C H A P T E R 3

Setting Up the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G

This chapter includes the following topics, which help you install and configure the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G on an IP telephony network:

- Before You Begin, page 3-1
- Installing the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G, page 3-7
- Powering On the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G, page 3-16
- Understanding the Phone Startup Process, page 3-17

Before You Begin

Before installing a Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G, review the requirements in these sections:

- Network Requirements, page 3-1
- Methods for Adding Phones to Cisco Unified Communications Manager, page 3-2
- Device Support, page 3-5
- Safety Information, page 3-5

Network Requirements

For the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G to successfully operate as a Cisco Unified IP Phone endpoint, your network must support these requirements:

Voice over Wireless LAN

- Cisco Aironet Access Points (APs) configured to support Voice over WLAN (VoWLAN)
- Controllers and switches configured to support VoWLAN
- Security implemented for authenticating wireless voice devices and users

Note You must verify that your wireless network is configured properly for voice service. For more information, see "Performing a Site Survey Verification" section on page 2-20.

VoIP Network

- Cisco routers and gateways configured for VoIP
- One of these call control products installed and configured:
  - Cisco Unified Communications Manager Release 4.3 or later
  - Cisco Unified Communications Manager Express Release 4.3 or later
- IP network configured to support DHCP or manual assignment of IP address, gateway, and subnet mask

Related Topics

- Features Supported on the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G, page 1-8
- Understanding the Wireless LAN, page 2-1
- Methods for Adding Phones to Cisco Unified Communications Manager, page 3-2
- Installing the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G, page 3-7
- Powering On the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G, page 3-16

Methods for Adding Phones to Cisco Unified Communications Manager

Before installing the wireless IP phone, you must choose a method for adding phones to the Cisco Unified Communications Manager database. Some methods require entering the MAC address of the phone. Table 3-1 provides an overview of these methods.

Table 3-1   Methods for Adding Phones to the Cisco Unified Communications Manager Database

Method	Requires MAC Address?	Notes
Auto-registration	No	Results in automatic assignment of directory numbers
Auto-registration with the Tool for Auto-Registered Phones Support (TAPS)	No	Requires auto-registration and Bulk Administration Tool (BAT); updates information in the Cisco Unified IP Phone and in Cisco Unified Communications Manager Administration
BAT	Yes	Allows for simultaneous registration of multiple phones
Cisco Unified Communications Manager Administration only	Yes	Requires phones to be added individually

The following sections describe methods for adding phones:

- Adding Phones with Auto-Registration, page 3-3
- Adding Phones with Auto-Registration and TAPS, page 3-3

- Adding Phones with BAT, page 3-4
- Adding Phones with Cisco Unified Communications Manager Administration, page 3-4

Adding Phones with Auto-Registration

Use auto-registration to enter phones into the Cisco Unified Communications Manager database without first gathering MAC addresses from the phones. When auto-registration is enabled, Cisco Unified Communications Manager automatically assigns the next available sequential directory number (DN) to new phones during the initial phone startup process.

After registering the phones, you can modify settings, such as the DNs and device pools, by using Cisco Unified Communications Manager Administration.

Note   Auto-registration is disabled by default in Cisco Unified Communications Manager Administration. You must enable and properly configure auto-registration before connecting any Cisco Unified IP Phone to the network. For information about enabling and configuring auto-registration, see *Cisco Unified Communications Manager Administration Guide*.

Related Topics

- Adding Phones with Auto-Registration and TAPS, page 3-3
- Adding Phones with BAT, page 3-4
- Adding Phones with Cisco Unified Communications Manager Administration, page 3-4

Adding Phones with Auto-Registration and TAPS

Use auto-registration and TAPS to add phones to the Cisco Unified Communications Manager database. Add the phones first by using BAT to the Cisco Unified Communications Manager database with dummy MAC addresses. Then use TAPS to update MAC addresses and download predefined configurations for the phones.

