Release Notes for System Software Release 2.6.1 and 2.6.2 on the Cisco ICS 7750

Current Release:

2.6.2—June 5, 2003

Previous 2.6.x Releases:

2.6.1—April 28, 2003

2.6.0—December 30, 2002

These release notes describe the features, modifications, and caveats for Cisco Integrated Communications System 7750 (Cisco ICS 7750) release 2.6.1 and release 2.6.2 (referred to as *system software release 2.6.1* or *system software release 2.6.2*).

Note System software release 2.6.1 and release 2.6.2 are maintenance release that can be installed only on systems that are running system software release 2.6.0. These system software release 2.6.x maintenance releases are not intended for use on systems that are running system software release 2.5.0 and earlier. System software release 2.6.2 is available for download on the Cisco ICS 7750 release 2.6.x download page.

Use these release notes with the documents listed in the "Related Documentation" section on page 14.

Contents

This document discusses the following topics:

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System Requirements

This section describes the Cisco ICS 7750 requirements and has the following sections:

Hardware Summary

The Cisco ICS 7750 chassis has six universal slots that can contain system processing engine (SPE), multiservice route processor (MRP), and analog station interface (ASI) cards, making customization possible at the factory or in the field by a technician who is IP Telephony certified for the Cisco ICS 7750.

Table 1 lists the number of cards and power supply modules that the Cisco ICS 7750 supports.

Table 1 Number of Cards Supported

Card	Chassis Slot	Min. Required	Max. Allowed
ASI81, ASI160, MRP3-8FXS, MRP3-16FXS[1]	1 through 6	0	5
MRP200 or MRP300[2]	1 through 6	0	5
MRP3-8FXOM1[3]	1 through 6	0	5
SPE310[4]	1 through 6[5]	1	5[6]
System switch processor (SSP)	7	1	1
System alarm processor (SAP)	8	1	1
Power-supply module	POWER SUPPLY 1 or POWER SUPPLY 2	1	2

1. The MRP3-8FXS and the MRP3-16FXS are flash-based versions of the ASI81 and the ASI160, respectively.
2. The MRP300 is a flash-based version of the MRP200.
3. The MRP3-8FXOM1 is a flash-based card that contains an 8-port Foreign Exchange Office (FXO) module.
4. SPE310s are required in order to run system software release 2.1.0 or later.
5. The SPE running System Manager is installed in Slot 6 by default.
6. The Cisco ICS 7750 supports up to five SPE310s in each chassis. Do not attempt to install six SPE310s in the same chassis.

Software Summary

Table 2 shows the software that is pre-installed on system cards when you receive a factory-configured chassis.

Table 2 Pre-Installed Software

Software Type	Cards				
	ASIs and MRPs	**SPE running System Manager**	**Other SPEs**	**SSP**	**SAP**
Firmware					SAP software AC 1_0_9[1]
Operating system		Microsoft Windows 2000 Server	Microsoft Windows 2000 Server		
Router/gateway/ switch configuration and management	Cisco IOS Release 12.2(8)YN			Cisco IOS Release 12.0(5)WC5	
System management		ICS System Software[2]	ICS Core Software[3]		

1. The SAP software image in release 2.6.1 is AC 1_0_8.
2. ICS System Software includes ICS System Manager, Cisco Network Registrar (CNR) 3.5(3), Fault Management Module (FMM), Java Runtime Environment (JRE) version 1.3.1, and Microsoft SQL Server 2000.
3. ICS Core Software includes the following components: FMM, ICSSD, and ICSRshSvc.

ICS System Manager software must be installed on one SPE310 in a Cisco ICS 7750 chassis. ICS Core Software must be installed on all SPEs in the chassis other than the SPE running System Manager.

Software approved for use on the SPE310 in the Cisco ICS 7750, such as Cisco CallManager, can be installed on any SPE310 in the chassis. See also the "Installing Software on SPEs" section on page 6.

SPE Memory Upgrades

You can upgrade SPE310 memory to a maximum of 1536 MB by installing 256-MB or 512-MB dual in-line memory modules (DIMMs) in one or both of the SPE DIMM slots.

