domain name | <ul style="list-style-type: none"> • Configure PBX network for remote access by a public IP address or by an external host domain name. • Set up the extension for remote registration. <ul style="list-style-type: none"> ◦ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT).  <ul style="list-style-type: none"> ◦ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration). |





Procedure

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

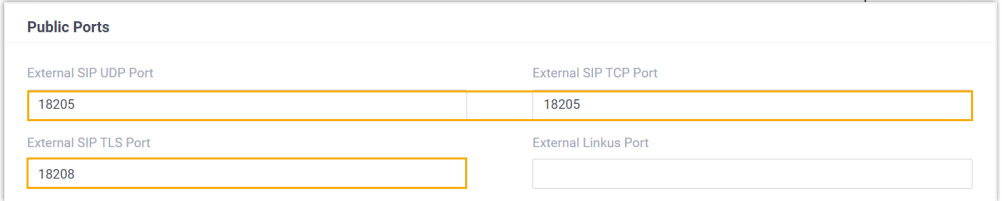
Step 1. Gather registration information on Yeastar PBX

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

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

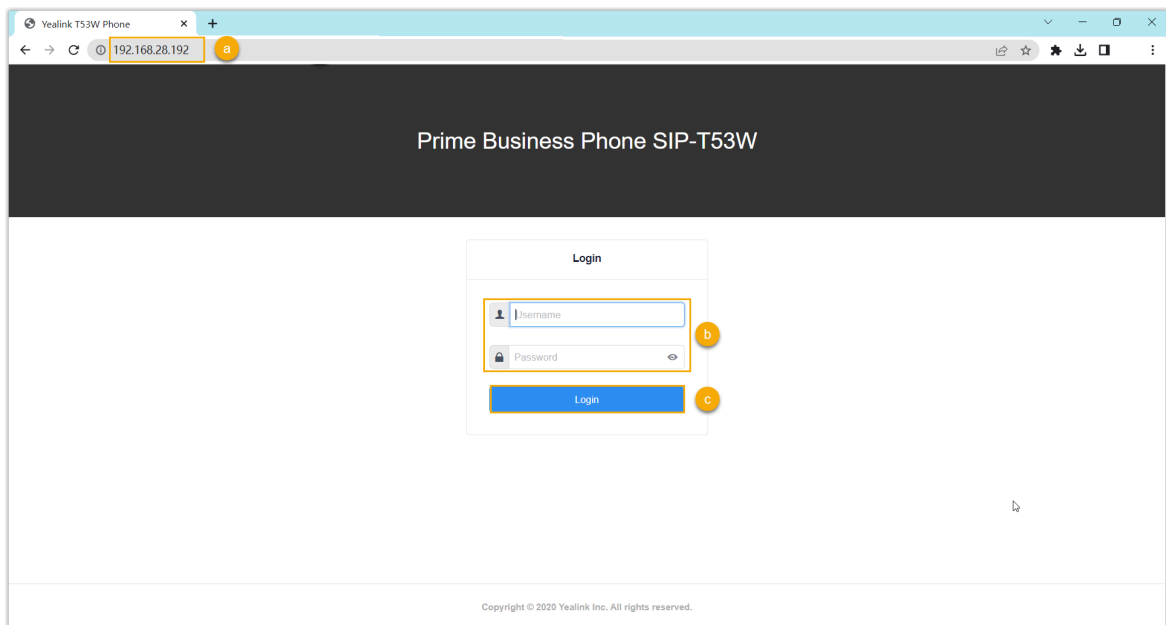
| Information | Instruction |
|-------------------------------|--|
| | <div> <p>User Presence Voicemail Features Advanced Security Linkus Clients Phone Function Keys</p> <hr/> <p>VoIP Settings</p> <p>DTMF Mode: RFC4733 (RFC2833) Transport: UDP</p> </div> <div> <p> Note:</p> <ul style="list-style-type: none"> If the extension uses TCP transport protocol, make sure that the SIP TCP port is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > General > Basic). <div> <p>Basic</p> <p>* SIP UDP Port: 5060 * SIP TCP Port: <input checked="" type="checkbox"/> 5060</p> <p>* RTP Port Range: 18256 : 18356 * Outbound SIP Port Range: <input type="checkbox"/> 5062 : 5082</p> </div> <ul style="list-style-type: none"> If the extension uses TLS transport protocol, make sure that the TLS is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > TLS). <div> <p><input checked="" type="checkbox"/> TLS</p> <p>* SIP TLS Port: 5061</p> </div> </div> |
| PBX IP address or domain name | <p>Scenario: Register extension in local network</p> <p>In this scenario, you can directly utilize the PBX's private IP address for extension registration.</p> <div> <p> Note:</p> <p>This topic provides the configuration example based on this scenario, where the PBX's private IP address is 192.168.28.39.</p> </div> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN, note down the PBX's Fully Qualified Domain Name (FQDN).</p> |

| Information | Instruction |
|-----------------------|--|
| | <div> <div> Status <div> <div> Successfully connected to the tunnel server. </div> </div> </div> <div> Fully Qualified Domain Name (FQDN) <div> yeastardocs.ras.yeastar.com </div> </div> <p>ⓘ The domain name can be configured only once and cannot be altered after the configuration.</p> </div> <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> <p>Go to System > Network > Public IP and Ports, note down the PBX's public IP address or external host domain name.</p> <div> <div> Public IP (NAT) <div> NAT Type <div>Public IP Address</div> Public IP Address <div>110.35.77.110</div> </div> </div> <div> Public IP (NAT) <div> NAT Type <div>External Host</div> External Host <div>yeastar_docstest.com</div> </div> </div> <div> Public IP (NAT) <div> NAT Type <div>Yeastar Domain</div> Yeastar Domain <div>yeastardocs.cloudipbx.amaripbx.cn</div> </div> </div> </div> |
| SIP registration port | <p>Scenario: Register extension in local network</p> <p>Go to System > Network > Service Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p> <div> <div> HTTPS <div>8088</div> </div> <div> HTTP <div>80</div> </div> <div> SIP UDP <div>5060</div> </div> <div> SIP TCP <div>5060</div> </div> <div> SIP TLS <div>5061</div> </div> <div> Outbound SIP Port <div>5062-5082</div> </div> </div> <p>In this example, we use the SIP UDP port 5060.</p> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN > Features > SIP Access, note down the SIP registration port corresponding to the extension's transport protocol.</p> <div> <div> Features <div> SIP Access Remote Access </div> </div> <p>Before enabling this feature, please make sure your extensions are using strong registration passwords, or it might bring security risks.</p> <div> * Status <div> Enabled </div> </div> <div> Remote Access Service Port-SIP UDP&TCP <div>5060</div> Remote Access Service Port-SIP TLS <div>5061</div> </div> </div> <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> |

| Information | Instruction |
|-------------|---|
| | <p>Go to System > Network > Public IP and Ports > Public Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p>  |

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`.

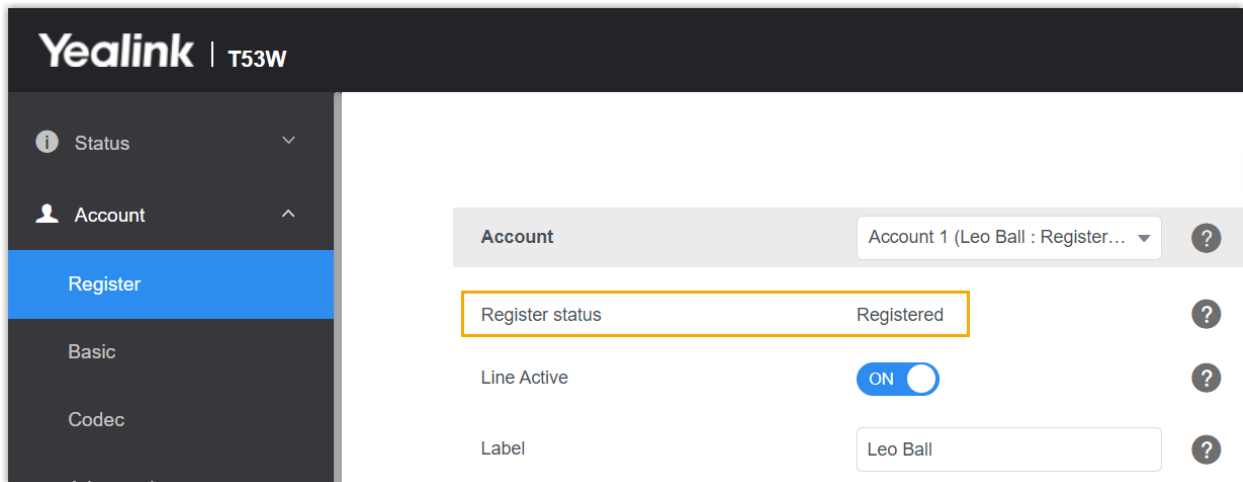
c. Click **Login**.

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 IP address / 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 Software 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 Software Edition.

Requirements

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

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------|----------------------|---------------------|---|
| A10 | 2.12.4 or later | 83.11.0.22 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| A10W | 2.12.4 or later | 83.11.0.22 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| A12V | 2.12.50.1 or later | 83.14.0.26 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| A212 | 2.12.49.6 or later | 83.14.0.26 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| A308i | 2.6.10.1177 or later | 83.14.0.26 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| A32 | 2.6.0.408 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| A32i | 2.6.0.408 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-----------|----------------------|---------------------|--|
| | | | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| A320 | 2.6.0.1402 or later | 83.11.0.22 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| A320i | 2.6.0.1402 or later | 83.11.0.22 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| FH-S01 | 2.12.8 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| H1 | 2.12.1 or later | 83.10.0.32 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| H1-2 Wire | 2.12.1 or later | 83.20.0.78 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| H2U | 2.4.7 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| H2U-V2 | 2.4.7.6 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| H3 | 2.12.1.7334 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| H3W | 2.4.4 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------|----------------------|---------------------|--|
| H4 | 1.0.8 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| H4W | 1.0.8 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| H5 | 2.12.1.7334 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| H5W | 2.4.4 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| H6 | 1.0.8 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| H6W | 1.0.8 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| H603W | 2.14.0.11 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i10 | 1.2.7 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i10D | 1.2.7 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i10S | 2.4.4 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------|---------------------|--------------------|--|
| | | | <ul style="list-style-type: none"> • Provision Link |
| i10SD | 2.4.4 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i10SV | 2.4.4 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i10V | 1.2.7 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i11S | 1.2.7 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i11SV | 2.4.4 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i12 | 2.8.2.7009 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i16S | 2.4.4 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i16SV | 2.4.4 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i16V | 2.8.2.7009 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i18S | 2.8.2.7009 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------|---------------------|---------------------|--|
| | | | <ul style="list-style-type: none"> • RPS • Provision Link |
| i20S | 2.8.2.7009 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i23S | 2.8.2.7009 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i30 | 2.8.2.7009 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i31S | 2.8.2.7009 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i32V | 2.8.2.7009 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i33V | 2.8.2.7009 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i33VF | 2.8.2.7009 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i504 | 2.12.43.13 or later | 83.6.0.24 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i505 | 2.6.6.391 or later | 83.11.0.22 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i506W | 2.12.43.13 or later | 83.6.0.24 or later | <ul style="list-style-type: none"> • PnP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------|--------------------|---------------------|--|
| | | | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| i507W | 2.6.6.394 or later | 83.11.0.22 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i51 | 2.8.13 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i51W | 2.8.13 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i52 | 2.8.13 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i52W | 2.8.13 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i53 | 2.8.13 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i53W | 2.8.13 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i55A | 1.0.0.45 or later | 83.8.0.25 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i56A | 0.3.0.21 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------|---------------------|--------------------|--|
| i57A | 1.0.0.46 or later | 83.8.0.25 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i60 | 2.12.50.16 or later | 83.6.0.24 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i61 | 2.4.0 or later | 83.6.0.24 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i62 | 2.4.0 or later | 83.6.0.24 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i63 | 2.4.0 or later | 83.6.0.24 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i64 | 2.4.0 or later | 83.6.0.24 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i67 | 2.12.50.5 or later | 83.8.0.25 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i68 | 2.8.40.22 or later | 83.8.0.25 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| PA2 | 2.8.2.7009 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| PA2S | 2.8.11 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|---------|--------------------|---------------------|--|
| | | | <ul style="list-style-type: none"> • Provision Link |
| PA3 | 2.4.4 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| V50P | 2.12.20.4 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| V60P | 2.12.20.3 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| V60W | 2.12.20.3 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| V61G | 2.12.18.8 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| V61W | 2.12.18.8 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| V62 | 2.4.10 or later | 83.6.0.24 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| V62G | 2.12.18.8 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| V62W | 2.12.18.8 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| V62 Pro | 2.12.18.2 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|---------|---------------------|---------------------|--|
| | | | <ul style="list-style-type: none"> • RPS • Provision Link |
| V63 | 2.12.16.19 or later | 83.11.0.22 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| V64 | 2.4.10 or later | 83.6.0.24 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| V65 | 2.12.2.4 or later | 83.7.0.16 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| V66 | 2.12.18.4 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| V66 Pro | 2.12.18.4 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| V67 | 2.6.0 or later | 83.6.0.24 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| W610W | 2.12.0 or later | 83.11.0.22 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| W611W | pvt-2.8 or later | 83.8.0.25 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| W620W | 2.16.2 or later | 83.11.0.22 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| W710D | 1.18.11 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|------------|----------------------|---------------------|--|
| | | | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| W710H | 1.0.14.5 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X1S / X1SP | 2.2.12 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X1SG | 2.2.12 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X2/X2P | 2.14.0.7386 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X2C/X2CP | 2.14.0.7386 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X210 | 2.2.11 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X210-V2 | 2.12.1.3 or later | 83.7.0.16 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X210i | 2.2.11 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X210i-V2 | 2.12.1.3 or later | 83.7.0.16 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|----------------------|----------------------|--------------------|--|
| X3SG | 2.2.12 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X3S/X3SP/X3G | 2.14.0.7386 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X3S Lite / X3SP Lite | 2.4.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X3S Pro / X3SP Pro | 2.4.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X3SW | 2.4.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X3SG Lite | 2.4.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X3SG Pro | 2.4.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X3U | 2.2.12 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X3U Pro | 2.4.5 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X301 | 2.12.2 or later | 83.8.0.25 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------------|----------------------|---------------------|--|
| | | | <ul style="list-style-type: none"> • Provision Link |
| X301G | 2.12.2 or later | 83.8.0.25 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X301W | 2.12.2 or later | 83.8.0.25 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X303 | 2.12.2 or later | 83.8.0.25 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X303G | 2.12.2 or later | 83.8.0.25 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X303W | 2.12.2 or later | 83.8.0.25 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X303-2 WIRE | 1.0.3 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X305 | 2.12.1.6 or later | 83.8.0.25 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X4/X4G | 2.14.0.7386 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X4U | 2.2.11 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X4U-V2 | 2.12.1 or later | 83.6.0.24 or later | <ul style="list-style-type: none"> • PnP • DHCP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|--------|--------------------|--------------------|--|
| | | | <ul style="list-style-type: none"> • RPS • Provision Link |
| X5U | 2.2.11 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X5U-V2 | 2.12.1 or later | 83.6.0.24 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X5S | 2.2.1 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X6 | 2.2.1 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X6U | 2.2.11 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X6U-V2 | 2.12.1 or later | 83.6.0.24 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X7 | 2.2.11 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X7A | 2.2.0.229 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X7C | 2.2.11 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| X7-V2 | 2.12.1.3 or later | 83.7.0.16 or later | <ul style="list-style-type: none"> • PnP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|---------|-------------------|---------------------|--|
| | | | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| X7C-V2 | 2.12.1.3 or later | 83.7.0.16 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| Y501 | 2.12.4 or later | 83.11.0.22 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| Y501W | 2.12.4 or later | 83.11.0.22 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| Y501-Y | 2.12.4 or later | 83.11.0.22 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| Y501W-Y | 2.12.4 or later | 83.11.0.22 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |

Scenarios

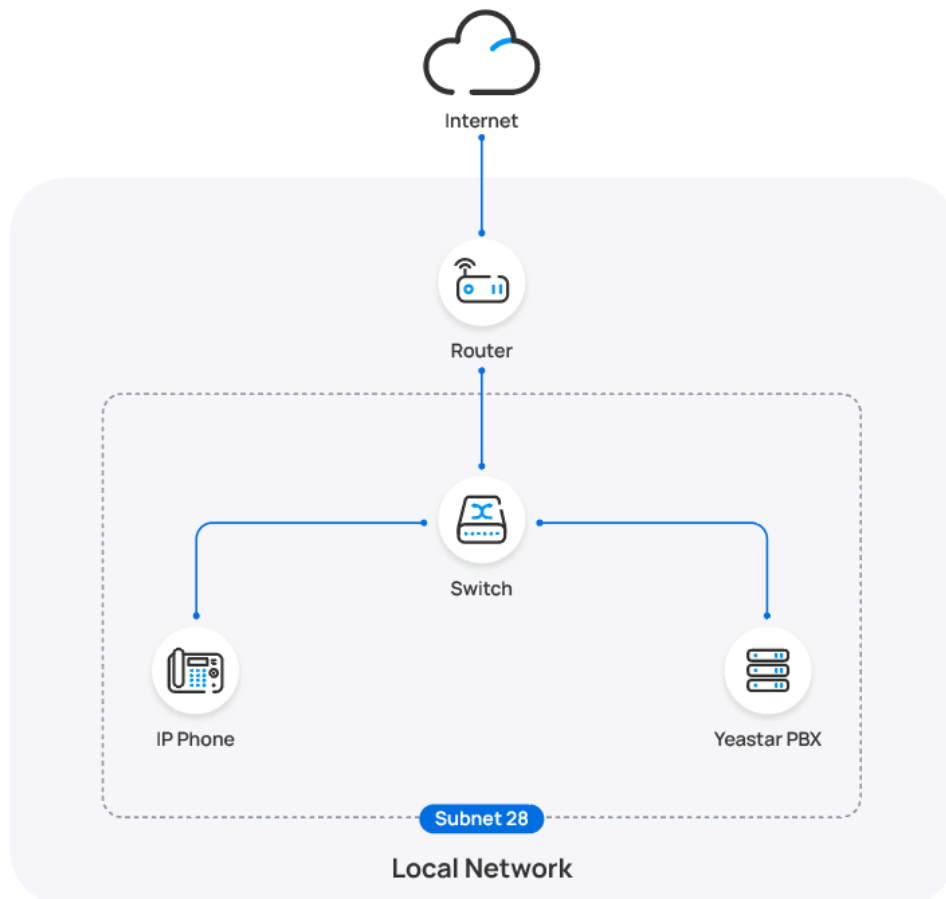
The provisioning methods and operations vary depending on the network environment of **Fanvil IP Phone** and **Yeastar PBX**, as the following table shows:

| Scenario | Description |
|---|---|
| IP Phone and PBX are in the SAME subnet (LAN) | <p>In this scenario, you can provision the Fanvil IP phone with the PBX via PnP method.</p> <p>For more information, see Auto provision a Fanvil IP phone in the same subnet (PnP).</p> |
| IP Phone and PBX are in DIFFERENT subnets (LAN) | <p>In this scenario, you can provision the Fanvil IP phone with the PBX via DHCP method.</p> <p>For more information, see Auto provision a Fanvil IP phone in different subnets (DHCP).</p> |

| Scenario | Description |
|---|--|
| IP Phone and PBX are in DIFFERENT network | <p>In this scenario, you can provision the Fanvil IP phone with the PBX via RPS method.</p> <p>For more information, see Auto provision a Fanvil IP phone in remote network (RPS).</p> |

Auto provision a Fanvil IP phone in the same subnet (PnP)

In this example, the Fanvil IP phone (IP: 192.168.28.206) and the Yeastar PBX (IP: 192.168.28.39) are both deployed in subnet 28.




Prerequisites






- Make sure that you have [downloaded the template](#) for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- If the IP phone is previously used, you need to RESET the IP phone, then re-configure the network settings for the phone.

Procedure

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

The IP phones detected by the PBX via PnP are displayed in the phone list.

2. Click  beside the Fanvil IP phone.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|---|------------|------------|--------|--------|----------------|-------------|---|
| <input type="checkbox"/> |  | Unassigned | Unassigned | Fanvil | X6U-V2 | 192.168.28.206 | - |     |

3. **Optional:** In the **Options** section, select a desired template from the **Template** 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](#).

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

Assign Extension

* Select Extension

3000-Leo Ball



Note:

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

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

5. Click **Save**.






Result



Note:

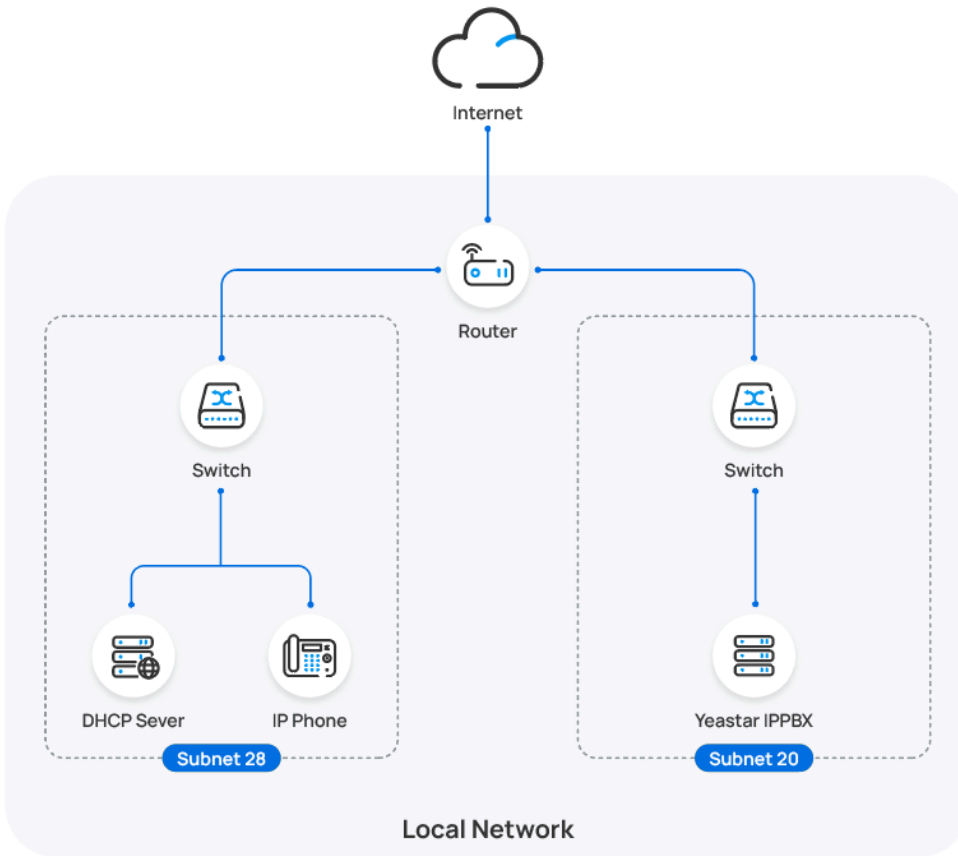
Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

- 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** in PBX web portal.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|---|-----------|----------|--------|--------|----------------|-------------|---|
| <input type="checkbox"/> |  | 3000 | Leo Ball | Fanvil | X6U-V2 | 192.168.28.206 | *****@ |     |

Auto provision a Fanvil IP phone in different subnets (DHCP)

In this example, the Fanvil IP phone and a DHCP server are deployed in subnet 28, while the Yeastar PBX (IP: 192.168.20.58) is deployed in subnet 20.



Prerequisites

- Make sure that there is only one DHCP server running in the subnet where the IP phone is deployed, or the IP phone would fail to obtain an IP address.
- Make sure that the IP phone and PBX can communicate with each other over the subnets.
- 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

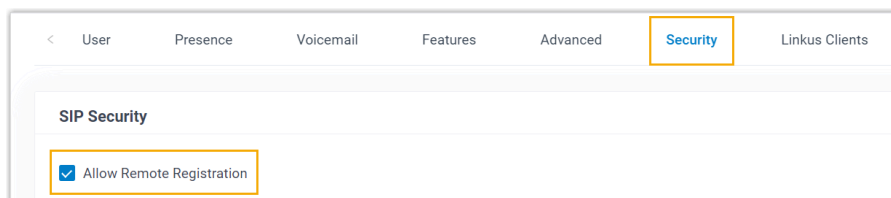
- [Step 1. Enable Remote Registration feature for the extension on PBX](#)
- [Step 2. Add the Fanvil IP phone on PBX](#)

- [Step 3. Configure DHCP option 66 on DHCP server](#)

Step 1. Enable Remote Registration feature for the extension on PBX

Enable the Remote Registration feature for the extension to be assigned to the phone, so that the extension can be registered in a different subnet.

1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, edit the desired extension.
2. Click **Security** tab, select the checkbox of **Allow Remote Registration** in the **SIP Security** section.



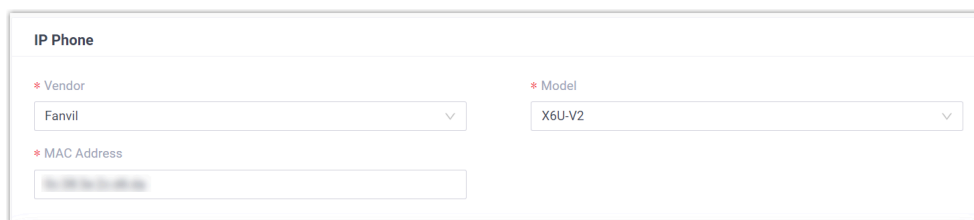
The screenshot shows the PBX web portal interface. At the top, there are tabs: User, Presence, Voicemail, Features, Advanced, Security (highlighted with an orange box), and Linkus Clients. Below the tabs, the 'SIP Security' section is visible, containing a checkbox labeled 'Allow Remote Registration' which is checked and highlighted with an orange box.

3. Click **Save** and **Apply**.

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



The screenshot shows the 'IP Phone' configuration form. It has three fields: 'Vendor' (a dropdown menu with 'Fanvil' selected), 'Model' (a dropdown menu with 'X6U-V2' selected), and 'MAC Address' (a text input field with a placeholder value). Each field is preceded by a red asterisk indicating it is required.

- **Vendor:** Select **Fanvil**.
 - **Model:** Select the phone model. In this example, select **X6U-V2**.
 - **MAC Address:** Enter the MAC address of the IP phone.
4. In the **Options** section, configure the following settings.

Options

* Template
YSDP_FanvilX6

* Provisioning Method
DHCP (In the Office)

Provisioning Link
http://192.168.20.58:7778/api/autoprovision/KZVJ3gwhJecazEQB

- **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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.

Assign Extension

* Select Extension
3000-Leo Ball

**Note:**

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

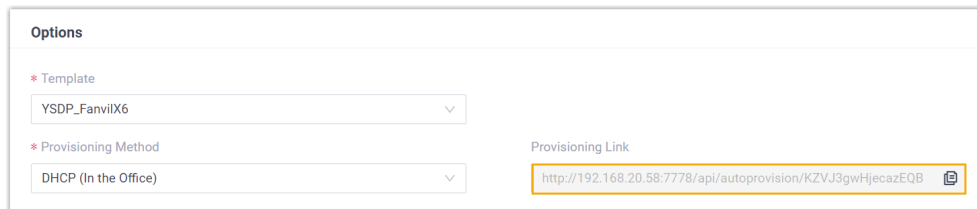
- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [configure the concurrent registration setting for the extension](#),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

6. Click **Save**.

Step 3. 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.



Options

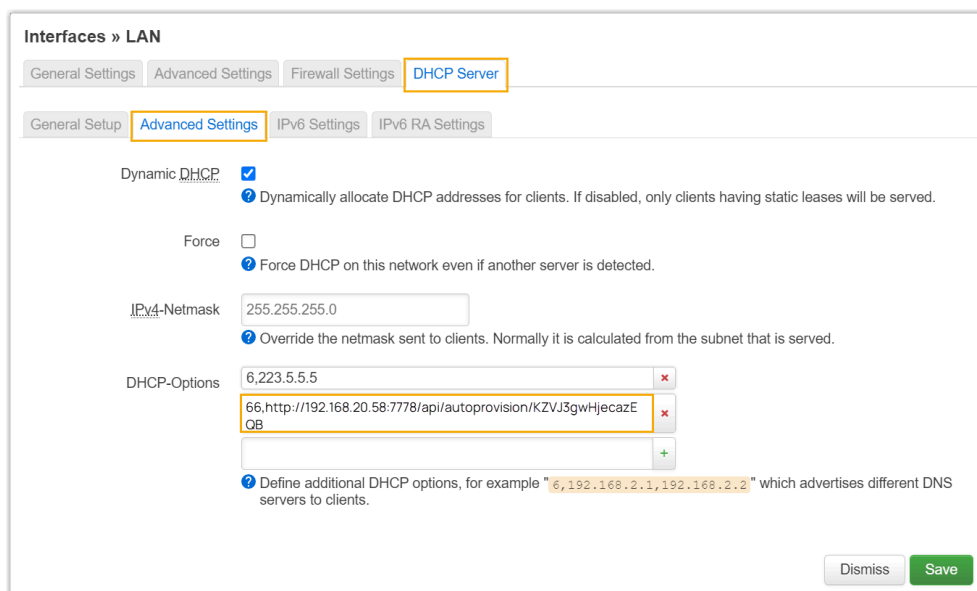
* Template
YSDP_FanvilX6

* Provisioning Method
DHCP (In the Office)

Provisioning Link
http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB

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

In this example, the configuration on a router's DHCP server is shown below.



Interfaces » LAN

General Settings Advanced Settings Firewall Settings DHCP Server

General Setup Advanced Settings IPv6 Settings IPv6 RA Settings

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

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

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

DHCP-Options 6,223.5.5.5
66,http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB
Define additional DHCP options, for example "6,192.168.2.1,192.168.2.2" which advertises different DNS servers to clients.

Dismiss Save

Result



Note:

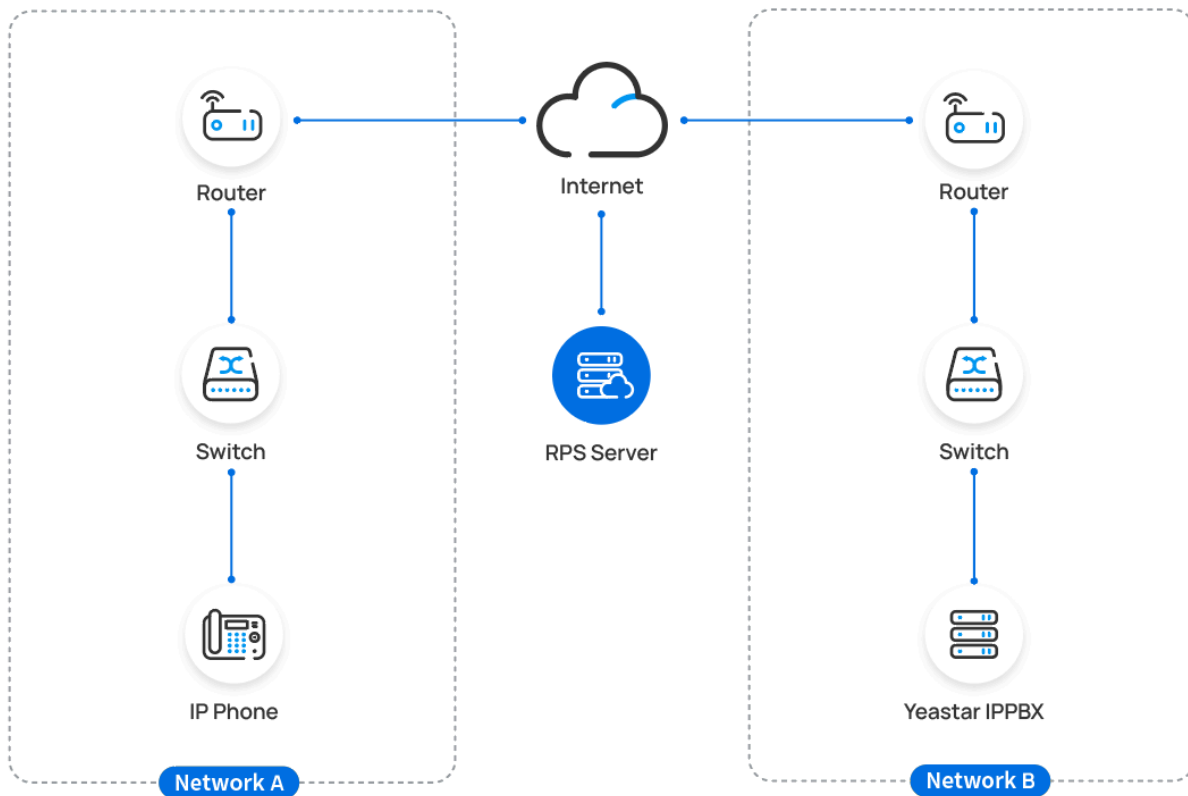
Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

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

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

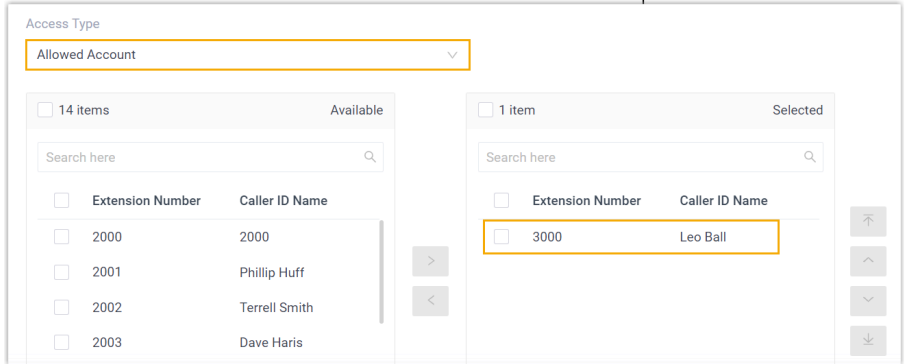
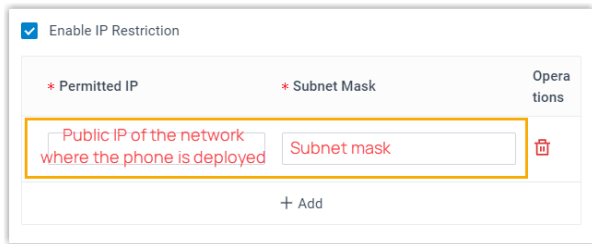
Auto provision a Fanvil IP phone in remote network (RPS)



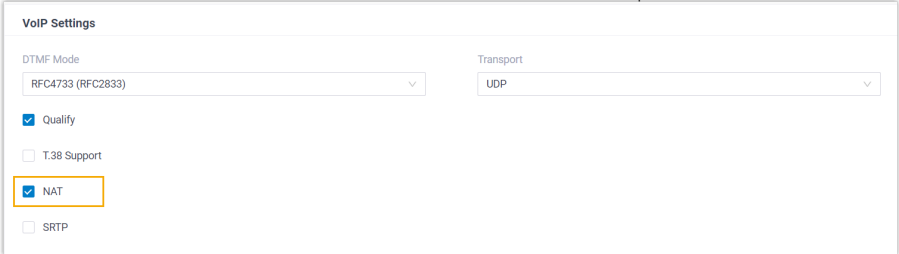

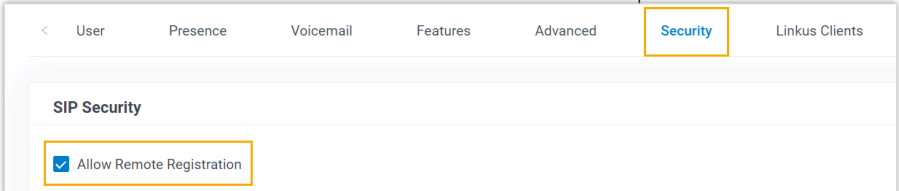
In this example, the Fanvil IP phone and the Yeastar PBX are deployed in different network.



Prerequisites

Yeastar P-Series Software Edition supports to auto provision a Fanvil phone remotely either using **Yeastar FQDN** or using **Public IP address / domain name**. According to the provisioning method you intend to use, make sure that you have completed the corresponding setup shown below.

| Method | Setting |
|---|---|
| Using Yeastar FQDN | <ul style="list-style-type: none"> Subscribe to Enterprise Plan or Ultimate Plan for the PBX and ensure the FQDN is available. Grant remote access permission for extension to be registered and the remote IP phones: <ul style="list-style-type: none"> Grant remote SIP access permission for the extension, so that the extension can be registered remotely via FQDN (Path: System > Network > Yeastar FQDN > Features > SIP Access).  <ul style="list-style-type: none"> If you have enabled IP restriction for Yeastar FQDN remote Web access, make sure that you have added the phone's IP address to the permitted IP list, so that the phone can obtain configuration files from the PBX (Path: System > Network > Yeastar FQDN > Features > Remote Access > Web Access).  <ul style="list-style-type: none"> 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. |
| Using Public IP address / external host / Yeastar domain name | <ul style="list-style-type: none"> Configure PBX network for remote access by a public IP address, by an external host domain name, or by a Yeastar domain name. <div style="background-color: #fff9c4; padding: 10px; border: 1px solid #f0e68c;"> <p>Important:</p> </div> |

| Method | Setting |
|--------|--|
| | <p> The following PBX ports MUST be forwarded for RPS provisioning.</p> <ul style="list-style-type: none"> ◦ RTP ports ◦ SIP port ◦ Web Server port <ul style="list-style-type: none"> • Set up the extension for remote registration. <ul style="list-style-type: none"> ◦ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT).  <ul style="list-style-type: none"> ◦ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).  <ul style="list-style-type: none"> • 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 Fanvil IP phone on PBX](#)
- [Step 2. Trigger the IP phone to complete provisioning](#)

Step 1. Add the Fanvil IP phone on PBX

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

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

The screenshot shows a form titled "IP Phone". It contains three fields with red asterisks indicating they are required: "Vendor" with a dropdown menu showing "Fanvil", "Model" with a dropdown menu showing "X6U-V2", and "MAC Address" with a text input field containing a blurred MAC address.

- **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.

Figure 3. **RPS using Yeastar FQDN**

The screenshot shows a form titled "Options". It contains three fields with red asterisks: "Template" with a dropdown menu showing "YSDP_FanvilX6", "Provisioning Method" with a dropdown menu showing "RPS FQDN (Remote)", and "Provisioning Link" with a text input field containing the URL "https://yeastardocs.ras.yeastar.com:443/api/autoprovision/H70R1oi...". There is also a checkbox labeled "Authentication for the First-time Auto Provisioning" which is checked.

Figure 4. **RPS using Public IP Address / External Host domain name / Yeastar Domain**

The screenshot shows a form titled "Options". It contains three fields with red asterisks: "Template" with a dropdown menu showing "YSDP_FanvilX6", "Provisioning Method" with a dropdown menu showing "RPS (Remote)", and "Provisioning Link" with a text input field containing the URL "https://110.35.77.110:18207/api/autoprovision/H70R1oiPnIJCnp6L...". There is also a checkbox labeled "Authentication for the First-time Auto Provisioning" which is checked.

- **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 Method:** Select **RPS FQDN (Remote)** or **RPS (Remote)** according to your need.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.



Note:

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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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.



The image shows a 'Update Prompt' dialog box with a timestamp of 11:38. It contains two input fields: '1. Username' and '2. Password'. At the bottom, there are four buttons: 'Return', an empty button, another empty button, and 'OK'.

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



Tip:






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

The image is a screenshot of a web interface for configuring a phone. The 'Voicemail' tab is selected. Under 'Enable Voicemail', there is a section for 'Voicemail PIN Authentication' which is set to 'Enabled'. Next to it, the 'Voicemail Access PIN' is displayed as '8742'.

Result

- The IP phone automatically downloads the configurations from the PBX and applies the settings.

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

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

Related information

[Auto Provision LDAP for IP Phones](#)

Auto Provision Fanvil DECT System with Yeastar P-Series Software 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 Software 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 | Supported Auto Provisioning Method |
|--------------|---------------------|---------------------|--|
| W710D | 1.18.11 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| W710H | 1.0.14.5 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |

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 | |
| W610D | v1.16.2 |

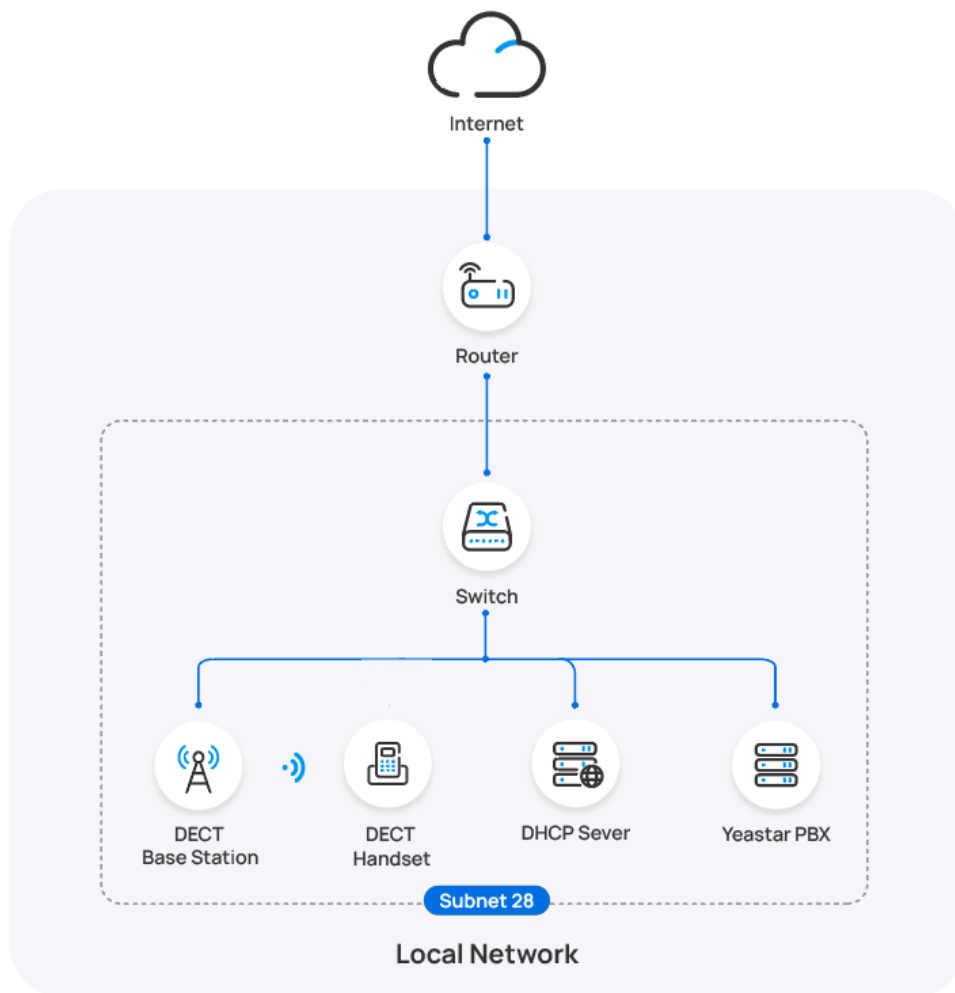
Scenarios

The provisioning method and operations vary depending on the network environment of **Fanvil DECT system** and **Yeastar PBX**, as the following table shows.

| Scenario | Description |
|--|--|
| DECT system and PBX are in the SAME subnet (LAN) | In this scenario, you can provision the Fanvil DECT system with Yeastar PBX via PnP method . For more information, see Auto provision Fanvil DECT system in the same subnet (PnP) . |
| DECT system and PBX are in DIFFERENT subnets (LAN) | In this scenario, you can provision the Fanvil DECT system with Yeastar PBX via DHCP method . For more information, see Auto provision Fanvil DECT system in different subnets (DHCP) . |
| DECT system and PBX are in DIFFERENT networks | In this scenario, you can provision the Fanvil DECT system with Yeastar PBX via RPS method . For more information, see Auto provision Fanvil DECT system in remote network (RPS) . |

Auto provision Fanvil DECT system in the same subnet (PnP)

In this example, the Fanvil DECT system (base station and handset) and the Yeastar PBX (IP: 192.168.28.39) are on the same subnet (192.168.28.0/24), with the Fanvil DECT base station's IP address assigned by a DHCP server.



Prerequisites

- Make sure that there is only one DHCP server running in the subnet, or the DECT base station would fail to obtain an IP address.
- Make sure that the Fanvil DECT system (base station and handset) and Yeastar PBX are on the same subnet.
- [Download](#) and 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**).

Procedure

- [Step 1. Obtain the IP address of the Fanvil DECT base station](#)

- [Step 2. Configure the Fanvil DECT base station on PBX](#)
- [Step 3. Pair the Fanvil DECT handset with the DECT base station](#)
- [Step 4. Register the Fanvil DECT handset to an extension](#)

Step 1. Obtain the IP address of the Fanvil DECT base station

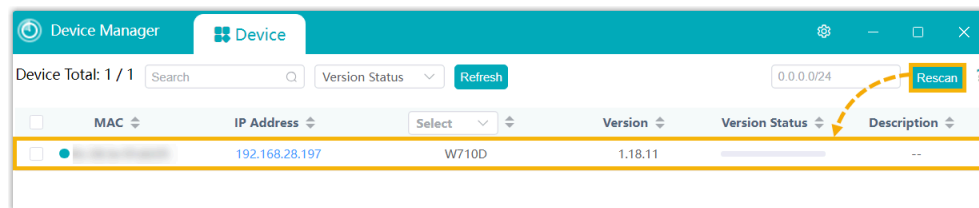
On the DECT base station, use the device button to reset the device, so that the base station can obtain an IP address from a DHCP server in the subnet.

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.

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.



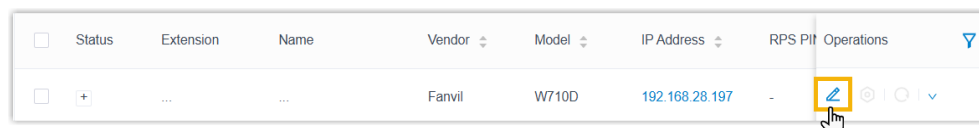
Step 2. Configure the Fanvil DECT base station on PBX

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

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

The DECT base station detected by the PBX via PnP is displayed in the phone list.

2. Click  to edit the DECT base station.



3. In the **Assign Extension** section, assign extensions for the DECT handsets according to your needs.

- To assign extensions one by one, do as follows:

The screenshot shows the 'Assign Extension' form. At the top, there are three input fields: 'Handset ID Range' with values '1' and '10', 'Start Extension' with a dropdown showing '661005-Leo...', and 'End Extension' with a dropdown showing '661012-Car...'. To the right of these fields is a blue button labeled 'Assign Extension'. Below the fields is a table with two columns: 'Handset' and 'Extension'. The first row shows 'Handset 1' in the 'Handset' column and a dropdown menu in the 'Extension' column showing '661005-LeoBall'. A yellow box highlights the dropdown menu, and a yellow circle with the letter 'b' is next to it.

- Select the checkbox of the desired handset.
- In the **Extension** drop-down list, select the desired extension.

- To assign extensions in bulk, do as follows:

The screenshot shows the 'Assign Extension' form for bulk assignment. At the top, there are three input fields: 'Handset ID Range' with values '1' and '10', 'Start Extension' with a dropdown showing '661005-Leo...', and 'End Extension' with a dropdown showing '661012-Car...'. To the right of these fields is a blue button labeled 'Assign Extension'. Below the fields is a table with two columns: 'Handset' and 'Extension'. The first row shows 'Handset 1' in the 'Handset' column and a dropdown menu in the 'Extension' column showing '661005-LeoBall'. The second row shows 'Handset 2' in the 'Handset' column and a dropdown menu in the 'Extension' column showing '661006-TerrellSmith'. The third row shows 'Handset 3' in the 'Handset' column and a dropdown menu in the 'Extension' column showing '661007-Ramon Gordon'. All three rows have a checked checkbox in the 'Handset' column. A yellow box highlights the 'Start Extension' and 'End Extension' dropdowns, and a yellow circle with the letter 'a' is next to it. Another yellow circle with the letter 'b' is next to the 'Assign Extension' button.

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

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




Note:

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

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

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

5. Click **Save**.


6. In the phone list, click  beside the Fanvil DECT base station to re-provision the device.








| Status | Extension | Name | Vendor | Model | IP Address | RPS PIN | Admin Phone Password | Template | Operations |
|--------|-----------|------|--------|-------|----------------|---------|----------------------|------------------|---|
| + | ... | ... | Fanvil | W710D | 192.168.28.197 | - | *****@ | YSDP_FanvilW710D |     |

The DECT base station automatically downloads the configurations from the PBX and applies the settings.



Tip:

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

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | RPS PIN | Admin Phone Password | Template | Operations | | | | | | | | | | | | |
|---|-----------|-----------|--------------|--------|-------|----------------|---------|----------------------|------------------|---|--------|---------|-----------|------|---|-----------|--------|---------|---|-----------|--------|--------------|
| <input type="checkbox"/> | | ... | ... | Fanvil | W710D | 192.168.28.197 | - | *****@ | YSDP_FanvilW710D |     | | | | | | | | | | | | |
| <table><tr><th>Status</th><th>Handset</th><th>Extension</th><th>Name</th></tr><tr><td></td><td>Handset 1</td><td>661005</td><td>LeoBall</td></tr><tr><td></td><td>Handset 2</td><td>661006</td><td>TerrellSmith</td></tr></table> | | | | | | | | | | | Status | Handset | Extension | Name |  | Handset 1 | 661005 | LeoBall | | Handset 2 | 661006 | TerrellSmith |
| Status | Handset | Extension | Name | | | | | | | | | | | | | | | | | | | |
|  | Handset 1 | 661005 | LeoBall | | | | | | | | | | | | | | | | | | | |
| | Handset 2 | 661006 | TerrellSmith | | | | | | | | | | | | | | | | | | | |

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

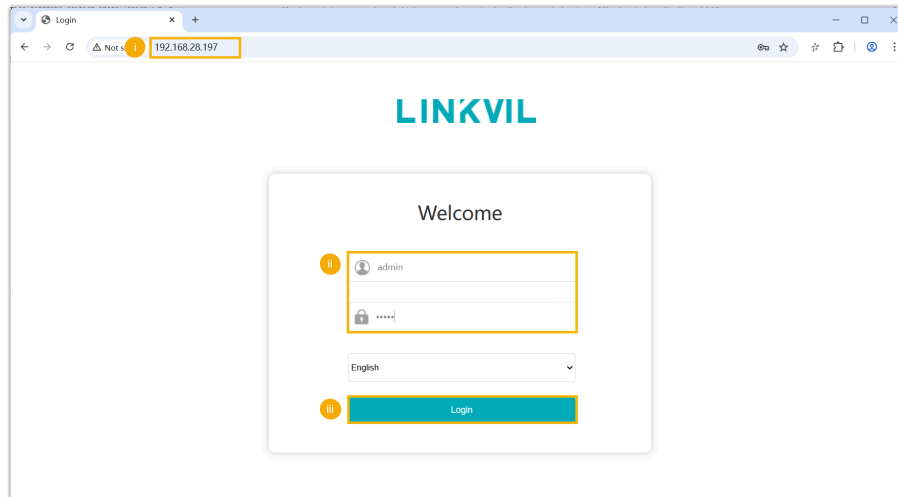
Enable the registration mode of the DECT base station, then pair the Fanvil DECT handset with it.

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`.

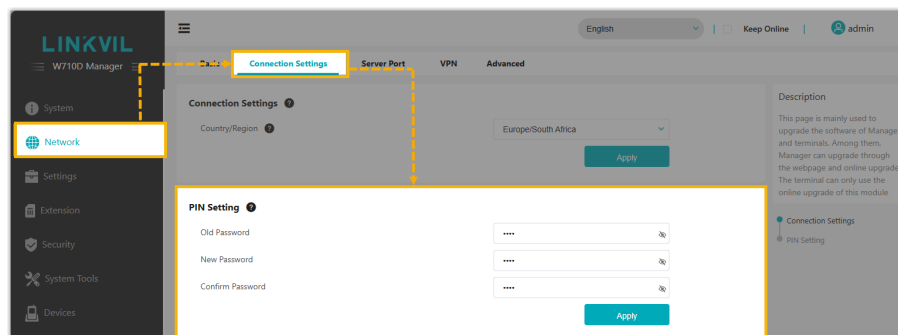


- b. **Optional:** Go to **Network > Connection Settings > PIN Settings**, change the default PIN code to enhance the registration security.

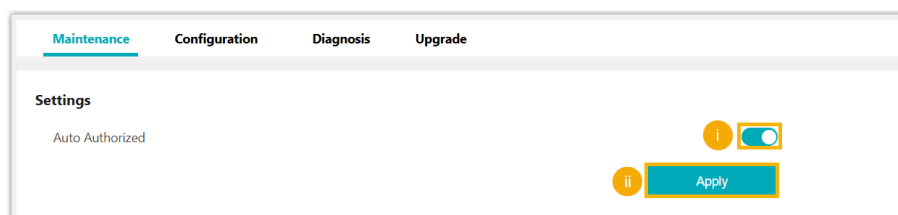


Note:

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 the 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.

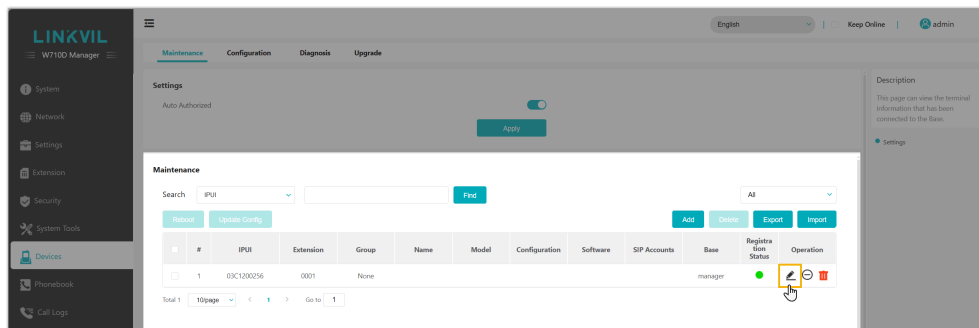
Step 4. Register the Fanvil DECT handset to an extension

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

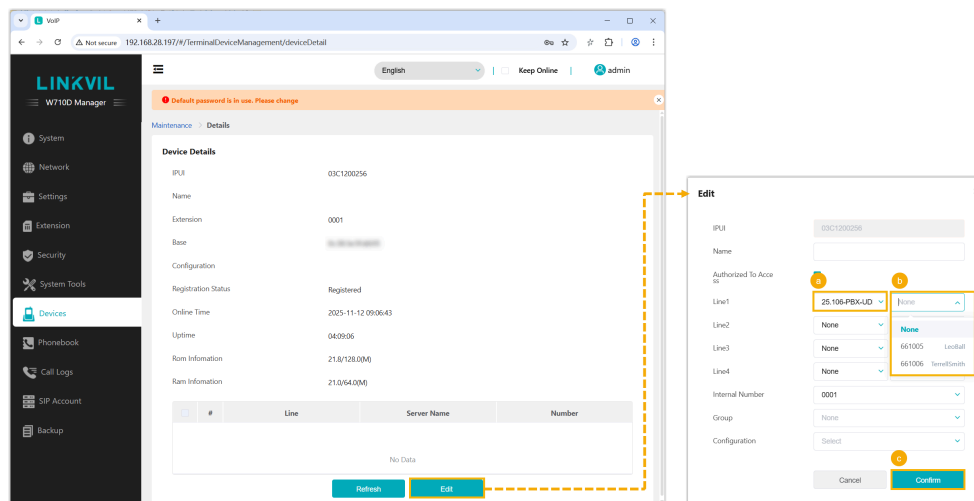
1. On the web interface of the DECT base station, go to **Devices > Maintenance > Maintenance**.

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.



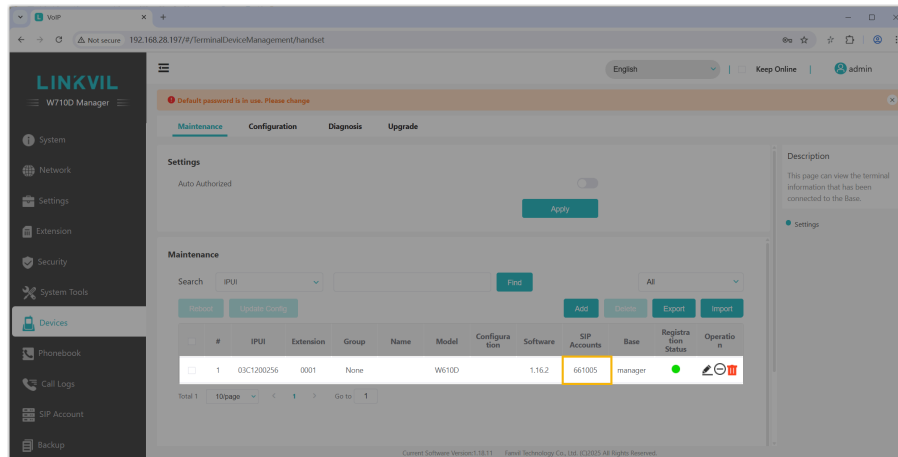
Note:

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**).



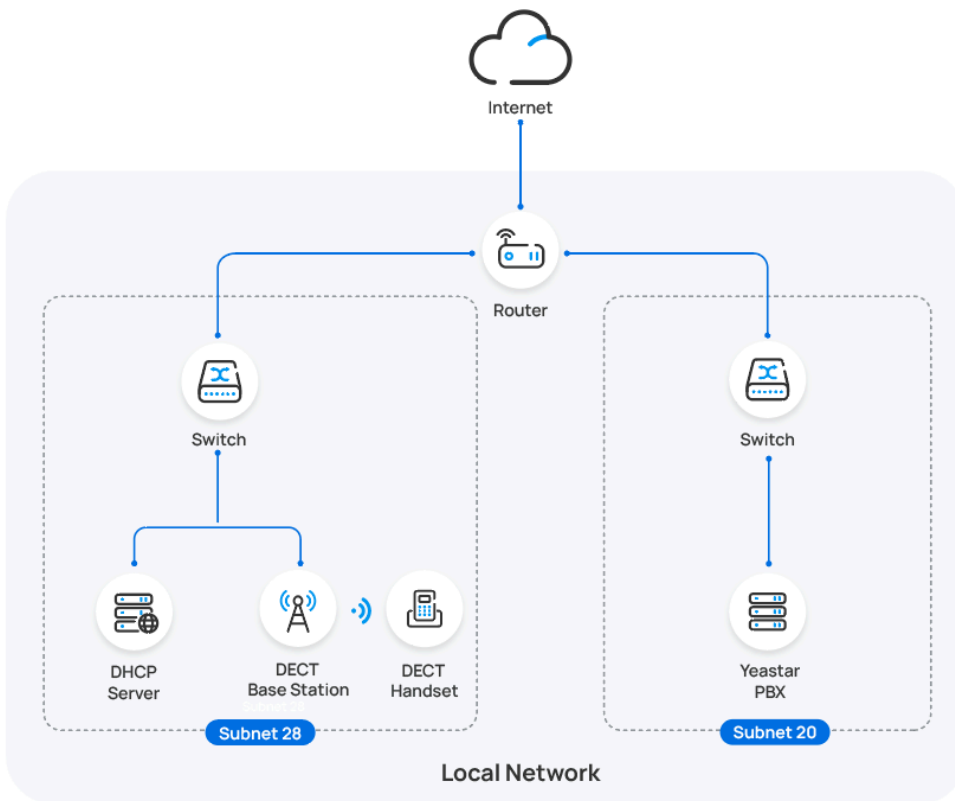
- On PBX web portal, you can check the registration status of the extension on **Auto Provisioning > Phones**.

| Extension | Name | Vendor | Model | IP Address | RPS PIN | Admin Phone Password | Template | Firmware Version | MAC Address |
|-----------|------|--------|-----------|----------------|---------|----------------------|------------------|------------------|-------------------|
| --- | --- | Fanvil | W710D | 192.168.28.197 | - | *****@ | YSDP_FanvilW710D | 1.18.11 | 00:0C:29:00:00:00 |
| Status | | | Handset | | | Extension | | Name | |
| | | | Handset 1 | | | 661005 | | LeoBall | |
| | | | Handset 2 | | | 661006 | | TerrellSmith | |

- On the DECT handset, the name of the assigned extension is displayed on the home screen.
- The registered DECT handset can be used as extensions to make and receive calls.

Auto provision Fanvil DECT system in different subnets (DHCP)

In this example, the DECT system (base station and handset) and a DHCP server are deployed in subnet (192.168.28.0/24), while the Yeastar PBX (IP: 192.168.20.58) is deployed in subnet (192.168.20.0/24).



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.
- [Download](#) and 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 the DECT system and PBX can communicate with each other over the subnets.
- 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.

Procedure

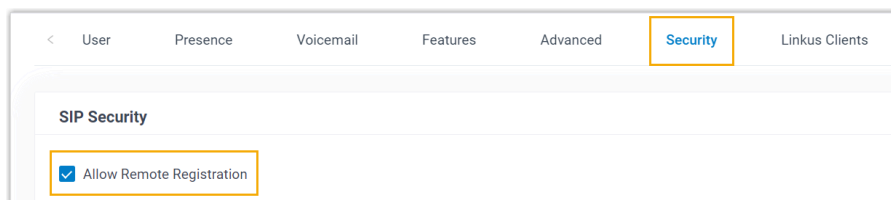
- [Step 1. Enable Remote Registration feature for extensions on PBX](#)
- [Step 2. Add the Fanvil DECT base station on PBX](#)

- [Step 3. Configure DHCP option 66 on DHCP server](#)
- [Step 4. Obtain the IP address of the Fanvil DECT base station](#)
- [Step 5. Pair the Fanvil DECT handset with the DECT base station](#)
- [Step 6. Register the Fanvil DECT handset to an extension](#)

Step 1. Enable Remote Registration feature for extensions on PBX

On PBX web portal, enable the Remote Registration feature for the extensions to be assigned to DECT handsets, so that the extensions can be registered in a different subnet.

1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, edit the desired extension.
2. Click **Security** tab, select the checkbox of **Allow Remote Registration** in the **SIP Security** section.



3. Click **Save** and **Apply**.

Step 2. Add the Fanvil DECT base station on PBX

On PBX web portal, add the DECT base station, complete the provisioning settings, 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.

 A screenshot of the 'IP Phone' configuration form. It has three fields: '* Vendor' with a dropdown menu showing 'Fanvil', '* Model' with a dropdown menu showing 'W710D', and '* MAC Address' with a text input field containing a masked address.

- **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.

Options

* Template
YSDP_FanvilW710D

* Provisioning Method
DHCP (In the Office)

Provisioning Link
http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB

- **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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link points to the location where the phone's configuration file is stored.

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:

Assign Extension

Handset ID Range: 1 - 10

Start Extension: 661005-Leo... End Extension: 661012-Car...

[Assign Extension](#)

| Handset | Extension |
|---|----------------|
| <input checked="" type="checkbox"/> Handset 1 | 661005-LeoBall |

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:

Assign Extension

Handset ID Range: 1 - 10

Start Extension: 661005-Leo... End Extension: 661012-Car...

[Assign Extension](#)

| Handset | Extension |
|---|---------------------|
| <input checked="" type="checkbox"/> Handset 1 | 661005-LeoBall |
| <input checked="" type="checkbox"/> Handset 2 | 661006-TerrellSmith |
| <input checked="" type="checkbox"/> Handset 3 | 661007-Ramon Gordon |

- 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.



Note:

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


- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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 DECT base station is added to the PBX, and displayed in the Auto Provisioning phone list.



Tip:

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

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | RPS PIN | Admin Phone Password | Template | Operations | | | | | | | | | | | | |
|--|-----------|-----------|--------------|--------|-------|------------|---------|----------------------|----------------|------------|--------|---------|-----------|------|--|-----------|--------|---------|--|-----------|--------|--------------|
| <input type="checkbox"/> | | ... | ... | Fanvil | W710D | - | - | *****@ | YSDP_FanvilW D | | | | | | | | | | | | | |
| <div><table><tr><th>Status</th><th>Handset</th><th>Extension</th><th>Name</th></tr><tr><td></td><td>Handset 1</td><td>661005</td><td>LeoBall</td></tr><tr><td></td><td>Handset 2</td><td>661006</td><td>TerrillSmith</td></tr></table></div> | | | | | | | | | | | Status | Handset | Extension | Name | | Handset 1 | 661005 | LeoBall | | Handset 2 | 661006 | TerrillSmith |
| Status | Handset | Extension | Name | | | | | | | | | | | | | | | | | | | |
| | Handset 1 | 661005 | LeoBall | | | | | | | | | | | | | | | | | | | |
| | Handset 2 | 661006 | TerrillSmith | | | | | | | | | | | | | | | | | | | |

Step 3. Configure DHCP option 66 on DHCP server

Use the generated provisioning link to configure option 66 on the DHCP server in the subnet where the DECT system is deployed.

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

Options

* Template
YSDP_FanvilW710D

* Provisioning Method
DHCP (in the Office)

Provisioning Link
http://192.168.20.58:7778/api/autoprovion/KZVJ3gwHjecazEQB

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

In this example, the configuration on a router's DHCP server is shown below.

Interfaces » LAN

General Settings Advanced Settings Firewall Settings DHCP Server

General Setup Advanced Settings IPv6 Settings IPv6 RA Settings

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

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

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

DHCP-Options 6,223.5.5.5
66,http://192.168.20.58:7778/api/autoprovion/KZVJ3gwHjecazEQB

Define additional DHCP options, for example "6,192.168.2.1,192.168.2.2" which advertises different DNS servers to clients.

Dismiss Save

Step 4. Obtain the IP address of the Fanvil DECT base station

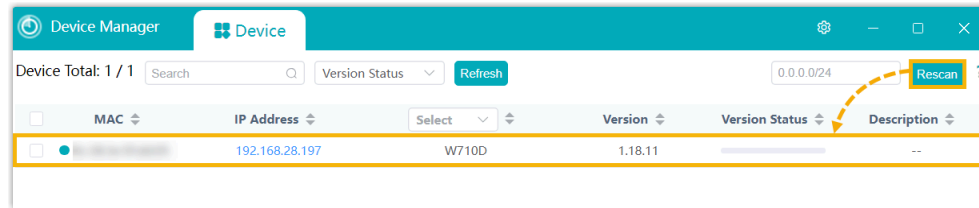
On the DECT base station, use the device button to reset the device, so that the base station can obtain an IP address from a DHCP server in the subnet.

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 5. Pair the Fanvil DECT handset with the DECT base station

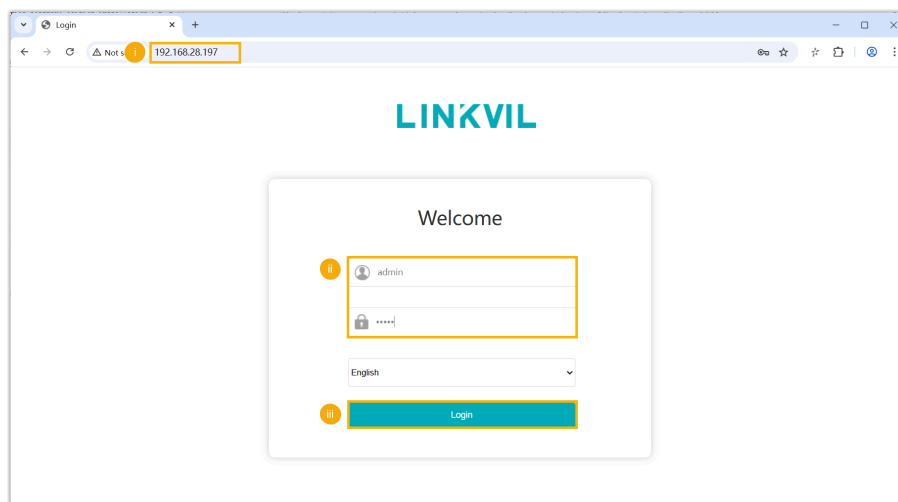
Enable the registration mode of the DECT base station, then pair the Fanvil DECT handset with it.

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`.



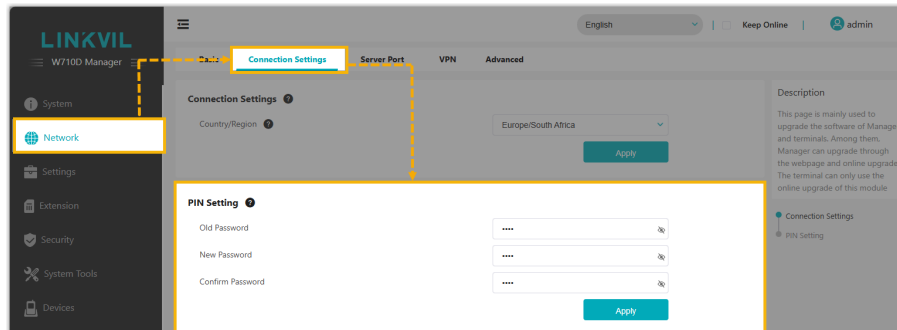
- b. **Optional:** Go to **Network > Connection Settings > PIN Settings**, change the default PIN code to enhance the registration security.



Note:

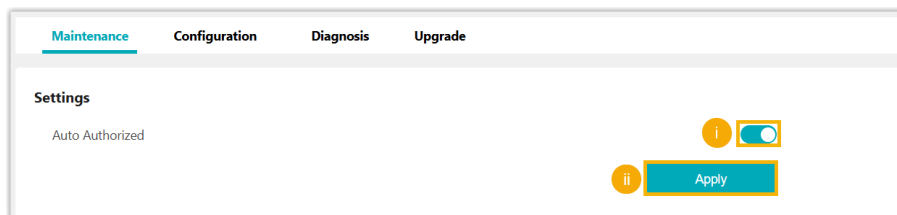


In this example, the default PIN code of the W710D base station is 1234.



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

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



The registration mode of the 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.

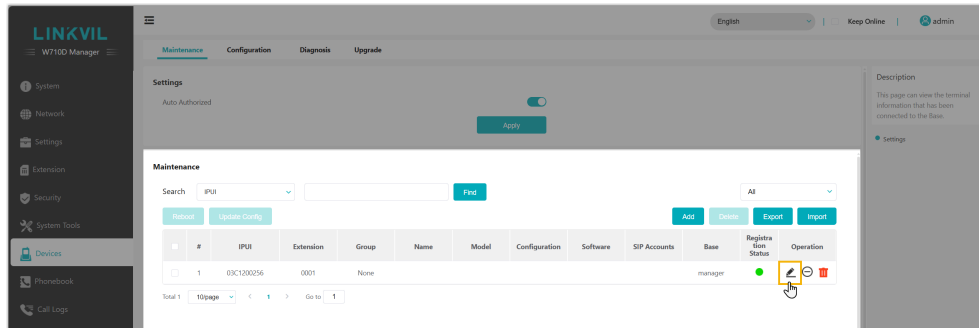
Step 6. Register the Fanvil DECT handset to an extension

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

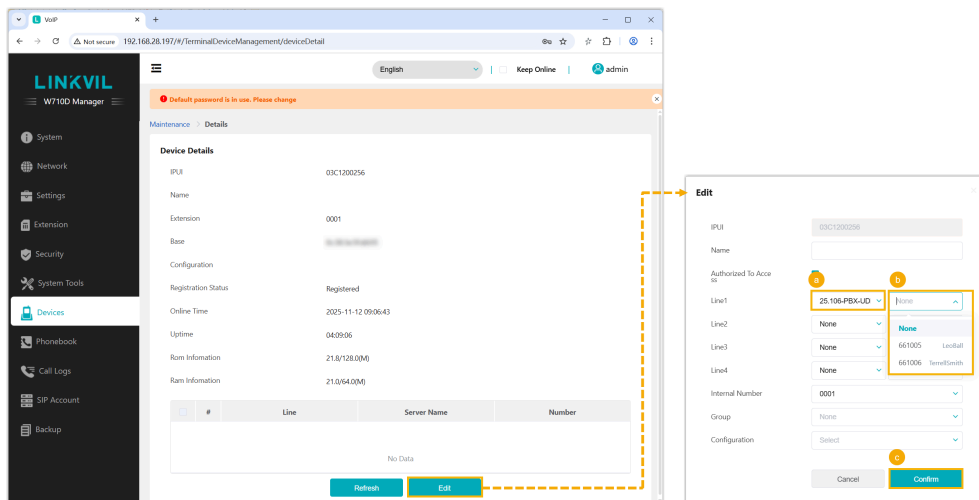
1. On the web interface of the DECT base station, go to **Devices > Maintenance > Maintenance**.

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.



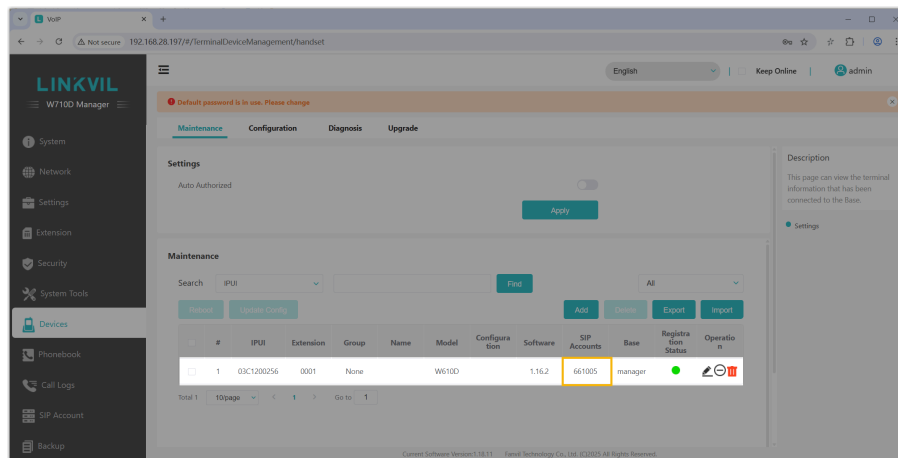
Note:

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**).