To implement TAPS, dial a TAPS DN and follow voice prompts. When the process is complete, the phone has downloaded its DN and other settings. The correct MAC address for the phone is updated in Cisco Unified Communications Manager Administration.

Note   You must enable auto-registration in Cisco Unified Communications Manager Administration for TAPS to function.

For Cisco Unified Communications Manager Release 5.0 or earlier, see *Bulk Administration Tool User Guide for Cisco Unified Communications Manager* for detailed instructions about BAT and TAPS. For Cisco Unified Communications Manager Release 6.0 or later, see *Cisco Unified Communications Manager Bulk Administration Guide*.

Related Topics

- Adding Phones with Auto-Registration, page 3-3
- Adding Phones with Cisco Unified Communications Manager Administration, page 3-4
- Adding Phones with BAT, page 3-4

Adding Phones with BAT

Add a group of phones to the Cisco Unified Communications Manager database by using BAT. This tool performs batch operations, including registration, on multiple phones. You need the MAC addresses for each phone before you use BAT.

Table 3-2 describes how to determine the MAC address of the wireless IP phone.

Table 3-2   Determining the MAC Address of the Phone

Method	For More Information
Choose **SETTINGS > Model Information > MAC Address** and look at the MAC Address field.	See "Viewing Model Information" section on page 8-7
Remove the battery and look on the back of the phone.	See "Installing or Removing the Phone Battery" section on page 3-9

> **Note**   BAT is included in Cisco Unified Communications Manager 5.0 or later, but it is a plug-in for earlier releases.

For detailed instructions about using BAT, see the following documents:

- For Cisco Unified Communications Manager Release 5.0 and earlier, see *Bulk Administration Tool User Guide for Cisco Unified Communications Manager.*

- For Cisco Unified Communications Manager Release 6.0 and later, see *Cisco Unified Communications Manager Bulk Administration Guide*.

> **Note**   When using BAT to add Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G, use the default setting for the phone load. The phone load name includes symbols (-, _,.) and BAT does not permit symbols in an entry.

Related Topics

- Adding Phones with Auto-Registration, page 3-3
- Adding Phones with Auto-Registration and TAPS, page 3-3
- Adding Phones with Cisco Unified Communications Manager Administration, page 3-4

Adding Phones with Cisco Unified Communications Manager Administration

Add phones individually by using Cisco Unified Communications Manager Administration. To do so, obtain the MAC address for each phone before you begin. See "Methods for Adding Phones to Cisco Unified Communications Manager" section on page 3-2 for instructions.

Perform one of the following after collecting the MAC addresses:

- Cisco Unified Communications Manager Release 5.0 or later—Choose **Device > Phone** and click **Add New**.

- Cisco Unified Communications Manager Release 4.x—Choose **Device > Add a New Device**.

For additional instructions and conceptual information about Cisco Unified Communications Manager, see *Cisco Unified Communications Manager Administration Guide* and *Cisco Unified Communications Manager System Guide*.

Related Topics

Device Support

Cisco Unified Communications Manager Release 4.3 or later require a device package or service release update installed to enable device support for the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G. Device packages including support for the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G are available at http://www.cisco.com/kobayashi/sw-center/sw-voice.shtml.

Safety Information

Review the following warnings before installing the Cisco Unified Wireless IP Phone. To see translations of these warnings, see the *Regulatory Compliance and Safety Information for the Cisco Unified Wireless IP Phone 7920 Series and Peripherals* document that accompanied this device.

