Cisco Unified Communications Manager Configuration Guide for the Cisco TelePresence System

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www.cisco.com

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Cisco Unified Communications Manager Configuration Guide for the Cisco TelePresence System

CONTENTS

CHAPTER A

What's in This Guide

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Contents

This preface contains the following sections:

How to Use This Guide

The *Cisco Unified Communications Manager Configuration Guide for the Cisco TelePresence System* provides information to help you use the Cisco Unified Communications Manager (Unified CM) Administration interface to configure the following Cisco TelePresence System (CTS) products:

- **TelePresence Immersive Endpoints**
  - Cisco TelePresence System TX9200 Series
  - Cisco TelePresence System TX9000 Series
  - Cisco TelePresence System 3200 Series
  - Cisco TelePresence System 3000 Series
  - Cisco TelePresence System TX1300 Series
  - Cisco TelePresence System 1300 Series
- **TelePresence Personal Endpoints > TelePresence Office**
  - Cisco TelePresence System 1100
  - Cisco TelePresence System 1000
  - Cisco TelePresence System 500 Series

Note The entries that are recommended or required in the configuration fields in this guide are for configuring the Unified CM for Cisco TelePresence specifically. While some configuration fields in the administration interface offer a variety of choices, Cisco recommends that you follow the guidelines presented in this document to set up your Cisco TelePresence configuration successfully.

Before You Begin

Before beginning the tasks in this guide, verify the following:

- Web Browser Support, page x
- CTS Software Download, page x
- DHCP Connectivity, page xi
- COP (Loads) File Download, page xi
- Call Control Device Requirements, page xi
- MAC Address, page xii
- Unified Communications Manager and MIDlets Download, page xii

Web Browser Support

Cisco administration interfaces are supported on Internet Explorer (IE) versions 6, 7, 8 and 9 and Firefox version 3.6, 5 and 9.

CTS Software Download

Make sure you have downloaded supported CTS software. Navigate to your CTS device on Cisco.com.

1. Navigate to your device:

- **Product Support** > **TelePresence** > **TelePresence Immersive Endpoints**
  - Cisco TelePresence System TX9200 Series
  - Cisco TelePresence System TX9000 Series
  - Cisco TelePresence System 3200 Series
  - Cisco TelePresence System 3000 Series
  - Cisco TelePresence System TX1300 Series
  - Cisco TelePresence System 1300 Series
- **Products** > **TelePresence** > **TelePresence Personal Endpoints** > **TelePresence Office**
  - Cisco TelePresence System 1100
  - Cisco TelePresence System 1000
  - Cisco TelePresence System 500 Series

For example:

Products > TelePresence > TelePresence Endpoints - Immersive > Cisco TelePresence TX9200 Series > Cisco TelePresence TX9200 > TelePresence Software-1.9.3(44)

2. Select software and choose whether to download now or add it to your cart.

DHCP Connectivity

Provide a Dynamic Host Configuration Protocol (DHCP) server to achieve connectivity. CTS uses DHCP by default. If no DHCP server is available, refer to your system assembly guide's First Time Setup chapter, in the section that instructs how to use a static IP network address.

- For CTS 500-32, 1300-47, 1310-65, and TX9x00 systems: Refer to your system assembly guide's First Time Setup chapter.
- For CTS 500-37, 1x00, 1300-65, 30x0, and 32x0 systems: Refer to Configuring a Static IP Address for Networks That Do Not Use DHCP.

COP (Loads) File Download

The Cisco Options Package (COP) file is a mechanism for installing files on a Unified CM in a secure manner. See Chapter 3, "Loading Cisco Options Package (COP) Files on the Cisco TelePresence System" for complete information.

Call Control Device Requirements

All new Cisco TelePresence Systems which use the Cisco TelePresence Touch 12 for call control take 6 units of the Unified CM unit license:

- 0 units for the Cisco TelePresence Touch device
- 6 units for the Cisco TelePresence unit

All existing Cisco TelePresence Systems which use the IP Phone for call control take 11 units of the Unified CM unit license:

- 5 units for the Cisco Unified IP Phone 7970/7975
- 6 units for the Cisco TelePresence unit

  You can configure the system and the Cisco Unified IP Phone as a shared line in Cisco Unified CM.

Note When using the IP Phone, please note the following:

For all SCCP and SIP firmware upgrades from firmware release versions earlier than 8.3(3) to version 8.5(3) or a later release, you must first upgrade your firmware to version 8.5(2). Once you have upgraded to version 8.5(2), you can upgrade your Cisco Unified IP Phone to version 8.5(3) or a later release.

See the Installation Notes section of the *Cisco Unified IP Phone Release Notes for Firmware Release 8.5(3) (SCCP and SIP)* for download instructions.

MAC Address

Make sure the MAC address of the device you are installing is known or available:

- The MAC address comprises a unique 12-character hexadecimal number that identifies a Cisco Unified IP phone or other hardware device.
- Locate the MAC address number on a label on the back of the Cisco TelePresence system primary codec (for example, 000B6A409C405). Unified CM makes the MAC address a required field for Cisco Unified IP phone device configuration.

  The MAC address is also displayed on the CTS main display screen during boot-up.

Note When entering the MAC address in Unified CM fields, do not use spaces or dashes, and do not include any other characters that may precede the MAC address on the label.

Unified Communications Manager and MIDlets Download

Note This section pertains only to systems that uses a Cisco Unified IP phone for call control. If your system uses a Cisco Touch device for call control, skip this section.

