



Cisco IP Phone Hardware

- [Phone Overview](#), on page 1
- [Cisco IP Phone 8811](#), on page 3
- [Cisco IP Phones 8841 and 8845](#), on page 4
- [Cisco IP Phones 8851 and 8851NR](#), on page 5
- [Cisco IP Phones 8861, 8865, and 8865NR](#), on page 7
- [Buttons and Hardware](#), on page 8
- [Protect Your Video Phone Camera](#), on page 10

Phone Overview

The Cisco IP Phones 8800 Series provides voice communication over an Internet Protocol (IP) network. The Cisco IP Phone functions much like any digital business phone, allowing you to make phone calls and to access features such as mute, hold, transfer, and more. In addition, because the phone connects to your data network, it offers enhanced IP telephony features, including access to network information and services, and customizable features and services.

The Cisco IP Phone 8811 has a grayscale LCD screen. The Cisco IP Phones 8841, 8845, 8851, 8851NR, 8861, 8865, and 8865NR have a 24-bit color LCD screen.

When adding features to the phone line keys, you are limited by the number of line keys available. You cannot add more features than the number of line keys on your phone.

The Cisco IP Phones have the following features:

- Programmable feature buttons that support up to 5 lines in Session Line Mode or up to 10 lines with Enhanced Line Mode
- Full video capabilities (Cisco IP Phones 8845, 8865, and 8865NR only)
- Gigabit Ethernet connectivity
- Bluetooth support for wireless headsets (Cisco IP Phone 8845, 8851, 8861, and 8865 only. This feature is not supported on Cisco IP Phone 8811, 8841, 8851NR, and 8865NR.)
- Support for an external microphone and speakers (Cisco IP Phone 8861, 8865, and 8865NR only)
- Network connectivity by Wi-Fi (Cisco IP Phone 8861 and 8865 only. Wi-Fi is not supported on Cisco IP Phone 8865NR.)
- USB ports:

- One USB port for Cisco IP Phone 8851 and 8851NR
- Two USB ports for Cisco IP Phone 8861, 8865, and 8865NR

The Cisco IP Phone 8845, 8865, and 8865NR support video calls with a built-in video camera. Use this feature to collaborate with friends and co-workers or to hold face-to-face meetings over the phone.



Note You should save the box and packaging for the Cisco IP Phone 8845, 8865, and 8865NR. The cameras on these phones are fragile. If you move the phone, we recommend that you pack the phone into the original box to protect the camera. For more information, see [Protect Your Video Phone Camera, on page 10](#).

A video call includes the following features:

- PIP — Select from four positions: Right bottom, Right top, Left top, and Left bottom. You can also turn PIP off.
- Swap — Toggles the views in the PIP view. The Swap softkey is disabled when PIP is off.
- Self-view Video — Select Self-view Video to view your image as it appears on video.
- Video UI and Conference/Transfer Initiation — Select to begin a conference.

For additional information on Video Calls, see *Cisco IP Phone 8800 Series User Guide for Cisco Unified Communications Manager* and the documentation for your particular Cisco Unified Communications Manager release.

Like other devices, a Cisco IP Phone must be configured and managed. These phones encode and decode the following codecs:

- G.711 a-law
- G.711 mu-law
- G.722
- G722.2 AMR-WB
- G.729a/G.729ab
- G.726
- iLBC
- Opus
- iSAC



Caution Using a cell, mobile, or GSM phone, or two-way radio in close proximity to a Cisco IP Phone might cause interference. For more information, see the manufacturer's documentation of the interfering device.

Cisco IP Phones provide traditional telephony functionality, such as call forwarding and transferring, redialing, speed dialing, conference calling, and voice messaging system access. Cisco IP Phones also provide a variety of other features.

As with other network devices, you must configure Cisco IP Phones to prepare them to access Cisco Unified Communications Manager and the rest of the IP network. By using DHCP, you have fewer settings to configure on a phone. If your network requires it, however, you can manually configure information such as: an IP address, TFTP server, and subnet information.

Cisco IP Phones can interact with other services and devices on your IP network to provide enhanced functionality. For example, you can integrate Cisco Unified Communications Manager with the corporate Lightweight Directory Access Protocol 3 (LDAP3) standard directory to enable users to search for coworker contact information directly from their IP phones. You can also use XML to enable users to access information such as weather, stocks, quote of the day, and other web-based information.

Finally, because the Cisco IP Phone is a network device, you can obtain detailed status information from it directly. This information can assist you with troubleshooting any problems users might encounter when using their IP phones. You can also obtain statistics about an active call or firmware versions on the phone.