Warning   **This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Use the statement number provided at the end of each warning to locate its translation in the translated safety warnings that accompanied this device.** Statement 1071

Warning   **Read the installation instructions before connecting the system to the power source.** Statement 1004

Warning   **This equipment will not be able to access emergency services during a power outage because of reliance on utility power for normal operation. Alternative arrangements should be made for access to emergency services. Access to emergency services can be affected by any call-barring function of this equipment.**

Warning   **Do not use the Cisco Unified Wireless IP Phone 7925G and 7926G in hazardous environments such as areas where high levels of explosive gas may be present. Check with the site safety engineer before using any type of wireless device in such an environment.**

Warning   **The plug-socket combination for the battery charger must be accessible at all times, because it serves as the main disconnecting device.** Statement 1019

Warning **The battery charger requires short-circuit (overcurrent) protection to be provided as part of the building installation. Install only in accordance with national and local wiring regulations.** Statement 1045

Warning **The power supply must be placed indoors.** Statement 331

Warning **Ultimate disposal of this product should be handled according to all national laws and regulations.** Statement 1040

Warning **Telephone receivers produce a magnetic field that can attract small magnetic objects such as pins and staples. To avoid the possibility of injury, do not place the handset where such objects may be picked up.**

Warning **The battery charger used with Cisco Unified IP Wireless Phone 7925G-EX is not ATEX or CSA certified and as such it should not be charged in hazardous environment.**

Warning **Use CSA or ATEX qualified bluetooth accessories with the Cisco Unified IP Wireless Phone 7925G-EX in hazardous environments.**

Battery Safety Notices

The following battery safety notices apply to the batteries that are approved by the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G manufacturer.

Warning **There is the danger of explosion if the battery is replaced incorrectly. Replace the battery only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.** Statement 1015

Warning **Do not dispose of the battery pack in fire or water. The battery may explode if placed in a fire.**

Caution The battery pack is intended for use only with this device.

Caution Do not disassemble, crush, puncture, or incinerate the battery pack.

Caution To avoid risk of fire, burns, or damage to your battery pack, do not allow a metal object to touch the battery contacts.

⚠️

Caution   Handle a damaged or leaking battery with extreme care. If you come in contact with the electrolyte, wash the exposed area with soap and water. If the electrolyte has come in contact the eye, flush the eye with water for 15 minutes and seek medical attention.

⚠️

Caution   Do not charge the battery pack if the ambient temperature exceeds 104 degrees Fahrenheit (40 degrees Celsius).

⚠️

Caution   Do not expose the battery pack to high storage temperatures (above 140 degrees Fahrenheit, 60 degrees Celsius).

⚠️

Caution   When discarding a battery pack, contact your local waste disposal provider regarding local restrictions on the disposal or recycling of batteries.

To obtain a replacement battery, contact your local dealer. Use only the batteries that have the following Cisco part numbers.

Standard battery—CP-BATT-7925G-STD
Extended battery—CP-BATT-7925G-EXT

⚠️

Caution   Use only the Cisco power supply. If you must replace your power supply, see the list of Cisco part numbers.
Australia—CP-PWR-7925G-AU
Central Europe—CP-PWR-7925G-CE
China—CP-PWR-7925G-CN
Japan—CP-PWR-7925G-JP
North America—CP-PWR-7925G-NA
United Kingdom—CP-PWR-7925G-UK

Related Topics

- Network Requirements, page 3-1

- Providing Power to the Phone, page 3-8

Installing the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G

After setting up the wireless network to support voice communications and configuring the wireless IP phones in Cisco Unified Communications Manager, you are ready to install the phones. This section includes the following installation information:

- Providing Power to the Phone, page 3-8
- Configuring Wireless LAN Settings for the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G, page 3-13
- Using a Headset, page 3-13

Providing Power to the Phone

The Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G uses a battery for power. Table 3-3 lists the types of batteries available for the wireless IP phone and the maximum talk and standby times.

Table 3-3   Batteries Available for the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G

Type	Technology	Talk Time	Standby Time
Standard	Lithium ion (Li-ion)	Up to 9.5 hrs	Up to 180 hrs
Extended	Li-ion	Up to 13 hrs	Up to 240 hrs

Use U-APSD for talk-time power save mode. Also 5 GHz talk time is reduced up to 30 minutes for a standard battery and up to 2 hours for an extended battery. Use of 802.11b/g and a Bluetooth headset can reduce the talk time by 40 to 50 percent. To extend talk-time battery life, the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G can use PS-POLL power save methods. The Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G uses either U-APSD or PS-POLL when in idle (no active phone call).