Make sure that Unified CM is running and is using supported software for your release. For complete Cisco TelePresence software compatibility information, see the software support matrix on the Cisco TelePresence Administration Software page at the following URL:

http://www.cisco.com/en/US/products/ps8332/products_device_support_tables_list.html

You must download and configure MIDlets to enable all available features on your CTS Cisco Unified IP phone. The supported MIDlet version is embedded in the software files that are available when you click Download Software on the Cisco Unified Communications Manager Support page at the following URL:

http://www.cisco.com/en/US/products/sw/voicesw/ps556/tsd_products_support_series_home.html

Or navigate to **Products** > **Voice and Unified Communications** > **IP Telephony** > **Call Control** > **Cisco Unified Communications Manager (CallManager)** > **Cisco Unified Communications Manager Version x.x** > **Unified Communications Manager/CallManager Device Packages**.

Check the following:

- The Cisco TelePresence device name in Unified CM follows the following format: The characters “SEP” followed by the device MAC address. Assign the hostname so that it is resolvable by Domain Name System (DNS), for example:”

  MAC address: “ **000DD12345A1** ”

  Cisco TelePresence Host Name: “ **SEP000DD12345A1** ”

Note DNS (domain) is optional.

Additional System Information

For more information, see the following sections:

- Adding or Removing a Presentation Codec, page xiii
- Call Control Device Features for Cisco TelePresence, page xiii
- Software Compatibility, page xiii
- Cisco TelePresence Bandwidth Requirements, page xiii
- Device and Cluster Security Modes, page xiv
- Supported Unified CM Characters and Digits for the CTS Device Page, page xiv
- Document Organization, page xiv

Adding or Removing a Presentation Codec

When you add or remove a CTS presentation codec in the system configuration, you must also do so from the Unified CM administration interface. After the configuration change is complete, click **Reset** to sync this configuration change with the CTS codec.

Call Control Device Features for Cisco TelePresence

There are additional features that can be configured on standard Cisco TelePresence call control devices. The settings described in this document are provided specifically to configure a Touch 12 as a Cisco TelePresence device.

For complete Cisco TelePresence user options on the Touch 12, refer to the Cisco TelePresence System User Guide on cisco.com that corresponds with your system's software release.

Many of the settings also apply to the Cisco Unified IP Phone call control device. See Chapter 5, "Configuring and Managing the Cisco Unified IP Phone" for specifics.

Note Features that are not mentioned in this or other guides are assumed to be un-supported at this time.

Software Compatibility

For complete information about software and firmware compatibility for the CTS, see the *Cisco TelePresence Administration Software Compatibility Matrix* on Cisco.com.

Cisco TelePresence Bandwidth Requirements

For information about Cisco TelePresence service level requirements including bandwidth, latency (delay), jitter (variations in delay), and packet loss, see the "Understanding How Endpoints Determine fps and Video Quality" section of the *Administration Guide for Cisco TelePresence TX Software Release 6.0* on Cisco.com.

Device and Cluster Security Modes

During a call, the Media is Encrypted icon (closed lock) is displayed on the screen only when the Device Security mode is set to encrypted and cluster security mode is set to 1 (mixed mode). While configuring your system, check the following settings:

- Device Security Mode should be set to **Encrypted** in the SIP Phone Security Profile Information field. See the "SIP Phone Security Profile Information" section on page 9 for configuration information.
- Cluster Security Mode field is set to **1** (mixed mode) in the Configuration Settings for CTL Client in **Cisco Unified CM Administration** > **System** > **Enterprise Parameters**. To configure and verify cluster security mode, see the Verifying the Cisco Unified Communications Manager Security Mode section of the *Cisco TelePresence Security Solutions Guide*.

Supported Unified CM Characters and Digits for the CTS Device Page

Use the information in Table 1 as a guide for supported Unified CM characters and digits that are used to configure and maintain the Cisco TelePresence system. For general Unified CM support documentation, see the Unified CM documentation roadmaps for your release on Cisco.com:

http://www.cisco.com/en/US/products/sw/voicesw/ps556/products_documentation_roadmaps_list.html

Note Unified CM no longer the '$' (currency symbol) in system passwords.

Table 1 Supported Unified CM Characters and Digits for Cisco TelePresence Device Configurations

Character or Digit	Description	Where Used
• Digits **0** through **9** • * (Asterisk) • # (Number sign or hash) • + (Plus sign, escape symbol)	The number that you want the system to dial when the user presses the speed-dial button. **Note** The speed-dial function does not allow you to configure pauses or waits.	• Speed Dial and Abbreviated Dial Configuration window, **Number** field. • Multilevel precedence and preemption MLPP Alternate Party Settings, **Target (Destination)** field. See Chapter 1, "Configuring Cisco Unified Communications Manager for the Cisco TelePresence System."

Document Organization

Information for using the Unified CM with the Cisco TelePresence System application are provided in the following chapters:

- Chapter 1, "Configuring Cisco Unified Communications Manager for the Cisco TelePresence System"
- Chapter 2, "Configuring Cisco TelePresence Features"
- Chapter 3, "Loading Cisco Options Package (COP) Files on the Cisco TelePresence System"
- Chapter 4, "Verifying and Troubleshooting the Cisco TelePresence System Configuration"

- Chapter 5, "Configuring and Managing the Cisco Unified IP Phone"
- Appendix A, "Satellite Licenses for the Cisco TelePresence System"
- "Glossary"
- "Index"

