



# Cisco Unified IP Phone 7960G and 7940G Release Notes for Firmware Release 8.0(2) for Cisco Unified CallManager 5.0, 4.2, 4.1, 4.0, and 3.3 (SCCP)

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**May 10 2006**

Use these release notes with the 8.0(2) firmware release (**P00308000200**) for the Cisco Unified IP Phone 7960G and 7940G that run on Cisco Unified CallManager Versions 5.0, 4.2, 4.1, 4.0, and 3.3 (SCCP).

You might need to notify your Cisco Unified IP Phone users about some of the information provided in this document.

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## Related Documentation

### Cisco Unified IP Phone Documentation

Refer to publications that are specific to your language, phone model and Cisco Unified CallManager release. Navigate from the following documentation URL:

[http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_ipphon/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_ipphon/index.htm)

### Cisco Unified CallManager Documentation

Refer to the Cisco Unified CallManager Documentation Guide and other publications specific to your Cisco Unified CallManager version. Navigate from the following URL:

[http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_callmg/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_callmg/index.htm)

## New and Changed Information

Cisco Unified IP Phone firmware release 8.0(2) supports several releases of Cisco Unified CallManager including the latest releases— 4.2 and 5.0. For a complete list of new and changed phone features introduced in these Cisco Unified CallManager releases, refer to the *Release Notes for Cisco Unified CallManager 4.2* and the *Release Notes for Cisco Unified CallManager 5.0*. See “[Related Documentation](#)” section on page 2 for help locating these documents.

The topics below contain new and changed information about features that are introduced in Cisco Unified IP Phone firmware release 8.0(2) for SCCP phones, but that are not documented in the latest release of the Cisco Unified IP Phone SCCP Administration Guide or Phone Guide for your phone model.

This section contains these topics:

- [Hold Reversion Feature, page 2](#)
- [Optimizing SCCP Messages, page 3](#)

## Hold Reversion Feature



### Note

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The Hold Reversion feature requires Cisco Unified CallManager release 4.2(1) SR1.

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Firmware release 8.0(2) supports the Hold Reversion feature, which limits the amount of time that a call can be put on hold before reverting back to the phone that put the call on hold and alerting the user.

A reverting call can be distinguished from a new incoming call by the ring cadence, among other indicators. Reverting calls ring once, using the ring tone already set for that phone line. (If the line is configured to use another new call indicator, such as a beep, the reverting call will be indicated according to the same setting.) If the reverting call continues to hold, the single ring repeats at intervals, as determined by the Hold Reversion Notification Interval setting (described below).

In addition, reverting calls are indicated by:

- The animated Hold Reversion icon— Displays in the call bubble of the held call.
- The “Hold Reversion” status line message—Appears for several seconds following each alert.

Reverting calls are also indicated by a Hold Reversion icon that displays next to the relevant phone number on the phone screen.

### Administration Configuration Tips

Cisco Unified CallManager Administration provides these clusterwide system parameters:

- Hold Reversion Duration (0-1200 seconds)—Enables/disables Hold Reversion and determines how long a call can be placed on hold before reverting. The default value is 0. You must enter a value greater than 0 to enable Hold Reversion. You can also set this parameter for a specific directory number on the Directory Number Configuration window, which takes precedence over the system parameter.
- Hold Reversion Notification Interval (0-1200 seconds)—Enables/disables subsequent periodic alerts for a reverting call and determines the interval between alerts. The default setting is 30 seconds. (In this case, subsequent notification would occur every 30 seconds after the initial alert until the phone user resumes the call.) You must enter a value greater than 0 to enable subsequent periodic alerts.

With Cisco Unified CallManager release 4.2(1) SR1, the phone screen focus is configured to always display a new incoming call, even when a reverting call is present. On the phone, you can view the call focus setting by choosing **Settings > Network Configuration > Reverting Focus Priority**. In this release, the value is “Lower,” indicating that the reverting call focus is a lower priority than the incoming call focus.

### User Tips

When you put a call on hold, you have a limited time to resume the call before the Hold Reversion feature reverts the held call back to your phone and alerts you. The time limit is determined by your system administrator.

Your phone alerts you about a reverted held call by producing a single ring (or beep or other indicator, depending on how your phone normally indicates new calls on this line.) Your phone also displays a Hold Reversion icon next to the relevant phone number on the phone screen. If you do not answer the held call, the alerting ring can repeat at intervals determined by your system administrator.