For instructions on how to upgrade the memory on SPE310s, refer to *Installing Memory, PVDM, and VPN Modules in ASI Cards, MRP Cards, and SPE Cards in the Cisco ICS 7750*.

Note A "Y" splitter cable is shipped with SPE310s to support the connection of a keyboard and a PS/2 mouse for software installation and upgrades. To install or upgrade ICS System Manager, ICS Core Software, or IOS software, a PC that meets the specifications in "PC Requirements" is required.

MRP and ASI Memory Upgrades

MRPs and ASIs ship with 64 MB of RAM. You can upgrade MRP and ASI memory to 80 MB, 96 MB, or 128MB by installing a dual in-line memory module (DIMM) in the DIMM slot on the card.

Refer to *Installing Memory, PVDM, and VPN Modules in ASI Cards, MRP Cards, and SPE Cards in the Cisco ICS 7750* for instructions on how to upgrade the memory on these cards.

PC Requirements

You need a PC to complete initial system configuration and to perform system management tasks. Ensure that the PC meets the following requirements:

- CPU: Pentium-class 233 Mhz or faster
- Memory: At least 64 MB of RAM
- Hardware:
  - CD-ROM drive
  - Network Interface Card
  - Available COM port
- Display: Enhanced VGA monitor with at least a 800 x 600 pixel display and at least 256 colors (a 1024 x 768 pixel display is recommended)
- Operating system: Microsoft Windows 98, Windows NT 4.0, Windows 2000, Windows Me, or Windows XP
- Web browser and plug-ins: Netscape Communicator 4.7 or later or Internet Explorer 5.5 or later (including Java 1.3.1 or later)
- Communication software: Microsoft Terminal Services Client and terminal emulation software (such as HyperTerminal)

Note Refer to the *Cisco ICS 7750 Installation and Configuration Guide* for information about initial hardware installation and software configuration.

New and Changed Information

System software release 2.6.2 supports the new features that are described in this section.

New Hardware Features in System Software Release 2.6.2

System software release 2.6.2 supports the following new interface cards:

- Four-Port Foreign Exchange Office Voice Interface Card (VIC2-4FXO)
- Two-Port Ear and Mouth VIC (VIC2-2E/M)
- Two-Port Integrated Services Digital Network Basic Rate Interface VIC (VIC2-2BRI-NT/TE)

Four-Port Foreign Exchange Office Voice Interface Card (VIC2-4FXO)

System software release 2.6.2 supports the four-port FXO voice interface card (VIC2-4FXO). You can use the VIC2-4FXO to connect to Private Branch Exchanges (PBXs) or key systems and to provide off-premises connections.

The VIC2-4FXO is a universal FXO card that supports the following types of FXO interfaces:

- FXO
- FXO-M1—An FXO enhancement with battery reversal and Caller ID feature support for North America
- FXO-M2—An FXO enhancement with battery reversal and Caller ID feature support for Europe
- FXO-M3—An FXO enhancement with battery reversal feature support for Australia

Note You can use H.323 with the Caller ID and battery reversal answer supervision features on the VIC2-4FXO. For interfaces that are configured to use FXO-M1, Media Gateway Control Protocol (MGCP) on the VIC2-4FXO is supported, but not with Caller ID or battery reversal detection.

Two-Port Ear and Mouth VIC (VIC2-2E/M)

System software release 2.6.2 supports the two-port E&M VIC (VIC2-2E/M). You can use the VIC2-2E/M to connect to PBX or key system trunk lines.

Two-Port Integrated Services Digital Network Basic Rate Interface VIC (VIC2-2BRI-NT/TE)

System software release 2.6.2 supports the two-port ISDN BRI VIC (VIC2-2BRI-NT/TE). You can use the VIC2-2BRI-NT/TE to connect to ISDN PBXs or key systems. The VIC2-2BRI-NT/TE supports the following functionality:

- S/T—Terminal Equipment (TE). Connects to an ISDN WAN through an external NT1 device.
- NT/TE—Network Termination (NT) or TE. Connects to a central office (CO) switch or PBX that provides Network Termination.