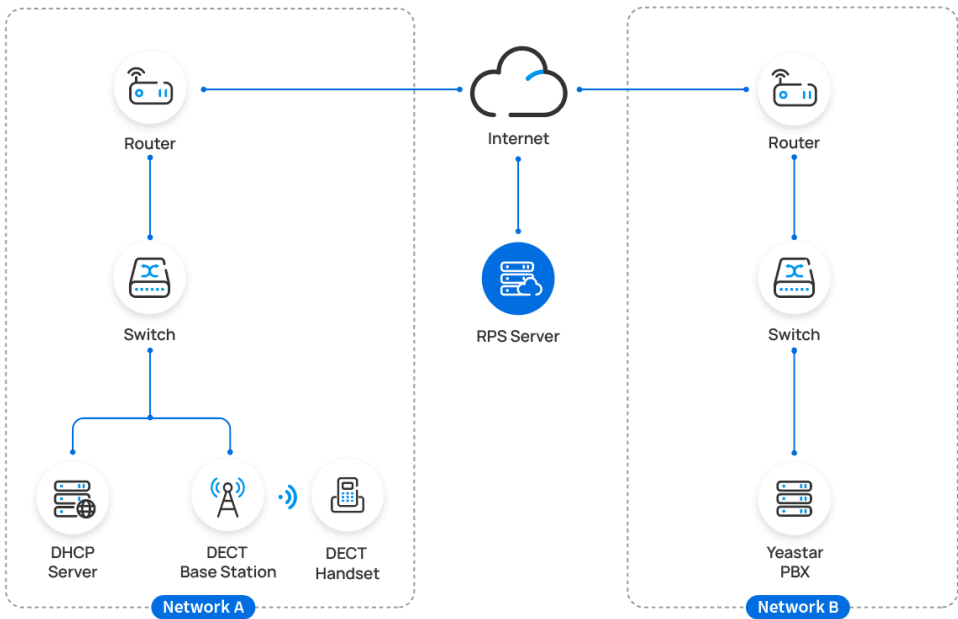
- On PBX web portal, you can check the registration status of the extension on **Auto Provisioning > Phones**.

| Extension | Name | Vendor | Model | IP Address | RPS PIN | Admin Phone Password | Template | Firmware Version | MAC Address |
|-----------|------|--------|-----------|------------|---------|----------------------|------------------|------------------|-------------|
| --- | --- | Fanvil | W710D | - | - | *****@ | YSDP_FanvilW710D | 1.18.11 | --- |
| Status | | | Handset | | | Extension | | Name | |
| 🔧 | | | Handset 1 | | | 661005 | | LeoBall | |
| 🔧 | | | Handset 2 | | | 661006 | | TerrellSmith | |

- On the DECT handset, the name of the assigned extension is displayed on the home screen.
- The registered DECT handset can be used as extensions to make and receive calls.

Auto provision Fanvil DECT system in remote network (RPS)

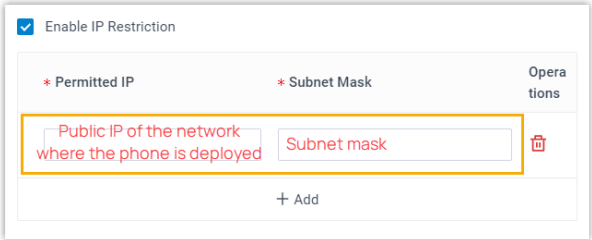

In this example, the Fanvil DECT system (base station and handset) and a DHCP server are deployed in Network A, and the Yeastar PBX is deployed in Network B.

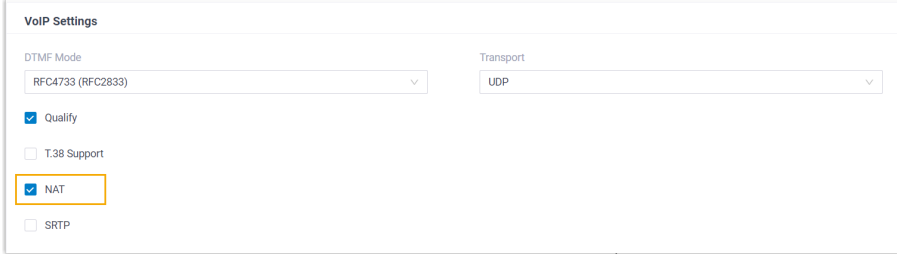

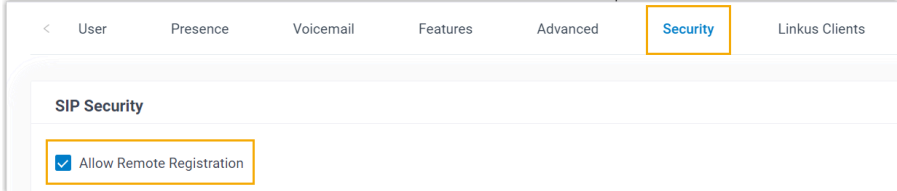


Prerequisites

Yeastar P-Series Software Edition supports to auto provision Fanvil DECT system remotely either using **Yeastar FQDN** or using **public IP address / external host / Yeastar domain name**. According to the provisioning method you intend to use, make sure that you have completed the corresponding setup shown below.

| Method | Setting |
|--------------------|--|
| Using Yeastar FQDN | <div><ul style="list-style-type: none">• Subscribe to Enterprise Plan or Ultimate Plan for the PBX and ensure the FQDN is available.• Grant remote access permission for the extension to be registered and the DECT base station:<ul style="list-style-type: none">◦ Grant remote SIP access permission for the extension, so that the extension can be registered remotely via FQDN (Path: System > Network > Yeastar FQDN > Features > SIP Access).</div> <div><div><div>Access Type</div><div>Allowed Account</div><div>169 items</div><div>Available</div><div>Search here</div><div>Organization</div><div>Extension Group</div><div>Extension Number</div><div>Caller ID Name</div><div>Operations</div></div><div><div>2 items</div><div>Selected</div><div>Search here</div><div>Extension Number</div><div>Caller ID Name</div><div>661005</div><div>LeoBall</div><div>661006</div><div>TerrellSmith</div></div></div> |

| Method | Setting |
|---|--|
| | <ul style="list-style-type: none"> ◦ If you have enabled IP restriction for Yeastar FQDN remote Web access, make sure that you have added the phone's IP address to the permitted IP list, so that the phone can obtain configuration files from the PBX (Path: System > Network > Yeastar FQDN > Features > Remote Access > Web Access). <div>  </div> <ul style="list-style-type: none"> • 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. • Download and 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. |
| Using public IP address / external host / Yeastar domain name | <ul style="list-style-type: none"> • Configure PBX network for remote access by a public IP address, by an external host domain name, or by a Yeastar domain name. <div> <p>! Important: The following PBX ports MUST be forwarded for RPS provisioning.</p> <ul style="list-style-type: none"> ◦ RTP ports ◦ SIP port ◦ Web Server port </div> <ul style="list-style-type: none"> • Set up the extension for remote registration. <ul style="list-style-type: none"> ◦ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT). |

| Method | Setting |
|--------|--|
| | <div>  <p>◦ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).</p>  <ul style="list-style-type: none"> • 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. • Download and 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. </div> |

Procedure

- [Step 1. Add the Fanvil DECT base station on PBX](#)
- [Step 2. Obtain the IP address of the Fanvil DECT base station](#)
- [Step 3. Pair the Fanvil DECT handset with the DECT base station](#)
- [Step 4. Register the Fanvil DECT handset to an extension](#)

Step 1. Add the Fanvil DECT base station on PBX

On PBX web portal, add the DECT base station, complete the provisioning settings, 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.

The screenshot shows the 'IP Phone' configuration form. It has three main fields: 'Vendor' with a dropdown menu showing 'Fanvil', 'Model' with a dropdown menu showing 'W710D', and 'MAC Address' with a text input field.

- **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.

Figure 5. **RPS using Yeastar FQDN**

The screenshot shows the 'Options' section. It includes a 'Template' dropdown set to 'YSDP_FanvilW710D', a 'Provisioning Method' dropdown set to 'RPS FQDN (Remote)', and a 'Provisioning Link' text field containing 'https://docstest.test.smartpbx.cn:443/api/autoprovision/gnRL8CkoYFXWJd'. There is also an unchecked checkbox for 'Authentication for the First-time Auto Provisioning'.

Figure 6. **RPS using public IP address / external host / Yeastar domain**

The screenshot shows the 'Options' section. It includes a 'Template' dropdown set to 'YSDP_FanvilW710D', a 'Provisioning Method' dropdown set to 'RPS (Remote)', and a 'Provisioning Link' text field containing 'https://test.domain.com:18207/api/autoprovision/gnRL8CkoYFXWJd'. There is also an unchecked checkbox for 'Authentication for the First-time Auto Provisioning'.

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



Note:

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

- **Provisioning Method:** Select **RPS FQDN (Remote)** or **RPS (Remote)** according to your need.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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:

The screenshot shows the 'Assign Extension' form. At the top, there are fields for 'Handset ID Range' (1 to 10), 'Start Extension' (661005-Leo...), and 'End Extension' (661012-Car...). A blue button labeled 'Assign Extension' is on the right. Below these fields is a table with two columns: 'Handset' and 'Extension'. The first row shows 'Handset 1' with a checkbox that is checked and a dropdown menu showing '661005-LeoBall'.

- 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:

The screenshot shows the 'Assign Extension' form. At the top, there are fields for 'Handset ID Range' (1 to 10), 'Start Extension' (661005-Leo...), and 'End Extension' (661012-Car...). A blue button labeled 'Assign Extension' is on the right. Below these fields is a table with two columns: 'Handset' and 'Extension'. The first three rows show 'Handset 1', 'Handset 2', and 'Handset 3', each with a checked checkbox and a dropdown menu showing their respective assigned extensions: '661005-LeoBall', '661006-TerrellSmith', and '661007-Ramon Gordon'.

- 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.



Note:



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


- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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 DECT base station is added to the PBX, and displayed in the Auto Provisioning phone list; The PBX will send an event notification of **RPS Request Success**.



Tip:

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

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | RPS PIN | Admin Phone Password | Template | Operations | | | | | | | | | | | | |
|---|-----------|-----------|--------------|--------|-------|------------|---------|----------------------|------------------|------------|--------|---------|-----------|------|--|-----------|--------|---------|--|-----------|--------|--------------|
| <input type="checkbox"/> | | ... | ... | Farvil | W710D | - | - | *****@ | YSDP_FarvilW710D | | | | | | | | | | | | | |
| <table><tr><th>Status</th><th>Handset</th><th>Extension</th><th>Name</th></tr><tr><td></td><td>Handset 1</td><td>661005</td><td>LeoBall</td></tr><tr><td></td><td>Handset 2</td><td>661006</td><td>TerrellSmith</td></tr></table> | | | | | | | | | | | Status | Handset | Extension | Name | | Handset 1 | 661005 | LeoBall | | Handset 2 | 661006 | TerrellSmith |
| Status | Handset | Extension | Name | | | | | | | | | | | | | | | | | | | |
| | Handset 1 | 661005 | LeoBall | | | | | | | | | | | | | | | | | | | |
| | Handset 2 | 661006 | TerrellSmith | | | | | | | | | | | | | | | | | | | |

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

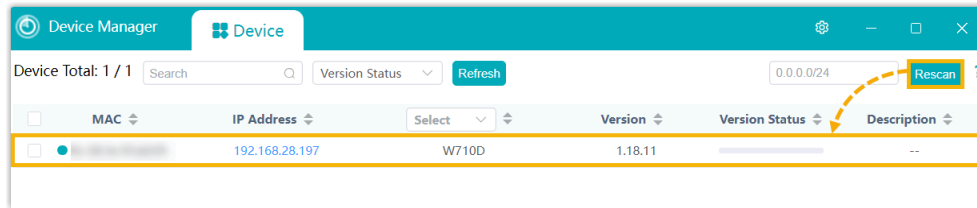
On the DECT base station, use the device button to reset the device, so that the base station can obtain an IP address from a DHCP server in the subnet.

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

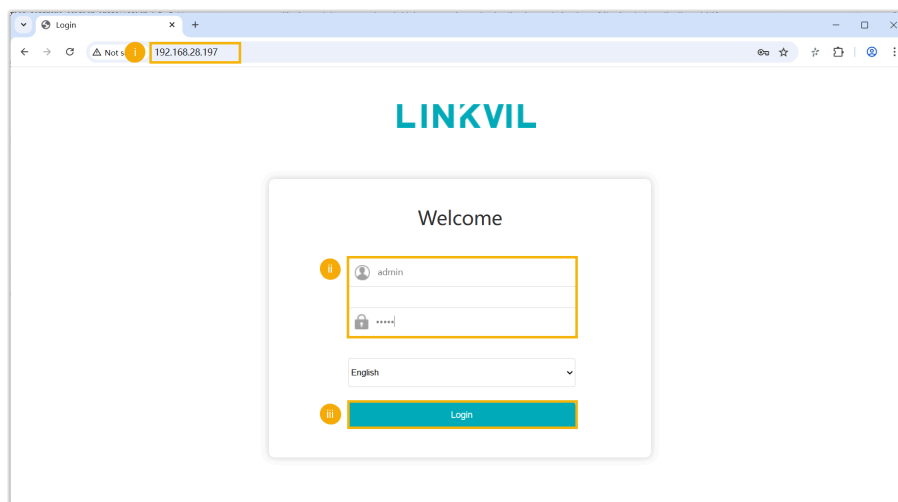
Enable the registration mode of the DECT base station, then pair the Fanvil DECT handset with it.

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`.



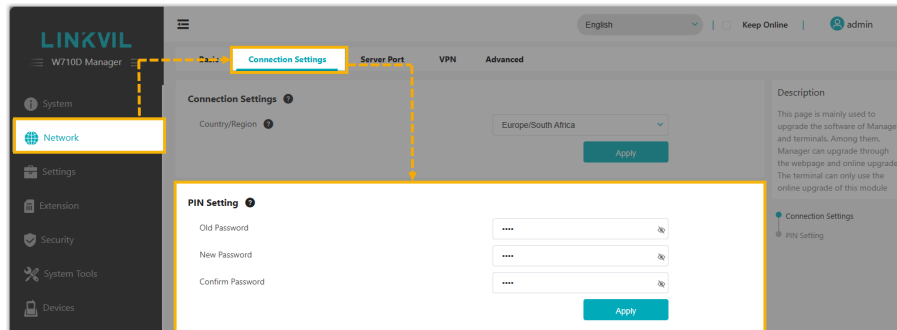
- b. **Optional:** Go to **Network > Connection Settings > PIN Settings**, change the default PIN code to enhance the registration security.



Note:

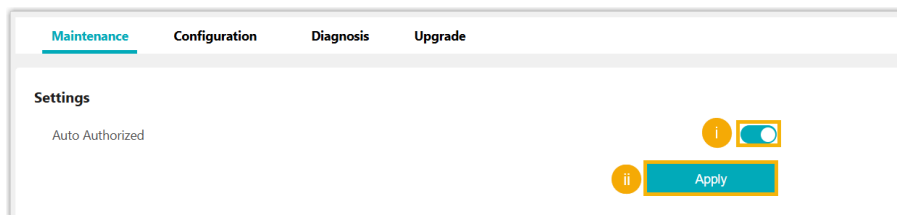


In this example, the default PIN code of the W710D base station is 1234.



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

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



The registration mode of the 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.

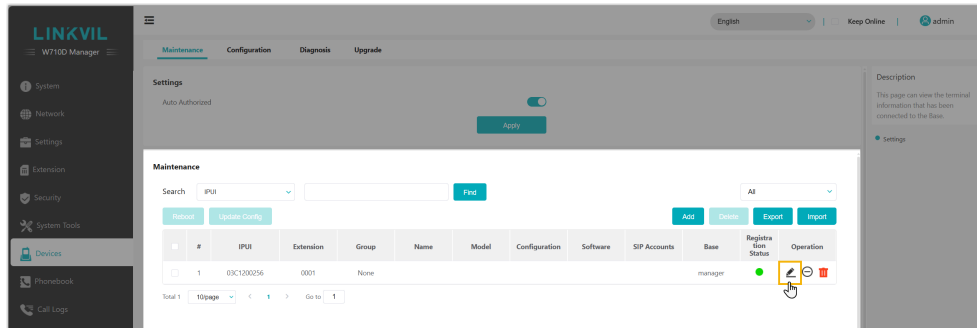
Step 4. Register the Fanvil DECT handset to an extension

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

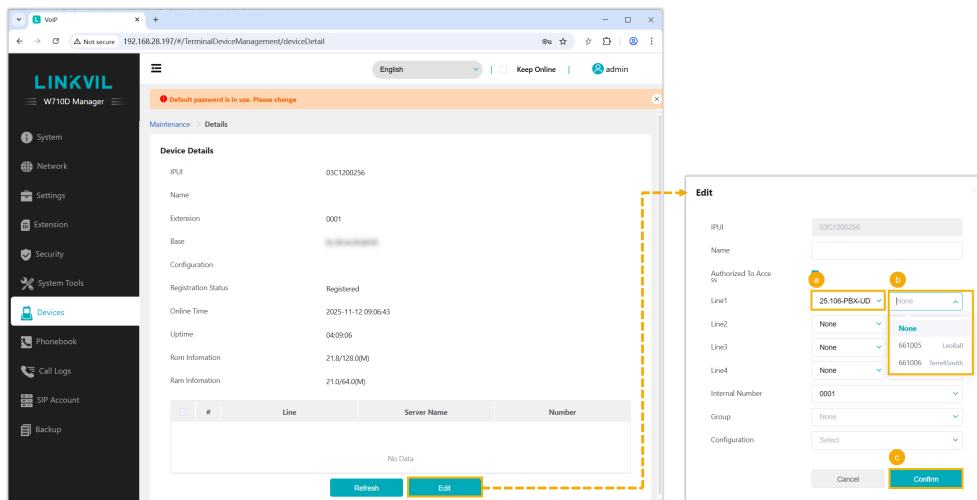
1. On the web interface of the DECT base station, go to **Devices > Maintenance > Maintenance**.

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.



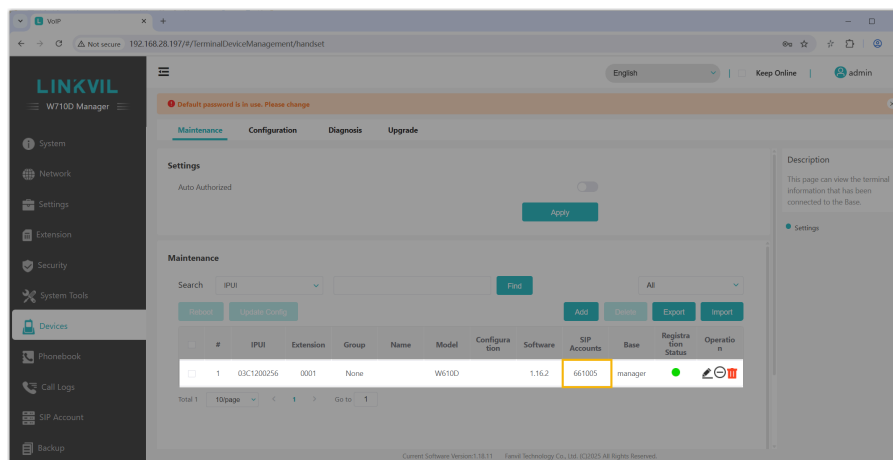
Note:

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**.
- | Extension | Name | Vendor | Model | IP Address | RPS PIN | Admin Phone Password | Template | Firmware Version | MAC Address |
|-----------|------|--------|-----------|----------------|---------|----------------------|------------------|------------------|-------------------|
| --- | --- | Fanvil | W710D | 192.168.28.197 | - | *****@ | YSDP_FanvilW710D | 1.18.11 | 08:00:27:00:00:00 |
| Status | | | Handset | | | Extension | | Name | |
| 🔍 | | | Handset 1 | | | 661005 | | LeoBall | |
| 🔍 | | | Handset 2 | | | 661006 | | TerrellSmith | |
- On the DECT handset, the name of the assigned extension is displayed on the home screen.
 - The registered DECT handset can be used as extensions to make and receive calls.

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


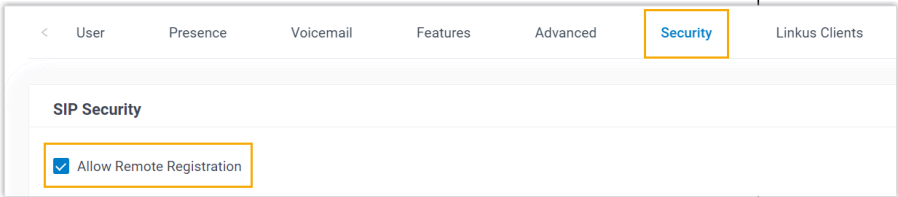
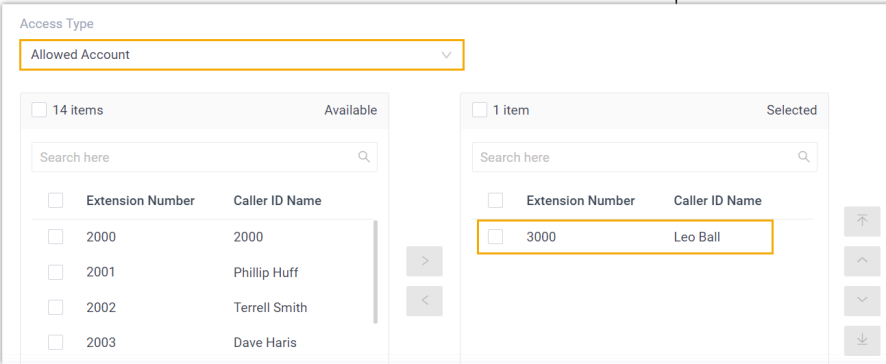

This topic takes Fanvil X6U-V2 (firmware: 2.12.1) as an example to introduce how to manually register an extension on a Fanvil IP phone.


Supported devices

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

Prerequisites

Make sure that you have completed the corresponding settings shown below according to the network environment of **Fanvil IP phone** and **Yeastar PBX**.

| Network Environment | | Setting |
|---------------------|--|---|
| Local Network | Register extension in the same subnet | / |
| | Register extension in different subnets | <p>Enable the Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).</p>  |
| Remote Network | Register extension using Yeastar FQDN | <ul style="list-style-type: none"> • Grant remote SIP access permission for the extension (Path: System > Network > Yeastar FQDN > Features > SIP Access).  |
| | Register extension using Public IP address / External Host domain name | <ul style="list-style-type: none"> • Configure PBX network for remote access by a public IP address or by an external host domain name. • Set up the extension for remote registration. <ul style="list-style-type: none"> ◦ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT). |


| Network Environment | Setting |
|---------------------|---|
| | <div> <p>VoIP Settings</p> <p>DTMF Mode RFC4733 (RFC2833)</p> <p>Transport UDP</p> <p><input checked="" type="checkbox"/> Qualify</p> <p><input type="checkbox"/> T.38 Support</p> <p><input checked="" type="checkbox"/> NAT</p> <p><input type="checkbox"/> SRTP</p> </div> <p>◦ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).</p> <div> <p>< User Presence Voicemail Features Advanced Security Linkus</p> <p>SIP Security</p> <p><input checked="" type="checkbox"/> Allow Remote Registration</p> </div> |



Procedure

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

Step 1. Gather registration information on Yeastar PBX

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

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

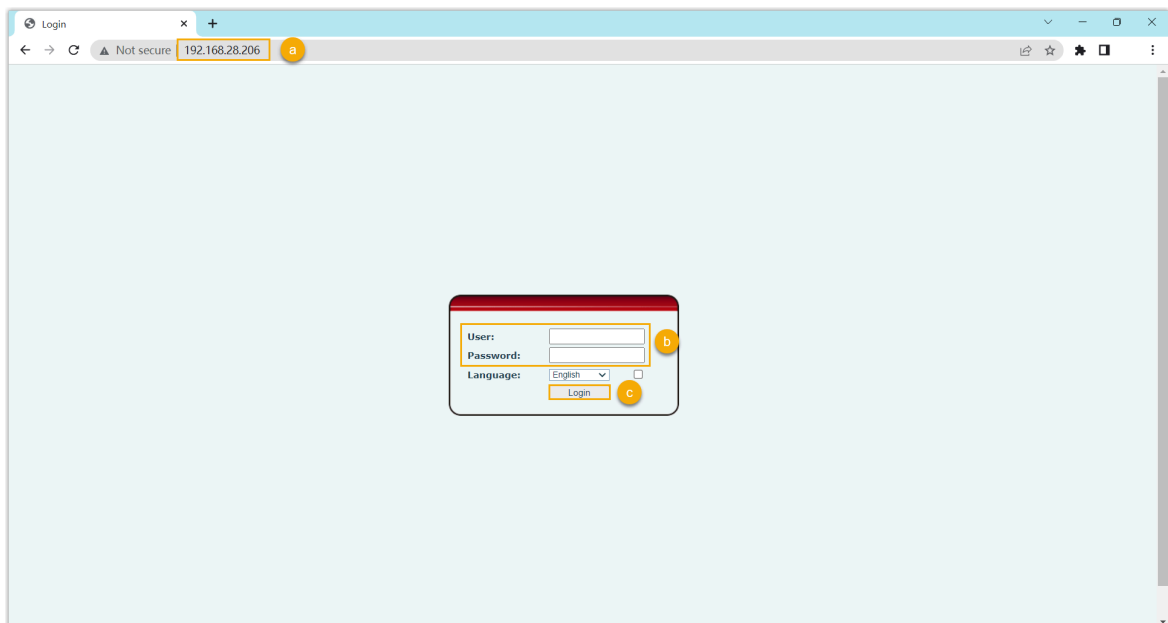
| Information | Instruction |
|-------------------------------|--|
| | <div><div><div><div>Extension Information</div><div><div><div>* Extension Number</div><div>3000</div></div><div><div>* Registration Name</div><div>birKhC0MdW</div></div><div><div>IP Phone Concurrent Registrations</div><div>1</div></div></div><div><div><div>* Caller ID</div><div>39:3000</div></div><div><div>* Registration Password</div><div>*****</div></div></div></div></div></div> |
| Transport protocol | <div><p>Go to Extension and Trunk > Extension >  > Advanced > VoIP Settings > Transport, note down the transport protocol of the extension.</p><p>In this example, the extension use UDP transport protocol.</p><div><div><div>UserPresenceVoicemailFeaturesAdvancedSecurityLinkus ClientsPhoneFunction Keys</div><div><div>VoIP Settings</div><div><div>DTMF Mode</div><div>RFC4733 (RFC2833)</div></div><div><div>Transport</div><div>UDP</div></div></div></div></div><div><div><div> Note:</div><div><ul style="list-style-type: none">If the extension uses TCP transport protocol, make sure that the SIP TCP port is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > General > Basic).</div><div><div><div>Basic</div><div><div><div>* SIP UDP Port</div><div>5060</div></div><div><div>* SIP TCP Port</div><div><input checked="" type="checkbox"/> 5060</div></div><div><div>* RTP Port Range</div><div>18256 : 18356</div></div><div><div>* Outbound SIP Port Range</div><div><input type="checkbox"/> 5062 : 5082</div></div></div></div></div><div><ul style="list-style-type: none">If the extension uses TLS transport protocol, make sure that the TLS is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > TLS).</div><div><div><div><input checked="" type="checkbox"/> TLS</div><div><div>* SIP TLS Port</div><div>5061</div></div></div></div></div></div></div> |
| PBX IP address or domain name | Scenario: Register extension in local network |

| Information | Instruction |
|-----------------------|--|
| | <p>In this scenario, you can directly utilize the PBX's private IP address for extension registration.</p> <div> </div> <p>Note: This topic provides the configuration example based on this scenario, where the PBX's private IP address is 192.168.28.39.</p> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN, note down the PBX's Fully Qualified Domain Name (FQDN).</p> <div> <div> Status <div> ● Successfully connected to the tunnel server. </div> </div> <div> Fully Qualified Domain Name (FQDN) <div> yeastardocs.ras.yeastar.com </div> <p>ⓘ The domain name can be configured only once and cannot be altered after the configuration.</p> </div> </div> <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> <p>Go to System > Network > Public IP and Ports, note down the PBX's public IP address or external host domain name.</p> <div> <div> Public IP (NAT) <div> NAT Type <div>Public IP Address</div> <div>Public IP Address</div> <div>110.35.77.110</div> </div> </div> <div> Public IP (NAT) <div> NAT Type <div>External Host</div> <div>External Host</div> <div>yeastar_docstest.com</div> </div> </div> <div> Public IP (NAT) <div> NAT Type <div>Yeastar Domain</div> <div>Yeastar Domain</div> <div>yeastardocs.cloudipbx.smaripbx.cn</div> </div> </div> </div> |
| SIP registration port | <p>Scenario: Register extension in local network</p> <p>Go to System > Network > Service Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p> <div> <div> HTTPS <div>8088</div> </div> <div> HTTP <div>80</div> </div> <div> SIP UDP <div>5060</div> </div> <div> SIP TCP <div>5060</div> </div> <div> SIP TLS <div>5061</div> </div> <div> Outbound SIP Port <div>5062-5082</div> </div> </div> <p>In this example, we use the SIP UDP port 5060.</p> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN > Features > SIP Access, note down the SIP registration port corresponding to the extension's transport protocol.</p> |

| Information | Instruction |
|-------------|---|
| | <div> <div> Features <div> <div>SIP Access</div> <div>Remote Access</div> </div> <div> <p>Before enabling this feature, please make sure your extensions are using strong registration passwords, or it might bring security risks.</p> </div> <div> <p>* Status</p> <div>Enabled</div> </div> <div> <div>Remote Access Service Port-SIP UDP&TCP</div> <div>5060</div> </div> <div> <div>Remote Access Service Port-SIP TLS</div> <div>5061</div> </div> </div> </div> <div> <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> <p>Go to System > Network > Public IP and Ports > Public Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p> </div> <div> Public Ports <div> <div>External SIP UDP Port</div> <div>18205</div> </div> <div> <div>External SIP TCP Port</div> <div>18205</div> </div> <div> <div>External SIP TLS Port</div> <div>18208</div> </div> <div> <div>External Linkus Port</div> <div></div> </div> </div> |

Step 2. Register extension on Fanvil IP phone

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



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

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

- c. Click **Login**.

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

Fanvil X6U

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

System
Network
Line
Phone settings

Line SIP1

Register Settings >>

Line Status: Inactive Activate: ☐

Username: Authentication User:

Display name: Authentication Password:

Realm: Server Name:

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

Fanvil X6U

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

System
Network
Line
Phone settings
Phonebook
Call logs
Function Key

Line SIP1

Register Settings >>

Line Status: Inactive **a** Activate: ☒

b Username: 3000 Authentication User: birKhcOMdW

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

Realm: Server Name:

c **SIP Server 1:**

Server Address: 192.168.28.39

Server Port: 5060

Transport Protocol: UDP

Registration Expiration: 3600 second(s)

SIP Server 2:

Server Address:

Server Port: 5060

Transport Protocol: UDP

Registration Expiration: 3600 second(s)

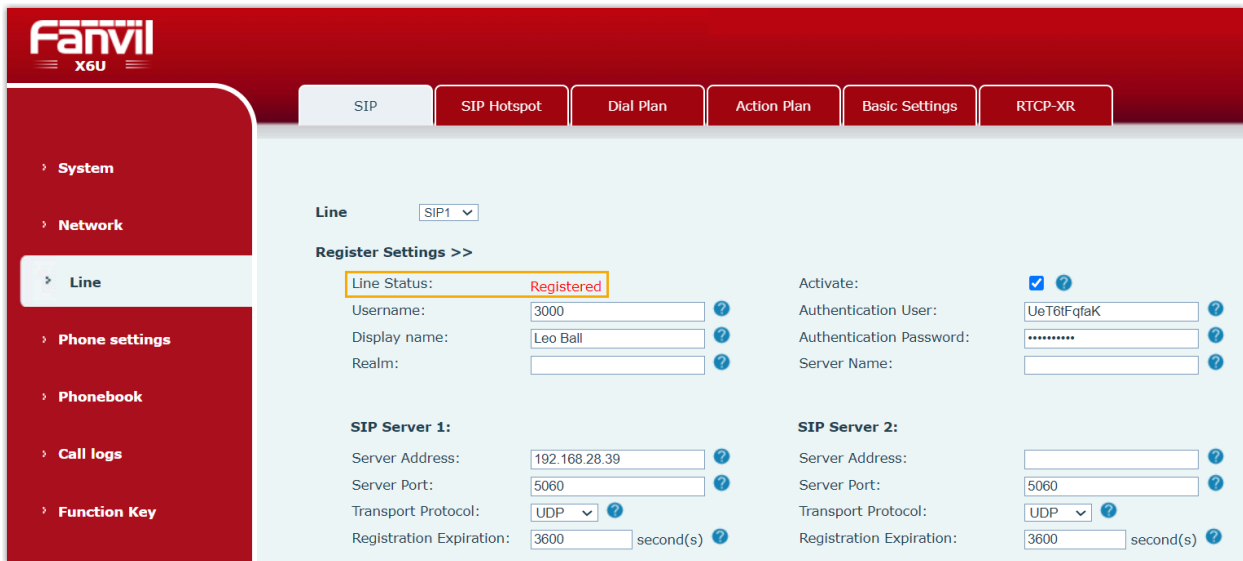
- a. Select the checkbox of **Activate** to activate the account.
- b. Enter the extension information.
 - **Username:** Enter the extension number.
 - **Display Name:** Enter the name associated with the account, which will be displayed on the phone screen.
 - **Authentication User:** Enter the registration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

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

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

Result

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



The screenshot displays the Fanvil X6U web portal interface. The top navigation bar includes tabs for SIP, SIP Hotspot, Dial Plan, Action Plan, Basic Settings, and RTPCP-XR. The left sidebar contains a menu with options: System, Network, Line (selected), Phone settings, Phonebook, Call logs, and Function Key. The main content area is titled 'Register Settings >>'. It features a 'Line' dropdown menu set to 'SIP1'. Below this, the 'Line Status' field is highlighted with an orange border and displays 'Registered'. Other fields include Username (3000), Display name (Leo Ball), Realm, Activate (checked), Authentication User (UeT6IFqfaK), Authentication Password (masked), Server Name, SIP Server 1 (Server Address: 192.168.28.39, Server Port: 5060, Transport Protocol: UDP, Registration Expiration: 3600 second(s)), and SIP Server 2 (Server Address, Server Port: 5060, Transport Protocol: UDP, Registration Expiration: 3600 second(s)).

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 Software Edition via Auto Provisioning, and has been assigned an extension.

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

Step 1. Set up a function key for extension monitoring

1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, edit the extension that is assigned to the phone.
2. Click the **Function Keys** tab.
3. Configure a function key to monitor the status of an extension.

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

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

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

Step 2. Apply the configuration to the Fanvil IP phone

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

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

The system prompts you whether to reprovision the phone.

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

Result

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



Note:



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

- **Flashing Red**: The extension is ringing.
 - **LED off**: The 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

Auto Provision Avaya IP Phone with Yeastar P-Series Software Edition

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

Requirements

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

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------|---------------------|---------------------|---|
| J129 | 4.1.1.0.7 or later | 83.12.0.23 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| J139 | 4.1.1.0.7 or later | 83.12.0.23 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| J159 | 4.1.1.0.7 or later | 83.12.0.23 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| J169 | 4.1.1.0.7 or later | 83.12.0.23 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| J179 | 4.1.1.0.7 or later | 83.12.0.23 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| J189 | 4.1.1.0.7 or later | 83.12.0.23 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| 9608 | 7.1.15.2.1 or later | 83.14.0.26 or later | <ul style="list-style-type: none">• DHCP• Provision Link |



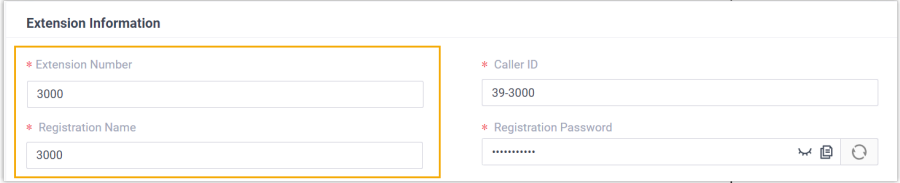


Prerequisites



- Set up a DHCP server in the same subnet as the IP phone to assign it an IP address.

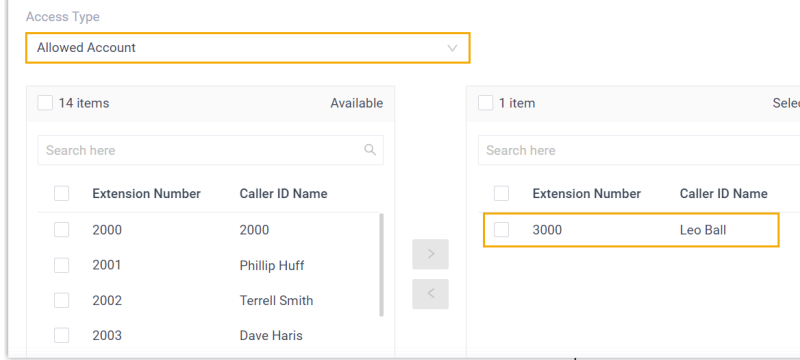

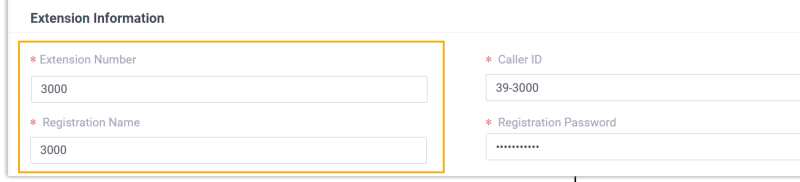
**Note:**


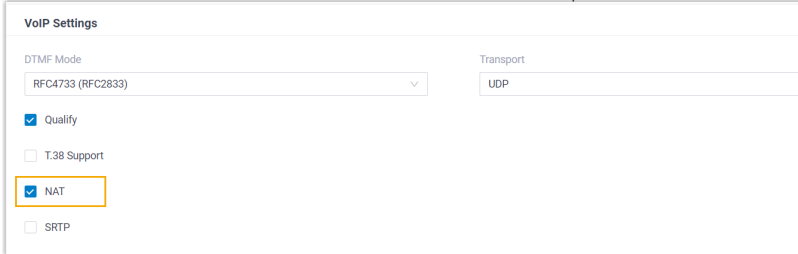

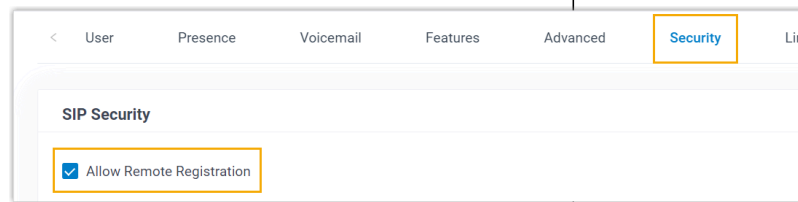
Make sure that there is only one DHCP server running in the subnet, or the IP phone would fail to obtain an IP address.

- 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**).
- Make sure that you have completed the corresponding settings shown below according to the network environment of **Avaya IP phone** and **Yeastar PBX**.

| Network Environment | | Setting |
|---------------------|--|---|
| Local Network | Provision an IP phone in the same subnet | <p>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).</p> <div>  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. </div> <div>  </div> |
| | Provision an IP phone in different subnets | <ul style="list-style-type: none"> ◦ Make sure that the two subnets can communicate with each other. ◦ Complete the following settings for the extension to be assigned to the IP phone: <ul style="list-style-type: none"> ▪ Set the registration name to the same as the extension number for the extension (Path: Extension and Trunk > Extension >  > User > Extension Information). <div>  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. </div> |

| Network Environment | | Setting | |
|---------------------|---|---|--|
| | | <div><div><div>Extension Information</div><div><div><div>* Extension Number</div><div>3000</div></div><div><div>* Registration Name</div><div>3000</div></div></div><div><div>* Caller ID</div><div>39-3000</div></div><div><div>* Registration Password</div><div>*****</div></div></div></div> <div><ul style="list-style-type: none">▪ Enable the Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration)</div> | |
| Remote Network | Remotely provision an IP phone using Yeastar FQDN | <div><ul style="list-style-type: none">◦ Complete the following settings for the extension to be assigned to the IP phone:<ul style="list-style-type: none">▪ Set the registration name to the same as the extension number for the extension (Path: Extension and Trunk > Extension >  > User > Extension Information).</div> <div><div><div>!</div><div>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.</div></div></div> <div><div><div>Extension Information</div><div><div><div>* Extension Number</div><div>3000</div></div><div><div>* Registration Name</div><div>3000</div></div></div><div><div>* Caller ID</div><div>39-3000</div></div><div><div>* Registration Password</div><div>*****</div></div></div></div> <div><ul style="list-style-type: none">▪ Grant remote SIP access permission for the extension (Path: System > Network > Yeastar FQDN > Features > SIP Access).</div> | |

| Network Environment | Setting |
|---|---|
| |  |
| <p>Remotely provision an IP phone using public IP address / domain name</p> | <ul style="list-style-type: none"> Configure PBX network for remote access by a public IP address, by an external host domain name, or by a Yeastar domain name. <div> <p>Important:</p> <p>The following PBX ports MUST be forwarded for RPS provisioning.</p> <ul style="list-style-type: none"> RTP ports SIP port Web Server port </div> <ul style="list-style-type: none"> Complete the following settings for the extension to be assigned to the IP phone: <ul style="list-style-type: none"> Set the registration name to the same as the extension number for the extension (Path: Extension and Trunk > Extension >  > User > Extension Information). <div> <p>Important:</p> <p>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.</p> </div> |
| |  |

| Network Environment | Setting |
|---------------------|---|
| | <ul style="list-style-type: none"> ▪ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT).  <ul style="list-style-type: none"> ▪ Enable the Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).  |

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.

IP Phone

* Vendor

Avaya

* Model

J139

* MAC Address

- **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.

Options

* Template

YSDP_AvayaJ100

* Provisioning Method

DHCP (In the Office)

Provisioning Link

http://192.168.28.39:7778/api/autoprovision/H70R1oiPnJCnp6L

- **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 Method:** Select the provisioning method according to your needs.

| Provisioning Method | Description |
|--------------------------------|---|
| DHCP (In the Office) | Suitable for provisioning the IP phone that is located in the local network, either in the same subnet or in different subnets. |
| Provision Link (Remote) | Suitable for provisioning the IP phone located in a remote network, and the IP phone will access the PBX using public IP address / domain name to retrieve configuration files. |
| Provision Link - FQDN (Remote) | Suitable for provisioning the IP phone located in a remote network, and the IP phone will access the PBX using Yeastar FQDN to retrieve configuration files. |

A provisioning link is automatically generated and displayed in the **Provisioning Link** 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.

Assign Extension

* Select Extension

3000-Leo Ball



Note:


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






- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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**.

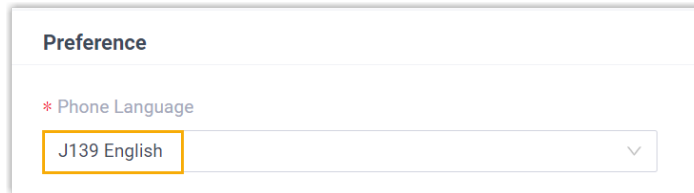
The IP phone is added and displayed in the Auto Provisioning phone list.

7. Set the phone language for the IP phone.

a. In the Auto Provisioning phone list, click  beside the Avaya IP phone.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|---|-----------|----------|--------|-------|------------|-------------|---|
| <input type="checkbox"/> |  | 3000 | Leo Ball | Avaya | J139 | - | *****@ |     |

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.

The screenshot shows the 'Tftpd64: Settings' dialog box with the 'DHCP' tab selected. The 'Additional Option' field is highlighted with an orange border, showing the value '242' and the string 'HTTPSRR=192.168.28.39,HTTPDIR=a'.

- In the **Additional Option** field, enter 242.
- In the string value field, enter the [provisioning link obtained from the PBX](#) according to the selected provisioning method.






| Provisioning Method | Instruction |
|---------------------|--|
| DHCP | <p>Enter the link in the following format:</p> <pre>HTTPSRR=192.168.28.39,HTTPDIR=api/autoprovision/lgjnRL8CkoYFXWJd,HTTPPORT=7778,SIG=2</pre> <ul style="list-style-type: none"> • HTTPSRR: The IP address of the PBX. • HTTPDIR: The file path on the PBX (e.g. <code>api/autoprovision/lgjnRL8CkoYFXWJd</code>). • HTTPPORT: The server port of the PBX. • SIG: The software version of the Avaya IP phone. Set the value to 2. |

| Provisioning Method | Instruction |
|---------------------|--|
| Provision Link | <p>Enter the link in the following format:</p> <pre>TLSSRV=yeastardocs.ras.yeastar.com,TLSDIR=api/autoprovision/lgjnRL8CkoYFXWJd,TLSPORT=443,SIG=2</pre> <ul style="list-style-type: none"> • TLSSRV: The public IP address / domain name of the PBX. • TLSDIR: The file path on the PBX (e.g. <code>api/autoprovision/lgjnRL8CkoYFXWJd</code>). • 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.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|---|-----------|----------|--------|-------|------------|-------------|---|
| <input type="checkbox"/> |  | 3000 | Leo Ball | Avaya | J139 | - | *****@ |     |

Cisco

Auto Provision Cisco IP Phone with Yeastar P-Series Software Edition

This topic describes how to auto provision Cisco IP phone with Yeastar P-Series Software Edition in Local Area Network (LAN), so as to associate the Cisco IP phone with a Yeastar PBX extension.

Requirements

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

**Note:**

Currently, the programmable line key configuration on Cisco 8811 via auto provisioning is NOT supported.

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------|----------------------------------|---------------------|------------------------------------|
| 3905 | 9.4(1)SR3 or later | 83.12.0.23 or later | • DHCP |
| 6921 | SCCP69xx.9-4-1-3SR4-1 or later | 83.17.0.17 or later | • DHCP |
| 6941 | SCCP69xx.9-4-1-3SR4-1 or later | 83.17.0.17 or later | • DHCP |
| 6961 | SCCP69xx.9-4-1-3SR4-1 or later | 83.17.0.17 or later | • DHCP |
| 7811 | sip78xx.14-2-1-0001-455 or later | 83.17.0.17 or later | • DHCP |
| 7821 | 14.2(1)SR1 or later | 83.12.0.23 or later | • DHCP |
| 7841 | sip78xx.14-2-1-0001-455 or later | 83.17.0.17 or later | • DHCP |
| 7851 | sip78xx.14-2-1-0001-455 or later | 83.17.0.17 or later | • DHCP |
| 7861 | SIP78xx.14-2-1-0201-40 or later | 83.13.0.29 or later | • DHCP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|---------|-----------------------------------|----------------------|------------------------------------|
| 7911 | SIP11.9-2-1S or later | 83.17.0.17 or later | • DHCP |
| 7925 | CP7925G-1.4.5.3.loads or later | 83.17.0.17 or later | • DHCP |
| 7942 | SIP42.9-4-2SR3-1S or later | 83.12.0.23 or later | • DHCP |
| 7945 | SIP45.9-4-2SR4-1S or later | 83.17.0.17 or later | • DHCP |
| 7962 | SIP42.9-4-2SR4-1S or later | 83.17.0.17 or later | • DHCP |
| 7975 | SIP75.9-3-1SR4-1S or later | 83.17.0.17 or later | • DHCP |
| 8811 | SIP88xx.12-1-1SR1-4 or later | 83.13.0.29 or later | • DHCP |
| 8841 | 14.3(1)SR3 or later | 83.13.0.29 or later | • DHCP |
| 8845 | 14.2(1)SR1 or later | 83.12.0.23 or later | • DHCP |
| 8851 | sip88xx.14-2-1-0001-45 5 or later | 83.17.0.17 or later | • DHCP |
| 8861 | sip88xx.14-2-1-0001-45 5 or later | 83.17.0.17 or later | • DHCP |
| 8865 | sip88xx.14-2-1-0001-45 5 or later | 83.17.0.17 or later | • DHCP |
| 8941 | sip89xx.9-4-2SR4-1 or later | 83.17.0.17 or later | • DHCP |
| 8945 | sip89xx.9-4-2SR4-1 or later | 83.17.0.17 or later | • DHCP |
| 8961 | sip89xx.9-4-2SR4-1 or later | 83.17.0.17 or later | • DHCP |
| 9951 | sip99xx.9-4-2SR4-1 or later | 83.17.0.17 or later | • DHCP |
| 9971 | sip99xx.9-4-2SR4-1 or later | 83.17.0.17 or later | • DHCP |
| SPA501G | 7.4.7 or later | 83.19.0.110 or later | • DHCP |
| SPA502G | 7.4.7 or later | 83.19.0.110 or later | • DHCP |
| SPA504G | 7.4.7 or later | 83.19.0.110 or later | • DHCP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|----------|-------------------|----------------------|------------------------------------|
| SPA508G | 7.4.7 or later | 83.19.0.110 or later | • DHCP |
| SPA509G | 7.4.7 or later | 83.19.0.110 or later | • DHCP |
| SPA512G | 7.4.7 or later | 83.19.0.110 or later | • DHCP |
| SPA514G | 7.4.7 or later | 83.19.0.110 or later | • DHCP |
| SPA301 | 7.4.7 or later | 83.19.0.110 or later | • DHCP |
| SPA303 | 7.4.7 or later | 83.19.0.110 or later | • DHCP |
| SPA525G2 | 7.4.7 or later | 83.19.0.110 or later | • DHCP |

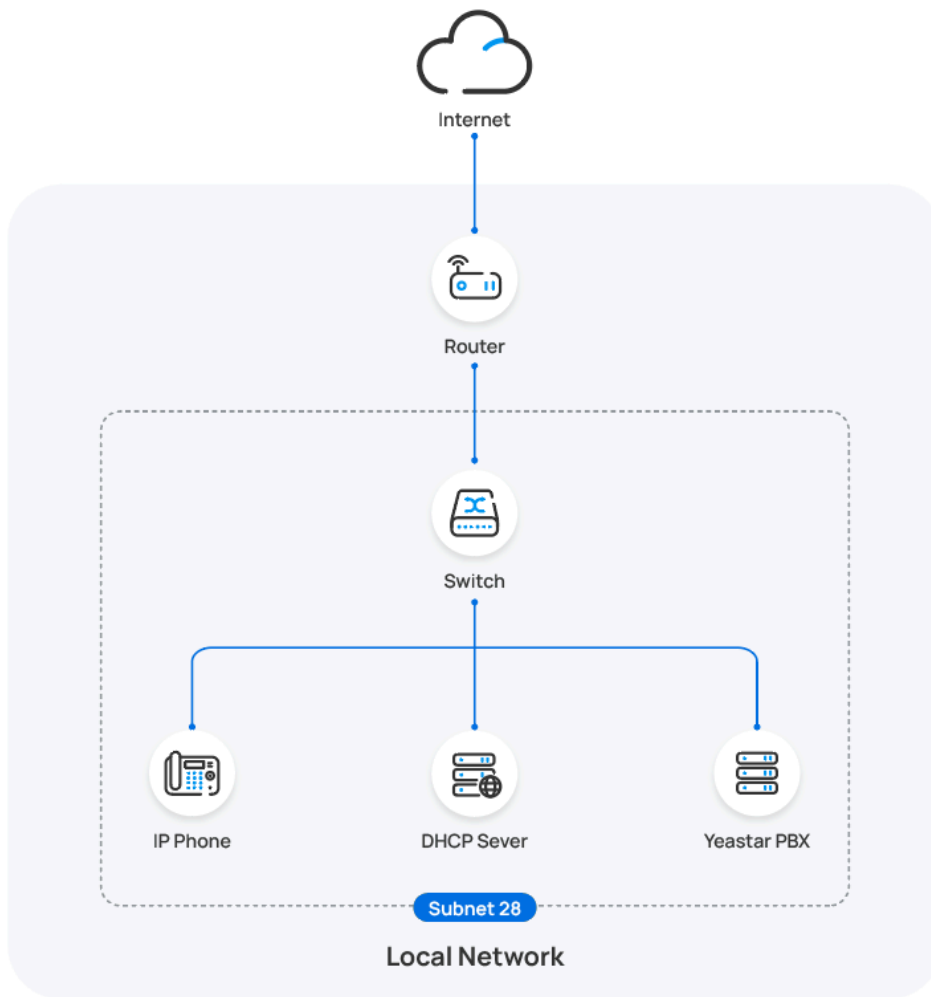
Scenarios

Yeastar P-Series Software Edition supports to auto provision Cisco IP phone via **DHCP** method in local network. The provisioning operations vary depending on the network environment of **Cisco IP phone** and **Yeastar PBX**.

- [Auto provision a Cisco IP phone in the same subnet](#)
- [Auto provision a Cisco IP phone in different subnets](#)

Auto provision a Cisco IP phone in the same subnet

In this example, the Cisco IP phone, a DHCP server, and the Yeastar PBX (IP: 192.168.28.41) are deployed in subnet 28.



Prerequisites

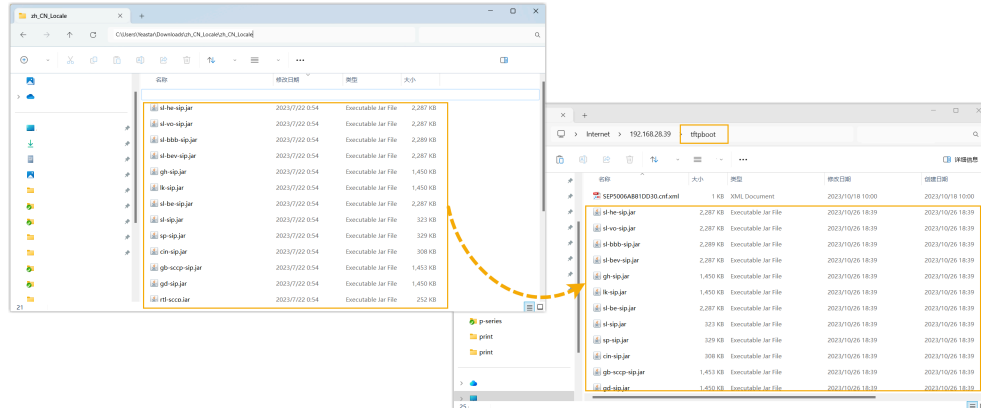
- Make sure that there is only one DHCP server running in the subnet, or the IP phone would fail to obtain an IP address.
- Make sure that you have [downloaded the template](#) for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- Gather information of IP phone, including Vendor, Model, and MAC address.
- (Optional) Download your desired language files from Cisco website and [upload the language files to the folder `tftpboot` in the PBX via FTP](#).



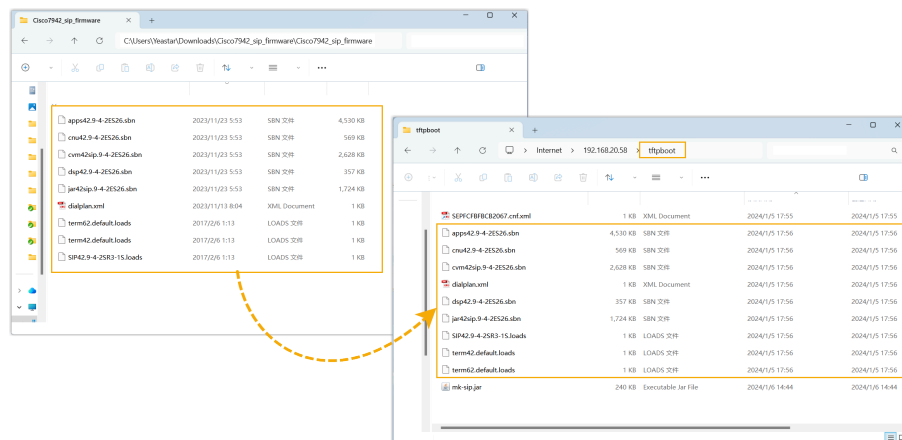
Note:




By default, Cisco IP phone displays in **English**. If you want it to display in another language after auto provisioning, you can manually upload your language files to PBX.



- If you want to provision **Cisco 7942**, in addition to the above prerequisites, you will also need to complete the followings:
 - Download and extract the [Cisco 7942 provisioning package](#), and put the extracted files into the folder `tftpboot` of the PBX.



- Disable NAT for the extension on PBX web portal (Path: **Extension and Trunk > Extension >  > Advanced > VoIP Settings**).

The screenshot shows the 'Advanced' tab of the 'VoIP Settings' section in a PBX web portal. The 'NAT' checkbox is highlighted with a yellow box. Other settings visible include 'DTMF Mode' set to 'RFC4733 (RFC2833)', 'Transport' set to 'UDP', and checkboxes for 'Qualify', 'T.38 Support', and 'SRTP'.

Procedure

- [Step 1. Enable the TFTP feature on PBX](#)
- [Step 2. Add the Cisco IP phone on PBX](#)
- [Step 3. Configure DHCP option 66 on DHCP server](#)
- [Step 4. \(Optional\) Reset the Cisco IP phone](#)

Step 1. Enable the TFTP feature on PBX

When provisioning a Cisco IP phone, the PBX works as a TFTP server to host the phone's configuration file. You need to enable the TFTP feature on PBX, so that the IP phone can download configurations from the PBX via TFTP.

1. Log in to PBX web portal, go to **System > Storage > File Sharing**.
2. Scroll down to the bottom, turn on the switch of **TFTP**, then click **OK** in the pop-up window.
3. Click **Save**.

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

IP Phone

* Vendor: Cisco

* Model: Cisco8845

* MAC Address: [Masked]

- **Vendor:** Select **Cisco**.
- **Model:** Select the phone model.
- **MAC Address:** Enter the MAC address of the IP phone.

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

Options

* Template: YSDP_Cisco8845

* Provisioning Method: DHCP (In the Office)

Provisioning Link: tftp://192.168.28.41/

- **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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.

Assign Extension

* Select Extension: 3000-Leo Ball



Note:



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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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 3. Configure DHCP option 66 on DHCP server

Configure the DHCP option 66 on the DHCP server to deliver the PBX's IP address.

The configuration examples are shown below:

Figure 7. Configure option 66 on the Tftpd64's DHCP server

Tftpd64: Settings

GLOBAL | TFTP | **DHCP** | SYSLOG | DNS

DHCP Pool definition

IP pool start address: 192.168.28.204

Size of pool: 4

Lease (minutes): 2880

Boot File:

DHCP Options

Def. router (Opt 3): 192.168.28.1

Mask (Opt 1): 255.255.255.0

DNS Servers (Opt 6): 192.168.28.1

WINS server (Opt 44): 192.168.28.1

NTP server (Opt 42):

SIP server (Opt 120):

Domain Name (15):

Additional Option: 66 192.168.28.41

DHCP Settings

☒ Ping address before assignation

☒ Persistent leases

☐ Double answer if relay detected

☒ Bind DHCP to this address: 192.168.28.25

OK Default Help Cancel

Figure 8. Configure option 66 on a router's DHCP server

Interfaces » LAN

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

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

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

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

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


DHCP-Options: 6.223.5.5.5
 66.192.168.28.41

ⓘ Define additional DHCP options, for example "6,192.168.2.1,192.168.2.2" which advertises different DNS servers to clients.

Dismiss Save






Step 4. (Optional) Reset the Cisco IP phone

If the IP phone is to be deployed for a new user, you need to reset the phone to its default settings to ensure that the configurations from the previous user are removed from the phone.

1. On the IP phone, press the  button.
2. On the IP phone screen, go to **Admin settings > Reset settings > All settings**.
3. Select **Reset** when the phone prompts for confirmation.

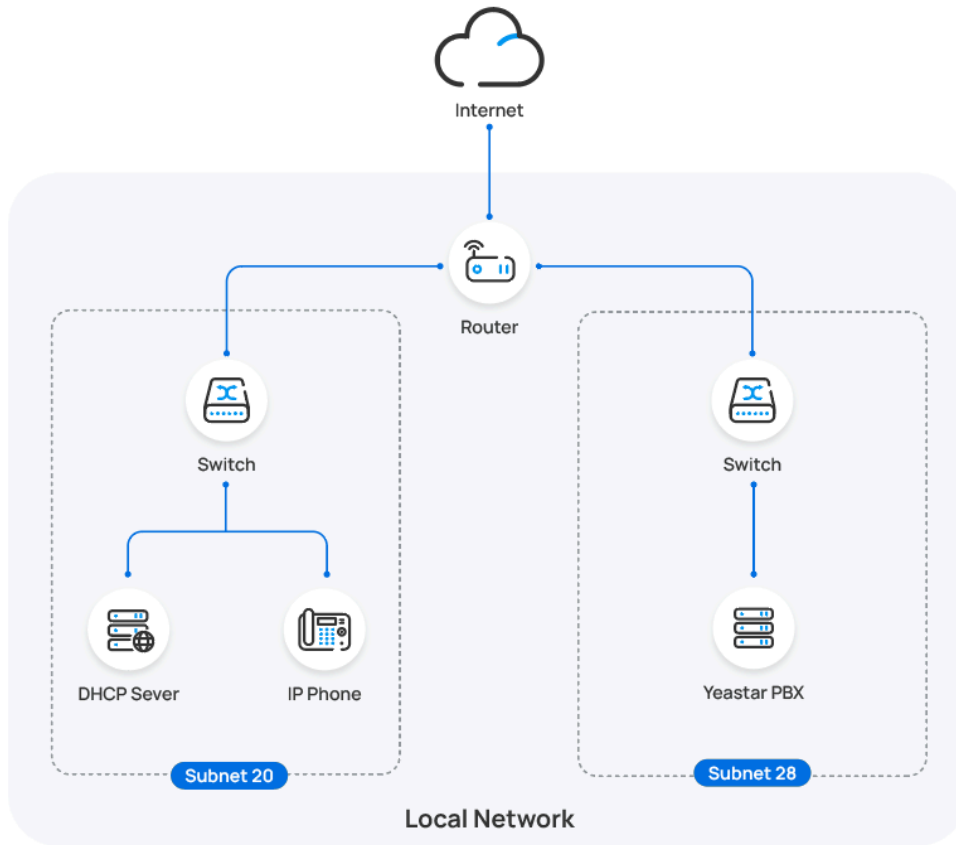
Result

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

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Password | Operations |
|--------------------------|---|-----------|----------|--------|-----------|------------|----------------|---|
| <input type="checkbox"/> |  | 3000 | Leo Ball | Cisco | Cisco8845 | - | - |     |

Auto provision a Cisco IP phone in different subnets

In this example, the Cisco IP phone and DHCP server are deployed in subnet 20, while the Yeastar PBX (IP address: 192.168.28.41) is deployed in subnet 28.



Prerequisites

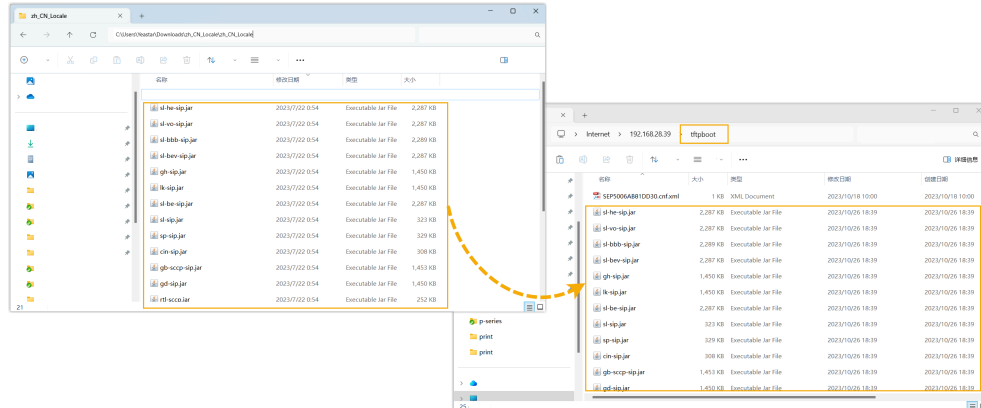
- Make sure that there is only one DHCP server running in the subnet where the IP phone is deployed, or the IP phone would fail to obtain an IP address.
- Make sure that the IP phone and PBX can communicate with each other over the subnets.
- Make sure that you have [downloaded the template](#) for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- Gather information of IP phone, including Vendor, Model, and MAC address.
- (Optional) Download your desired language files from Cisco website and [upload the language files to the folder `tftpboot` in the PBX via FTP](#).



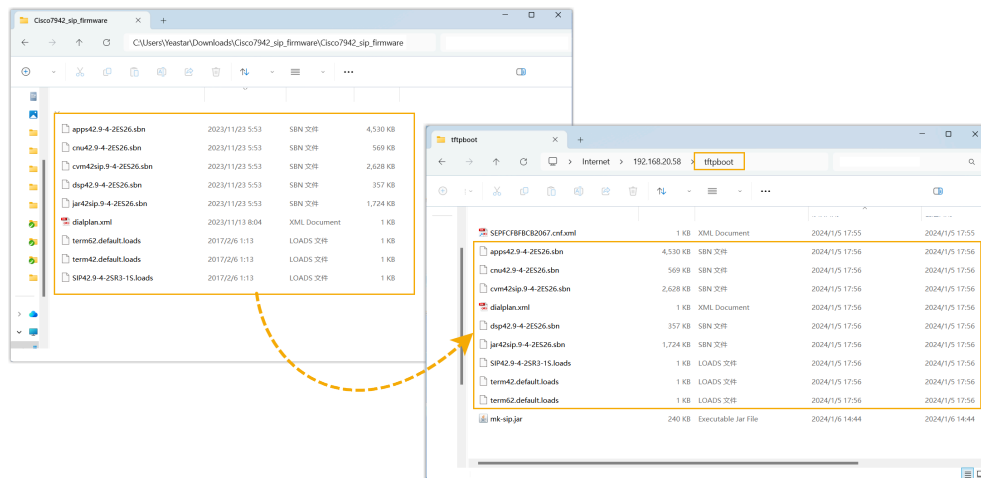
Note:



By default, Cisco IP phone displays in **English**. If you want it to display in another language after auto provisioning, you can manually upload your language files to PBX.



- If you want to provision **Cisco 7942**, you will also need to download and extract the [Cisco7942 provisioning package](#), and put the extracted files into the folder `tftpboot` of the PBX.



Procedure

- [Step 1. Enable the TFTP feature on PBX](#)
- [Step 2. Enable the Remote Registration feature for the extension on PBX](#)
- [Step 3. Add the Cisco IP phone on PBX](#)
- [Step 4. Configure DHCP option 66 on DHCP server](#)
- [Step 5. \(Optional\) Reset the Cisco IP phone](#)

Step 1. Enable the TFTP feature on PBX

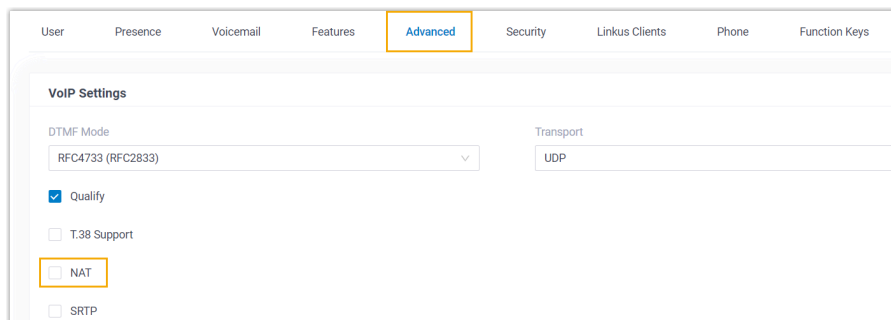
When provisioning a Cisco IP phone, the PBX works as a TFTP server to host the phone's configuration file. You need to enable the TFTP feature on PBX, so that the IP phone can download configurations from the PBX via TFTP.

1. Log in to PBX web portal, go to **System > Storage > File Sharing**.
2. Scroll down to the bottom, turn on the switch of **TFTP**, then click **OK** in the pop-up window.
3. Click **Save**.

Step 2. Enable the Remote Registration feature for the extension on PBX

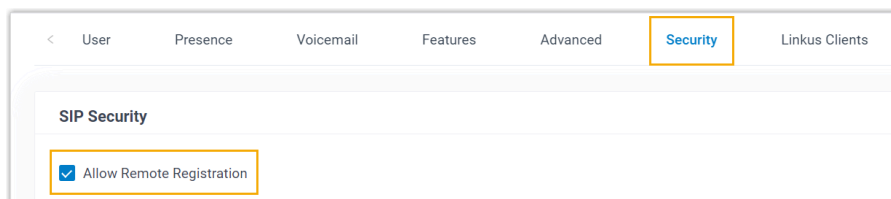
Enable the Remote Registration feature for the extension to be assigned to the phone, so that the extension can be registered in a different subnet.

1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, edit the desired extension.
2. If you want to provision **Cisco 7942**, click the **Advanced** tab, then unselect the checkbox of **NAT** in the **VoIP Settings** section.



The screenshot shows the 'Advanced' tab selected in the PBX web portal. Under the 'VoIP Settings' section, the 'NAT' checkbox is unselected and highlighted with a yellow box. Other settings visible include 'DTMF Mode' set to 'RFC4733 (RFC2833)', 'Transport' set to 'UDP', and checkboxes for 'Qualify', 'T.38 Support', and 'SRTP'.

3. Click the **Security** tab, select the checkbox of **Allow Remote Registration** in the **SIP Security** section.



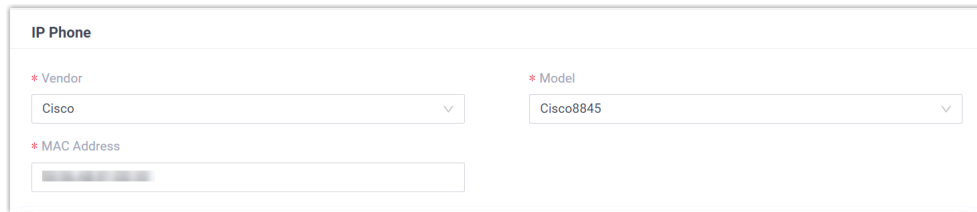
The screenshot shows the 'Security' tab selected in the PBX web portal. Under the 'SIP Security' section, the 'Allow Remote Registration' checkbox is selected and highlighted with a yellow box. Other settings visible include 'User', 'Presence', 'Voicemail', 'Features', 'Advanced', and 'Linkus Clients' tabs.

4. Click **Save** and **Apply**.

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



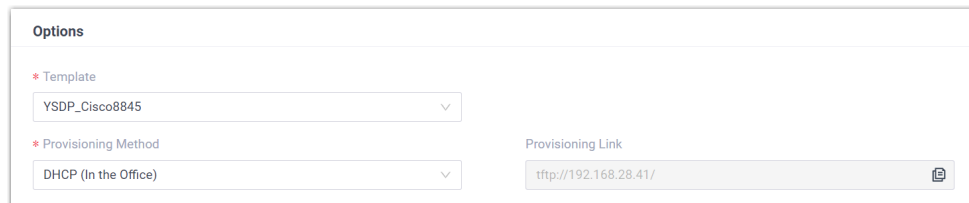
IP Phone

* Vendor: Cisco

* Model: Cisco8845

* MAC Address: [blurred]

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



Options

* Template: YSDP_Cisco8845

* Provisioning Method: DHCP (In the Office)

Provisioning Link: tftp://192.168.28.41/

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



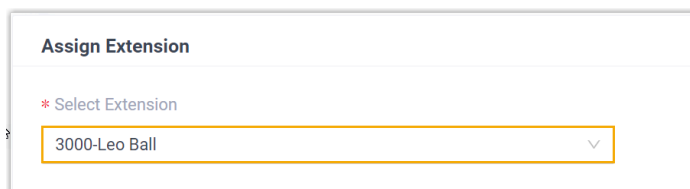
Note:

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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.



Assign Extension

* Select Extension: 3000-Leo Ball

**Note:**

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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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 4. Configure DHCP option 66 on DHCP server

Configure the DHCP option 66 on the DHCP server to deliver the PBX's IP address.

The configuration examples are shown below:

Figure 9. Configure option 66 on the Tftpd64's DHCP server

Tftpd64: Settings

GLOBAL | TFTP | **DHCP** | SYSLOG | DNS

DHCP Pool definition

IP pool start address: 192.168.28.204

Size of pool: 4

Lease (minutes): 2880

Boot File:

DHCP Options

Def. router (Opt 3): 192.168.28.1

Mask (Opt 1): 255.255.255.0

DNS Servers (Opt 6): 192.168.28.1

WINS server (Opt 44): 192.168.28.1

NTP server (Opt 42):

SIP server (Opt 120):

Domain Name (15):

Additional Option: 66 192.168.28.41

DHCP Settings

☒ Ping address before assignation

☒ Persistent leases

☐ Double answer if relay detected

☒ Bind DHCP to this address: 192.168.28.25

OK Default Help Cancel

Figure 10. Configure option 66 on a Router's DHCP server

Interfaces » LAN

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

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

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

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

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


DHCP-Options: 6.223.5.5.5
 66.192.168.28.41

ⓘ Define additional DHCP options, for example "6,192.168.2.1,192.168.2.2" which advertises different DNS servers to clients.

Dismiss Save









Step 5. (Optional) Reset the Cisco IP phone

If the IP phone is to be deployed for a new user, you need to reset the phone to its default settings to ensure that the configurations from the previous user are removed from the phone.

1. On the IP phone, press the  button.
2. On the IP phone screen, go to **Admin settings > Reset settings > All settings**.
3. Select **Reset** when the phone prompts for confirmation.

Result

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

| <input type="checkbox"/> | Status | Extension | Name | Vendor  | Model  | IP Address  | Phone Password | Operations |
|--------------------------|---|-----------|----------|--|---|--|----------------|---|
| <input type="checkbox"/> |  | 3000 | Leo Ball | Cisco | Cisco8845 | - | - |     |

Snom

Auto Provision Snom IP Phone with Yeastar P-Series Software 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 Software Edition.