To resume the call, make sure the reverting call is highlighted, then pick up the handset, or press any of the following: the **Resume** softkey, the speaker button (if unlit), the headset button (if unlit).

To resume the call on a different line, press the appropriate line button. If several reverting calls are holding on that line, your phone resumes the oldest reverting call.

If you use a shared line, Hold Reversion rings only on the phone that put the call on hold, not on the other phones that share the line.

## Optimizing SCCP Messages

Firmware 8.0(2) supports improved SCCP messaging to optimize bandwidth for customers who deploy large numbers of phones that share the same line. In SCCP Version 9, SCCP message structures are altered to allow variable length messages instead of a fixed length character-array that consumes bandwidth.

# Installation Notes

Before using the Cisco Unified IP Phone 7960G and 7940G with Cisco Unified CallManager release 3.3 or later, you must install the latest firmware on all Cisco Unified CallManager servers in the cluster. The firmware image name is **P00308000200** for these releases of Cisco Unified CallManager:

- For Cisco Unified CallManager release 4.2 and earlier
- For Cisco Unified CallManager release 5.0 and later

If you are using the Cisco Unified IP Phone Expansion Module 7914, you must upgrade the expansion module to firmware release **S00105000200** before you use the phones. You can download the installation program, which is named *cmterm-7914-sccp.5-0-2.exe*, and the readme file from Cisco.com at this location:

<http://www.cisco.com/cgi-bin/tablebuild.pl/ip-7900ser>

To download and install the firmware, follow these steps:

## Procedure

- 
- Step 1** Go to the following URL:
- <http://www.cisco.com/cgi-bin/tablebuild.pl/ip-7900ser>
- Step 2** Click one of the following hyperlinks, and follow the prompts to download the firmware:
- For Cisco Unified CallManager release 4.2 and earlier: **cmterm-7940-7960-sccp.8-0-2.exe**
  - For Cisco Unified CallManager release 5.0 and later: **cmterm-7940-7960-sccp.8-0-2.cop**
- Step 3** Go back to the URL shown in [Step 1](#), click the following hyperlink and follow the prompts to download the Readme file, which contains installation instructions for the corresponding firmware:
- For Cisco Unified CallManager release 4.2 and earlier and Cisco Unified CallManager release 5.0  
**cmterm-7940-7960-sccp-8-0-2.Readme.htm**
- Step 4** Follow the instructions in the Readme file to install the firmware.
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## Important Notes

This section includes information about using Cisco Unified IP Phones with Cisco Unified CallManager and includes these topics:

- [Configurable SRST Router Fallback Waiting Period, page 4](#)
- [Using Barge on an Encrypted Call, page 5](#)
- [Secure PC Log Off in an 802.1X Network, page 5](#)

## Configurable SRST Router Fallback Waiting Period

When a Cisco Unified IP Phone loses its connection to the Cisco CallManager server, the connection fails over to an SRST router. After a failover to an SRST router, the phone will monitor the links to the Cisco Unified CallManager servers that the phone can register to. When a server has been available for two minutes, by default, the phone will fall back from the router to that server.

You can change this default time by specifying another value for the station connection monitor duration parameter in Cisco Unified CallManager Administration. For more information, refer to *Cisco Unified CallManager Administration Guide*.

## Using Barge on an Encrypted Call

Cisco Unified IP Phone 7960G and 7940G users cannot barge into an encrypted call if the phone that is used to barge is not configured for encryption. When barge fails in this case, a fast busy tone plays on the phone where the user initiated the barge. No error message displays on the initiator phone to indicate that barge failed because the call is encrypted.

If the initiator phone is configured for encryption, the barge initiator can barge into an authenticated or nonsecure call from the encrypted phone. After the barge occurs, Cisco Unified CallManager classifies the call as nonsecure.

If the initiator phone is configured for encryption, the barge initiator can barge into an encrypted call, and the phone indicates that the call is encrypted.

A user can barge into an authenticated call, even if the phone that is used to barge is nonsecure. The authentication icon continues to display on the authenticated devices in the call, even if the initiator phone does not support security.