To function in the IP telephony network, the Cisco IP Phone must connect to a network device, such as a Cisco Catalyst switch. You must also register the Cisco IP Phone with a Cisco Unified Communications Manager system before sending and receiving calls.

Related Topics

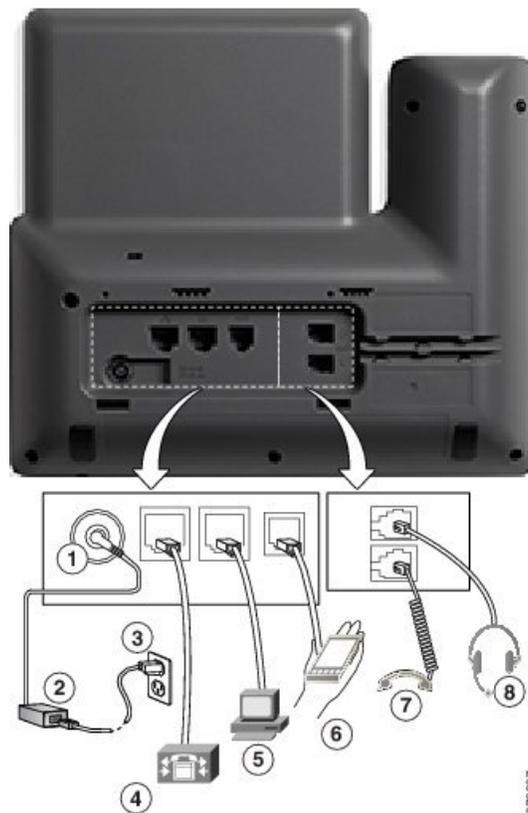
[Cisco Unified Communications Manager Documentation](#)

Cisco IP Phone 8811

The following section describe the Cisco IP Phone 8811 attributes.

Phone Connections

Connect your phone to your organization's IP telephony network as shown in the following diagram.



1	DC adapter port (DC48V).	5	Access port (10/100/1000 PC) connection.
2	AC-to-DC power supply (optional).	6	Auxiliary port.
3	AC power wall plug (optional).	7	Handset connection.
4	Network port (10/100/1000 SW) connection. IEEE 802.3at power enabled.	8	Analog headset connection (optional).



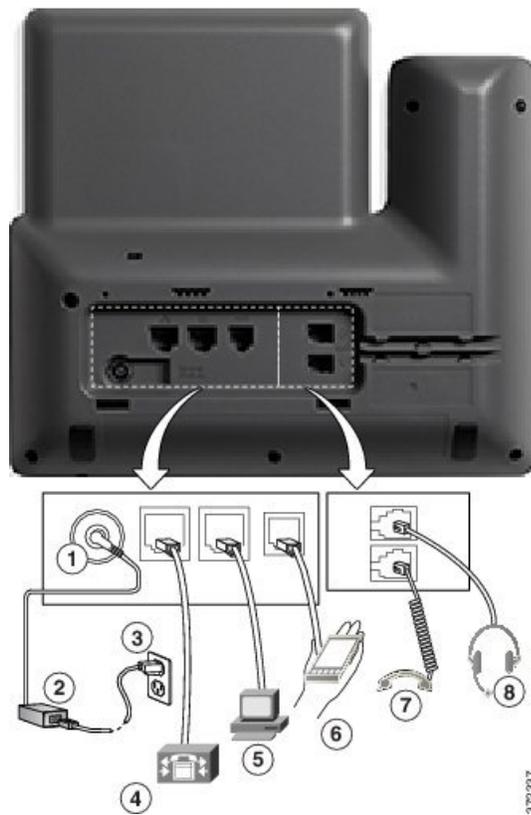
Note The Cisco IP Phone 8811 does not support a key expansion module.

Cisco IP Phones 8841 and 8845

The following section describe the attributes of the Cisco IP Phones 8841 and 8845.

Phone Connections

Connect your phone to the corporate IP telephony network, using the following diagram.



1	DC adaptor port (DC48V).	5	Access port (10/100/1000 PC) connection.
2	AC-to-DC power supply (optional).	6	Auxiliary port.
3	AC power wall plug (optional).	7	Handset connection.
4	Network port (10/100/1000 SW) connection. IEEE 802.3at power enabled.	8	Analog headset connection (optional).



Note The Cisco IP Phone 8841 and 8845 does not support a key expansion module.