Requirements

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

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------|---------------------|---------------------|---|
| D120 | 10.1.54.13 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| D140 | 10.1.148.1 or later | 83.12.0.33 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| D150 | 10.1.148.1 or later | 83.12.0.33 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| D315 | 10.1.73.16 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| D335 | 10.1.73.16 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| D385 | 10.1.73.16 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| D710 | 8.9.3.80 or later | 83.19.0.22 or later | <ul style="list-style-type: none">• PnP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------|----------------------|---------------------|--|
| | | | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| D712 | 8.9.3.61 or later | 83.19.0.22 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| D713 | 10.1.73.16 or later | 83.6.0.46 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| D715 | 10.1.33.33 or later | 83.19.0.22 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| D717 | 10.1.73.16 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| D720 | 8.9.3.80 or later | 83.19.0.22 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| D725 | 10.1.175.16 or later | 83.19.0.22 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| D735 | 10.1.73.16 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| D765 | 10.1.73.16 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| D785 | 10.1.73.16 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------|----------------------|---------------------|--|
| D810 | 10.1.198.22 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| D812 | 10.1.184.14 or later | 83.12.0.30 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| D815 | 10.1.184.14 or later | 83.12.0.30 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| D862 | 10.1.137.15 or later | 83.9.0.22 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| D865 | 10.1.137.15 or later | 83.9.0.22 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| D892 | 10.1.214.2 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| D895 | 10.1.214.0 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| E303 | 1.0.2.5 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| HD100 | 1.0.0.3-0 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| HD101 | 1.0.0.3-0 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|---------------|--------------------|---------------------|--|
| | | | <ul style="list-style-type: none"> • Provision Link |
| HD300 (HD30L) | 1.0.0.7 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| HD331 | 1.0.2.5-0 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| HD350W | 1.0.0.3-0 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| HD351W | 1.0.0.3-0 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| HM201 | 1.0.0.3-0 or later | 83.14.0.26 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| M100 KLE | 1.0.5.7 or later | 83.14.0.24 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| M300 | BSV530B2 or later | 83.8.0.25 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| M400 | BSV610B5 or later | 83.8.0.25 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| M500 | 1.12.2 or later | 83.14.0.24 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| M900 | BSV530B7 or later | 83.8.0.25 or later | <ul style="list-style-type: none"> • PnP • DHCP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------|----------------------|---------------------|--|
| | | | <ul style="list-style-type: none"> • RPS • Provision Link |
| SP800 | 10.1.169.15 or later | 83.17.0.60 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| PA1+ | 10.1.184.15 or later | 83.17.0.60 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |

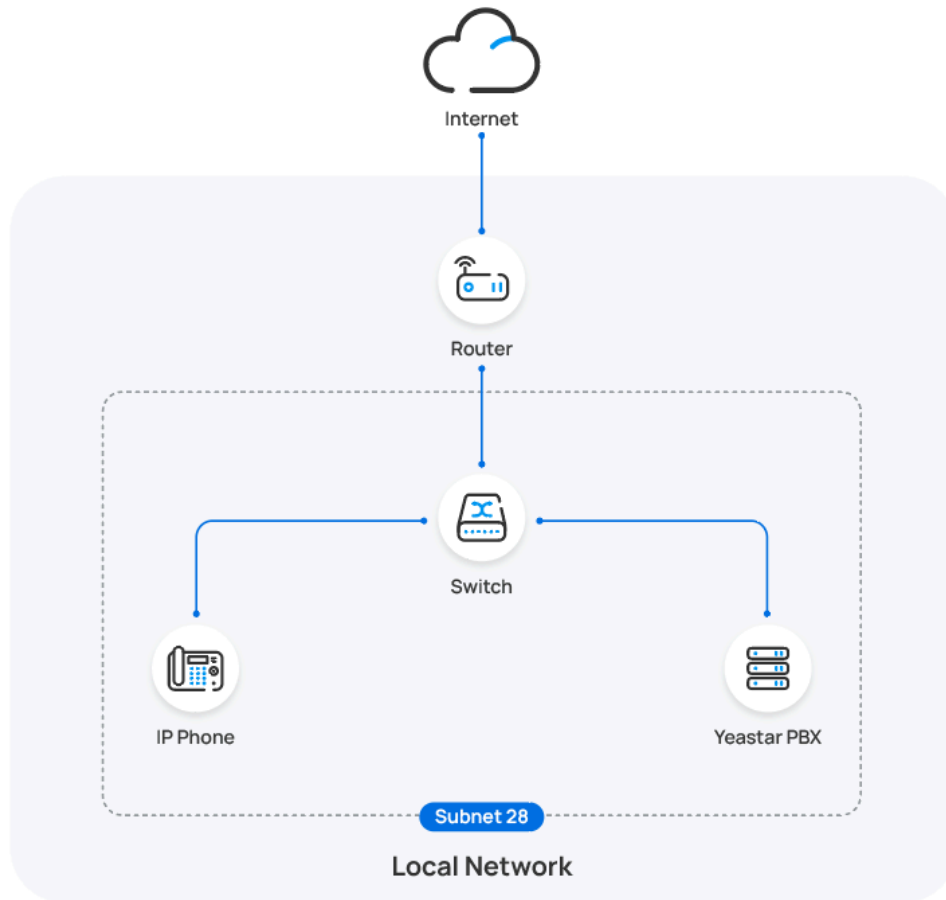
Scenarios

The provisioning process can be different depending on the network environment of **Snom IP phone** and **Yeastar PBX**, as the following table shows:

| Scenario | Description |
|---|--|
| IP phone and PBX are in the SAME subnet (LAN) | <p>In this scenario, you can directly provision the Snom IP phone via PnP method.</p> <p>For more information, see Auto provision a Snom IP phone in the same subnet (PnP).</p> |
| IP phone and PBX are in DIFFERENT subnets (LAN) | <p>In this scenario, you can provision the Snom IP phone using a third-party DHCP server via DHCP method.</p> <p>For more information, see Auto provision a Snom IP phone in different subnets (DHCP).</p> |
| IP phone and PBX are in DIFFERENT network | <p>In this scenario, you can provision the Snom IP phone remotely via RPS method.</p> <p>For more information, see Auto provision a Snom IP phone in remote network (RPS).</p> |

Auto provision a Snom IP phone in the same subnet (PnP)

In this example, the Snom IP phone (IP: 192.168.28.205) and the Yeastar PBX (IP: 192.168.28.39) are both deployed in subnet 28.




Prerequisites

- Make sure that you have [downloaded the template](#) for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- If the IP phone is previously used, you need to RESET the IP phone, then re-configure the network settings for the phone.

Procedure

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

The IP phones detected by the PBX via PnP are displayed in the phone list.

2. Click  beside the Snom IP phone.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|--------|------------|------------|--------|----------|----------------|-------------|------------|
| <input type="checkbox"/> | | Unassigned | Unassigned | Snom | snomD865 | 192.168.28.205 | - | |

3. **Optional:** In the **Options** section, select a desired template from the **Template** 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](#).

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

Assign Extension

* Select Extension

3000-Leo Ball



Note:

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

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

5. Click **Save**.






Result



Note:

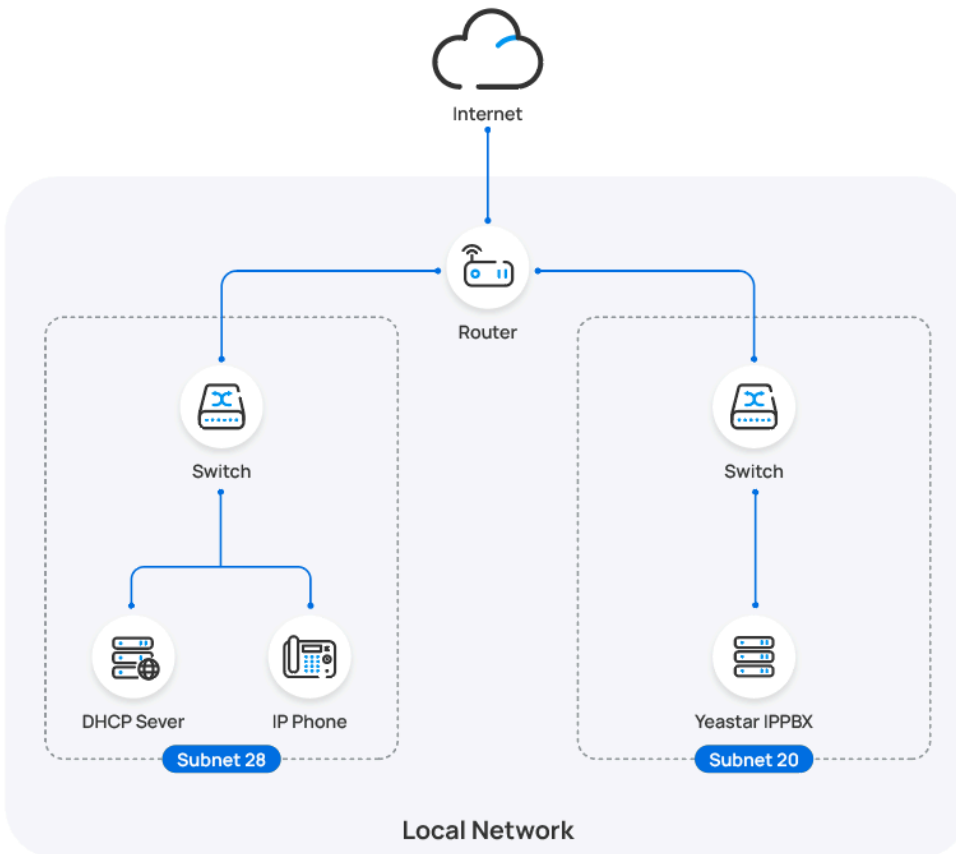
Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

- 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**.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|---|-----------|----------|--------|----------|----------------|-------------|---|
| <input type="checkbox"/> |  | 3000 | Leo Ball | Snom | snomD865 | 192.168.28.205 | *****@ |     |

Auto provision a Snom IP phone in different subnets (DHCP)

In this example, the Snom IP phone and a DHCP server are deployed in subnet 28, while the Yeastar PBX (IP: 192.168.20.58) is deployed in subnet 20.



Prerequisites

- Make sure that there is only one DHCP server running in the subnet where the IP phone is deployed, or the IP phone would fail to obtain an IP address.

- Make sure that the IP phone and PBX can communicate with each other over the subnets.
- 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.

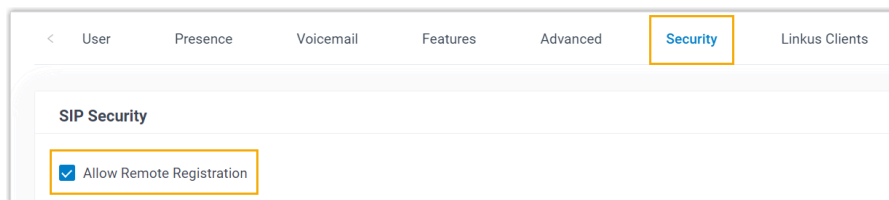
Procedure

- [Step 1. Enable Remote Registration feature for the extension on PBX](#)
- [Step 2. Add the Snom IP phone on PBX](#)
- [Step 3. Configure DHCP option 66 on DHCP server](#)

Step 1. Enable Remote Registration feature for the extension on PBX

Enable the Remote Registration feature for the extension to be assigned to the phone, so that the extension can be registered in a different subnet.

1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, edit the desired extension.
2. Click **Security** tab, select the checkbox of **Allow Remote Registration** in the **SIP Security** section.

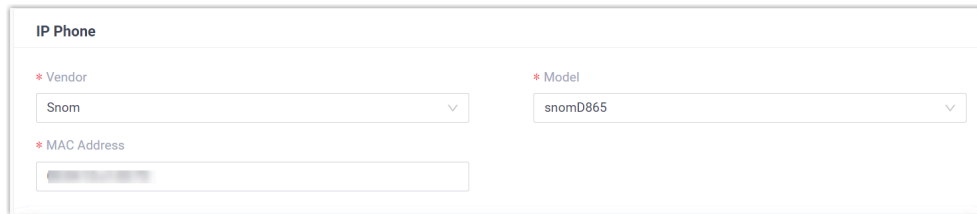


3. Click **Save** and **Apply**.

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



IP Phone

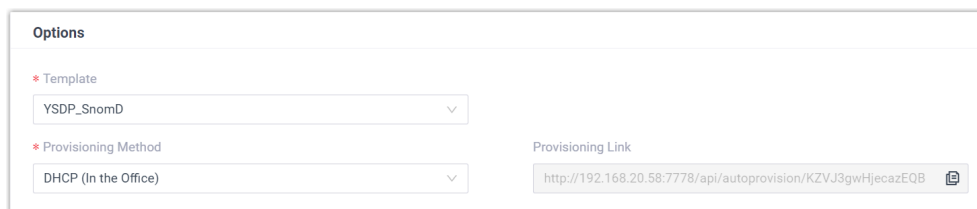
* Vendor: Snom

* Model: snomD865

* MAC Address: [Redacted]

- **Vendor:** Select **Snom**.
- **Model:** Select the phone model. In this example, select **snomD865**.
- **MAC Address:** Enter the MAC address of the IP phone.

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



Options

* Template: YSDP_SnomD

* Provisioning Method: DHCP (In the Office)

Provisioning Link: <http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB>

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



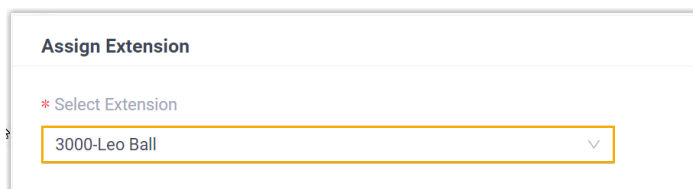
Note:

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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.



Assign Extension

* Select Extension: 3000-Leo Ball



Note:



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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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 3. 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 by entering the [provisioning link](#) followed by the configuration file name of the phone (*mac.xml*), as the following example shows:

```
http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB/00abxxxxxxc2.xml
```



Note:

- The letters in the MAC address must be in lowercase.
- If you need to provision multiple Snom IP phones, you can directly use a placeholder `{mac}` in the configuration file name. For example:



```
http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB/{mac}.xml
```

In this example, the configuration on a router's DHCP server for provisioning a single Snom IP phone is shown below.

Interfaces » LAN

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

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

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

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

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

DHCP-Options 6,223.5.5.5
 66,http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB/00abxxxxxc2.xml
 ? Define additional DHCP options, for example "6,192.168.2.1,192.168.2.2" which advertises different DNS servers to clients.

Dismiss Save

Result



Note:

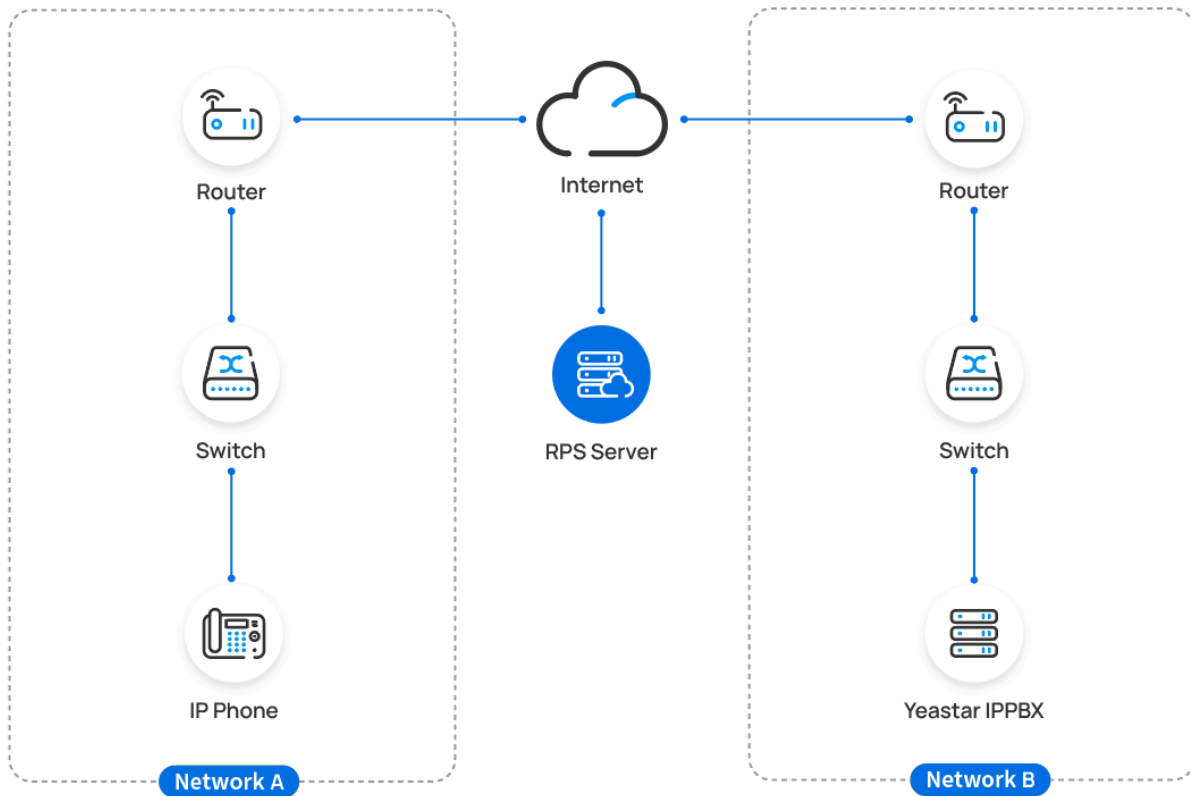
Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

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

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|--------|-----------|----------|--------|----------|------------|-------------|------------|
| <input type="checkbox"/> | | 3000 | Leo Ball | Snom | snomD865 | - | - | |

Auto provision a Snom IP phone in remote network (RPS)

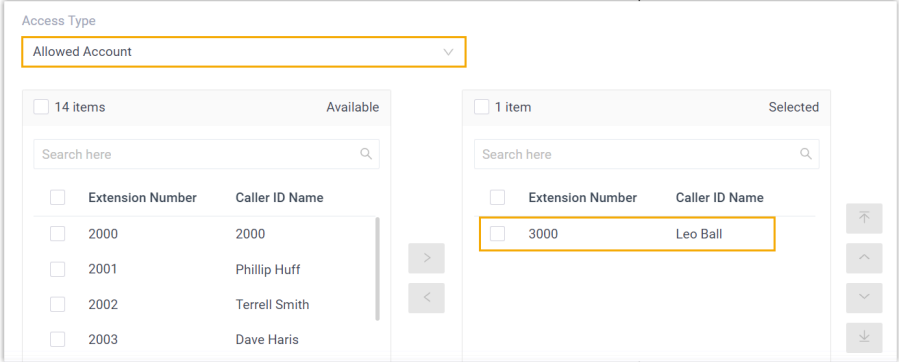
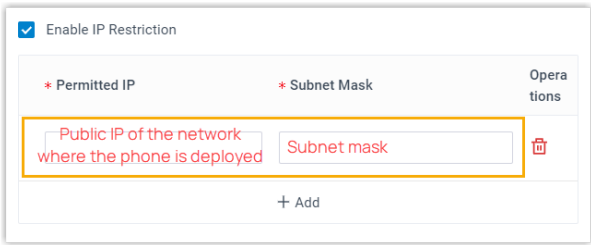
In this example, the Snom IP phone and the Yeastar PBX are deployed in different network.



Prerequisites

Yeastar P-Series Software Edition supports to auto provision a Snom phone remotely either using **Yeastar FQDN** or using **Public IP address / external host / Yeastar domain name**. According to the provisioning method you intend to use, make sure that you have completed the corresponding setup shown below.

| Method | Setting |
|--------------------|---|
| Using Yeastar FQDN | <ul style="list-style-type: none"> Subscribe to Enterprise Plan or Ultimate Plan for the PBX and ensure the FQDN is available. Grant remote access permission for extension to be registered and the remote IP phones: <ul style="list-style-type: none"> Grant remote SIP access permission for the extension, so that the extension can be registered remotely via FQDN (Path: System > Network > Yeastar FQDN > Features > SIP Access). |

| Method | Setting |
|---|--|
| |  <ul style="list-style-type: none"> ◦ If you have enabled IP restriction for Yeastar FQDN remote Web access, make sure that you have added the phone's IP address to the permitted IP list, so that the phone can obtain configuration files from the PBX (Path: System > Network > Yeastar FQDN > Features > Remote Access > Web Access).  <ul style="list-style-type: none"> • 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. |
| Using Public IP address / external host / Yeastar domain name | <ul style="list-style-type: none"> • Configure PBX network for remote access by a public IP address, by an external host domain name, or by a Yeastar domain name. <div style="border: 1px solid orange; padding: 10px; margin: 10px 0;"> <p>! Important: The following PBX ports MUST be forwarded for RPS provisioning.</p> <ul style="list-style-type: none"> ◦ RTP ports ◦ SIP port ◦ Web Server port </div> <ul style="list-style-type: none"> • Set up the extension for remote registration. |

The form is titled "IP Phone". It contains three fields: "Vendor" with a dropdown menu showing "Snom", "Model" with a dropdown menu showing "snomD865", and "MAC Address" with a text input field containing a blurred MAC address.

- **Vendor:** Select **Snom**.
 - **Model:** Select the 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.

Figure 11. RPS using Yeastar FQDN

The form is titled "Options". It contains three fields: "Template" with a dropdown menu showing "YSDP_SnomD", "Provisioning Method" with a dropdown menu showing "RPS FQDN (Remote)", and "Provisioning Link" with a text input field showing a URL: "https://yeastardocs.ras.yeastar.com/api/autoprovion/H70R1oiPhUJCnp6L". There is a checkbox labeled "Authentication for the First-time Auto Provisioning" which is checked.

Figure 12. RPS using Public IP Address / External Host domain name / Yeastar Domain

The form is titled "Options". It contains three fields: "Template" with a dropdown menu showing "YSDP_SnomD", "Provisioning Method" with a dropdown menu showing "RPS (Remote)", and "Provisioning Link" with a text input field showing a URL: "https://110.35.77.110:18207/api/autoprovion/H70R1oiPhUJCnp6L". There is a checkbox labeled "Authentication for the First-time Auto Provisioning" which is checked.

- **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 Method:** Select **RPS FQDN (Remote)** or **RPS (Remote)** according to your need.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.

**Note:**

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

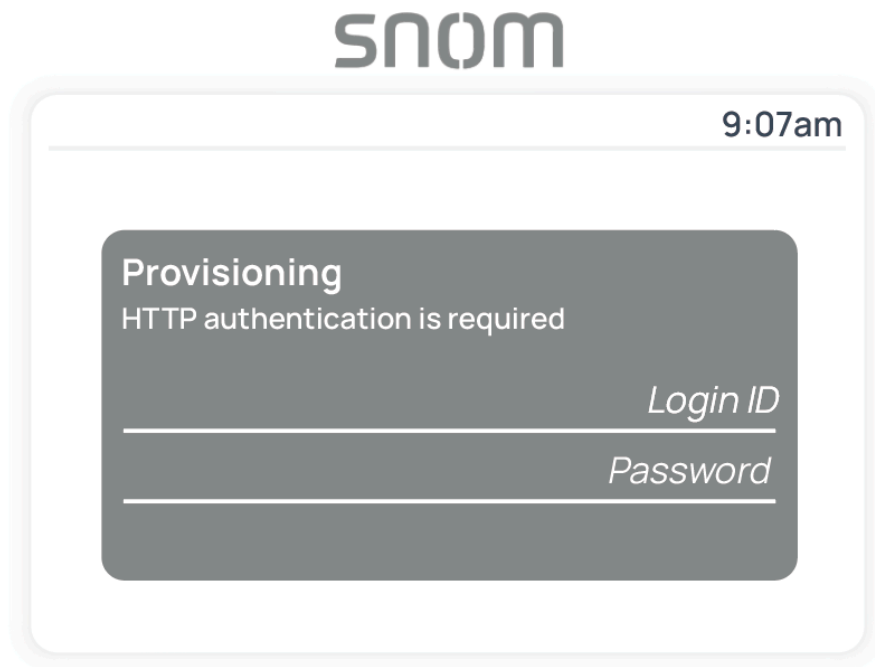
- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [configure the concurrent registration setting for the extension](#), 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

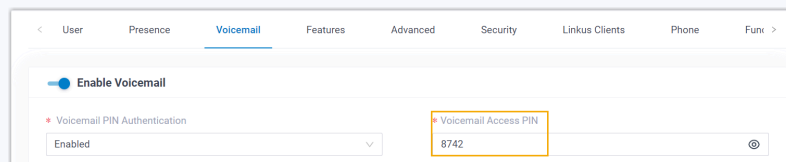
1. Reboot the IP phone.
2. If you have enabled **Authentication for the First-time Auto Provisioning** on the PBX, enter the authentication credential on the IP phone.



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

**Tip:**

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

**Result**

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

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|--------|-----------|----------|--------|----------|------------|-------------|------------|
| <input type="checkbox"/> | | 3000 | Leo Ball | Snom | snomD865 | - | *****@ | |

Related information

[Auto Provision LDAP for IP Phones](#)

Manually Register Snom IP Phone with Yeastar P-Series Software 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.

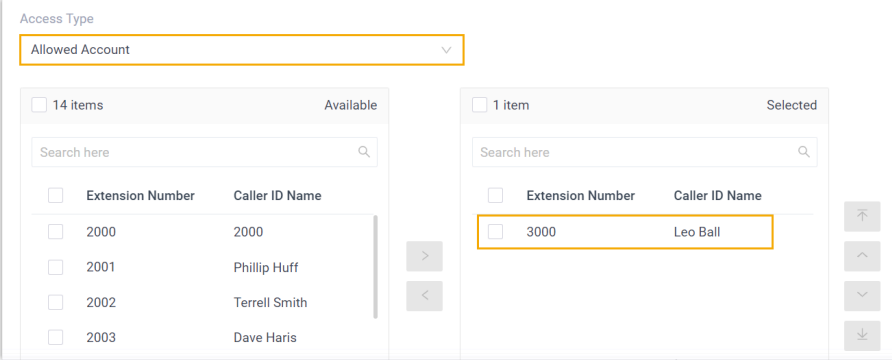

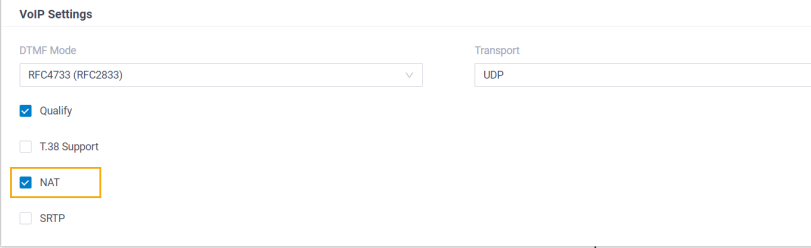

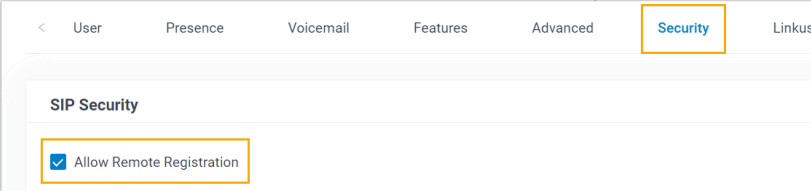
Supported devices

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

Prerequisites

Make sure that you have completed the corresponding settings according to the network environment of **Snom IP phone** and **Yeastar PBX**.

| Network Environment | | Setting |
|---------------------|---|--|
| Local Network | Register extension in the same subnet | / |
| | Register extension in different subnets | Enable the Remote Registration feature for the extension (Path: Extension and Trunk > Extension > > Security > SIP Security > Allow Remote Registration). |
| | | <div><div>< User Presence Voicemail Features Advanced Security Linkus Clients</div><div>SIP Security<div><input checked="" type="checkbox"/> Allow Remote Registration</div></div></div> |
| Remote Network | Register extension using Yeastar FQDN | <ul style="list-style-type: none">Grant remote SIP access permission for the extension (Path: System > Network > Yeastar FQDN > Features > SIP Access). |


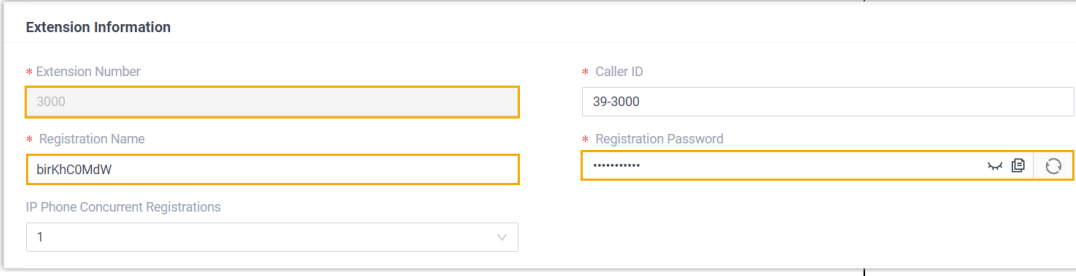

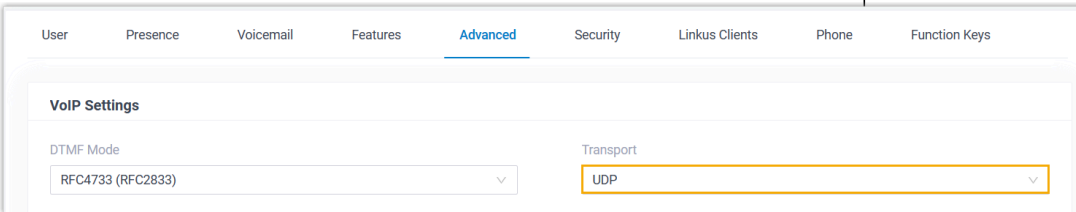

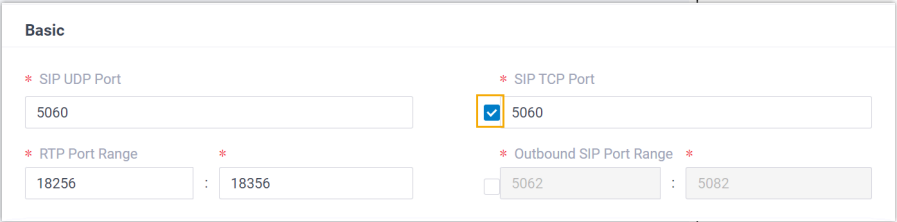
| Network Environment | Setting |
|--|--|
| Register extension using Public IP address / External Host domain name |  <ul style="list-style-type: none"> • Configure PBX network for remote access by a public IP address or by an external host domain name. • Set up the extension for remote registration. <ul style="list-style-type: none"> ◦ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT). |
| |  <ul style="list-style-type: none"> ◦ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).  |

Procedure

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

Step 1. Gather registration information on Yeastar PBX

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

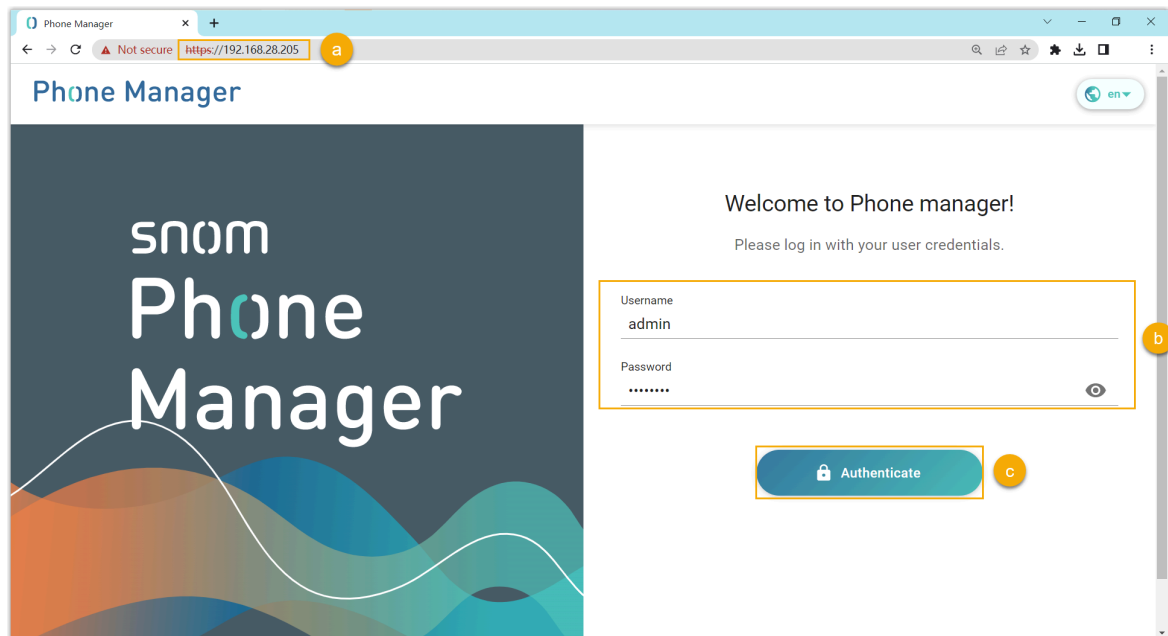
| Information | Instruction |
|-----------------------|---|
| Extension information | <p>Go to Extension and Trunk > Extension  > User > Extension Information, note down the following information:</p> <ul style="list-style-type: none"> • Extension Number • Registration Name • Registration Password  |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

| Information | Instruction |
|-------------------------------|--|
| | <div></div> <ul style="list-style-type: none"> If the extension uses TLS transport protocol, make sure that the TLS is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > TLS). <div> </div> |
| PBX IP address or domain name | <p>Scenario: Register extension in local network</p> <p>In this scenario, you can directly utilize the PBX's private IP address for extension registration.</p> <div></div> <p>Note: This topic provides the configuration example based on this scenario, where the PBX's private IP address is 192.168.28.39.</p> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN, note down the PBX's Fully Qualified Domain Name (FQDN).</p> <div> </div> <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> <p>Go to System > Network > Public IP and Ports, note down the PBX's public IP address or external host domain name.</p> <div> </div> |
| SIP registration port | <p>Scenario: Register extension in local network</p> <p>Go to System > Network > Service Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p> |

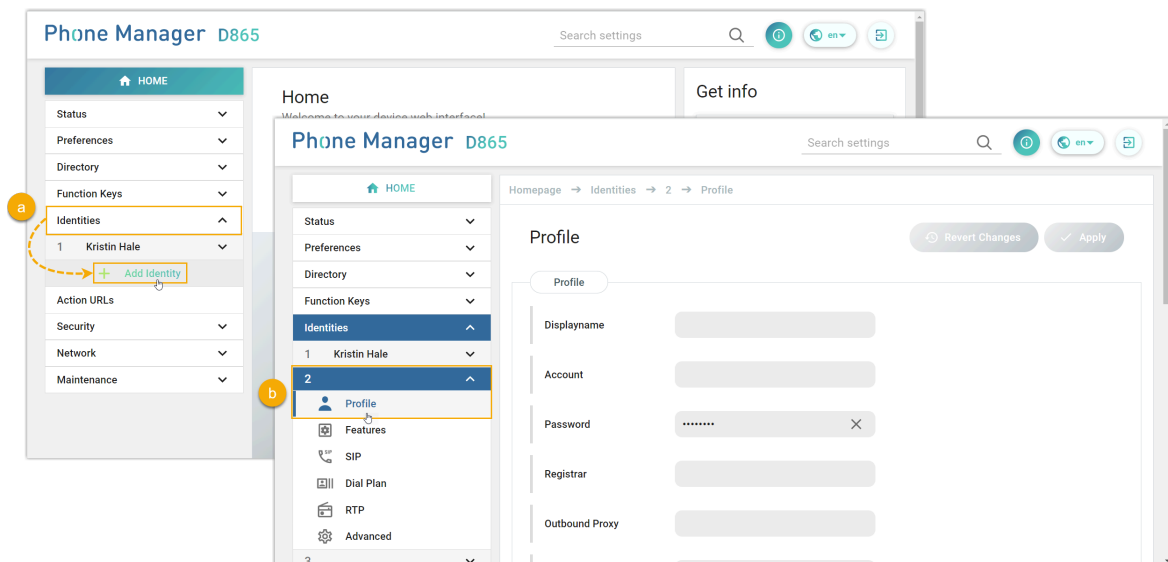
| Information | Instruction |
|-------------|--|
| | <div> <div> <div>HTTPS</div> <div>8088</div> <div></div> </div> <div> <div>HTTP</div> <div>80</div> <div></div> </div> <div> <div>SIP UDP</div> <div>5060</div> <div></div> </div> <div> <div>SIP TCP</div> <div>5060</div> <div></div> </div> <div> <div>SIP TLS</div> <div>5061</div> <div></div> </div> <div> <div>Outbound SIP Port</div> <div>5062-5082</div> <div></div> </div> </div> <p>In this example, we use the SIP UDP port 5060.</p> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN > Features > SIP Access, note down the SIP registration port corresponding to the extension's transport protocol.</p> <div> <div>Features</div> <div> <div>SIP Access</div> <div>Remote Access</div> </div> <div>Before enabling this feature, please make sure your extensions are using strong registration passwords, or it might bring security risks.</div> <div> <div>* Status</div> <div>Enabled</div> </div> <div> <div>Remote Access Service Port-SIP UDP&TCP</div> <div>5060</div> </div> <div> <div>Remote Access Service Port-SIP TLS</div> <div>5061</div> </div> </div> <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> <p>Go to System > Network > Public IP and Ports > Public Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p> <div> <div>Public Ports</div> <div> <div>External SIP UDP Port</div> <div>18205</div> </div> <div> <div>External SIP TCP Port</div> <div>18205</div> </div> <div> <div>External SIP TLS Port</div> <div>18208</div> </div> <div> <div>External Linkus Port</div> <div></div> </div> </div> |

Step 2. Register extension on Snom IP phone

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



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



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

Homepage → Identities → 2 → Profile

Profile

Profile

| | |
|-------------------------|--|
| Displayname | Leo Ball |
| Account | 3000 |
| Password | X |
| Registrar | 192.168.28.39:5060 |
| Outbound Proxy | 192.168.28.39:5060;transport=udp |
| Failover Identity | None |
| Hidden Identity | Off <input checked="" type="checkbox"/> On |
| Authentication Username | birKhC0MdW |

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



Note:

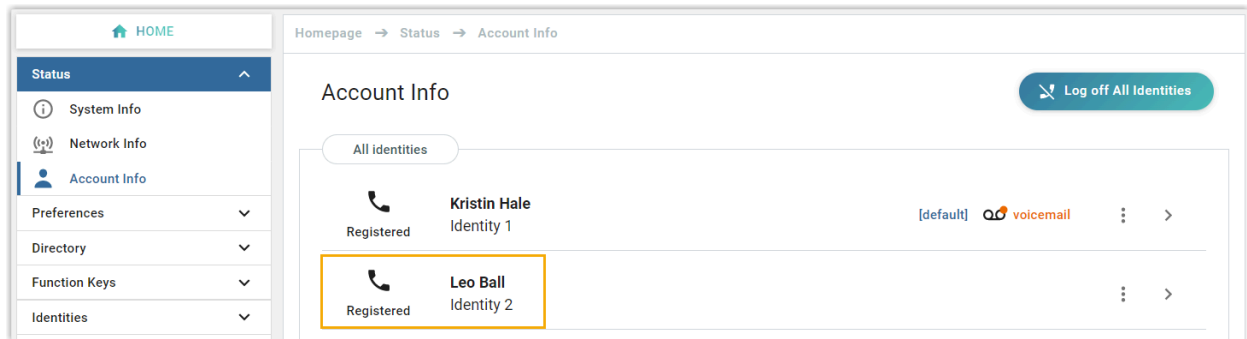
The format should be *PBX IP address / domain name:sip registration port;transport=udp/tcp/tls*.

- **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 Software Edition

A DECT system consists of two parts, DECT base station and DECT handsets (namely DECT phones). This topic describes how to provision the Gigaset DECT base station with Yeastar P-Series Software 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 | Supported Auto Provisioning Method |
|--------------|---------------------|--------------------|---|
| N870 IP PRO | 2.38.1 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| N670 IP PRO | 2.38.1 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| N610 IP PRO | 2.52.0 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |

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 |

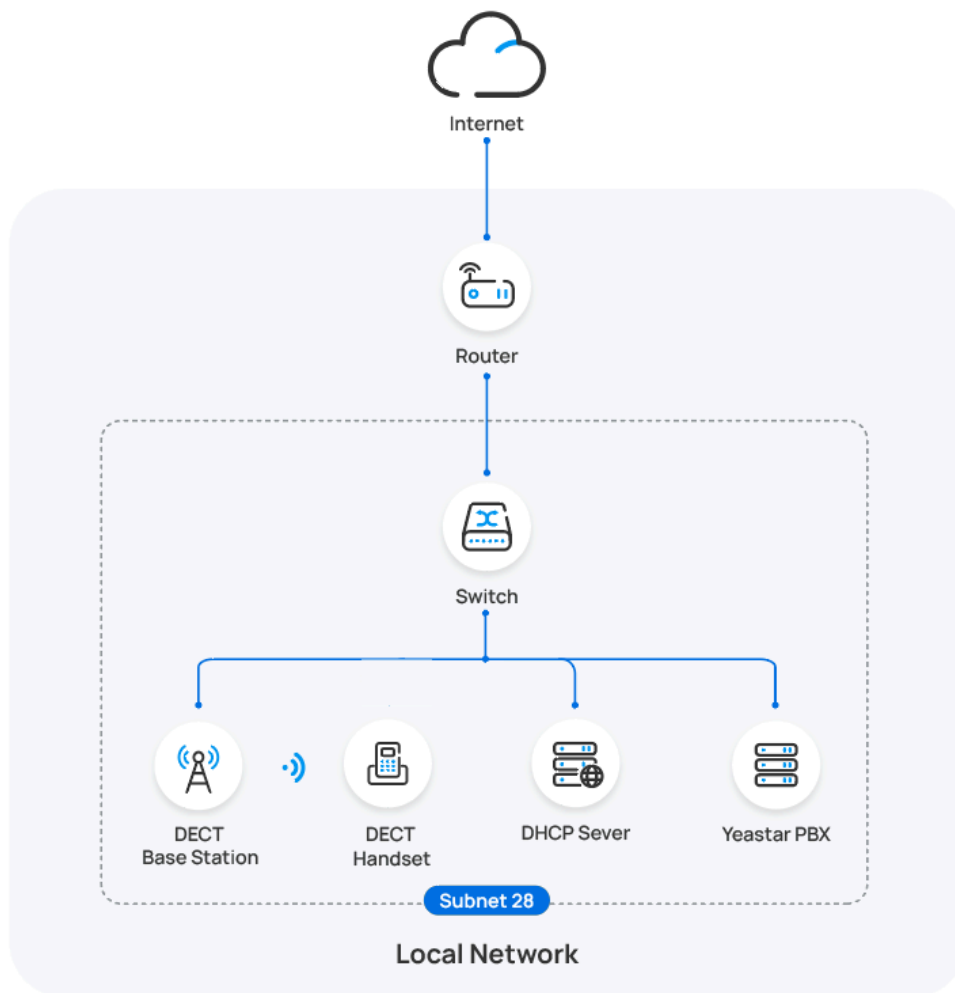
Scenarios

The provisioning method and operations vary depending on the network environment of **Gigaset DECT system** and **Yeastar PBX**, as the following table shows.

| Scenario | Description |
|--|--|
| DECT system and PBX are in the SAME subnet (LAN) | In this scenario, you can provision the Gigaset DECT system with Yeastar PBX via PnP method . For more information, see Auto provision Gigaset DECT system in the same subnet (PnP) . |
| DECT system and PBX are in DIFFERENT subnets (LAN) | In this scenario, you can provision the Gigaset DECT system with Yeastar PBX via DHCP method . For more information, see Auto provision Gigaset DECT system in different subnets (DHCP) . |
| DECT system and PBX are in DIFFERENT networks | In this scenario, you can provision the Gigaset DECT system with Yeastar PBX via RPS method . For more information, see Auto provision Gigaset DECT system in remote network (RPS) . |

Auto provision Gigaset DECT system in the same subnet (PnP)

In this example, the Gigaset DECT system (base station and handset) and the Yeastar PBX (IP: 192.168.28.39) are deployed in same subnet (192.168.28.0/24), where the DECT base station obtains its IP address via DHCP.



Prerequisites

- Make sure that there is only one DHCP server running in the subnet, or the DECT 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**).

Procedure

- [Step 1. Enable dynamic IP setting for Gigaset DECT base station](#)
- [Step 2. Configure Gigaset DECT base station on PBX](#)
- [Step 3. Register the Gigaset DECT handsets to DECT base station](#)

Step 1. 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 sub-net.

1. Press and hold the device button for at least 10 seconds until both LEDs turn 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.





Step 2. Configure Gigaset 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. Log in to PBX web portal, go to **Auto Provisioning > Phones**.

The DECT base station detected by the PBX via PnP is displayed in the phone list.

2. Click  to edit the DECT base station.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|--------|-----------|------|---------|------------------------|----------------|-------------|---|
| <input type="checkbox"/> | + | ... | ... | Gigaset | Gigaset N870 IP PRO | 192.168.28.206 | - |     |

3. In the **Assign Extension** section, assign extensions for the DECT handsets according to your needs.

- To assign extensions one by one, do as follows:

Assign Extension

Handset ID Range

1

250

Start Extension

1002-David Harris




End Extension

3000-Leo Ball

Handset Mode

IPUI Mode

Assign Extension

| Handset | Extension | IPUI |
|---|---|--|
|  <input checked="" type="checkbox"/> Handset 1 |  3000-Leo Ball |  0123456789 |

- 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:

The screenshot shows the 'Assign Extension' interface. At the top, there are fields for 'Handset ID Range' (1 to 250), 'Start Extension' (1002-David Harris), 'End Extension' (3000-Leo Ball), and 'Handset Mode' (IPUI Mode). A blue 'Assign Extension' button is on the right. Below this is a table with three columns: 'Handset', 'Extension', and 'IPUI'. The table lists three handsets: Handset 1 (1002-David Harris), Handset 2 (1003-William Smith), and Handset 3 (1004-Emily Parker). To the right of the table is a large text area for entering IPUI codes, with the first row containing '0111111111', the second row '0222222222', and the third row '0333333333'.

- 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.








Note:

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



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


4. **Optional:** Configure other settings according to your needs.
5. Click **Save**.
6. In the phone list, click  beside the Gigaset DECT base station to re-provision the device.












| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|--------|-----------|------|---------|---------------------|----------------|-------------|---|
| <input type="checkbox"/> | + | ... | ... | Gigaset | Gigaset N870 IP PRO | 192.168.28.206 | - |     |

The DECT base station automatically downloads the configurations from the PBX and applies the settings.



Tip:

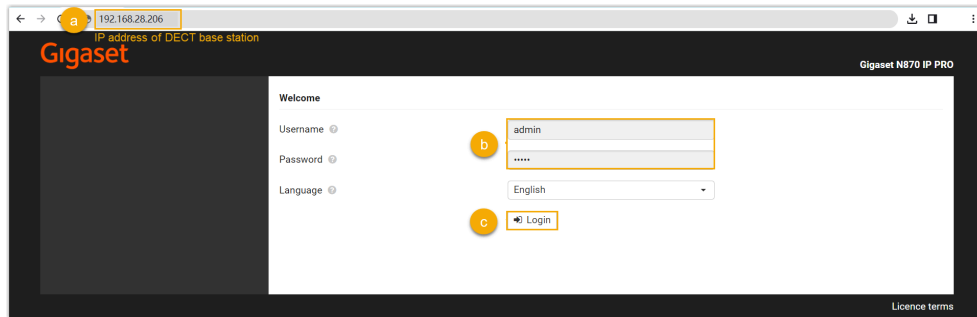
You can click  in front of the DECT base station to see the extensions assigned to the DECT handsets.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations | | | | | | | | | | | | |
|--|---|-----------|--------------|---------|------------------------|----------------|-------------|---|--------|---------|-----------|------|---|-----------|------|--------------|---|-----------|------|----------|
| <input type="checkbox"/> |  | ... | ... | Gigaset | Gigaset N870 IP PRO | 192.168.28.206 | - |     | | | | | | | | | | | | |
| <table><tr><th>Status</th><th>Handset</th><th>Extension</th><th>Name</th></tr><tr><td></td><td>Handset 1</td><td>1000</td><td>Kristin Hale</td></tr><tr><td></td><td>Handset 2</td><td>3000</td><td>Leo Ball</td></tr></table> | | | | | | | | | Status | Handset | Extension | Name |  | Handset 1 | 1000 | Kristin Hale |  | Handset 2 | 3000 | Leo Ball |
| Status | Handset | Extension | Name | | | | | | | | | | | | | | | | | |
|  | Handset 1 | 1000 | Kristin Hale | | | | | | | | | | | | | | | | | |
|  | Handset 2 | 3000 | Leo Ball | | | | | | | | | | | | | | | | | |

Step 3. Register the Gigaset DECT handsets to 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.

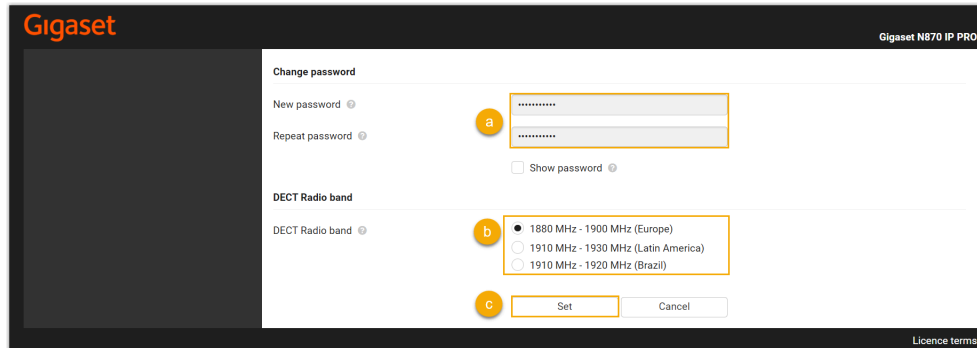
1. Log in to the web interface of DECT base station.




- 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**.

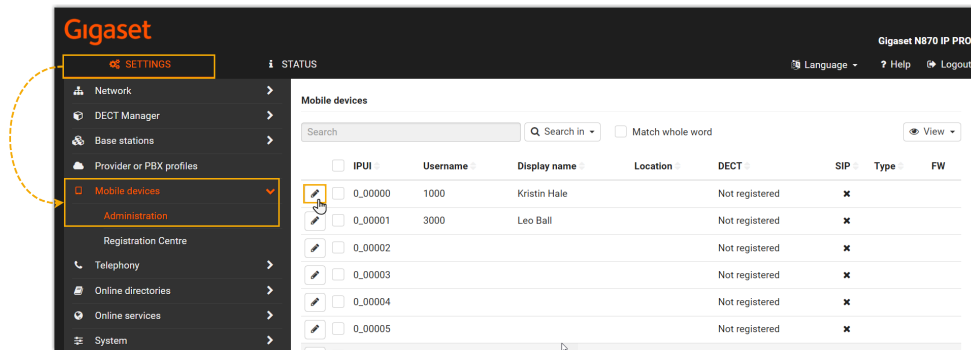
**Note:**

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.



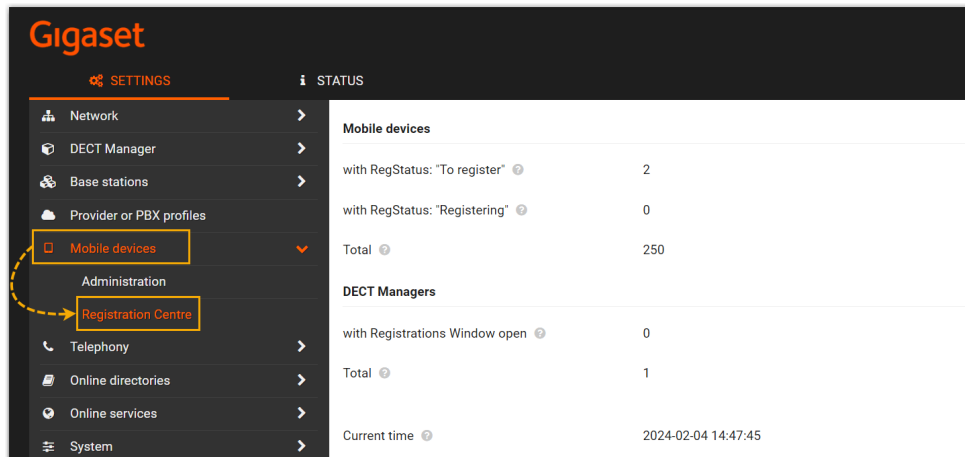
a. In the **RegStatus** drop-down list, select **To register**.

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).

Registration duration ?

0 d

0 h

3 min

0 s

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

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

Registration start time ?

YYYY-MM-DD HH:mm

Start now × Close

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

Registration start time ?

2024-02-04 13:00

Start now × Close

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

| DECT Managers | |
|----------------------------------|---|
| with Registrations Window open ? | 1 |
| Total ? | 1 |

- 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.

- ## Result

- SETTINGS

STATUS

Language

Help

Logout

Network

DECT Manager

Base stations

Provider or PBX profiles

Mobile devices

Administration

Mobile devices

Search

Search in

Match whole word

View

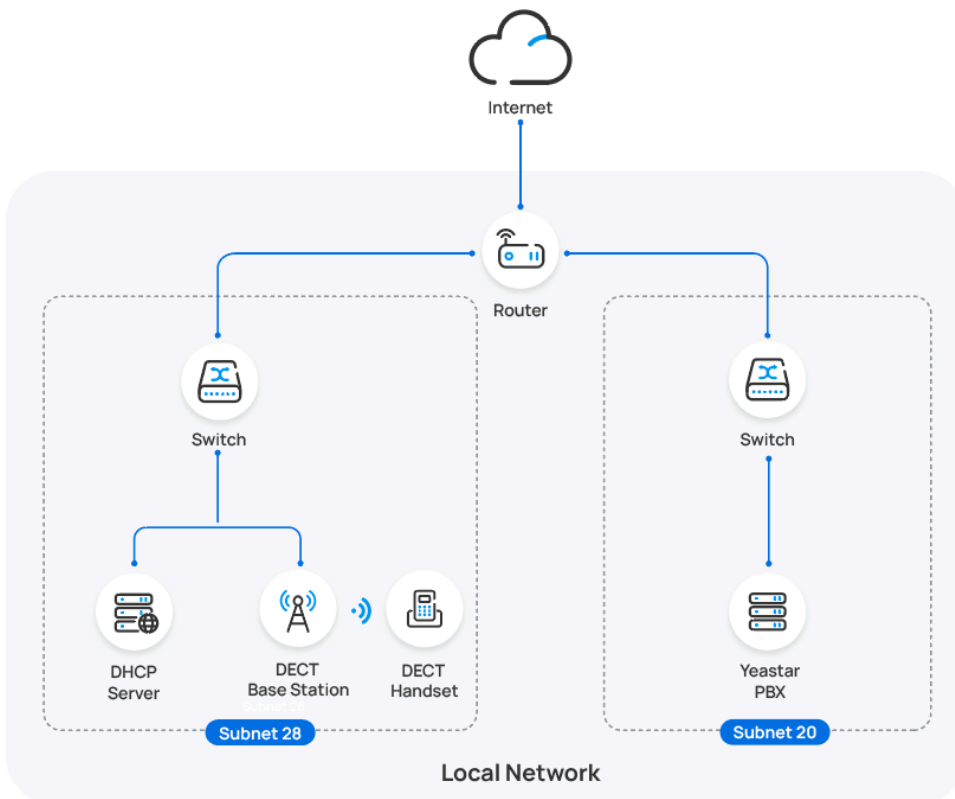
| <input type="checkbox"/> IPUI | Username | Display name | Location | DECT | SIP | Type | FW |
|-------------------------------|----------|--------------|----------|------------|-----|--------------|-------|
| 033e3cb235 | 1000 | Kristin Hale | local | Registered | ✓ | "SL750H PRO" | 74.04 |
| 034718af9f | 3000 | Leo Ball | local | Registered | ✓ | "S650H PRO" | 74.04 |

- | Status | Extension | Name | Vendor | Model | IP Address | Phone Password | Template | Firmware Version | MAC Address | Operations |
|-----------------------------------|-----------|------|-----------|------------------------|----------------|----------------|------------------|------------------|-----------------|---|
| <div><div></div><div></div></div> | ... | ... | Gigaset | Gigaset N870 IP PRO | 192.168.28.206 | - | YSPD_GigasetN870 | - | 58:9e:c6:0f:... | <div><div></div><div></div><div></div><div></div></div> |
| Status | | | Handset | | | Extension | | Name | | |
| <div><div></div><div></div></div> | | | Handset 1 | | | 1000 | | Kristin Hale | | |
| <div><div></div><div></div></div> | | | Handset 2 | | | 3000 | | Leo Ball | | |

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

Auto provision Gigaset DECT system in different subnets (DHCP)

In this example, the DECT system (base station and handset) and a DHCP server are deployed in subnet 28, while the Yeastar PBX (IP: 192.168.20.58) is deployed in subnet 20.



Prerequisites

- Make sure that there is only one DHCP server running in the subnet where the DECT system is deployed, or the base station would fail to obtain an IP address.
- Make sure that the DECT system and PBX can communicate with each other over the subnets.
- Make sure that you have [downloaded the template](#) for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- Gather information of the DECT base station, including Vendor, Model, and MAC address.

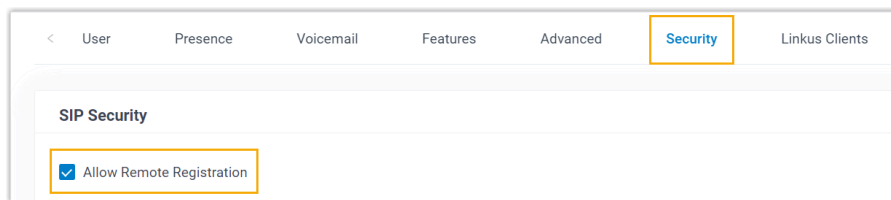
Procedure

- [Step 1. Enable Remote Registration feature for extensions on PBX](#)
- [Step 2. Add the Gigaset DECT base station on PBX](#)
- [Step 3. Configure DHCP option 66 on DHCP server](#)
- [Step 4. Enable dynamic IP setting for Gigaset DECT base station](#)
- [Step 5. Register the Gigaset DECT handsets to DECT base station](#)

Step 1. Enable Remote Registration feature for extensions on PBX

Enable the Remote Registration feature for the extension to be assigned to DECT handsets, so that the extension can be registered in a different subnet.

1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, edit the desired extension.
2. Click **Security** tab, select the checkbox of **Allow Remote Registration** in the **SIP Security** section.



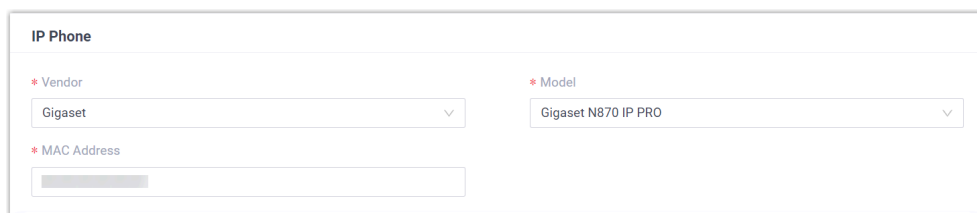
The screenshot shows the PBX web portal interface. At the top, there are tabs: User, Presence, Voicemail, Features, Advanced, Security (highlighted with an orange box), and Linkus Clients. Below the tabs, the 'SIP Security' section is visible, containing a checkbox labeled 'Allow Remote Registration' which is checked (highlighted with an orange box).

3. Click **Save** and **Apply**.

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



The screenshot shows the 'IP Phone' configuration form. It has three fields: 'Vendor' (a dropdown menu with 'Gigaset' selected), 'Model' (a dropdown menu with 'Gigaset N870 IP PRO' selected), and 'MAC Address' (a text input field with a greyed-out placeholder). Each field is preceded by a red asterisk indicating it is required.

- **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.

The screenshot shows the 'Options' configuration section. It includes a 'Template' dropdown menu with 'YSDP_GigasetN870' selected, a 'Provisioning Method' dropdown menu with 'DHCP (In the Office)' selected, and a 'Provisioning Link' text field containing the URL 'http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB'.

- **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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link points to the location where the phone's configuration file is stored.

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:

The screenshot shows the 'Assign Extension' configuration section. It includes fields for 'Handset ID Range' (1 to 250), 'Start Extension' (1002-David Harris), 'End Extension' (3000-Leo Ball), and 'Handset Mode' (IPUI Mode). Below these is a table with columns 'Handset', 'Extension', and 'IPUI'. The first row shows 'Handset 1' with a checked checkbox, '3000-Leo Ball' in the Extension column, and '0123456789' in the IPUI column.

- 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.
- 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.



Note:

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


- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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 DECT base station is added to the PBX, and displayed in the Auto Provisioning phone list.



Tip:

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

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|--------|-----------|------|---------|------------------------|------------|-------------|------------|
| <input type="checkbox"/> | | ... | ... | Gigaset | Gigaset N870 IP PRO | - | - | |

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

Step 3. Configure DHCP option 66 on DHCP server

Use the generated provisioning link to configure option 66 on the DHCP server in the subnet where the DECT system is deployed.

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

Options

* Template

YSDP_GigasetN870

* Provisioning Method

DHCP (In the Office)

Provisioning Link

<http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB>

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

In this example, the configuration on a router's DHCP server is shown below.

The screenshot shows the configuration page for the LAN interface, specifically the DHCP Server settings. The 'Advanced Settings' tab is selected. The 'Dynamic DHCP' checkbox is checked. The 'IPv4-Netmask' is set to 255.255.255.0. The 'DHCP-Options' list contains two entries: '6,223.5.5.5' and '66,http://192.168.20.58:7778/api/autoprovision/KZVJ3gwhJecazEQB'. The 'Save' button is highlighted in green.

Interfaces » LAN

General Settings Advanced Settings Firewall Settings DHCP Server

General Setup Advanced Settings IPv6 Settings IPv6 RA Settings

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

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

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

DHCP-Options 6,223.5.5.5
 66,http://192.168.20.58:7778/api/autoprovision/KZVJ3gwhJecazEQB
 ? Define additional DHCP options, for example "6,192.168.2.1,192.168.2.2" which advertises different DNS servers to clients.

Dismiss Save

Step 4. 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 turn 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.

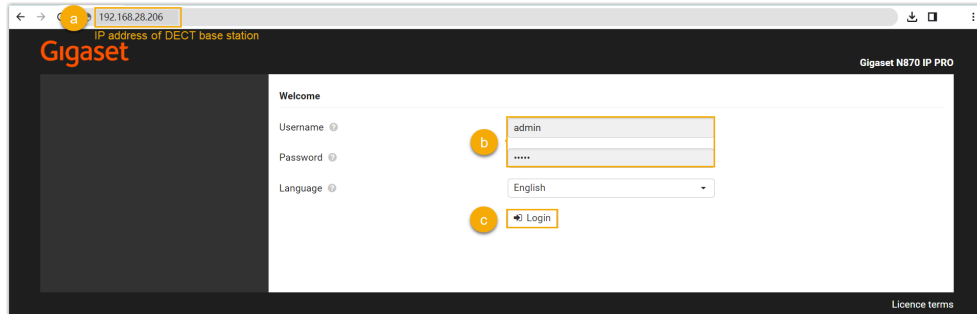
3. Press and hold the device button until both LEDs turn red, then release the button.

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 5. Register the Gigaset DECT handsets to DECT base station

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

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

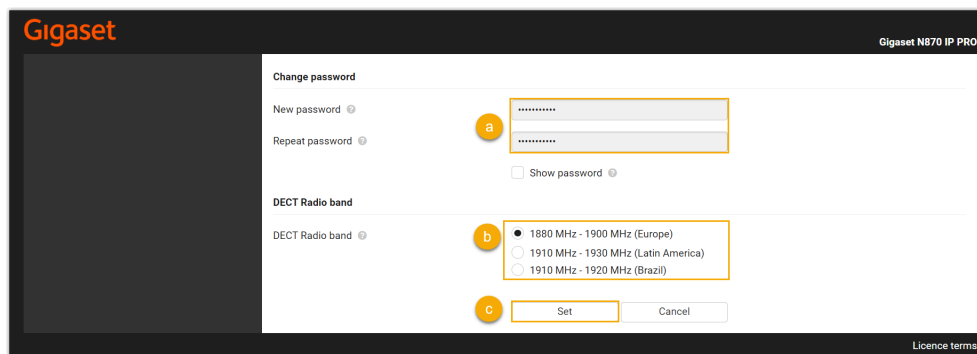


- a. In the browser's address bar, enter the IP address of the base station.
 - b. Enter the username `admin` and the default password `admin`.
 - c. Click **Login**.
2. Change the default password, select a radio frequency band, then click **Set**.




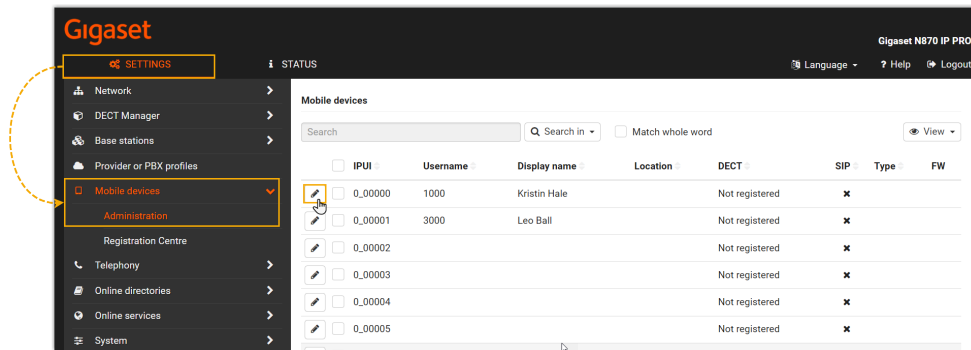
Note:

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



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

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



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

Mobile device

IPUI ? 0_00002

RegStatus ? **To register**

Authentication Code (PIN) ? 0000

[Generate random PIN](#)

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

In this example, use the default PIN code 0000.

Mobile device

IPUI ? 0_00002

RegStatus ? To register

Authentication Code (PIN) ? **0000**

[Generate random PIN](#)

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

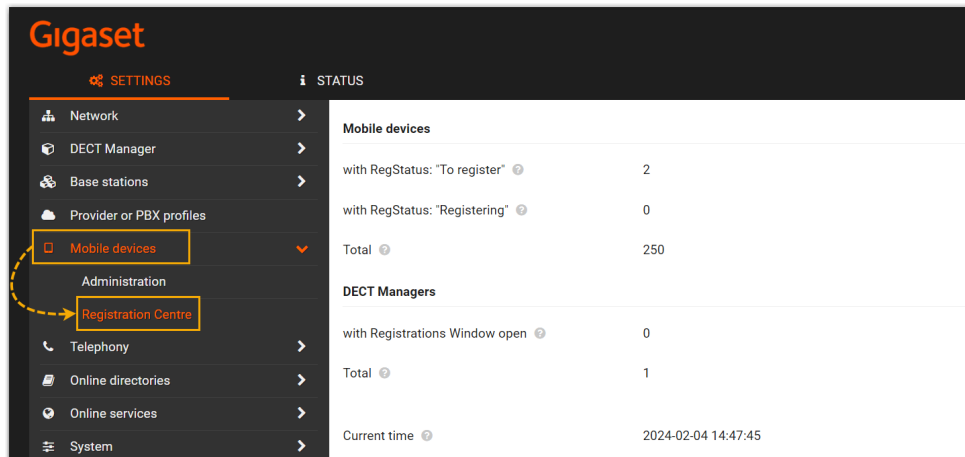
Feature key synchronization

Feature key synchronization ? ☐ Yes ☒ No

Register now

[Set](#) [Cancel](#)

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



- 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).

The screenshot shows the 'Registration duration' form. It has four input fields with units: '0 d', '0 h', '3 min' (highlighted with an orange box), and '0 s'.

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

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

The screenshot shows the 'Registration start time' form. It has a text input field with the placeholder 'YYYY-MM-DD HH:mm'. Below the input field, there are two buttons: 'Start now' (highlighted with an orange box and a hand cursor) and 'Close'.

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

The screenshot shows the 'Registration start time' form. The text input field contains the value '2024-02-04 13:00' (highlighted with an orange box). Below the input field, there are two buttons: 'Start now' and 'Close'.

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

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

| DECT Managers | |
|----------------------------------|---|
| with Registrations Window open ? | 1 |
| Total ? | 1 |

6. Confirm registration on DECT handset.

- 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**.

SETTINGS

STATUS

Gigaset N870 IP PRO

Language

Help

Logout

Network

DECT Manager

Base stations

Provider or PBX profiles

Mobile devices

Administration

Mobile devices

Search






Search in

Match whole word

View

| <input type="checkbox"/> | IPUI | Username | Display name | Location | DECT | SIP | Type | FW |
|--------------------------|------------|----------|--------------|----------|------------|-----|--------------|-------|
| | 033e3cb235 | 1000 | Kristin Hale | local | Registered | ✓ | "SL750H PRO" | 74.04 |
| | 034718a9f9 | 3000 | Leo Ball | local | Registered | ✓ | "S650H PRO" | 74.04 |

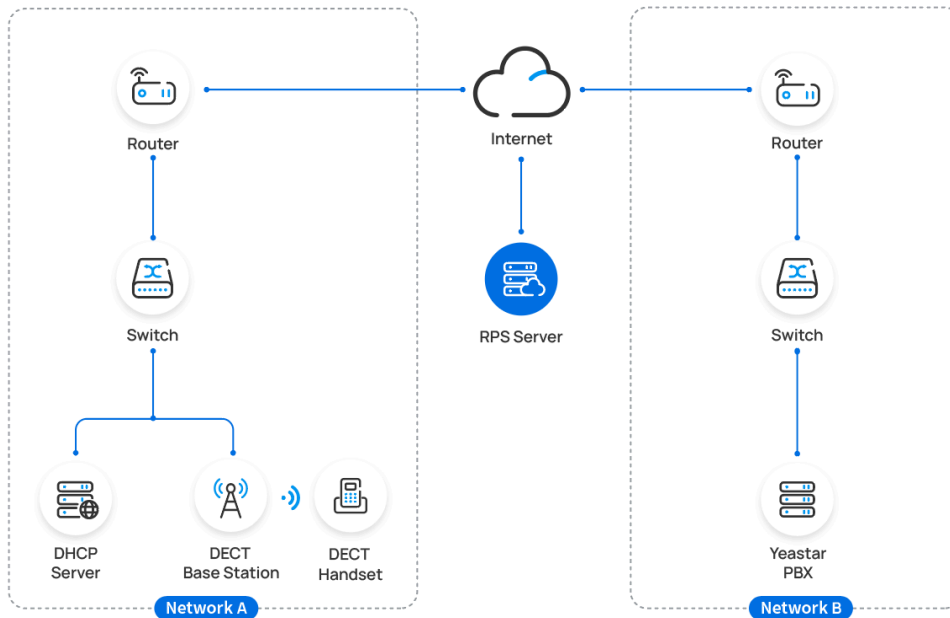
- On PBX web portal, you can check the registration status of the extensions on **Auto Provisioning > Phones**.

| Status | Extension | Name | Vendor | Model | IP Address | Phone Password | Template | Firmware Version | MAC Address | Operations |
|---|-----------|------|-----------|---------------------|------------|----------------|------------------|------------------|--------------|---|
| - | ... | ... | Gigaset | Gigaset N870 IP PRO | - | - | YSDP_GigasetN870 | - | 58:9e:c6:0f |    |
| Status | | | Handset | | | Extension | | | Name | |
|  | | | Handset 1 | | | 1000 | | | Kristin Hale | |
|  | | | Handset 2 | | | 3000 | | | Leo Ball | |

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

Auto provision Gigaset DECT system in remote network (RPS)

In this example, the Gigaset DECT system (base station and handset) and a DHCP server are deployed in Network A, and the Yeastar PBX is deployed in Network B.



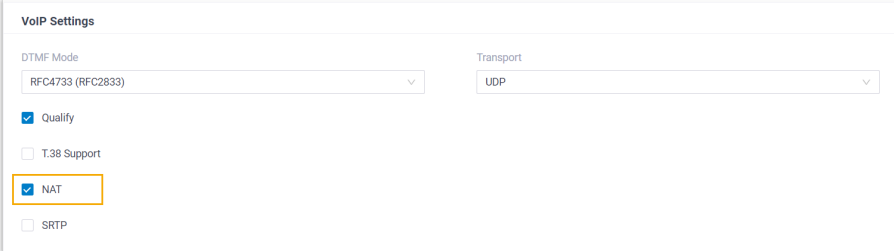

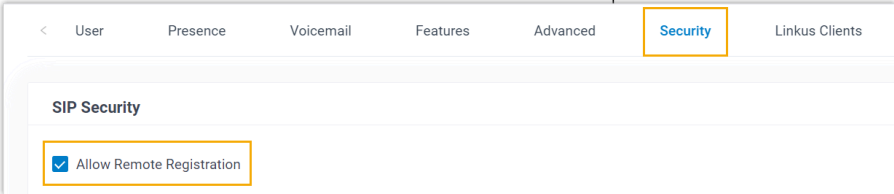


Prerequisites

Yeastar P-Series Software Edition supports to auto provision Gigaset DECT system remotely either using **Yeastar FQDN** or using **Public IP address / external host / Yeastar domain name**. According to the provisioning method you intend to use, make sure that you have completed the corresponding setup shown below.

| Method | Setting |
|--------------------|--|
| Using Yeastar FQDN | <ul style="list-style-type: none"> • Subscribe to Enterprise Plan or Ultimate Plan for the PBX and ensure the FQDN is available. • Grant remote access permission for the extension to be registered and the DECT base station: <ul style="list-style-type: none"> ◦ Grant remote SIP access permission for the extension, so that the extension can be registered remotely via FQDN (Path: System > Network > Yeastar FQDN > Features > SIP Access). |

| Method | Setting |
|---|---|
| | <div> </div> <p>◦ If you have enabled IP restriction for Yeastar FQDN remote Web access, make sure that you have added the DECT base station's IP address to the permitted IP list, so that the device can obtain configuration files from the PBX (Path: System > Network > Yeastar FQDN > Features > Remote Access > Web Access).</p> <div> </div> <ul style="list-style-type: none"> • Make sure that there is only one DHCP server running in the subnet where the Gigaset DECT system (base station and handset) is deployed, or the base station would fail to obtain an IP address. • Make sure that you have downloaded the template for the desired phone model (Path: Auto Provisioning > Resource Repository > Default Templates). • Gather information of DECT base station, including Vendor, Model, and MAC address. |
| Using Public IP address / external host / Yeastar domain name | <ul style="list-style-type: none"> • Configure PBX network for remote access by a public IP address, by an external host domain name, or by a Yeastar domain name. <div style="background-color: #fff9c4; padding: 10px; border: 1px solid #f0e68c;"> <p>Important: The following PBX ports MUST be forwarded for RPS provisioning.</p> <ul style="list-style-type: none"> ◦ RTP ports ◦ SIP port </div> |

| Method | Setting |
|--------|--|
| | <div> <div>  <ul style="list-style-type: none"> ◦ Web Server port </div> <ul style="list-style-type: none"> • Set up the extension for remote registration. <ul style="list-style-type: none"> ◦ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT). </div> <div>  </div> <ul style="list-style-type: none"> ◦ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration). <div>  </div> <ul style="list-style-type: none"> • Make sure that there is only one DHCP server running in the subnet where the Gigaset DECT system (base station and handset) is deployed, or the base station would fail to obtain an IP address. • Make sure that you have downloaded the template for the desired phone model (Path: Auto Provisioning > Resource Repository > Default Templates). • Gather information of DECT base station, including Vendor, Model, and MAC address. |

Procedure

- [Step 1. Add the Gigaset DECT base station on PBX](#)
- [Step 2. Enable dynamic IP setting for Gigaset DECT base station](#)
- [Step 3. Register the Gigaset DECT handsets to DECT base station](#)

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

The screenshot shows a form titled "IP Phone". It contains three fields with red asterisks indicating they are required:

- * Vendor:** A dropdown menu with "Gigaset" selected.
- * Model:** A dropdown menu with "Gigaset N870 IP PRO" selected.
- * MAC Address:** An empty text input field.