## Secure PC Log Off in an 802.1X Network

The Cisco Unified IP Phone 7960G and 7940G can monitor IEEE 802.1X messages between an authenticating switch and a connected PC (supplicant). When a PC is disconnected from the Cisco Unified IP Phone, the phone issues an EAPOL-Logoff message on behalf of the PC to the authenticating switch. The proxy EAPOL-Logoff message causes the authenticating switch to set the port to an unauthenticated state.

If you have an 802.1X network and upgrade to Cisco Unified IP Phone firmware release 7.2(2) or greater, be aware that you must re-authenticate a PC that is connected to a Cisco Unified IP Phone after the upgrade.

For more information about 802.1X re-authentication, refer to the Cisco Catalyst switch configuration guides at:

[http://www.cisco.com/en/US/products/hw/switches/tsd\\_products\\_support\\_category\\_home.html](http://www.cisco.com/en/US/products/hw/switches/tsd_products_support_category_home.html)

## Caveats

This section contains these topics:

- [Using Bug Toolkit, page 6](#)
- [Open Caveats, page 6](#)
- [Closed Caveats, page 7](#)

## Using Bug Toolkit

Known problems (bugs) are graded according to severity level. These release notes contain descriptions of:

- All severity level 1 or 2 bugs.
- Significant severity level 3 bugs.

You can search for problems by using the Cisco Software Bug Toolkit.

To access Bug Toolkit, you need the following items:

- Internet connection
- Web browser
- Cisco.com user ID and password

To use the Software Bug Toolkit, follow these steps:

### Procedure

- 
- Step 1** To access the Bug Toolkit, go to [http://www.cisco.com/cgi-bin/Support/Bugtool/launch\\_bugtool.pl](http://www.cisco.com/cgi-bin/Support/Bugtool/launch_bugtool.pl).
- Step 2** Log on with your Cisco.com user ID and password.
- Step 3** Click the **Launch Bug Toolkit** hyperlink.
- Step 4** To look for information about a specific problem, enter the bug ID number in the “Enter known bug ID” field and click **Search**.
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## Open Caveats

[Table 1](#) describes the problems that are known to exist in the 8.0(2) firmware release for the Cisco Unified IP Phone 7960G and 7940G (shortened to Cisco Unified IP Phone in the problem summary).

**Table 1** *Open Caveats for Cisco Unified IP Phone 7960G and 7940G for Firmware Release 8.0(2)*

Bug ID	Summary and Bug Toolkit Link
CSCsb66509	When using FAC to cancel the CFwdALL setting while the phone is off hook, the user hears a tone until hanging up the handset. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsb66509">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsb66509</a>
CSCsc81912	When requesting the ringlist file, the user presses Cancel, and the phone displays incorrect Ring Type entries. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsc81912">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsc81912</a>
CSCsc82124	The Cisco Unified IP Phone tries to fall back to a Cisco Unified CallManager that is not running Cisco CallManager service, but has port 2000 open. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsc82124">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsc82124</a>

**Table 1** Open Caveats for Cisco Unified IP Phone 7960G and 7940G for Firmware Release 8.0(2) (continued)

Bug ID	Summary and Bug Toolkit Link
CSCsd01460	On a Cisco Unified IP Phone with a disabled speakerphone and headset, the phone softkeys should be grayed out. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsd01460">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsd01460</a>
CSCsd53018	When the data VLAN is the same as the voice VLAN, the phone sends the tagged packets on the PC port. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsd53018">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsd53018</a>
CSCsd58570	The Cisco Unified IP Phone produces garbled audio and repeated words for the Personal Assistant Help conversation. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsd58570">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsd58570</a>
CSCsd80952	When a call is put on hold, the directory number does not display after pressing the line button. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsd80952">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsd80952</a>
CSCsd83498	The Cisco Unified IP Phone stops sending CDP packets and causes a dot1x error that disables the switch port. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsd83498">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsd83498</a>
CSCsd94166	The Init:Call History URI command does not reset the status line on the Cisco Unified IP Phone screen. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsd94166">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsd94166</a>
CSCsd98269	After upgrading the phone firmware, Speed Dials are missing from the Cisco Unified IP Phone. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsd98269">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCsd98269</a>
CSCse01092	When a 30-digit text label displays for a long period of time, the third digit changes and does not display correctly. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCse01092">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCse01092</a>
CSCse26309	The Placed Calls list is updated only when a call connects instead of updating for all dialed calls. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCse26309">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCse26309</a>
CSCse31121	When the shared line on a Cisco Unified IP Phone is busy, you cannot reset the phone. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCse31121">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCse31121</a>
CSCse26240	The Placed Calls list under the directory does not display all of the dialed digits. <a href="http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCse26240">http://www.cisco.com/cgi-bin/Support/Bugtool/onebug.pl?bugid=CSCse26240</a>