Limitations and Restrictions

This section describes known issues with the Cisco ICS 7750 and products that you are likely to use with the Cisco ICS 7750. This section provides information on these topics:

Using the RAI on the Cisco ICS 7750

Unlike other platforms which support the Resource Availability Indicator (RAI), which allow a voice call to be made using any supported codec whenever one DSP channel is free, on the Cisco ICS 7750, even when there is one DSP channel available, only G.711 voice calls will be successful. Requests for higher complexity codecs in this scenario will fail.

Installing Software on SPEs

Do not install Cisco Unity Voice Messaging on the SPE running System Manager, and do not install ICS System Manager on an SPE on which Cisco Unity Voice Messaging is installed. The Cisco ICS 7750 does not support the use of both Cisco Unity Voice Messaging and ICS System Manager on the same SPE.

In addition, if you intend to install or upgrade software on an SPE where Cisco Unity Voice Messaging is running, be sure to first stop Unity services running on that SPE.

For more information on the IP Telephony applications that are supported on the Cisco ICS 7750, refer to the Cisco ICS 7750 Applications page and the Software Center.

The following text will be displayed if you attempt to upgrade or install software on an SPE on which Cisco Unity Voice Messaging is running:

```
Perform the following steps to stop the services on any SPE running Cisco Unity Voice
Messaging before continuing with the installation.

1. Right mouse-click on the Cisco Unity Voice Messaging icon in the system tray, and
select Stop Unity in the pop-up menu.
2. To open Service Control Manager, click Start, point to Programs, and point to
Administrative Tools and click Services.
3. In the Services window, right mouse-click on Microsoft Exchange Information Store
service, and select Stop from the pop-up menu.
4. Click Yes to confirm and close the Stop Other Services window.

WARNING: Failure to stop the above services on an SPE running Cisco Unity Voice Messaging
can cause installation errors.

Do you want to continue with the installation?
```

Changing the Host Name of the SPE Running System Manager

The computer name (also known as the *host name*) of an SPE running System Manager can be changed only if no applications have been installed on the SPE since it left the factory. For example, if you install Cisco CallManager on the SPE running System Manager, the only way to change its host name is to reimage it.

To change the host name of an SPE running System Manager, follow the practices and procedures in the "Completing the Cisco ICS 7750 Installation" chapter of the *Cisco ICS 7750 Installation and Configuration Guide*.

Launching Visual Switch Manager from SSP Manager

You might encounter a problem launching Visual Switch Manager from SSP Manager in ICS System Manager, if you do not have the required Java plug-in installed on your client PC or workstation.

Note Visual Switch Manager has been renamed as Cisco Cluster Management Suite.

In attempting to launch Visual Switch Manager from the SSP Manager page, the browser might first display an initial page for the Visual Switch Manager and then go blank as the browser tries to load a Java applet. This problem affects both Internet Explorer and Netscape Navigator browsers.

To resolve this problem, install the Java plug-in version 1.3.1 on your client PC or workstation that is being used to launch the browser. The Java plug-in can be downloaded from the Cisco Software Download page at http://www.cisco.com/pcgi-bin/tablebuild.pl/java.

SSP Error Messages

If you are using Cisco IOS 12.0(5)WC2b or 12.0(5)WC5 on the SSP, and if you are monitoring the system through a console connection to the SAP, error messages similar to the following might be generated as the SSP boots:

```
% error opening tftp://255.255.255.255/cisconet.cfg (Time out)
% error opening tftp://255.255.255.255/router-confg (Time out)
% error opening tftp://255.255.255.255/ciscortr.cfg (Time out)
```

This is an expected condition. The system will continue to operate normally without any external intervention.

Removing SPEs

Before removing an operational SPE from the chassis, be sure to use ICSConfig or the Windows interface to shut it down (by clicking **Start > Shutdown**). This step is strongly recommended for the following reason: if Microsoft SQL Server was running on the SPE when it was removed from the chassis, at the next startup of that SPE, Microsoft SQL Server will require a long recovery period, during which certain Cisco ICS 7750 services and applications might have difficulty connecting to their respective databases.

Note For additional complete card removal instructions, refer to *Cisco ICS 7750 FRU Installation and Replacement*.