Related Documentation

Related Topic	Document Title
Cisco command-line interface (CLI) information for configuring the Cisco TelePresence System.	• *Cisco TelePresence System Command-Line Interface Reference Guide*.
Cisco Jabber Video for TelePresence (previously called Movi) home page.	• Cisco Jabber Video for TelePresence
Cisco Multipoint Control Unit (MCU) 4500 Series home page.	• Cisco TelePresence MCU 4500 Series
Cisco switch support information.	• **Product Support** > **Switches**
Cisco TelePresence support information.	• **Product Support** > **TelePresence (Video Conferencing)**
Cisco TelePresence administration software download page.	• Download Software Select a Product page on Cisco.com: http://www.cisco.com/cisco/software/navigator.html
Cisco TelePresence Manager documentation home page.	• Cisco TelePresence Manager home page on Cisco.com
Cisco TelePresence Recording Server information.	• Cisco TelePresence Recording Server home page on Cisco.com
Cisco TelePresence System Codec home page.	• Cisco Telepresence System Integrator C Series
Cisco TelePresence System compatibility information.	• Software Compatibility Information for the Cisco TelePresence System
Cisco TelePresence System EX Series home page.	• Cisco TelePresence System EX Series
Cisco TelePresence System MXP Series home page.	• Cisco TelePresence System MXP Series
Cisco TelePresence Video Communication Server (VCS) home page.	• Cisco TelePresence Video Communication Server (VCS)
Cisco TelePresence Video Communication Server (VCS) support documentation	• *Cisco Unified Communications Manager with Cisco VCS Cisco TelePresence Deployment Guide* • *Cisco TelePresence Video Communication Server (VCS)*
Cisco Unified Communications Manager Support page.	• Cisco Unified Communications Manager Support
Cisco Unified IP Phone 8900 Series home page.	• Cisco Unified IP Phone 8900 Series
Cisco Unified IP Phone 9900 Series home page.	• Cisco Unified IP Phones 9900 Series
Cisco Unified IP Phone firmware download instructions in the Installation Notes section.	• *Cisco Unified IP Phone Release Notes for Firmware Release 8.5(3) (SCCP and SIP)*

Cisco Unified IP Phones 7900 Series documentation.	• Cisco Unified IP Phones 7900 Series Maintain and Operate Guides
Cisco Unified Mobility documentation.	• Cisco Unified Mobility
Cisco Validated Design Program. Systems and solutions designed, tested, and documented to facilitate faster, more reliable, and more predictable customer deployments.	• *Cisco TelePresence Network Systems 2.0 Design Guide*
Complete software and firmware compatibility.	• *Cisco TelePresence Administration Software Compatibility Matrix*
Configuring CTS administration software features.	• *Cisco TelePresence System Administration Guide*
CTS Administration and User Guides: Configuration, maintenance, and monitoring tasks using Cisco TelePresence administration software.	• **Products** > **TelePresence** > **TelePresence Immersive Endpoints** > **TelePresence System** > **Cisco TelePresence Administration Software** http://www.cisco.com/en/US/products/ps8332/tsd_products_support_series_home.html
Documentation resources for administering the Cisco Unified Communications Manager system.	• Cisco Unified Communications Manager Documentation Guide for Release 8.0(1)
Features supported on the Touch 12 device.	• *Cisco TelePresence System User Guide*
How to configure and manage security on the Cisco TelePresence System.	• *Cisco TelePresence Security Solutions Configuration Guide*
How to configure Cisco WebEx OneTouch for Cisco TelePresence.	• *Cisco WebEx OneTouch for Cisco TelePresence Configuration Guide*
How to navigate to Cisco TelePresence System (CTS) hardware and software documentation, including information about CTS devices.	• Cisco.com **Products** > **TelePresence**
Information about the Cisco TelePresence Multipoint Switch (CTMS).	• Cisco TelePresence Multipoint Switch home page on Cisco.com
Install and use the Cisco TelePresence Touch 12.	• *Installing and Configuring the Cisco TelePresence Touch 12* • *Cisco TelePresence Touch 12 User Guide* • *Cisco TelePresence Touch 12 Meeting Quick Reference*
Overview of the features available on your Cisco IP Phone 7970 Series.	• *Cisco Unified IP Phone 7970 Series Phone Guide for Cisco Unified Communications Manager 7.0 (SCCP and SIP)*
Reference and procedural guide for system and phone administrators who plan to configure call security features for Cisco Unified Communications Manager.	• *Cisco Unified Communications Manager Security Guide, Release 7.1(2)*
Session Initiation Protocol (SIP) page.	• Session Initiation Protocol (SIP)
Troubleshooting the CTS and Cisco Unified CM Administration interfaces and related hardware components.	• Cisco TelePresence System Troubleshooting Guide
Unified CM documentation types and locations.	• Cisco Unified Communications Manager (CallManager) Documentation Roadmaps
Unified CM install and upgrade guides.	• Cisco Unified Communications Manager (CallManager) Install and Upgrade Guides

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at the following URL:

http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently RSS version 2.0.

Configuring Cisco Unified Communications Manager for the Cisco TelePresence System

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Contents

This chapter explains how to download the Cisco TelePresence Administration Software from the cisco.com web site and configure a new device using the Cisco Unified Communications Manager web interface, and includes the following sections:

Adding a Cisco TelePresence Image to the Cisco Unified Communications Manager Server

This section describes the steps you take to add a new Cisco TelePresence Device to Cisco Unified Communications Manager (Unified CM) and includes the following topics:

Downloading the Cisco TelePresence Software

Note Complete these steps prior to using your Cisco TelePresence Touch 12 device.