Cisco IP Phones 8851 and 8851NR

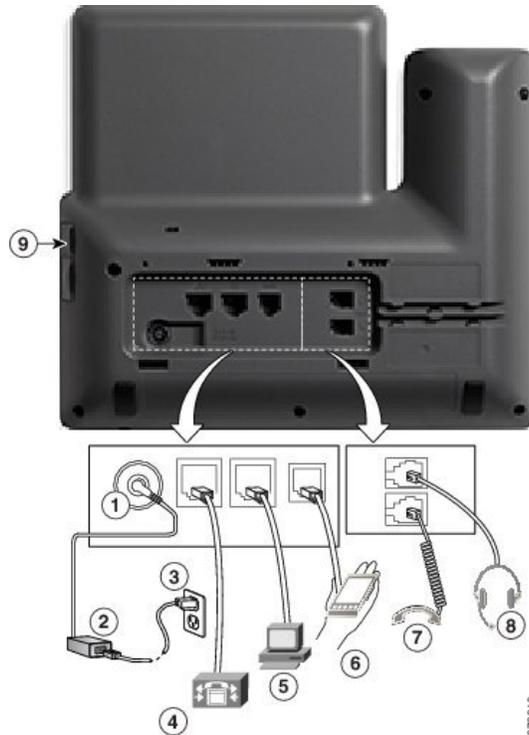
The following section describe the attributes of the Cisco IP Phones 8851 and 8851NR.



Note The Cisco IP Phone 8851NR does not support Bluetooth. Otherwise, the Cisco IP Phone 8851 and Cisco IP Phone 8851NR support the same features.

Phone Connections

Connect your phone to the corporate IP telephony network as shown in the following diagram.



1	DC adaptor port (DC48V).	6	Auxiliary port.
2	AC-to-DC power supply (optional).	7	Handset connection.
3	AC power wall plug (optional).	8	Analog headset connection (optional).
4	Network port (10/100/1000 SW) connection. IEEE 802.3at power enabled.	9	USB port
5	Access port (10/100/1000 PC) connection.		



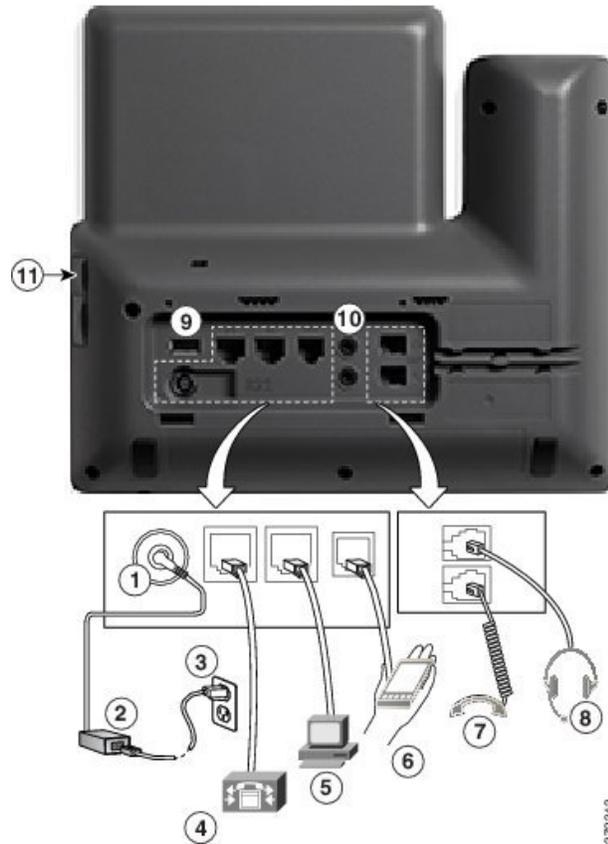
Note Each USB port supports the connection of up to five supported and nonsupported devices. Each device connected to the phone is included in the maximum device count. For example, your phone can support five USB devices (such as two key expansion modules, one headset, one hub, and one other standard USB device) on the side port. Many third-party USB products count as multiple USB devices, for example, a device containing USB hub and headset can count as two USB devices. For more information, see the USB device documentation.

Cisco IP Phones 8861, 8865, and 8865NR

The following section describe the attributes of the Cisco IP Phones 8861, 8865, and 8865NR.

Phone Connections

Connect your phone to the corporate IP telephony network as shown in the following diagram.



1	DC adaptor port (DC48V).	7	Handset connection.
2	AC-to-DC power supply (optional).	8	Analog headset connection (optional).
3	AC power wall plug (optional).	9	USB port
4	Network port (10/100/1000 SW) connection. IEEE 802.3at power enabled.	10	Audio In/Out ports
5	Access port (10/100/1000 PC) connection.	11	USB port
6	Auxiliary port.		