When an AP supports the Cisco Client Extensions (CCX) proxy ARP information element, the idle battery life is optimized. If the AP does not support CCX or proxy ARP is not enabled, then the idle battery life is up to 50 percent less.

Table 3-4 shows the charging time for the two types of batteries. You can stop charging the battery when the battery is fully charged. Lithium ion batteries can be partially charged without shortening the battery life. Batteries should handle up to 4,000 recharges.

✎
Note   Battery life varies because of environmental factors and Bluetooth use.

Table 3-4   Battery Charging Time Information

Battery Type	Power Supply Connected to Phone	Phone Connected to PC and USB Cable
Standard	2 hours	5 hours
Extended	3 hours	7 hours

The following sections provide information about the battery and charging the phone:

- Installing or Removing the Phone Battery, page 3-9
- Using the Power Supply to Charge the Phone Battery, page 3-11
- Using the USB Cable and PC to Charge the Battery, page 3-12

Installing or Removing the Phone Battery

To install the battery in the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G use Figure 3-1, and follow these steps:

Procedure

Step 1   Remove the cover on the back of the phone as shown in Figure 3-1.

Step 2   To install the battery, insert the battery catches in the corresponding slots at the bottom of the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G. Ensure that the metal contacts on the battery and the phone are facing each other.

Step 3   Press the battery to the body of the phone until it locks into place. See Figure 3-2.

Step 4   To remove the battery, press up on the locking catch, then lift and remove the battery as shown in Figure 3-3.
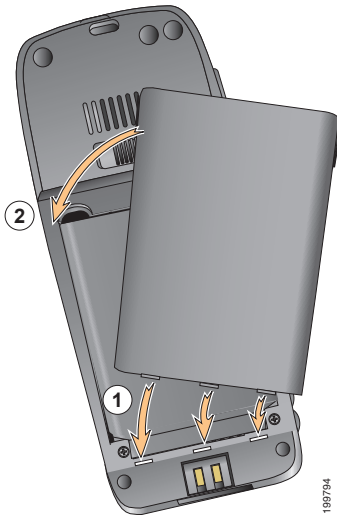
Figure 3-1   Removal of Cover to Install the Battery
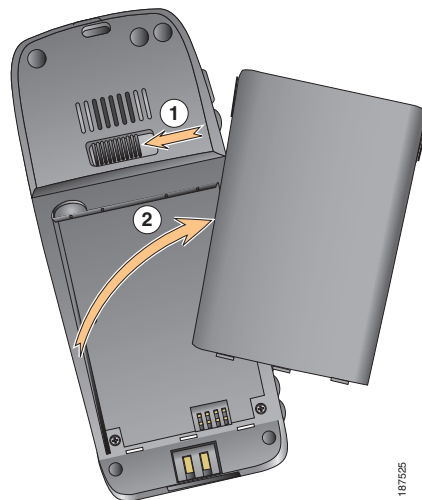
1	Locking catch
2	Battery Cover

Figure 3-2   Install the Battery
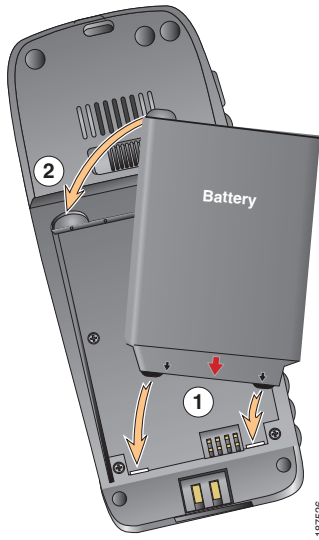
1	Battery Insertion Slots
2	Battery

Figure 3-3   Replace the Back Cover

1	Cover Insertion Slots
2	Cover

> ✎
>
> **Note**   The MAC address for each Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G appears on a printed label on the back of the phone underneath the battery.