If you have not yet installed the Cisco TelePresence software onto the Unified CM server, complete the following steps to add it:

Note If you already downloaded the software and added it to the Unified CM server, skip this section and continue to the "Adding a Cisco TelePresence Device to the Unified CM Server" section on page 1-12 to add a new device to Unified CM.

Step 1 Navigate to www.cisco.com.

Step 2 Click on the **Log In** button, then enter your username and password.

Step 3 Click **Support**.

Step 4 Enter the following search term into the text box:

cisco telepresence administration software

Step 5 Click the **Cisco TelePresence Administration Software** hyperlink that displays.

Alternatively, you can click the **Downloads** tab and enter the name of your system into the text box.

Step 6 Click the **Download Software** hyperlink.

Step 7 Navigate to your product using the navigation tool that displays.

Step 8 Select the software that you require for your installation.

Systems that use a Cisco TelePresence Touch device for call control only require the Cisco TelePresence System and Cisco TelePresence Touch file. Systems that use a Cisco Unified IP phone for call control require the Cisco TelePresence System and the Cisco TelePresence Midlet Phone Application .jad and .jar files.

Step 9 Choose the latest release and click either **Add to Cart** or **Download**.

a. If you choose Add to Cart, click on **Download Cart**.

b. If you choose Download, click **Accept License Agreement**.

Step 10 Click **Download** and then **Accept License Agreement**, and follow the prompts to download the file.

Note For systems that use a Cisco TelePresence Touch device, the software to run the Touch device is included with the COP file. For systems that use a Cisco Unified IP phone for call control, the latest MIDlets software version is included with the Unified CM device pack. For more information about the files for systems that use a Cisco TelePresence Touch device, see the "Understanding COP Files" section on page 1-1.

Step 11 Copy these files to a Secure File Transfer Protocol (SFTP) server that is accessible by Unified CM.

Step 12 Load the system image onto the Unified CM server by completing the following steps:

a. Open a supported web browser.

Note The Cisco Unified CM Administration program requires Internet Explorer version 6, 7, 8 or 9 or Firefox version 3.6, 5 or 9.

b. In the address bar of the web browser, enter the following URL:

```
https://UCM-server-name
```

Where

UCM-server-name

is the IP address or DNS name of the Cisco Unified Communications Manager server.

c. Upload the Cisco TelePresence system image to the Unified CM server by completing the steps in theInstalling the Cisco TelePresence COP File to the Unified CM Server section that follows.

Installing the Cisco TelePresence COP File to the Unified CM Server

To install the Cisco TelePresence system files to the Unified CM server, complete the following steps.

Step 13 Log in to the Unified CM administrative GUI.

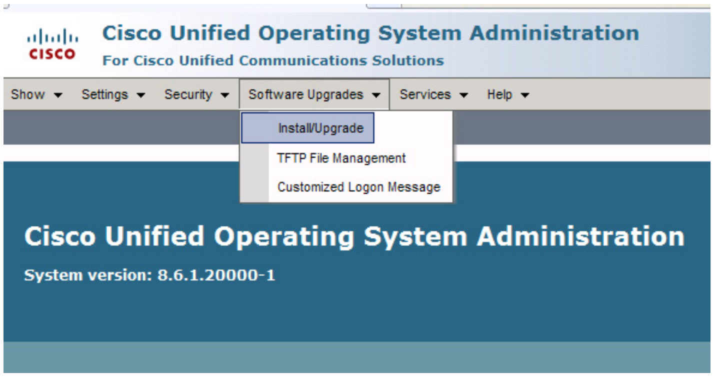
Step 14 From the Navigation drop-down list, on the top right of the GUI, select **Cisco Unified OS Administration**. Click **Go** to go to the Cisco Unified CM Administration home page.

The Cisco Unified Operation System Administration screen displays.

Note Log in with your username and password if prompted to do so.

Step 15 Navigate to **Software Upgrades > Install/Upgrade**.

Figure 1-1 Cisco Unified Operating System Administration Screen

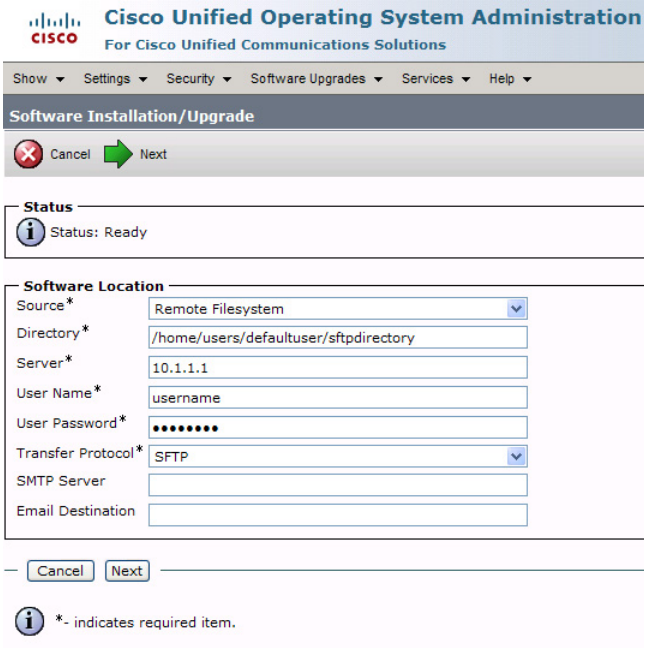


cisco
Cisco Unified Operating System Administration
For Cisco Unified Communications Solutions
Show
Settings
Security
Software Upgrades
Services
Help
Install/Upgrade
TFTP File Management
Customized Logon Message
Cisco Unified Operating System Administration
System version: 8.6.1.20000-1

Step 16 In the Software Location area, specify the following information in the fields:

- In the Source drop-down list, select **Remote Filesystem**.
- In the Directory field, enter the location of the file on the SFTP server.
- In the Server field, enter the server name or IP address.
- In the User Name and User Password fields, enter the user name and password used to access the SFTP server.
- In the Transfer Protocol drop-down list, select **SFTP**.