## Closed Caveats

Table 2 describes the problems that are resolved and closed in the 8.0(2) firmware release for the Cisco Unified IP Phone 7960G and 7940G (shortened to Cisco Unified IP Phone in the problem summary).

**Table 2** Closed Caveats for Cisco Unified IP Phone 7960G and 7940G for Firmware Release 8.0(2)

Bug ID	Summary and Bug Toolkit Link
CSCsa77085	Pressing the line button on a Cisco Unified IP Phone does not switch between call detail and call overview mode.
CSCsb26738	When the Cisco Unified IP Phone receives URI Line34, the phone performs Line30 instead.

**Table 2** *Closed Caveats for Cisco Unified IP Phone 7960G and 7940G for Firmware Release 8.0(2) (continued)*

Bug ID	Summary and Bug Toolkit Link
CSCsb95190	When mute is enabled and the user changes from speaker to handset, mute cancels.
CSCsb95223	When using IPICS services, the Cisco Unified IP Phone drops the incoming call.
CSCsc03900	The Cisco Unified IP Phone does not handle HTTP code 401 for a push request.
CSCsc13964	When the Cisco Unified IP Phone receives UDP RTP multicast streams, streaming statistics stays in Active mode.
CSCsc14352	When several calls are holding on the Cisco Unified IP Phone, and the user selects a call, the calls do not sort properly.
CSCsc32693	The Cisco Unified IP Phone becomes unregistered from both the SRST gateway and Cisco Unified CallManager.
CSCsc33230	The Cisco Unified IP Phone gets stuck at Config IP state after a resetting or power cycling the phone.
CSCsc37550	When using the Greek locale, “prompts are truncated to 20 characters.
CSCsc37559	With firmware release 7.2(3), there are transmit errors on the PC port.
CSCsc40311	When a computer is connected to the PC port on a Cisco Unified IP Phone, data sent from the computer to the network may experience dropped packets.
CSCsc43593	When the Cisco Unified IP Phone sends a “HTTP 100 Continue” message, the trailing empty line is missing.
CSCsc45748	When the user has an active call and dials from the Directory, the phone does not display, “Handle current call.”
CSCsc51551	When pressing the Services button to access XML services such as Corporate Directory, Fast Dial, or Extension Mobility, the services do not display consistently.
CSCsc54415	A secure Cisco Unified IP Phone does not cancel a TFTP request after pressing the Cancel softkey.
CSCsc57815	Cisco Unified IP Phone PC port intermittently does not receive network traffic after changing the port speed to 100M.
CSCsc70168	If the phone is off-hook during registration to Cisco Unified CallManager, the first call that is answered using the handset has no side tone.
CSCsc80813	Changing the alternate TFTP server address, when a Cisco Unified IP Phone is DHCP enabled, causes the IP Phone to reset even when the phone has a call on hold.
CSCsc80998	A phone that has a call holding on its primary line, barges a call on its shared line and then disconnects. The screen displays the details of the previous call instead of the information about the held call.
CSCsc89130	When the Greek locale is installed on the Cisco Unified IP Phone, the prompt display truncates to 20 characters.
CSCsd09389	When using Speed Dial from Monitor Directory Number in Cisco CallManager Express, the call fails.
CSCsd31183	When a call is holding and resumed, sometimes the “Remote-in-use” message displays on the Cisco Unified IP Phone.
CSCsd40688	When a call is forwarded to a Cisco Unified IP Phone, the displayed forwarding information does not include the dialed number.
CSCsd52418	To distinguish between zero and capitol O, the Cisco Unified IP Phone interface fonts include a zero with slash.
CSCsd53605	The Cisco Unified IP Phone cannot register with Cisco Unified CallManager in authenticated mode.



**Table 2** *Closed Caveats for Cisco Unified IP Phone 7960G and 7940G for Firmware Release 8.0(2) (continued)*

Bug ID	Summary and Bug Toolkit Link
CSCsd54481	When the PC that is connected to the data port receives high bandwidth traffic, the Cisco Unified IP Phone resets.
CSCsd82762	When a user places a call from a shared line, the call appears in the Placed Calls list for all phones with that shared line.

## Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

### Cisco.com

You can access the most current Cisco documentation at this URL:

<http://www.cisco.com/techsupport>

You can access the Cisco website at this URL:

<http://www.cisco.com>

You can access international Cisco websites at this URL:

[http://www.cisco.com/public/countries\\_languages.shtml](http://www.cisco.com/public/countries_languages.shtml)

### Product Documentation DVD

The Product Documentation DVD is a comprehensive library of technical product documentation on a portable medium. The DVD enables you to access multiple versions of installation, configuration, and command guides for Cisco hardware and software products. With the DVD, you have access to the same HTML documentation that is found on the Cisco website without being connected to the Internet. Certain products also have PDF versions of the documentation available.

The Product Documentation DVD is available as a single unit or as a subscription. Registered Cisco.com users (Cisco direct customers) can order a Product Documentation DVD (product number DOC-DOCDVD= or DOC-DOCDVD=SUB) from Cisco Marketplace at this URL:

<http://www.cisco.com/go/marketplace/>

### Ordering Documentation

Registered Cisco.com users may order Cisco documentation at the Product Documentation Store in the Cisco Marketplace at this URL:

<http://www.cisco.com/go/marketplace/>

Nonregistered Cisco.com users can order technical documentation from 8:00 a.m. to 5:00 p.m. (0800 to 1700) PDT by calling 1 866 463-3487 in the United States and Canada, or elsewhere by calling 011 408 519-5055. You can also order documentation by e-mail at [tech-doc-store-mkpl@external.cisco.com](mailto:tech-doc-store-mkpl@external.cisco.com) or by fax at 1 408 519-5001 in the United States and Canada, or elsewhere at 011 408 519-5001.

## Documentation Feedback

You can rate and provide feedback about Cisco technical documents by completing the online feedback form that appears with the technical documents on Cisco.com.

You can submit comments about Cisco documentation by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems  
Attn: Customer Document Ordering  
170 West Tasman Drive  
San Jose, CA 95134-9883

We appreciate your comments.

## Cisco Product Security Overview

Cisco provides a free online Security Vulnerability Policy portal at this URL:

[http://www.cisco.com/en/US/products/products\\_security\\_vulnerability\\_policy.html](http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html)

From this site, you will find information about how to:

- Report security vulnerabilities in Cisco products.
- Obtain assistance with security incidents that involve Cisco products.
- Register to receive security information from Cisco.

A current list of security advisories, security notices, and security responses for Cisco products is available at this URL:

<http://www.cisco.com/go/psirt>

To see security advisories, security notices, and security responses as they are updated in real time, you can subscribe to the Product Security Incident Response Team Really Simple Syndication (PSIRT RSS) feed. Information about how to subscribe to the PSIRT RSS feed is found at this URL:

[http://www.cisco.com/en/US/products/products\\_psirt\\_rss\\_feed.html](http://www.cisco.com/en/US/products/products_psirt_rss_feed.html)

## Reporting Security Problems in Cisco Products

Cisco is committed to delivering secure products. We test our products internally before we release them, and we strive to correct all vulnerabilities quickly. If you think that you have identified a vulnerability in a Cisco product, contact PSIRT:

- For Emergencies only — [security-alert@cisco.com](mailto:security-alert@cisco.com)

An emergency is either a condition in which a system is under active attack or a condition for which a severe and urgent security vulnerability should be reported. All other conditions are considered nonemergencies.

- For Nonemergencies—[psirt@cisco.com](mailto:psirt@cisco.com)

In an emergency, you can also reach PSIRT by telephone:

- 1 877 228-7302
- 1 408 525-6532

**Tip**

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We encourage you to use Pretty Good Privacy (PGP) or a compatible product (for example, GnuPG) to encrypt any sensitive information that you send to Cisco. PSIRT can work with information that has been encrypted with PGP versions 2.x through 9.x.

Never use a revoked or an expired encryption key. The correct public key to use in your correspondence with PSIRT is the one linked in the Contact Summary section of the Security Vulnerability Policy page at this URL:

[http://www.cisco.com/en/US/products/products\\_security\\_vulnerability\\_policy.html](http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html)

The link on this page has the current PGP key ID in use.

If you do not have or use PGP, contact PSIRT at the aforementioned e-mail addresses or phone numbers before sending any sensitive material to find other means of encrypting the data.

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## Obtaining Technical Assistance

Cisco Technical Support provides 24-hour-a-day award-winning technical assistance. The Cisco Technical Support & Documentation website on Cisco.com features extensive online support resources. In addition, if you have a valid Cisco service contract, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not have a valid Cisco service contract, contact your reseller.

## Cisco Technical Support & Documentation Website

The Cisco Technical Support & Documentation website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The website is available 24 hours a day, at this URL:

<http://www.cisco.com/techsupport>

Access to all tools on the Cisco Technical Support & Documentation website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register at this URL:

<http://tools.cisco.com/RPF/register/register.do>

**Note**

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Use the Cisco Product Identification (CPI) tool to locate your product serial number before submitting a web or phone request for service. You can access the CPI tool from the Cisco Technical Support & Documentation website by clicking the **Tools & Resources** link under Documentation & Tools. Choose **Cisco Product Identification Tool** from the Alphabetical Index drop-down list, or click the **Cisco Product Identification Tool** link under Alerts & RMAs. The CPI tool offers three search options: by product ID or model name; by tree view; or for certain products, by copying and pasting **show** command output. Search results show an illustration of your product with the serial number label location highlighted. Locate the serial number label on your product and record the information before placing a service call.

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## Submitting a Service Request

Using the online TAC Service Request Tool is the fastest way to open S3 and S4 service requests. (S3 and S4 service requests are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Service Request Tool provides recommended solutions. If your issue is not resolved using the recommended resources, your service request is assigned to a Cisco engineer. The TAC Service Request Tool is located at this URL:

<http://www.cisco.com/techsupport/servicerequest>

For S1 or S2 service requests, or if you do not have Internet access, contact the Cisco TAC by telephone. (S1 or S2 service requests are those in which your production network is down or severely degraded.) Cisco engineers are assigned immediately to S1 and S2 service requests to help keep your business operations running smoothly.

To open a service request by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete list of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/techsupport/contacts>

## Definitions of Service Request Severity

To ensure that all service requests are reported in a standard format, Cisco has established severity definitions.

Severity 1 (S1)—An existing network is down, or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Severity 2 (S2)—Operation of an existing network is severely degraded, or significant aspects of your business operations are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Severity 3 (S3)—Operational performance of the network is impaired, while most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Severity 4 (S4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

## Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The *Cisco Product Quick Reference Guide* is a handy, compact reference tool that includes brief product overviews, key features, sample part numbers, and abbreviated technical specifications for many Cisco products that are sold through channel partners. It is updated twice a year and includes the latest Cisco offerings. To order and find out more about the Cisco Product Quick Reference Guide, go to this URL:

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- Cisco Marketplace provides a variety of Cisco books, reference guides, documentation, and logo merchandise. Visit Cisco Marketplace, the company store, at this URL:  
<http://www.cisco.com/go/marketplace/>
- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press at this URL:  
<http://www.ciscopress.com>
- *Packet* magazine is the Cisco Systems technical user magazine for maximizing Internet and networking investments. Each quarter, Packet delivers coverage of the latest industry trends, technology breakthroughs, and Cisco products and solutions, as well as network deployment and troubleshooting tips, configuration examples, customer case studies, certification and training information, and links to scores of in-depth online resources. You can access Packet magazine at this URL:  
<http://www.cisco.com/packet>
- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:  
<http://www.cisco.com/ipj>
- Networking products offered by Cisco Systems, as well as customer support services, can be obtained at this URL:  
<http://www.cisco.com/en/US/products/index.html>
- Networking Professionals Connection is an interactive website for networking professionals to share questions, suggestions, and information about networking products and technologies with Cisco experts and other networking professionals. Join a discussion at this URL:  
<http://www.cisco.com/discuss/networking>
- World-class networking training is available from Cisco. You can view current offerings at this URL:  
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