Using the Power Supply to Charge the Phone Battery

To charge the phone battery quickly, follow the steps in Figure 3-4.

Figure 3-4   Charging the Phone Battery

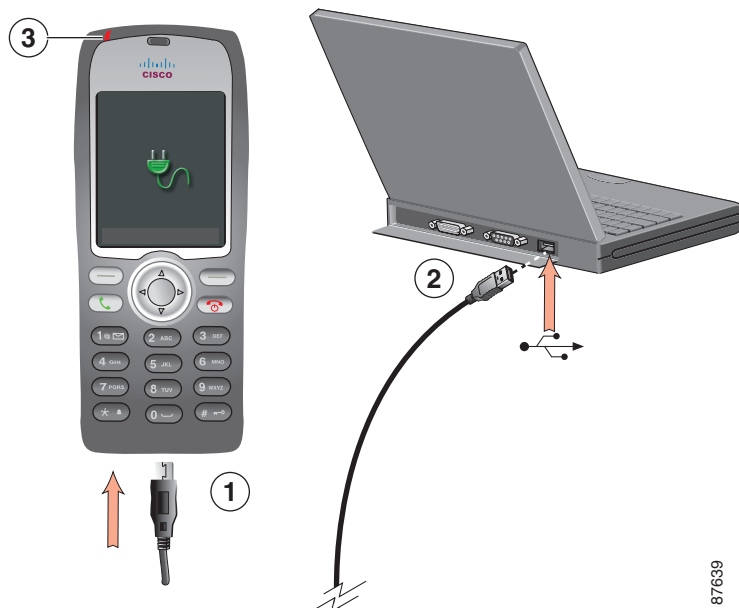| 1	Lift the mini-USB port cover on the bottom of phone.
2	Swing the port cover to one side.
3	Insert the AC power supply mini-USB connector in the port.
4	Insert the AC plug adapter in the slot on the power supply.
5	Insert the AC power supply in a wall outlet.
6	Indicator light—Indicates the charging status: • Red—Battery charging in process. • Green—Battery charging is complete.

> ✎
>
> **Note**   You can use the phone while the battery is being charged. For charging times, see Table 3-4.

Using the USB Cable and PC to Charge the Battery

Charge the phone battery by using a USB cable connected to your PC. Follow the steps in Figure 3-5.

Figure 3-5   Charging the Phone Battery Using the USB Cable and PC

1	Insert the phone connector on the USB cable into the phone.
2	Insert the USB A-type connector into the USB port on your PC.
3	Monitor the indicator light after the phone briefly displays "USB Connected" on the status line.
	You may see the "Found New Hardware Wizard" popup message. To stop the wizard from opening when connecting to USB port, perform the following steps:
	1. Click **Next** to use the wizard dialog box.
	2. In the Update New Software dialog, click **No, not this time**, and click **Next**.
	3. Click **Install the Software automatically (Recommended)** and click **Next**.
	4. After a few moments, the Cannot Install This Hardware dialog displays. Click **Don't prompt me again to install this software**.
	5. Click **Finish** to close the dialog box.

✎

Note   While the battery is charging, the indicator light is red. When the battery is fully charged, the indicator light turns green. Charging times are longer when you use this method and are described in Table 3-4.

Related Topics

- Powering On the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G, page 3-16
- Installing or Removing the Phone Battery, page 3-9
- Using the Power Supply to Charge the Phone Battery, page 3-11

Configuring Wireless LAN Settings for the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G

Before the phone can connect to the WLAN, you must configure the network profile for the phone with the WLAN settings. You can use two methods for setting up the network profiles:

- Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G Web Pages, page 3-13
- Network Profile Menu on the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G, page 3-13

Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G Web Pages

You can access the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G web pages to set up the WLAN settings in the network profile. For a new phone with the factory default settings, you must use the USB cable to connect the phone to your PC. For more information and instructions, see Chapter 4, "Using the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G Web Pages."