Backing Up MRPs That Have Flash Memory

MRPs with onboard flash memory (the MRP300, MRP3-8FXS, MRP3-16FXS, and MRP3-8FXOM1) cannot be backed up using the ICS System Manager Backup utility. You must back up the configuration files for these cards manually.

Changing the IP Address of SPEs Running Cisco CallManager

If you remove and replace the SPE that is running Cisco CallManager or change its IP address, your Cisco IP Phones might not be able to register with the server (SPE).

Refer to the following two sections in the *Cisco CallManager Administration Guide*:

- Symptom: Cisco IP Phone Not Registering with Cisco CallManager
- Configuring Network Settings on the Cisco IP Phone

Providing Backup Power

If there is a commercial power failure and if data is being written to the SPE hard disk when power is lost, that data might be unrecoverable. In addition, all calls being processed by the system are dropped, and records associated with those calls are lost.

Caution We strongly recommend that you purchase an uninterruptible power supply (UPS) to provide backup power to the Cisco ICS 7750.

Important Notes

This section describes installation and upgrade issues, and issues related to sending voice traffic over an IP network.

Upgrading to Cisco CallManager Release 3.3(3) on the Cisco ICS 7750

In order to upgrade to Cisco CallManager 3.3(3) on the Cisco ICS 7750, system software release 2.6.2 must first be installed on the target Cisco ICS 7750.

Proceed as follows:

- If system software release 2.5.0 or earlier is installed on the target Cisco ICS 7750, refer to *Upgrading to System Software Release 2.6.0 and Cisco CallManager Release 3.3(2) on the Cisco ICS 7750* to upgrade to system software release 2.6.0 and Cisco CallManager 3.3(2).
- If system software release 2.6.0 and Cisco CallManager 3.3(2) are already installed on the target Cisco ICS 7750, complete the following procedure to upgrade to Cisco CallManager 3.3(3):

Step 1 Upgrade to system software release 2.6.2, using either of the following methods:

- Download the software upgrade from the Software Center:

  http://www.cisco.com/kobayashi/sw-center/sw-voice.shtml
- Use the Cisco ICS 7750 System Software CD, Release 2.6.2.

Step 2 Install Windows OS upgrades. Be sure to install win-OS-upgrade-K9.2000-2.4 only after installing system software release 2.6.2.

Note Do not install a Windows OS upgrade on any SPE310s that are running Cisco Unity.

Step 3 Upgrade to Cisco CallManager 3.3(3). Refer to *Upgrading Cisco CallManager 3.3(3)* for instructions.

Voice Over IP

Voice over IP (VoIP) enables a Cisco ICS 7750 to carry voice traffic (for example, telephone calls and faxes) over an IP network. VoIP is primarily a software feature; however, to support this feature, a Cisco ICS 7750 must be equipped with an MRP containing at least one VIC or VWIC, or the Cisco ICS 7750 must be connected to a voice-capable router or gateway. The LAN/WAN multiservice routing capabilities available on these cards provides analog and digital (T1/E1) VoIP gateway capabilities for packetized voice traffic.

In VoIP, the DSP segments the voice signal into frames, which are then coupled in groups of two and stored in voice packets. On the Cisco ICS 7750, these voice packets are transported by using IP in compliance with ITU-T specification H.323 and the Skinny Station Protocol. Because voice packets sent over an IP network are sensitive to delay, you need to have a well-engineered network end-to-end to successfully use VoIP.

Using the Cisco ICS 7750 with the PSTN

When connecting switched voice ports on the Cisco ICS 7750 directly to the Public Switched Telephone Network (PSTN), use the configuration described in this section so that you do not expose your network to telephone fraud.

PSTN to MRP Connectivity Using FXO Connections

The Cisco ICS 7750 can connect a user placing a call from the PSTN directly to your telephone network. You can configure the Cisco ICS 7750 as a phone switch that can switch a user to any location in that network, even to remote locations that are connected again to another PSTN. If your Cisco ICS 7750 has Foreign Exchange Office (FXO) ports (on an MRP) that connect the PSTN to analog lines in your telephone network, configure those FXO ports by using a private line auto ringdown (PLAR) connection, as follows:

Step	Command	Purpose
Step 1	`MRP(config)# voice-port slot/port`	Enter voice-port configuration mode. The voice-port configuration commands are nested so that all subsequent commands affect only the specified voice port.