Figure 1-2 Specifying SFTP Server and File Location


Cisco Unified Operating System Administration
For Cisco Unified Communications Solutions
Show
Settings
Security
Software Upgrades
Services
Help
Software Installation/Upgrade
Cancel
Next
Cancel
Next

Status
Status: Ready

Software Location

Source*	Remote Filesystem
Directory*	/home/users/defaultuser/sftpdirectory
Server*	10.1.1.1
User Name*	username
User Password*	••••••••
Transfer Protocol*	SFTP
SMTP Server	
Email Destination	

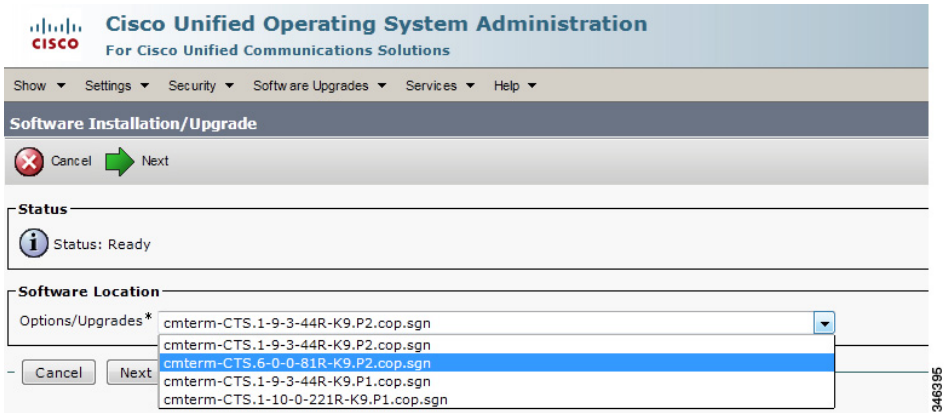
*- indicates required item.

Step 17 Click **Next**.

Unified CM accesses the SFTP server. The Software Location area lists the COP files that Unified CM finds in the directory that you specified.

Step 18 Choose the COP file that you want to install from the available file names in the Options/Upgrades drop-down list.

Figure 1-3 Specifying the COP File



Cisco Unified Operating System Administration
For Cisco Unified Communications Solutions
Show
Settings
Security
Software Upgrades
Services
Help
Software Installation/Upgrade
Cancel
Next
Status
Software Location
Cancel
Next
346395

Status: Ready

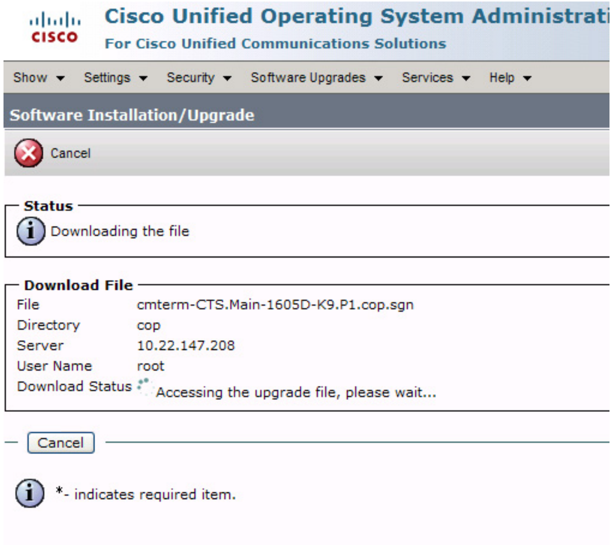
Options/Upgrades* cmterm-CTS.1-9-3-44R-K9.P2.cop.sgn

cmterm-CTS.1-9-3-44R-K9.P2.cop.sgn
cmterm-CTS.6-0-0-81R-K9.P2.cop.sgn
cmterm-CTS.1-9-3-44R-K9.P1.cop.sgn
cmterm-CTS.1-10-0-221R-K9.P1.cop.sgn

Step 19 Click **Next**.

The Unified CM GUI shows the COP file being installed.

Figure 1-4 COP File Installation



Cisco Unified Operating System Administrati
For Cisco Unified Communications Solutions
Show
Settings
Security
Software Upgrades
Services
Help
Software Installation/Upgrade
Cancel
Status
Download File
Cancel

Downloading the file

File	cmterm-CTS.Main-1605D-K9.P1.cop.sgn
Directory	cop
Server	10.22.147.208
User Name	root
Download Status	Accessing the upgrade file, please wait...

*- indicates required item.