Network Profile Menu on the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G

You can use the Settings menu on the phone and access the Network Profiles menu to set up the network configuration and the WLAN configuration. For more information and instructions, see Chapter 5, "Configuring Settings on the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G."

Using a Headset

Although Cisco performs some internal testing of third-party wired and Bluetooth wireless headsets for use with the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G, Cisco does not certify or support products from headset or handset vendors. Because of the inherent environmental and hardware inconsistencies in the locations where Cisco Unified IP Phones are deployed, there is not a single "best" solution that is optimal for all environments. Cisco recommends that customers test the headsets that work best in their environment before deploying a large number of units in their network.

⚠ **Warning**   **Use CSA or ATEX qualified accessories with the Cisco Unified IP Phone 7925G-EX in hazardous environments.**

Cisco recommends the use of good quality external devices, like headsets that are screened against unwanted radio frequency (RF) and audio frequency (AF) signals. Depending on the quality of these devices and their proximity to other devices such as cell phones and two-way radios, some audio noise may still occur. See Using External Devices with Cisco Unified IP Phones, page 3-15 for more information.

The primary reason that a particular headset would be inappropriate for the Cisco Unified IP Phone is the potential for an audible hum. This hum can be heard by either the remote party or by both the remote party and the Cisco Unified IP Phone user. Some potential humming or buzzing sounds can be caused by a range of outside sources; for example, electric lights, being near electric motors or large PC monitors. In some instances, the mechanics or electronics of various headsets can cause remote parties to hear an echo of their own voice when they speak to Cisco Unified IP Phone users.

Connecting Headsets

To connect a headset to the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G, plug it into the headset port on the right side of the phone.

You can use the headset with all of the features on the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G, including the Volume and Mute buttons. Use these buttons to adjust the ear piece volume and to mute the speech path from the headset microphone.

Using Bluetooth Wireless Headsets

The Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G supports Bluetooth Class 2 technology with Hands Free version 1.5 when the headsets support Bluetooth. Bluetooth enables low bandwidth wireless connections within a range of 10 meters. The best performance is in the 1 to 2 meter range.

There can be a potential interference issues. It is recommended that you:

- Reduce the proximity of other 802.11b/g devices, Bluetooth devices, microwave ovens, and large metal objects.
- Use the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G on the same side of the body as the Bluetooth-enabled headset.

Using Bluetooth wireless headsets will likely increase battery power consumption on your phone and might result in reducing battery life.

For a Bluetooth wireless headset to work, it does not need to be within direct line-of-sight of the phone, but some barriers, such as walls or doors, and interference from other electronic devices, could affect the connection.

Pairing Headsets

The Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G pairs with headsets using a shared key authentication and encryption method. The authentication process can require a personal identification number (PIN) specific to the headset, commonly "0000." The Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G can be paired with more than one headset at a time. Pairing is typically performed once for each headset.

After a device has been paired, its Bluetooth connection remains as long as both devices (phone and headset) are enabled and within range of each other. The connection re-establishes itself automatically if either of the devices powers down then powers up. The green-dotted Bluetooth icon indicates whether or not a device is connected.

Note The Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G can only be connected to one Bluetooth-enabled headset at a time. Further, the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G only supports communication with Bluetooth wireless technology-enabled devices qualified by the Bluetooth Special Interest Group (SIG).

When headsets are more than 10 meters away from Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G, Bluetooth drops the connection after a 15 to 20 second timeout. If the paired headset comes back into range of the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G and the phone is not connected to another Bluetooth headset, then the in-range Bluetooth headset automatically reconnects. For certain phone types that operate in power-save modes, the user may have to "wake-up" the headset by tapping on its operational button to initiate the reconnect.

Note   Users should read the headset user guide for more information about pairing and connecting the headsets.