Note Each USB port supports the connection of up to five supported and nonsupported devices. Each device connected to the phone is included in the maximum device count. For example, your phone can support five USB devices (such as three key expansion modules, one hub, and one other standard USB device) on the side port and five additional standard USB devices on the back port. Many third-party USB products count as multiple USB devices, for example, a device containing USB hub and headset can count as two USB devices. For more information, see the USB device documentation.

Buttons and Hardware

The Cisco IP Phone 8800 Series has two distinct hardware types:

- Cisco IP Phones 8811, 8841, 8851, 8851NR, and 8861—do not have a camera.
- Cisco IP Phones 8845, 8865, and 8865NR—have a built-in camera.

The following figure shows the Cisco IP Phone 8845.

Figure 1: Cisco IP Phone 8845 Buttons and Hardware



The following table describes the Cisco IP Phone 8800 Series Buttons.

Table 1: Cisco IP Phone 8800 Series Buttons

1	Handset and Handset light strip	Indicates whether you have an incoming call (flashing red) or a new voice message (steady red).
2	Camera Cisco IP Phone 8845, 8865, and 8865NR only	Use the camera for video calls.

3	Programmable feature buttons and line buttons	 Access your phone lines, features, and call sessions. When adding features to the phone line keys, you are limited by the number of line keys available. You cannot add more features than the number of line keys on your phone. For more information, see the Softkey, Line, and Feature Buttons section in the "Cisco IP Phone Hardware" chapter.
4	Softkey buttons	 Access to functions and services. For more information, see the Softkey, Line, and Feature Buttons section in the "Cisco IP Phone Hardware" chapter.
5	Back , Navigation cluster, and Release	Back  Return to the previous screen or menu. Navigation cluster  Navigation ring and Select button—Scroll through menus, highlight items and select the highlighted item. Release  End a connected call or session.
6	Hold/Resume , Conference , and Transfer	Hold/Resume  Place an active call on hold and resume the held call. Conference  Create a conference call. Transfer  Transfer a call.
7	Speakerphone , Mute , and Headset	Speakerphone  Toggle the speakerphone on or off. When the speakerphone is on, the button is lit. Mute  Toggle the microphone on or off. When the microphone is muted, the button is lit. Headset  Toggle the headset on. When the headset is on, the button is lit. To leave headset mode, you pick up the handset or select Speakerphone  .
8	Contacts , Applications , and Messages	Contacts  Access personal and corporate directories. Applications  Access recent calls, user preferences, phone settings, and phone model information. Messages  Autodial your voice messaging system.
9	Volume button	 Adjust the handset, headset, and speakerphone volume (off hook) and the ringer volume (on hook).

Softkey, Line, and Feature Buttons

You can interact with the features on your phone in several ways:

- Softkeys, located below the screen, give you access to the function displayed on the screen above the softkey. The softkeys change depending on what you are doing at the time. The **More ...** softkey shows you that more functions are available.
- Feature and line buttons, located on either side of the screen, give you access to phone features and phone lines.
 - Feature buttons—Used for features such as **Speed dial** or **Call pickup**, and to view your status on another line.
 - Line buttons—Used to answer a call or resume a held call. When not used for an active call, used to initiate phone functions, such as the missed calls display.

Feature and line buttons illuminate to indicate status.

LED Color and State	Normal Line Mode: Line Buttons	Normal Line Mode: Feature Buttons Enhanced Line Mode
 Green, steady LED	Active call or two-way intercom call, held call, privacy in use	Active call or two-way intercom call, privacy in use
 Green, flashing LED	Not applicable	Held call
 Amber, steady LED	Incoming call, reverting call, one-way intercom call, logged into a Hunt Group	One-way intercom call, logged into a Hunt Group
 Amber, flashing LED	Not applicable	Incoming call, reverting call
 Red, steady LED	Remote line in use, Remote line on hold, Do Not Disturb active	Remote line in use, Do Not Disturb active
 Red, flashing LED	Not applicable	Remote line on hold

Your administrator can set up some functions as softkeys or as feature buttons. You can also access some functions with softkeys or the associated hard button.

Protect Your Video Phone Camera

The camera on your video phone is fragile and could break during transportation of the phone.

Before you begin

You need one of these:

- Original phone box and the packing material
- Packaging material, such as foam or bubble wrap

Procedure

- Step 1** If you have the original box:
- a) Place the foam on the camera in such a way that the lens is well-protected.
 - b) Place the phone in its original box.
- Step 2** If you do not have the box, carefully wrap the phone with foam or bubble wrap to protect the camera. Ensure that the foam protects and surrounds the camera so that nothing can press against the camera from any direction or the camera may be damaged in transport.
-

