



CHAPTER 3

Setting Up the Cisco Unified IP Phone

This chapter includes the following topics, which help you install the Cisco Unified IP Phone on an IP telephony network:

- [Before You Begin, page 3-1](#)
- [Understanding the Cisco Unified IP Phone 6901 and 6911 Components, page 3-2](#)
- [Installing the Cisco Unified IP Phone, page 3-4](#)
- [Footstand, page 3-7](#)
- [Verifying the Phone Startup Process, page 3-9](#)
- [Configuring Startup Network Settings, page 3-9](#)



Note

Before you install a Cisco Unified IP phone, you must decide how to configure the phone in your network. Then you can install the phone and verify its functionality. For more information, see [Chapter 2, “Preparing to Install the Cisco Unified IP Phone on Your Network.”](#)

Before You Begin

Before installing the Cisco Unified IP Phone, review the requirements in these sections:

- [Network Requirements, page 3-1](#)
- [Cisco Unified Communications Manager Configuration, page 3-2](#)

Network Requirements

For the Cisco Unified IP Phone to successfully operate as a Cisco Unified IP Phone endpoint in your network, your network must meet the following requirements:

- Working Voice over IP (VoIP) Network:
 - VoIP configured on your Cisco routers and gateways
 - Cisco Unified Communications Manager installed in your network and configured to handle call processing
- IP network that supports DHCP or manual assignment of IP address, gateway, and subnet mask

Cisco Unified Communications Manager Configuration

The Cisco Unified IP Phone requires Cisco Unified Communications Manager to handle call processing. Refer to *Cisco Unified Communications Manager Administration Guide* or to context-sensitive help in the Cisco Unified Communications Manager application to ensure that Cisco Unified Communications Manager is set up properly to manage the phone and to properly route and process calls.

If you plan to use auto-registration, verify that it is enabled and properly configured in Cisco Unified Communications Manager Administration before connecting any Cisco Unified IP Phone to the network. For information about enabling and configuring auto-registration, refer to *Cisco Unified Communications Manager Administration Guide*. Also, see the [“Adding Phones to the Cisco Unified Communications Manager Database” section on page 2-7](#).

You must use Cisco Unified Communications Manager Administration to configure and assign telephony features to the Cisco Unified IP Phones. See the [“Telephony Features Available for the Cisco Unified IP Phone” section on page 5-1](#) for details.

In Cisco Unified Communications Manager Administration, you can add users to the database, add users to user groups, and associate users to specific phones. In this way, users gain access their Cisco Unified CM User Option page to configure items such as call forwarding, speed dialing, and voice messaging system options. See the [“Adding Users to Cisco Unified Communications Manager” section on page 5-7](#) for details.

Understanding the Cisco Unified IP Phone 6901 and 6911 Components

The Cisco Unified IP Phone 6901 and 6911 include these components on the phone or as accessories for the phone:

- [Network and Access Ports, page 3-2](#)
- [Handset, page 3-3](#)
- [Speakerphone \(Cisco Unified IP Phone 6911 Only\), page 3-3](#)

Network and Access Ports

The back of the Cisco Unified IP Phone 6901 includes a network port, which the phone uses to connect to the network. The port supports 10/100 Mbps half- or full-duplex connections to external devices. You can use either Category 3/5/5e cabling for 10-Mbps connections, but you must use Category 5/5e for 100 Mbps connections.

The back of the Cisco Unified IP Phone 6911 includes these ports:

- Network port—Labeled Network.
- Access port—Labeled Computer.

**Note**

Only the Cisco Unified IP Phone 6911 has a PC port. The Cisco Unified IP Phone 6901 does not have a PC port.

Each port supports 10/100 Mbps half- or full-duplex connections to external devices. You can use either Category 3/5/5e cabling for 10-Mbps connections, but you must use Category 5/5e for 100 Mbps connections.

Use the network port to connect the phone to the network. You must use a straight-through cable on this port. The phone can also obtain inline power from a switch over this connection. See the [“Adding Phones to the Cisco Unified Communications Manager Database” section on page 2-7](#) for details.

Use the PC access port to connect a network device, such as a computer, to the phone. You must use a straight-through cable on this port.

Handset

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

To connect a handset to the Cisco Unified IP Phone, plug the cable into the handset and the Handset port on the back of the phone.

Speakerphone (Cisco Unified IP Phone 6911 Only)

By default, the speakerphone is enabled on the Cisco Unified IP Phone.

You can disable the speakerphone by using Cisco Unified Communications Manager Administration. To do so, choose **Device > Phone** and locate the phone you want to modify. In the Phone Configuration window for the phone, check the **Disable Speakerphone** check box.

Installing the Cisco Unified IP Phone

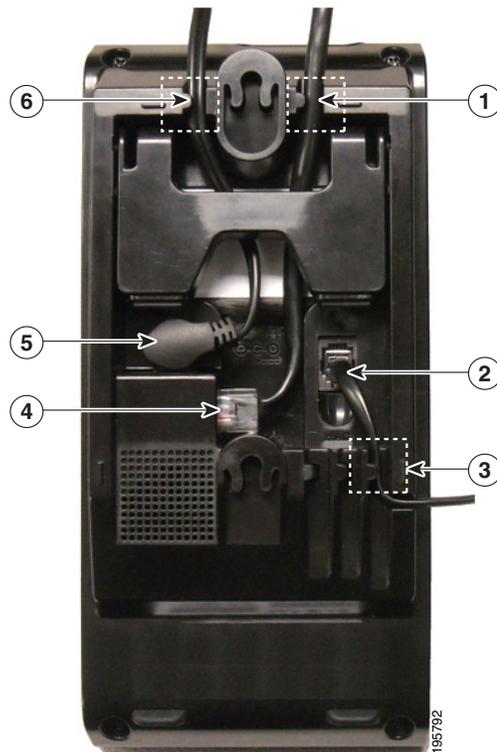
You must connect the Cisco Unified IP Phone to the network and to a power source before using it. See [Figure 3-1](#) for a graphical representation of the connections for a Cisco Unified IP Phone 6901 and [Figure 3-2](#) for a graphical representation of the connections for a Cisco Unified IP Phone 6911.

To install a Cisco Unified IP Phone, perform the tasks described in [Table 3-1](#).

Table 3-1 *Installing the Cisco Unified IP Phone 6901 and 6911*

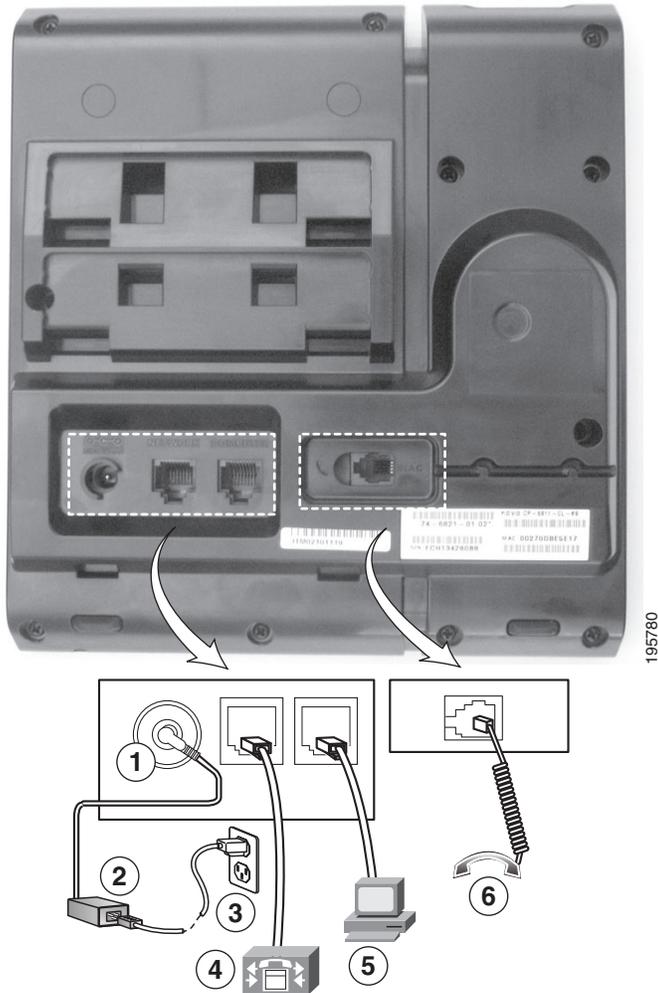
Task	Purpose	Related Topics
1.	Connect the handset to the Handset port.	—
2.	Optional. Connect the power supply to the Cisco DC Adapter port.	See the “Adding Phones to the Cisco Unified Communications Manager Database” section on page 2-7 for guidelines.
3.	<p>Connect a straight-through Ethernet cable from the switch to the network port labeled Network on the Cisco Unified IP Phone 6901 and 6911.</p> <p>Each Cisco Unified IP Phone ships with one Ethernet cable in the box.</p> <p>You can use either Category 3/5/5e cabling for 10-Mbps connections, but you must use Category 5/5e for 100 Mbps connections.</p>	See the “Network and Access Ports” section on page 3-2 for guidelines.
4.	<p>(Cisco Unified IP Phone 6911)</p> <p>Connect a straight-through Ethernet cable from another network device, such as a desktop computer, to the access port labeled Computer.</p> <p>Optional. You can connect another network device later if you do not connect one now.</p> <p>You can use either Category 3/5/5e cabling for 10-Mbps connections, but you must use Category 5/5e for 100 Mbps connections.</p>	See the “Network and Access Ports” section on page 3-2 for guidelines.

Figure 3-1 Cisco Unified IP Phone 6901 Cable Connections



1	Slot for Ethernet cable	4	Network port (10/100 SW) connection IEEE 802.3af power enabled
2	Handset connection	5	DC adaptor port (DC48V)
3	Slot for handset cable	6	Slot for DC adaptor cable

Figure 3-2 Cisco Unified IP Phone 6911 Cable Connections



1	DC adaptor port (DC48V)	4	Network port (10/100 SW) connection IEEE 802.3af power enabled
2	AC-to-DC power supply (optional)	5	Access port (10/100 PC) connection
3	AC power wall plug (optional)	6	Handset connection

Related Topics

- [Footstand, page 3-7](#)
- [Verifying the Phone Startup Process, page 3-9](#)
- [Configuring Startup Network Settings, page 3-9](#)

Footstand

The Cisco Unified IP Phone 6901 has a foldable footstand. When the footstand is unfolded, it gives the phone an elevated viewing angle.

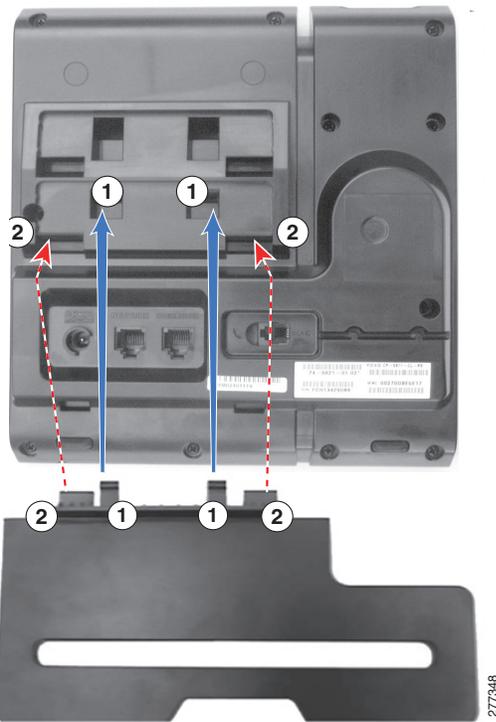
Figure 3-3 illustrates the footstand on the Cisco Unified IP Phone 6901.

Figure 3-3 Cisco Unified IP Phone 6901



Figure 3-4 illustrates attaching the footstand at a higher angle on the Cisco Unified IP Phone 6911.

Figure 3-4 Cisco Unified IP Phone 6911



- | | | | |
|----------|--|----------|---|
| 1 | Insert the connectors into the lower slots | 2 | Lift the footstand until the connectors snap into the upper slots |
|----------|--|----------|---|

Higher Viewing Angle

Connect the footstand to the lower slots for a higher viewing angle.



Lower Viewing Angle

Connect the footstand to the upper slots for a higher viewing angle.



Mounting the Phone to the Wall

You can mount the Cisco Unified IP Phone 6901 on the wall by using a standard telephone wall plate with an opening for an RJ-45 connector. Cisco recommends that you use Leviton Wall Mount plate (Leviton type number: 4108W-0SP) to wall mount the Cisco Unified IP Phone 6901. For information on installing the wall mount kit for Cisco Unified IP Phone 6901, see [Installing a Wall Mount for the Cisco Unified IP Phone 6901, page E-1](#).

You can mount the Cisco Unified IP Phone 6911 on the wall by using special brackets available in a Cisco Unified IP Phone wall mount kit. For information on installing the wall mount kit, see [Installing a Wall Mount for the Cisco Unified IP Phone 6911, page E-7](#).

**Note**

Wall mount kits are not included with the phone and must be ordered separately.

Verifying the Phone Startup Process

The LEDs on the MWI on the handset, and the LEDs on the Mute button light up during bootup. Upon successful completion of the bootup process, the LEDs turn off, and the phone is ready for calls. If the phone successfully boots up, it has started up properly. If the phone does not start up properly, the user receives a reorder tone. For more information, see the [“Resolving Startup Problems” section on page 7-1](#).

Configuring Startup Network Settings

If you are not using DHCP in your network, you must configure these network settings on the Cisco Unified IP Phone after installing the phone on the network:

- IP address
- IP subnet information
- Default Router
- TFTP server IP address

Collect this information and see the instructions in [Chapter 4, “Configuring Settings on the Cisco Unified IP Phone.”](#)

Configuring Security on the Cisco Unified IP Phone

The security features protect against several threats, including threats to the identity of the phone and to data. These features establish and maintain authenticated communication streams between the phone and the Cisco Unified Communications Manager server, and digitally sign files before they are delivered.

For more information about the security features, see the [“Understanding Security Features for Cisco Unified IP Phones” section on page 1-10](#). Also, refer to *Cisco Unified Communications Manager Security Guide*.

You can initiate the installation of an LSC from the Security Configuration menu on the phone. This menu also lets you update or remove an LSC.

Before You Begin

Make sure that the appropriate Cisco Unified Communications Manager and the Certificate Authority Proxy Function (CAPF) security configurations are complete:

- The CTL file or ITL file should have a CAPF certificate.
- On Cisco Unified Communications Operating System Administration, verify that the CAPF certificate has been installed
- The CAPF is running and configured.

Refer to *Cisco Unified Communications Manager Security Guide* for more information.

Related Topic

- [Understanding Security Features for Cisco Unified IP Phones, page 1-10](#)