Audio Quality Subjective to the User

Beyond the physical, mechanical and technical performance, the audio portion of a headset must sound good to the user and to the party on the far end. Sound is subjective and Cisco cannot guarantee the performance of any headsets. Some of the headsets on the sites listed below are reported to perform well on Cisco Unified IP Phones.

Nevertheless, it is ultimately the customer's responsibility to test this equipment in their own environment to determine suitable performance.

For information about wired and Bluetooth wireless headsets for your phone, see *Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G Accessory Guide* and these web sites:

- http://www.plantronics.com
- http://www.jabra.com
- http://www.jawbone.com

Using External Devices with Cisco Unified IP Phones

The following information applies when you use external devices with the Cisco Unified IP Phone:

- Cisco recommends the use of good quality external devices (speakers, microphones, and headsets) that are shielded (screened) against unwanted radio frequency (RF) and audio frequency (AF) signals.

- Depending on the quality of these devices and the proximity to other devices such as mobile phones or two-way radios, some audio noise may still occur. In these cases, Cisco recommends that you take one or more of the following actions:

  - Move the external device away from the source of the RF or AF signals.

  - Route the external device cables away from the source of the RF or AF signals.

  - Use shielded cables for the external device, or use cables with a better shield and connector.

  - Shorten the length of the external device cable.

  - Apply ferrites or other such devices on the cables for the external device.

Cisco cannot guarantee the performance of the system because Cisco has no control over the quality of external devices, cables, and connectors. The system will perform adequately when suitable devices are attached using good quality cables and connectors.

Caution   In European Union countries, use only external speakers, microphones, and headsets that are fully compliant with the EMC Directive [89/336/EC].

Powering On the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G

After charging the battery and configuring the wireless IP phone, you are ready to power on the phone and connect to the WLAN. Use the following sections for more information about starting up the phone.

To power on the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G, press and hold the Power On button until the phone begins its startup process by cycling through these steps:

1. The phone displays the Cisco Systems screen.

2. The phone screen displays these messages as the phone starts up:
   - Locating Network Services
   - Configuring IP
   - Network Up
   - Configuring Unified CMList
   - Registering

3. The following information displays on the main phone screen:
   - Current time and date
   - Primary directory number
   - Main screen icons for four menus and Help
   - "Your current options" on status line
   - Softkey labels (Messages and Options)

When the phone passes through these stages with no errors, the phone started up properly. Now the phone is in standby mode and is ready to place or receive calls.

The signal icon in the upper left corner shows the strength of the signal between the wireless access point and the phone. The phone must have an adequate signal to successfully place or receive calls. If the signal icon displays only one bar, the weak signal can cause problems with phone performance.

If the phone does not complete these steps successfully, see "Resolving Startup and Connectivity Problems" section on page 10-1.

Related Topics

Active and Standby Phone Modes

When the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G is powered on, it can be in one of these two modes:

- Active mode
- Standby mode

Active Mode

The phone is in active mode when there is an active RTP stream. When the phone is performing one of these actions, it is consuming power:

- Connected to an active call
- Scanning for channels
- Sending CDP packets
- Sending keep-alive messages
- Reregistering with Cisco Unified Communications Manager

The standard battery provides up to 11.5 hours of talk time in active mode and the extended battery provides up to 15.5 hours of talk time.

Standby Mode

The phone goes into standby mode two seconds after a scan is complete. The phone awakes from standby mode in response to these events:

- Pressing keys on the keypad
- Roaming between APs
- Power cycling the phone
- Losing network connectivity
- Losing RF connectivity
- Transmitting scheduled CDP or keep-alive packets.

The standard battery provides up to 150 hours of standby time and the extended battery provides up to 200 hours of standby time.

Related Topics

Understanding the Phone Startup Process

When connecting to the wireless VoIP network, the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G goes through a standard startup process, as described in Table 3-5. Depending on your specific network configuration, not all of these steps may occur on your wireless IP phone.