- **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.

Figure 13. RPS using Yeastar FQDN

The screenshot shows a form titled "Options". It contains three fields with red asterisks indicating they are required:

- * Template:** A dropdown menu with "YSDP_GigasetN870" selected.
- * Provisioning Method:** A dropdown menu with "RPS FQDN (Remote)" selected.
- Provisioning Link:** A text input field containing the URL "https://yeastardocs.ras.yeastar.com:443/api/autoprovision/H70R1oi..." with a copy icon.

Figure 14. RPS using Public IP Address / External Host domain name

The screenshot shows a form titled "Options". It contains three fields with red asterisks indicating they are required:

- * Template:** A dropdown menu with "YSDP_GigasetN870" selected.
- * Provisioning Method:** A dropdown menu with "RPS (Remote)" selected.
- Provisioning Link:** A text input field containing the URL "https://110.35.77.110:18207/api/autoprovision/H70R1oiPhnJCnp6L..." with a copy icon.

- **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 Method:** Select **RPS FQDN (Remote)** or **RPS (Remote)** according to your need.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link points to the location where the phone's configuration file is stored.

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. 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.

**Note:**


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












- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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 DECT base station is added to the PBX, and displayed in the Auto Provisioning phone list; The PBX will send an event notification of **RPS Request Success**.

**Tip:**

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

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations | | | | | | | | | | | | |
|--|---|-----------|--------------|---------|------------------------|------------|-------------|---|--------|---------|-----------|------|---|-----------|------|--------------|---|-----------|------|----------|
| <input type="checkbox"/> |  | ... | ... | Gigaset | Gigaset N870 IP PRO | - | - |     | | | | | | | | | | | | |
| <table><tr><th>Status</th><th>Handset</th><th>Extension</th><th>Name</th></tr><tr><td></td><td>Handset 1</td><td>1000</td><td>Kristin Hale</td></tr><tr><td></td><td>Handset 2</td><td>3000</td><td>Leo Ball</td></tr></table> | | | | | | | | | Status | Handset | Extension | Name |  | Handset 1 | 1000 | Kristin Hale |  | Handset 2 | 3000 | Leo Ball |
| Status | Handset | Extension | Name | | | | | | | | | | | | | | | | | |
|  | Handset 1 | 1000 | Kristin Hale | | | | | | | | | | | | | | | | | |
|  | Handset 2 | 3000 | Leo Ball | | | | | | | | | | | | | | | | | |

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

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

1. Press and hold the device button for at least 10 seconds until both LEDs turn 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.

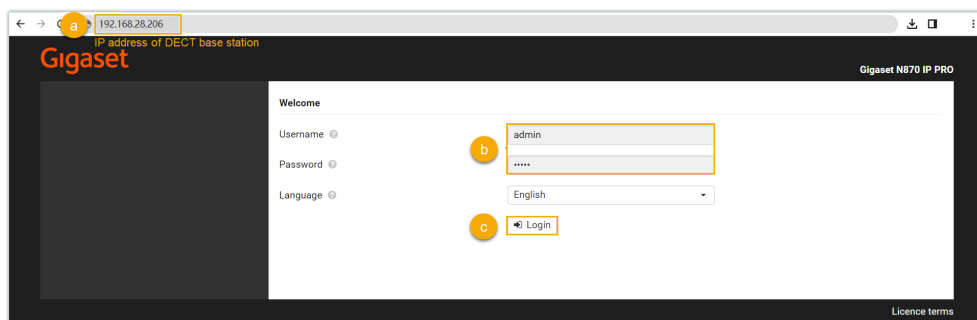
3. Press and hold the device button until both LEDs turn red, then release the button.

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 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.

The screenshot shows the 'Change password' section with fields for 'New password' and 'Repeat password', both masked with dots. A 'Show password' checkbox is below them. The 'DECT Radio band' section has a radio button selected for '1880 MHz - 1900 MHz (Europe)'. Other options are '1910 MHz - 1930 MHz (Latin America)' and '1910 MHz - 1920 MHz (Brazil)'. At the bottom are 'Set' and 'Cancel' buttons. A 'Licence terms' link is in the bottom right corner.

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.

The screenshot shows the 'Mobile devices' table with columns: IPUI, Username, Display name, Location, DECT, SIP, Type, and FW. The 'Administration' sub-tab is selected in the left sidebar. A pencil icon is visible next to the first row (IPUI 0_00000).

| IPUI | Username | Display name | Location | DECT | SIP | Type | FW |
|---------|----------|--------------|----------|----------------|-----|------|----|
| 0_00000 | 1000 | Kristin Hale | | Not registered | x | | |
| 0_00001 | 3000 | Leo Ball | | Not registered | x | | |
| 0_00002 | | | | Not registered | x | | |
| 0_00003 | | | | Not registered | x | | |
| 0_00004 | | | | Not registered | x | | |
| 0_00005 | | | | Not registered | x | | |

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

The screenshot shows the 'Mobile device' configuration form. The 'IPUI' field is set to '0_00002'. The 'RegStatus' dropdown menu is open, showing 'To register' as the selected option. The 'Authentication Code (PIN)' field is set to '0000'. There is a 'Generate random PIN' button below the PIN field.

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

In this example, use the default PIN code 0000.

Mobile device

IPUI ? 0_00002

RegStatus ? To register

Authentication Code (PIN) ? 0000

Generate random PIN

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

Feature key synchronization

Feature key synchronization ? ☐ Yes ☒ No

Register now

Set Cancel

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

Gigaset

SETTINGS **STATUS**

Network >

DECT Manager >

Base stations >

Provider or PBX profiles >

Mobile devices >

Administration

Registration Centre

Telephony >

Online directories >

Online services >

System >

Mobile devices

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

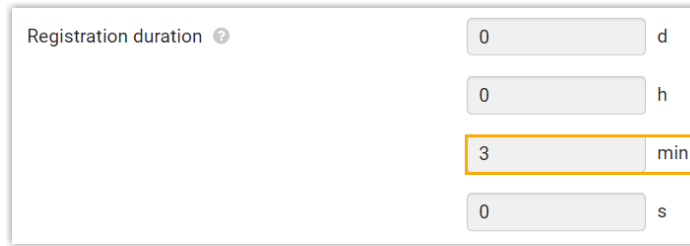
DECT Managers

| | |
|----------------------------------|---|
| with Registrations Window open ? | 0 |
| Total ? | 1 |

Current time ? 2024-02-04 14:47:45

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

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



Registration duration ?

0 d

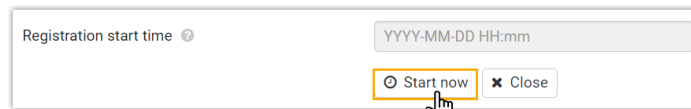
0 h

3 min

0 s

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

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

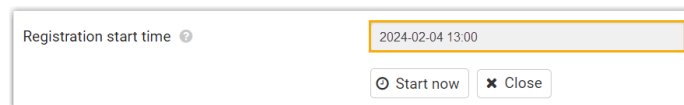


Registration start time ?

YYYY-MM-DD HH:mm

☒ Start now ☐ Close

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



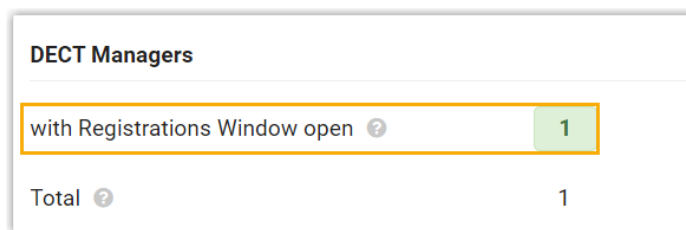
Registration start time ?

2024-02-04 13:00

☐ Start now ☐ Close

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

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



DECT Managers

with Registrations Window open ? 1

Total ? 1

6. Confirm registration on DECT handset.

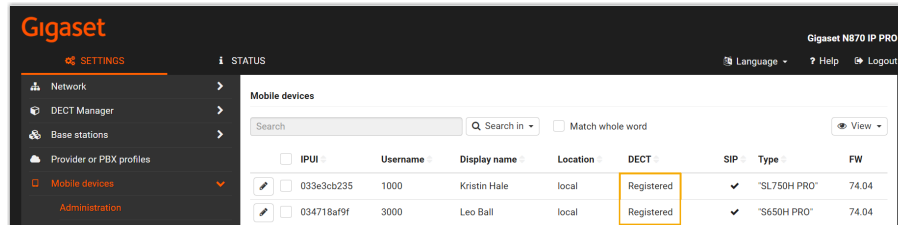
- On the handset, go to **Menu > Settings > Registration > Register Handset**.

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

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

Result

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



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

| Status | Extension | Name | Vendor | Model | IP Address | Phone Password | Template | Firmware Version | MAC Address | Operations |
|--------|-----------|------|---------|---------------------|------------|----------------|------------------|------------------|--------------|------------|
| | | | Gigaset | Gigaset N870 IP PRO | - | - | YSDP_GigasetN870 | - | 58:9e:c6:0f | |
| | | | | Handset | | | | | | |
| | | | | Handset 1 | 1000 | | | | Kristin Hale | |
| | | | | Handset 2 | 3000 | | | | Leo Ball | |

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

Grandstream

Auto Provision Grandstream IP Phone with Yeastar P-Series Software Edition

This topic takes Grandstream GPR2602 (firmware: 1.0.3.67) as an example to introduce how to auto provision a Grandstream IP phone with Yeastar P-Series Software Edition in Local Area Network (LAN).

Requirements

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

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|---------|--------------------|--------------------|---|
| GXP1610 | 1.0.7.13 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| GXP1620 | 1.0.7.13 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| GXP1625 | 1.0.7.13 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| GXP1628 | 1.0.7.13 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| GXP1630 | 1.0.7.13 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| GXP2130 | 1.0.11.16 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| GXP2135 | 1.0.11.16 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| GXP2140 | 1.0.11.16 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|----------|--------------------|---------------------|---|
| | | | <ul style="list-style-type: none"> • Provision Link |
| GXP2160 | 1.0.11.16 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GXP2170 | 1.0.11.16 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GAC2500 | 1.0.3.45 or later | 83.11.0.22 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GAC2570 | 1.0.1.36 or later | 83.11.0.22 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GRP2601 | 1.0.3.63 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GRP2601P | 1.0.3.63 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GRP2602 | 1.0.3.63 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GRP2602P | 1.0.3.63 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GRP2602G | 1.0.3.63 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GRP2602W | 1.0.3.63 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GRP2603 | 1.0.3.63 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GRP2603P | 1.0.3.63 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GRP2604 | 1.0.3.63 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|----------|-------------------|--------------------|---|
| | | | <ul style="list-style-type: none"> • DHCP • Provision Link |
| GRP2604P | 1.0.3.63 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GRP2612 | 1.0.7.25 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GRP2612P | 1.0.7.25 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GRP2612G | 1.0.7.25 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GRP2612W | 1.0.7.25 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GRP2613 | 1.0.7.25 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GRP2614 | 1.0.7.25 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GRP2615 | 1.0.7.25 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GRP2616 | 1.0.7.25 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GRP2624 | 1.0.7.25 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GRP2634 | 1.0.7.25 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GRP2670 | 1.0.7.25 or later | 83.7.0.51 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|---------|--------------------|---------------------|---|
| GHP610 | 1.0.1.71 or later | 83.18.0.18 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GHP610W | 1.0.1.71 or later | 83.17.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GHP611 | 1.0.1.71 or later | 83.18.0.18 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GHP611W | 1.0.1.71 or later | 83.17.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GHP620 | 1.0.1.71 or later | 83.18.0.18 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GHP620W | 1.0.1.71 or later | 83.17.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GHP621 | 1.0.1.71 or later | 83.18.0.18 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GHP621W | 1.0.1.71 or later | 83.17.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GHP630 | 1.0.1.71 or later | 83.18.0.18 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GHP630W | 1.0.1.40 or later | 83.17.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GHP631 | 1.0.1.40 or later | 83.18.0.18 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| GHP631W | 1.0.1.45 or later | 83.17.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| WP825 | 1.0.11.67 or later | 83.17.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------|-------------------|-----------------|------------------------------------|
| | | | • Provision Link |

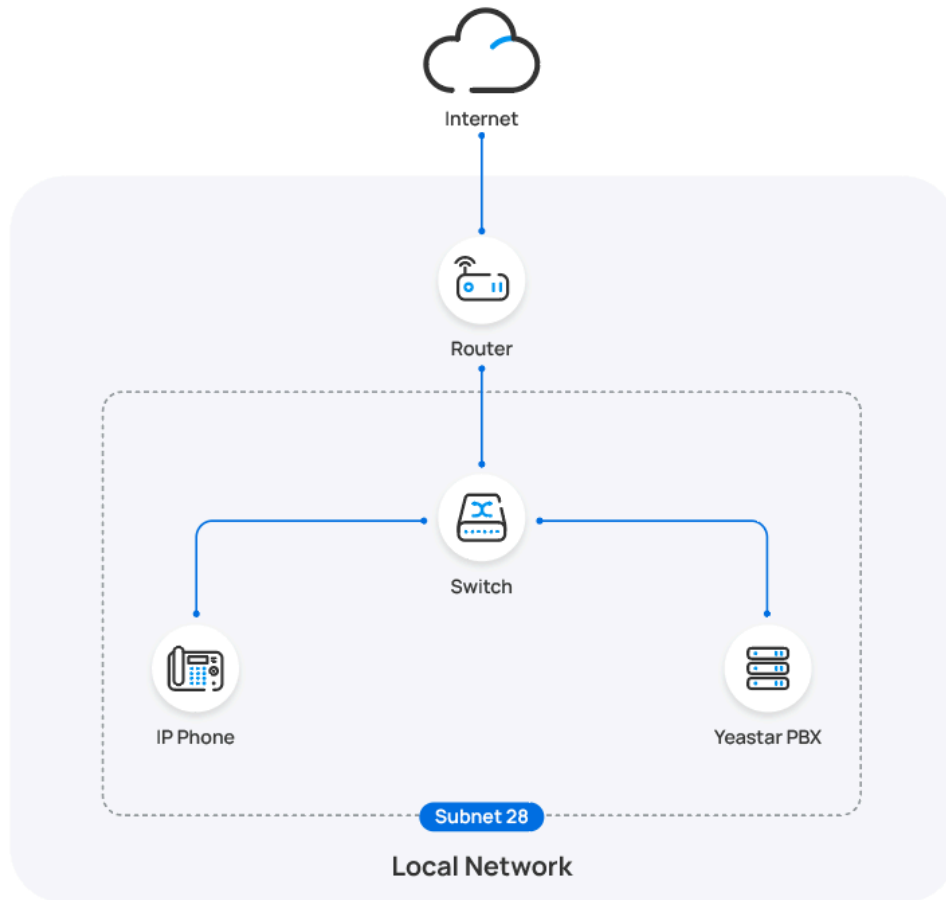
Scenarios

The provisioning methods and operations vary depending on the network environment of **Grandstream IP phone** and **Yeastar PBX**, as the following table shows:

| Scenario | Description |
|---|--|
| IP Phone and PBX are in the SAME subnet (LAN) | In this scenario, you can provision the Grandstream IP phone with the PBX via PnP method . For more information, see Auto provision a Grandstream IP phone in the same subnet (PnP) . |
| IP Phone and PBX are in DIFFERENT subnets (LAN) | In this scenario, you can provision the Grandstream IP phone with the PBX via DHCP method . For more information, see Auto provision a Grandstream IP phone in different subnets (DHCP) . |
| IP Phone and PBX are in DIFFERENT networks | In this scenario, you can provision the Grandstream IP phone with Yeastar PBX via Provision Link method . For more information, see Provision a Grandstream IP phone in remote network (Provision Link) . |

Auto provision a Grandstream IP phone in the same subnet (PnP)


In this example, the Grandstream IP phone (IP: 192.168.28.205) and the Yeastar PBX (IP: 192.168.28.39) are both deployed in subnet 28.








Prerequisites

- Make sure that you have [downloaded the template](#) for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- If the IP phone is previously used, you need to RESET the IP phone, then re-configure the network settings for the phone.

Procedure

1. Log in to PBX web portal, go to **Auto Provisioning > Phones**.
The IP phones detected by the PBX via PnP are displayed in the phone list.
2. Click  beside the Grandstream IP phone.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Password | Template | Operations |
|--------------------------|---|------------|------------|-------------|---------|----------------|----------------|-----------------------------|---|
| <input type="checkbox"/> |  | Unassigned | Unassigned | Grandstream | GRP2602 | 192.168.28.205 | - | YSDP_Grandstream GRP260X |     |

3. **Optional:** In the **Options** section, select a desired template from the **Template** 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](#).

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

Assign Extension

* Select Extension

3000-Leo Ball



Note:

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

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

5. Click **Save**.






Result



Note:

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

- 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** in PBX web portal.

| <input type="checkbox"/> | Status | Extension | Name | Vendor ↕ | Model ↕ | IP Address ↕ | Phone Password | Operations | ▼ |
|--------------------------|---|-----------|----------|-------------|---------|----------------|----------------|---|---|
| <input type="checkbox"/> |  | 3000 | Leo Ball | Grandstream | GRP2602 | 192.168.28.205 | *****@ |     | |

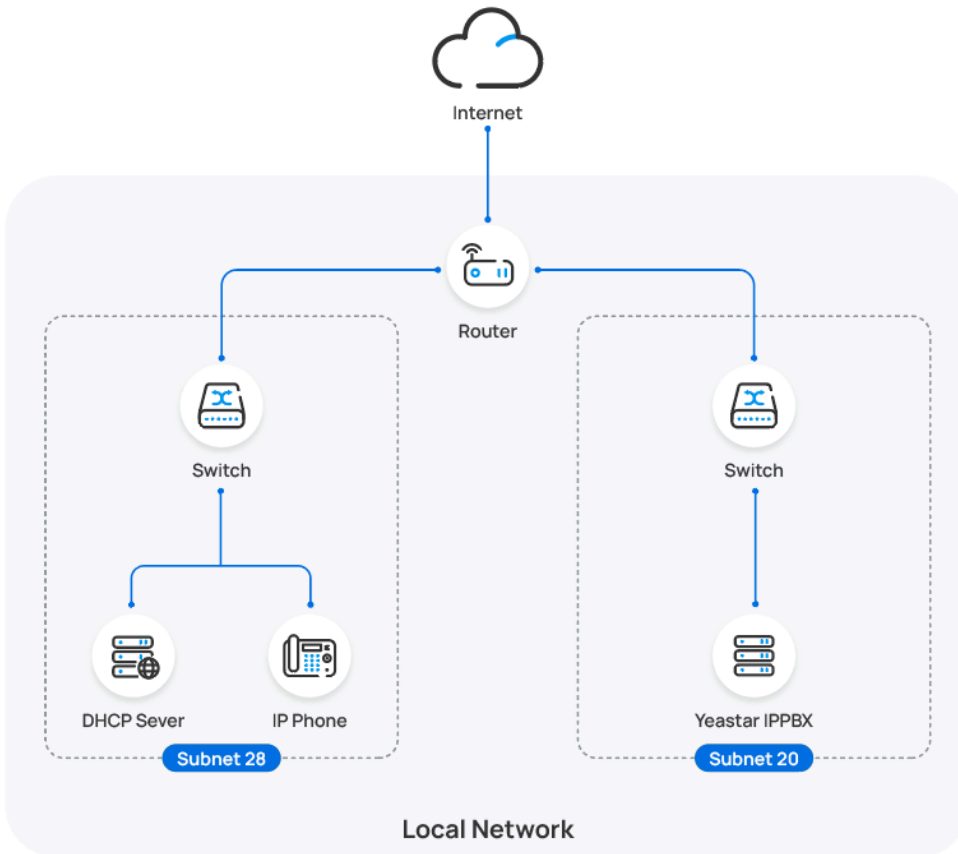
What to do next

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 a Grandstream IP phone in different subnets (DHCP)

In this example, the Grandstream IP phone and DHCP server are deployed in subnet 28, while the Yeastar PBX (IP: 192.168.20.58) is deployed in subnet 20.



Prerequisites

- Make sure that there is only one DHCP server running in the subnet where the IP phone is deployed, or the IP phone would fail to obtain an IP address.
- Make sure that the IP phone and PBX can communicate with each other over the subnets.
- 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

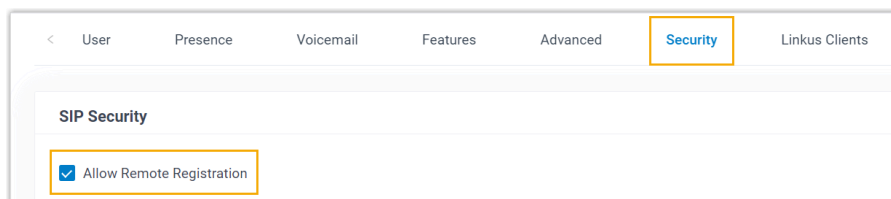
- [Step 1. Enable Remote Registration feature for the extension on PBX](#)
- [Step 2. Add the Grandstream IP phone on PBX](#)

- [Step 3. Configure DHCP option 66 on DHCP server](#)

Step 1. Enable Remote Registration feature for the extension on PBX

Enable the Remote Registration feature for the extension to be assigned to the phone, so that the extension can be registered in a different subnet.

1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, edit the desired extension.
2. Click **Security** tab, select the checkbox of **Allow Remote Registration** in the **SIP Security** section.



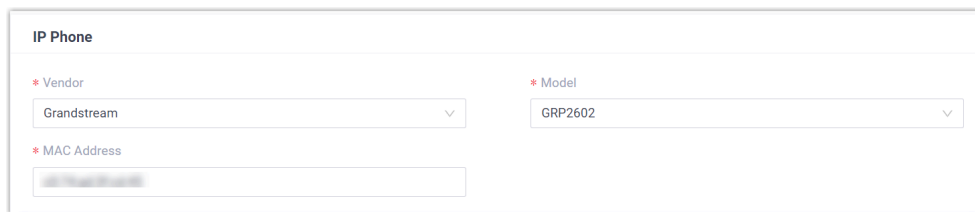
The screenshot shows the PBX web portal interface. At the top, there are tabs: User, Presence, Voicemail, Features, Advanced, Security (highlighted with an orange box), and Linkus Clients. Below the tabs, the 'SIP Security' section is visible, containing a checkbox labeled 'Allow Remote Registration' which is checked and highlighted with an orange box.

3. Click **Save** and **Apply**.

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



The screenshot shows the 'IP Phone' configuration form. It has three fields: '* Vendor' with a dropdown menu showing 'Grandstream', '* Model' with a dropdown menu showing 'GRP2602', and '* MAC Address' with a text input field.

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

Options

* Template
YSDP_GrandstreamGRP260X

* Provisioning Method
DHCP (In the Office)

Provisioning Link
http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB

- **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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.

Assign Extension

* Select Extension
3000-Leo Ball

**Note:**

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

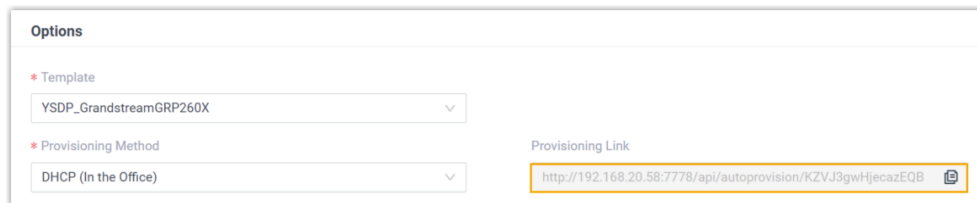
- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [configure the concurrent registration setting for the extension](#),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

6. Click **Save**.

Step 3. 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.



Options

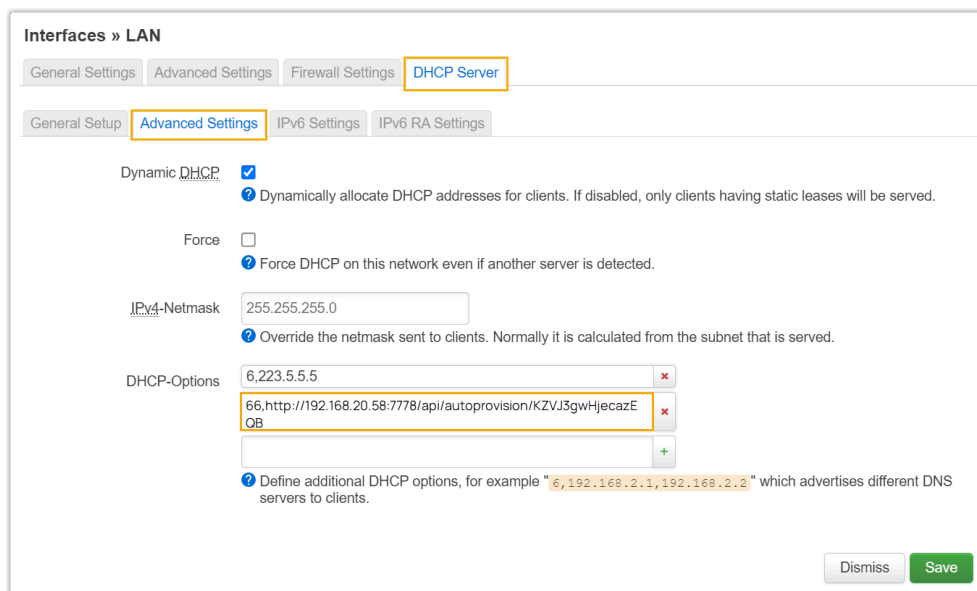
* Template
YSDP_GrandstreamGRP260X

* Provisioning Method
DHCP (In the Office)

Provisioning Link
http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB

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

In this example, the configuration on a router's DHCP server is shown below.



Interfaces » LAN

General Settings Advanced Settings Firewall Settings DHCP Server

General Setup Advanced Settings IPv6 Settings IPv6 RA Settings

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

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

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

DHCP-Options

6,223.5.5.5

66,http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB

Define additional DHCP options, for example "6,192.168.2.1,192.168.2.2" which advertises different DNS servers to clients.

Dismiss Save






Result



Note:

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

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

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|---|-----------|----------|-------------|---------|------------|-------------|---|
| <input type="checkbox"/> |  | 3000 | Leo Ball | Grandstream | GRP2602 | - | *****@ |     |

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](#).

Provision a Grandstream IP phone in remote network (Provision Link)

In this example, the Grandstream IP phone and the Yeastar PBX are deployed in different networks. 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.

Prerequisites

- Set up a DHCP server in the same subnet as the IP phone to assign it an IP address.



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.

- Make sure that you have [downloaded the template](#) for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- Make sure that you have completed the corresponding settings shown below according to the network environment of **Grandstream IP phone** and **Yeastar PBX**.

| Method | Setting |
|--------------------|---|
| Using Yeastar FQDN | <ul style="list-style-type: none"> ◦ Subscribe to Enterprise Plan or Ultimate Plan for the PBX and ensure the FQDN is available. ◦ Grant remote access permission for extension to be registered and the remote IP phones: <ul style="list-style-type: none"> ▪ Grant remote SIP access permission for the extension, so that the extension can be registered remotely via FQDN (Path: System > Network > Yeastar FQDN > Features > SIP Access). |

Access Type

Allowed Account

14 items Available

Search here

| Extension Number | Caller ID Name |
|-------------------------------|----------------|
| <input type="checkbox"/> 2000 | 2000 |
| <input type="checkbox"/> 2001 | Phillip Huff |
| <input type="checkbox"/> 2002 | Terrell Smith |
| <input type="checkbox"/> 2003 | Dave Harris |

1 item Selected

Search here


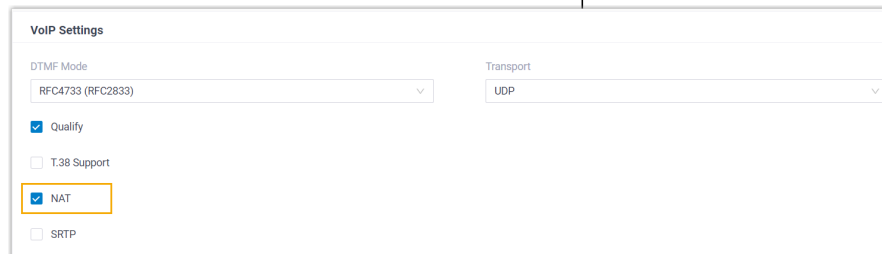

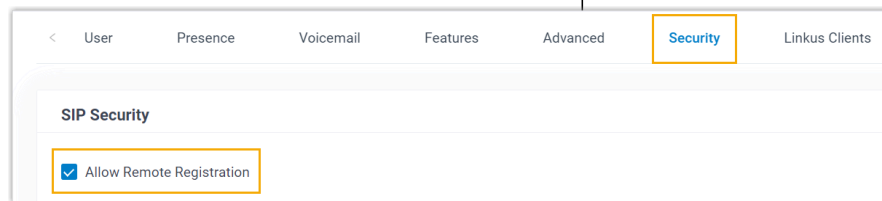
| Extension Number | Caller ID Name |
|-------------------------------|----------------|
| <input type="checkbox"/> 3000 | Leo Ball |

- If you have [enabled IP restriction for Yeastar FQDN remote Web access](#), make sure that you have added the phone's IP address to the permitted IP list, so that the phone can obtain configuration files from the PBX (Path: **System > Network > Yeastar FQDN > Features > Remote Access > Web Access**).

☒ Enable IP Restriction

| * Permitted IP | * Subnet Mask | Operations |
|--|---------------|------------|
| Public IP of the network where the phone is deployed | Subnet mask | |

+ Add

| Method | Setting |
|---|---|
| | <ul style="list-style-type: none"> 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. |
| Using Public IP address / external host / Yeastar domain name | <ul style="list-style-type: none"> Configure PBX network for remote access by a public IP address, by an external host domain name, or by a Yeastar domain name. <div style="border: 1px solid #f0e68c; padding: 10px; margin: 10px 0;"> <p>Important: The following PBX ports MUST be forwarded for RPS provisioning.</p> <ul style="list-style-type: none"> RTP ports SIP port Web Server port </div> <ul style="list-style-type: none"> Set up the extension for remote registration. <ul style="list-style-type: none"> Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT). <div>  <p>The screenshot shows the 'VoIP Settings' configuration page. Under the 'NAT' section, the checkbox is checked and highlighted with an orange box. Other options like 'Quality', 'T.38 Support', and 'SRTP' are visible but not checked. The 'DTMF Mode' is set to 'RFC4733 (RFC2833)' and 'Transport' is set to 'UDP'.</p> </div> <ul style="list-style-type: none"> Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration). <div>  <p>The screenshot shows the 'SIP Security' configuration page. The 'Allow Remote Registration' checkbox is checked and highlighted with an orange box. The page has tabs for 'User', 'Presence', 'Voicemail', 'Features', 'Advanced', 'Security' (which is active and highlighted), and 'Linkus Clients'.</p> </div> |
| | <ul style="list-style-type: none"> 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. |

| Method | Setting |
|--------|---|
| | <ul style="list-style-type: none"> ◦ Gather information of IP phone, including Vendor, Model, and MAC address. |

Procedure

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

Step 1. Add the Grandstream IP phone on PBX

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

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

The screenshot shows the 'IP Phone' configuration form. It contains three required fields marked with an asterisk: 'Vendor' is set to 'Grandstream', 'Model' is set to 'GRP2602', and 'MAC Address' is a blurred text field.

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

The screenshot shows the 'Options' configuration form. It contains three required fields: 'Template' is set to 'YSDP_GrandstreamGRP260X', 'Provisioning Method' is set to 'Provision Link - FQDN (Remote)', and 'Provisioning Link' is a URL. Below the link field, there is a note: 'Please copy this Provisioning Link, then set up the link to where your IP phones can fetch the configuration files.'

- **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 Method:** Select **Provision Link - FQDN (Remote)** or **Provision Link (Remote)**.

The **Provisioning Link** field displays a provisioning link, which points to the location where the phone's configuration file is stored.



Note:

Note down the provisioning link, as you will need to use it later when configuring the DHCP server.

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

The screenshot shows a web form titled 'Assign Extension'. Below the title is a dropdown menu with a red asterisk and the text '* Select Extension'. The dropdown is open, showing a list of extensions, with '3000-Leo Ball' selected. A small downward arrow is visible on the right side of the dropdown box.



Note:

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

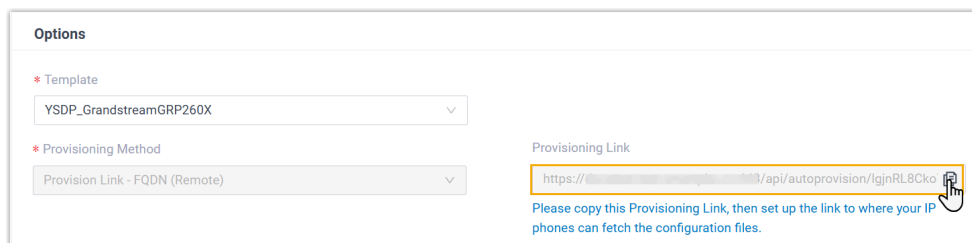
- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [configure the concurrent registration setting for the extension](#), 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

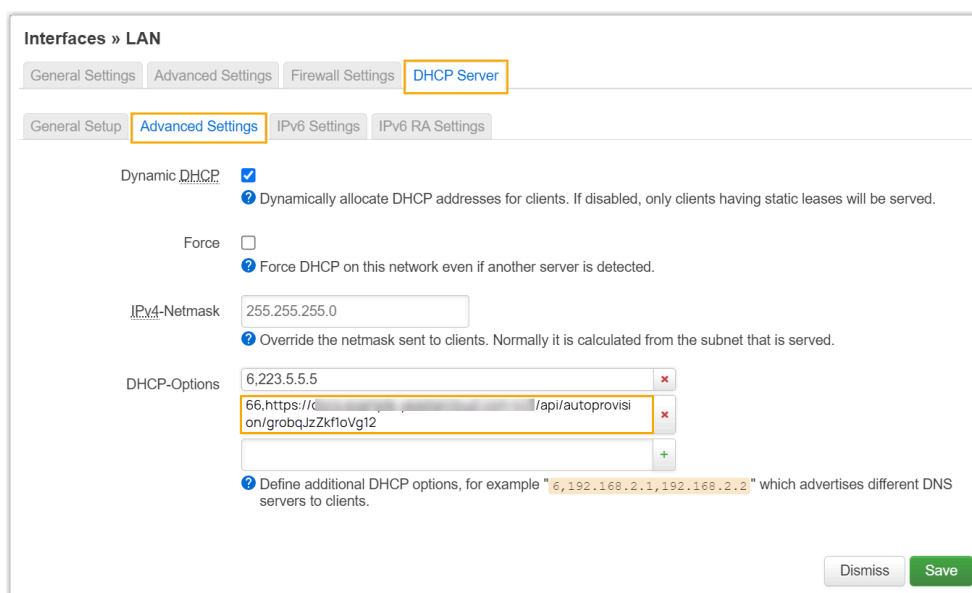
In the subnet where the IP phone is deployed, use the generated provisioning link to configure option 66 on the DHCP Server.

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.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|---|-----------|----------|-------------|---------|------------|-------------|---|
| <input type="checkbox"/> |  | 3000 | Leo Ball | Grandstream | GRP2602 | - | *****@ |     |

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 Software 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.

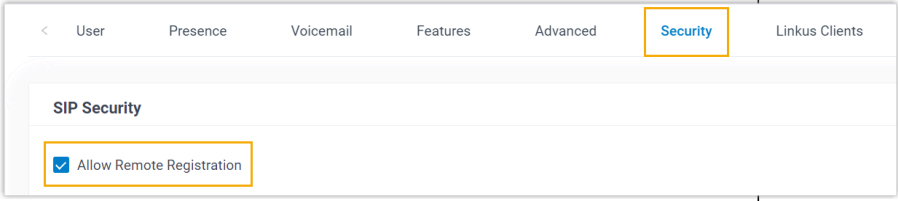
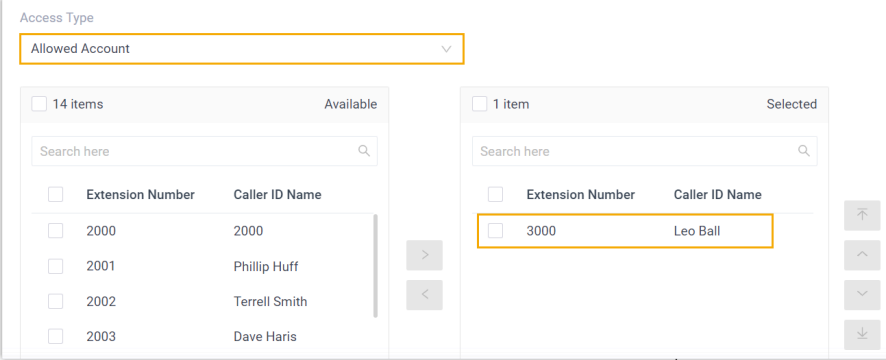
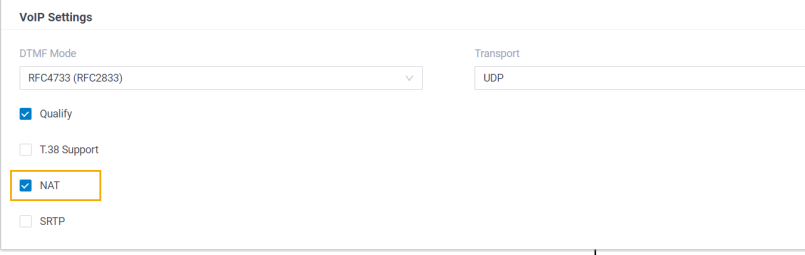
Supported devices

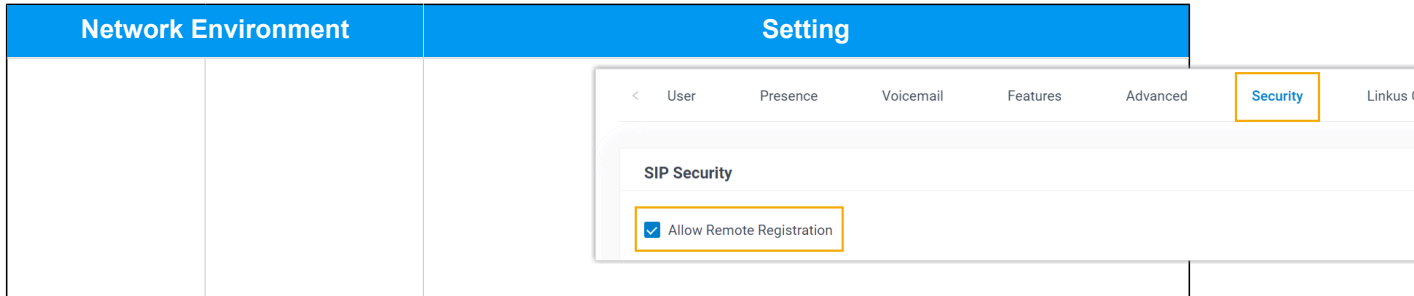
The Grandstream IP phones that are compatible with SIP (Session Initiation Protocol).

Prerequisites

Make sure that you have completed the corresponding settings shown below according to the network environment of **Grandstream IP phone** and **Yeastar PBX**.

| Network Environment | | Setting |
|---------------------|---|--|
| Local Network | Register extension in the same subnet | / |
| | Register extension in different subnets | Enable the Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration). |

| Network Environment | Setting | |
|---------------------|--|--|
| | |  |
| Remote Network | Register extension using Yeastar FQDN | <ul style="list-style-type: none"> • Grant remote SIP access permission for the extension (Path: System > Network > Yeastar FQDN > Features > SIP Access).  |
| | Register extension using Public IP address / External Host domain name | <ul style="list-style-type: none"> • Configure PBX network for remote access by a public IP address or by an external host domain name. • Set up the extension for remote registration. <ul style="list-style-type: none"> ◦ Enable NAT for the extension (Path: Extension and Trunk > Extension > ⚡ > Advanced > VoIP Settings > NAT).  <ul style="list-style-type: none"> ◦ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension > ⚡ > Security > SIP Security > Allow Remote Registration). |


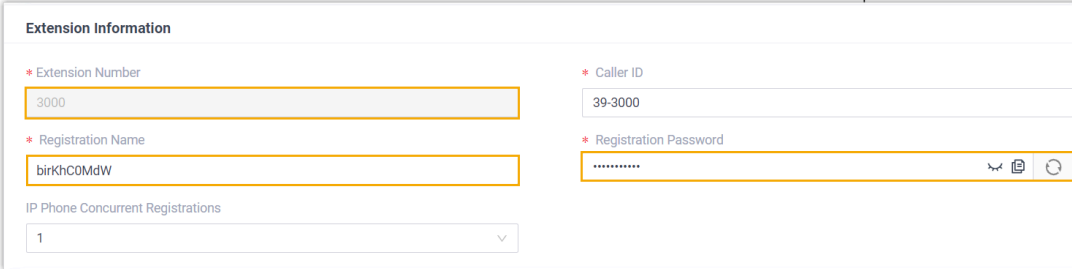



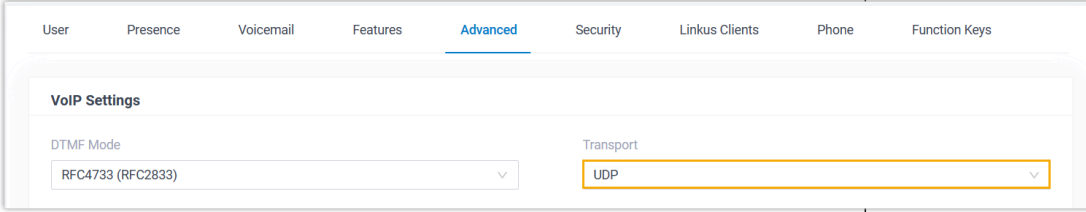

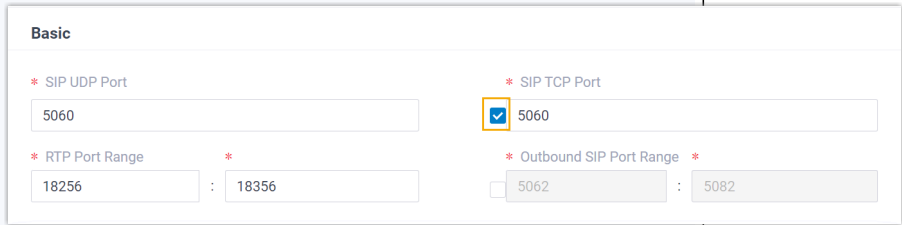
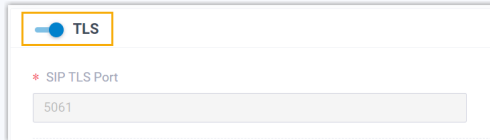

Procedure

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

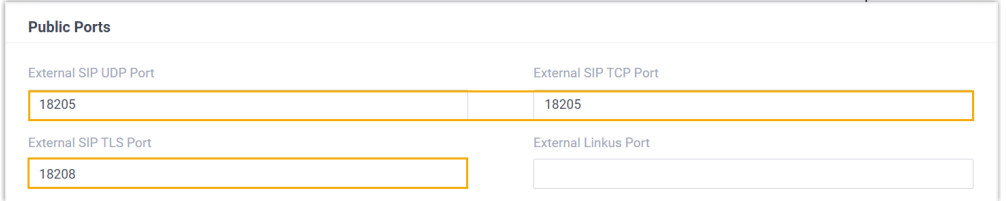
Step 1. Gather registration information on Yeastar PBX

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

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

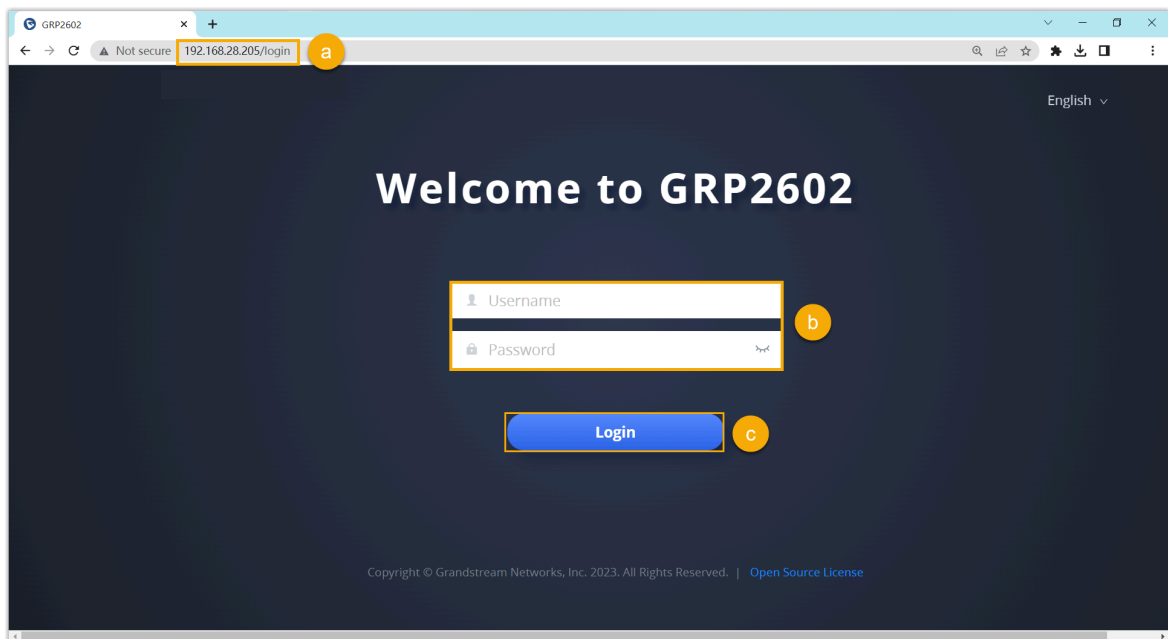
| Information | Instruction |
|-------------------------------|---|
| | <div>  </div> <div>  </div> <div> Note: </div> <div> <ul style="list-style-type: none"> • If the extension uses TCP transport protocol, make sure that the SIP TCP port is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > General > Basic). </div> <div>  </div> <div> <ul style="list-style-type: none"> • If the extension uses TLS transport protocol, make sure that the TLS is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > TLS). </div> <div>  </div> |
| PBX IP address or domain name | <div> <p>Scenario: Register extension in local network</p> <p>In this scenario, you can directly utilize the PBX's private IP address for extension registration.</p> <div>  </div> <div> Note: </div> <div> <p>This topic provides the configuration example based on this scenario, where the PBX's private IP address is 192.168.28.39.</p> </div> </div> <div> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN, note down the PBX's Fully Qualified Domain Name (FQDN).</p> </div> |

| Information | Instruction |
|-----------------------|---|
| | <div> <div> Status <div> <ul style="list-style-type: none"> Successfully connected to the tunnel server. </div> <div> Fully Qualified Domain Name (FQDN) <div> yeastardocs.ras.yeastar.com <div> The domain name can be configured only once and cannot be altered after the configuration. </div> </div> </div> </div> </div> <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> <p>Go to System > Network > Public IP and Ports, note down the PBX's public IP address or external host domain name.</p> <div> <div> Public IP (NAT) <div> NAT Type <div>Public IP Address</div> <div>Public IP Address</div> <div>110.35.77.110</div> </div> </div> <div> Public IP (NAT) <div> NAT Type <div>External Host</div> <div>External Host</div> <div>yeastar_docstest.com</div> </div> </div> <div> Public IP (NAT) <div> NAT Type <div>Yeastar Domain</div> <div>Yeastar Domain</div> <div>yeastardocs.cloudipbx.amaripbx.cn</div> </div> </div> </div> |
| SIP registration port | <p>Scenario: Register extension in local network</p> <p>Go to System > Network > Service Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p> <div> <div> HTTPS <div>8088</div> </div> <div> HTTP <div>80</div> </div> <div> SIP UDP <div>5060</div> </div> <div> SIP TCP <div>5060</div> </div> <div> SIP TLS <div>5061</div> </div> <div> Outbound SIP Port <div>5062-5082</div> </div> </div> <p>In this example, we use the SIP UDP port 5060.</p> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN > Features > SIP Access, note down the SIP registration port corresponding to the extension's transport protocol.</p> <div> <div> Features <div> SIP Access Remote Access </div> <div> Before enabling this feature, please make sure your extensions are using strong registration passwords, or it might bring security risks. </div> <div> Status <div>Enabled</div> </div> <div> Remote Access Service Port-SIP UDP&TCP <div>5060</div> </div> <div> Remote Access Service Port-SIP TLS <div>5061</div> </div> </div> </div> <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> |

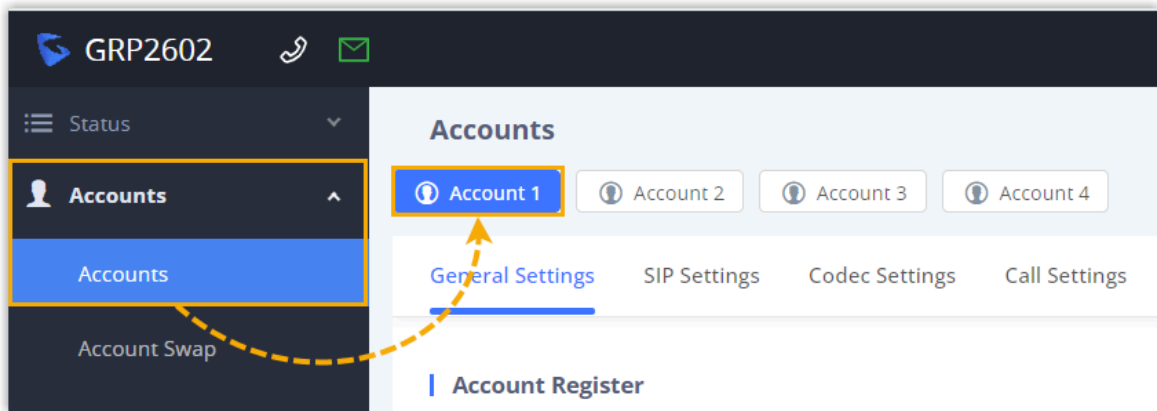
| Information | Instruction |
|-------------|---|
| | <p>Go to System > Network > Public IP and Ports > Public Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p>  |

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 ☒

Account Name

SIP Server

Secondary SIP Server

Outbound Proxy

Secondary Outbound Proxy

SIP User ID

SIP Authentication ID

SIP Authentication Password

Name

Tel URI

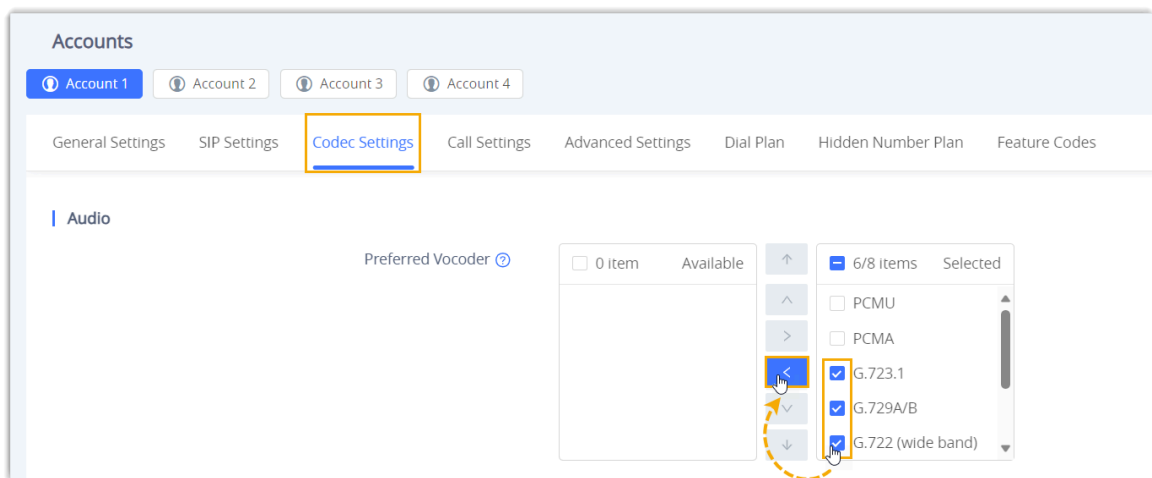
- **Account Active:** Select the checkbox to activate the account.
- **Account Name:** Enter the name associated with the account, which will be displayed on the phone screen.

- **SIP Server:** Enter the IP address / domain name of the PBX along with the SIP registration port.
 - **SIP User ID:** Enter the extension number.
 - **SIP Authentication ID:** Enter the registration name of the extension.
 - **SIP Authentication Password:** Enter the registration password of the extension.
4. In the **Codec Settings** tab, remove unnecessary codecs for the account.



Note:

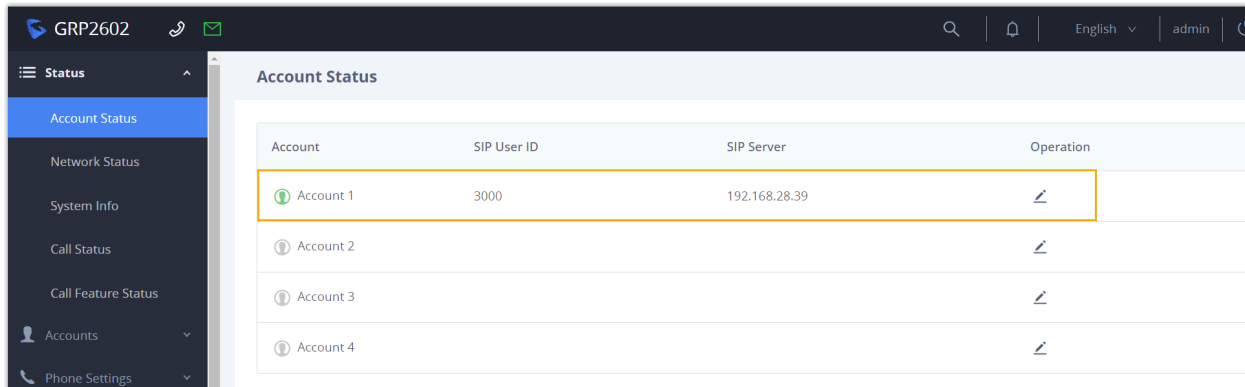
By default, Grandstream IP phone enables all available codecs for its accounts, which may lead to issues with outgoing calls. Therefore, it is recommended to remove unnecessary codecs for the account that has been registered with the PBX extension.



5. Click **Save and Apply**.

Result

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



| Account | SIP User ID | SIP Server | Operation |
|-----------|-------------|---------------|-----------|
| Account 1 | 3000 | 192.168.28.39 | |
| Account 2 | | | |
| Account 3 | | | |
| Account 4 | | | |


Remove Unnecessary Codecs for Grandstream IP Phone

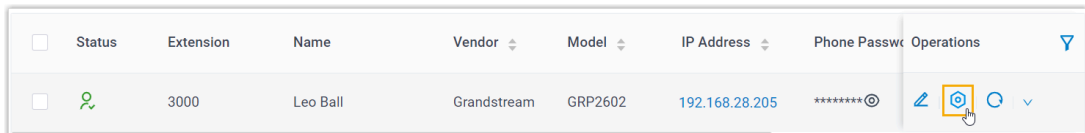
By default, Grandstream IP phone enables all available codecs for its accounts, which may lead to issues with outgoing calls. Therefore, it is recommended to remove unnecessary codecs for the account that has been registered with the PBX extension.

Prerequisites

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

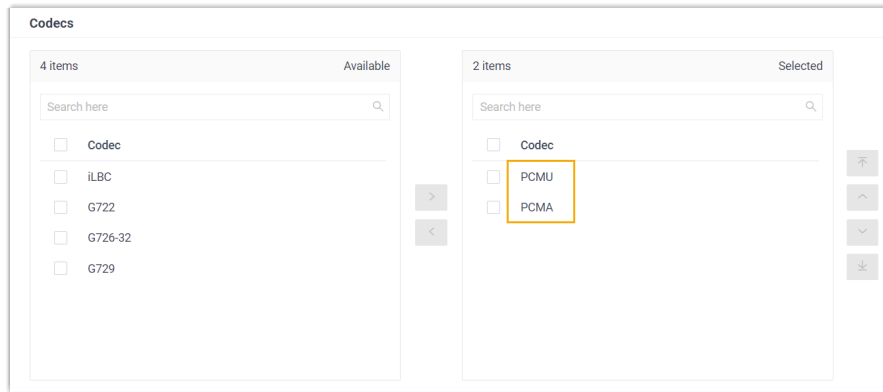
Procedure

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



| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Password | Operations |
|--------------------------|--------|-----------|----------|-------------|---------|----------------|----------------|------------|
| <input type="checkbox"/> | | 3000 | Leo Ball | Grandstream | GRP2602 | 192.168.28.205 | *****@ | |

- 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.



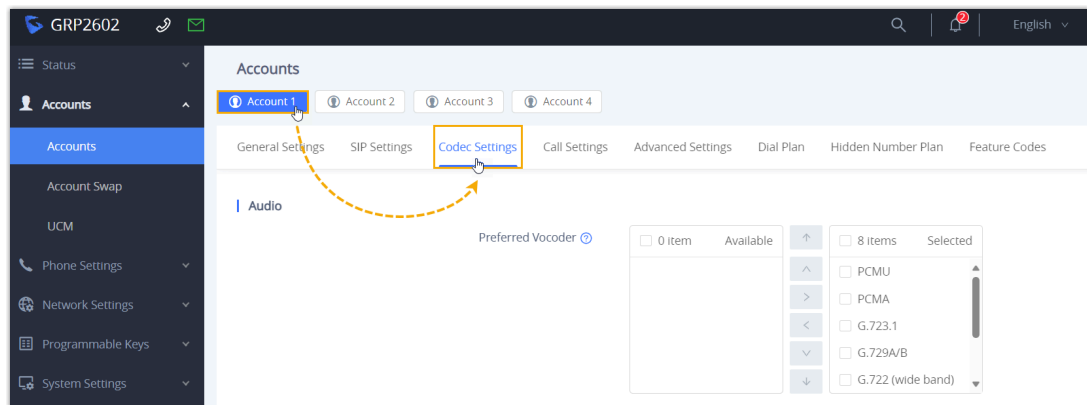
Note:

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.

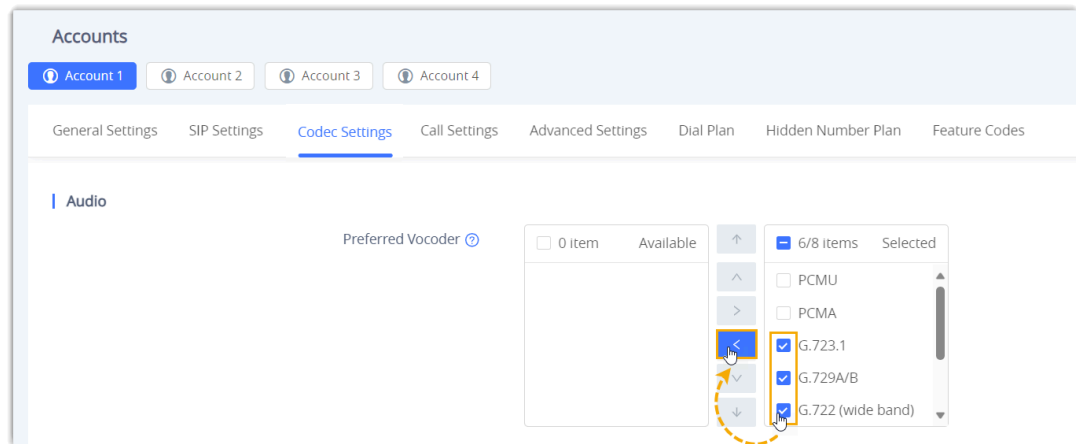
a. Log in to the phone's web interface via its IP address.

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 Software 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 Software Edition.

Requirements

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

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|--------|---------------------|--------------------|---|
| UC803T | 2.0.4.4.33 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| UC902 | 2.0.4.8.18 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| UC902S | 2.0.4.8.18 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| UC903 | 2.0.4.8.18 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| UC912 | 2.0.4.8.18 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| UC912G | 2.0.4.8.18 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| UC912E | 2.0.4.8.18 or later | 83.4.0.17 or later | <ul style="list-style-type: none">• PnP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|--------|---------------------|--------------------|--|
| | | | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| UC921 | 2.0.4.8.18 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| UC921G | 2.0.4.8.18 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| UC923 | 2.0.4.8.18 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| UC923U | 2.0.4.8.18 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| UC924 | 2.0.4.8.18 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| UC924E | 2.0.4.8.18 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| UC924U | 2.0.4.8.18 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| UC924W | 2.0.4.8.18 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| UC926 | 2.0.4.8.18 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|--------|-------------------------|---------------------|--|
| UC926E | 2.0.4.8.18 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| UC926U | 2.0.4.8.18 or later | 83.4.0.17 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| UCV10 | 5.42.1.6.30b58 or later | 83.12.0.23 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| UCV20 | 5.42.1.6.30b79 or later | 83.12.0.23 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| UCV50 | 5.42.1.6.30b62 or later | 83.12.0.23 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| UCV52 | 5.42.1.6.30b68 or later | 83.12.0.23 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| UCV53 | 5.42.1.6.32R76 or later | 83.12.0.23 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |

Scenarios

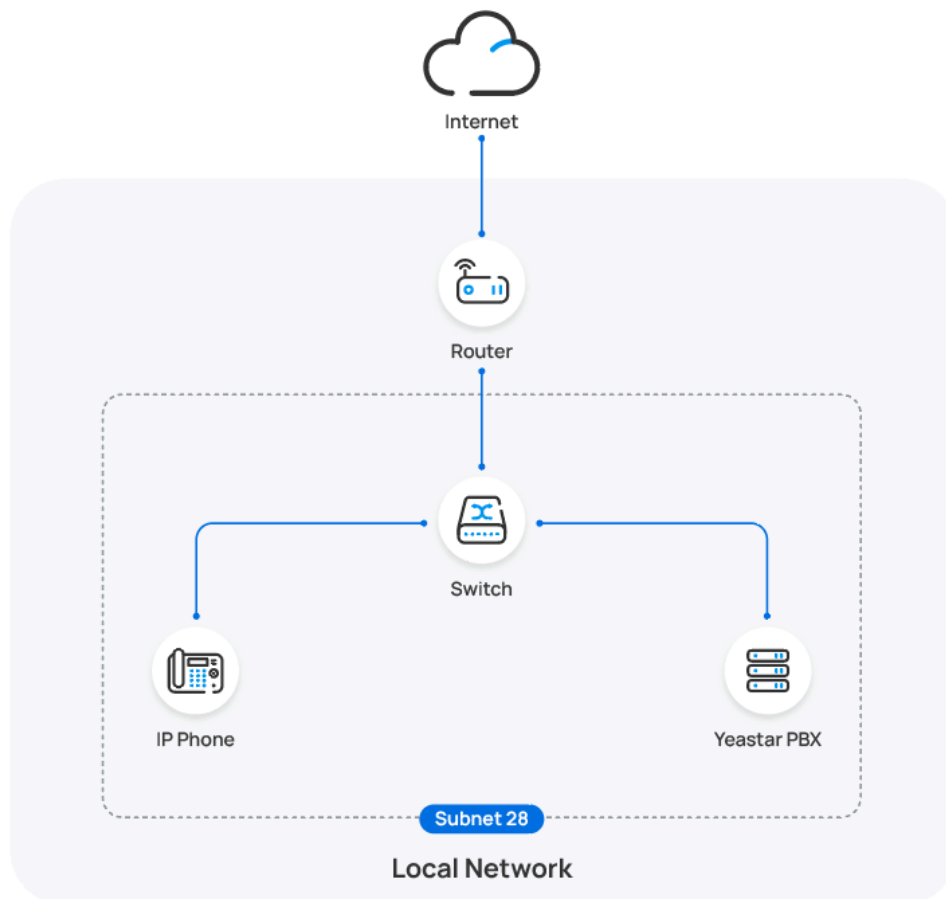
The provisioning methods and operations vary depending on the network environment of **Htek IP Phone** and **Yeastar PBX**, as the following table shows.

| Scenario | Description |
|---|--|
| IP Phone and PBX are in the SAME subnet (LAN) | <p>In this scenario, you can provision the Htek IP phone with the PBX via PnP method.</p> <p>For more information, see Auto provision an Htek IP phone in the same subnet (PnP).</p> |

| Scenario | Description |
|---|---|
| IP Phone and PBX are in DIFFERENT subnets (LAN) | In this scenario, you can provision the Htek IP phone with the PBX via DHCP method . For more information, see Auto provision an Htek IP phone in the different subnets (DHCP) . |
| IP Phone and PBX are in DIFFERENT network | In this scenario, you can provision the Htek IP phone with the PBX via RPS method . For more information, see Auto provision an Htek IP phone in remote network (RPS) . |

Auto provision an Htek IP phone in the same subnet (PnP)

In this example, the Htek IP phone (IP: 192.168.28.193) and the Yeastar PBX (IP: 192.168.28.39) are both deployed in subnet 28.




Prerequisites

- Make sure that you have [downloaded the template](#) for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- If the IP phone is previously used, you need to RESET the IP phone, then re-configure the network settings for the phone.

Procedure

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

The IP phones detected by the PBX via PnP are displayed in the phone list.

2. Click  beside the Htek IP phone.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone | Operations |
|--------------------------|--------|------------|------------|--------|--------|----------------|-------|------------|
| <input type="checkbox"/> | | Unassigned | Unassigned | Htek | UC921G | 192.168.28.193 | - | |

3. **Optional:** In the **Options** section, select a desired template from the **Template** 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](#).

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

Assign Extension

* Select Extension

3000-Leo Ball



Note:

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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).



- To assign the extension to the phone without releasing it from the previously associated device, you can [configure the concurrent registration setting for the extension](#), as the PBX only allows an extension to register with one SIP endpoint by default.

5. Click **Save**.






Result



Note:

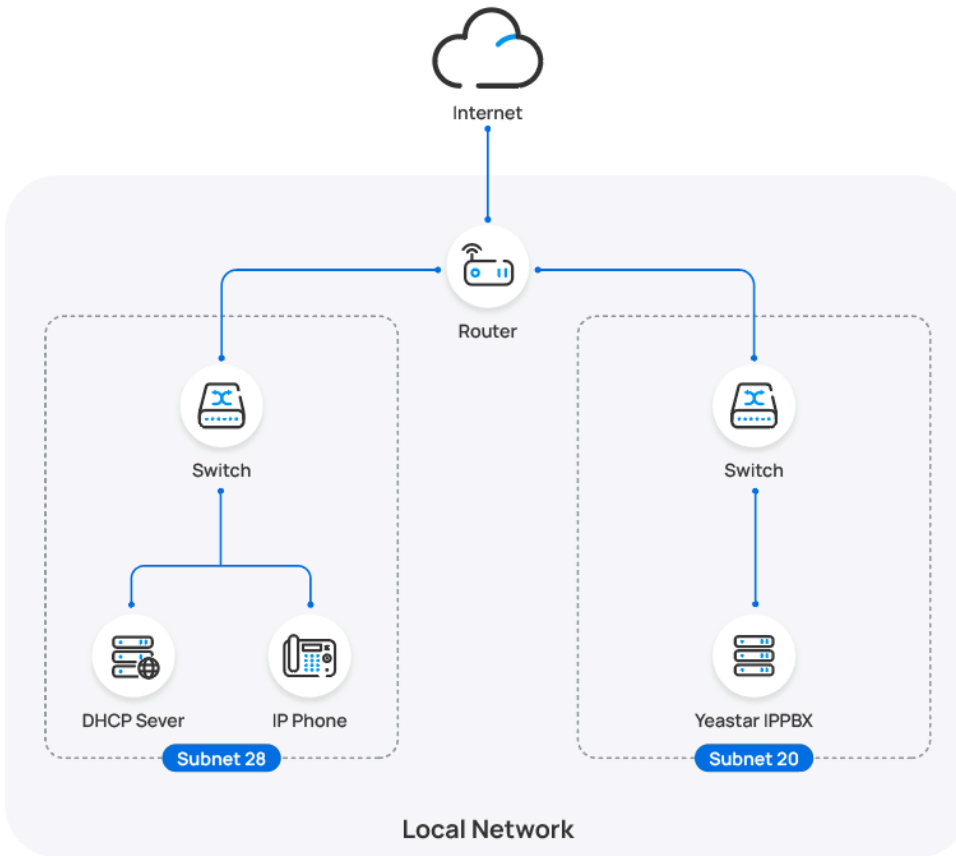
Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

- 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** in PBX web portal.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Password | Operations |
|--------------------------|---|-----------|----------|--------|--------|----------------|----------------|---|
| <input type="checkbox"/> |  | 3000 | Leo Ball | Htek | UC921G | 192.168.28.193 | - |     |

Auto provision an Htek IP phone in the different subnets (DHCP)

In this example, the Htek IP phone and a DHCP server are deployed in subnet 28, while the Yeastar PBX (IP: 192.168.20.58) is deployed in subnet 20.



Prerequisites

- Make sure that there is only one DHCP server running in the subnet where the IP phone is deployed, or the IP phone would fail to obtain an IP address.
- Make sure that the IP phone and PBX can communicate with each other over the subnets.
- 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

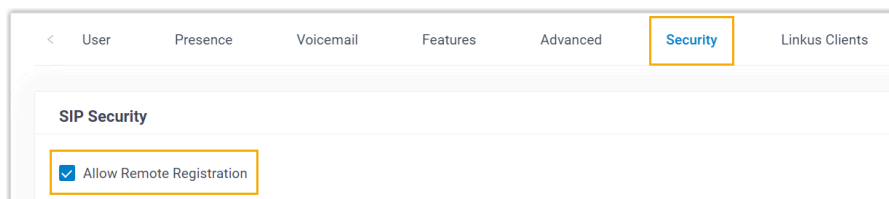
- [Step 1. Enable Remote Registration feature for the extension on PBX](#)
- [Step 2. Add the Htek IP phone on PBX](#)

- [Step 3. Configure DHCP option 66 on DHCP server](#)

Step 1. Enable Remote Registration feature for the extension on PBX

Enable the Remote Registration feature for the extension to be assigned to the phone, so that the extension can be registered in a different subnet.

1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, edit the desired extension.
2. Click **Security** tab, select the checkbox of **Allow Remote Registration** in the **SIP Security** section.

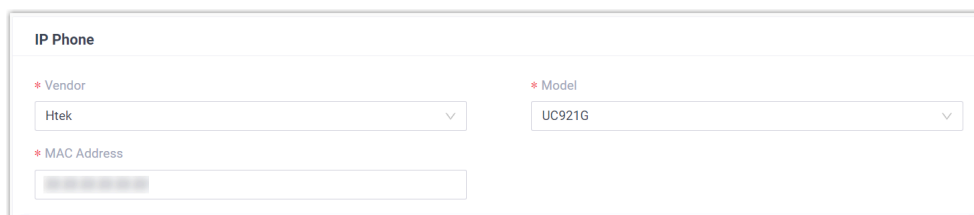


The screenshot shows the 'Security' tab selected in the PBX web portal. Under the 'SIP Security' section, the 'Allow Remote Registration' checkbox is checked and highlighted with an orange box.

3. Click **Save** and **Apply**.

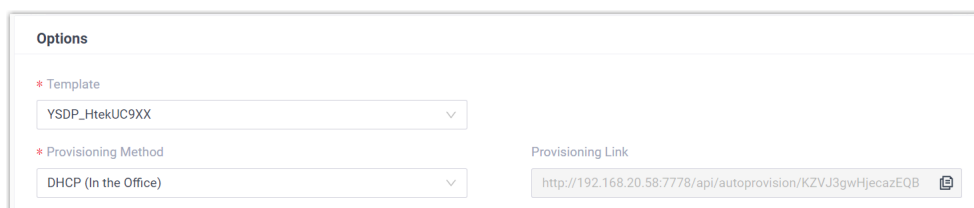
Step 2. Add the Htek IP phone on PBX

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



The screenshot shows the 'IP Phone' configuration form. It includes fields for 'Vendor' (set to 'Htek'), 'Model' (set to 'UC921G'), and 'MAC Address' (with a placeholder for a 12-digit hexadecimal address).

- **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.



The screenshot shows the 'Options' section. It includes a 'Template' dropdown set to 'YSDP_HtekUC9XX', a 'Provisioning Method' dropdown set to 'DHCP (In the Office)', and a 'Provisioning Link' field containing the URL 'http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB'.

- **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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.



Note:

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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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 3. 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 on a router's DHCP server is shown below.

Result



Note:

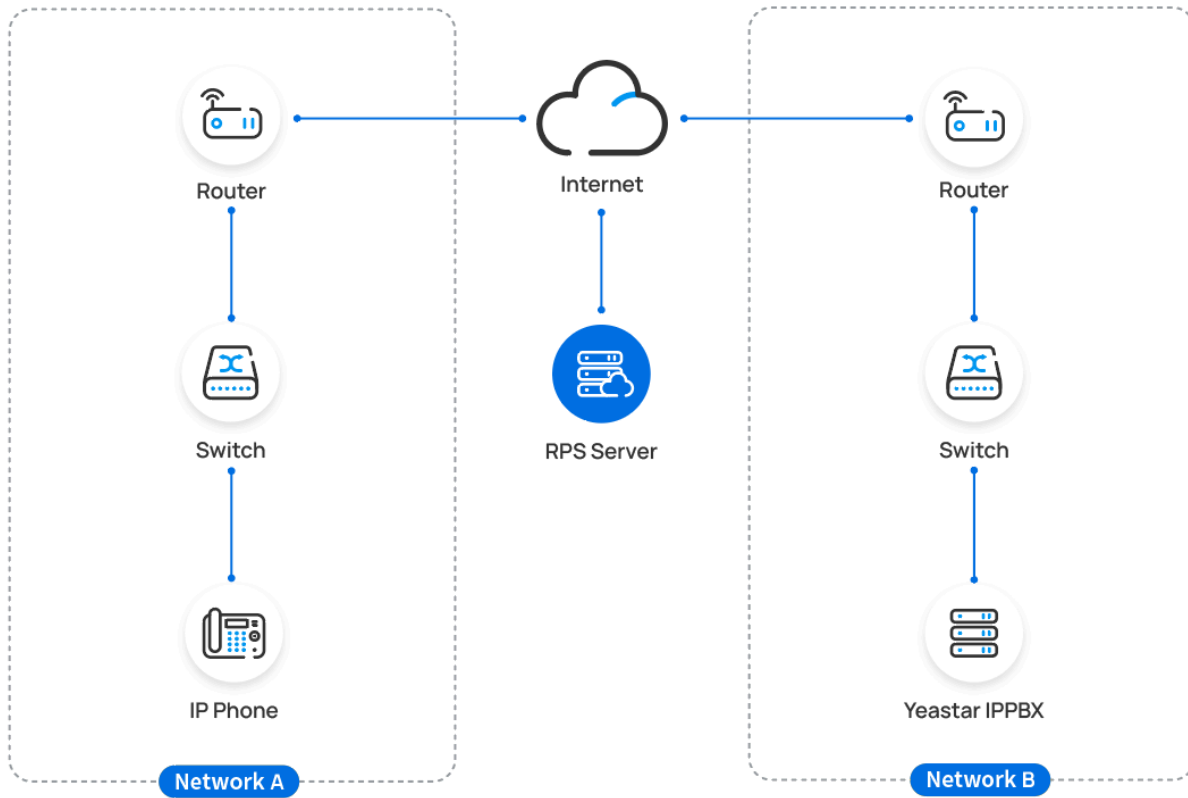
Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

- 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.

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

Auto provision an Htek IP phone in remote network (RPS)

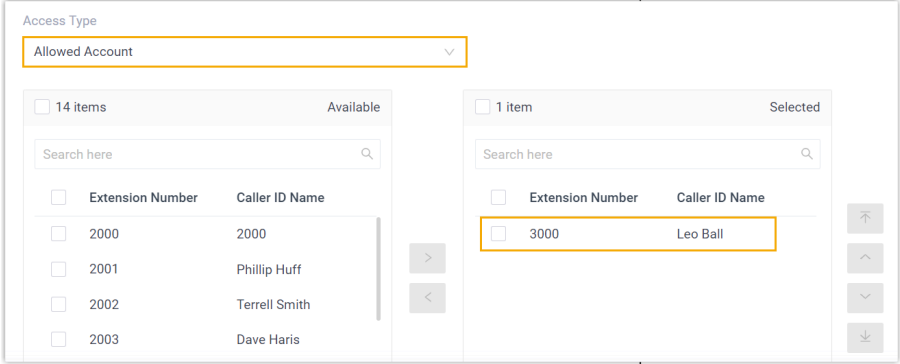
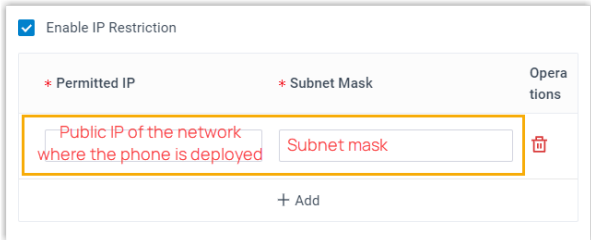
In this example, the Htek IP phone and the Yeastar PBX are deployed in different network.



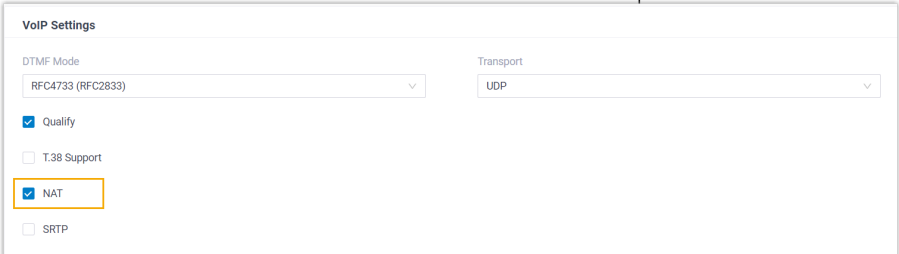

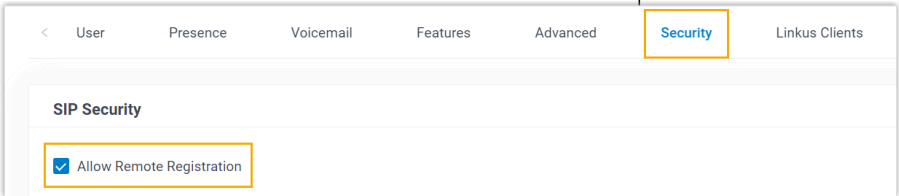


Prerequisites

Yeastar P-Series Software Edition supports to auto provision an Htek phone remotely either using **Yeastar FQDN** or using **Public IP address / domain name**. According to the provisioning method you intend to use, make sure that you have completed the corresponding setup shown below.

| Method | Setting |
|--------------------|--|
| Using Yeastar FQDN | <ul style="list-style-type: none"> Subscribe to Enterprise Plan or Ultimate Plan for the PBX and ensure the FQDN is available. Grant remote access permission for extension to be registered and the remote IP phones: |

| Method | Setting |
|---|---|
| | <ul style="list-style-type: none"> ◦ Grant remote SIP access permission for the extension, so that the extension can be registered remotely via FQDN (Path: System > Network > Yeastar FQDN > Features > SIP Access).  <ul style="list-style-type: none"> ◦ If you have enabled IP restriction for Yeastar FQDN remote Web access, make sure that you have added the phone's IP address to the permitted IP list, so that the phone can obtain configuration files from the PBX (Path: System > Network > Yeastar FQDN > Features > Remote Access > Web Access).  <ul style="list-style-type: none"> • 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. |
| Using Public IP address / external host / Yeastar domain name | <ul style="list-style-type: none"> • Configure PBX network for remote access by a public IP address, by an external host domain name, or by a Yeastar domain name. <div style="background-color: #fff9c4; padding: 10px; border: 1px solid #f0e68c;"> <p>Important:</p> <p>The following PBX ports MUST be forwarded for RPS provisioning.</p> <ul style="list-style-type: none"> ◦ RTP ports ◦ SIP port </div> |

| Method | Setting |
|--------|--|
| | <div>  <ul style="list-style-type: none"> ◦ Web Server port <ul style="list-style-type: none"> • Set up the extension for remote registration. <ul style="list-style-type: none"> ◦ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT). </div> <div>  </div> <div> <ul style="list-style-type: none"> ◦ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration). </div> <div>  </div> <div> <ul style="list-style-type: none"> • 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. </div> |

Procedure

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

Step 1. Add the Htek IP phone on PBX

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

The form is titled "IP Phone". It contains three fields:

- * Vendor:** A dropdown menu with "Htek" selected.
- * Model:** A dropdown menu with "UC921G" selected.
- * MAC Address:** A text input field with a greyed-out placeholder.

- **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.

Figure 15. RPS using Yeastar FQDN

The form is titled "Options". It contains:

- * Template:** A dropdown menu with "YSDP_HtekUC9XX" selected.
- * Provisioning Method:** A dropdown menu with "RPS FQDN (Remote)" selected.
- Provisioning Link:** A text field displaying the URL: `https://yeastardocs.ras.yeastar.com:443/api/autoprovision/H70R1oiI`.
- ☒ **Authentication for the First-time Auto Provisioning**

Figure 16. RPS using Public IP Address / External Host domain name

The form is titled "Options". It contains:

- * Template:** A dropdown menu with "YSDP_HtekUC9XX" selected.
- * Provisioning Method:** A dropdown menu with "RPS (Remote)" selected.
- Provisioning Link:** A text field displaying the URL: `https://110.35.77.110:18207/api/autoprovision/H70R1oiPnUCnp6L`.
- ☒ **Authentication for the First-time Auto Provisioning**

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

**Note:**

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

- **Provisioning Method:** Select **RPS FQDN (Remote)** or **RPS (Remote)** according to your need.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link points to the location where the phone's configuration file is stored.

- **Authentication for the First-time Auto Provisioning:** If enabled, users are requested to fill in authentication information on the IP phones before triggering the first-time provisioning.

**Note:**

We recommend that you keep this option selected.

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

Assign Extension

* Select Extension

3000-Leo Ball

**Note:**

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


- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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.



1. User Name:

2. Password:

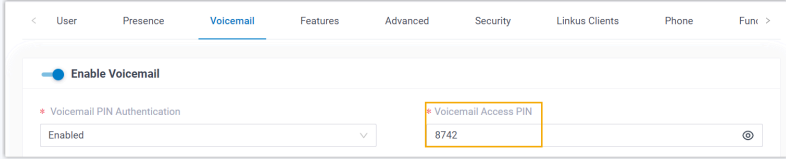
Back Save

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



Tip:

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



The screenshot shows the 'Voicemail' tab in a configuration interface. Under the 'Enable Voicemail' section, there is a 'Voicemail PIN Authentication' dropdown set to 'Enabled'. To its right, the 'Voicemail Access PIN' is displayed as '8742' in a text field, which is highlighted with a yellow box. A small eye icon is visible to the right of the PIN field.

Result

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

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

Related information

[Auto Provision LDAP for IP Phones](#)

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

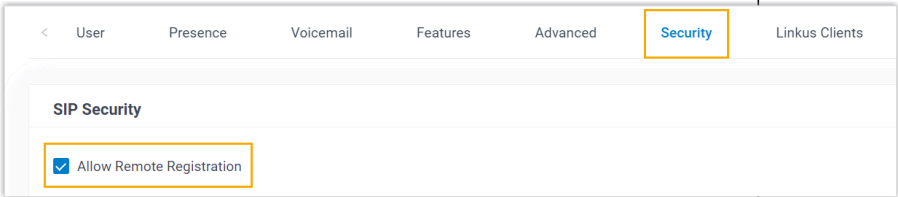
This topic takes Htek UC921G (firmware: 2.0.4.8.18) as an example to introduce how to manually register an extension on an Htek IP phone.

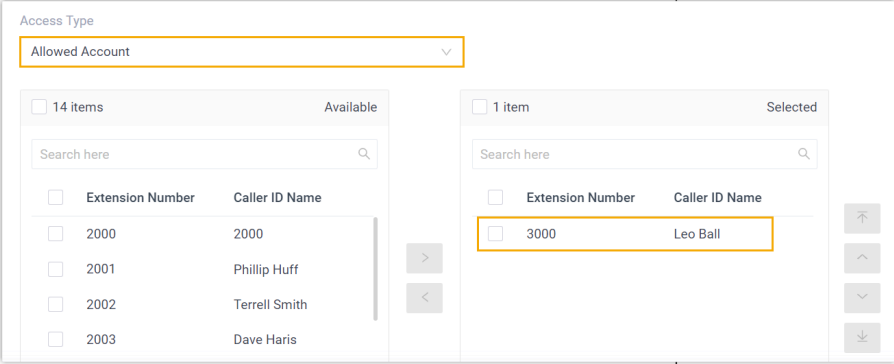

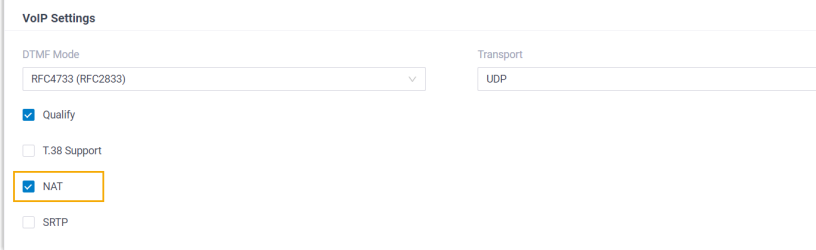

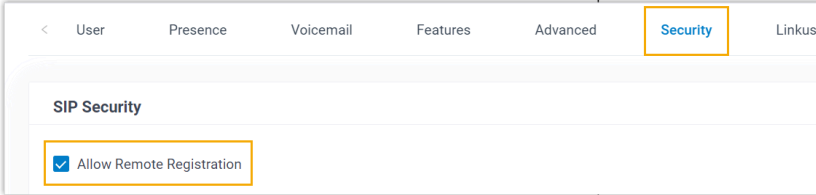
Supported devices

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

Prerequisites

Make sure that you have completed the corresponding settings shown below according to the network environment of **Htek IP phone** and **Yeastar PBX**.

| Network Environment | | Setting |
|---------------------|---|--|
| Local Network | Register extension in the same subnet | / |
| | Register extension in different subnets | <p>Enable the Remote Registration feature for the extension (Path: Extension and Trunk > Extension > > Security > SIP Security > Allow Remote Registration).</p>  |
| Remote Network | Register extension using Yeastar FQDN | <ul style="list-style-type: none"> Grant remote SIP access permission for the extension (Path: System > Network > Yeastar FQDN > Features > SIP Access). |


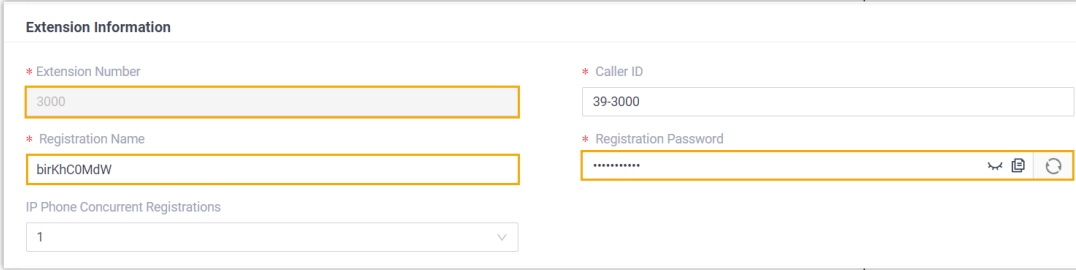

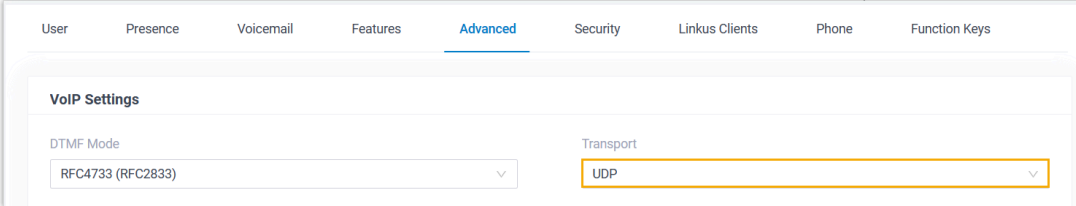
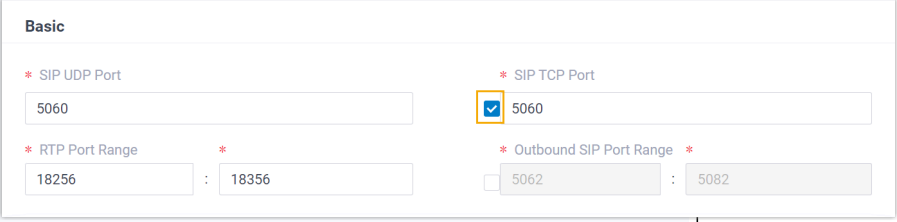
| Network Environment | Setting |
|--|--|
| Register extension using Public IP address / External Host domain name |  <ul style="list-style-type: none"> • Configure PBX network for remote access by a public IP address or by an external host domain name. • Set up the extension for remote registration. <ul style="list-style-type: none"> ◦ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT). |
| |  <ul style="list-style-type: none"> ◦ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).  |

Procedure

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

Step 1. Gather registration information on Yeastar PBX

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

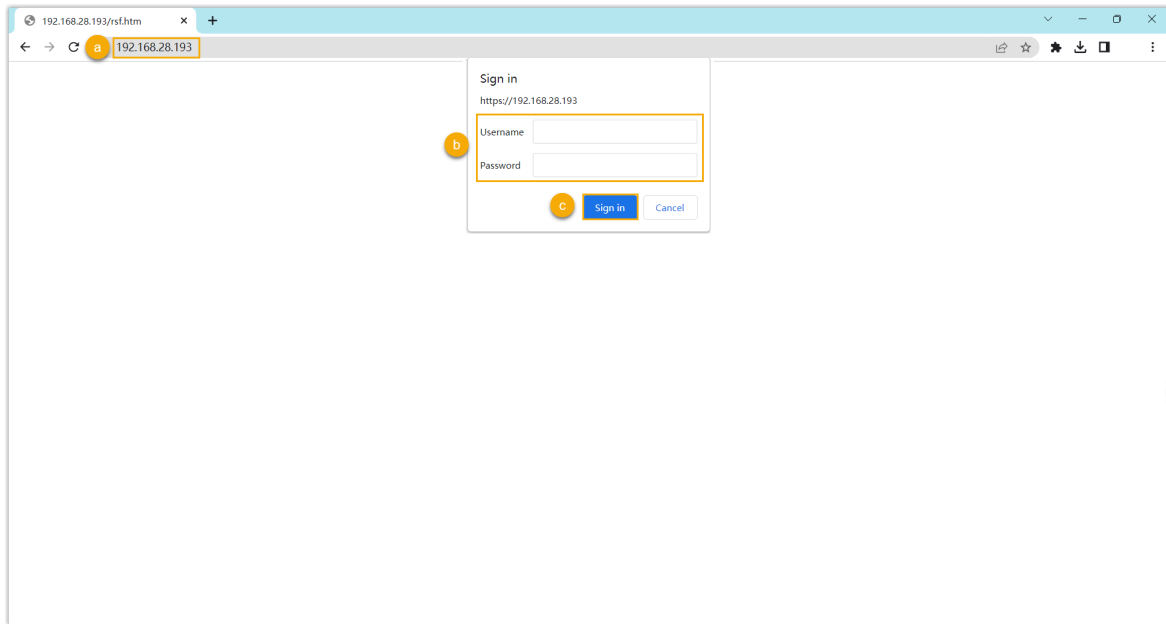
| Information | Instruction |
|-----------------------|--|
| Extension information | <p>Go to Extension and Trunk > Extension >  > User > Extension Information, note down the following information:</p> <ul style="list-style-type: none"> • Extension Number • Registration Name • Registration Password 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

| Information | Instruction |
|-------------------------------|--|
| | <div></div> <ul style="list-style-type: none"> If the extension uses TLS transport protocol, make sure that the TLS is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > TLS). <div> </div> |
| PBX IP address or domain name | <p>Scenario: Register extension in local network</p> <p>In this scenario, you can directly utilize the PBX's private IP address for extension registration.</p> <div></div> <p>Note: This topic provides the configuration example based on this scenario, where the PBX's private IP address is 192.168.28.39.</p> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN, note down the PBX's Fully Qualified Domain Name (FQDN).</p> <div> </div> <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> <p>Go to System > Network > Public IP and Ports, note down the PBX's public IP address or external host domain name.</p> <div> </div> |
| SIP registration port | <p>Scenario: Register extension in local network</p> <p>Go to System > Network > Service Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p> |

| Information | Instruction |
|-------------|--|
| | <div> <div> <div>HTTPS</div> <div>8088</div> <div></div> </div> <div> <div>HTTP</div> <div>80</div> <div></div> </div> <div> <div>SIP UDP</div> <div>5060</div> <div></div> </div> <div> <div>SIP TCP</div> <div>5060</div> <div></div> </div> <div> <div>SIP TLS</div> <div>5061</div> <div></div> </div> <div> <div>Outbound SIP Port</div> <div>5062-5082</div> <div></div> </div> </div> <p>In this example, we use the SIP UDP port 5060.</p> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN > Features > SIP Access, note down the SIP registration port corresponding to the extension's transport protocol.</p> <div> <div>Features</div> <div> <div>SIP Access</div> <div>Remote Access</div> </div> <div>Before enabling this feature, please make sure your extensions are using strong registration passwords, or it might bring security risks.</div> <div> <div>* Status</div> <div>Enabled</div> </div> <div> <div>Remote Access Service Port-SIP UDP&TCP</div> <div>5060</div> </div> <div> <div>Remote Access Service Port-SIP TLS</div> <div>5061</div> </div> </div> <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> <p>Go to System > Network > Public IP and Ports > Public Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p> <div> <div>Public Ports</div> <div> <div>External SIP UDP Port</div> <div>18205</div> </div> <div> <div>External SIP TCP Port</div> <div>18205</div> </div> <div> <div>External SIP TLS Port</div> <div>18208</div> </div> <div> <div>External Linkus Port</div> <div></div> </div> </div> |

Step 2. Register extension on Htek IP phone

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



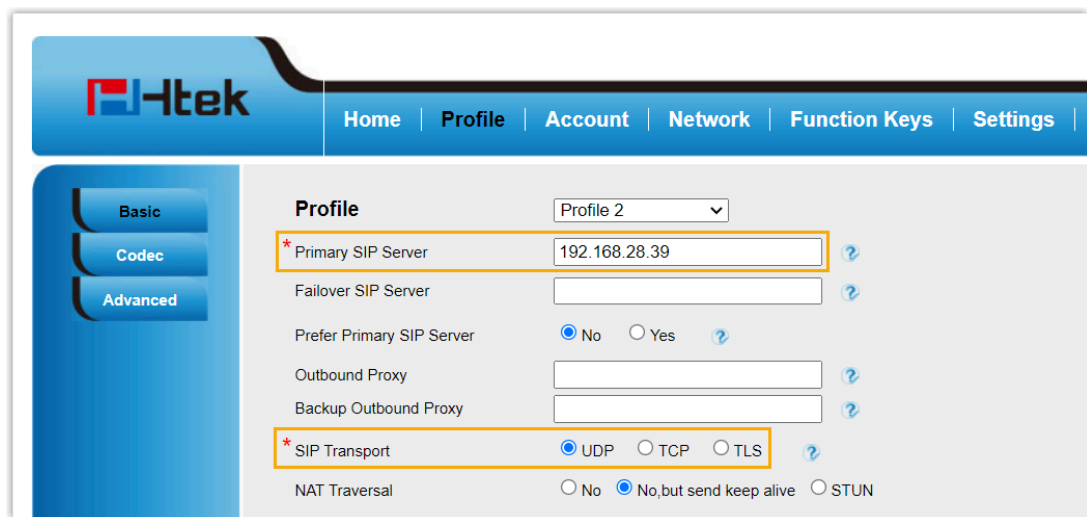
- a. In the browser's address bar, enter the IP address of the IP phone.
- b. Enter the username `admin` and the associated password.

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 IP address / 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.


The screenshot shows the Htek web interface for configuring an IP phone. The 'Basic' tab is active. The 'Account' section is expanded, showing the following fields:

- Account:** A dropdown menu currently showing 'Account 2'.
- Account Status:** Displayed as 'Disabled'.
- * Account Active:** Radio buttons for 'No' and 'Yes' (selected).
- Profile:** A dropdown menu currently showing 'Profile 2'.
- Label:** Text input field containing 'Leo Ball'.
- * SIP User ID:** Text input field containing '3000'.
- * Authenticate ID:** Text input field containing 'birKhcOMdW'.
- * Authenticate Password:** Password input field (masked with dots).
- Name:** Text input field (empty).
- Local SIP Port:** Text input field containing '5060'.
- Use Random Port:** Radio buttons for 'No' (selected) and 'Yes'.

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

Result

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



[Home](#) | [Profile](#) | [Account](#) | [Network](#) | [Function Keys](#) | [Settings](#)

Basic

Account

Account 2

Account Status3000@192.168.28.39:5060 : Registered; UDP

* Account Active

☐ No ☒ Yes

Tiptel

Auto Provision Tiptel IP Phone with Yeastar P-Series Software 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 Software Edition.

Requirements

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

Table 1.

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------|----------------------|--------------------|---|
| 3310 | 2.42.6.5.55 or later | 83.7.0.16 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| 3320 | 2.42.6.5.55 or later | 83.7.0.16 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| 3330 | 2.42.6.5.55 or later | 83.7.0.16 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| 3340 | 2.42.6.5.55 or later | 83.7.0.16 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |

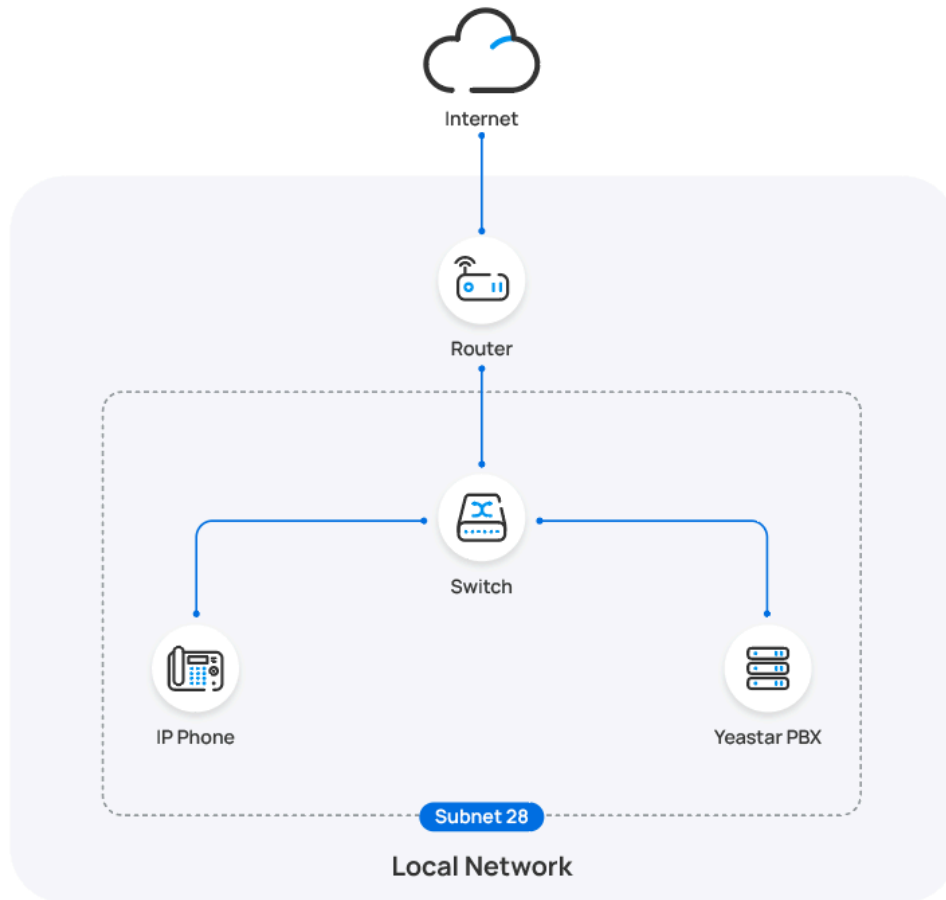
Scenarios

The provisioning methods and operations vary depending on the network environment of **Tiptel IP Phone** and **Yeastar PBX**, as the following table shows.

| Scenario | Description |
|---|---|
| IP Phone and PBX are in the SAME subnet (LAN) | <p>In this scenario, you can provision the Tiptel IP phone with the PBX via PnP method.</p> <p>For more information, see Auto provision a Tiptel IP phone in the same subnet (PnP).</p> |
| IP Phone and PBX are in DIFFERENT subnets (LAN) | <p>In this scenario, you can provision the Tiptel IP phone with the PBX via DHCP method.</p> <p>For more information, see Auto provision a Tiptel IP phone in the different subnets (DHCP).</p> |
| IP Phone and PBX are in DIFFERENT network | <p>In this scenario, you can provision the Tiptel IP phone with the PBX via RPS method.</p> <p>For more information, see Auto provision a Tiptel IP phone in remote network (RPS).</p> |

Auto provision a Tiptel IP phone in the same subnet (PnP)

In this example, the Tiptel IP phone (IP: 192.168.28.195) and the Yeastar PBX (IP: 192.168.28.39) are both deployed in subnet 28.




Prerequisites





- Make sure that you have [downloaded the template](#) for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- If the IP phone is previously used, you need to RESET the IP phone, then re-configure the network settings for the phone.

Procedure

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

The IP phones detected by the PBX via PnP are displayed in the phone list.

2. Click  beside the Tiptel IP phone.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|------------|------------|--------|--------|----------------|------------|-------------|---|
| <input type="checkbox"/> | Unassigned | Unassigned | Tiptel | 3310 | 192.168.28.195 | - | |     |

3. **Optional:** In the **Options** section, select a desired template from the **Template** 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](#).

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

Assign Extension

* Select Extension

3000-Leo Ball



Note:

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

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

5. Click **Save**.

Result



Note:

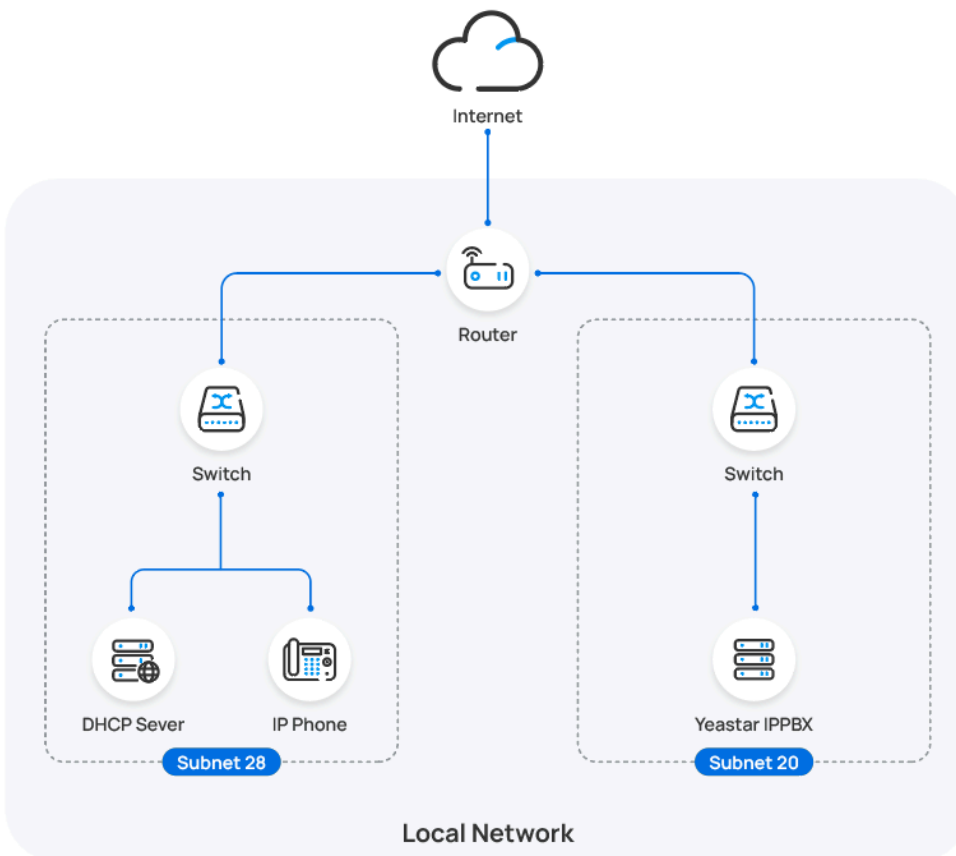
Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

- 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** in PBX web portal.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|--------|-----------|----------|--------|-------|----------------|-------------|------------|
| <input type="checkbox"/> | | 3000 | Leo Ball | Tiptel | 3310 | 192.168.28.195 | - | |

Auto provision a Tiptel IP phone in the different subnets (DHCP)

In this example, the Tiptel IP phone and a DHCP server are deployed in subnet 28, while the Yeastar PBX (IP: 192.168.20.58) is deployed in subnet 20.



Prerequisites

- Make sure that there is only one DHCP server running in the subnet where the IP phone is deployed, or the IP phone would fail to obtain an IP address.

- Make sure that the IP phone and PBX can communicate with each other over the subnets.
- 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.

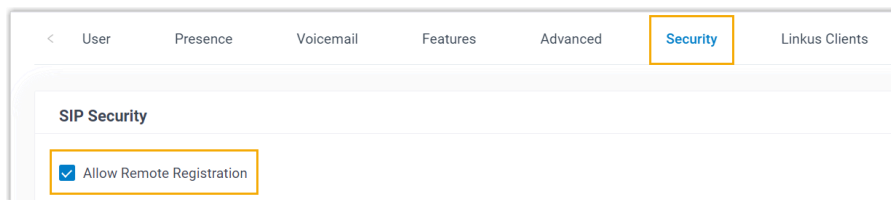
Procedure

- [Step 1. Enable Remote Registration feature for the extension on PBX](#)
- [Step 2. Add the Tiptel IP phone on PBX](#)
- [Step 3. Configure DHCP option 66 on DHCP server](#)

Step 1. Enable Remote Registration feature for the extension on PBX

Enable the Remote Registration feature for the extension to be assigned to the phone, so that the extension can be registered in a different subnet.

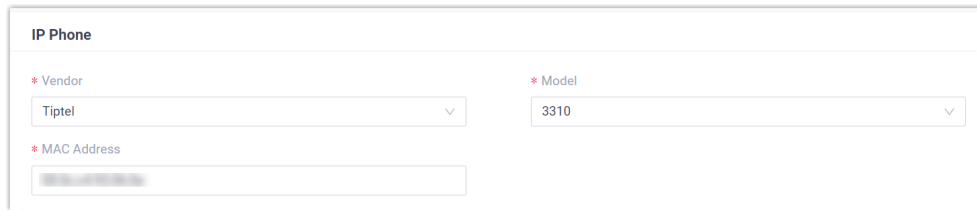
1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, edit the desired extension.
2. Click **Security** tab, select the checkbox of **Allow Remote Registration** in the **SIP Security** section.



3. Click **Save** and **Apply**.

Step 2. Add the Tiptel IP phone on PBX

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



IP Phone

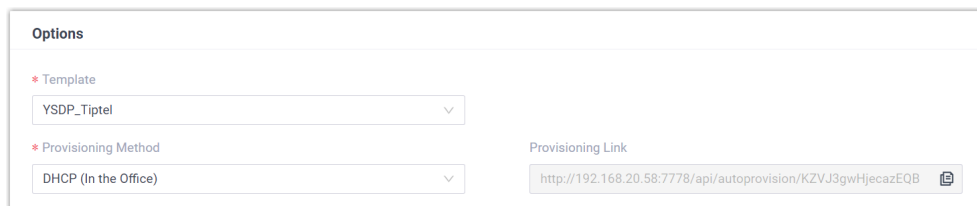
* Vendor: Tiptel

* Model: 3310

* MAC Address: [Redacted]

- **Vendor:** Select **Tiptel**.
- **Model:** Select the phone model. In this example, select **3310**.
- **MAC Address:** Enter the MAC address of the IP phone.

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



Options

* Template: YSDP_Tiptel

* Provisioning Method: DHCP (In the Office)

Provisioning Link: <http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB>

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



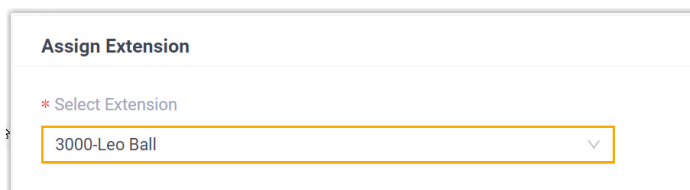
Note:

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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.



Assign Extension

* Select Extension: 3000-Leo Ball



Note:



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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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 3. 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.

| Options | |
|-----------------------|---|
| * Template | YSDP_Tiptel |
| * Provisioning Method | DHCP (In the Office) |
| Provisioning Link | http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB |

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

In this example, the configuration on a router's DHCP server is shown below.

Interfaces » LAN

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

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

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

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

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

DHCP-Options

 ? Define additional DHCP options, for example "6,192.168.2.1,192.168.2.2" which advertises different DNS servers to clients.






Result



Note:

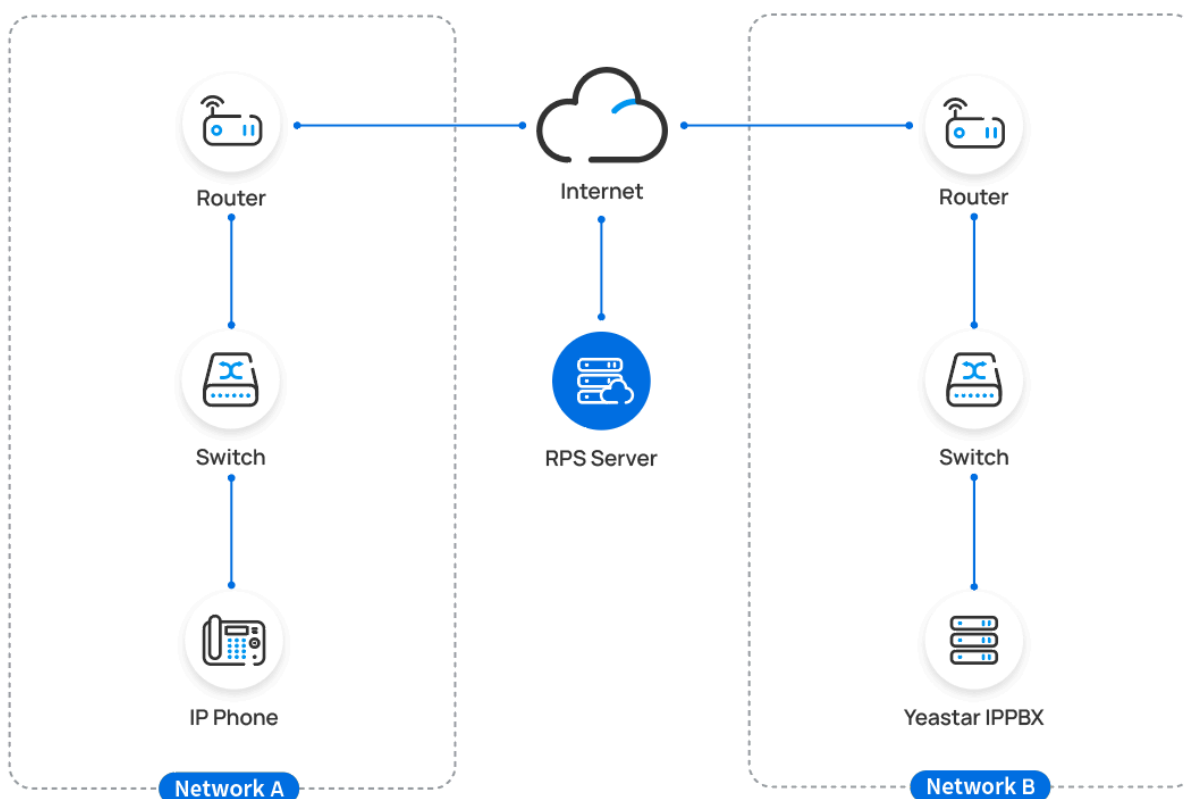
Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

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

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

Auto provision a Tiptel IP phone in remote network (RPS)

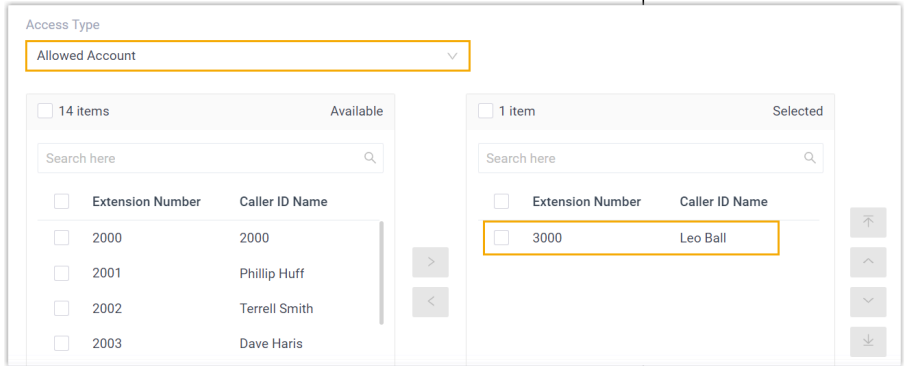
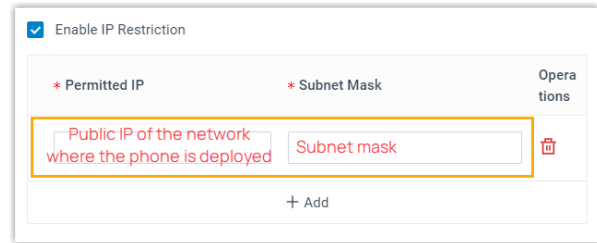
In this example, the Tiptel IP phone and the Yeastar PBX are deployed in different network.


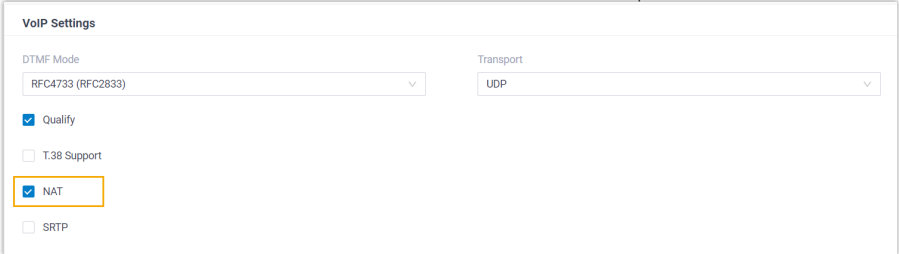

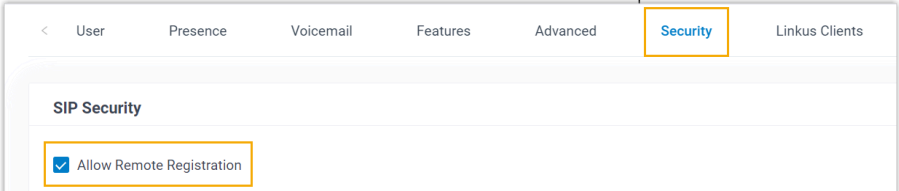


Prerequisites

Yeastar P-Series Software Edition supports to auto provision a Tiptel phone remotely either using **Yeastar FQDN** or using **Public IP address / domain name**. According to the provisioning method you intend to use, make sure that you have completed the corresponding setup shown below.

| Method | Setting |
|--------------------|---|
| Using Yeastar FQDN | <ul style="list-style-type: none"> Subscribe to Enterprise Plan or Ultimate Plan for the PBX and ensure the FQDN is available. Grant remote access permission for extension to be registered and the remote IP phones: <ul style="list-style-type: none"> Grant remote SIP access permission for the extension, so that the extension can be registered remotely via FQDN (Path: System > Network > Yeastar FQDN > Features > SIP Access). |

| Method | Setting |
|---|--|
| |  <ul style="list-style-type: none"> ◦ If you have enabled IP restriction for Yeastar FQDN remote Web access, make sure that you have added the phone's IP address to the permitted IP list, so that the phone can obtain configuration files from the PBX (Path: System > Network > Yeastar FQDN > Features > Remote Access > Web Access).  <ul style="list-style-type: none"> • 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. |
| Using Public IP address / external host / Yeastar domain name | <ul style="list-style-type: none"> • Configure PBX network for remote access by a public IP address, by an external host domain name, or by a Yeastar domain name. <div style="background-color: #fff9c4; padding: 10px; border: 1px solid #f0e68c;"> <p>! Important: The following PBX ports MUST be forwarded for RPS provisioning.</p> <ul style="list-style-type: none"> ◦ RTP ports ◦ SIP port ◦ Web Server port </div> <ul style="list-style-type: none"> • Set up the extension for remote registration. |

| Method | Setting |
|--------|--|
| | <ul style="list-style-type: none"> ◦ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT).  <ul style="list-style-type: none"> ◦ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).  <ul style="list-style-type: none"> • 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 Tiptel IP phone on PBX](#)
- [Step 2. Trigger the IP phone to complete provisioning](#)

Step 1. Add the Tiptel IP phone on PBX

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

The form is titled "IP Phone". It contains three fields:

- * Vendor:** A dropdown menu with "Tiptel" selected.
- * Model:** A dropdown menu with "3310" selected.
- * MAC Address:** A text input field with a blurred value.

- **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.

Figure 17. RPS using Yeastar FQDN

The form is titled "Options". It contains:

- * Template:** A dropdown menu with "YSDP_Tiptel" selected.
- * Provisioning Method:** A dropdown menu with "RPS FQDN (Remote)" selected.
- Provisioning Link:** A text field displaying the URL: `https://yeastardocs.ras.yeastar.com:443/api/autoprovision/H70R1oi`.
- ☒ **Authentication for the First-time Auto Provisioning**

Figure 18. RPS using Public IP Address / External Host domain name

The form is titled "Options". It contains:

- * Template:** A dropdown menu with "YSDP_Tiptel" selected.
- * Provisioning Method:** A dropdown menu with "RPS (Remote)" selected.
- Provisioning Link:** A text field displaying the URL: `https://110.35.77.110:18207/api/autoprovision/H70R1oiPnJCnp6L`.
- ☒ **Authentication for the First-time Auto Provisioning**

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



Note:

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

- **Provisioning Method:** Select **RPS FQDN (Remote)** or **RPS (Remote)** according to your need.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link points to the location where the phone's configuration file is stored.

- **Authentication for the First-time Auto Provisioning:** If enabled, users are requested to fill in authentication information on the IP phones before triggering the first-time provisioning.

**Note:**

We recommend that you keep this option selected.

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

Assign Extension

* Select Extension

3000-Leo Ball

**Note:**

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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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.



1. UserName:

2. Password:

Back

Save

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



Tip:

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

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

Result

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

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

Related information

[Auto Provision LDAP for IP Phones](#)

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


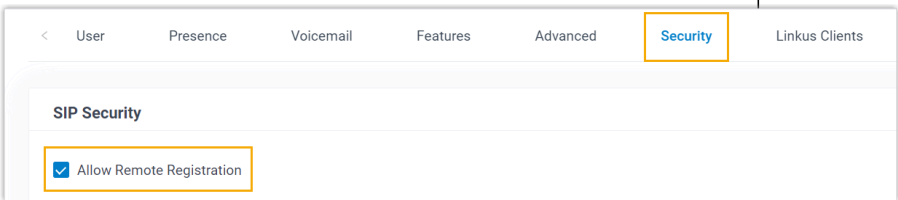
This topic takes Tiptel 3310 (firmware: 2.42.6.5.55) as an example to introduce how to manually register an extension on a Tiptel IP phone.

Supported devices

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

Prerequisites

Make sure that you have completed the corresponding settings shown below according to the network environment of **Tiptel IP phone** and **Yeastar PBX**.

| Network Environment | | Setting |
|---------------------|---|---|
| Local Network | Register extension in the same subnet | / |
| | Register extension in different subnets | <p>Enable the Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).</p>  |
| Remote Network | Register extension using Yeastar FQDN | <ul style="list-style-type: none"> • Grant remote SIP access permission for the extension (Path: System > Network > Yeastar FQDN > Features > SIP Access). |


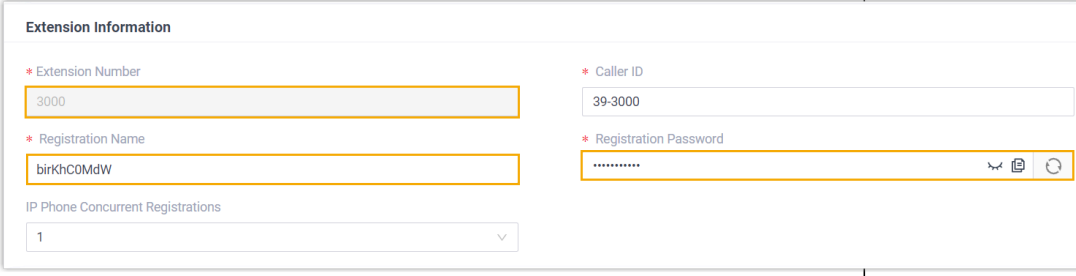

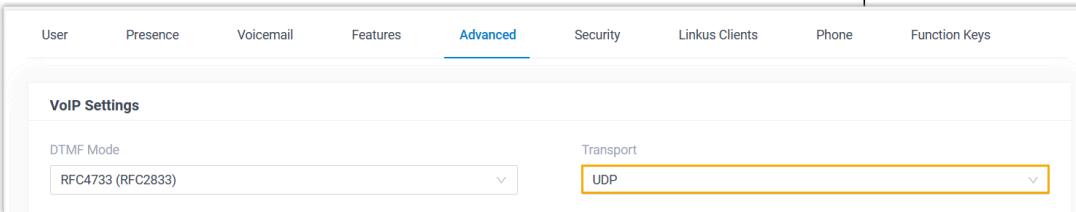

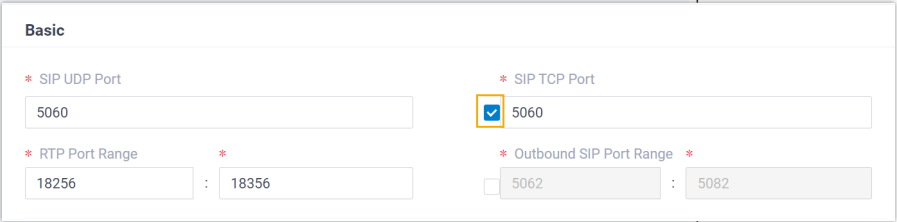
| Network Environment | Setting |
|--|--|
| Register extension using Public IP address / External Host domain name | <div> </div> <ul style="list-style-type: none"> • Configure PBX network for remote access by a public IP address or by an external host domain name. • Set up the extension for remote registration. <ul style="list-style-type: none"> ◦ Enable NAT for the extension (Path: Extension and Trunk > Extension > > Advanced > VoIP Settings > NAT). <div> </div> <ul style="list-style-type: none"> ◦ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension > > Security > SIP Security > Allow Remote Registration). <div> </div> |

Procedure

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

Step 1. Gather registration information on Yeastar PBX

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

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

| Information | Instruction |
|-------------------------------|--|
| | <div></div> <ul style="list-style-type: none"> If the extension uses TLS transport protocol, make sure that the TLS is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > TLS). <div> </div> |
| PBX IP address or domain name | <p>Scenario: Register extension in local network</p> <p>In this scenario, you can directly utilize the PBX's private IP address for extension registration.</p> <div></div> <p>Note: This topic provides the configuration example based on this scenario, where the PBX's private IP address is 192.168.28.39.</p> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN, note down the PBX's Fully Qualified Domain Name (FQDN).</p> <div> </div> <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> <p>Go to System > Network > Public IP and Ports, note down the PBX's public IP address or external host domain name.</p> <div> </div> |
| SIP registration port | <p>Scenario: Register extension in local network</p> <p>Go to System > Network > Service Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p> |

| Information | Instruction |
|-------------|--|
| | <div> <div> <div>HTTPS</div> <div>8088</div> <div></div> </div> <div> <div>SIP UDP</div> <div>5060</div> <div></div> </div> <div> <div>SIP TLS</div> <div>5061</div> <div></div> </div> </div> <div> <div>HTTP</div> <div>80</div> <div></div> </div> <div> <div>SIP TCP</div> <div>5060</div> <div></div> </div> <div> <div>Outbound SIP Port</div> <div>5062-5082</div> <div></div> </div> |

Features

SIP Access

Remote Access

Before enabling this feature, please make sure your extensions are using strong registration passwords, or it might bring security risks.

* Status

Enabled

Remote Access Service Port-SIP UDP&TCP

5060

Remote Access Service Port-SIP TLS

5061

Public Ports

External SIP UDP Port

18205

External SIP TCP Port

18205

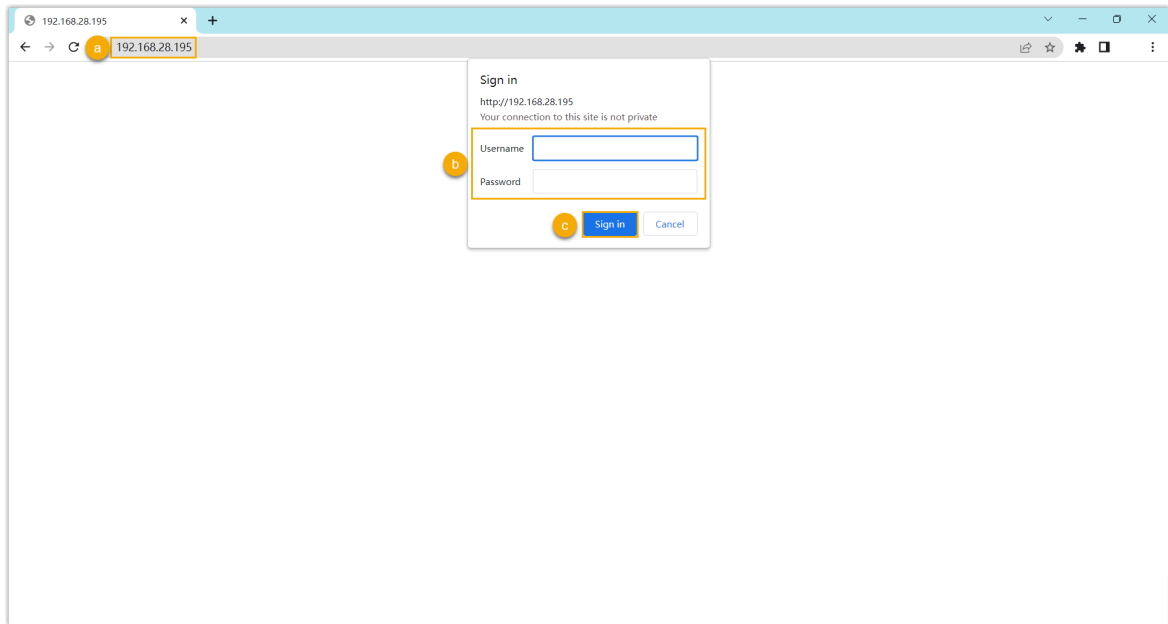
External SIP TLS Port

18208

External Linkus Port

Step 2. Register extension on Tiptel IP phone

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



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

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

- c. Click **Sign in**.

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

- a. Complete the following settings.

tiptel Home | Profile | Account | Network | Function Keys

Basic
Codec
Advanced

Profile Profile 1

* Primary SIP Server 192.168.28.39 ?

Failover SIP Server ?

Prefer Primary SIP Server ☒ No ☐ Yes ?

Current SIP Server

DHCP SIP Server ☒ No ☐ Yes

Outbound Proxy ?

Backup Outbound Proxy ?

* SIP Transport ☒ UDP ☐ TCP ☐ TLS ?

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

- **Primary SIP Server:** Enter the IP address / 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.

The screenshot shows the Tiptel web interface. At the top, there is a red header with the 'tiptel' logo on the left and navigation links 'Home', 'Profile', 'Account', 'Network', and 'Function Keys' on the right. Below the header, there is a red sidebar on the left with the word 'Basic'. The main content area has a title 'Account' and a dropdown menu showing 'Account 1'. Below this, there is a table with two rows. The first row is highlighted with a yellow border and contains 'Account Status' and '3000@192.168.28.39:5060 : Registered; UDP'. The second row contains '* Account Active' and two radio buttons, 'No' and 'Yes', with the 'Yes' button selected.

| Account | |
|------------------|---|
| Account Status | 3000@192.168.28.39:5060 : Registered; UDP |
| * Account Active | <input type="radio"/> No <input checked="" type="radio"/> Yes |

Alcatel-Lucent Enterprise (ALE)

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

This topic takes Alcatel-Lucent Enterprise M3 (firmware: 2.13.39.000.2217) as an example to describe how to auto provision Alcatel-Lucent Enterprise (ALE) IP phone with Yeastar P-Series Software Edition in Local Area Network (LAN).

Requirements

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

Table 2.

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------|---------------------------|---------------------|---|
| H2 | 2.10.00.0001083 or later | 83.6.0.24 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| H2P | 2.10.00.0001083 or later | 83.6.0.24 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| H3P | 2.12.43.010.2272 or later | 83.5.0.9 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| H3G | 2.12.43.010.2272 or later | 83.5.0.9 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| H6 | 2.12.43.010.2272 or later | 83.5.0.9 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| M3 | 2.13.37.000.2202 or later | 83.5.0.9 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| M3s | 2.15.10.000.3000 or later | 83.18.0.18 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |

Table 2. (continued)

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|---------|---------------------------|---------------------|---|
| M5 | 2.13.37.000.2202 or later | 83.5.0.9 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| M5s | 2.15.10.000.3000 or later | 83.18.0.18 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| M7 | 2.13.37.000.2202 or later | 83.5.0.9 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| M7s | 2.15.10.000.3000 or later | 83.18.0.18 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| M7s-Pro | 2.15.10.000.3000 or later | 83.18.0.18 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| M8 | 2.13.32.000.1535 or later | 83.6.0.24 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |

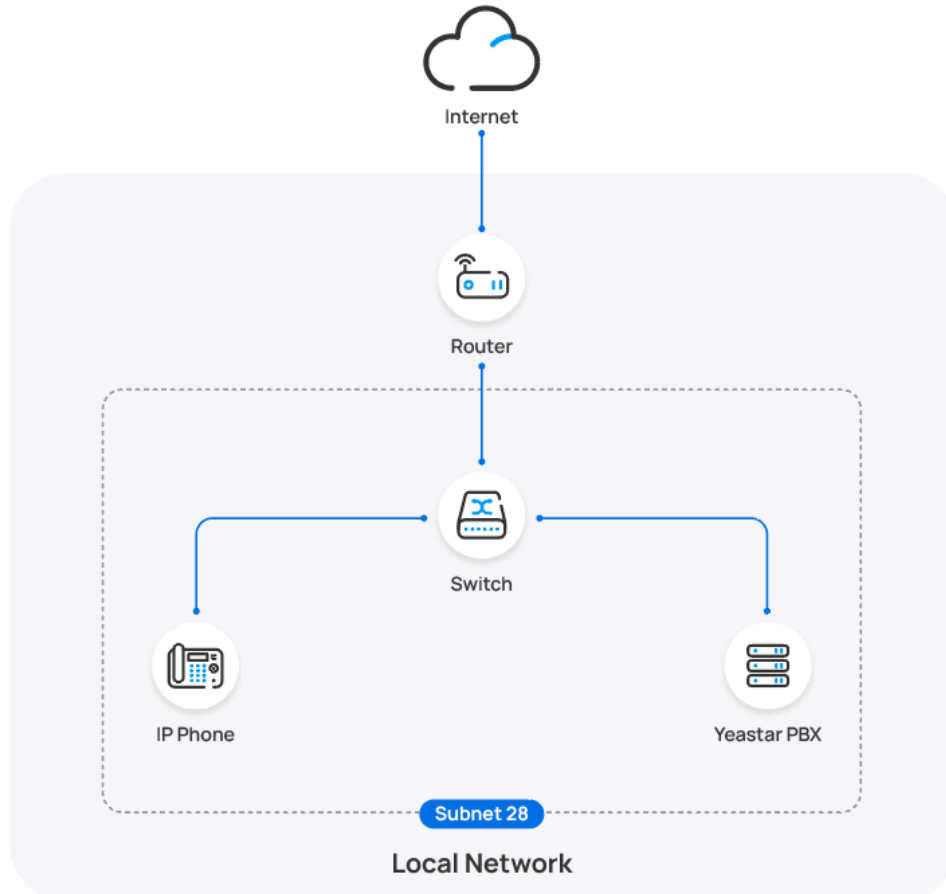
Scenarios

The provisioning methods and operations vary depending on the network environment of **ALE IP phone** and **Yeastar PBX**, as the following table shows.

| Scenario | Description |
|---|--|
| IP Phone and PBX are in the SAME subnet | <p>In this scenario, you can provision the ALE IP phone with the PBX via PnP method.</p> <p>For more information, see Auto provision an ALE IP phone in the same subnet (PnP).</p> |
| IP Phone and PBX are in DIFFERENT subnets | <p>In this scenario, you can provision the ALE IP phone with the PBX via DHCP method.</p> <p>For more information, see Auto provision an ALE IP phone in different subnets (DHCP).</p> |

Auto provision an ALE IP phone in the same subnet (PnP)

In this example, the ALE IP phone (IP: 192.168.28.205) and the Yeastar PBX (IP: 192.168.28.39) are both deployed in subnet 28.




Prerequisites






- Make sure that you have [downloaded the template](#) for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- If the IP phone is previously used, you need to RESET the IP phone, then re-configure the network settings for the phone.

Procedure

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

The IP phones detected by the PBX via PnP are displayed in the phone list.

- Click  beside the ALE IP phone.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Password | Operations |
|--------------------------|---|------------|------------|---------------------------|-------|----------------|----------------|---|
| <input type="checkbox"/> |  | Unassigned | Unassigned | Alcatel-Lucent Enterprise | M3 | 192.168.28.205 | - |     |

- Optional:** In the **Options** section, select a desired template from the **Template** 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](#).

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

Assign Extension

* Select Extension

3000-Leo Ball



Note:

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

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

- Click **Save**.

Result

**Note:**

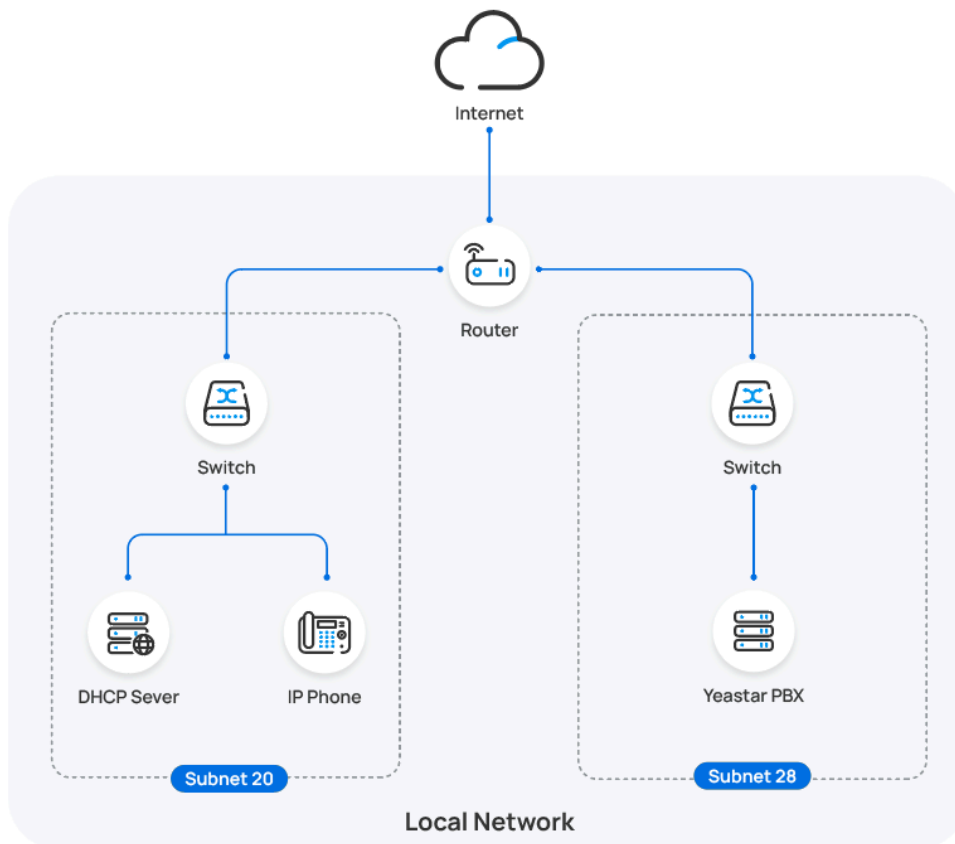
Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

- 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** in PBX web portal.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Password | Operations |
|--------------------------|--------|-----------|----------|---------------------------|-------|----------------|----------------|------------|
| <input type="checkbox"/> | | 3000 | Leo Ball | Alcatel-Lucent Enterprise | M3 | 192.168.28.205 | *****@ | |

Auto provision an ALE IP phone in different subnets (DHCP)

In this example, the ALE IP phone and DHCP server are deployed in subnet 20, while the Yeastar PBX (IP: 192.168.28.110) is deployed in subnet 28.



Prerequisites

- Make sure that there is only one DHCP server running in the subnet where the IP phone is deployed, or the IP phone would fail to obtain an IP address.
- Make sure that the IP phone and PBX can communicate with each other over the subnets.
- 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.

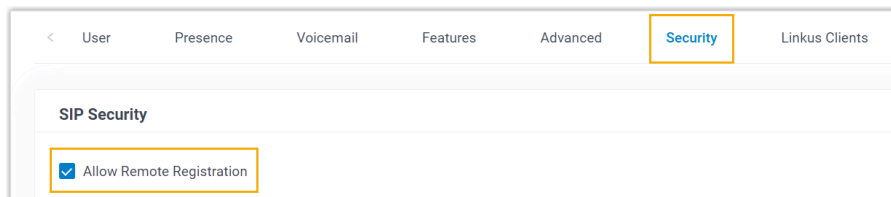
Procedure

- [Step 1. Enable Remote Registration feature for the extension on PBX](#)
- [Step 2. Add the ALE IP phone on the PBX](#)
- [Step 3. Configure DHCP option 66 on DHCP server](#)

Step 1. Enable Remote Registration feature for the extension on PBX

Enable the Remote Registration feature for the extension to be assigned to the phone, so that the extension can be registered in a different subnet.

1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, edit the desired extension.
2. Click **Security** tab, select the checkbox of **Allow Remote Registration** in the **SIP Security** section.



3. Click **Save** and **Apply**.

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

The screenshot shows the 'IP Phone' configuration section. It contains three fields:

- * Vendor:** A dropdown menu with 'Alcatel-Lucent Enterprise' selected.
- * Model:** A dropdown menu with 'M3' selected.
- * MAC Address:** A text input field containing a masked MAC address (e.g., 00:00:00:00:00:00).

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

The screenshot shows the 'Options' configuration section. It contains three fields:

- * Template:** A dropdown menu with 'YSDP_AleMyriad' selected.
- * Provisioning Method:** A dropdown menu with 'DHCP (In the Office)' selected.
- Provisioning Link:** A text input field displaying the URL 'http://192.168.28.110:7778/api/autoprovision/sciF7vCgrnHicPZm'.

- **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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.

The screenshot shows the 'Assign Extension' section. It contains one field:

- * Select Extension:** A dropdown menu with '3000-Leo Ball' selected.



Note:



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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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 3. 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.

| Options | |
|-----------------------|---|
| * Template | YSDP_AleMyriad |
| * Provisioning Method | DHCP (In the Office) |
| Provisioning Link | http://192.168.28.110:7778/api/autoprovision/scIF7vCgnxhKcPZm |

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

In this example, the configuration is shown below.

Interfaces » LAN

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

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

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

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

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

DHCP-Options 6,223.5.5.5
 66,http://192.168.28.110:7778/api/autoprovision/scfF7vCgnxhKcPZm
 ? Define additional DHCP options, for example "6,192.168.2.1,192.168.2.2" which advertises different DNS servers to clients.

Dismiss Save

Result



Note:

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

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

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

Related information

[Auto Provision LDAP for IP Phones](#)

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


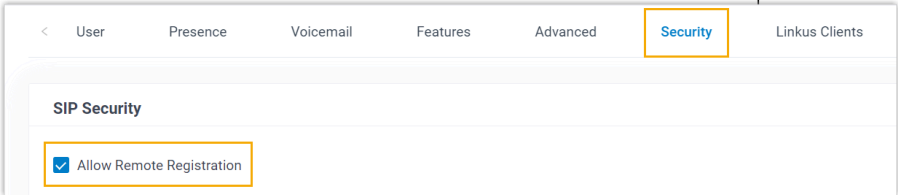
This topic takes Alcatel-Lucent Enterprise M3 (firmware: 2.13.39.000.2217) as an example to introduce how to manually register an extension on an Alcatel-Lucent Enterprise (ALE) IP phone.

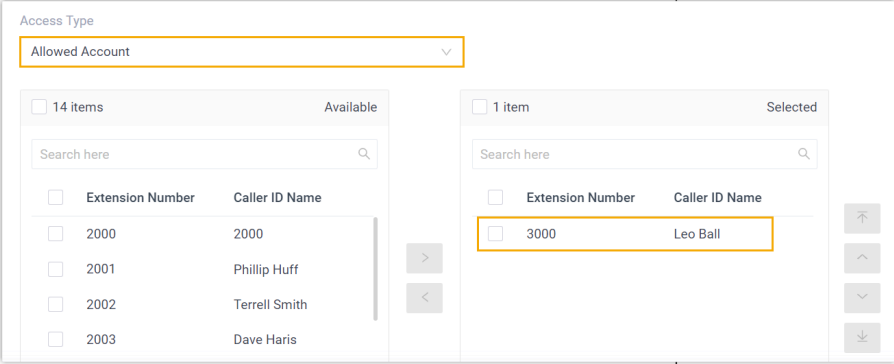

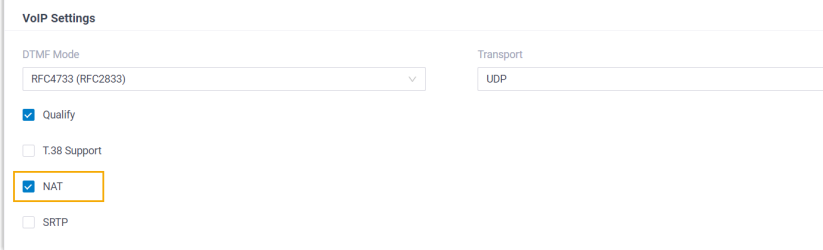

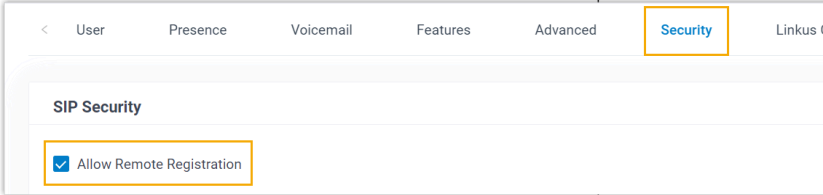
Supported devices

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

Prerequisites

Make sure that you have completed the corresponding settings shown below according to the network environment of **ALE IP phone** and **Yeastar PBX**.

| Network Environment | | Setting |
|---------------------|---|---|
| Local Network | Register extension in the same subnet | / |
| | Register extension in different subnets | <p>Enable the Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).</p>  |
| Remote Network | Register extension using Yeastar FQDN | <ul style="list-style-type: none"> • Grant remote SIP access permission for the extension (Path: System > Network > Yeastar FQDN > Features > SIP Access). |


| Network Environment | Setting |
|--|--|
| Register extension using Public IP address / External Host domain name |  <ul style="list-style-type: none"> • Configure PBX network for remote access by a public IP address or by an external host domain name. • Set up the extension for remote registration. <ul style="list-style-type: none"> ◦ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT). |
| |  <ul style="list-style-type: none"> ◦ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).  |

Procedure

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

Step 1. Gather registration information on Yeastar PBX

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

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

Extension Information


* Extension Number
3000

* Registration Name
birKhC0MdW

IP Phone Concurrent Registrations
1

* Caller ID
39-3000

* Registration Password

| | |
|--------------------|---|
| Transport protocol | <p>Go to Extension and Trunk > Extension >  > Advanced > VoIP Settings > Transport, note down the transport protocol of the extension.</p> <p>In this example, the extension use UDP transport protocol.</p> |
|--------------------|---|

User Presence Voicemail Features **Advanced** Security Linkus Clients Phone Function Keys

VoIP Settings

DTMF Mode
RFC4733 (RFC2833)

Transport
UDP



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**).

Basic

* SIP UDP Port
5060

* SIP TCP Port
☒ 5060

* RTP Port Range
18256 : 18356

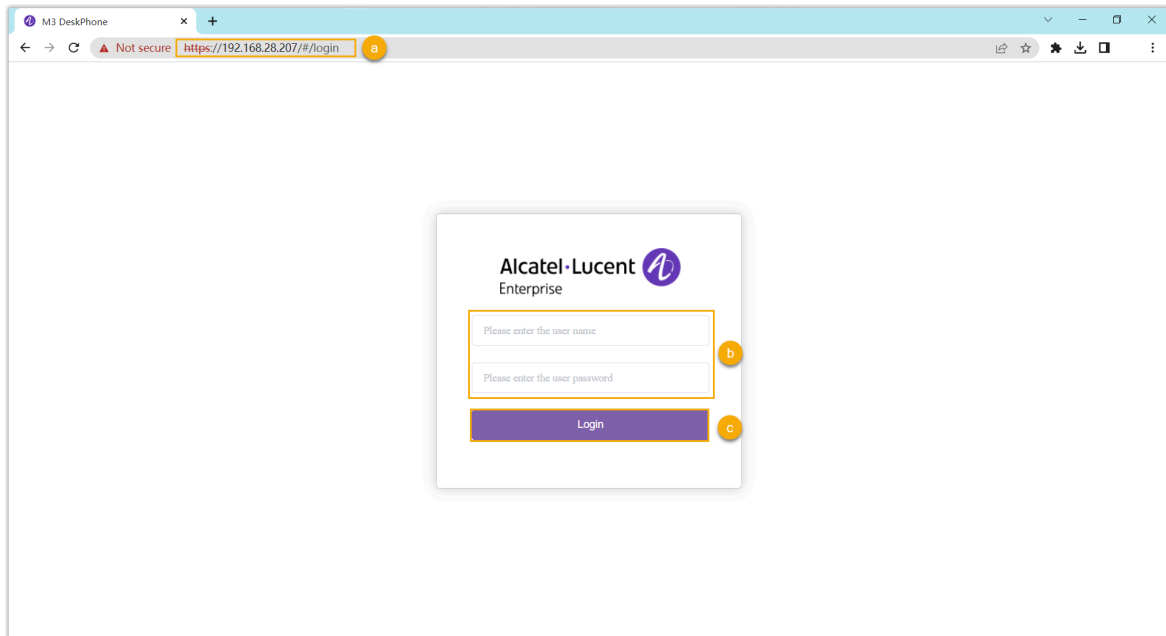
* Outbound SIP Port Range
☐ 5062 : 5082

| Information | Instruction |
|-------------------------------|--|
| | <div></div> <ul style="list-style-type: none"> If the extension uses TLS transport protocol, make sure that the TLS is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > TLS). <div> </div> |
| PBX IP address or domain name | <p>Scenario: Register extension in local network</p> <p>In this scenario, you can directly utilize the PBX's private IP address for extension registration.</p> <div></div> <p>Note: This topic provides the configuration example based on this scenario, where the PBX's private IP address is 192.168.28.39.</p> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN, note down the PBX's Fully Qualified Domain Name (FQDN).</p> <div> </div> <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> <p>Go to System > Network > Public IP and Ports, note down the PBX's public IP address or external host domain name.</p> <div> </div> |
| SIP registration port | <p>Scenario: Register extension in local network</p> <p>Go to System > Network > Service Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p> |

| Information | Instruction |
|-------------|---|
| | <div> </div> <p>In this example, we use the SIP UDP port 5060.</p> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN > Features > SIP Access, note down the SIP registration port corresponding to the extension's transport protocol.</p> <div> </div> <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> <p>Go to System > Network > Public IP and Ports > Public Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p> <div> </div> |

Step 2. Register extension on ALE IP phone






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







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

A screenshot of the 'Basic' configuration page for an account. The page has a light gray background. At the top, the word 'Basic' is written in purple. Below it, there is a label 'Account:' followed by a dropdown menu showing 'Account1 (Not registered)' with a downward arrow. Below that, there is a label 'Account Active:' followed by a purple toggle switch that is currently turned on, and a small purple question mark icon to its right.

- b. Enter the extension information.

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

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

| | | |
|-----------------------|--|---|
| SIP Server: | <input type="text" value="192.168.28.39"/> |  |
| SIP Server Port: | <input type="text" value="5060"/> |  |
| Register Expire Time: | <input type="text" value="3600"/> |  |
| Transport Mode: | <input type="text" value="UDP"/> |  |

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



Tip:



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

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

d. Click **Submit**.

Result

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

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

Flyingvoice

Auto Provision Flyingvoice IP Phone with Yeastar P-Series Software 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 Software Edition.

Requirements

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

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------------|-------------------|--------------------|---|
| FIP10 | 0.7.23.1 or later | 83.8.0.25 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| FIP11C | 0.7.23.1 or later | 83.8.0.25 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| FIP12WP | 0.7.23.1 or later | 83.8.0.25 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| FIP13G | 0.7.23.1 or later | 83.8.0.25 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| FIP14G | 0.7.23.1 or later | 83.8.0.25 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| FIP15G | 0.7.23.1 or later | 83.8.0.25 or later | <ul style="list-style-type: none">• PnP• DHCP• RPS• Provision Link |
| FIP15G Plus | 0.7.23.1 or later | 83.8.0.25 or later | <ul style="list-style-type: none">• PnP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|------------|-------------------|--------------------|--|
| | | | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| FIP16 | 0.7.23.1 or later | 83.8.0.25 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| FIP16 Plus | 0.7.23.1 or later | 83.8.0.25 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P10 | V0.7.56 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P10P | V0.7.56 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P10G | V0.7.56 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P10W | V0.7.56 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P10LTE | V0.7.56 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P11 | V0.7.56 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P11P | V0.7.56 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|--------|-------------------|--------------------|--|
| P11G | V0.7.56 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P11W | V0.7.56 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P11LTE | V0.7.56 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P20 | V0.7.57 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P20P | V0.7.57 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P20W | V0.7.57 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P20G | V0.7.57 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P21 | V0.7.57 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P21P | V0.7.57 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P21W | V0.7.57 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|---------------|--------------------|--------------------|--|
| | | | <ul style="list-style-type: none"> • Provision Link |
| flyphone | V0.7.57 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P22P | V0.7.57 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P22G | V0.7.57 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P23G | V0.7.57 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P23GW | V0.7.57 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| P24G | V0.7.57 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i86Box_Basic | V0.0.16.1 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i86Box_Indoor | V0.0.16.1 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i86Box_2Line | V0.0.16.1 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |
| i86Box_PCBA | V0.0.16.1 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|------------|--------------------|--------------------|--|
| | | | <ul style="list-style-type: none"> • RPS • Provision Link |
| i86Box_NFC | V0.0.16.1 or later | 83.9.0.20 or later | <ul style="list-style-type: none"> • PnP • DHCP • RPS • Provision Link |

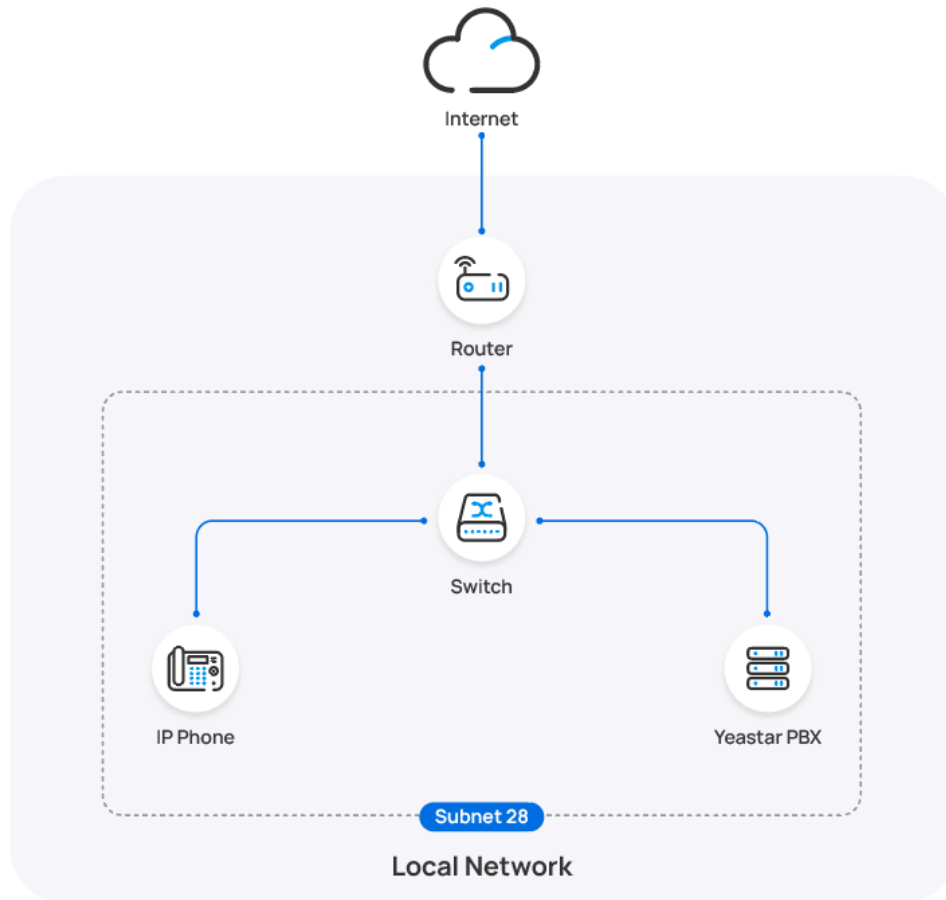
Scenarios

The provisioning methods and operations vary depending on the network environment of **Flyingvoice IP Phone** and **Yeastar PBX**, as the following table shows.

| Scenario | Description |
|---|---|
| IP Phone and PBX are in the SAME subnet (LAN) | <p>In this scenario, you can provision the Flyingvoice IP phone with the PBX via PnP method.</p> <p>For more information, see Auto provision a Flyingvoice IP phone in the same subnet (PnP).</p> |
| IP Phone and PBX are in DIFFERENT subnets (LAN) | <p>In this scenario, you can provision the Flyingvoice IP phone with the PBX via DHCP method.</p> <p>For more information, see Auto provision a Flyingvoice IP phone in the different subnets (DHCP).</p> |
| IP Phone and PBX are in DIFFERENT network | <p>In this scenario, you can provision the Flyingvoice IP phone with the PBX via RPS method.</p> <p>For more information, see Auto provision a Flyingvoice IP phone in remote network (RPS).</p> |

Auto provision a Flyingvoice IP phone in the same subnet (PnP)

In this example, the Flyingvoice IP phone (IP: 192.168.28.194) and the Yeastar PBX (IP: 192.168.28.39) are both deployed in subnet 28.



Prerequisites









- Make sure that you have [downloaded the template](#) for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- If the IP phone is previously used, you need to RESET the IP phone, then re-configure the network settings for the phone.

Procedure

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

The IP phones detected by the PBX via PnP are displayed in the phone list.

2. Click  beside the Flyingvoice IP phone.

| <input type="checkbox"/> | Status | Extension | Name | Vendor  | Model  | IP Address  | Phone Passw | Operations  |
|--------------------------|---|------------|------------|--|---|--|-------------|---|
| <input type="checkbox"/> |  | Unassigned | Unassigned | Flyingvoice | P20P | 192.168.28.194 | - |    |

3. **Optional:** In the **Options** section, select a desired template from the **Template** 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](#).

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

Assign Extension

* Select Extension

3000-Leo Ball



Note:

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

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

5. Click **Save**.

Result



Note:

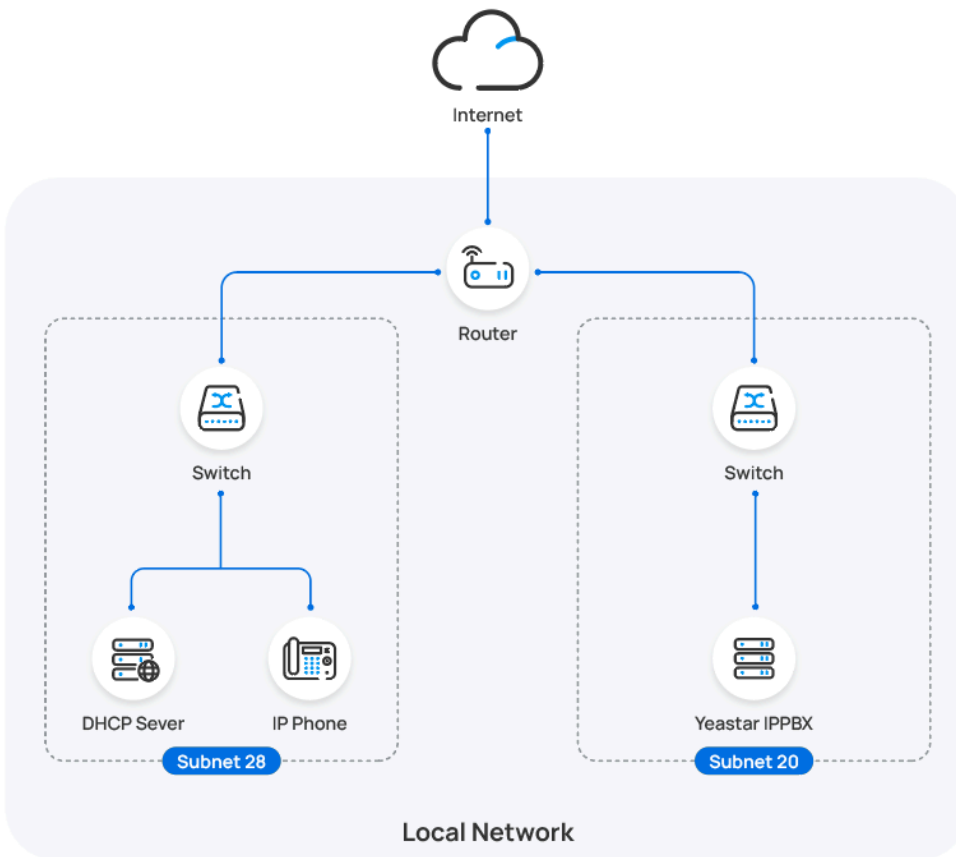
Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

- 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** in PBX web portal.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|--------|-----------|----------|-------------|-------|----------------|-------------|------------|
| <input type="checkbox"/> | | 3000 | Leo Ball | Flyingvoice | P20P | 192.168.28.194 | *****@ | |

Auto provision a Flyingvoice IP phone in the different subnets (DHCP)

In this example, the Flyingvoice IP phone and a DHCP server are deployed in subnet 28, while the Yeastar PBX (IP: 192.168.20.58) is deployed in subnet 20.



Prerequisites

- Make sure that there is only one DHCP server running in the subnet where the IP phone is deployed, or the IP phone would fail to obtain an IP address.
- Make sure that the IP phone and PBX can communicate with each other over the subnets.
- 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.

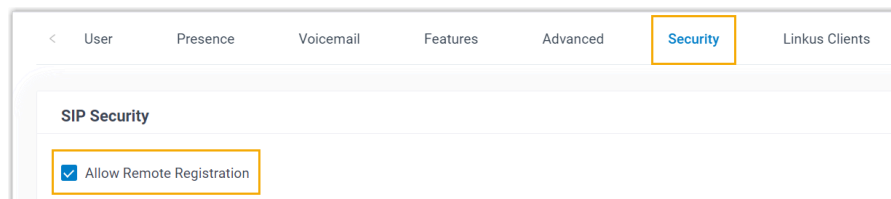
Procedure

- [Step 1. Enable Remote Registration feature for the extension on PBX](#)
- [Step 2. Add the Flyingvoice IP phone on PBX](#)
- [Step 3. Configure DHCP option 66 on DHCP server](#)

Step 1. Enable Remote Registration feature for the extension on PBX

Enable the Remote Registration feature for the extension to be assigned to the phone, so that the extension can be registered in a different subnet.

1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, edit the desired extension.
2. Click **Security** tab, select the checkbox of **Allow Remote Registration** in the **SIP Security** section.



3. Click **Save** and **Apply**.

Step 2. Add the Flyingvoice IP phone on PBX

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

IP Phone

* Vendor: Flyingvoice

* Model: P20P

* MAC Address: [Redacted]

- **Vendor:** Select **Flyingvoice**.
- **Model:** Select the phone model. In this example, select **P20P**.
- **MAC Address:** Enter the MAC address of the IP phone.

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

Options

* Template: YSDP_FlyingvoiceP2

* Provisioning Method: DHCP (In the Office)

Provisioning Link: <http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB>

- **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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.

Assign Extension

* Select Extension: 3000-Leo Ball



Note:



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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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 3. 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.

| Options | |
|-----------------------|--|
| * Template | YSDP_FlyingvoiceP2 |
| * Provisioning Method | DHCP (In the Office) |
| Provisioning Link | http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB |

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

In this example, the configuration on a router's DHCP server is shown below.

Interfaces » LAN

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

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

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

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

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

DHCP-Options 6,223.5.5.5
 66,http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB
 Define additional DHCP options, for example "6,192.168.2.1,192.168.2.2" which advertises different DNS servers to clients.

Dismiss Save

Result



Note:

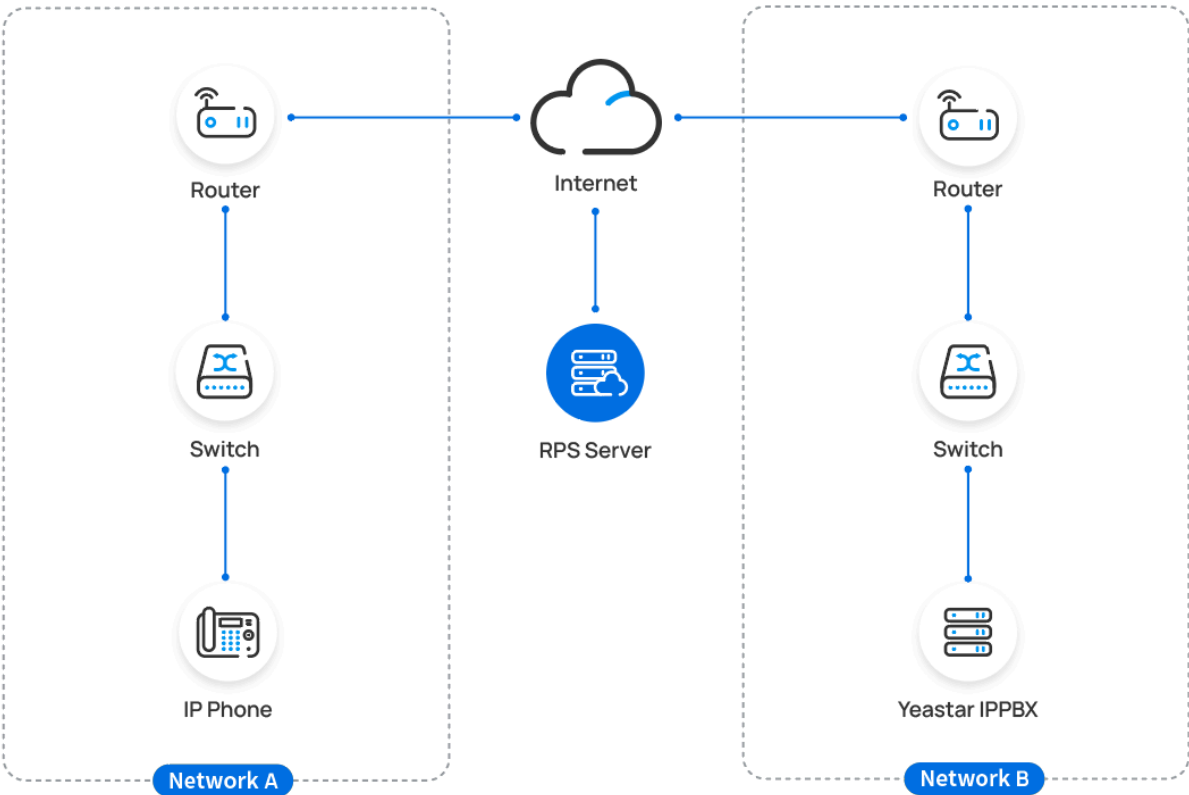
Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

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

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|--------|-----------|----------|-------------|-------|------------|-------------|------------|
| <input type="checkbox"/> | | 3000 | Leo Ball | Flyingvoice | P20P | - | *****@ | |

Auto provision a Flyingvoice IP phone in remote network (RPS)

In this example, the Flyingvoice IP phone and the Yeastar PBX are deployed in different network.





Prerequisites

Yeastar P-Series Software Edition supports to auto provision a Flyingvoice phone remotely either using **Yeastar FQDN** or using **Public IP address / External Host domain name**. According to the provisioning method you intend to use, make sure that you have completed the corresponding setup shown below.

| Method | Setting |
|--------------------|--|
| Using Yeastar FQDN | <ul style="list-style-type: none">• Subscribe to Enterprise Plan or Ultimate Plan for the PBX and ensure the FQDN is available.• Grant remote access permission for extension to be registered and the remote IP phones:<ul style="list-style-type: none">◦ Grant remote SIP access permission for the extension, so that the extension can be registered remotely via FQDN (Path: System > Network > Yeastar FQDN > Features > SIP Access). |

| Method | Setting |
|---|--|
| | <div> </div> <ul style="list-style-type: none"> ◦ If you have enabled IP restriction for Yeastar FQDN remote Web access, make sure that you have added the phone's IP address to the permitted IP list, so that the phone can obtain configuration files from the PBX (Path: System > Network > Yeastar FQDN > Features > Remote Access > Web Access). <div> </div> <ul style="list-style-type: none"> • 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. |
| Using Public IP address / external host / Yeastar domain name | <ul style="list-style-type: none"> • Configure PBX network for remote access by a public IP address, by an external host domain name, or by a Yeastar domain name. <div style="background-color: #fff9c4; padding: 10px; border: 1px solid #f0e68c;"> <p>! Important: The following PBX ports MUST be forwarded for RPS provisioning.</p> <ul style="list-style-type: none"> ◦ RTP ports ◦ SIP port ◦ Web Server port </div> <ul style="list-style-type: none"> • Set up the extension for remote registration. |

| Method | Setting |
|--------|--|
| | <div><div>◦ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT).</div><div><div><div><div>VoIP Settings</div><div><div>DTMF Mode</div><div>RFC4733 (RFC2833) ▾</div></div><div><div>Transport</div><div>UDP ▾</div></div><div><div><input checked="" type="checkbox"/> Qualify</div><div><input type="checkbox"/> T.38 Support</div><div><input checked="" type="checkbox"/> NAT</div><div><input type="checkbox"/> SRTP</div></div></div></div></div><div><div>◦ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).</div><div><div><div><div>< User Presence Voicemail Features Advanced Security Linkus Clients</div><div><div>SIP Security</div><div><input checked="" type="checkbox"/> Allow Remote Registration</div></div></div></div></div><div><div>• Make sure that you have downloaded the template for the desired phone model (Path: Auto Provisioning > Resource Repository > Default Templates).</div><div>• RESET the IP phone if it is previously used.</div><div>• Gather information of IP phone, including Vendor, Model, and MAC address.</div></div></div></div> |

Procedure

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

Step 1. Add the Flyingvoice IP phone on PBX

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

The form is titled "IP Phone". It contains three fields:

- * Vendor:** A dropdown menu with "Flyingvoice" selected.
- * Model:** A dropdown menu with "P20P" selected.
- * MAC Address:** A text input field with a blurred value.

- **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.

Figure 19. RPS using Yeastar FQDN

The form is titled "Options". It contains the following fields:

- * Template:** A dropdown menu with "YSDP_FlyingvoiceP2" selected.
- * Provisioning Method:** A dropdown menu with "RPS FQDN (Remote)" selected.
- Provisioning Link:** A text input field containing the URL: `https://yeastardocs.ras.yeastar.com:443/api/autoprovision/H70R1oii`.
- ☒ **Authentication for the First-time Auto Provisioning**

Figure 20. RPS using Public IP Address / External Host domain name

The form is titled "Options". It contains the following fields:

- * Template:** A dropdown menu with "YSDP_FlyingvoiceP2" selected.
- * Provisioning Method:** A dropdown menu with "RPS (Remote)" selected.
- Provisioning Link:** A text input field containing the URL: `https://110.35.77.110:18207/api/autoprovision/H70R1oiiPnUCnp6L`.
- ☒ **Authentication for the First-time Auto Provisioning**

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

**Note:**

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

- **Provisioning Method:** Select **RPS FQDN (Remote)** or **RPS (Remote)** according to your need.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link points to the location where the phone's configuration file is stored.

- **Authentication for the First-time Auto Provisioning:** If enabled, users are requested to fill in authentication information on the IP phones before triggering the first-time provisioning.

**Note:**

We recommend that you keep this option selected.

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

Assign Extension

* Select Extension

3000-Leo Ball

**Note:**

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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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.

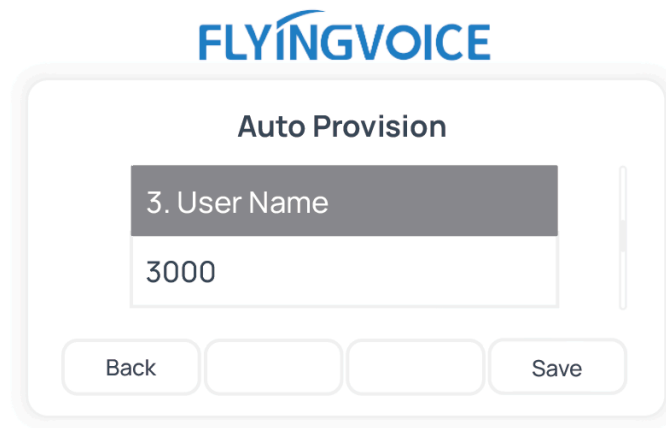
After boot-up, the phone screen displays an HTTP Authentication prompt.

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.

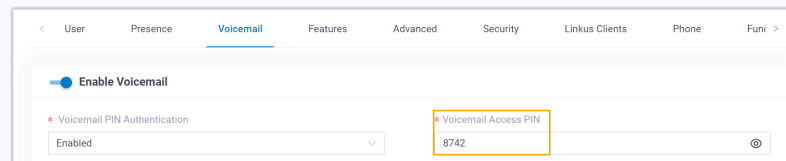


The image shows the Flyingvoice Auto Provision interface. At the top is the Flyingvoice logo. Below it is the title "Auto Provision". A scrollable list shows "3. User Name" as the current step. Below this is a text input field containing the number "3000". At the bottom are four buttons: "Back", an empty button, another empty button, and "Save".

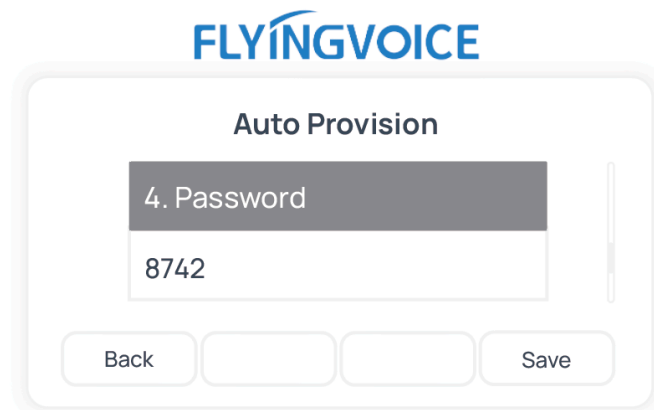
- b. Scroll down to the **Password** field, enter the extension's Voicemail Access PIN.

**Tip:**

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

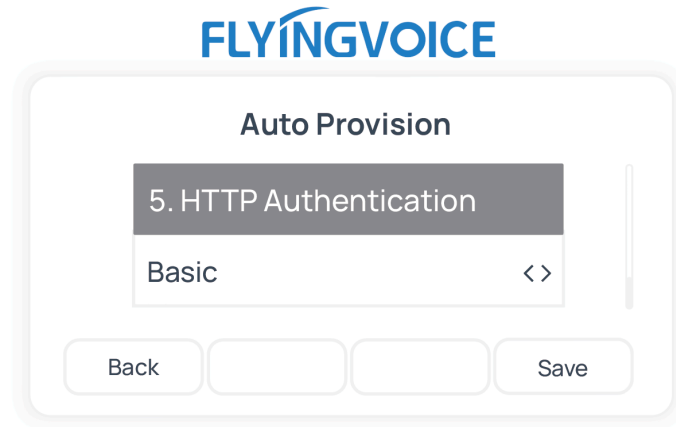


The image shows a configuration page with tabs: User, Presence, Voicemail, Features, Advanced, Security, Linkus Clients, Phone, and Funix. The Voicemail tab is selected. Under the "Enable Voicemail" section, there is a "Voicemail PIN Authentication" dropdown menu set to "Enabled" and a "Voicemail Access PIN" text field containing the number "8742".



The image shows the Flyingvoice Auto Provision interface. At the top is the Flyingvoice logo. Below it is the title "Auto Provision". A scrollable list shows "4. Password" as the current step. Below this is a text input field containing the number "8742". At the bottom are four buttons: "Back", an empty button, another empty button, and "Save".

- 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.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|--------|-----------|----------|-------------|-------|------------|-------------|------------|
| <input type="checkbox"/> | | 3000 | Leo Ball | Flyingvoice | P20P | - | *****@ | |

Related information

[Auto Provision LDAP for IP Phones](#)

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


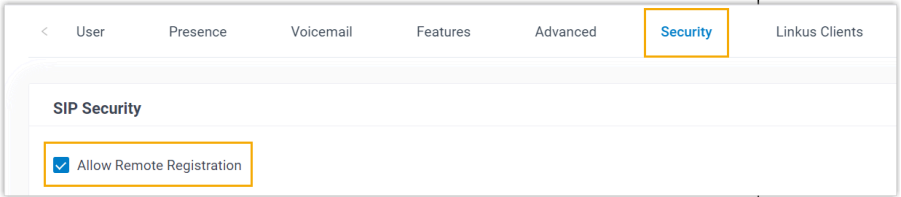
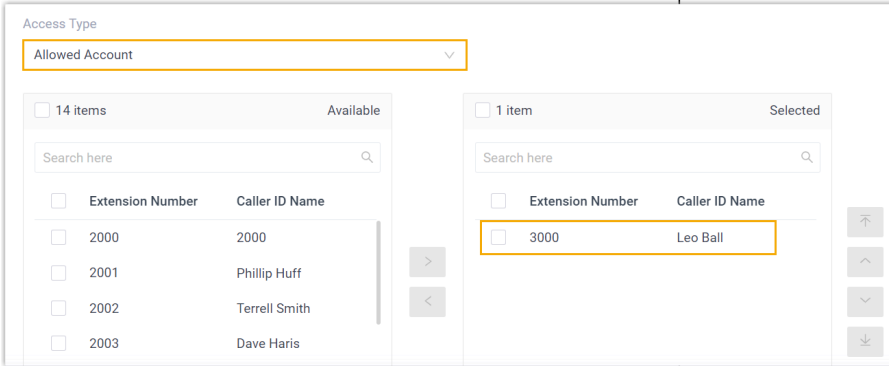

This topic takes Flyingvoice P20P (firmware: V0.8.18.6) as an example to introduce how to manually register an extension on a Flyingvoice IP phone.


Supported devices

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

Prerequisites

Make sure that you have completed the corresponding settings shown below according to the network environment of **Flyingvoice IP phone** and **Yeastar PBX**.

| Network Environment | | Setting |
|---------------------|--|---|
| Local Network | Register extension in the same subnet | / |
| | Register extension in different subnets | <p>Enable the Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).</p>  |
| Remote Network | Register extension using Yeastar FQDN | <ul style="list-style-type: none"> • Grant remote SIP access permission for the extension (Path: System > Network > Yeastar FQDN > Features > SIP Access).  |
| | Register extension using Public IP address / External Host domain name | <ul style="list-style-type: none"> • Configure PBX network for remote access by a public IP address or by an external host domain name. • Set up the extension for remote registration. <ul style="list-style-type: none"> ◦ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT). |


| Network Environment | Setting |
|---------------------|---|
| | <div> <p>VoIP Settings</p> <p>DTMF Mode RFC4733 (RFC2833)</p> <p>Transport UDP</p> <p><input checked="" type="checkbox"/> Qualify</p> <p><input type="checkbox"/> T.38 Support</p> <p><input checked="" type="checkbox"/> NAT</p> <p><input type="checkbox"/> SRTP</p> </div> <p>◦ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).</p> <div> <p>< User Presence Voicemail Features Advanced Security Linkus</p> <p>SIP Security</p> <p><input checked="" type="checkbox"/> Allow Remote Registration</p> </div> |



Procedure

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

Step 1. Gather registration information on Yeastar PBX

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

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

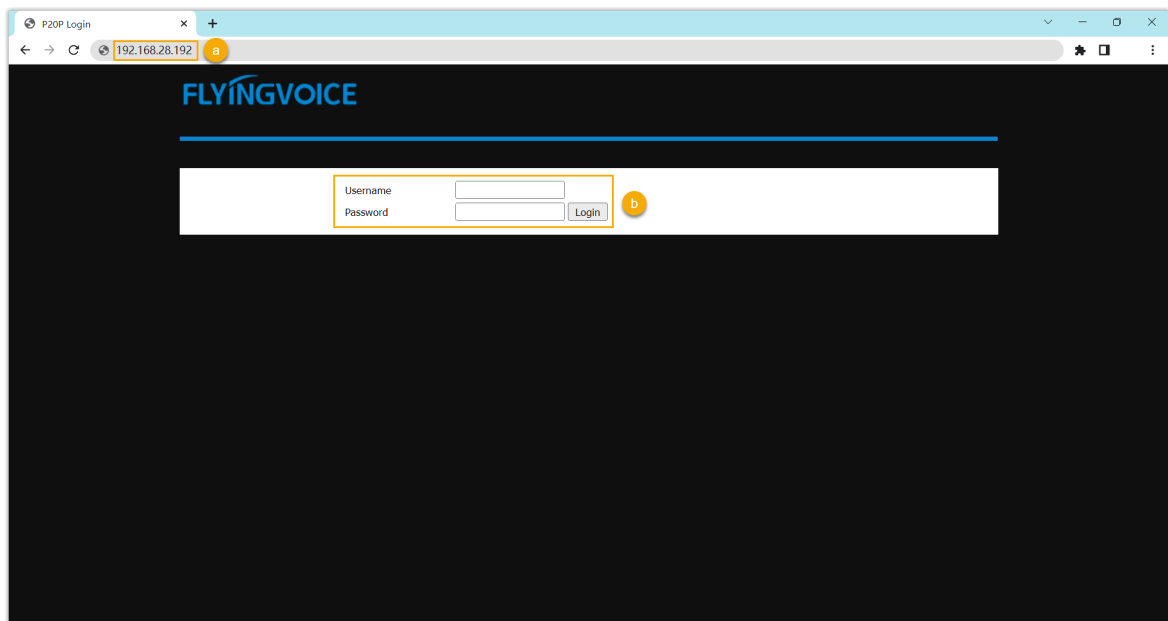
| Information | Instruction |
|-------------------------------|---|
| | <div> <p>Extension Information</p> <p>* Extension Number 3000</p> <p>* Registration Name birKhC0MdW</p> <p>IP Phone Concurrent Registrations 1</p> <p>* Caller ID 39:3000</p> <p>* Registration Password *****</p> </div> |
| Transport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

| Information | Instruction |
|-----------------------|---|
| | <p>In this scenario, you can directly utilize the PBX's private IP address for extension registration.</p> <div> </div> <p>Note: This topic provides the configuration example based on this scenario, where the PBX's private IP address is 192.168.28.39.</p> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN, note down the PBX's Fully Qualified Domain Name (FQDN).</p> <div> <div> Status <div> ● Successfully connected to the tunnel server. </div> </div> <div> Fully Qualified Domain Name (FQDN) <div> yeastardocs.ras.yeastar.com </div> <p>ⓘ The domain name can be configured only once and cannot be altered after the configuration.</p> </div> </div> <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> <p>Go to System > Network > Public IP and Ports, note down the PBX's public IP address or external host domain name.</p> <div> <div> Public IP (NAT) <div> NAT Type <div>Public IP Address</div> <div>Public IP Address</div> <div>110.35.77.110</div> </div> </div> <div> Public IP (NAT) <div> NAT Type <div>External Host</div> <div>External Host</div> <div>yeastar_docstest.com</div> </div> </div> <div> Public IP (NAT) <div> NAT Type <div>Yeastar Domain</div> <div>Yeastar Domain</div> <div>yeastardocs.cloudpbx.smaripbx.cn</div> </div> </div> </div> |
| SIP registration port | <p>Scenario: Register extension in local network</p> <p>Go to System > Network > Service Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p> <div> <div> HTTPS <div>8088</div> </div> <div> HTTP <div>80</div> </div> <div> SIP UDP <div>5060</div> </div> <div> SIP TCP <div>5060</div> </div> <div> SIP TLS <div>5061</div> </div> <div> Outbound SIP Port <div>5062-5082</div> </div> </div> <p>In this example, we use the SIP UDP port 5060.</p> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN > Features > SIP Access, note down the SIP registration port corresponding to the extension's transport protocol.</p> |

| Information | Instruction |
|-------------|--|
| | <div> <div> <div>Features</div> <div> <div>SIP Access</div> <div>Remote Access</div> </div> <div> Before enabling this feature, please make sure your extensions are using strong registration passwords, or it might bring security risks. </div> <div> <div>Status</div> <div>Enabled</div> </div> <div> <div>Remote Access Service Port-SIP UDP&TCP</div> <div>5060</div> </div> <div> <div>Remote Access Service Port-SIP TLS</div> <div>5061</div> </div> </div> </div> <div> <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> <p>Go to System > Network > Public IP and Ports > Public Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p> </div> <div> <div>Public Ports</div> <div> <div>External SIP UDP Port</div> <div>18205</div> </div> <div> <div>External SIP TCP Port</div> <div>18205</div> </div> <div> <div>External SIP TLS Port</div> <div>18208</div> </div> <div> <div>External Linkus Port</div> <div></div> </div> </div> |

Step 2. Register extension on Flyingvoice IP phone

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



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

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

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

FLYINGVOICE

Status Network Wireless **SIP Account** Phone Administration

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

Basic

Register Status

Register Status Disable

Basic Setup

Line Enable Enable

Subscriber Information

Display Name Leo Ball Phone Number 3000

Account birKhcOMdW Password

Proxy and Registration

Proxy Server 192.168.28.39 Proxy Port 5060

Outbound Server Outbound Port 5060

Backup Outbound Server Backup Outbound Port 5060

Allow DHCP Option 120 to Override SIP Server Disable Transport UDP

- a. Select an available line.
 - b. In the **Line Enable** drop-down list, select **Enable**.
 - c. In the **Subscriber Information** section, enter the extension information.
 - **Display Name:** Enter the name associated with the account, which will be displayed on the phone screen.
 - **Phone Number:** Enter the extension number.
 - **Account:** Enter the registration name of the extension.
 - **Password:** Enter the registration password of the extension.
 - d. In the **Proxy and Registration** section, enter the PBX server information.
 - **Proxy Server:** Enter the IP address / 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.

The screenshot displays the 'SIP Account' configuration page. The top navigation bar includes tabs for 'Status', 'Network', 'Wireless', 'SIP Account' (selected), 'Phone', and 'Administration'. Below this, a sub-navigation bar shows 'Line 1', 'Line 2' (selected), 'SIP Settings', 'VoIP QoS', and 'Ring'. The main content area is divided into two sections: 'Basic' and 'Basic Setup'. The 'Basic' section contains a 'Register Status' field, which is highlighted with a yellow border and shows the value 'Registered'. The 'Basic Setup' section contains a 'Line Enable' field with a dropdown menu set to 'Enable'.

| Basic | |
|-----------------|------------|
| Register Status | Registered |

| Basic Setup | |
|-------------|----------|
| Line Enable | Enable ▼ |

Mitel

Auto Provision Mitel IP Phone with Yeastar P-Series Software Edition

This topic takes Mitel 6867i (firmware: 5.0.0.1018) as an example to describe how to auto provision Mitel IP phones with Yeastar P-Series Software Edition in Local Area Network (LAN).

Requirements and restrictions

Requirements

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

Table 3.

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------|--------------------|---------------------|---|
| 6863i | R5.1.0SP6 or later | 83.9.0.103 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| 6865i | R5.1.0SP6 or later | 83.9.0.103 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| 6867i | R5.1.0SP6 or later | 83.9.0.103 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| 6869i | R5.1.0SP6 or later | 83.9.0.103 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| 6873i | R5.1.0SP6 or later | 83.9.0.103 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| 6905 | 6.3 SP3 or later | 83.17.0.17 or later | <ul style="list-style-type: none">• DHCP• Provision Link |

Table 3. (continued)


| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|--------|--------------------|---------------------|--|
| 6910 | 6.3 SP3 or later | 83.17.0.17 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| 6915 | 6.3 SP3 or later | 83.17.0.17 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| 6920 | 6.3.1 SP1 or later | 83.9.0.103 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| 6930 | 6.3.1 SP1 or later | 83.9.0.103 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| 6940 | 6.3.1 SP1 or later | 83.9.0.103 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| RFP 44 | 9.1 or later | 83.18.0.18 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| RFP 45 | 9.1 or later | 83.18.0.18 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| RFP 47 | 9.1 or later | 83.18.0.18 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| RFP 48 | 9.1 or later | 83.18.0.18 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |

Restrictions

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

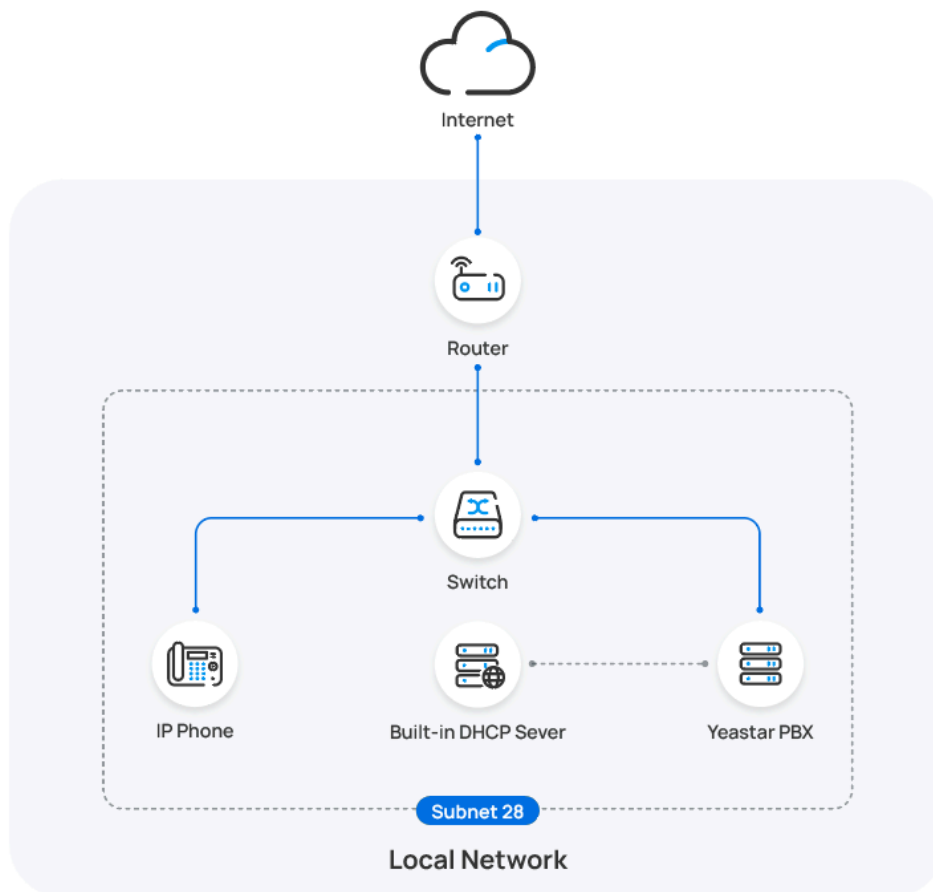
Scenarios

Yeastar P-Series Software Edition supports to auto provision Mitel IP phone via [DHCP method](#) in the local network. The provisioning operations vary depending on the network environment of **Mitel IP phone** and **Yeastar PBX**, as the following table shows.

| Scenario | Description |
|---|---|
| IP Phone and PBX are in the SAME subnet | <p>In this scenario, you can provision the Mitel IP phone using the PBX built-in DHCP server 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.</p> <div>  Note: If there is already a DHCP server running in the subnet, you can directly set up DHCP option 66 with PBX-provided provisioning link on the DHCP server. </div> <p>For more information, see Auto provision a Mitel IP phone in the same subnet.</p> |
| IP Phone and PBX are in DIFFERENT subnets | <p>In this scenario, you can provision the Mitel IP phone using DHCP option 66 of a third-party DHCP server 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.</p> <p>For more information, see Auto provision a Mitel IP phone in different subnets.</p> |

Auto provision a Mitel IP phone in the same subnet

In this example, the Mitel IP phone and the Yeastar PBX (IP: 192.168.28.118) are both deployed in subnet 28.



Prerequisites

- Make sure that there is only one DHCP server running in the subnet, or the IP phone 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**).
- RESET the IP phone if it is previously used.
- Gather information of IP phone, including Vendor, Model, and MAC address.

Procedure

- [Step 1. Set the PBX as a DHCP server](#)
- [Step 2. Add the Mitel IP phone on PBX](#)

Step 1. Set the PBX as a DHCP server

1. Log in to PBX web portal, go to **System > Network**, click **DHCP Server** tab.
2. Turn on the **DHCP Server**, and complete the following network configurations.

The screenshot shows the 'DHCP Server' configuration page. At the top, there are tabs: Basic Settings, Web Server, Service Ports, Yeastar FQDN, Public IP and Ports, Static Routes, and DHCP Server. The 'DHCP Server' tab is selected. Below the tabs, there is a 'Status' section with a radio button for 'Stopped'. A yellow box highlights the configuration fields: Gateway (192.168.28.1), Subnet Mask (255.255.255.0), Preferred DNS Server (223.5.5.5), Alternative DNS Server (114.114.114.114), DHCP Address Range (192.168.28.204 - 192.168.28.206), and NTP Server (192.168.28.39).

- **Gateway:** Specify the IP address of the default gateway for the DHCP server.
- **Subnet Mask:** Specify the subnet mask used to subdivide your IP address.
- **Preferred DNS Server:** Specify a DNS server for the DHCP server.
- **Alternative DNS Server:** Optional. Specify a secondary DNS server for the DHCP server.
- **DHCP Address Range:** Specify the IP address range that will be allocated to DHCP clients.
- **NTP Server:** Enter the IP address of an NTP server.



Note:

The default value is the IP address of the PBX, which can synchronize the network time of the client devices with the PBX.

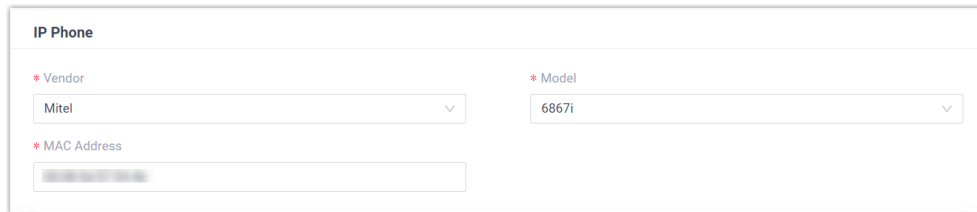
3. Click **Save**.

The **Status** field displays **Running**, indicating the DHCP server is running.

The screenshot shows the 'Status' field with a green dot and the text 'Running'.

Step 2. Add the Mitel IP phone on PBX

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



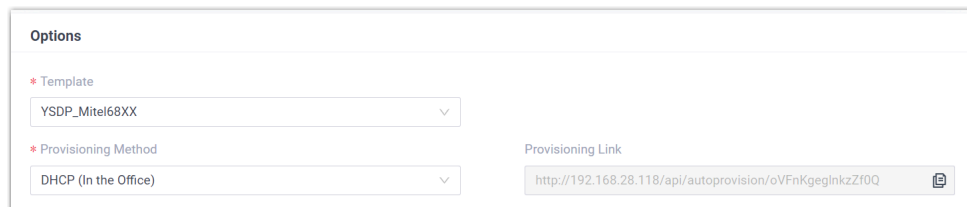
IP Phone

* Vendor: Mitel

* Model: 6867i

* MAC Address: [blurred]

- **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 following settings.



Options

* Template: YSDP_Mitel68XX

* Provisioning Method: DHCP (In the Office)

Provisioning Link: <http://192.168.28.118/api/autoprovision/oVFmKgeglnkzZf0Q>

- **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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.

Assign Extension

* Select Extension

3000-Leo Ball



Note:

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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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**.
7. Reboot the IP phone manually.

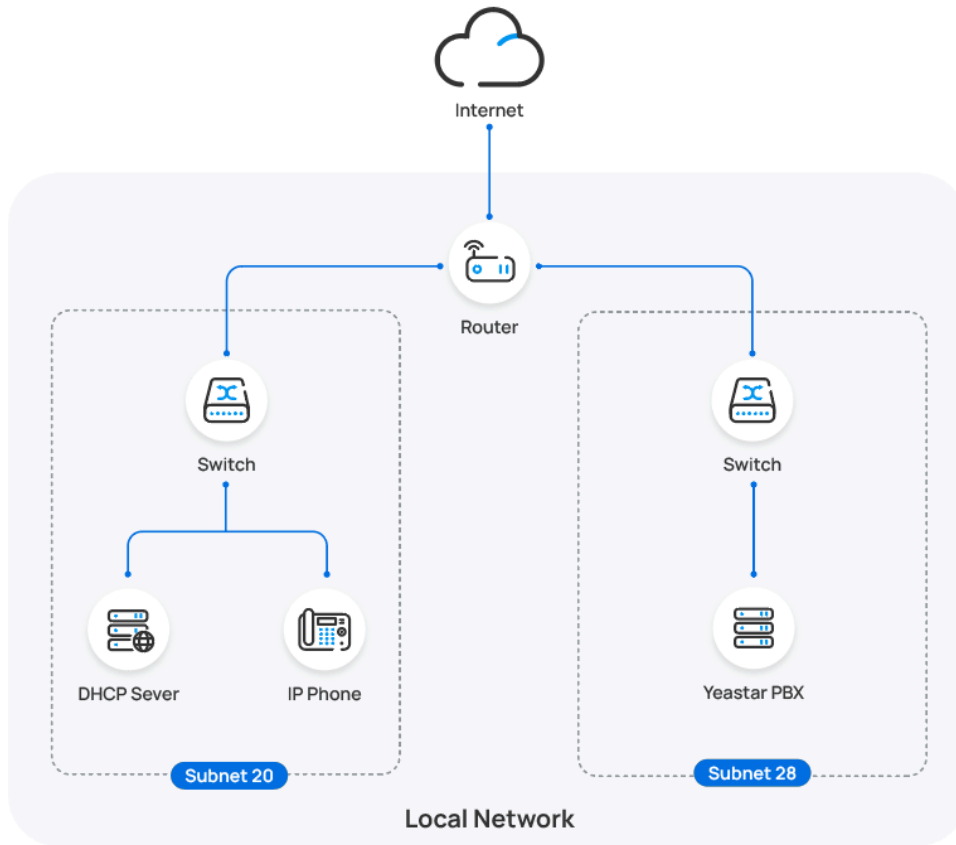
Result

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

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|--------|-----------|----------|--------|-------|------------|-------------|------------|
| <input type="checkbox"/> | | 3000 | Leo Ball | Mitel | 6867i | - | *****@ | |

Auto provision a Mitel IP phone in different subnets

In this example, the Mitel IP phone and DHCP server are deployed in subnet 20, while the Yeastar PBX (IP: 192.168.28.118) is deployed in subnet 28.



Prerequisites

- Make sure that there is only one DHCP server running in the subnet where the IP phone is deployed, or the IP phone would fail to obtain an IP address.
- Make sure that the IP phone and PBX can communicate with each other over the subnets.
- 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

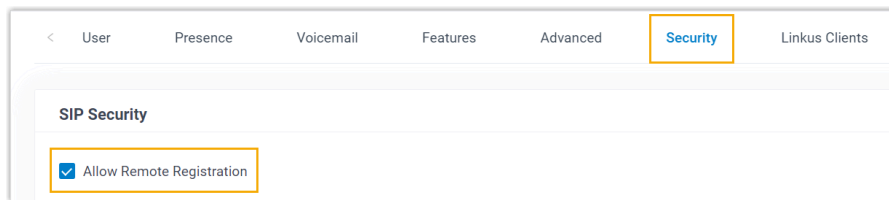
- [Step 1. Enable Remote Registration feature for the extension on PBX](#)
- [Step 2. Add the Mitel IP phone on PBX](#)

- [Step 3. Configure DHCP option 66 on DHCP server](#)
- [Step 4. Turn off certificate validation on the phone](#)

Step 1. Enable Remote Registration feature for the extension on PBX

Enable the Remote Registration feature for the extension to be assigned to the phone, so that the extension can be registered in a different subnet.

1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, edit the desired extension.
2. Click **Security** tab, select the checkbox of **Allow Remote Registration** in the **SIP Security** section.



3. Click **Save** and **Apply**.

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

 A screenshot of the 'IP Phone' configuration form. It contains three fields:
 1. '* Vendor': A dropdown menu with 'Mitel' selected.
 2. '* Model': A dropdown menu with '6867i' selected.
 3. '* MAC Address': A text input field with a blurred value.

- **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 following settings.

Options

* Template
YSDP_Mitel68XX

* Provisioning Method
DHCP (In the Office)

Provisioning Link
http://192.168.28.118/api/autoprovision/oVFmKgeglmkzZf0Q

- **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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.

Assign Extension

* Select Extension
3000-Leo Ball



Note:

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

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

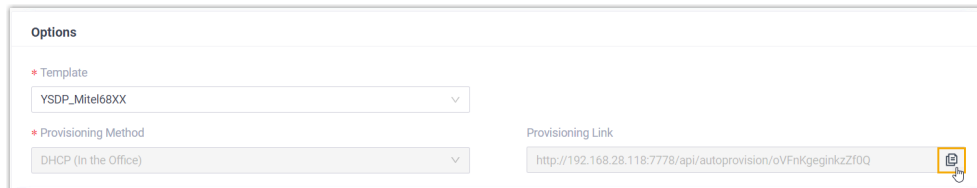
6. Click **Save**.

7. Reboot the IP phone manually.

Step 3. Configure DHCP option 66 on DHCP server

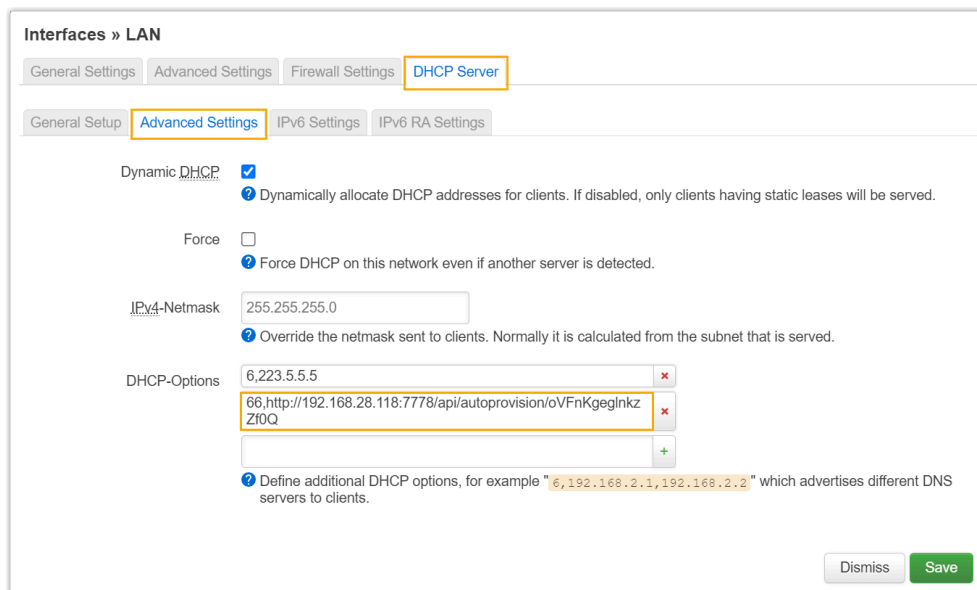
In the subnet where the IP phone is deployed, use the generated provisioning link to configure option 66 on the DHCP Server.

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.



Step 4. 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 left navigation bar, go to **Advanced Settings > Network > HTTPS Settings**, then unselect the checkbox of **Enabled** beside the **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 extension registration status on **Auto Provisioning > Phones** on the PBX web portal.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|---|-----------|----------|--------|-------|------------|-------------|---|
| <input type="checkbox"/> |  | 3000 | Leo Ball | Mitel | 6867i | - | *****@ |     |

Related information

[Auto Provision Mitel Expansion Module with Yeastar P-Series Software Edition](#)
[Provision Mitel DECT System with Yeastar P-Series Software Edition](#)

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

This topic describe how to provision Mitel expansion module with Yeastar P-Series Software 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 Software 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 Software 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.

| Function Key | Type | Value | Label | Operations | Sort |
|--------------|-----------------------|-------------------|--------------|------------|------|
| Key 1 | Speed Dial | 1001-Phillip Huff | Phillip Huff | | |
| Key 2 | Check Group Voicemail | 6100-6100 | GroupVM-6100 | | |
| Key ... | | | | | |
| Key 44 | Park & Retrieve | 6000 | Park-6000 | | |
| Key 45 | Check Voicemail | My Voicemail | VM-Leo Ball | | |

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

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

| | | | | |
|-------|-------|-------|-------|-------|
| 6863i | 6865i | 6867i | 6869i | 6873i |
|-------|-------|-------|-------|-------|


```

topsortkey43 label: {{FunctionkeyLabel_43}}
topsoftkey43 line: {{FunctionkeyLine_43}}
# top softkey 44
topsoftkey44 type: {{FunctionkeyType_44}}
topsoftkey44 value: {{FunctionkeyCodeValue_44}}{{FunctionkeyValue_44}}
topsoftkey44 label: {{FunctionkeyLabel_44}}
topsoftkey44 line: {{FunctionkeyLine_44}}

# expansion module keys
expmod1 key1 type: {{FunctionkeyType_45}}
expmod1 key1 value: {{FunctionkeyCodeValue_45}}{{FunctionkeyValue_45}}
expmod1 key1 label: "{{FunctionkeyLabel_45}}"
expmod1 key1 line: {{FunctionkeyLine_45}}

expmod1 key2 type: {{FunctionkeyType_46}}
expmod1 key2 value: {{FunctionkeyCodeValue_46}}{{FunctionkeyValue_46}}
expmod1 key2 label: "{{FunctionkeyLabel_46}}"
expmod1 key2 line: {{FunctionkeyLine_46}}
  
```

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 Software 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 Software 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 | Supported Auto Provisioning Method |
|--------------|---------------------|---------------------|--|
| RFP 44 | 9.1 or later | 83.18.0.18 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| RFP 45 | 9.1 or later | 83.18.0.18 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| RFP 47 | 9.1 or later | 83.18.0.18 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| RFP 48 | 9.1 or later | 83.18.0.18 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |


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

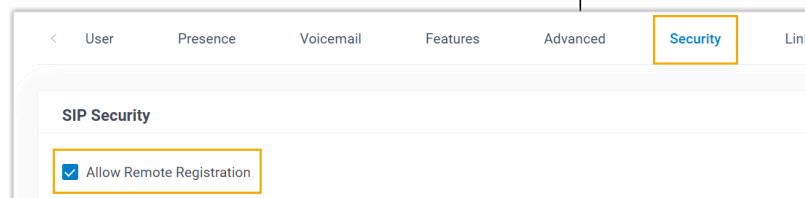
| Device Model | Firmware Version |
|--------------------------------|------------------|
| Mitel DECT base station | |

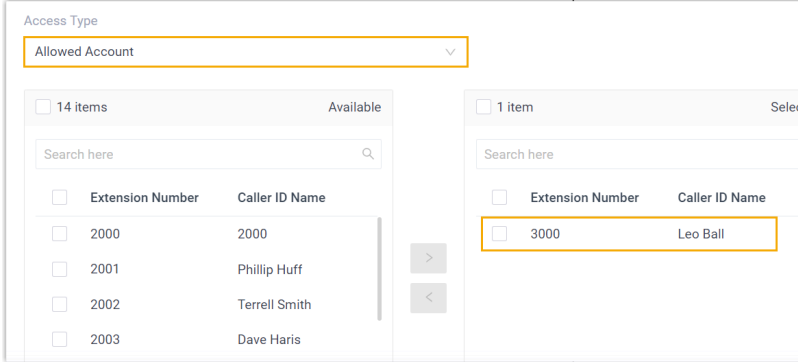


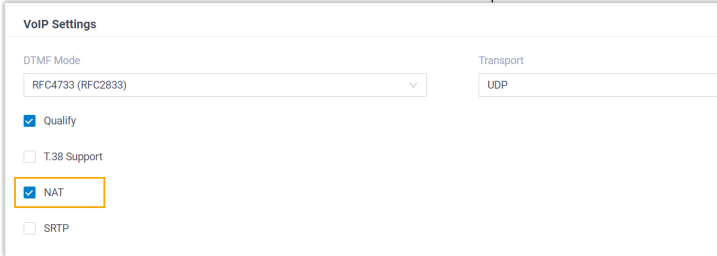

| Device Model | Firmware Version |
|---------------------------|------------------|
| RFP 44 | v9.1 |
| Mitel DECT handset | |
| 732d | v9.0.3.33 |

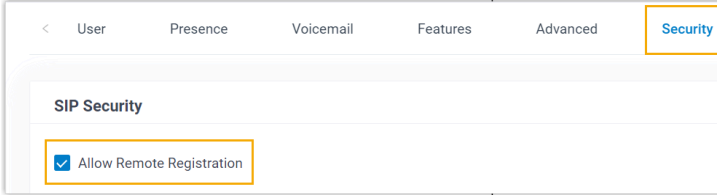

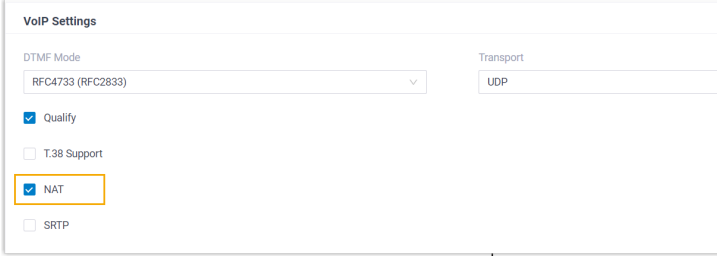

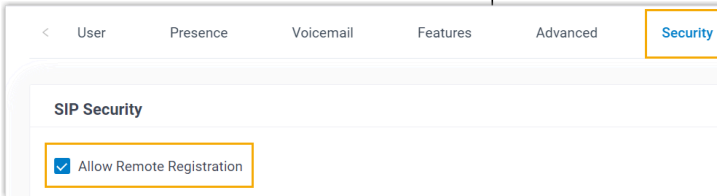
Prerequisites

- 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**).
- Make sure that you have completed the corresponding settings shown below according to the network environment of **Mitel DECT base station** and **Yeastar PBX**.

| Network Environment | | Setting |
|---------------------|--|---|
| Local Network | Provision a base station in the same subnet | / |
| | Provision a base station in different subnets | <ul style="list-style-type: none"> ◦ Make sure that the two subnets can communicate with each other. ◦ Enable the Remote Registration feature for the extension to be assigned to a DECT handset (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration). |
| Remote Network | Remotely provision a base station using Yeastar FQDN | <ul style="list-style-type: none"> ◦ Grant remote SIP access permission for the extension to be assigned to a DECT handset (Path: System > Network > Yeastar FQDN > Features > SIP Access). |



| Network Environment | | Setting | |
|---------------------|---|---|--|
| | |  | |
| | Remotely provision a base station using Public IP address / domain name | <ul style="list-style-type: none">◦ Configure PBX network for remote access by a public IP address, by an external host domain name, or by a Yeastar domain name. <div> Important: The following PBX ports MUST be forwarded for RPS provisioning.<ul style="list-style-type: none">▪ RTP ports▪ SIP port▪ Web Server port</div> <ul style="list-style-type: none">◦ Set up the extension for remote registration.<ul style="list-style-type: none">▪ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT).  | |
| | | <ul style="list-style-type: none">▪ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration). | |

| Network Environment | Setting |
|---------------------|---|
| | <div>  </div> <ul style="list-style-type: none"> ◦ Set up the extension to be assigned to a DECT handset for remote registration. <ul style="list-style-type: none"> ▪ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT). <div>  </div> <ul style="list-style-type: none"> ▪ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration). <div>  </div> |

Procedure

- [Step 1. Configure Mitel DECT base station on PBX](#)
- [Step 2. Configure provisioning URL on Mitel DECT base station](#)
- [Step 3. Register a Mitel DECT handset to the DECT base station](#)

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.

The screenshot shows the 'IP Phone' configuration section. It contains three fields:

- * Vendor:** A dropdown menu with 'Mitel' selected.
- * Model:** A dropdown menu with 'RFP 44' selected.
- * MAC Address:** An empty text input field.

- **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.

The screenshot shows the 'Options' configuration section. It contains three fields:

- * Template:** A dropdown menu with 'YSDP_MitelDECT' selected.
- * Provisioning Method:** A dropdown menu with 'DHCP (In the Office)' selected.
- Provisioning Link:** A text input field containing the URL 'http://192.168.28.39:7778/api/autoprovision/lginRL8CkoYFXWJd' with a copy icon.

- **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 Method:** Select the provisioning method according to your needs.

| Provisioning Method | Description |
|----------------------|--|
| DHCP (In the Office) | Suitable for provisioning the DECT base station that is located in the local network, either in the same subnet or in different subnets. |

| Provisioning Method | Description |
|--------------------------------|---|
| Provision Link (Remote) | Suitable for provisioning the DECT base station located in a remote network, and the base station will access the PBX using public IP address / external host name to retrieve configuration files. |
| Provision Link - FQDN (Remote) | Suitable for provisioning the DECT base station located in a remote network, and the base station will access the PBX using Yeastar FQDN to retrieve configuration files. |

A provisioning link is automatically generated and displayed in the **Provisioning Link** 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 extensions for the DECT handsets.

- To assign extensions one by one, select the checkbox of corresponding handset, then select the desired extension in the **Extension** drop-down list.

The screenshot shows the 'Assign Extension' interface. At the top, there are three dropdown menus: 'Handset ID Range' (1 to 250), 'Start Extension' (1000-Kristin Hale), and 'End Extension' (3000-Leo Ball). To the right is a blue button labeled 'Assign Extension'. Below these is a table with two columns: 'Handset' and 'Extension'. There are two rows. The first row, labeled 'Handset 1', has a checkbox (marked with a yellow circle 'a') that is checked, and a dropdown menu (marked with a yellow circle 'b') showing '1000-Kristin Hale'. The second row, labeled 'Handset 2', has a checked checkbox and a dropdown menu showing '3000-Leo Ball'.

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

The screenshot shows the 'Assign Extension' interface. At the top, there are three dropdown menus: 'Handset ID Range' (1 to 250), 'Start Extension' (1000-Kristin Hale), and 'End Extension' (3000-Leo Ball). To the right is a blue button labeled 'Assign Extension'. Below these is a table with two columns: 'Handset' and 'Extension'. There are two rows. The first row, labeled 'Handset 1', has an unchecked checkbox and an empty dropdown menu. The second row, labeled 'Handset 2', has an unchecked checkbox and an empty dropdown menu. Yellow circles 'a' and 'b' are placed above the 'End Extension' dropdown and the 'Assign Extension' button, respectively.

**Note:**

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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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**.

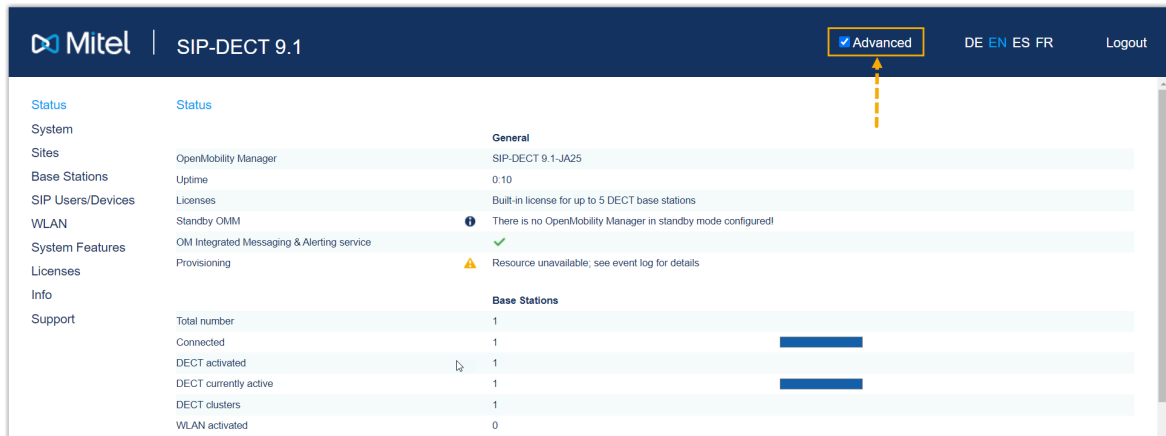
Step 2. Configure provisioning URL on Mitel DECT base station

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**.

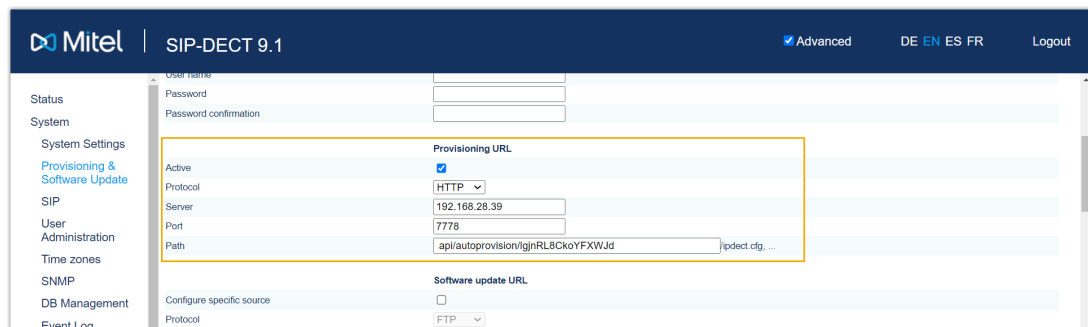
2. On the top menu, select the checkbox of **Advanced** to show the advanced settings.



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

4. In the **Provisioning URL** section, do as follows:

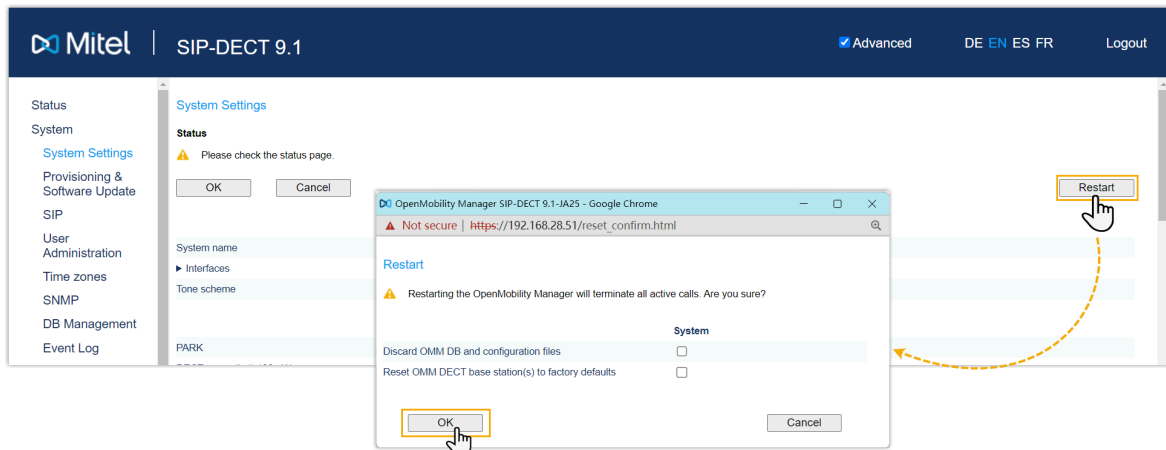
- Select the checkbox of **Active**.
- Complete the following settings with the [provisioning link obtained from the PBX](#).




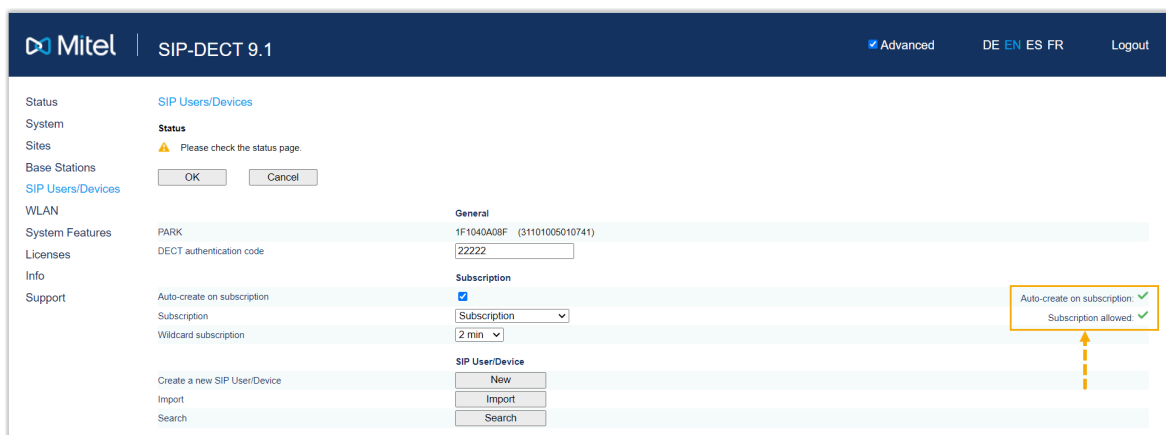
- **Protocol:** Select **HTTP** or **HTTPS** according to the prefix of the link.
- **Server:** Enter the server address (IP address or domain name).
- **Port:** Enter the server port.
- **Path:** Enter the file path (e.g. `api/autoprovision/lgjnRL8CkoYFXWJd`).

5. At the top of the configuration page, click **OK**.

6. Go to **System > System Settings**, click **Restart** and **OK** to trigger provisioning.

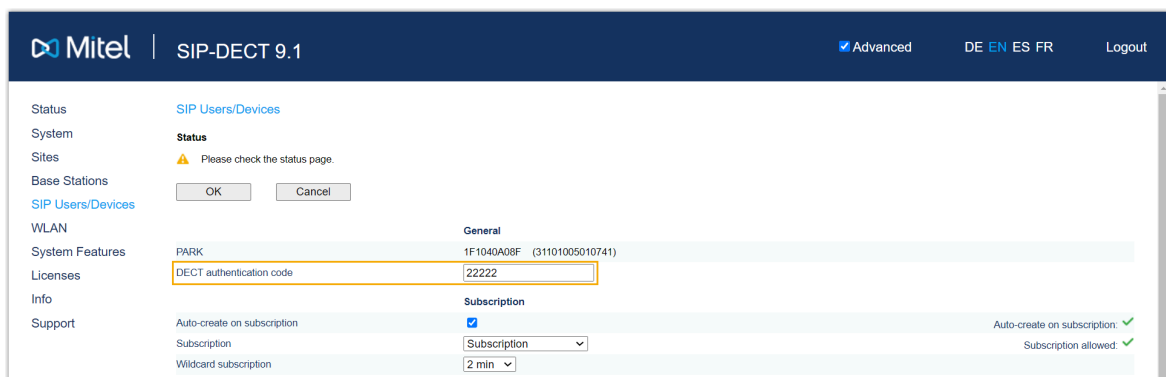


After restarting and waiting for a few minutes, the subscription status on **SIP Users/Devices > Subscription** will display , indicating that the base station has successfully downloaded configuration file from the PBX.



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 registration status of the handset on **SIP Users/Devices > SIP user**.

| 1 (1) SIP user | | | | |
|----------------|----------------------|-----------------|---|---|
| Display name | Number/SIP user name | IPEI | Subscribed | Download |
| Kristin Hale | 1000 | 13892 0032965 5 |  |  |

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

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Password | Template | Firmware Version | MAC Address | Operations |
|---|--------|-----------|-----------|--------------|--------|------------|----------------|----------------|------------------|-------------|---|
| <input type="checkbox"/> | | --- | --- | Mitel | RFP 44 | - | - | YSDP_MitelDECT | - | |    |
| | Status | Handset | Extension | Name | | | | | | | |
|  | | Handset 1 | 1000 | Kristin Hale | | | | | | | |

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

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


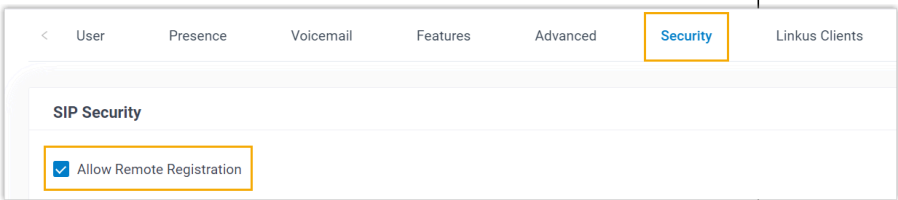
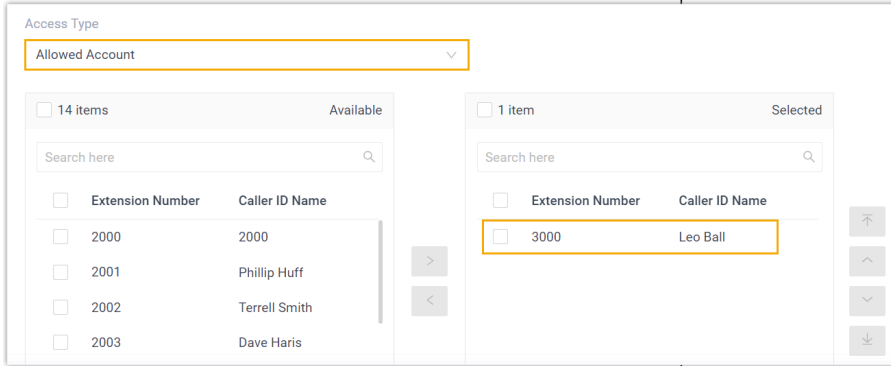
This topic takes Mitel 6867i (firmware: 5.0.0.1018) as an example to introduce how to manually register an extension on a Mitel IP phone.


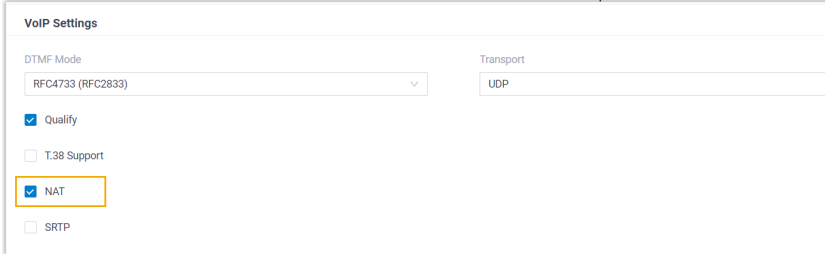

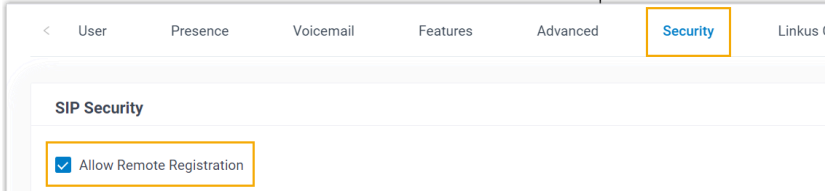
Supported devices

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

Prerequisites

Make sure that you have completed the corresponding settings shown below according to the network environment of **Mitel IP phone** and **Yeastar PBX**.

| Network Environment | | Setting |
|---------------------|---|---|
| Local Network | Register extension in the same subnet | / |
| | Register extension in different subnets | <p>Enable the Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).</p>  |
| Remote Network | Register extension using Yeastar FQDN | <ul style="list-style-type: none"> • Grant remote SIP access permission for the extension (Path: System > Network > Yeastar FQDN > Features > SIP Access).  |


| Network Environment | | Setting |
|--|--|---|
| Register extension using Public IP address / External Host domain name | | <ul style="list-style-type: none"> • Configure PBX network for remote access by a public IP address or by an external host domain name. • Set up the extension for remote registration. <ul style="list-style-type: none"> ◦ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT).  <ul style="list-style-type: none"> ◦ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).  |



Procedure



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

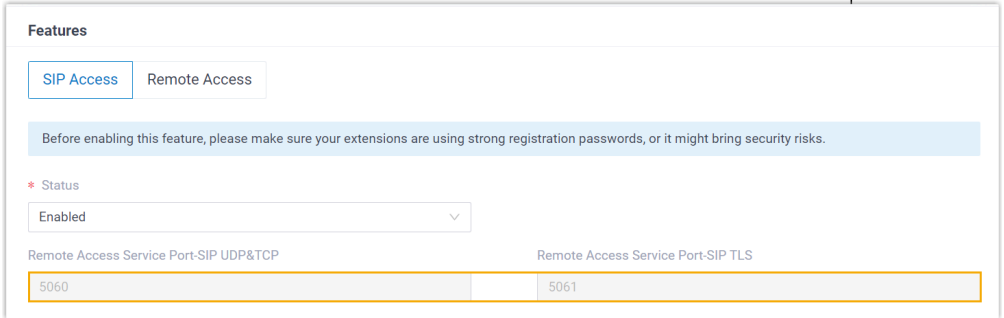
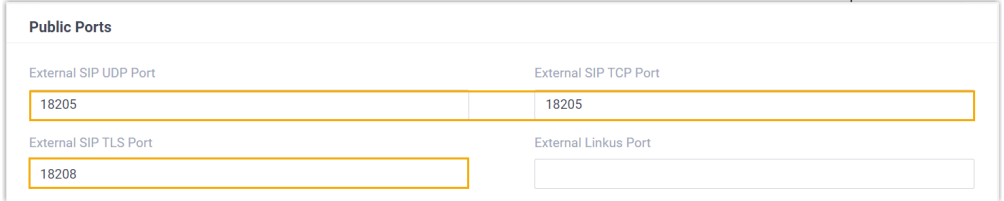
Step 1. Gather registration information on Yeastar PBX

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

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

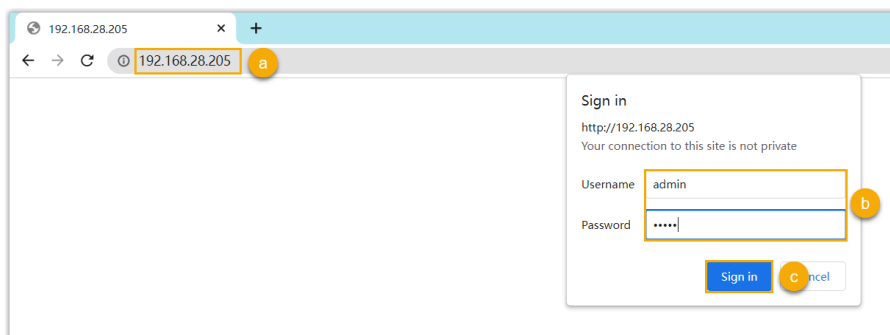
| Information | Instruction |
|--------------------|---|
| | <div><div>• Registration Password</div><div><div>Extension Information</div><div><div><div><div>* Extension Number</div><div>3000</div></div><div><div>* Registration Name</div><div>G2T8I8GlrV</div></div><div><div>* Caller ID</div><div>39-3000</div></div><div><div>* Registration Password</div><div>.....</div></div></div><div><div>IP Phone Concurrent Registrations</div><div>1</div></div></div></div></div> |
| Transport protocol | <div><div>Go to Extension and Trunk > Extension >  > Advanced > VoIP Settings > Transport, note down the transport protocol of the extension.</div><div>In this example, the extension use UDP transport protocol.</div><div><div>UserPresenceVoicemailFeaturesAdvancedSecurityLinkus ClientsPhoneFunction Keys</div><div><div>VoIP Settings</div><div><div>DTMF Mode</div><div>RFC4733 (RFC2833)</div></div><div><div>Transport</div><div>UDP</div></div></div></div><div><div> Note:</div><div><div>• If the extension uses TCP transport protocol, make sure that the SIP TCP port is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > General > Basic).</div><div><div><div>Basic</div><div><div><div>* SIP UDP Port</div><div>5060</div></div><div><div>* SIP TCP Port</div><div><input checked="" type="checkbox"/> 5060</div></div><div><div>* RTP Port Range</div><div>18256 : 18356</div></div><div><div>* Outbound SIP Port Range</div><div><input type="checkbox"/> 5062 : 5082</div></div></div></div></div><div><div>• If the extension uses TLS transport protocol, make sure that the TLS is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > TLS).</div></div></div></div></div> |

| Information | Instruction |
|-------------------------------|---|
| | <div><div></div><div><div><div>TLS</div><div>* SIP TLS Port</div><div>5061</div></div></div></div> |
| PBX IP address or domain name | <div><div>Scenario: Register extension in local network</div><div>In this scenario, you can directly utilize the PBX's private IP address for extension registration.</div><div><div></div><div><div>Note:</div><div>This topic provides the configuration example based on this scenario, where the PBX's private IP address is 192.168.28.39.</div></div></div><div><div>Scenario: Register extension remotely using Yeastar FQDN</div><div>Go to System > Network > Yeastar FQDN, note down the PBX's Fully Qualified Domain Name (FQDN).</div><div><div><div>Status</div><div>● Successfully connected to the tunnel server.</div></div><div><div>Fully Qualified Domain Name (FQDN)</div><div>yeastardocs.ras.yeastar.com</div><div> ⓘ The domain name can be configured only once and cannot be altered after the configuration.</div></div></div><div><div>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</div><div>Go to System > Network > Public IP and Ports, note down the PBX's public IP address or external host domain name.</div><div><div><div><div>Public IP (NAT)</div><div>* NAT Type</div><div>Public IP Address</div><div>Public IP Address</div><div>110.35.77.110</div></div><div><div>Public IP (NAT)</div><div>* NAT Type</div><div>External Host</div><div>External Host</div><div>yeastar_docstest.com</div></div><div><div>Public IP (NAT)</div><div>* NAT Type</div><div>Yeastar Domain</div><div>Yeastar Domain</div><div>yeastardocs.cloudpbx.smartpbx.cn</div></div></div></div></div></div></div> |
| SIP registration port | <div><div>Scenario: Register extension in local network</div><div>Go to System > Network > Service Ports, note down the SIP registration port corresponding to the extension's transport protocol.</div><div><div><div>HTTPS</div><div>8088</div><div></div></div><div><div>SIP UDP</div><div>5060</div><div></div></div><div><div>SIP TLS</div><div>5061</div><div></div></div><div><div>HTTP</div><div>80</div><div></div></div><div><div>SIP TCP</div><div>5060</div><div></div></div><div><div>Outbound SIP Port</div><div>5062-5082</div><div></div></div></div></div> |

| Information | Instruction |
|-------------|---|
| | <p>In this example, we use the SIP UDP port 5060.</p> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN > Features > SIP Access, note down the SIP registration port corresponding to the extension's transport protocol.</p>  |
| | <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> <p>Go to System > Network > Public IP and Ports > Public Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p>  |

Step 2. Register extension on Mitel IP phone

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



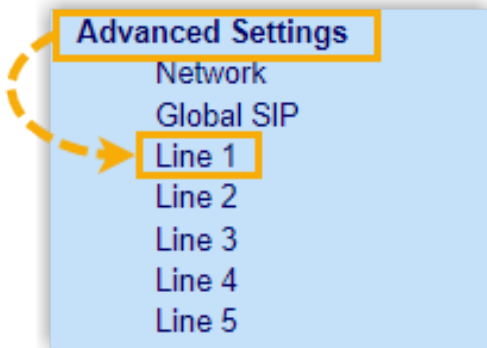
- a. In the browser's address bar, enter the IP address of the IP phone.

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

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

- c. Click **Sign in**.

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



3. Complete the registration configurations.

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

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

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

| Basic SIP Network Settings | |
|------------------------------|---------------|
| Proxy Server | 192.168.28.39 |
| 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 | 192.168.28.39 |
| Registrar Port | 5060 |
| Backup Registrar Server | 0.0.0.0 |
| Backup Registrar Port | 0 |
| Registration Period | 1800 |
| Conference Server URI | |

- **Proxy Server:** Enter the IP address / domain name of the PBX.
- **Proxy Port:** Enter the SIP registration port of the PBX.
- **Registrar Server:** Enter the IP address / 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@192.168.28.39:5060 | Registered | No |

Dinstar

Auto Provision Dinstar IP Phone with Yeastar P-Series Software Edition

This topic takes Dinstar C60S (firmware: 2.60.11.7.0) as an example to describe how to auto provision Dinstar IP phone with Yeastar P-Series Software Edition in Local Area Network (LAN).

Requirements

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

Table 4.

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------|---------------------------------|--------------------|---|
| C60S | 2.60.11.7.0 or later | 83.6.0.24 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| C60L | 2.60.11.7.0 or later | 83.6.0.24 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| C60U | 2.60.11.7.0 or later | 83.6.0.24 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| C61S | 2.61.6.7.0/2.61.11.7.0 or later | 83.6.0.24 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| C62S | 2.62.6.7.0/2.62.11.7.0 or later | 83.6.0.24 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| C62G | 2.62.6.7.0/2.62.11.7.0 or later | 83.6.0.24 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| C63S | 2.63.11.7.0 or later | 83.6.0.24 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |

Table 4. (continued)

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------|---------------------------------|--------------------|---|
| C63G | 2.63.6.7.0/2.63.11.7.0 or later | 83.6.0.24 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| C64G | 2.64.6.7.0 or later | 83.6.0.24 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |
| C66G | 2.66.6.7.0 or later | 83.6.0.24 or later | <ul style="list-style-type: none"> • PnP • DHCP • Provision Link |

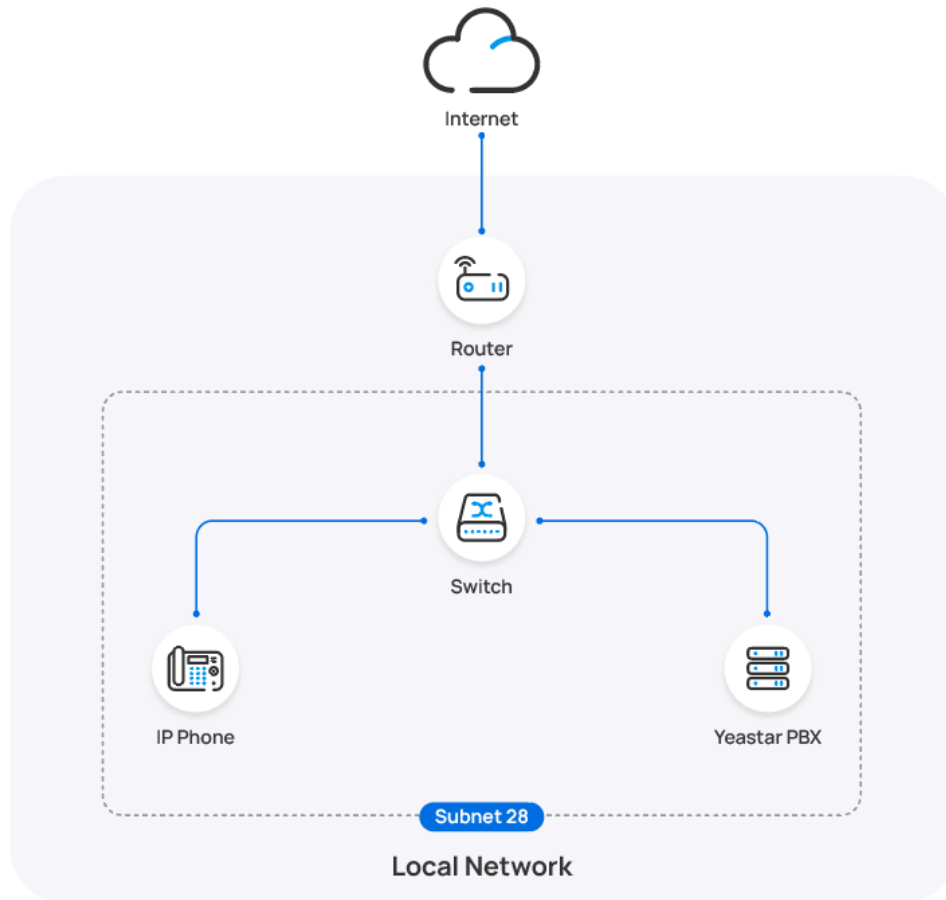
Scenarios

The provisioning methods and operations vary depending on the network environment of **Dinstar IP phone** and **Yeastar PBX**, as the following table shows.

| Scenario | Description |
|---|---|
| IP Phone and PBX are in the SAME subnet | <p>In this scenario, you can provision the Dinstar IP phone with the PBX via PnP method.</p> <p>For more information, see Auto provision a Dinstar IP phone in the same subnet (PnP).</p> |
| IP Phone and PBX are in DIFFERENT subnets | <p>In this scenario, you can provision the Dinstar IP phone with the PBX via DHCP method.</p> <p>For more information, see Auto provision a Dinstar IP phone in different subnets (DHCP).</p> |

Auto provision a Dinstar IP phone in the same subnet (PnP)


In this example, the Dinstar IP phone (IP: 192.168.28.192) and the Yeastar PBX (IP: 192.168.28.39) are both deployed in subnet 28.



Prerequisites

- Make sure that you have [downloaded the template](#) for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- If the IP phone is previously used, you need to RESET the IP phone, then re-configure the network settings for the phone.

Procedure

1. Log in to PBX web portal, go to **Auto Provisioning > Phones**.
The IP phones detected by the PBX via PnP are displayed in the phone list.
2. Click  beside the Dinstar IP phone.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|--------|------------|------------|---------|-------|----------------|-------------|------------|
| <input type="checkbox"/> | | Unassigned | Unassigned | Dinstar | C60S | 192.168.28.192 | - | |

3. **Optional:** In the **Options** section, select a desired template from the **Template** 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](#).

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

Assign Extension

* Select Extension

3000-Leo Ball



Note:

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

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

5. Click **Save**.

Result



Note:

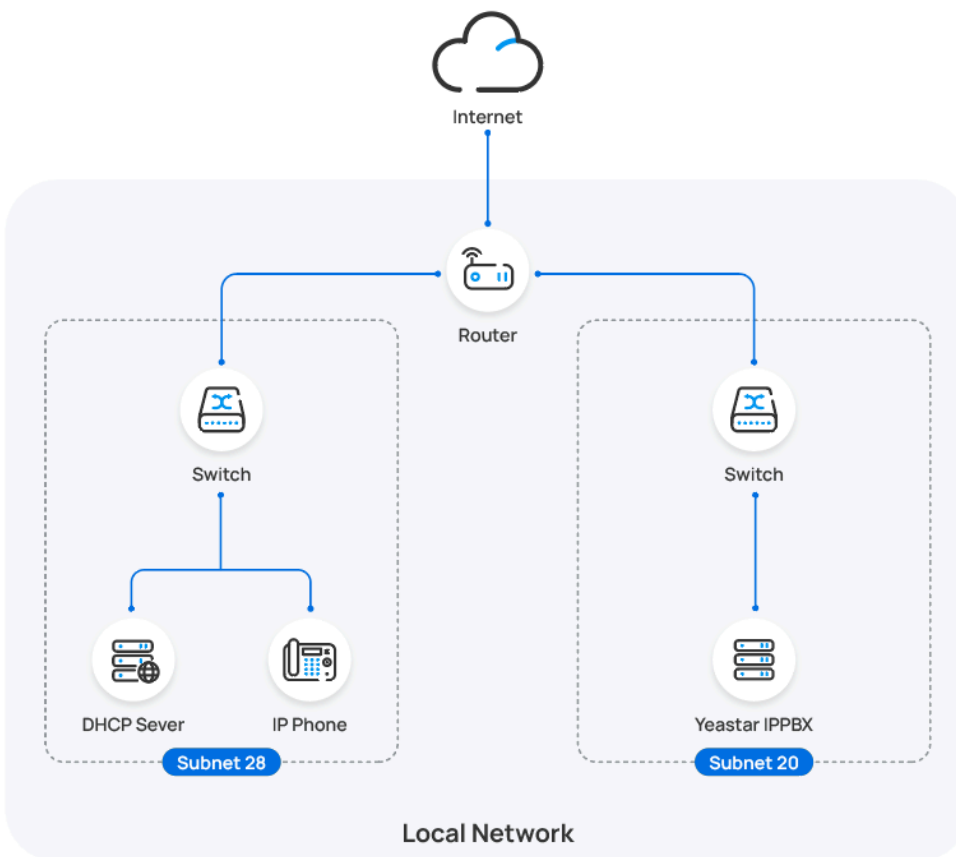
Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

- 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** in PBX web portal.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|--------|-----------|----------|---------|-------|----------------|-------------|------------|
| <input type="checkbox"/> | | 3000 | Leo Ball | Dinstar | C60S | 192.168.28.192 | *****@ | |

Auto provision a Dinstar IP phone in different subnets (DHCP)

In this example, the Dinstar IP phone and DHCP server are deployed in subnet 28, while the Yeastar PBX (IP: 192.168.20.58) is deployed in subnet 20.



Prerequisites

- Make sure that there is only one DHCP server running in the subnet where the IP phone is deployed, or the IP phone would fail to obtain an IP address.

- Make sure that the IP phone and PBX can communicate with each other over the subnets.
- 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.

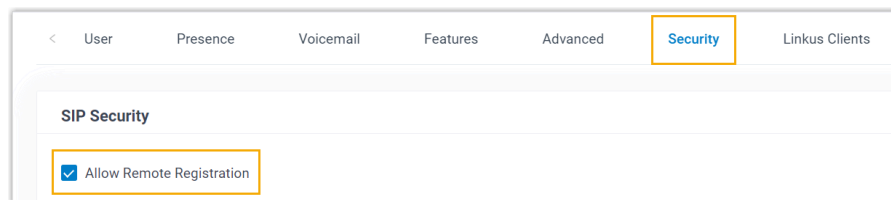
Procedure

- [Step 1. Enable Remote Registration feature for the extension on PBX](#)
- [Step 2. Add the Dinstar IP phone on the PBX](#)
- [Step 3. Configure DHCP option 66 on DHCP server](#)

Step 1. Enable Remote Registration feature for the extension on PBX

Enable the Remote Registration feature for the extension to be assigned to the phone, so that the extension can be registered in a different subnet.

1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, edit the desired extension.
2. Click **Security** tab, select the checkbox of **Allow Remote Registration** in the **SIP Security** section.



3. Click **Save** and **Apply**.

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

IP Phone

* Vendor: Dinstar

* Model: C60S

* MAC Address: XXXXXXXXXXXX

- **Vendor:** Select **Dinstar**.
- **Model:** Select a phone model. In this example, select **C60S**.
- **MAC Address:** Enter the MAC address of the IP phone.

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

Options

* Template: YSDP_Dinstar

* Provisioning Method: DHCP (In the Office)

Provisioning Link: http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB

- **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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.

Assign Extension

* Select Extension: 3000-Leo Ball



Note:

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



- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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 3. 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.

| Options | |
|-----------------------|--|
| * Template | YSDP_Dinstar |
| * Provisioning Method | DHCP (In the Office) |
| Provisioning Link | http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB |

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

In this example, the configuration on a router's DHCP server is shown below.

Interfaces » LAN

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

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

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

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

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

DHCP-Options

 ? Define additional DHCP options, for example "6,192.168.2.1,192.168.2.2" which advertises different DNS servers to clients.

Result



Note:

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

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

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|--------|-----------|----------|---------|-------|------------|-------------|------------|
| <input type="checkbox"/> | | 3000 | Leo Ball | Dinstar | C60S | - | *****@ | |

Related information

[Auto Provision LDAP for IP Phones](#)

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


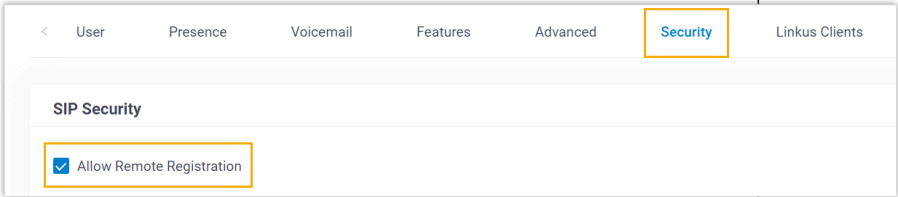
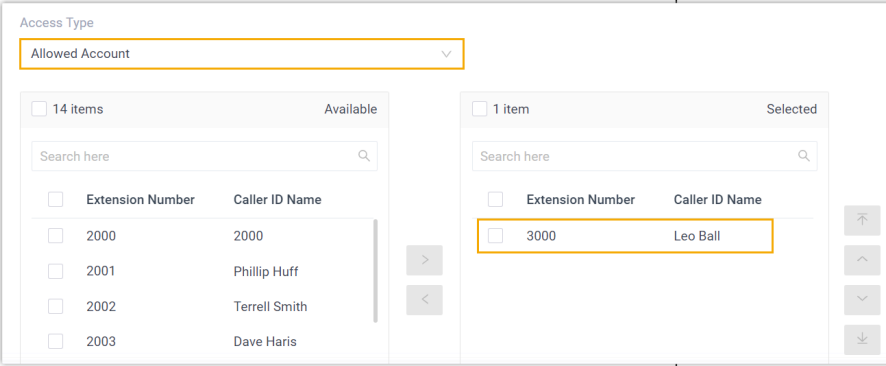
This topic takes Dinstar C60S (firmware: 2.60.11.7.0) as an example to introduce how to manually register an extension on a Dinstar IP phone.


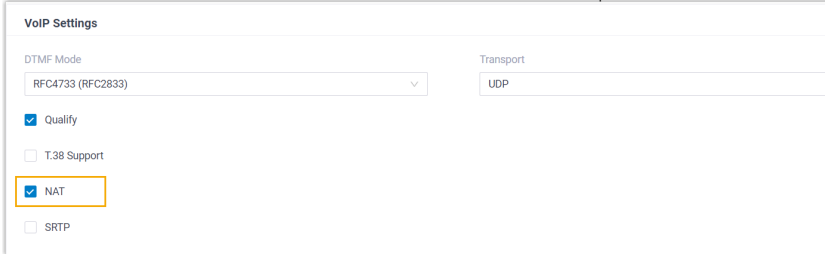

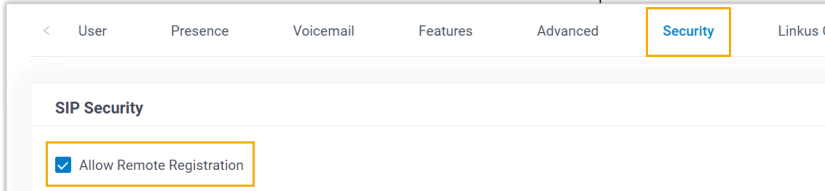
Supported devices

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

Prerequisites

Make sure that you have completed the corresponding settings shown below according to the network environment of **Dinstar IP phone** and **Yeastar PBX**.

| Network Environment | | Setting |
|---------------------|---|---|
| Local Network | Register extension in the same subnet | / |
| | Register extension in different subnets | <p>Enable the Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).</p>  |
| Remote Network | Register extension using Yeastar FQDN | <ul style="list-style-type: none"> • Grant remote SIP access permission for the extension (Path: System > Network > Yeastar FQDN > Features > SIP Access).  |


| Network Environment | | Setting |
|--|--|---|
| Register extension using Public IP address / External Host domain name | | <ul style="list-style-type: none"> • Configure PBX network for remote access by a public IP address or by an external host domain name. • Set up the extension for remote registration. <ul style="list-style-type: none"> ◦ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT).  <ul style="list-style-type: none"> ◦ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).  |



Procedure

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

Step 1. Gather registration information on Yeastar PBX

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

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

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

| Information | Instruction |
|-----------------------|--|
| | <p>In this scenario, you can directly utilize the PBX's private IP address for extension registration.</p> <div> </div> <p>Note: This topic provides the configuration example based on this scenario, where the PBX's private IP address is 192.168.28.39.</p> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN, note down the PBX's Fully Qualified Domain Name (FQDN).</p> <div> <div> Status <div> ● Successfully connected to the tunnel server. </div> </div> <div> Fully Qualified Domain Name (FQDN) <div> yeastardocs.ras.yeastar.com </div> <p>ⓘ The domain name can be configured only once and cannot be altered after the configuration.</p> </div> </div> <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> <p>Go to System > Network > Public IP and Ports, note down the PBX's public IP address or external host domain name.</p> <div> <div> Public IP (NAT) <div> NAT Type <div>Public IP Address</div> <div>Public IP Address</div> <div>110.35.77.110</div> </div> </div> <div> Public IP (NAT) <div> NAT Type <div>External Host</div> <div>External Host</div> <div>yeastar_docstest.com</div> </div> </div> <div> Public IP (NAT) <div> NAT Type <div>Yeastar Domain</div> <div>Yeastar Domain</div> <div>yeastardocs.cloudipbx.smaripbx.cn</div> </div> </div> </div> |
| SIP registration port | <p>Scenario: Register extension in local network</p> <p>Go to System > Network > Service Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p> <div> <div> HTTPS <div>8088</div> </div> <div> HTTP <div>80</div> </div> <div> SIP UDP <div>5060</div> </div> <div> SIP TCP <div>5060</div> </div> <div> SIP TLS <div>5061</div> </div> <div> Outbound SIP Port <div>5062-5082</div> </div> </div> <p>In this example, we use the SIP UDP port 5060.</p> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN > Features > SIP Access, note down the SIP registration port corresponding to the extension's transport protocol.</p> |

| Information | Instruction |
|-------------|---|
| | <div> <div> Features <div> <div>SIP Access</div> <div>Remote Access</div> </div> <div> <p>Before enabling this feature, please make sure your extensions are using strong registration passwords, or it might bring security risks.</p> </div> <div> <p>* Status</p> <div>Enabled</div> </div> <div> <div>Remote Access Service Port-SIP UDP&TCP</div> <div>Remote Access Service Port-SIP TLS</div> </div> <div> <div>5060</div> <div>5061</div> </div> </div> </div> <div> <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> <p>Go to System > Network > Public IP and Ports > Public Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p> </div> <div> Public Ports <div> <div>External SIP UDP Port</div> <div>External SIP TCP Port</div> </div> <div> <div>18205</div> <div>18205</div> </div> <div> <div>External SIP TLS Port</div> <div>External Linkus Port</div> </div> <div> <div>18208</div> <div></div> </div> </div> |

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.

The screenshot shows the Dinstar web interface for configuring a SIP account. The top navigation bar includes 'Status', 'Account' (highlighted), 'Network', 'Phone', 'PhoneBook', 'Upgrade', and 'Security'. The left sidebar has 'Basic' (highlighted), 'Advanced', and 'Codecs'. The main content area is titled 'SIP Account' and contains the following fields:

- Status: Disabled
- Account: Account1
- Active: Enabled
- Display Label: Leo Ball
- Display Name:
- Register Name: birKhcOMdW
- Username: 3000
- Password:

Below the 'SIP Account' section is the 'SIP Server 1' section with the following fields:

- Server IP: 192.168.28.39
- Port: 5060
- Registration Expires: 600 (30~65535s)

- 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 IP address / 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.

DINSTAR

StatusAccountNetworkPhonePhoneBookUpgradeSecurity

Basic

Advanced

Codecs

SIP Account

| | |
|---------------|----------------------|
| Status | Registered |
| Account | Account1: Leo Ball ▾ |
| Active | Enabled ▾ |
| Display Label | Leo Ball |
| Display Name | |
| Register Name | birKhcOMdW |
| Username | 3000 |
| Password | •••••••• |

Poly

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

This topic takes Poly VVX_450 (firmware: 6.4.6.2494) as an example to describe how to auto provision Poly IP phones with Yeastar P-Series Software Edition.

Requirements

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


| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-----------|----------------------|---------------------|---|
| Edge_E100 | 8.0.0.15602 or later | 83.15.0.22 or later | <ul style="list-style-type: none">• DHCP• RPS• Provision Link |
| Edge_E220 | 8.0.0.15602 or later | 83.15.0.22 or later | <ul style="list-style-type: none">• DHCP• RPS• Provision Link |
| Edge_E300 | 8.0.0.15602 or later | 83.15.0.22 or later | <ul style="list-style-type: none">• DHCP• RPS• Provision Link |
| Edge_E320 | 8.0.0.15602 or later | 83.15.0.22 or later | <ul style="list-style-type: none">• DHCP• RPS• Provision Link |
| Edge_E350 | 8.0.0.15602 or later | 83.15.0.22 or later | <ul style="list-style-type: none">• DHCP• RPS• Provision Link |
| Edge_E400 | 8.0.0.15602 or later | 83.15.0.22 or later | <ul style="list-style-type: none">• DHCP• RPS• Provision Link |
| Edge_E450 | 8.0.0.15602 or later | 83.15.0.22 or later | <ul style="list-style-type: none">• DHCP• RPS• Provision Link |
| Edge_E500 | 8.0.0.15602 or later | 83.15.0.22 or later | <ul style="list-style-type: none">• DHCP• RPS• Provision Link |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-----------|----------------------|---------------------|---|
| Edge_E550 | 8.0.0.15602 or later | 83.15.0.22 or later | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| VVX_101 | 6.4.3.5059 or later | 83.15.0.22 or later | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| VVX_201 | 6.4.3.5059 or later | 83.15.0.22 or later | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| VVX_301 | 6.4.3.5059 or later | 83.15.0.22 or later | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| VVX_310 | 5.9.8 or later | 83.15.0.22 or later | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| VVX_311 | 6.4.3.5059 or later | 83.15.0.22 or later | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| VVX_401 | 6.4.3.5059 or later | 83.15.0.22 or later | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| VVX_410 | 5.9.8 or later | 83.15.0.22 or later | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| VVX_411 | 6.4.3.5059 or later | 83.15.0.22 or later | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| VVX_501 | 6.4.3.5059 or later | 83.15.0.22 or later | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| VVX_601 | 6.4.3.5059 or later | 83.15.0.22 or later | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| VVX_150 | 6.4.3.5059 or later | 83.15.0.22 or later | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| VVX_250 | 6.4.3.5059 or later | 83.15.0.22 or later | <ul style="list-style-type: none"> • DHCP • RPS |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|---------|---------------------|---------------------|---|
| | | | <ul style="list-style-type: none"> • Provision Link |
| VVX_350 | 6.4.3.5059 or later | 83.15.0.22 or later | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |
| VVX_450 | 6.4.3.5059 or later | 83.15.0.22 or later | <ul style="list-style-type: none"> • DHCP • RPS • Provision Link |

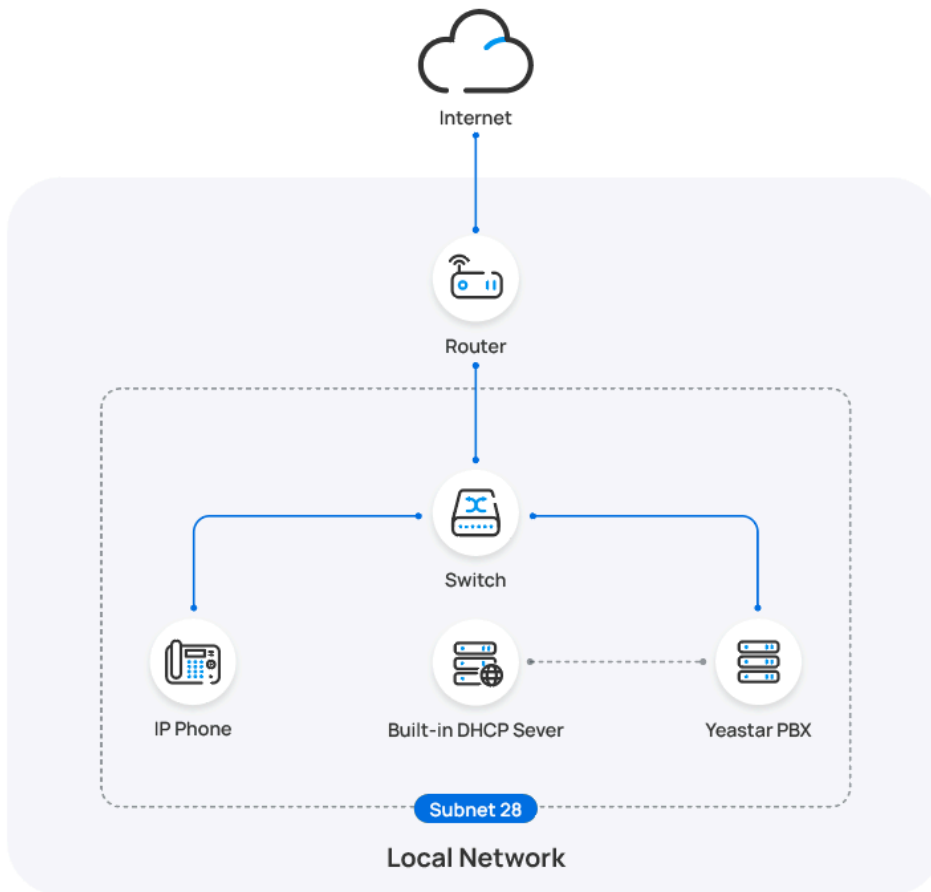
Scenarios

The provisioning methods and operations vary depending on the network environment of **Poly IP Phone** and **Yeastar PBX**, as the following table shows.

| Scenario | Description |
|---|---|
| IP Phone and PBX are in the SAME subnet (LAN) | <p>In this scenario, you can provision the Poly IP phone using the PBX built-in DHCP server to deliver a PBX-provided provisioning link to the IP phone. In this way, the phone can retrieve configurations from the PBX using the given link.</p> <div>  Note: If there is already a DHCP server running in the subnet, you can directly set up DHCP option 66 with PBX-provided provisioning link on the DHCP server. </div> <p>For more information, see Auto provision a Poly IP phone in the same subnet.</p> |
| IP Phone and PBX are in DIFFERENT subnets (LAN) | <p>In this scenario, you can provision the Poly IP phone using DHCP option 66 of a third-party DHCP server to deliver a PBX-provided provisioning link to the IP phone. In this way, the phone can retrieve configurations from the PBX using the given link.</p> <p>For more information, see Auto provision a Poly IP phone in different subnets.</p> |
| IP Phone and PBX are in DIFFERENT network | <p>In this scenario, you can provision the Poly IP phone with the PBX via RPS method.</p> <p>For more information, see Auto provision a Poly IP phone in remote network.</p> |

Auto provision a Poly IP phone in the same subnet

In this example, the Poly IP phone and the Yeastar PBX (IP: 192.168.28.39) are both deployed in subnet 28.



Prerequisites

- Make sure that there is only one DHCP server running in the subnet, or the IP phone 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**).
- RESET the IP phone if it is previously used.
- Gather information of IP phone, including Vendor, Model, and MAC address.

Procedure

- [Step 1. Set the PBX as a DHCP server](#)
- [Step 2. Add the Poly IP phone on PBX](#)

Step 1. Set the PBX as a DHCP server

1. Log in to PBX web portal, go to **System > Network**, click **DHCP Server** tab.
2. Turn on the **DHCP Server**, and complete the following network configurations.

The screenshot shows the 'DHCP Server' configuration page. At the top, there are tabs: Basic Settings, Web Server, Service Ports, Yeastar FQDN, Public IP and Ports, Static Routes, and DHCP Server. The 'DHCP Server' tab is selected. Below the tabs, there is a 'Status' section with a 'Stopped' indicator. A yellow box highlights the configuration fields: Gateway (192.168.28.1), Subnet Mask (255.255.255.0), Preferred DNS Server (223.5.5.5), Alternative DNS Server (114.114.114.114), DHCP Address Range (192.168.28.204 - 192.168.28.206), and NTP Server (192.168.28.39).

- **Gateway:** Specify the IP address of the default gateway for the DHCP server.
- **Subnet Mask:** Specify the subnet mask used to subdivide your IP address.
- **Preferred DNS Server:** Specify a DNS server for the DHCP server.
- **Alternative DNS Server:** Optional. Specify a secondary DNS server for the DHCP server.
- **DHCP Address Range:** Specify the IP address range that will be allocated to DHCP clients.
- **NTP Server:** Enter the IP address of an NTP server.



Note:

The default value is the IP address of the PBX, which can synchronize the network time of the client devices with the PBX.

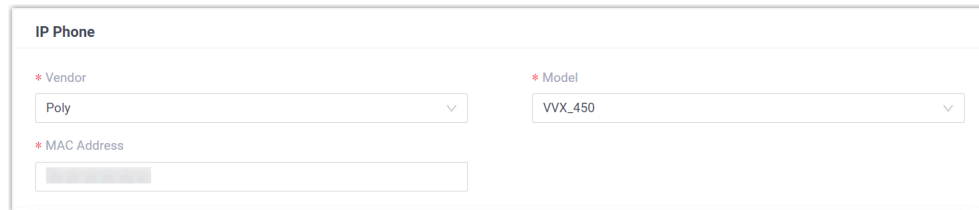
3. Click **Save**.

The **Status** field displays **Running**, indicating the DHCP server is running.

The screenshot shows the 'Status' field with a green dot and the text 'Running'.

Step 2. Add the Poly IP phone on PBX

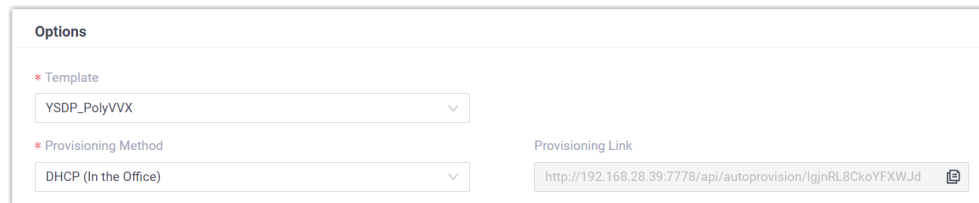
1. On PBX web portal, go to **Auto Provisioning > Phones**.
2. Click **Add > Add**.
3. In the **IP Phone** section, enter the following phone information.



The screenshot shows the 'IP Phone' configuration section. It contains three fields:

- * Vendor:** A dropdown menu with 'Poly' selected.
- * Model:** A dropdown menu with 'VVX_450' selected.
- * MAC Address:** A text input field that is currently greyed out.

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



The screenshot shows the 'Options' configuration section. It contains three fields:

- * Template:** A dropdown menu with 'YSDP_PolyVVX' selected.
- * Provisioning Method:** A dropdown menu with 'DHCP (In the Office)' selected.
- Provisioning Link:** A text input field containing the URL 'http://192.168.28.39:7778/api/autoprovision/lqjnRL8CkoYFXWJd'.

- **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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.

Assign Extension

* Select Extension

3000-Leo Ball



Note:

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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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**.

Result



Note:

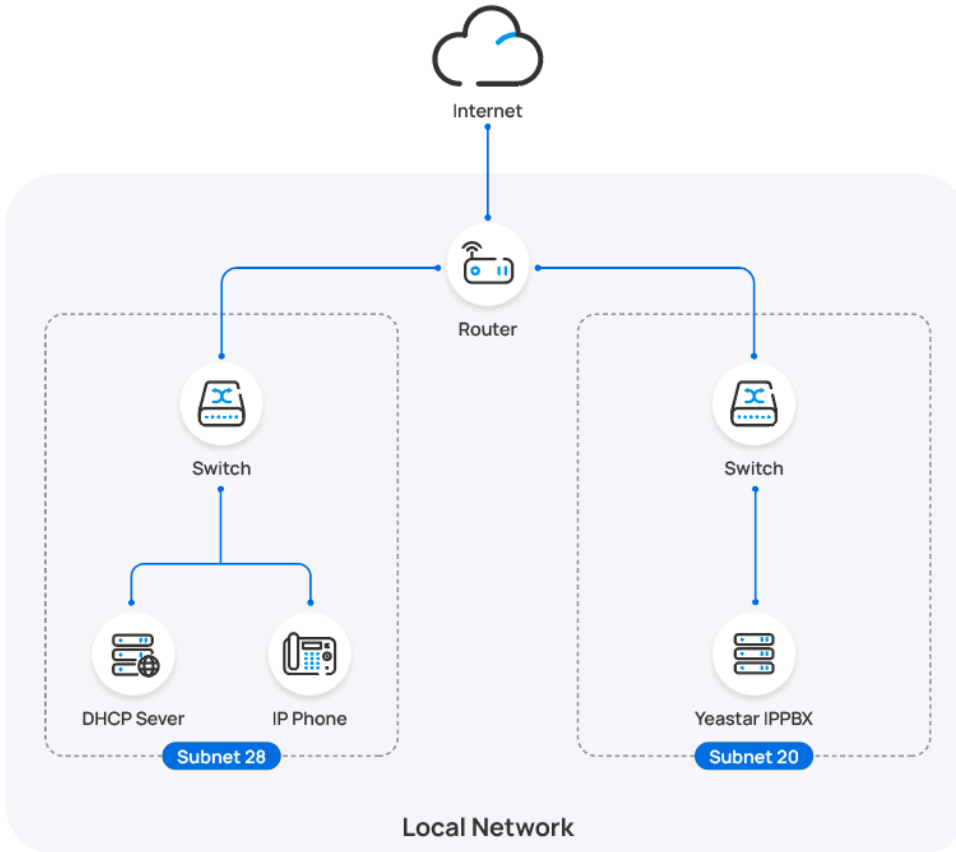
Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

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

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Password | Operations |
|--------------------------|--------|-----------|----------|--------|---------|------------|----------------|------------|
| <input type="checkbox"/> | | 3000 | Leo Ball | Poly | VVX_450 | - | *****@ | |

Auto provision a Poly IP phone in different subnets

In this example, the Poly IP phone and a DHCP server are deployed in subnet 28, while the Yeastar PBX (IP: 192.168.20.58) is deployed in subnet 20.



Prerequisites

- Make sure that there is only one DHCP server running in the subnet where the IP phone is deployed, or the IP phone would fail to obtain an IP address.
- Make sure that the IP phone and PBX can communicate with each other over the subnets.
- 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.

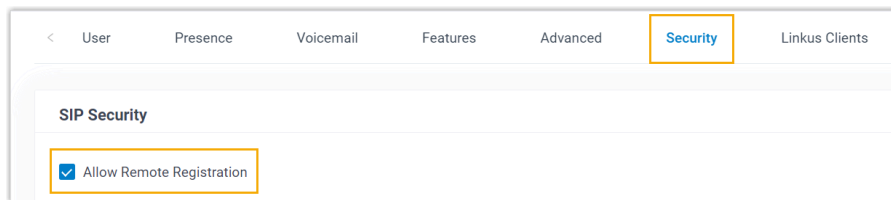
Procedure

- [Step 1. Enable Remote Registration feature for the extension on PBX](#)
- [Step 2. Add the Poly IP phone on PBX](#)
- [Step 3. Configure DHCP option 66 on DHCP server](#)

Step 1. Enable Remote Registration feature for the extension on PBX

Enable the Remote Registration feature for the extension to be assigned to the phone, so that the extension can be registered in a different subnet.

1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, edit the desired extension.
2. Click **Security** tab, select the checkbox of **Allow Remote Registration** in the **SIP Security** section.



3. Click **Save** and **Apply**.

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

 A screenshot of the 'IP Phone' configuration form. It has three fields: '* Vendor' with a dropdown menu showing 'Poly', '* Model' with a dropdown menu showing 'VVX_450', and '* MAC Address' with a text input field.

- **Vendor:** Select **Poly**.
- **Model:** Select the phone model. In this example, select **VVX_450**.
- **MAC Address:** Enter the MAC address of the IP phone.

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

The screenshot shows the 'Options' configuration section. It contains three main fields: a 'Template' dropdown menu with 'YSDP_PolyVXX' selected, a 'Provisioning Method' dropdown menu with 'DHCP (In the Office)' selected, and a 'Provisioning Link' text field containing the URL 'http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB'.

- **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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.

The screenshot shows the 'Assign Extension' configuration section. It contains a single dropdown menu labeled 'Select Extension' with '3000-Leo Ball' selected.



Note:

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

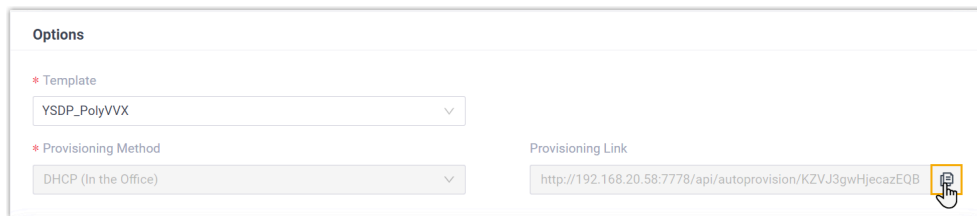
- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [configure the concurrent registration setting for the extension](#),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

6. Click **Save**.

Step 3. Configure DHCP option 66 on DHCP server

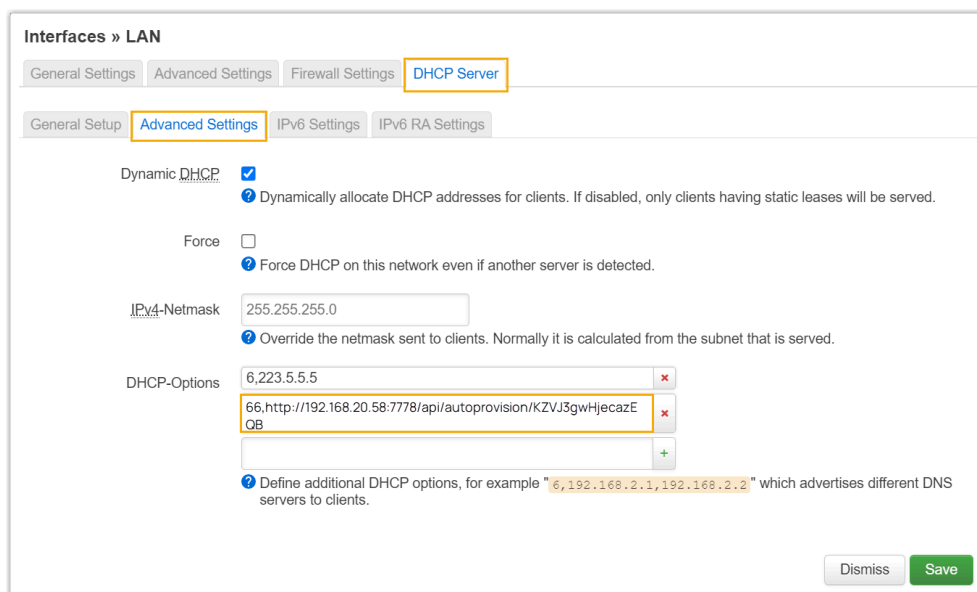
In the subnet where the IP phone is deployed, use the generated provisioning link to configure option 66 on the DHCP Server.

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

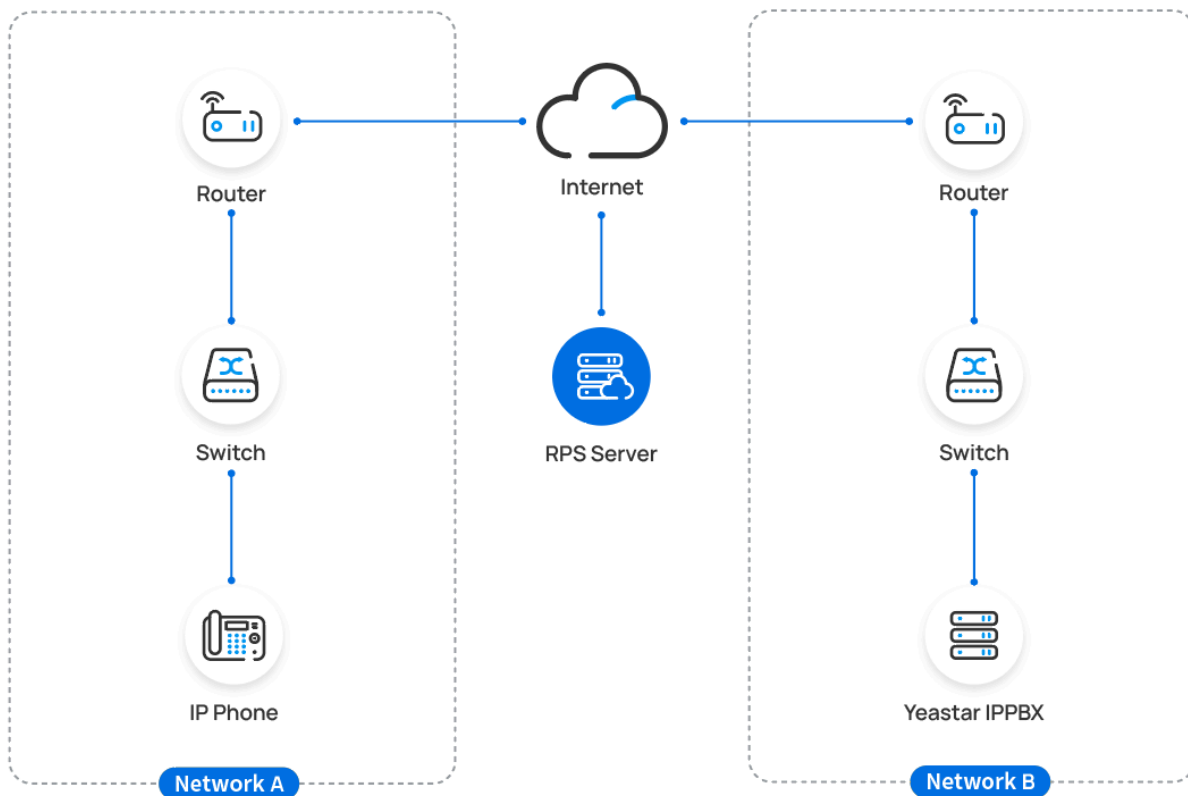
- After the IP phone is rebooted, it gets an IP address from the DHCP server, downloads the configurations from the PBX via the provisioning link, and applies the settings automatically.

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

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Password | Operations |
|--------------------------|--------|-----------|----------|--------|---------|------------|----------------|------------|
| <input type="checkbox"/> | | 3000 | Leo Ball | Poly | VVX_450 | - | *****@ | |

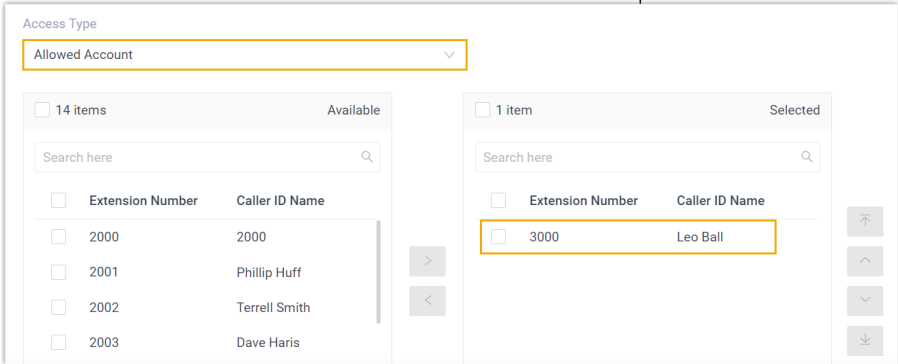
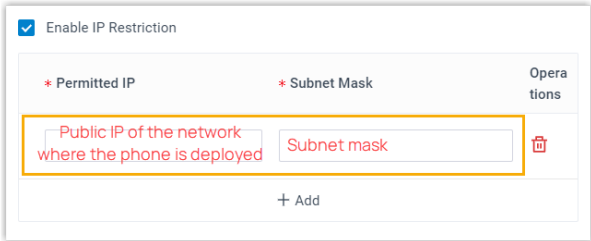

Auto provision a Poly IP phone in remote network



In this example, the Poly IP phone and the Yeastar PBX are deployed in different network.



Prerequisites

Yeastar P-Series Software Edition supports to auto provision a Poly phone remotely either using **Yeastar FQDN** or using **Public IP address / domain name**. According to the provisioning method you intend to use, make sure that you have completed the corresponding setup shown below.

| Method | Setting |
|---|---|
| Using Yeastar FQDN | <ul style="list-style-type: none"> Subscribe to Enterprise Plan or Ultimate Plan for the PBX and ensure the FQDN is available. Grant remote access permission for extension to be registered and the remote IP phones: <ul style="list-style-type: none"> Grant remote SIP access permission for the extension, so that the extension can be registered remotely via FQDN (Path: System > Network > Yeastar FQDN > Features > SIP Access).  <ul style="list-style-type: none"> If you have enabled IP restriction for Yeastar FQDN remote Web access, make sure that you have added the phone's IP address to the permitted IP list, so that the phone can obtain configuration files from the PBX (Path: System > Network > Yeastar FQDN > Features > Remote Access > Web Access).  <ul style="list-style-type: none"> 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. |
| Using Public IP address / external host / Yeastar domain name | <ul style="list-style-type: none"> Configure PBX network for remote access by a public IP address, by an external host domain name, or by a Yeastar domain name. <div style="background-color: #fff9c4; padding: 10px; border: 1px solid #f0e68c;"> <p> Important:</p> </div> |

| Method | Setting |
|--------|---|
| | <div><div><div><div>!</div><div>The following PBX ports MUST be forwarded for RPS provisioning.<ul style="list-style-type: none">◦ RTP ports◦ SIP port◦ Web Server port</div></div></div><div><ul style="list-style-type: none">• Set up the extension for remote registration.<ul style="list-style-type: none">◦ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT).</div><div><div><div><div>VoIP Settings</div><div><div>DTMF Mode</div><div>RFC4733 (RFC2833)</div><div>Transport</div><div>UDP</div><div><div><div><input checked="" type="checkbox"/> Qualify</div><div><input type="checkbox"/> T.38 Support</div><div><input checked="" type="checkbox"/> NAT</div><div><input type="checkbox"/> SRTP</div></div></div></div></div></div><div><ul style="list-style-type: none">◦ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).</div><div><div><div><div>UserPresenceVoicemailFeaturesAdvancedSecurityLinkus Clients</div><div><div>SIP Security</div><div><div><input checked="" type="checkbox"/> Allow Remote Registration</div></div></div></div></div></div><div><ul style="list-style-type: none">• 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.</div></div></div> |

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.

The form is titled "IP Phone". It contains three fields:

- * Vendor:** A dropdown menu with "Poly" selected.
- * Model:** A dropdown menu with "VVX_450" selected.
- * MAC Address:** An empty text input field.

- **Vendor:** Select **Poly**.
- **Model:** Select the phone model. In this example, select **VVX_450**.
- **MAC Address:** Enter the MAC address of the IP phone.

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

Figure 21. RPS using Yeastar FQDN

The form is titled "Options". It contains:

- * Template:** A dropdown menu with "YSDP_PolyVVX" selected.
- * Provisioning Method:** A dropdown menu with "RPS FQDN (Remote)" selected.
- Provisioning Link:** A text field displaying the URL: `https://yeastardocs.ras.yeastar.com:443/api/autoprovision/H70R1oiI`.

Figure 22. RPS using Public IP Address / External Host domain name / Yeastar Domain

The form is titled "Options". It contains:

- * Template:** A dropdown menu with "YSDP_PolyVVX" selected.
- * Provisioning Method:** A dropdown menu with "RPS (Remote)" selected.
- Provisioning Link:** A text field displaying the URL: `https://110.35.77.110:18207/api/autoprovision/H70R1oiPnIJCnp6L`.

- **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 Method:** Select **RPS FQDN (Remote)** or **RPS (Remote)** according to your need.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.

Assign Extension

* Select Extension

3000-Leo Ball



Note:

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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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 extension registration status on **Auto Provisioning > Phones** on the PBX web portal.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Password | Operations |
|--------------------------|---|-----------|----------|--------|---------|------------|----------------|---|
| <input type="checkbox"/> |  | 3000 | Leo Ball | Poly | VVX_450 | - | *****@ |     |

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


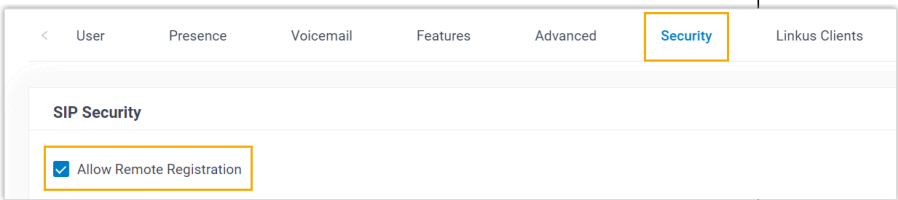
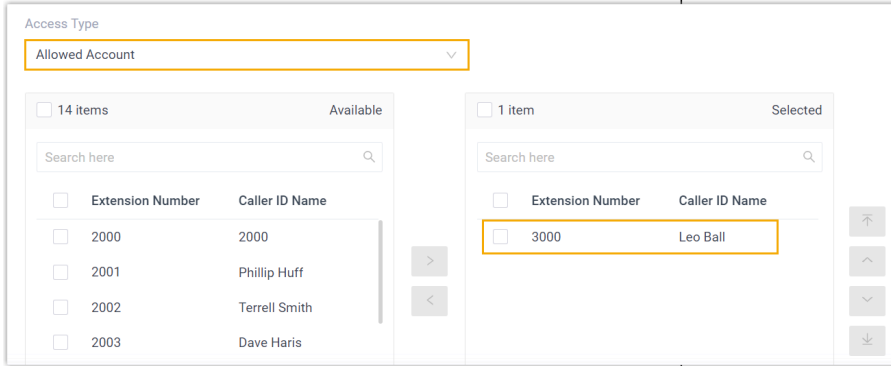
This topic takes Poly VVX_450 (firmware: 6.4.6.2494) as an example to introduce how to manually register an extension on a Poly IP phone.


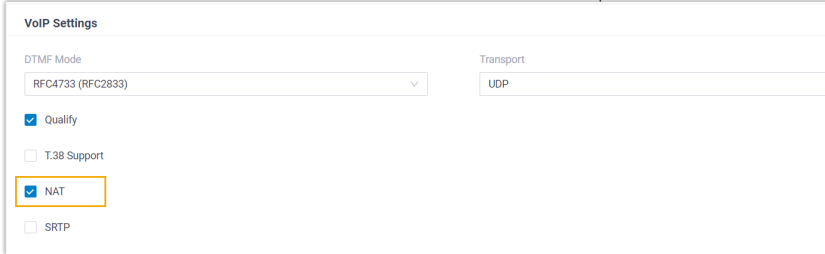

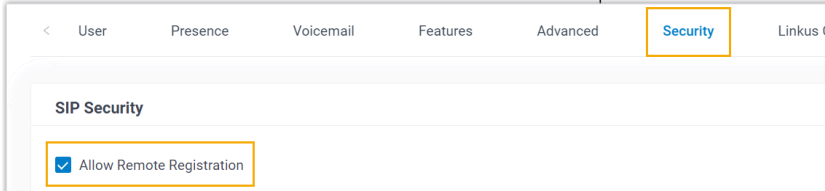
Supported devices

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

Prerequisites

Make sure that you have completed the corresponding settings according to the network environment of **Poly IP phone** and **Yeastar PBX**.

| Network Environment | | Setting |
|---------------------|---|---|
| Local Network | Register extension in the same subnet | / |
| | Register extension in different subnets | <p>Enable the Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).</p>  |
| Remote Network | Register extension using Yeastar FQDN | <ul style="list-style-type: none"> Grant remote SIP access permission for the extension (Path: System > Network > Yeastar FQDN > Features > SIP Access).  |


| Network Environment | | Setting |
|--|--|---|
| Register extension using Public IP address / External Host domain name | | <ul style="list-style-type: none"> • Configure PBX network for remote access by a public IP address or by an external host domain name. • Set up the extension for remote registration. <ul style="list-style-type: none"> ◦ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT).  <ul style="list-style-type: none"> ◦ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).  |



Procedure

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

Step 1. Gather registration information on Yeastar PBX

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

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


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

| Information | Instruction |
|-----------------------|---|
| | <p>In this scenario, you can directly utilize the PBX's private IP address for extension registration.</p> <div> </div> <p>Note: This topic provides the configuration example based on this scenario, where the PBX's private IP address is 192.168.28.39.</p> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN, note down the PBX's Fully Qualified Domain Name (FQDN).</p> <div> </div> <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> <p>Go to System > Network > Public IP and Ports, note down the PBX's public IP address or external host domain name.</p> <div> </div> |
| SIP registration port | <p>Scenario: Register extension in local network</p> <p>Go to System > Network > Service Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p> <div> </div> <p>In this example, we use the SIP UDP port 5060.</p> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN > Features > SIP Access, note down the SIP registration port corresponding to the extension's transport protocol.</p> |

| Information | Instruction |
|-------------|---|
| | <div> <div> <div>Features</div> <div> <div>SIP Access</div> <div>Remote Access</div> </div> <div> <p>Before enabling this feature, please make sure your extensions are using strong registration passwords, or it might bring security risks.</p> </div> <div> <div>* Status</div> <div>Enabled</div> </div> <div> <div>Remote Access Service Port-SIP UDP&TCP</div> <div>5060</div> </div> <div> <div>Remote Access Service Port-SIP TLS</div> <div>5061</div> </div> </div> </div> <div> <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> <p>Go to System > Network > Public IP and Ports > Public Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p> </div> <div> <div>Public Ports</div> <div> <div>External SIP UDP Port</div> <div>18205</div> </div> <div> <div>External SIP TCP Port</div> <div>18205</div> </div> <div> <div>External SIP TLS Port</div> <div>18208</div> </div> <div> <div>External Linkus Port</div> <div></div> </div> </div> |

Step 2. Register extension on Poly IP phone

1. Enable the web server on the IP phone.

- Press  on the phone to access the **Main Menu**.
- Go to **Settings > Advanced**.
- In the **Enter Password** field, enter the administrator password, then press **Enter**.

In this example, enter the default administrator password 456.

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



Web Server Configuration

| | |
|------------------|------------|
| Web Server: | Enabled |
| Web Config Mode: | HTTPS Only |

BackEdit

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

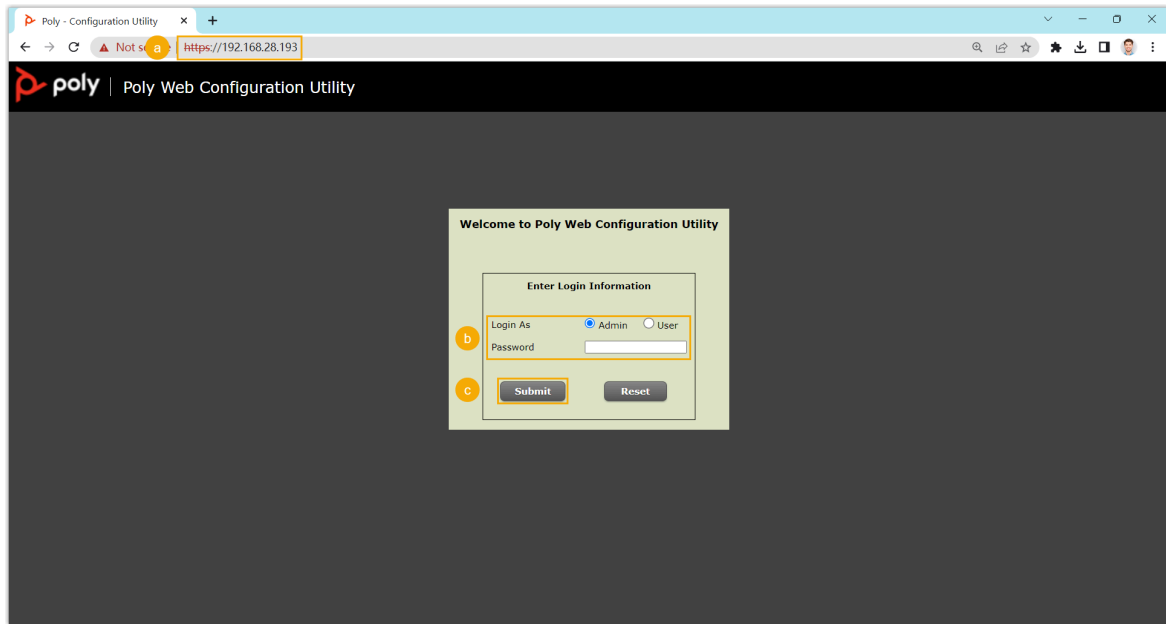
**Note:**

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.

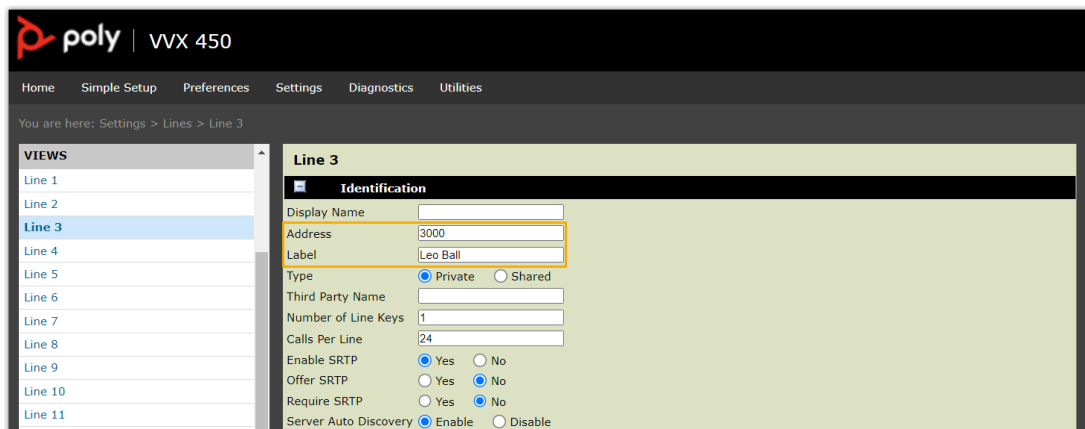
In this example, select the **Admin** account and enter the default administrator password 456.

- 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.

| Authentication | |
|-----------------------|---|
| Use Login Credentials | <input type="radio"/> Enable <input checked="" type="radio"/> Disable |
| Domain | |
| User ID | birKhcOMdW |
| Password | ***** |

- **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.

| Server 1 | |
|--------------------------|---|
| Special Interop | Standard |
| Address | 192.168.28.39 |
| Port | 5060 |
| Transport | UDPOnly |
| Expires (s) | 3600 |
| Subscription Expires (s) | 3600 |
| Register | <input checked="" type="radio"/> Yes <input type="radio"/> No |
| Retry Timeout (ms) | 0 |
| Retry Maximum Count | 3 |
| Line Seize Timeout (s) | 30 |

- **Special Interop:** Select **Standard**.
- **Address:** Enter the IP address / 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

Auto Provision Wildix IP Phone with Yeastar P-Series Software Edition

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

Requirements

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

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|---------|------------------------|---------------------|---|
| WP410R2 | 50.145.6.169 or later | 83.15.0.22 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| WP480R2 | 55.145.6.111 or later | 83.15.0.22 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| WP480R3 | 63.145.10.168 or later | 83.15.0.22 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| WP480R4 | 65.145.6.38 or later | 83.15.0.22 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| WP490R2 | 59.145.6.148 or later | 83.15.0.22 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| WP490R3 | 67.145.8.107 or later | 83.15.0.22 or later | <ul style="list-style-type: none">• DHCP• Provision Link |

Scenarios

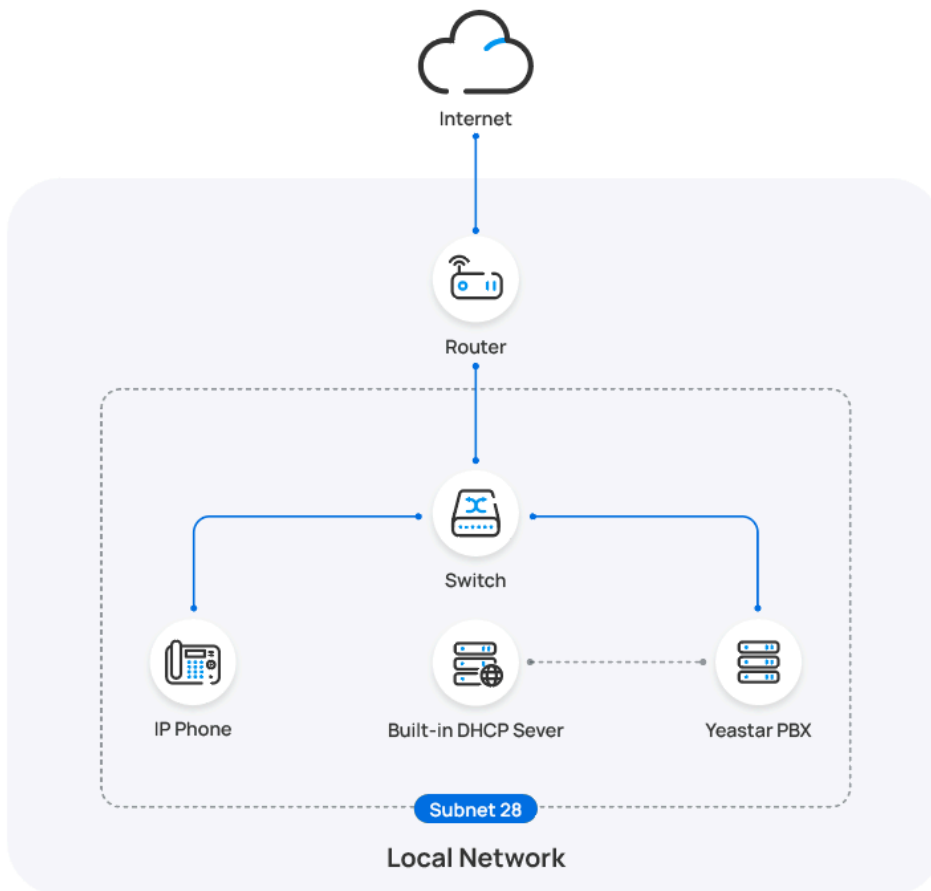
Yeastar P-Series Software Edition supports to auto provision Wildix IP phone via [DHCP method](#) in the local network. The provisioning operations vary depending on the network environment of **Wildix IP phone** and **Yeastar PBX**, as the following table shows.

| Scenario | Description |
|---|---|
| IP Phone and PBX are in the SAME subnet | In this scenario, you can provision the Wildix IP phone using the PBX built-in DHCP server to deliver a PBX-provided provisioning link to the IP phone. In this way, the phone can retrieve configurations from the PBX using the given link. |

| Scenario | Description |
|---|---|
| | <p>Note:</p> <p>If there is already a DHCP server running in the subnet, you can directly set up DHCP option 66 with PBX-provided provisioning link on the DHCP server.</p> <p>For more information, see Auto provision a Wildix IP phone in the same subnet.</p> |
| IP Phone and PBX are in DIFFERENT subnets | <p>In this scenario, you can provision the Wildix IP phone using DHCP option 66 of a third-party DHCP server to deliver a PBX-provided provisioning link to the IP phone. In this way, the phone can retrieve configurations from the PBX using the given link.</p> <p>For more information, see Auto provision a Wildix IP phone in different subnets.</p> |

Auto provision a Wildix IP phone in the same subnet

In this example, the Wildix IP phone and the Yeastar PBX (IP: 192.168.28.39) are both deployed in subnet 28.



Prerequisites

- Make sure that there is only one DHCP server running in the subnet, or the IP phone 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**).
- RESET the IP phone if it is previously used.
- Gather information of IP phone, including Vendor, Model, and MAC address.

Procedure

- [Step 1. Set the PBX as a DHCP server](#)
- [Step 2. Add the Wildix IP phone on PBX](#)

Step 1. Set the PBX as a DHCP server

1. Log in to PBX web portal, go to **System > Network**, click **DHCP Server** tab.
2. Turn on the **DHCP Server**, and complete the following network configurations.

The screenshot shows the 'DHCP Server' configuration page in a web portal. At the top, there are tabs for 'Basic Settings', 'Web Server', 'Service Ports', 'Yeastar FQDN', 'Public IP and Ports', 'Static Routes', and 'DHCP Server'. The 'DHCP Server' tab is active. Below the tabs, there is a 'DHCP Server' section with a status dropdown menu currently set to 'Stopped'. Below the status, there is a yellow box containing several configuration fields, each with a red asterisk indicating it is required. The fields are: 'Gateway' (192.168.28.1), 'Subnet Mask' (255.255.255.0), 'Preferred DNS Server' (223.5.5.5), 'Alternative DNS Server' (114.114.114.114), 'DHCP Address Range' (192.168.28.204 to 192.168.28.206), and 'NTP Server' (192.168.28.39).

- **Gateway:** Specify the IP address of the default gateway for the DHCP server.
- **Subnet Mask:** Specify the subnet mask used to subdivide your IP address.
- **Preferred DNS Server:** Specify a DNS server for the DHCP server.

- **Alternative DNS Server:** Optional. Specify a secondary DNS server for the DHCP server.
- **DHCP Address Range:** Specify the IP address range that will be allocated to DHCP clients.
- **NTP Server:** Enter the IP address of an NTP server.

**Note:**

The default value is the IP address of the PBX, which can synchronize the network time of the client devices with the PBX.

3. Click **Save**.

The **Status** field displays **Running**, indicating the DHCP server is running.

A screenshot of a web interface showing a 'Status' label above a text box. Inside the text box, there is a green dot followed by the word 'Running'.

Step 2. Add the Wildix IP phone on PBX

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

A screenshot of a web form titled 'IP Phone'. It contains three fields: 'Vendor' (a dropdown menu with 'Wildix' selected), 'Model' (a dropdown menu with 'WP480R3' selected), and 'MAC Address' (a text input field with a greyed-out placeholder).

- **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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.

**Note:**

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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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**.

Result



Note:

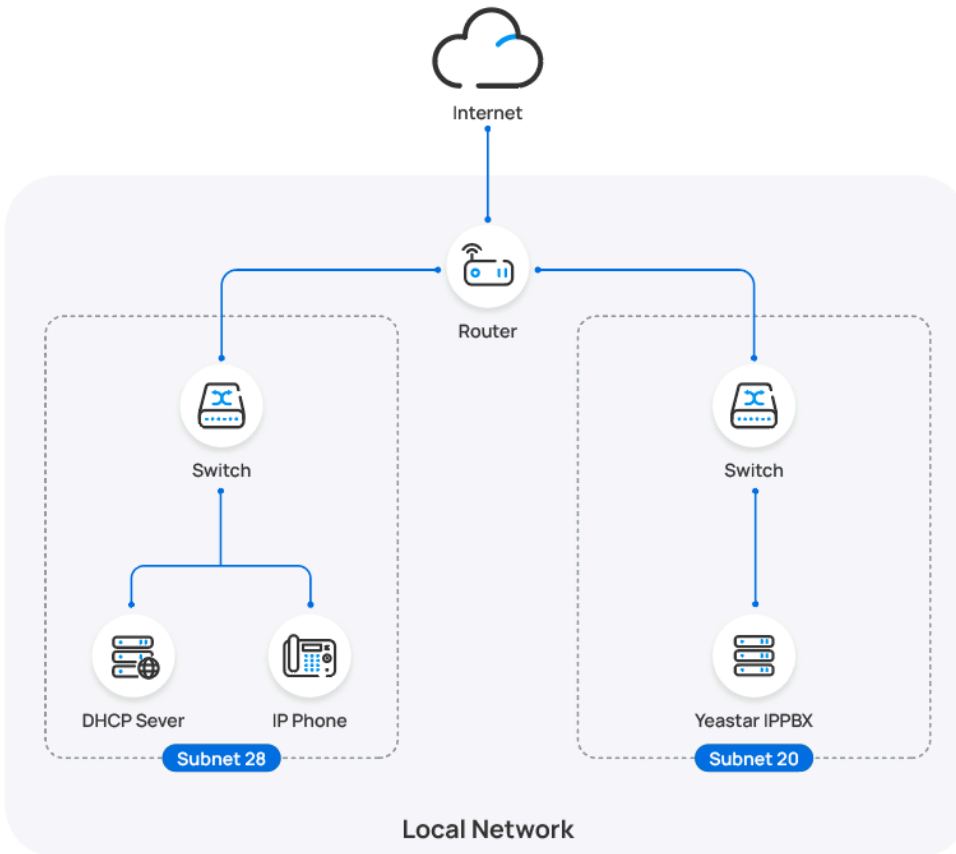
Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

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

| <input type="checkbox"/> | Status | Extension | Name | Vendor ↕ | Model ↕ | IP Address ↕ | Phone Passw | Operations |
|--------------------------|--------|-----------|----------|----------|---------|--------------|-------------|------------|
| <input type="checkbox"/> | | 3000 | Leo Ball | Wildix | WP480R3 | - | *****@ | |

Auto provision a Wildix IP phone in different subnets

In this example, the Wildix IP phone and a DHCP server are deployed in subnet 28, while the Yeastar PBX (IP: 192.168.20.58) is deployed in subnet 20.



Prerequisites

- Make sure that there is only one DHCP server running in the subnet where the IP phone is deployed, or the IP phone would fail to obtain an IP address.
- Make sure that the IP phone and PBX can communicate with each other over the subnets.
- 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

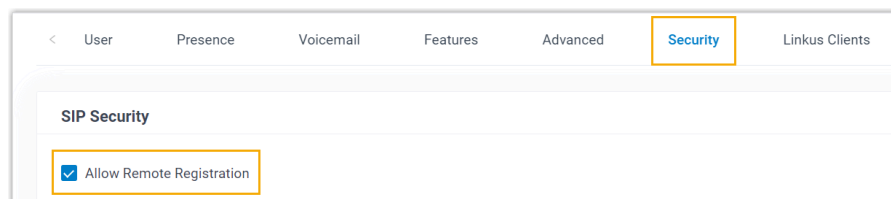
- [Step 1. Enable Remote Registration feature for the extension on PBX](#)
- [Step 2. Add the Wildix IP phone on PBX](#)

- [Step 3. Configure DHCP option 66 on DHCP server](#)

Step 1. Enable Remote Registration feature for the extension on PBX

Enable the Remote Registration feature for the extension to be assigned to the phone, so that the extension can be registered in a different subnet.

1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, edit the desired extension.
2. Click **Security** tab, select the checkbox of **Allow Remote Registration** in the **SIP Security** section.



3. Click **Save** and **Apply**.

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

 A screenshot of the 'IP Phone' configuration form. It contains three fields: 'Vendor' (a dropdown menu with 'Wildix' selected), 'Model' (a dropdown menu with 'WP480R3' selected), and 'MAC Address' (a text input field with a greyed-out placeholder). Each field is preceded by a red asterisk indicating it is required.

- **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.

Options

* Template
YSDP_WildixWP

* Provisioning Method
DHCP (In the Office)

Provisioning Link
http://192.168.20.58:7778/api/autoprovision/KZVJ3gwHjecazEQB

- **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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.

Assign Extension

* Select Extension
3000-Leo Ball



Note:

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

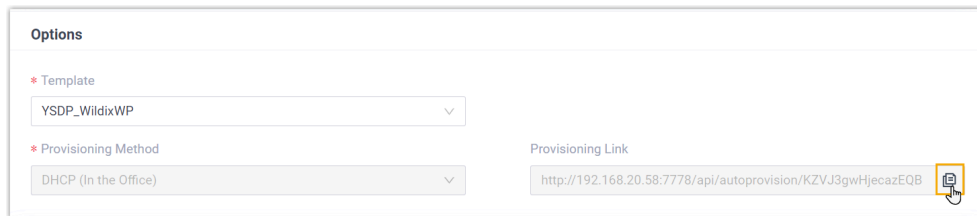
- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [configure the concurrent registration setting for the extension](#),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

6. Click **Save**.

Step 3. Configure DHCP option 66 on DHCP server

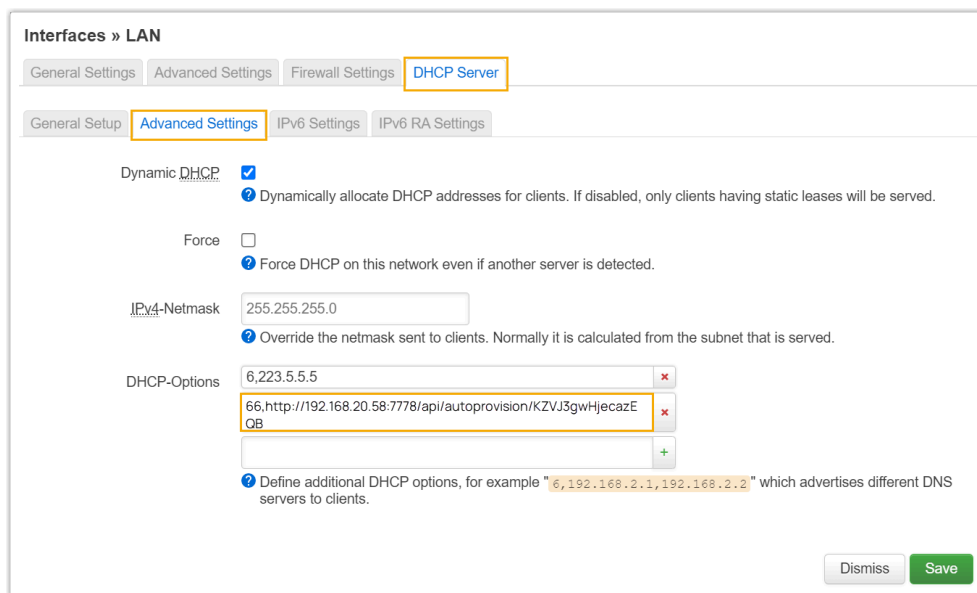
In the subnet where the IP phone is deployed, use the generated provisioning link to configure option 66 on the DHCP Server.

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

- 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 extension registration status on **Auto Provisioning > Phones** on the PBX web portal.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Passw | Operations |
|--------------------------|--------|-----------|----------|--------|---------|------------|-------------|------------|
| <input type="checkbox"/> | | 3000 | Leo Ball | Wildix | WP480R3 | - | *****@ | |

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

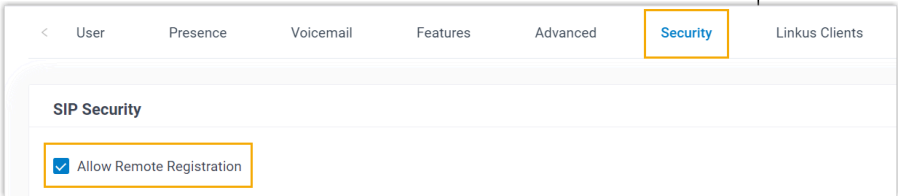
This topic takes Wildix WP480R3 (firmware: 63.145.10.168) as an example to introduce how to manually register an extension on a Wildix IP phone.

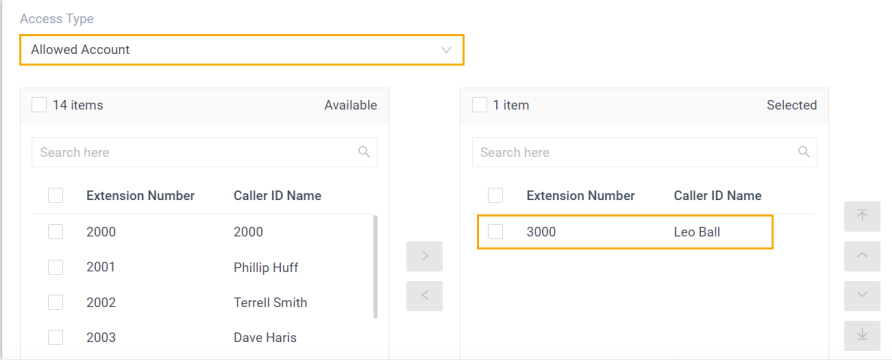

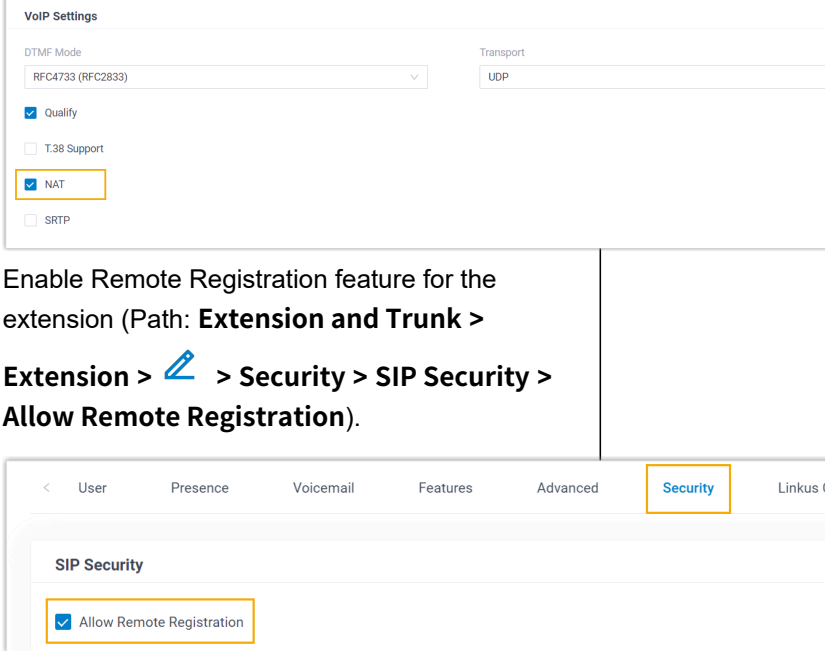

Supported devices

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

Prerequisites

Make sure that you have completed the corresponding settings according to the network environment of **Wildix IP phone** and **Yeastar PBX**.

| Network Environment | | Setting |
|---------------------|---|--|
| Local Network | Register extension in the same subnet | / |
| | Register extension in different subnets | <p>Enable the Remote Registration feature for the extension (Path: Extension and Trunk > Extension > > Security > SIP Security > Allow Remote Registration).</p>  |
| Remote Network | Register extension using Yeastar FQDN | <ul style="list-style-type: none"> Grant remote SIP access permission for the extension (Path: System > Network > Yeastar FQDN > Features > SIP Access). |


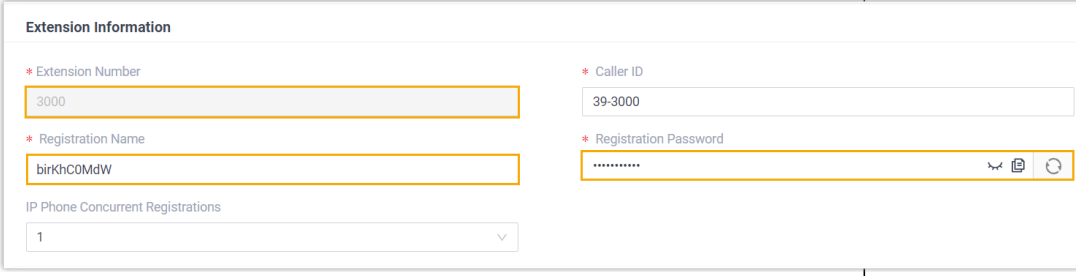

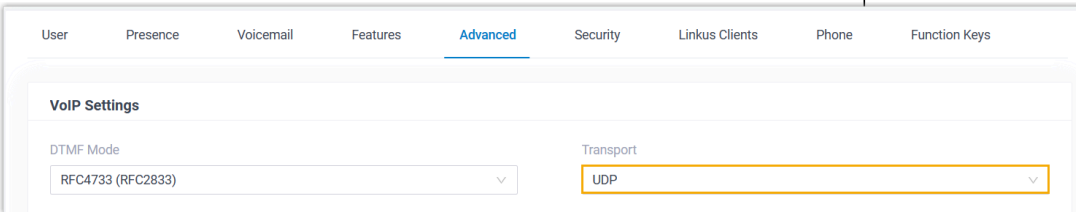

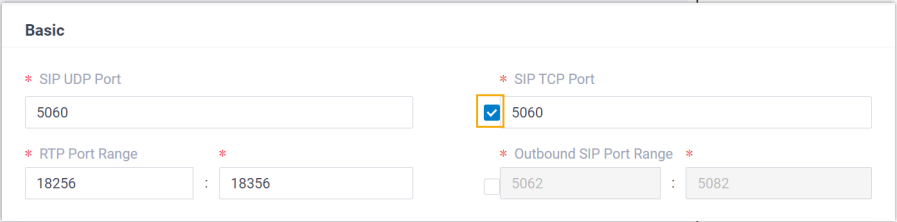
| Network Environment | Setting |
|--|--|
| Register extension using Public IP address / External Host domain name |  <ul style="list-style-type: none"> • Configure PBX network for remote access by a public IP address or by an external host domain name. • Set up the extension for remote registration. <ul style="list-style-type: none"> ◦ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT). |
| |  <ul style="list-style-type: none"> ◦ Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration). |

Procedure

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

Step 1. Gather registration information on Yeastar PBX

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

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

| Information | Instruction |
|-------------------------------|--|
| | <div></div> <ul style="list-style-type: none"> If the extension uses TLS transport protocol, make sure that the TLS is enabled on the PBX, or the registration would fail (Path: PBX Settings > SIP Settings > TLS). <div> </div> |
| PBX IP address or domain name | <p>Scenario: Register extension in local network</p> <p>In this scenario, you can directly utilize the PBX's private IP address for extension registration.</p> <div></div> <p>Note: This topic provides the configuration example based on this scenario, where the PBX's private IP address is 192.168.28.39.</p> <p>Scenario: Register extension remotely using Yeastar FQDN</p> <p>Go to System > Network > Yeastar FQDN, note down the PBX's Fully Qualified Domain Name (FQDN).</p> <div> </div> <p>Scenario: Register extension remotely using Public IP address / External Host domain name / Yeastar Domain</p> <p>Go to System > Network > Public IP and Ports, note down the PBX's public IP address or external host domain name.</p> <div> </div> |
| SIP registration port | <p>Scenario: Register extension in local network</p> <p>Go to System > Network > Service Ports, note down the SIP registration port corresponding to the extension's transport protocol.</p> |

| Information | Instruction |
|-------------|--|
| | <div> <div> <div>HTTPS</div> <div>8088</div> <div></div> </div> <div> <div>SIP UDP</div> <div>5060</div> <div></div> </div> <div> <div>SIP TLS</div> <div>5061</div> <div></div> </div> </div> <div> <div>HTTP</div> <div>80</div> <div></div> </div> <div> <div>SIP TCP</div> <div>5060</div> <div></div> </div> <div> <div>Outbound SIP Port</div> <div>5062-5082</div> <div></div> </div> |

Features

SIP Access

Remote Access

Before enabling this feature, please make sure your extensions are using strong registration passwords, or it might bring security risks.

* Status

Enabled

Remote Access Service Port-SIP UDP&TCP

5060

Remote Access Service Port-SIP TLS

5061

Public Ports

External SIP UDP Port

18205

External SIP TCP Port

18205

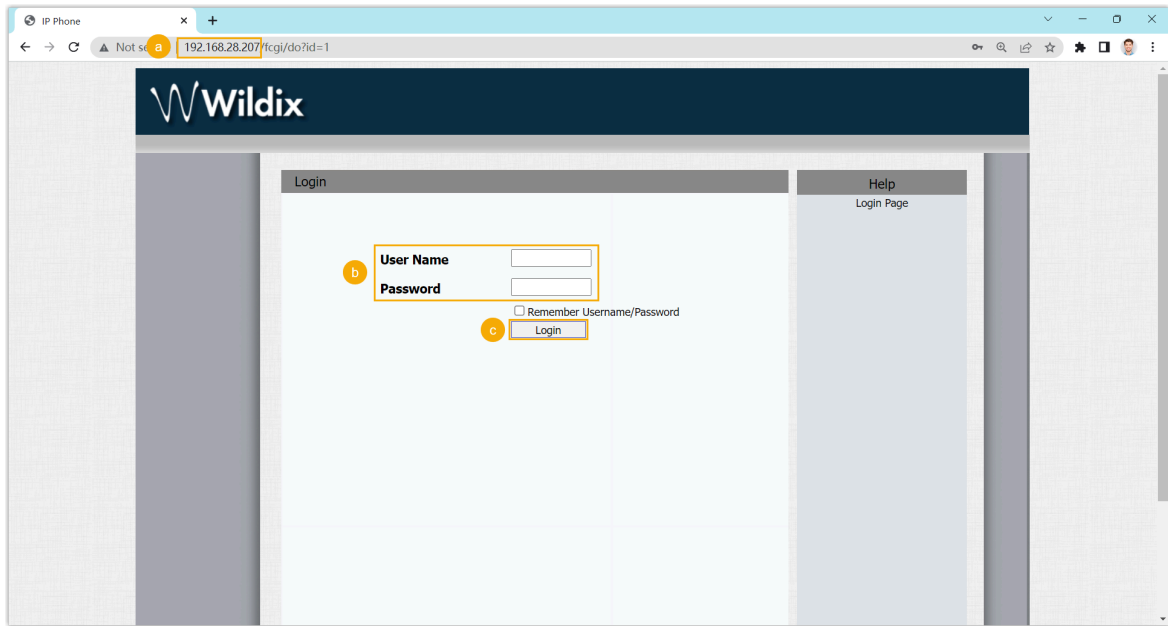
External SIP TLS Port

18208

External Linkus Port

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.

| SIP Account | |
|----------------|--------------|
| Status | UnRegistered |
| Account | Account 3 |
| Account Active | Enabled |
| Display Label | Leo Ball |
| Display Name | |
| Register Name | birKhcOMdW |
| User Name | 3000 |
| Password | |

- **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.

| SIP Server 1 | | |
|---------------------|---------------|-------------|
| Server IP | 192.168.28.39 | Port 5060 |
| Registration Period | 1800 | (30~65535s) |

- **Server IP:** Enter the IP address / 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.

| Transport Type | |
|----------------|-------|
| Transport Type | UDP ▼ |

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**.

| Account-Basic | |
|----------------|-------------|
| SIP Account | |
| Status | Registered |
| Account | Account 3 ▼ |
| Account Active | Enabled ▼ |
| Display Label | Leo Ball |
| Display Name | |
| Register Name | birKhcOMdW |
| User Name | 3000 |
| Password | •••••••• |

Huawei

Auto Provision Huawei IP Phone with Yeastar P-Series Software Edition

This topic takes HUAWEI eSpace 8950 as an example to describe how to auto provision Huawei IP phone with Yeastar P-Series Software Edition.

Requirements

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

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|---------------|---------------------------------|---------------------|---|
| eSpace 7910 | V200R003C30SPCf00 or later | 83.16.0.25 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| eSpace 7950 | V200R003C00SPCs00 or later | 83.16.0.25 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| IP Phone 7920 | V600R019C10SPC200 or later | 83.16.0.25 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| IP Phone 7960 | V600R019C10SPC202 or later | 83.16.0.25 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| eSpace 8950 | V200R003C00SPCg00 B015 or later | 83.16.0.25 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| eSpace 8950HK | V200R003C30SPCh20 or later | 83.17.0.17 or later | <ul style="list-style-type: none">• DHCP• Provision Link |

Prerequisites

- Set up a DHCP server in the same subnet as the IP phone to assign it an IP address.



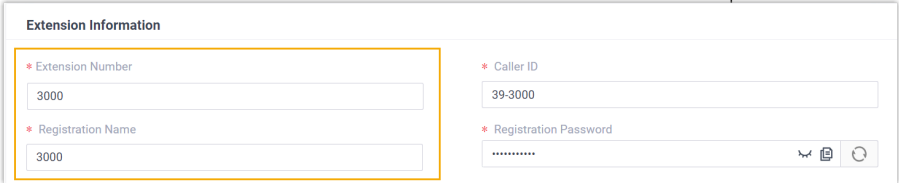






Note:


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**).
- Make sure that you have completed the corresponding settings shown below according to the network environment of **Huawei IP phone** and **Yeastar PBX**.

| Network Environment | | Setting |
|---------------------|--|---|
| Local Network | Provision an IP phone in the same subnet | <p>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).</p> <div>  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. </div> <div>  </div> |
| | Provision an IP phone in different subnets | <ul style="list-style-type: none"> ◦ Make sure that the two subnets can communicate with each other. ◦ Complete the following settings for the extension to be assigned to the IP phone: <ul style="list-style-type: none"> ▪ Set the registration name to the same as the extension number for the extension (Path: Extension and Trunk > Extension >  > User > Extension Information). <div>  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. </div> |

| Network Environment | | Setting | |
|---------------------|---|--|--|
| | | <div><div><div>Extension Information</div><div><div>* Extension Number</div><div>3000</div></div><div><div>* Registration Name</div><div>3000</div></div></div><div><div>* Caller ID</div><div>39-3000</div></div><div><div>* Registration Password</div><div>*****</div></div></div> | <ul style="list-style-type: none">▪ Enable the Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration) |
| Remote Network | Remotely provision an IP phone using Yeastar FQDN | <ul style="list-style-type: none">◦ Complete the following settings for the extension to be assigned to the IP phone:<ul style="list-style-type: none">▪ Set the registration name to the same as the extension number for the extension (Path: Extension and Trunk > Extension >  > User > Extension Information). <div><div>!</div><div>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.</div></div> | <div><div>Extension Information</div><div><div>* Extension Number</div><div>3000</div></div><div><div>* Registration Name</div><div>3000</div></div></div> <div><div>* Caller ID</div><div>39-3000</div></div> <div><div>* Registration Password</div><div>*****</div></div> |

| Network Environment | Setting |
|---|--|
| <p>Remotely provision an IP phone using public IP address / domain name</p> | <div> </div> <ul style="list-style-type: none"> Configure PBX network for remote access by a public IP address, by an external host domain name, or by a Yeastar domain name. <div> <p>Important:</p> <p>The following PBX ports MUST be forwarded for RPS provisioning.</p> <ul style="list-style-type: none"> RTP ports SIP port Web Server port </div> <ul style="list-style-type: none"> Complete the following settings for the extension to be assigned to the IP phone: <ul style="list-style-type: none"> Set the registration name to the same as the extension number for the extension (Path: Extension and Trunk > Extension >  > User > Extension Information). <div> <p>Important:</p> <p>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.</p> </div> <div> </div> |

| Network Environment | | Setting |
|---------------------|--|---|
| | | <div>▪ Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT).</div> <div><div>VoIP Settings</div><div><div>DTMF Mode</div><div>RFC4733 (RFC2833)</div><div>Transport</div><div>UDP</div><div><div><input checked="" type="checkbox"/> Qualify</div><div><input type="checkbox"/> T.38 Support</div><div><input checked="" type="checkbox"/> NAT</div><div><input type="checkbox"/> SRTP</div></div></div></div> <div>▪ Enable the Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration).</div> <div><div><div>< User Presence Voicemail Features Advanced</div><div>Security</div></div><div><div>SIP Security</div><div><input checked="" type="checkbox"/> Allow Remote Registration</div></div></div> |

Procedure

- [Step 1. Add the Huawei IP phone on PBX](#)
- [Step 2. Configure DHCP option 246 on DHCP server](#)

Step 1. Add the Huawei IP phone on PBX

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

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

IP Phone

* Vendor

Huawei

▼

* Model

eSpace 8950

▼

* MAC Address

- **Vendor:** Select **Huawei**.
- **Model:** Select the phone model. In this example, select **eSpace 8950**.
- **MAC Address:** Enter the MAC address of the IP phone.

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

Options

* Template

YSDP_HuaweiSpace8950

▼

* Provisioning Method

DHCP (In the Office)

▼

Provisioning Link

http://192.168.28.39:7778/api/autoprovision/lginRL8CkoYFXWJd

- **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 Method:** Select the provisioning method according to your needs.

| Provisioning Method | Description |
|--------------------------------|---|
| DHCP (In the Office) | Suitable for provisioning the IP phone that is located in the local network, either in the same subnet or in different subnets. |
| Provision Link (Remote) | Suitable for provisioning the IP phone located in a remote network, and the IP phone will access the PBX using public IP address / domain name to retrieve configuration files. |
| Provision Link - FQDN (Remote) | Suitable for provisioning the IP phone located in a remote network, and the IP phone will access the PBX using Yeastar FQDN to retrieve configuration files. |

A provisioning link is automatically generated and displayed in the **Provisioning Link** 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.



Note:

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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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 246 on DHCP server

Configure DHCP option 246 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 246.

1. On the running [Tftpd64](#) software, go to **Settings > DHCP > DHCP Options**.
2. Add option 246 and define the location of the configuration files.

The screenshot shows the 'Tftpd64: Settings' window with the 'DHCP' tab selected. The 'Additional Option' field is highlighted with an orange border. The field contains the value '246' and the string 'cfg.address=https://yeastardocs.ras.yeas'.

- In the **Additional Option** field, enter 246.
- In the string value field, enter the [provisioning link obtained from the PBX](#) in the following format:

```
cfg.address={provisioning_link}/
```



Important:

The slash / at the end of the string is REQUIRED. Omitting this slash will cause the provisioning to fail.






For example:

```
cfg.address=https://yeastardocs.ras.yeastar.com:443/api/autoprov  
ision/lgjnRL8CkoYFXWJd/
```

- 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.

| <input type="checkbox"/> | Status | Extension | Name | Vendor ▾ | Model ▾ | IP Address ▾ | Phone Password | Operations | ▽ |
|--------------------------|---|-----------|----------|----------|-------------|--------------|----------------|---|---|
| <input type="checkbox"/> |  | 3000 | Leo Ball | Huawei | eSpace 8950 | - | *****@ |     | |

NEC

Auto Provision NEC IP Phone with Yeastar P-Series Software Edition

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

Requirements

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

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|--------------------|----------------------|---------------------|---|
| DT700 ITL-2E-1P | 03.01.64.00 or later | 83.17.0.53 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| DT700 ITL-6DE-1P | 03.01.64.00 or later | 83.17.0.53 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| DT700 ITL-12D-1P | 03.01.64.00 or later | 83.17.0.53 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| DT700 ITL-24D-1P | 03.01.64.00 or later | 83.17.0.53 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| DT700 ITL-8LD-1P | 03.01.64.00 or later | 83.17.0.53 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| DT700 ITL-8LDE-1P | 03.01.64.00 or later | 83.17.0.53 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| DT700 ITL-12DG-3P | 03.01.64.00 or later | 83.17.0.53 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| DT700 ITL-12CG-3P | 03.01.64.00 or later | 83.17.0.53 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| DT820 ITY-6D-1P | 04.04.28.14 or later | 83.17.0.53 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| DT820 ITY-8LDX-1P | 04.04.28.14 or later | 83.17.0.53 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| DT820 ITY-8LCGX-1P | 04.04.28.14 or later | 83.17.0.53 or later | <ul style="list-style-type: none">• DHCP• Provision Link |

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|----------------------|----------------------|---------------------|--|
| DT820 ITY-6DG-1P | 04.04.28.14 or later | 83.17.0.53 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| DT820 ITY-32LDG-1P | 04.04.28.14 or later | 83.17.0.53 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| DT820 ITY-32LCG-1P | 04.04.28.14 or later | 83.17.0.53 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| DT900 ITK-6D-1P | 05.03.04.99 or later | 83.17.0.53 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| DT900 ITK-12D-1P | 05.03.04.03 or later | 83.17.0.53 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| DT900 ITK-8LCX-1P | 05.03.04.99 or later | 83.17.0.53 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| DT900 ITK-8TCGX-1P | 05.03.04.99 or later | 83.17.0.53 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| DT900 ITK-6DG-1P | 05.03.04.99 or later | 83.17.0.53 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| DT900 ITK-12DG-1P | 05.03.04.99 or later | 83.17.0.53 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| DT900 ITK-32LCG-1P | 05.03.04.99 or later | 83.17.0.53 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| DT900 ITK-32TCG-1P | 05.03.04.99 or later | 83.17.0.53 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| DT900S ITK-6DGS-1P | 05.03.04.99 or later | 83.17.0.53 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| DT900S ITK-32LCGS-1P | 05.03.04.99 or later | 83.17.0.53 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |
| DT900S ITK-32TCGS-1P | 05.03.04.99 or later | 83.17.0.53 or later | <ul style="list-style-type: none"> • DHCP • Provision Link |

Scenarios

The provisioning methods and operations vary depending on the network environment of **NEC IP Phone** and **Yeastar PBX**.

- [Auto provision an NEC IP phone in the local network](#)
- [Auto provision an NEC IP phone in a remote network](#)

Auto provision an NEC IP phone in the local network

In this scenario, you can provision the NEC IP phone by using a third-party DHCP server to deliver a PBX-provided provisioning link to the IP phone. This allows the phone to retrieve configurations from the PBX using the given link.


Prerequisites

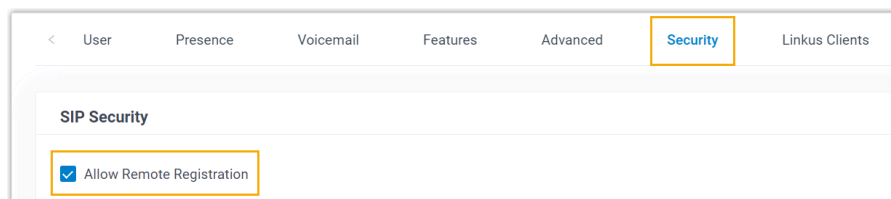
- Set up a DHCP server in the same subnet as the IP phone to assign it an IP address.



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**).
- If the IP phone and PBX are located in different subnets, make sure the following conditions are met:
 - The two subnets can communicate with each other.
 - Enable the Remote Registration feature for the extension to be assigned to the IP phone (Path: **Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration**).



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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** 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.

**Note:**

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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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](#).

The following instructions take Tftpd64 DHCP server as an example to show how to configure the option 66.

1. On the running [Tftpd64](#) software, go to **Settings > DHCP > DHCP Options**.
2. Add option 66 and define the location of the configuration files.

The screenshot shows the 'Tftpd64: Settings' dialog box with the 'DHCP' tab selected. The 'Additional Option' field is highlighted with an orange box, showing the value '66' and the URL 'http://192.168.28.39:7778/api/autoprovi:'. Other fields include 'IP pool start address' (192.168.28.190), 'Size of pool' (6), 'Lease (minutes)' (2880), 'Def. router (Opt 3)' (192.168.28.1), 'Mask (Opt 1)' (255.255.255.0), 'DNS Servers (Opt 6)' (192.168.28.1), 'WINS server (Opt 44)' (192.168.28.1), 'NTP server (Opt 42)', 'SIP server (Opt 120)', and 'Domain Name (15)'. The 'DHCP Settings' section has checkboxes for 'Ping address before assignation', 'Persistant leases', 'Double answer if relay detected', and 'Bind DHCP to this address' (selected, with address 192.168.28.25).

- a. In the **Additional Option** field, enter 66.
 - b. In the string value field, 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.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Phone Password | Template | Firmware Version | MAC | Operations |
|--------------------------|--------|-----------|----------|--------|------------------|------------|----------------|------------|------------------|-------|------------|
| <input type="checkbox"/> | | 3000 | Leo Ball | NEC | DT900 ITK-120-1P | - | *****@ | YSDP_NECDT | - | 80:23 | |

Auto provision an NEC IP phone in a remote network

In this scenario, you can use the public IP address / domain name of the PBX to provision an IP phone. By configuring a third-party DHCP server to deliver a PBX-provided provisioning link to the IP phone, the phone can retrieve configurations from the PBX using the given link.



Important:

Due to NEC phone limitations, if using a **domain name**, the length of the domain name must NOT exceed **17** characters (excluding the prefix `https://`). Otherwise, the provisioning will fail.

Prerequisites

- Set up a DHCP server in the same subnet as the IP phone to assign it an IP address.



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**).
- Make sure that you have completed the corresponding settings on PBX:
 - Configure PBX network for remote access [by a public IP address](#), [by an external host domain name](#) or [by a Yeastar domain name](#).




Important:

The following PBX ports MUST be forwarded for RPS provisioning.

- RTP ports
- SIP port



▪ Web Server port

- Complete the following settings for the extension to be assigned to the IP phone:
 - Enable NAT for the extension (Path: **Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT**).

VoIP Settings

DTMF Mode: RFC4733 (RFC2833)


Transport: UDP

☒ Quality

☐ T.38 Support

☒ NAT

☐ SRTP

- Enable the Remote Registration feature for the extension (Path: **Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration**).

< User Presence Voicemail Features Advanced **Security** Linkus Clients

SIP Security

☒ Allow Remote Registration

Procedure

- [Step 1. Add the NEC IP phone on PBX](#)
- [Step 2. Configure DHCP options 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.

The form is titled "IP Phone". It contains three fields, each with a red asterisk indicating it is required:

- * Vendor:** A dropdown menu with "NEC" selected.
- * Model:** A dropdown menu with "DT900 ITK-12D-1P" selected.
- * MAC Address:** A text input field with a blurred placeholder.

- **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.

The form is titled "Options". It contains three fields, each with a red asterisk indicating it is required:

- * Template:** A dropdown menu with "YSDP_NECDT" selected.
- * Provisioning Method:** A dropdown menu with "Provision Link (Remote)" selected.
- Provisioning Link:** A text input field displaying the URL "https://110.35.77.110:18207/api/autopvision/lginRL8" with a copy icon to its right.

Below the Provisioning Link field, there is a blue note: "Please copy this Provisioning Link, then set up the link to where your IP phones can fetch the configuration files."

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



Note:

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

- **Provisioning Method:** Select **Provision Link (Remote)**.

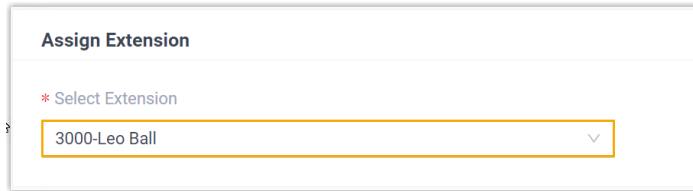
A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link points to the location where the phone's configuration file is stored.



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.


**Note:**

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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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 options on DHCP server

On the DHCP server, configure DHCP option 42 and option 66.

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

1. On the running [Tftpd64](#) software, go to **Settings > DHCP > DHCP Options**.
2. Configure the following DHCP options.

Tftpd64: Settings

GLOBAL | TFTP | DHCP | SYSLOG | DNS

DHCP Pool definition

IP pool start address: 192.168.28.190

Size of pool: 6

Lease (minutes): 2880

Boot File:

DHCP Options

Def. router (Opt 3): 192.168.28.1

Mask (Opt 1): 255.255.255.0

DNS Servers (Opt 6): 192.168.28.1

WINS server (Opt 44): 192.168.28.1

NTP server (Opt 42): 192.168.28.39

SIP server (Opt 120):

Domain Name (15):

Additional Option: 66 https://110.35.77.110:18207/api/autoprc

DHCP Settings

☒ Ping address before assignation

☒ Persistent leases

☐ Double answer if relay detected

☒ Bind DHCP to this address: 192.168.28.25






OK Default Help Cancel

- **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](https://110.35.77.110:18207/api/autoprc).

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.

| <input type="checkbox"/> | Status | Extension | Name | Vendor ▾ | Model ▾ | IP Address ▾ | Phone Password | Template | Firmware Version ▾ | MAC | Operations | |
|--------------------------|---|-----------|----------|----------|------------------|--------------|----------------|------------|--------------------|-------|---|--|
| <input type="checkbox"/> |  | 3000 | Leo Ball | NEC | DT900 ITK-12D-1P | - | *****@ | YSDP_NECDT | - | 80:22 |     | |

Unify

Provision Unify IP Phone with Yeastar P-Series Software Edition

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

Requirements

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

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-----------------|-------------------------------|---------------------|---|
| OpenScape CP200 | V2 R4.13.0 or later | 83.19.0.23 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| OpenScape CP210 | V2 R0.4.0 SIP 220614 or later | 83.19.0.23 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| OpenScape CP400 | V2 R4.13.0 or later | 83.19.0.23 or later | <ul style="list-style-type: none">• DHCP• Provision Link |
| OpenScape CP410 | V2 R4.13.0 or later | 83.19.0.23 or later | <ul style="list-style-type: none">• DHCP• Provision Link |



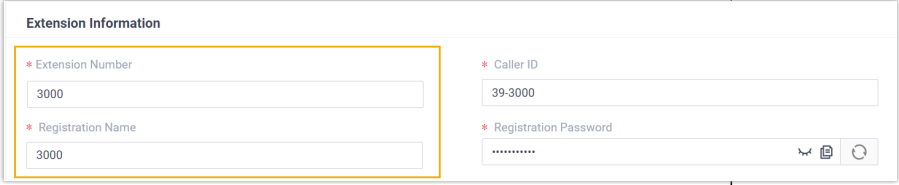


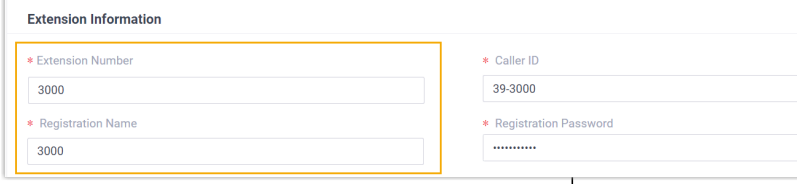
Prerequisites


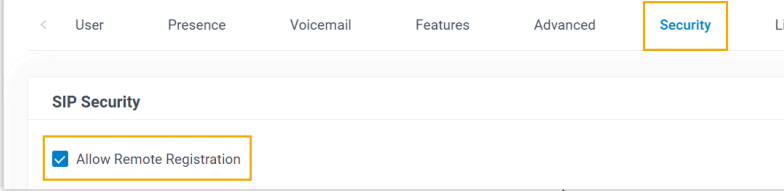

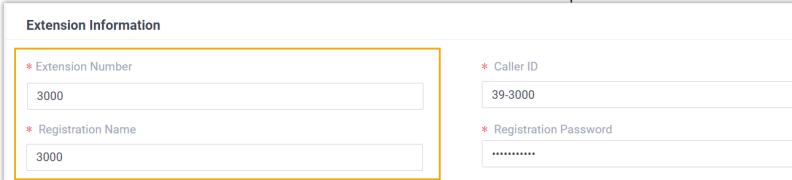
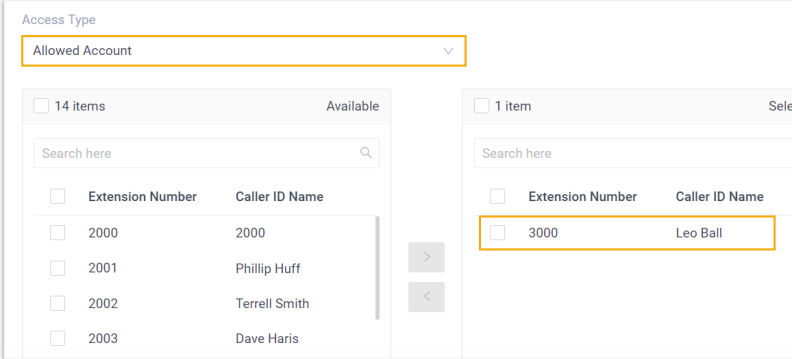
- Set up a DHCP server in the same subnet as the IP phone to assign it an IP address.



**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.

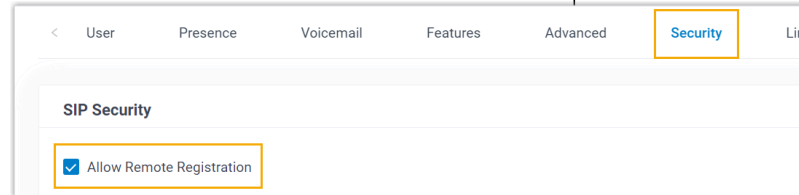
- RESET the IP phone if it is previously used.
- Gather information of IP phone, including Vendor, Model, and MAC address.
- Make sure that you have [downloaded the template](#) for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- Make sure that you have completed the corresponding settings shown below according to the network environment of **Unify IP phone** and **Yeastar PBX**.

| Network Environment | | Setting |
|---------------------|--|--|
| Local Network | Provision an IP phone in the same subnet | <p>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).</p> <div>  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. </div> <div>  </div> |
| | Provision an IP phone in different subnets | <ul style="list-style-type: none"> ◦ Make sure that the two subnets can communicate with each other. ◦ Complete the following settings for the extension to be assigned to the IP phone: <ul style="list-style-type: none"> ▪ Set the registration name to the same as the extension number for the extension (Path: Extension and Trunk > Extension >  > User > Extension Information). <div>  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. </div> <div>  </div> <ul style="list-style-type: none"> ▪ Enable the Remote Registration feature for the extension (Path: Extension and |

| Network Environment | | Setting |
|---------------------|---|--|
| | | <p>Trunk > Extension >  > Security > SIP Security > Allow Remote Registration)</p>  |
| Remote Network | Remotely provision an IP phone using Yeastar FQDN | <p>◦ Complete the following settings for the extension to be assigned to the IP phone:</p> <ul style="list-style-type: none"> ▪ Set the registration name to the same as the extension number for the extension (Path: Extension and Trunk > Extension >  > User > Extension Information). <div style="border: 1px solid #f0e68c; padding: 10px; margin: 10px 0;"> <p>! 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.</p> </div>  <ul style="list-style-type: none"> ▪ Grant remote SIP access permission for the extension (Path: System > Network > Yeastar FQDN > Features > SIP Access).  |

| Network Environment | Setting | | | | | | | | | | | | | | | | |
|---|---|--|--|---|--|-----------|-----------|--|----------------------------------|---|--|---------------------------------------|--|---|--|-------------------------------|--|
| <p>Remotely provision an IP phone using public IP address / domain name</p> | <ul style="list-style-type: none"> Configure PBX network for remote access by a public IP address, by an external host domain name, or by a Yeastar domain name. <div> <p>Important:</p> <p>The following PBX ports MUST be forwarded for RPS provisioning.</p> <ul style="list-style-type: none"> RTP ports SIP port Web Server port </div> <ul style="list-style-type: none"> Complete the following settings for the extension to be assigned to the IP phone: <ul style="list-style-type: none"> Set the registration name to the same as the extension number for the extension (Path: Extension and Trunk > Extension >  > User > Extension Information). <div> <p>Important:</p> <p>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.</p> </div> | | | | | | | | | | | | | | | | |
| | <div> <p>Extension Information</p> <table> <tr> <td> <ul style="list-style-type: none"> Extension Number <input type="text" value="3000"/> </td> <td> <ul style="list-style-type: none"> Caller ID <input type="text" value="39-3000"/> </td> </tr> <tr> <td> <ul style="list-style-type: none"> Registration Name <input type="text" value="3000"/> </td> <td> <ul style="list-style-type: none"> Registration Password <input type="password" value="*****"/> </td> </tr> </table> </div> <ul style="list-style-type: none"> Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT). <div> <p>VoIP Settings</p> <table> <tr> <td>DTMF Mode</td> <td>Transport</td> </tr> <tr> <td><input type="text" value="RFC4733 (RFC2833)"/></td> <td><input type="text" value="UDP"/></td> </tr> <tr> <td colspan="2"> <input checked="" type="checkbox"/> Qualify </td> </tr> <tr> <td colspan="2"> <input type="checkbox"/> T.38 Support </td> </tr> <tr> <td colspan="2"> <input checked="" type="checkbox"/> NAT </td> </tr> <tr> <td colspan="2"> <input type="checkbox"/> SRTP </td> </tr> </table> </div> | <ul style="list-style-type: none"> Extension Number <input type="text" value="3000"/> | <ul style="list-style-type: none"> Caller ID <input type="text" value="39-3000"/> | <ul style="list-style-type: none"> Registration Name <input type="text" value="3000"/> | <ul style="list-style-type: none"> Registration Password <input type="password" value="*****"/> | DTMF Mode | Transport | <input type="text" value="RFC4733 (RFC2833)"/> | <input type="text" value="UDP"/> | <input checked="" type="checkbox"/> Qualify | | <input type="checkbox"/> T.38 Support | | <input checked="" type="checkbox"/> NAT | | <input type="checkbox"/> SRTP | |
| <ul style="list-style-type: none"> Extension Number <input type="text" value="3000"/> | <ul style="list-style-type: none"> Caller ID <input type="text" value="39-3000"/> | | | | | | | | | | | | | | | | |
| <ul style="list-style-type: none"> Registration Name <input type="text" value="3000"/> | <ul style="list-style-type: none"> Registration Password <input type="password" value="*****"/> | | | | | | | | | | | | | | | | |
| DTMF Mode | Transport | | | | | | | | | | | | | | | | |
| <input type="text" value="RFC4733 (RFC2833)"/> | <input type="text" value="UDP"/> | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> Qualify | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> T.38 Support | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> NAT | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> SRTP | | | | | | | | | | | | | | | | | |

| Network Environment | Setting |
|---------------------|--|
| | <ul style="list-style-type: none"> Enable the Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration) |



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.

IP Phone

* Vendor

* Model

* MAC Address

- **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.

Options

* Template
YSDP_UnifyCP

* Provisioning Method
Provision Link - FQDN (Remote)

Provisioning Link
https://c.../api/autoprovision/grobqJzZkf1

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

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



Note:

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

- **Provisioning Method:** Select **Provision Link - FQDN (Remote)** or **Provision Link (Remote)**.

The **Provisioning Link** field displays a provisioning link, which points to the location where the phone's configuration file is stored.



Note:

Note down the provisioning link, as you will need to use it later when configuring the DHCP server.

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

Assign Extension

* Select Extension
3000-Leo Ball



Note:

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

- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [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 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.

Options

* Template

YSDP_UnifyCP

* Provisioning Method

Provision Link - FQDN (Remote)

Provisioning Link

https://c /api/autoprovision/grobqJzZkf1

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

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

In this example, the configuration is shown below:

Interfaces » LAN

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

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

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

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






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

DHCP-Options
 6,223.5.5.5
 66,https://c[redacted]/api/autoprovision/grobqJzZkf1oVg12
 ? Define additional DHCP options, for example "6,192.168.2.1,192.168.2.2" which advertises different DNS servers to clients.

Dismiss Save

Result

- 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.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Admin Phone Password | Operations |
|--------------------------|---|-----------|----------|--------|-------|------------|----------------------|---|
| <input type="checkbox"/> |  | 3000 | Leo Ball | Unify | CP210 | - | *****@ |     |

Flat-phone

Auto Provision Flat-phone with Yeastar P-Series Software Edition

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

Requirements

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

| Model | Phone Requirement | PBX Requirement | Supported Auto Provisioning Method |
|-------|--------------------------|----------------------|---|
| B6 | 15.63.11.12.234 or later | 83.19.0.110 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| B10 | 15.66.7.12.234 or later | 83.19.0.110 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |
| C10 | 15.60.11.12.234 or later | 83.19.0.110 or later | <ul style="list-style-type: none">• PnP• DHCP• Provision Link |

Scenarios

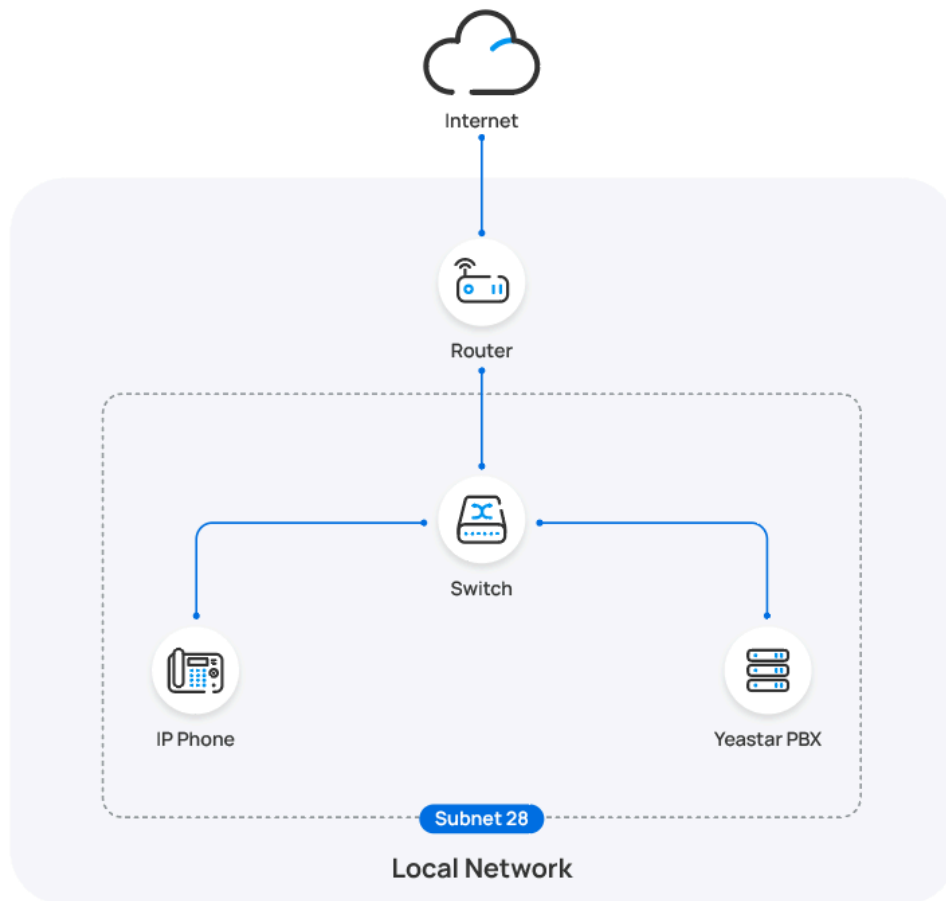
The provisioning methods and operations vary depending on the network environment of **Flat-phone** and **Yeastar PBX**, as the following table shows.

| Scenario | Description |
|---|---|
| IP Phone and PBX are in the SAME subnet | <p>In this scenario, you can provision the Flat-phone with the PBX via PnP method.</p> <p>For more information, see Auto provision a Flat-phone in the same subnet (PnP).</p> |
| IP Phone and PBX are in DIFFERENT subnets | <p>In this scenario, you can provision the Flat-phone with the PBX via DHCP method.</p> <p>For more information, see Auto provision a Flat-phone in different subnets (DHCP).</p> |

| Scenario | Description |
|--|---|
| IP Phone and PBX are in DIFFERENT networks | <p>In this scenario, you can provision the Flat-phone with Yeastar PBX via Provision Link method.</p> <p>For more information, see Provision a Flat-phone in different networks (Provision Link).</p> |

Auto provision a Flat-phone in the same subnet (PnP)

In this example, the Flat-phone (IP: 192.168.28.205) and the Yeastar PBX (IP: 192.168.28.39) are both deployed in subnet 28.




Prerequisites






- Make sure that you have [downloaded the template](#) for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- If the IP phone is previously used, you need to RESET the IP phone, then re-configure the network settings for the phone.

Procedure

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

The IP phones detected by the PBX via PnP are displayed in the phone list.

2. Click  beside the Flat-phone.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Admin Phone Password | Operations |
|--------------------------|---|------------|------------|------------|-------|----------------|----------------------|---|
| <input type="checkbox"/> |  | Unassigned | Unassigned | Flat-phone | B10 | 192.168.28.205 | *****@ |     |

3. **Optional:** In the **Options** section, select a desired template from the **Template** 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](#).

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

Assign Extension

* Select Extension

3000-Leo Ball



Note:

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

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

5. Click **Save**.






Result



Note:

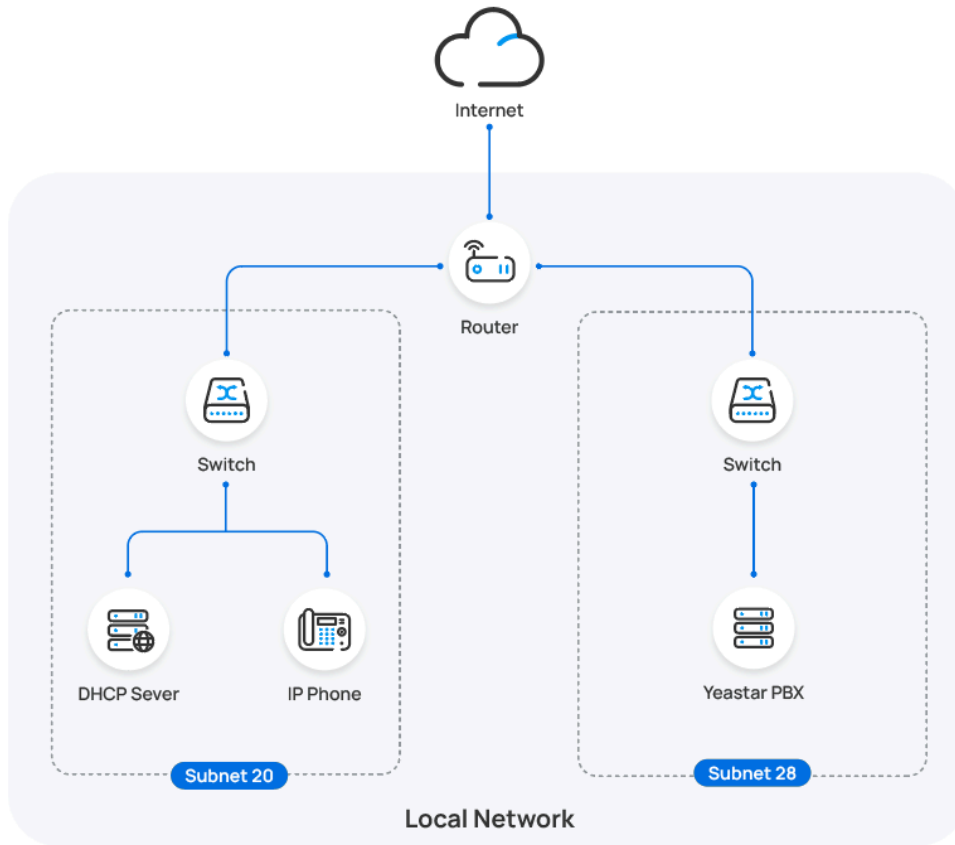
Some IP phones will reboot automatically. If not, you need to manually reboot the phone to make the configurations take effect.

- 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** in PBX web portal.

| <input type="checkbox"/> | Status | Extension | Name | Vendor ↕ | Model ↕ | IP Address ↕ | Admin Phone Password | Operations | ⌵ |
|--------------------------|---|-----------|----------|------------|---------|----------------|----------------------|---|---|
| <input type="checkbox"/> |  | 3000 | Leo Ball | Flat-phone | B10 | 192.168.28.205 | *****@ |     | |

Auto provision a Flat-phone in different subnets (DHCP)

In this example, the Flat-phone and DHCP server are deployed in subnet 20, while the Yeastar PBX (IP: 192.168.28.110) is deployed in subnet 28.



Prerequisites

- Make sure that there is only one DHCP server running in the subnet where the IP phone is deployed, or the IP phone would fail to obtain an IP address.
- Make sure that the IP phone and PBX can communicate with each other over the subnets.
- 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

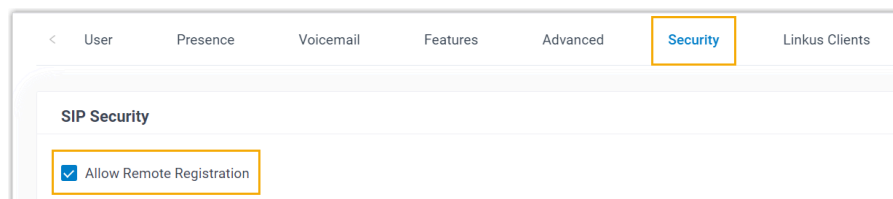
- [Step 1. Enable Remote Registration feature for the extension on PBX](#)
- [Step 2. Add the Flat-phone on the PBX](#)

- [Step 3. Configure DHCP option 66 on DHCP server](#)

Step 1. Enable Remote Registration feature for the extension on PBX

Enable the Remote Registration feature for the extension to be assigned to the phone, so that the extension can be registered in a different subnet.

1. Log in to PBX web portal, go to **Extension and Trunk > Extension**, edit the desired extension.
2. Click **Security** tab, select the checkbox of **Allow Remote Registration** in the **SIP Security** section.



3. Click **Save** and **Apply**.

Step 2. Add the Flat-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. On PBX web portal, go to **Auto Provisioning > Phones**.
2. Click **Add > Add**.
3. In the **IP Phone** section, configure phone information as follows:

 A screenshot of the 'IP Phone' configuration form. It contains three fields:
 1. '* Vendor': A dropdown menu with 'Flat-Phone' selected.
 2. '* Model': A dropdown menu with 'B10' selected.
 3. '* MAC Address': A text input field with a placeholder value '00:00:00:00:00:00'.

- **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.

Options

* Template
YSDP_Flat

* Provisioning Method
DHCP (In the Office)

Provisioning Link
http://192.168.28.110:7778/api/autopvision/scLF7vCbnxhKc

- **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 Method:** Select **DHCP (In the Office)**.

A provisioning link is automatically generated and displayed in the **Provisioning Link** field. This provisioning link 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.

Assign Extension

* Select Extension
3000-Leo Ball

**Note:**

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

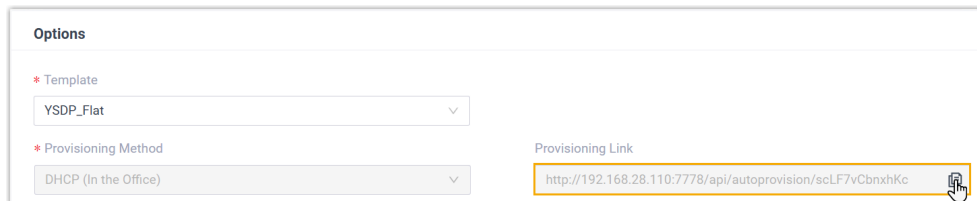
- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [configure the concurrent registration setting for the extension](#),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

6. Click **Save**.

Step 3. Configure DHCP option 66 on DHCP server

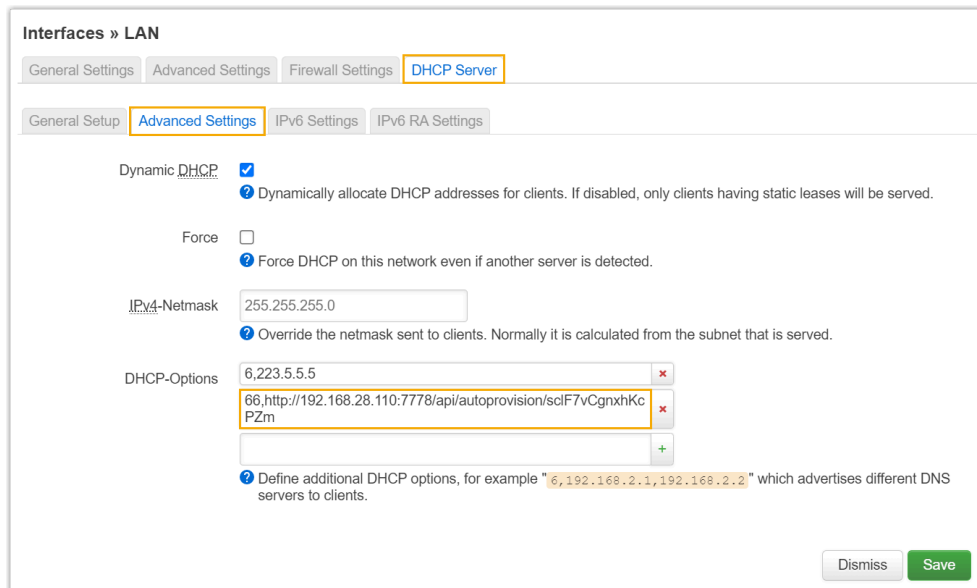
In the subnet where the IP phone is deployed, use the generated provisioning link to configure option 66 on the DHCP Server.

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.

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Admin Phone Password | Operations |
|--------------------------|---|-----------|----------|------------|-------|------------|----------------------|---|
| <input type="checkbox"/> |  | 3000 | Leo Ball | Flat-phone | B10 | - | *****@ |     |

Provision a Flat-phone in different networks (Provision Link)

In this example, the Flat-phone and the Yeastar PBX are deployed in different networks. 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.

Prerequisites

- Set up a DHCP server in the same subnet as the IP phone to assign it an IP address.

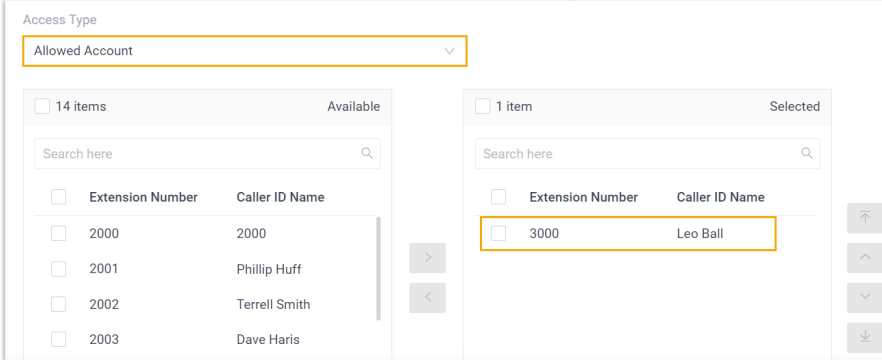
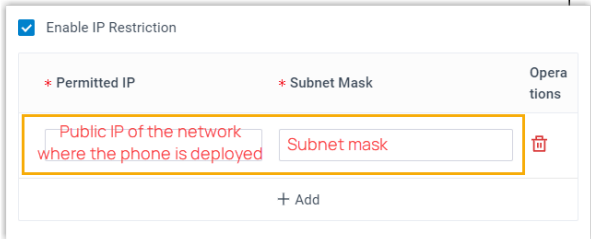




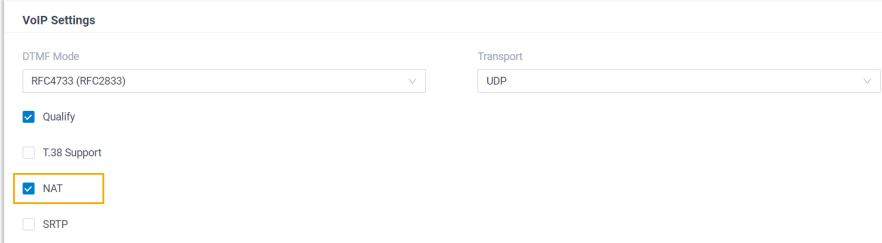

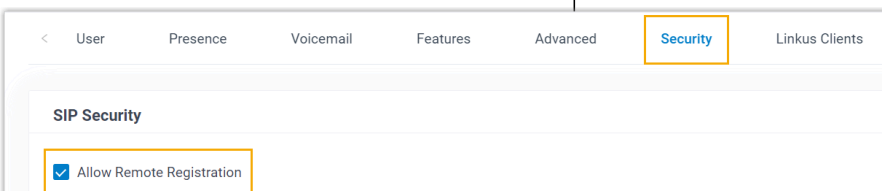
Note:

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

- Make sure that you have [downloaded the template](#) for the desired phone model (Path: **Auto Provisioning > Resource Repository > Default Templates**).
- Make sure that you have completed the corresponding settings shown below according to the network environment of **Flat-phone** and **Yeastar PBX**.

| Method | Setting |
|--------------------|--|
| Using Yeastar FQDN | <ul style="list-style-type: none"> ◦ Subscribe to Enterprise Plan or Ultimate Plan for the PBX and ensure the FQDN is available. ◦ Grant remote access permission for extension to be registered and the remote IP phones: <ul style="list-style-type: none"> ▪ Grant remote SIP access permission for the extension, so that the extension can be |

| Method | Setting |
|---|---|
| | <p>registered remotely via FQDN (Path: System > Network > Yeastar FQDN > Features > SIP Access).</p>  <ul style="list-style-type: none"> ▪ If you have enabled IP restriction for Yeastar FQDN remote Web access, make sure that you have added the phone's IP address to the permitted IP list, so that the phone can obtain configuration files from the PBX (Path: System > Network > Yeastar FQDN > Features > Remote Access > Web Access).  <ul style="list-style-type: none"> ◦ 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. |
| Using Public IP address / external host / Yeastar domain name | <ul style="list-style-type: none"> ◦ Configure PBX network for remote access by a public IP address, by an external host domain name, or by a Yeastar domain name. <div style="background-color: #fff9c4; padding: 10px; border: 1px solid #f0e68c;"> <p>! Important: The following PBX ports MUST be forwarded for RPS provisioning.</p> <ul style="list-style-type: none"> ▪ RTP ports ▪ SIP port </div> |

| Method | Setting |
|--------|--|
| | <div> <div>  Web Server port </div> <ul style="list-style-type: none"> Set up the extension for remote registration. <ul style="list-style-type: none"> Enable NAT for the extension (Path: Extension and Trunk > Extension >  > Advanced > VoIP Settings > NAT). </div> <div>  </div> <ul style="list-style-type: none"> Enable Remote Registration feature for the extension (Path: Extension and Trunk > Extension >  > Security > SIP Security > Allow Remote Registration). <div>  </div> <ul style="list-style-type: none"> 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 Flat-phone on PBX](#)
- [Step 2. Configure DHCP option 66 on DHCP server](#)

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:

The screenshot shows the 'IP Phone' configuration section. It contains three fields:

- * Vendor:** A dropdown menu with 'Flat-Phone' selected.
- * Model:** A dropdown menu with 'B10' selected.
- * MAC Address:** An empty text input field.

- **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.

The screenshot shows the 'Options' configuration section. It contains three fields:

- * Template:** A dropdown menu with 'YSDP_Flat' selected.
- * Provisioning Method:** A dropdown menu with 'Provision Link - FQDN (Remote)' selected.
- Provisioning Link:** A text input field containing the URL 'https://.../api/autopvision/grobqJzZkf'. Below the field, there is a note: 'Please copy this Provisioning Link, then set up the link to where your IP phones can fetch the configuration files.'

- **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 Method:** Select **Provision Link - FQDN (Remote)** or **Provision Link (Remote)**.

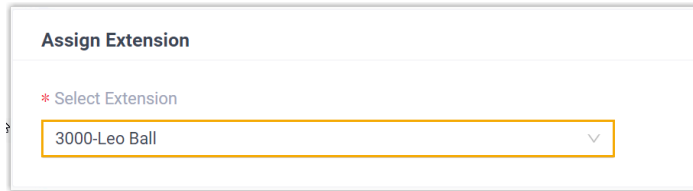
The **Provisioning Link** field displays a provisioning link, which points to the location where the phone's configuration file is stored.



Note:

Note down the provisioning link, as you will need to use it later when configuring the DHCP server.

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



Assign Extension

* Select Extension

3000-Leo Ball

**Note:**

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

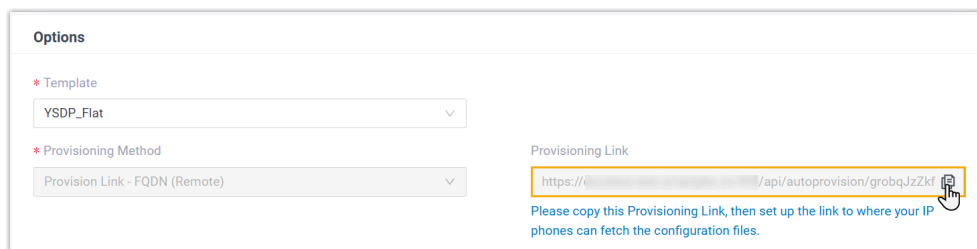
- To release the extension from the associated IP phone or gateway, see [Release an Extension from a Provisioned IP Phone/Gateway](#).
- To assign the extension to the phone without releasing it from the previously associated device, you can [configure the concurrent registration setting for the extension](#), 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.



Options

* Template

YSDP_Flat

* Provisioning Method

Provision Link - FQDN (Remote)

Provisioning Link

<https://192.168.1.100/api/autoprovision/grobqJzZkt>

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

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

In this example, the configuration is shown below:

Interfaces » LAN

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

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

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

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

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

DHCP-Options 6,223.5.5.5
 66,https://c.../api/autoprovisi.../grobqJzZkflVg12
 ? Define additional DHCP options, for example "6,192.168.2.1,192.168.2.2" which advertises different DNS servers to clients.

Dismiss Save

Result



Note:

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

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

| <input type="checkbox"/> | Status | Extension | Name | Vendor | Model | IP Address | Admin Phone Password | Operations |
|-------------------------------------|--------|-----------|----------|------------|-------|------------|----------------------|------------|
| <input checked="" type="checkbox"/> | | 3000 | Leo Ball | Flat-phone | B10 | - | *****@ | |