



# Maintenance




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## Basic Reset

Performing a basic reset of a CiscoIP Phone provides a way to recover if the phone experiences an error and provides a way to reset or restore various configuration and security settings.

The following table describes the ways to perform a basic reset. You can reset a phone with any of these operations after the phone has started up. Choose the operation that is appropriate for your situation.

Table 1: Basic Reset Methods

Operation	Action	Expla
Restart phone	Press <b>Applications</b>  . Go to <b>Admin settings &gt; Reset settings &gt; Reset device</b> .	Reset writte
Reset settings	To reset settings, press <b>Applications</b>  and choose <b>Administrator Settings &gt; Reset Settings &gt; Network</b> .	Reset
	To reset the CTL file, press <b>Applications</b>  and choose <b>Administrator Settings &gt; Reset Settings &gt; Security</b> .	Reset

## Reset the Phone to the Factory Settings from the Phone Keypad

You can reset the phone to the factory settings. The reset clears all the phone parameters.

### Procedure

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- Step 1** Remove power from the phone in one of these ways:
- Unplug the power adapter.
  - Unplug the LAN cable.
- Step 2** Wait for 5 seconds.
- Step 3** Press and hold # and plug the phone back in. Release the # only when the **Headset** and **Speaker** buttons are lit.
- Note** In some hardware versions, the **Mute** button also lights along with **Headset** and **Speaker** buttons when you plug the phone back in. In that case, wait for all of them to go out and release # only when the **Headset** and **Speaker** buttons are lit again.
- Step 4** Enter the following key sequence:
- 123456789\*0#**
- The light for the **Headset** button turns off after you press the **1** key. After you enter the key sequence, the **Mute** button lights.
- Caution** Do not power down the phone until it completes the factory reset process, and the main screen appears.
- The phone resets.
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## Perform Reset All Settings from Phone Menu

Perform this task if you want to reset your user and network setup settings to the default values.

### Procedure

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- Step 1** Press **Applications** .
- Step 2** Choose **Administrator settings** > **Reset settings** > **All settings**.
- If necessary, unlock the phone options.
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## Reboot Your Phone from the Backup Image

Your Cisco IP Phone has a second, backup image that allows you to recover the phone when the default image has been compromised.

To reboot your phone from the backup image, perform the following procedure.

### Procedure

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- Step 1** Disconnect the power supply.
  - Step 2** Press and hold the star (\*) key.
  - Step 3** Reconnect the power. Continue pressing the star key until the Mute LED turns off.
  - Step 4** Release the star key.  
The phone reboots from the backup image.
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## Perform Network Configuration Reset

Resets network configuration settings to their default values and resets the phone. This method causes DHCP to reconfigure the IP address of the phone.

### Procedure

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- Step 1** From the Administrator Settings menu, if required, unlock phone options.
  - Step 2** Choose **Reset Settings > Network Setup**.
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## Perform User Network Configuration Reset

Resets any user and network configuration changes that you have made, but that the phone has not written to flash memory, to previously saved settings.

### Procedure

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- Step 1** From the Administrator Settings menu, if required, unlock phone options.
  - Step 2** Choose **Reset Settings > Reset Device**.
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## Remove CTL File

Deletes only the CTL file from the phone.

### Procedure

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- Step 1** From the Administrator Settings menu, if required, unlock phone options.

**Step 2** Choose **Reset Settings** > **Security Settings**.

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## Quality Report Tool

The Quality Report Tool (QRT) is a voice quality and general problem-reporting tool for the Cisco IP Phone. The QRT feature is installed as part of Cisco Unified Communications Manager installation.

You can configure user Cisco IP Phones with QRT. When you do so, users can report problems with phone calls by pressing Report Quality. This softkey or button is available only when the Cisco IP Phone is in the Connected, Connected Conference, Connected Transfer, or OnHook states.

When a user presses Report Quality, a list of problem categories appears. The user selects the appropriate problem category, and this feedback is logged in an XML file. Actual information that is logged depends on the user selection and whether the destination device is a Cisco IP Phone.

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

### Related Topics

[Cisco Unified Communications Manager Documentation](#)

## Voice Quality Monitoring

To measure the voice quality of calls that are sent and received within the network, Cisco IP Phones use these statistical metrics that are based on concealment events. The DSP plays concealment frames to mask frame loss in the voice packet stream.

- Concealment Ratio metrics—Show the ratio of concealment frames over total speech frames. An interval conceal ratio is calculated every 3 seconds.
- Concealed Second metrics—Show the number of seconds in which the DSP plays concealment frames due to lost frames. A severely “concealed second” is a second in which the DSP plays more than five percent concealment frames.



**Note** Concealment ratio and concealment seconds are primary measurements based on frame loss. A Conceal Ratio of zero indicates that the IP network is delivering frames and packets on time with no loss.

You can access voice quality metrics from the Cisco IP Phone using the Call Statistics screen or remotely by using Streaming Statistics.

## Voice Quality Troubleshooting Tips

When you observe significant and persistent changes to metrics, use the following table for general troubleshooting information.

Table 2: Changes to Voice Quality Metrics

Metric Change	Condition
Conceal Ratio and Conceal Seconds increase significantly	Network impairment from packet loss or high jitter.
Conceal Ratio is near or at zero, but the voice quality is poor.	<ul style="list-style-type: none"> <li>Noise or distortion in the audio channel such as echo or audio levels.</li> <li>Tandem calls that undergo multiple encode/decode such as calls to a cellular network or calling card network.</li> <li>Acoustic problems coming from a speakerphone, handsfree cellular phone or wireless headset.</li> </ul> <p>Check packet transmit (TxCnt) and packet receive (RxCnt) counters to verify that voice packets are flowing.</p>
MOS LQK scores decrease significantly	<p>Network impairment from packet loss or high jitter levels:</p> <ul style="list-style-type: none"> <li>Average MOS LQK decreases may indicate widespread and uniform impairment.</li> <li>Individual MOS LQK decreases may indicate bursty impairment.</li> </ul> <p>Cross-check the conceal ratio and conceal seconds for evidence of packet loss and jitter.</p>
MOS LQK scores increase significantly	<ul style="list-style-type: none"> <li>Check to see if the phone is using a different codec than expected (RxType and TxType).</li> <li>Check to see if the MOS LQK version changed after a firmware upgrade.</li> </ul>



**Note** Voice quality metrics do not account for noise or distortion, only frame loss.

## Cisco IP Phone Cleaning

To clean your Cisco IP Phone, use only a dry soft cloth to gently wipe the phone and the phone screen. Do not apply liquids or powders directly to the phone. As with all non-weatherproof electronics, liquids and powders can damage the components and cause failures.

When the phone is in sleep mode, the screen is blank and the Select button is not lit. When the phone is in this condition, you can clean the screen, as long as you know that the phone will remain asleep until after you finish cleaning.