Step 20 After installation completes, verify the file validity by completing the following steps:

a. Make a note of the information in the File Checksum Details area. This value is shown in Figure 1-5.

b. Log in to the SFTP server and enter the following command:

c. **md5sum** *filename*.cop.sgn

where:

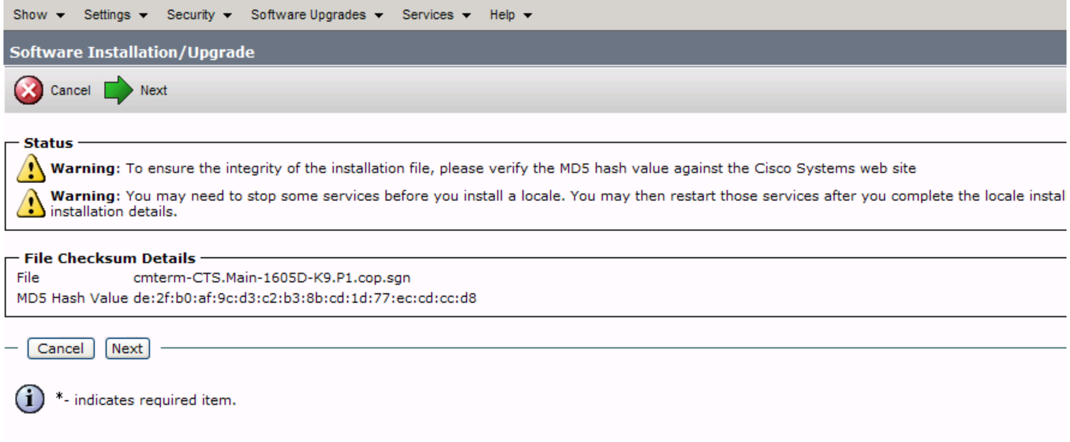
filename is the file name of the COP file on the SFTP server.

d. Make a note of the checksum value that displays as a result of the md5sum command.

e. Compare the MD5 Hash Value that displays in this area to the MD5 checksum value that you find in the COP file on the server and make sure that they match to ensure that the file is not corrupted.

f. If the values match, continue to the next step; if the values do not match, retry the file installation.

Figure 1-5 File Checksum Details Area



Status

Warning: To ensure the integrity of the installation file, please verify the MD5 hash value against the Cisco Systems web site

Warning: You may need to stop some services before you install a locale. You may then restart those services after you complete the locale instal
installation details.

File Checksum Details

File	cmterm-CTS.Main-1605D-K9.P1.cop.sgn
MD5 Hash Value	de:2f:b0:af:9c:d3:c2:b3:8b:cd:1d:77:ec:cd:cc:d8

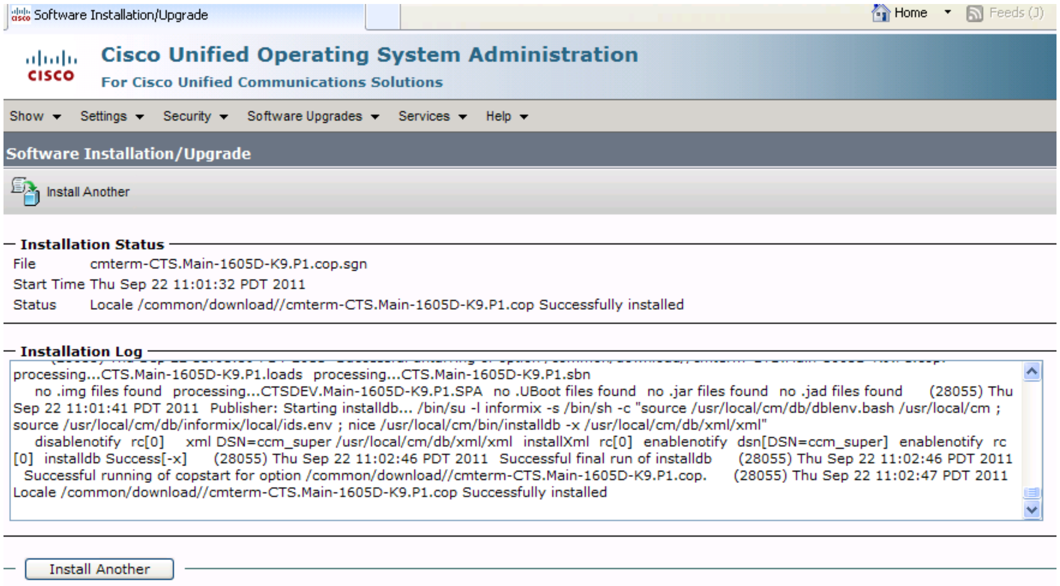
*- indicates required item.

Step 21 Click **Next** to begin installation.

The installation log displays the installation progress.

After the .loads, codec and Touch 12 files are extracted, the interface displays a status of Complete in the Installation Status area.

Figure 1-6 Installation Status Area


Software Installation/Upgrade
Home
Feeds (3)
Cisco Unified Operating System Administration
For Cisco Unified Communications Solutions
Show
Settings
Security
Software Upgrades
Services
Help
Software Installation/Upgrade
Install Another
Installation Status
Installation Log
Install Another

```
File        cmterm-CTS.Main-1605D-K9.P1.cop.sgn
Start Time  Thu Sep 22 11:01:32 PDT 2011
Status      Locale /common/download//cmterm-CTS.Main-1605D-K9.P1.cop Successfully installed
```

```
processing...CTS.Main-1605D-K9.P1.loads  processing...CTS.Main-1605D-K9.P1.sbn
   no .img files found  processing...CTSDEV.Main-1605D-K9.P1.SPA  no .UBoot files found  no .jar files found  no .jad files found    (28055) Thu
Sep 22 11:01:41 PDT 2011  Publisher: Starting installdb... /bin/su -l informix -s /bin/sh -c "source /usr/local/cm/db/dblenv.bash /usr/local/cm ;
source /usr/local/cm/db/informix/local/ids.env ; nice /usr/local/cm/bin/installdb -x /usr/local/cm/db/xml/xml"
   disablenotify  rc[0]   xml DSN=ccm_super /usr/local/cm/db/xml/xml  installXml  rc[0]  enablenotify  dsn[DSN=ccm_super]  enablenotify  rc
[0]  installdb Success[-x]    (28055) Thu Sep 22 11:02:46 PDT 2011  Successful final run of installdb    (28055) Thu Sep 22 11:02:46 PDT 2011
  Successful running of copstart for option /common/download//cmterm-CTS.Main-1605D-K9.P1.cop.    (28055) Thu Sep 22 11:02:47 PDT 2011
Locale /common/download//cmterm-CTS.Main-1605D-K9.P1.cop Successfully installed
```

Step 22 From the Navigation drop-down list on the top right of the GUI, select **Cisco Unified Serviceability** and click **Go**.