Step	Command	Purpose
Step 2	`MRP(config-voiceport)# connection {plar | plar-opx} string`	Configure the voice-port connection mode type (where *string* is the telephone number) by using the **plar** option, or if the connection is for a PLAR Off-Premises eXtension (OPX), use the **plar-opx** option. (Using the **plar-opx** option causes the FXO interface that you are configuring to not answer until the called side answers.)

IP Provisioning

The Cisco ICS 7750 is not currently designed to support IP provisioning of Cisco IP Phones across more than one subnet. The Cisco ICS 7750 is intended to be deployed in networks where the default gateway (typically an MRP), TFTP server (Cisco CallManager), and Cisco IP Phones are all located on the same subnet, to take advantage of the DHCP services that CNR provides for Cisco IP Phones.

Open Caveats in Release 2.6.1 and Release 2.6.2

This section describes open caveats in system software release 2.6.1 and 2.6.2, as follows:

- Open Caveats in ICS System Manager in Release 2.6.1 and Release 2.6.2
- Open Caveats in the Fault Management Module in Release 2.6.1 and Release 2.6.2

Note For caveats for Cisco IOS on ASIs and MRPs, refer to the *Release Notes for Cisco IOS Release 12.2(13)ZH on the Cisco ICS 7750*. For caveats for Cisco IOS on the SSP, refer to the *Release Notes for the Catalyst 2900 LRE XL Switches, Cisco IOS Release 12.0(5)WC5*.

Open Caveats in ICS System Manager in Release 2.6.1 and Release 2.6.2

This section describes open caveats in ICS System Manager and related software components for release 2.6.1 and release 2.6.2:

- Software Installation and Upgrade Problems
- Problems When Using ICSConfig

Software Installation and Upgrade Problems

This section describes problems related to software installation and upgrade.

CSCdz21333

If you are using system software release 2.6.1 or 2.6.2 and you attempt to restore system software data using a backup from a release earlier than 2.6.1, when you attempt to deliver an image using the Software Upgrade page, an error message similar to the following might be displayed: “File does not exist under TFTP directory.”

Workaround—First upload the image which was restored from backup using the Software Upgrade feature, then deliver the image to the card. (Even though the Software Upgrade page might show that the restored image is present, the image needs to be uploaded again before image delivery to the card can take place.)

CSCdz21384

If you stop the Cisco CallManager TFTP server on the SPE running System Manager and then attempt to deliver a software image to an ASI or MRP without flash memory (ASI81, ASI160, or MRP200), then the target ASI or MRP will remain in ROM monitor (ROMMON) mode.

Also, if you install Cisco CallManager on the SPE running System Manager and if you use the CallManager service activation page to start the Cisco TFTP service on the SPE running System Manager, the message `Error verifying config Info` will be displayed on Cisco IP phones and EventViewer on the SPE running System Manager will display a Cisco TFTP error message that states that either "kTFTPServerListenBindFailed" or "kTFTPServerListenCloseSockFailed".

Workaround—After enabling or disabling the Cisco CallManager TFTP server on an SPE running System Manager, reboot the SPE. Rebooting the SPE allows the TFTP server provided by ICS System Manager to initialize properly.

CSCdz25166

If you use the Control Panel on the SPE running System Manager to uninstall ICS System Manager, the error message `Silent uninstall of Cisco Network Registrar returned error code -3` might be displayed.

Workaround—On the SPE running System Manager, choose **Start > Settings > Control Panel > Add/Remove Programs**. If Cisco Network Registrar is listed, uninstall it and reboot the SPE.

CSCdx53154

If you are installing system software with an attached CD-ROM drive, it is possible that after the SPE reboots, a message box might be displayed with a message similar to the following:

```
D:\ not accessible.
```

or

```
Semaphore timeout.
```

Workaround—Restart the SPE. After the SPE restarts, the setup program will resume.

Problems When Using ICS System Manager

This section describes a problem that can occur when using ICS System Manager.

CSCdz19672

It is possible that if you choose **Config > SSP > Cluster Management**, if you then click **Config**, and then click the **CallManager** link (on the Applications page), Cisco CallManager will not start or the following error message will be generated: "Run time error, line39, parent.gVar.maxArray is not an object."

Workaround—Log out from ICS System Manager, log in to ICS System Manager, and then launch Cisco CallManager.

Problems When Using ICSConfig

This section describes problems which can occur when when using ICSConfig.

CSCdy17465

If ICSConfig is being used to perform the procedure for replacing an SPE running System Manager, error code 403 might be reported for the SPE running System Manager after entering the correct replacement values through the Replacement SPE page.

This error condition can occur if the chassis is already configured for the 10.0.0.0/24 subnet, if the IOS login password differs from the SPE password, and if an attempt is made to replace the SPE running System Manager. If the chassis is not configured on the 10.0.0.0/24 subnet, this problem will not occur.

Workaround—Open a HyperTerminal session with the SAP and for each SPE in the chassis, enter the following command to manually configure its Windows 2000 Administrator password as the same password which is being used as the IOS login password: **net user administrator** *password*. Then use ICSConfig to configure the desired Administrator passwords on the SPEs.

CSCdy32342

ICSConfig might report “error code 403, SPE Windows 2000 password mismatch”, under either of the following conditions: 1) if the SSP has been misconfigured on an IP subnet different from the IP subnet of the SPE running System Manager, if the SSP is reachable by the SPE running System Manager, and if the ARP cache on the SSP does not contain the IP address for the SPE running System Manager; or 2) if all of the conditions in 1) are true, and if the SSP receives an IP address from an external DHCP server that is on a different subnet from that of the SPE running System Manager.

There is no workaround.

Open Caveats in the Fault Management Module in Release 2.6.1 and Release 2.6.2

This section describes open caveats in the Fault Management Module, as follows:

Software Installation Problems

This section describes a problem related to software installation.

CSCdv74876

After installing Cisco CallManager on an SPE, if the SPE is rebooted, it might not complete its boot sequence successfully.

You might be experiencing this problem if you are attempting to access the SPE through the SAP menu and it fails to give you access, or if Cisco IP Phones are not working properly (because the CallManager service might not have started on the SPE if it did not finish booting).

Workaround—To solve this problem, complete the following steps:

Step 1 Access the SPE Windows interface. (Refer to the "Accessing the System" section in the "Operating the Cisco ICS 7750" chapter of the *Cisco ICS 7750 Installation and Configuration Guide* for instructions.)

Step 2 Log in as an administrator (User ID *administrator*) and enter your password (the default is *changeme*).

Logging in should allow the MMC, STI1, and STI2 processes to complete. When these software configuration processes are complete, the SPE should be functioning normally.

SPE Problems

This section describes a problem related to SPEs.

CSCdz04635

If the Cisco ICS 7750 chassis or an individual SPE reboots, FMMServer might fail to start on the Cisco CallManager Publisher SPE, the STATUS LED on the affected SPE will be blinking, and the ALARM LED on the affected SPE will be amber. Further, if a monitor is attached, the error message "A service or driver failed to start. Check the Event Viewer for the complete description of the error message" will be displayed, and the Event Viewer will display the error message "The FMM Server Failed to start in a timely fashion."

Workaround—Start FMMServer manually on the affected SPE, by choosing **Start > Programs > Administrative Tools > Services**., choosing **FMMServer**, and right-clicking **Start**.

CDP Problems

This section describes a problem related to the Cisco Discovery Protocol (CDP).

CSCdv81891

If ICSConfig assigns the same IP address to an SPE running Cisco CallManager and another card, it might be because the necessary Cisco Discovery Protocol (CDP) driver is not running on the SPE, causing ICSconfig to generate an error message (error code 400).

The workaround provided with error code 400 is incorrect. Follow these steps to solve this problem:

Step 1 Connect a Monitor, Keyboard and Mouse to the SPE in the slot indicated by error message.

Step 2 On the SPE, choose **Start > Settings > Control Panel > Administrative Tools > Event Viewer**.

The Event Viewer window appears.

Step 3 In the left pane, click **System Log**.

Step 4 In the right pane, click Type.

This sorts the log messages by type.

Step 5 Scroll until Error log messages are visible in the Type column.

Step 6 Double-click the first Error message that you see that has tcpip in the Source column.

The Event Properties dialog for that error appears.

If the error is a duplicate IP address error, the error description will show something similar to the following:

```
The system detected an address conflict for IP address <IP Address> with the system having
network hardware address <MAC Address>. Network operations on this system may be disrupted
as a result.
```

The MAC address in the error description is the MAC address of the other device that is using the same IP address as the SPE.

Step 7 Locate the device with that MAC address and either change its IP address, temporarily disconnect that device from the network, or change the SPE IP address.

Step 8 Reboot the SPE.

Related Documentation

The following sections describe the documentation available for the Cisco ICS 7750.

Cisco ICS 7750 Documents

The documents described in this section are available on CCO and on CD:

On Cisco.com at:

Products & Services: Products: Voice Application Systems: Cisco ICS 7700 Series Integrated Communication Systems: Technical Documentation

On the Documentation CD-ROM (order number DOC-CONDOCCD=) at:

Cisco Product Documentation: Voice/Telephony: Cisco ICS 7750

Release 2.6.0 Documents

The following documents were updated or created for system software release 2.6.0 and are available in this location:

http://www.cisco.com/univercd/cc/td/doc/product/voice/ics/ics26/index.htm

- *Cisco ICS 7750 Documentation Locator*
- *Cisco ICS 7750 System Description*
- *Installing System Software Release 2.6.0 and Cisco CallManager Release 3.3(2) on the Cisco ICS 7750*
- *Upgrading to System Software Release 2.6.0 and Cisco CallManager Release 3.3(2) on the Cisco ICS 7750*
- *Cisco ICS 7750 Installation and Configuration Guide*
- *Release Notes for System Software Release 2.6.0 on the Cisco ICS 7750*
- *Cisco ICS 7750 FRU Installation and Replacement*
- *Installing Memory, PVDM, and VPN Modules in ASI Cards, MRP Cards, and SPE Cards in the Cisco ICS 7750*

- *Cisco ICS 7750 Troubleshooting Guide*
- *Regulatory Compliance and Safety Information for the Cisco ICS 7750*

Note Many of these documents are also available in the Documentation folder on the Cisco ICS 7750 System Software CD, Release 2.6.2.

Documentation Set

Printed versions of the *Cisco ICS 7750 Installation and Configuration Guide*, the *Cisco ICS 7750 System Description*, and the *Cisco ICS 7750 Troubleshooting Guide* can be ordered as a boxed set (customer order number DOCS-7750=).

Obtaining Documentation

Cisco provides several ways to obtain documentation, 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 on the World Wide Web at this URL:

http://www.cisco.com/univercd/home/home.htm

You can access the Cisco website at this URL:

http://www.cisco.com

International Cisco websites can be accessed from this URL:

http://www.cisco.com/public/countries_languages.shtml

Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which may have shipped with your product. The Documentation CD-ROM is updated regularly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual or quarterly subscription.

Registered Cisco.com users can order a single Documentation CD-ROM (product number DOC-CONDOCCD=) through the Cisco Ordering tool:

http://www.cisco.com/en/US/partner/ordering/ordering_place_order_ordering_tool_launch.html

All users can order monthly or quarterly subscriptions through the online Subscription Store:

http://www.cisco.com/go/subscription

Ordering Documentation

You can find instructions for ordering documentation at this URL:

http://www.cisco.com/univercd/cc/td/doc/es_inpck/pdi.htm

You can order Cisco documentation in these ways:

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  http://www.cisco.com/en/US/partner/ordering/index.shtml

- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, U.S.A.) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

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170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Obtaining Technical Assistance

Cisco provides Cisco.com, which includes the Cisco Technical Assistance Center (TAC) website, as a starting point for all technical assistance. Customers and partners can obtain online documentation, troubleshooting tips, and sample configurations from the Cisco TAC website. Cisco.com registered users have complete access to the technical support resources on the Cisco TAC website, including TAC tools and utilities.

Cisco.com

Cisco.com offers a suite of interactive, networked services that let you access Cisco information, networking solutions, services, programs, and resources at any time, from anywhere in the world.

Cisco.com provides a broad range of features and services to help you with these tasks:

- Streamline business processes and improve productivity
- Resolve technical issues with online support
- Download and test software packages
- Order Cisco learning materials and merchandise
- Register for online skill assessment, training, and certification programs

To obtain customized information and service, you can self-register on Cisco.com at this URL:

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

Technical Assistance Center

The Cisco TAC is available to all customers who need technical assistance with a Cisco product, technology, or solution. Two types of support are available: the Cisco TAC website and the Cisco TAC Escalation Center. The type of support that you choose depends on the priority of the problem and the conditions stated in service contracts, when applicable.

We categorize Cisco TAC inquiries according to urgency:

- Priority level 4 (P4)—You need information or assistance concerning Cisco product capabilities, product installation, or basic product configuration. There is little or no impact to your business operations.
- Priority level 3 (P3)—Operational performance of the network is impaired, but most business operations remain functional. You and Cisco are willing to commit resources during normal business hours to restore service to satisfactory levels.
- Priority level 2 (P2)—Operation of an existing network is severely degraded, or significant aspects of your business operations are negatively impacted by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.
- Priority level 1 (P1)—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.

Cisco TAC Website

The Cisco TAC website provides online documents and tools to help troubleshoot and resolve technical issues with Cisco products and technologies. To access the Cisco TAC website, go to this URL:

http://www.cisco.com/tac

All customers, partners, and resellers who have a valid Cisco service contract have complete access to the technical support resources on the Cisco TAC website. Some services on the Cisco TAC website require a Cisco.com login ID and password. If you have a valid service contract but do not have a login ID or password, go to this URL to register:

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

If you are a Cisco.com registered user, and you cannot resolve your technical issues by using the Cisco TAC website, you can open a case online at this URL:

http://www.cisco.com/tac/caseopen

If you have Internet access, we recommend that you open P3 and P4 cases online so that you can fully describe the situation and attach any necessary files.

Cisco TAC Escalation Center

The Cisco TAC Escalation Center addresses priority level 1 or priority level 2 issues. These classifications are assigned when severe network degradation significantly impacts business operations. When you contact the TAC Escalation Center with a P1 or P2 problem, a Cisco TAC engineer automatically opens a case.

To obtain a directory of toll-free Cisco TAC telephone numbers for your country, go to this URL:

http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml

Before calling, please check with your network operations center to determine the Cisco support services to which your company is entitled: for example, SMARTnet, SMARTnet Onsite, or Network Supported Accounts (NSA). When you call the center, please have available your service agreement number and your product serial number.

Obtaining Additional Publications and Information

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

- The *Cisco Product Catalog* describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the *Cisco Product Catalog* at this URL:

  http://www.cisco.com/en/US/products/products_catalog_links_launch.html

- Cisco Press publishes a wide range of networking publications. Cisco suggests these titles for new and experienced users: *Internetworking Terms and Acronyms Dictionary, Internetworking Technology Handbook, Internetworking Troubleshooting Guide,* and the *Internetworking Design Guide.* For current Cisco Press titles and other information, go to Cisco Press online at this URL:

  http://www.ciscopress.com

- *Packet* magazine is the Cisco quarterly publication that provides the latest networking trends, technology breakthroughs, and Cisco products and solutions to help industry professionals get the most from their networking investment. Included are networking deployment and troubleshooting tips, configuration examples, customer case studies, tutorials and training, certification information, and links to numerous in-depth online resources. You can access *Packet* magazine at this URL:

  http://www.cisco.com/go/packet

- iQ Magazine is the Cisco bimonthly publication that delivers the latest information about Internet business strategies for executives. You can access iQ Magazine at this URL:

  http://www.cisco.com/go/iqmagazine

- 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/en/US/about/ac123/ac147/about_cisco_the_internet_protocol_journal.html

- Training—Cisco offers world-class networking training. Current offerings in network training are listed at this URL:

  http://www.cisco.com/en/US/learning/le31/learning_recommended_training_list.html

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This document is to be used with the documents listed in the "Related Documentation" section.