Table 3-5   Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G Startup Process

Step	Description	Related Topics
1. Powering on the phone	The Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G has non-volatile Flash memory in which it stores firmware images and user-defined preferences. At startup, the phone runs a bootstrap loader that loads a phone image stored in Flash memory. Using this image, the phone initializes its software and hardware.	Providing Power to the Phone, page 3-8 Resolving Startup and Connectivity Problems, page 10-1
2. Scanning for an access point	The Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G scans the RF coverage area with its radio. The phone searches its network profiles and scans for access points that have a matching SSID and authentication type. The phone associates with the access point with the highest RSSI that matches with its network profile.	Interacting with Cisco Unified Wireless APs, page 2-10 Resolving Startup and Connectivity Problems, page 10-1
3. Authenticating with access point	The Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G begins the authenticating process. • If set for **Open**, then any device can authenticate to the access point. For added security, static WEP encryption might optionally be used. • If set to **Shared Key**, the phone encrypts the challenge text using the WEP key and the access point must verify that the WEP key was used to encrypt the challenge text before network access is available. • If set for **LEAP or EAP-FAST,** then the user name and password are authenticated by the RADIUS server before network access is available. • If set for **Auto (AKM)**, the phone looks for an access point with one of the following key management options enabled: – WPA, WPA2, or CCKM—The username and password are authenticated by the RADIUS server before network access is available. – WPA-Pre-shared key, WPA2-Pre-shared key—The phone authenticates with the access point using the pre-shared key.	Authentication Methods, page 2-15
4. Configuring IP network	If the wireless IP phone is using DHCP to obtain an IP address, the phone queries the DHCP server to obtain one. If you are not using DHCP in your network, you must assign a static IP address to each phone locally. In addition to assigning an IP address, the DHCP server directs the wireless IP phone to a TFTP server. If the phone has a statically defined IP address, you must configure the TFTP server IP address locally on the phone; the phone then contacts the TFTP server directly.	• Configuring DHCP Settings, page 5-5 • Disabling DHCP, page 5-6 • Resolving Startup and Connectivity Problems, page 10-1

Table 3-5   *Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G Startup Process (continued)*

Step	Description	Related Topics
5. Downloading Load ID	The wireless IP phone checks to verify that the proper firmware is installed or if new firmware is available to download. Cisco Unified Communications Manager informs devices using .cnf or .cnf.xml format configuration files of their load ID. Devices using .xml format configuration files receive the load ID in the configuration file.	• Phone Configuration Files and Profile Files, page 2-13
6. Downloading config file	The TFTP server has configuration files and profile files. A configuration file includes parameters for connecting to Cisco Unified Communications Manager and information about which image load a phone should be running. A profile file contains various parameters and values for phone and network settings.	• Configuring an Alternate TFTP Server, page 5-7 • Phone Configuration Files and Profile Files, page 2-13 • Resolving Startup and Connectivity Problems, page 10-1
7. Connecting to Cisco Unified Communications Manager	The configuration file defines how the Cisco Unified IP Phone communicates with Cisco Unified Communications Manager. After obtaining the file from the TFTP server, the phone attempts to make a TCP connection to the highest priority Cisco Unified Communications Manager on the list.	• Interacting with Cisco Unified Communications Manager, page 2-13 • Resolving Startup and Connectivity Problems, page 10-1
8. Registering to Cisco Unified Communications Manager	If the phone was manually added to the database, Cisco Unified Communications Manager identifies and registers the phone. If the phone was not manually added to the database and auto-registration is enabled in Cisco Unified Communications Manager, the phone attempts to auto-register itself in the Cisco Unified Communications Manager database.	• Overview of Configuring and Installing the Cisco Unified Wireless IP Phone 7925G, 7925G-EX, and 7926G, page 1-15 • Adding Users to Cisco Unified Communications Manager, page 7-21

Related Topics

- Configuring Cisco Unified Wireless IP Phones in Cisco Unified Communications Manager, page 7-1
- Phone Configuration Files and Profile Files, page 2-13