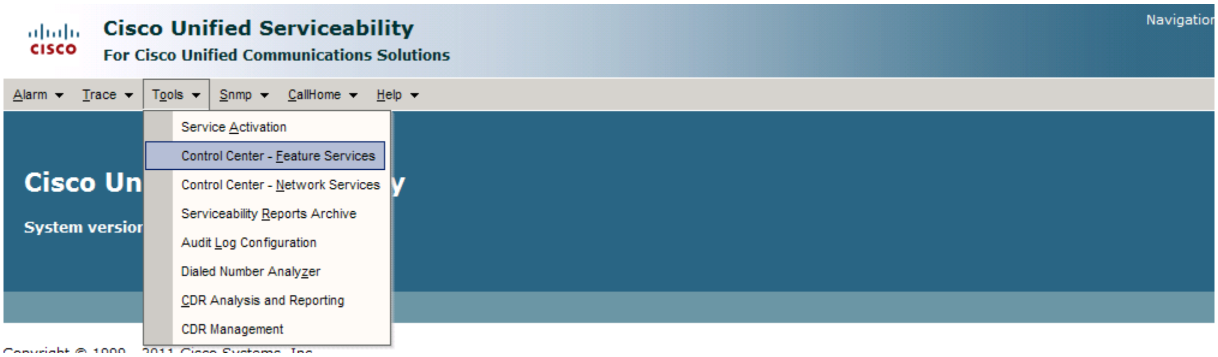
The Cisco Unified Serviceability window displays.

Note Enter your user ID and password if prompted to do so.

Step 23 Restart the TFTP server by completing the following steps:

a. Navigate to **Tools > Control Center - Feature Services**.

Figure 1-7 Cisco Unified Serviceability Window

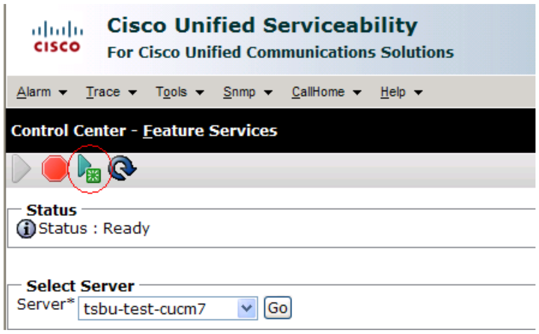

Cisco Unified Serviceability
For Cisco Unified Communications Solutions
Navigation
Alarm
Trace
Tools
Snmp
CallHome
Help
Service Activation
Control Center - Feature Services
Control Center - Network Services
Serviceability Reports Archive
Audit Log Configuration
Dialed Number Analyzer
CDR Analysis and Reporting
CDR Management
Cisco Un
System version
Copyright © 1999 - 2011 Cisco Systems, Inc.

b. Choose the correct TFTP server from the drop-down list that displays and click **Go**.

c. In the CM Services area click the Cisco **Tftp** radio button.

d. Click the Restart button (either the Restart button on the bottom of the page or the button circled in red in Figure 1-8).

Figure 1-8 Restart Button in Features Services Page


Cisco Unified Serviceability
For Cisco Unified Communications Solutions
Alarm
Trace
Tools
Snmp
CallHome
Help
Control Center - Feature Services
Status
Select Server
Go

Status : Ready

Server* tsbu-test-cucm7

Step 24 Add the Cisco TelePresence device to the Unified CM server by completing the steps in the "Adding a Cisco TelePresence Device to the Unified CM Server" section on page 1-12

Configuring Phone Security Profile Information

This section describes how to create and configure a phone security profile for a Cisco TelePresence device using Unified CM. This section contains the following tasks:

- Adding a New Phone Security Profile for CTS, page 1-8
- Configuring the Phone Security Profile, page 1-9

Adding a New Phone Security Profile for CTS

To add a new phone security profile for CTS:

Step 1 Log in to the Cisco Unified CM Administration interface.

Step 2 Choose **System** > **Security Profile** and click **Phone Security Profile**.

Step 3 Click the **Add New** button at the bottom of the window. The Phone Security Profile Configuration window appears.

Step 4 From the Phone Security Profile Type drop-down menu, choose the phone type.

Step 5 Click **Next**.

Step 6 From the Select the phone security profile protocol drop-down menu, choose **SIP**.

Step 7 Click **Next**. The Phone Security Profile Configuration window appears containing your Product Type and Device Protocol selections.

Step 8 Proceed to Configuring the Phone Security Profile to complete the remaining tasks on the Phone Security Profile Configuration page.

Configuring the Phone Security Profile

Before You Begin

In the Phone Security Profile Configuration window, verify your Product Type and Device Protocol settings:

- Phone Type—select your Cisco TelePresence system in the drop-down list
- Device Protocol—**SIP**

Procedure

Proceed to the following configuration tasks:

- SIP Phone Security Profile Information, page 1-9
- Phone Security Profile CAPF Information, page 1-11
- Parameters Used in Phone Field, page 1-11

SIP Phone Security Profile Information

If you chose SIP as the device protocol:

Step 1 From the Cisco Unified CM Administration interface, Choose **System** > **Security Profile** and click **Phone Security Profile**.

Step 2 Search for a Phone Security Profile using the search features or follow the steps in Adding a New Phone Security Profile for CTS.

Step 3 Enter configuration information on the Phone Security Profile Information page using the information in Table 1-1 as a guide.

Step 4 Click the **Save** button to save your settings.

Table 1-1 SIP Phone Security Profile Information Fields

Field	Required	Setting
Name	Yes	Enter a name for the security profile. When you save the new profile, the name displays in the Device Security Profile drop-down list box in the Phone Configuration window for the phone type and protocol. **Tip** Include the device model and protocol in the security profile name to help you find the correct profile when you are searching for or updating a profile.
Description	—	Enter a description for the security profile.
Nonce Validity Time	Yes	Enter the number of minutes (in seconds) that the nonce value is valid. The default value equals 600 (10 minutes). When the time expires, Cisco Unified CM generates a new value.

Table 1-1 SIP Phone Security Profile Information Fields (continued)

Field	Required	Setting
Device Security Mode	Yes	Choose **Encrypted** from the drop-down menu (recommended). Encrypted mode allows Cisco Unified CM to provide integrity, authentication, and encryption for the phone. A TLS connection that uses AES128/SHA opens for signaling, and SRTP carries the media for all phone calls on all SRTP-capable SIP hops. **Note** The Media is Encrypted icon (closed lock) is displayed on the screen only when the Device Security mode is set to encrypted and cluster security mode is set to 1 (mixed mode). To configure and verify cluster security mode, see the Verifying the Cisco Unified Communications Manager Security Mode section of the *Cisco TelePresence Security Solutions Guide*. Additional Device Security Mode field choices: • Non Secure—No security features except image authentication exist for the phone. A TCP connection opens to Cisco Unified CM. • Authenticated—Cisco Unified CM provides integrity and authentication for the phone. A TLS connection that uses NULL/SHA opens.
Transport Type	Yes	When Device Security Mode is Non Secure, choose one of the following options from the drop-down list box (not all options may display): • TCP—Choose the Transmission Control Protocol to ensure that packets get received in the same order they are sent. This protocol ensures that no packets get dropped, but the protocol does not provide any security. • UDP—Choose the User Datagram Protocol to ensure that packets are received quickly. This protocol, which can drop packets, does not ensure that packets are received in the order that they are sent. This protocol does not provide any security. • TCP + UDP—Choose this option if you want to use a combination of TCP and UDP. This option does not provide any security. When Device Security Mode is Authenticated or Encrypted, TLS specifies the Transport Type. TLS provides signaling integrity, device authentication, and signaling encryption (encrypted mode only) for SIP phones. **Note** If Device Security Mode cannot be configured in the profile, the transport type specifies UDP.
Enable Digest Authentication	—	Not supported on CTS devices. Leave this box unchecked.

Table 1-1 SIP Phone Security Profile Information Fields (continued)

Field	Required	Setting
TFTP Encrypted Config	—	When this box is checked, Cisco Unified CM encrypts phone downloads from the TFTP server. This option exists for Cisco phones only. **Tip** Cisco recommends that you enable this option and configure a symmetric key to secure digest credentials and administrative passwords.
Exclude Digest Credentials in Configuration File	—	When this box is checked, Cisco Unified CM omits digest credentials in phone downloads from the TFTP server. This option exists for Cisco Unified IP SIP Phone models 7905, 7912, 7940, and 7960 only.

Phone Security Profile CAPF Information

To configure the Phone Security Profile CAPF Information fields:

Step 1 Enter Phone Security Profile CAPF Information using the information in Table 1-2 as a guide.

Step 2 Click the **Save** button to save your settings.

Table 1-2 Phone Security Profile CAPF Information

Field	Required	Setting
Authentication Mode	Yes	Choices are: • By Null String • By Existing Certificate (precedence to LSC) • By Existing Certificate (precedence to MIC)
Key Size (Bits)	Yes	Choices are: • 512 • 1024 • 2048

Note These fields are related to the CAPF Information settings on the Phone Configuration page.

Parameters Used in Phone Field

To configure the Parameters Used in Phone Field:

Step 1 Enter the SIP Phone Port information using the information in Table 1-3 as a guide.

Step 2 Click the **Save** button to save your settings.

Table 1-3 Parameters Used in Phone Field

Field	Required	Setting
SIP Phone Port	Yes	This setting applies to SIP phones that are using UDP transport. Enter the port number for Cisco Unified SIP IP Phones that are using UDP to listen for SIP messages from Cisco Unified CM. The default setting equals 5060. Phones that are using TCP or TLS ignore this setting.

Adding a Cisco TelePresence Device to the Unified CM Server

Note Before you begin this procedure, note the MAC address of the Cisco TelePresence device. See the "Before You Begin" section on page -x for information about determining the MAC address.

This section includes the steps you take to add a new Cisco TelePresence device to the Unified CM server and includes the following steps:

- Using the Unified CM GUI to Add a Cisco TelePresence Device, page 1-12
- Device Information Area, page 1-13
- Protocol-Specific Information Area, page 1-15
- Certification Authority Proxy Function (CAPF) Information Area, page 1-16
- MLPP Information Area, page 1-17
- Product Specific Configuration Layout Area, page 1-17
- User Preferences Area, page 1-20
- