



# Cisco IP Phone Installation

---

- [Verify the Network Setup, on page 1](#)
- [Activation Code Onboarding for On-premises Phones, on page 2](#)
- [Activation Code Onboarding and Mobile and Remote Access, on page 3](#)
- [Enable Autoregistration for Phones, on page 3](#)
- [Install the Cisco IP Phone, on page 5](#)
- [Set Up the Phone from the Setup Menus, on page 7](#)
- [Configure Network Settings, on page 8](#)
- [Verify Phone Startup, on page 15](#)
- [Configure Phone Services for Users, on page 15](#)
- [Change a User's Phone Model, on page 16](#)

## Verify the Network Setup

As they deploy a new IP telephony system, system administrators and network administrators must complete several initial configuration tasks to prepare the network for IP telephony service. For information and a checklist for setting up and configuring a Cisco IP telephony network, see the documentation for your particular Cisco Unified Communications Manager release.

For the phone to operate successfully as an endpoint in your network, your network must meet specific requirements. One requirement is the appropriate bandwidth. The phones require more bandwidth than the recommended 32 kbps when they register to Cisco Unified Communications Manager. Consider this higher bandwidth requirement when you configure your QoS bandwidth. For more information, refer to *Cisco Collaboration System 12.x Solution Reference Network Designs (SRND)* or later ( [https://www.cisco.com/c/en/us/td/docs/voice\\_ip\\_comm/cucm/srnd/collab12/collab12.html](https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/srnd/collab12/collab12.html) ).



---

**Note** The phone displays the date and time from Cisco Unified Communications Manager. The time displayed on the phone can differ from the Cisco Unified Communications Manager time by up to 10 seconds.

---

### Procedure

---

**Step 1** Configure a VoIP Network to meet the following requirements:

- VoIP is configured on your routers and gateways.
- Cisco Unified Communications Manager is installed in your network and is configured to handle call processing.

**Step 2** Set up the network to support one of the following:

- DHCP support
- Manual assignment of IP address, gateway, and subnet mask

---

### Related Topics

[Cisco Unified Communications Manager Documentation](#)

## Activation Code Onboarding for On-premises Phones

You can use Activation Code Onboarding to quickly set up new phones without autoregistration. With this approach, you control the phone onboarding process using the one of the following:

- Cisco Unified Communications Bulk Administration Tool (BAT)
- Cisco Unified Communications Manager Administration interface
- Administrative XML Web Service (AXL)

Enable this feature from the **Device Information** section of the Phone Configuration page. Select **Require Activation Code for Onboarding** if you want this feature to apply to a single on-premises phone.

Users must enter an activation code before their phones can register. Activation Code Onboarding can be applied to individual phones, a group of phones, or across an entire network.

This is an easy way for users to onboard their phones because they only enter a 16-digit activation code. Codes are entered either manually or with a QR code if a phone has a video camera. We recommend that you use a secure method to give users this information. But if a user is assigned to a phone, then this information is available on the Self Care Portal. The audit log records when a user accesses the code from the portal.

Activation codes can only be used once, and they expire after 1 week by default. If a code expires, you will have to provide the user with a new one.

You will find this approach an easy way to keep your network secure because a phone cannot register until the Manufacturing Installed Certificate (MIC) and activation code are verified. This method is also a convenient way to bulk onboard phones because it doesn't use the Tool for Auto-registered Phone Support (TAPS) or autoregistration. The rate of onboarding is one phone per second or about 3600 phones per hour. Phones can be added with the Cisco Unified Communications Manager Administrative, with Administrative XML Web Service (AXL), or with BAT.

Existing phones reset after they are configured for Activation Code Onboarding. They don't register until the activation code is entered and the phone MIC is verified. Inform current users that you are moving towards Activation Code Onboarding before you implement it.

For more information, see *Administration Guide for Cisco Unified Communications Manager and IM and Presence Service, Release 12.0(1)* or later.

# Activation Code Onboarding and Mobile and Remote Access

You can use Activation Code Onboarding with Mobile and Remote Access when deploying Cisco IP phones for remote users. This feature is a secure way to deploy off-premises phones when autoregistration is not required. But you can configure a phone for autoregistration when on-premises, and activation codes when off-premises. This feature is similar to Activation Code Onboarding for on-premises phones, but it makes activation code available for off-premises phones also.

Activation Code Onboarding for Mobile and Remote Access requires Cisco Unified Communications Manager 12.5(1)SU1 or later, and Cisco Expressway X12.5 or later. Smart Licensing should be enabled also.

You enable this feature from the Cisco Unified Communications Manager Administration, but note the following:

- Enable this feature from the **Device Information** section of the Phone Configuration page.
- Select **Require Activation Code for Onboarding** if you want this feature to apply just to a single on-premises phone.
- Select **Allow Activation Code via MRA** and **Require Activation Code for Onboarding** if you want to use Activation Onboarding for a single off-premises phone. If the phone is on-premises, it changes to Mobile and Remote Access mode and uses the Expressway. If the phone cannot reach the Expressway, it does not register until it is off premises.

For more information, see the following documents:

- *Administration Guide for Cisco Unified Communications Manager and IM and Presence Service, Release 12.0(1)*
- *Mobile and Remote Access Through Cisco Expressway* for Cisco Expressway X12.5 or later

## Enable Autoregistration for Phones

The Cisco IP Phone requires Cisco Unified Communications Manager to handle call processing. See the documentation for your particular Cisco Unified Communications Manager release or the context-sensitive help in the Cisco Unified Communications Manager Administration to ensure that Cisco Unified Communications Manager is set up properly to manage the phone and to properly route and process calls.

Before you install the Cisco IP Phone, you must choose a method for adding phones to the Cisco Unified Communications Manager database.

By enabling autoregistration before you install the phones, you can:

- Add phones without first gathering MAC addresses from the phones.
- Automatically add a Cisco IP Phone to the Cisco Unified Communications Manager database when you physically connect the phone to your IP telephony network. During autoregistration, Cisco Unified Communications Manager assigns the next available sequential directory number to the phone.
- Quickly enter phones into the Cisco Unified Communications Manager database and modify any settings, such as the directory numbers, from Cisco Unified Communications Manager.

- Move autoregistered phones to new locations and assign them to different device pools without affecting their directory numbers.

Autoregistration is disabled by default. In some cases, you might not want to use autoregistration; for example, if you want to assign a specific directory number to the phone, or if you want to use a secure connection with Cisco Unified Communications Manager. For information about enabling autoregistration, see the documentation for your particular Cisco Unified Communications Manager release. When you configure the cluster for mixed mode through the Cisco CTL client, autoregistration is automatically disabled, however you can enable it. When you configure the cluster for nonsecure mode through the Cisco CTL client, autoregistration is not enabled automatically.

You can add phones with autoregistration and TAPS, the Tool for AutoRegistered Phones Support, without first gathering MAC addresses from phones.

TAPS works with the Bulk Administration Tool (BAT) to update a batch of phones that were already added to the Cisco Unified Communications Manager database with dummy MAC addresses. Use TAPS to update MAC addresses and to download predefined configurations for phones.

Cisco recommends that you use autoregistration and TAPS to add fewer than 100 phones to your network. To add more than 100 phones to your network, use the Bulk Administration Tool (BAT).

To implement TAPS, you or the end user dials a TAPS directory number and follows voice prompts. After the process is complete, the phone contains the directory number and other settings, and the phone is updated in Cisco Unified Communications Manager Administration with the correct MAC address.

Verify that autoregistration is enabled and is properly configured in Cisco Unified Communications Manager Administration before you connect any Cisco IP Phone to the network. For information about enabling and configuring autoregistration, see the documentation for your particular Cisco Unified Communications Manager release.

Autoregistration must be enabled in Cisco Unified Communications Manager Administration for TAPS to function.

## Procedure

- 
- |               |   |
|---------------|---|
| <b>Step 1</b> | In Cisco Unified Communications Manager Administration, click <b>System &gt; Cisco Unified CM</b> .   |
| <b>Step 2</b> | Click <b>Find</b> and select the required server.   |
| <b>Step 3</b> | In <b>Auto-registration Information</b> , configure these fields. <ul style="list-style-type: none"><li>• <b>Universal Device Template</b></li><li>• <b>Universal Line Template</b></li><li>• <b>Starting Directory Number</b></li><li>• <b>Ending Directory Number</b></li></ul> |
| <b>Step 4</b> | Uncheck the <b>Auto-registration Disabled on this Cisco Unified Communications Manager</b> check box.   |
| <b>Step 5</b> | Click <b>Save</b> .   |
| <b>Step 6</b> | Click <b>Apply Config</b> .   |
- 

## Related Topics

[Cisco Unified Communications Manager Documentation](#)

# Install the Cisco IP Phone

After the phone connects to the network, the phone startup process begins, and the phone registers with CiscoUnified Communications Manager. To finish installing the phone, configure the network settings on the phone depending on whether you enable or disable DHCP service.

If you used autoregistration, you need to update the specific configuration information for the phone such as associating the phone with a user, changing the button table, or directory number.



---

**Note** Before using external devices, read [External Devices](#).

---

If you only have one LAN cable at your desk, you can plug your phone into the LAN with the SW port and then connect your computer into the PC port. For more information, see [Share a Network Connection with Your Phone and Computer, on page 6](#).

You can also daisy chain two phones together. Connect the PC port of the first phone to the SW port of the second phone.



---

**Caution** Do not connect the SW and PC ports into the LAN.

---

## Procedure

---

**Step 1** Choose the power source for the phone:

- Power over Ethernet (PoE)
- External power supply

For more information, see [Phone Power Requirements](#).

**Step 2** Connect the handset to the handset port and press the cable into the cable channel.

The wideband-capable handset is designed especially for use with a Cisco IP Phone. The handset includes a light strip that indicates incoming calls and waiting voice messages.

**Caution** Failure to press the cable into the channel in the phone can lead to cable damage.

**Step 3** Connect a headset to the headset port and press the cable into the cable channel. You can add a headset later if you do not connect one now.

**Note** The Cisco IP Phone 7811 does not have a headset port.

**Caution** Failure to press the cable into the channel in the phone can lead to cable damage.

**Step 4** Connect a wireless headset. You can add a wireless headset later if you do not want to connect one now. For more information, see your wireless headset documentation.

**Note** The Cisco IP Phone 7811 does not support a headset.

- Step 5** Connect a straight-through Ethernet cable from the switch to the network port labeled 10/100 SW on the Cisco IP Phone (10/100/1000 SW on Cisco IP Phone 7841). Each Cisco IP Phone ships with one Ethernet cable in the box.
- Use Category 3, 5, 5e, or 6 cabling for 10 Mbps connections; Category 5, 5e, or 6 for 100Mbps connections; and Category 5e or 6 for 1000 Mbps connections. For more information, see [Network and Computer Port Pinouts](#).
- Step 6** Connect a straight-through Ethernet cable from another network device, such as a desktop computer, to the computer port on the Cisco IP Phone. You can connect another network device later if you do not connect one now.
- Use Category 3, 5, 5e, or 6 cabling for 10 Mbps connections; Category 5, 5e, or 6 for 100Mbps connections; and Category 5e or 6 for 1000 Mbps connections. For more information, see [Network and Computer Port Pinouts](#) for guidelines.
- Step 7** If the phone is on a desk, adjust the footstand. With a wall-mounted phone, you might need to adjust the handset rest to ensure that the receiver cannot slip out of the cradle.
- Note** You cannot adjust the Cisco IP Phone 7811 footstand.
- Step 8** Monitor the phone startup process. This step verifies that the phone is configured properly.
- Step 9** If you are configuring the network settings on the phone, you can set up an IP address for the phone by either using DHCP or manually entering an IP address.
- Step 10** Upgrade the phone to the current firmware image.
- Step 11** Make calls with the Cisco IP Phone to verify that the phone and features work correctly.
- See the *Cisco IP Phone 7800 Series User Guide*.
- Step 12** Provide information to end users about how to use their phones and how to configure their phone options. This step ensures that users have adequate information to successfully use their Cisco IPPhones.

## Share a Network Connection with Your Phone and Computer

Both your phone and your computer must connect to your network to function. If you only have one Ethernet port, then your devices can share the network connection.

### Before you begin

Your administrator must enable the PC port in Cisco Unified Communications Manager before you can use it.

### Procedure

- Step 1** Connect the phone SW port to the LAN with an Ethernet cable.
- Step 2** Connect your computer to the phone PC port with an Ethernet cable.

# Set Up the Phone from the Setup Menus

The phone includes many configurable network settings that you may need to modify before the phone is functional for your users. You can access these settings, and change some of them, through menus on the phone.

The phone includes the following setup menus:

- Network Setup: Provides options for viewing and configuring a variety of network settings.
  - IPv4 Setup: This submenu provides additional network options.
  - IPv6 Setup: This submenu provides additional network options.
- Security Setup: Provides options for viewing and configuring a variety of security settings.

**Note**



You can control whether a phone has access to the Settings menu or to options on this menu. Use the **Settings Access** field in the Cisco Unified Communications Manager Administration Phone Configuration window to control access. The **Settings Access** field accepts these values:

- Enabled: Allows access to the Settings menu.
- Disabled: Prevents access to most entries in the Settings menu. The user can still access **Settings > Status**.
- Restricted: Allows access to the User Preferences and Status menu items and allows volume changes to be saved. Prevents access to other options on the Settings menu.

If you cannot access an option on the Admin Settings menu, check the **Settings Access** field.

You configure settings that are display-only on the phone in Cisco Unified Communications Manager Administration.

**Procedure**

- Step 1** Press **Applications** .
- Step 2** Select **Admin Settings**.
- Step 3** Enter password if required, then click **Sign-In**.
- Step 4** Select **Network Setup** or **Security Setup**.
- Step 5** Perform one of these actions to display the desired menu:
  - Use the navigation arrows to select the desired menu and then press **Select**.
  - Use the keypad on the phone to enter the number that corresponds to the menu.
- Step 6** To display a submenu, repeat step 5.
- Step 7** To exit a menu, press **Back** .

## Apply a Phone Password


You can apply a password to the phone. If you do, no changes can be made to the administrative options on the phone without password entry on the Admin Settings phone screen.

### Procedure

- 
- Step 1** In Cisco Unified Communications Manager Administration, navigate to the Common Phone Profile Configuration window (**Device > Device Settings > Common Phone Profile**).
- Step 2** Enter a password in the Local Phone Unlock Password option.
- Step 3** Apply the password to the common phone profile that the phone uses.
- 

## Text and Menu Entry From the Phone

When you edit the value of an option setting, follow these guidelines:

- Use the arrows on the navigation pad to highlight the field that you wish to edit. Press **Select** in the navigation pad to activate the field. After the field is activated, you can enter values.
- Use the keys on the keypad to enter numbers and letters.
- To enter letters by using the keypad, use a corresponding number key. Press the key one or more times to display a particular letter. For example, press the **2** key once for “a,” twice quickly for “b,” and three times quickly for “c.” After you pause, the cursor automatically advances to allow you to enter the next letter.
- Press the softkey  if you make a mistake. This softkey deletes the character to the left of the cursor.
- Press **Revert** before pressing **Apply** to discard any changes that you made.
- To enter a period (for example, in an IP address), press \* on the keypad.
- To enter a colon for an IPv6 address, press # on the keypad.




---

**Note** The Cisco IP Phone provides several methods to reset or restore option settings, if necessary.

---

## Configure Network Settings

### Procedure

- 
- Step 1** Press **Applications** .
- Step 2** To access the Network Settings menu, select **Admin settings > Network Setup**.
- Step 3** Set the fields as described in .



**Step 4** After you have set the fields, select **Apply** and **Save**.

**Step 5** Reboot the phone.

## Network Setup

The Network Setup menu contains fields and submenus for IPv4 and IPv6. To change some of the fields, first disable DHCP.

**Table 1: Ethernet Setup Menu Options**

Entry	Type	Default	Description
IPv4 setup	Menu		See the IPv4 Fields section.  This option displays only when the phone is configured in IPv4-only mode or in IPv4 and IPv6 mode.
IPv6 setup	Menu		See the “IPv6 Fields” section.
Host Name	String		Host name that the DHCP server assigned to the phone.
Domain Name	String		Name of the Domain Name System (DNS) domain in which the phone resides.  To change this field, turn off DHCP.
Operational VLAN ID			Auxiliary Virtual Local Area Network (VLAN) configured on a Cisco Catalyst switch of which the phone is a member.  This setting is blank if the auxiliary VLAN or the Administrative VLAN are configured.  If the phone has not received an auxiliary VLAN, this option indicates the Administrative VLAN.  The phone doesn't inherit the Operational VLAN from Admin VLAN if Cisco Discovery Protocol or Link Level Discovery Protocol Media Endpoint Discovery is enabled.  To assign a VLAN ID manually, use the Admin VLAN ID option.
Admin VLAN ID			Auxiliary VLAN of which the phone is a member.  Used only if the phone does not receive an auxiliary VLAN from the switch; otherwise, this value is ignored.
PC VLAN			Allows the phone to interoperate with third-party switches that do not support a voice VLAN. The Admin VLAN ID option must be set before you can change this option.

Entry	Type	Default	Description
SW Port Setup	Auto Negotiate 1000 Full 100 Half 10 Half 10 Full	Auto Negotiate	<p>Speed and duplex of the network port. Valid values specify:</p> <ul style="list-style-type: none"> <li>• Auto Negotiate</li> <li>• 1000 Full: 1000-BaseT/full duplex</li> <li>• 100 Half: 100-BaseT/half duplex</li> <li>• 100 Full: 100-BaseT/full duplex</li> <li>• 10 Half: 10-BaseT/half duplex</li> <li>• 10 Full: 10-BaseT/full duplex</li> </ul> <p>If the phone is connected to a switch, configure the switch port to the same speed as the phone, or configure both to autonegotiate.</p> <p>Unlock network configuration options if you want to edit this setting. If you change the setting of this option, you must change the PC Port Configuration option to the same setting.</p>
PC Port Setup	Auto Negotiate 1000 Full 100 Half 10 Half 10 Full	Auto Negotiate	<p>Speed and duplex of the Computer (access) port. Valid values:</p> <ul style="list-style-type: none"> <li>• Auto Negotiate</li> <li>• 1000 Full: 1000-BaseT/full duplex</li> <li>• 100 Half: 100-BaseT/half duplex</li> <li>• 100 Full: 100-BaseT/full duplex</li> <li>• 10 Half: 10-BaseT/half duplex</li> <li>• 10 Full: 10-BaseT/full duplex</li> </ul> <p>If the phone is connected to a switch, configure the port on the switch to the same speed as the phone, or configure both to autonegotiate.</p> <p>Unlock network configuration options if you want to change this field. If you change the setting, you must change the SW Port Configuration option to the same setting.</p> <p>To configure the setting on multiple phones simultaneously, enable Remote Port Configuration in the Enterprise Phone Configuration window (<b>System &gt; Enterprise Phone Configuration</b>).</p> <p>If the ports are configured for Remote Port Configuration in Cisco Unified Communications Manager Administration, the data cannot be changed on the phone.</p>
UDP-MED			

## IPv4 Fields

*Table 2: IPv4 Setup Menu Options*

Entry	Type	Default	Description
DHCP Enabled			Indicates whether the phone has DHCP enabled or disabled.  When DHCP is enabled, the DHCP server assigns the phone an IP address. When DHCP is disabled, the administrator must manually assign an IP address to the phone.
IP Address			Internet Protocol (IP) address of the phone.  If you assign an IP address with this option, you must also assign a subnet mask and default router. See the Subnet Mask and Default Router options in this table.
Subnet Mask			Subnet mask used by the phone.
Default Router			Default router used by the phone.
DNS Server 1			Primary Domain Name System (DNS) server (DNS Server 1) that the phone uses.
Alternate TFTP			Indicates whether the phone is using an alternate TFTP server.

Entry	Type	Default	Description
TFTP Server 1			<p>Primary Trivial File Transfer Protocol (TFTP) server that the phone uses. If you are not using DHCP in your network and you want to change this server, you must use the TFTP Server 1 option.</p> <p>If you set the Alternate TFTP option to On, you must enter a nonzero value for the TFTP Server 1 option.</p> <p>If neither the primary TFTP server nor the backup TFTP server is listed in the CTL or ITL file on the phone, you must unlock the file before you can save changes to the TFTP Server 1 option. In this case, the phone deletes the file when you save changes to the TFTP Server 1 option. A new CTL or ITL file downloads from the new TFTP Server 1 address.</p> <p>When the phone looks for the TFTP server, the phone gives precedence to manually assigned TFTP servers, regardless of the protocol. If your configuration includes both IPv6 and IPv4 TFTP servers, the phone prioritizes the order that it looks for the TFTP server by giving priority to manually assigned IPv6 TFTP servers and IPv4 TFTP servers. The phone looks for the TFTP server in this order:</p> <ol style="list-style-type: none"> <li>1. Any manually assigned IPv4 TFTP servers</li> <li>2. Any manually assigned IPv6 servers</li> <li>3. DHCP assigned TFTP servers</li> <li>4. DHCPv6 assigned TFTP servers</li> </ol> <p><b>Note</b> For information about the CTL and ITL files, see the <i>Cisco Unified Communications Manager Security Guide</i>.</p>

Entry	Type	Default	Description
TFTP Server 2			<p>Optional backup TFTP server that the phone uses if the primary TFTP server is unavailable.</p> <p>If neither the primary TFTP server nor the backup TFTP server is listed in the CTL or ITL file on the phone, you must unlock either of the files before you can save changes to the TFTP Server 2 option. In this case, the phone deletes either of the files when you save changes to the TFTP Server 2 option. A new CTL or ITL file downloads from the new TFTP Server 2 address.</p> <p>If you forget to unlock the CTL or ITL file, you can change the TFTP Server 2 address in either file, then erase them by pressing Erase from the Security Configuration menu. A new CTL or ITL file downloads from the new TFTP Server 2 address.</p> <p>When the phone looks for the TFTP server, it gives precedence to manually assigned TFTP servers, regardless of the protocol. If your configuration includes both IPv6 and IPv4 TFTP servers, the phone prioritizes the order that it looks for the TFTP server by giving priority to manually assigned IPv6 TFTP servers and IPv4 TFTP servers. The phone looks for the TFTP server in the following order:</p> <ol style="list-style-type: none"> <li>1. Any manually assigned IPv4 TFTP servers</li> <li>2. Any manually assigned IPv6 servers</li> <li>3. DHCP assigned TFTP servers</li> <li>4. DHCPv6 assigned TFTP servers</li> </ol> <p><b>Note</b> For information about the CTL or ITL file, see Cisco Unified Communications Manager Security Guide.</p>
DHCP Address Released			<p>Releases the IP address that DHCP assigned.</p> <p>This field is editable if DHCP is enabled. If you wish to remove the phone from the VLAN and release the IP address for reassignment, set this option to Yes and press Apply.</p>

## IPv6 Fields

Before IPv6 setup options can be configured on your device, IPv6 must be enabled and configured in Cisco Unified Communication Administration. The following device configuration fields apply to IPv6 configuration:

- IP Addressing Mode
- IP Addressing Mode Preference for Signalling

If IPv6 is enabled in the Unified cluster, the default setting for IP addressing mode is IPv4 and IPv6. In this addressing mode, the phone acquires and uses one IPv4 address and one IPv6 address. It can use the IPv4 and the IPv6 address as required for media. The phone uses either the IPv4 or IPv6 address for call control signaling.

For more details about IPv6 deployment, see the [IPv6 Deployment Guide for Cisco Collaboration Systems Release 12.0](#).

You set up IPv6 from one of the following menus:

- When Wi-Fi is disabled: **Ethernet Setup > IPv6 setup**
- When Wi-Fi is enabled: **Wi-Fi Client Setup > IPv6 setup**

Use the phone keypad to enter or edit an IPv6 address. To enter a colon, press the asterisk (\*) on the keypad. To enter hexadecimal digits a, b, and c, press 2 on the keypad, scroll to select the required digit, and press **Enter**. To enter hexadecimal digits d, e, and f, press 3 on the keypad, scroll to select the required digit, and press **Enter**.

The following table describes the IPv6 related information found in the IPv6 menu.

**Table 3: IPv6 Setup Menu Options**

Menu Entry	Description	Tip
DHCPv6 Enable	Indicates the method that the phone uses to get the IPv6-only address.  When DHCPv6 is enabled, the phone gets the IPv6 address either from DHCPv6 server or from SLAAC by RA sent by the IPv6-enabled router. And if DHCPv6 is disabled, the phone will not have any stateful (from DHCPv6 server) or stateless (from SLAAC) IPv6 address.	
IPv6 Address	Displays the current IPv6-only address of the phone or allows the user to enter a new IPv6 address.  A valid IPv6 address is 128 bits in length, including the subnet prefix. Two address formats are supported: <ul style="list-style-type: none"> <li>• Eight sets of hexadecimal digits separated by colons X:X:X:X:X:X:X:X</li> <li>• Compressed format to collapse a single run of consecutive zero groups into a single group represented by a double colon.</li> </ul> If the IP address is assigned with this option, you must also assign the IPv6 prefix length and the default router.	
IPv6 Prefix Length	Displays the current prefix length for the subnet or allows the user to enter a new prefix length.  The subnet prefix length is a decimal value from 1 to 128.	
IPv6 Default Router	Displays the default router used by the phone or allows the user to enter a new IPv6-only default router.	
IPv6 DNS Server 1	Displays the primary DNSv6 server used by the phone or allows the user to enter a new server.	
IPv6 Alternate TFTP	Allows the user to enable the use of an alternate (secondary) IPv6 TFTP server.	
IPv6 TFTP Server 1	Displays the primary IPv6 TFTP server used by the phone or allows the user to set a new primary TFTP server.	
IPv6 TFTP Server 2 (Optional)	Displays the secondary IPv6 TFTP server used if the primary IPv6 TFTP server is unavailable or allows the user to set a new secondary TFTP server.	
IPv6 Address Release	Allows the user to release IPv6-related information.	

# Verify Phone Startup

After the Cisco IP Phone has power connected to it, the phone automatically cycles through a startup diagnostic process.

## Procedure

- 
- Step 1** If you are using Power over Ethernet, plug the LAN cable into the Network port.
- Step 2** If you are using the power cube, connect the cube to the phone and plug the cube into an electrical outlet.
- The buttons flash amber and then green in sequence during the various stages of bootup as the phone checks the hardware.
- If the phone completes these stages successfully, it has started up properly.
- Note** For Cisco IP Phone 8861, if you are using a power cube but there is no Power over Ethernet available, then the wifi will be enabled.

---

## Related Topics

[Startup Problems](#)

[Cisco IP Phone Does Not Go Through the Normal Startup Process](#)

# Configure Phone Services for Users

You can give users access to Cisco IP Phone Services on the IP phone. You can also assign a button to different phone services. The IP phone manages each service as a separate application.

Before a user can access any service:

- Use Cisco Unified Communications Manager Administration to configure services that are not present by default.
- The user must subscribe to services by using the Cisco Unified Communications Self Care Portal. This web-based application provides a graphical user interface (GUI) for limited, end-user configuration of IP phone applications. However, a user cannot subscribe to any service that you configure as an enterprise subscription.

For more information, see the documentation for your particular Cisco Unified Communications Manager release.

Before you set up services, gather the URLs for the sites that you want to set up and verify that users can access those sites from your corporate IP telephony network. This activity is not applicable for the default services that Cisco provides.

### Procedure

---

- Step 1** In Cisco Unified Communications Manager Administration, choose **Device > Device Settings > Phone Services**.
- Step 2** Verify that your users can access the Cisco Unified Communications Self Care Portal, from which they can select and subscribe to configured services.
- See [Self Care Portal Overview](#) for a summary of the information that you must provide to end users.

---

### Related Topics

[Cisco Unified Communications Manager Documentation](#)

## Change a User's Phone Model

You or your user can change a user's phone model. The change can be required for a number of reasons, for example:

- You have updated your Cisco Unified Communications Manager (Unified CM) to a software version that doesn't support the phone model.
- The user wants a different phone model from their current model.
- The phone requires repair or replacement.

The Unified CM identifies the old phone and uses the old phone's MAC address to identify the old phone configuration. The Unified CM copies the old phone configuration into the entry for the new phone. The new phone then has the same configuration as the old phone.

**Limitation:** If the old phone has more lines or line buttons than the new phone, the new phone doesn't have the extra lines or line buttons configured.

The phone reboots when the configuration is complete.

### Before you begin

Set up your Cisco Unified Communications Manager according to the instructions in the *Feature Configuration Guide for Cisco Unified Communications Manager*.

You need a new, unused phone that comes preinstalled with Firmware Release 12.8(1) or later.

### Procedure

---

- Step 1** Power off the old phone.
- Step 2** Power on the new phone.
- Step 3** On the new phone, select **Replace an existing phone**.
- Step 4** Enter the primary extension of the old phone.
- Step 5** If the old phone had a PIN assigned, enter the PIN.
- Step 6** Press **Submit**.



**Step 7** If there is more than one device for the user, select the device to replace and press **Continue**.

---

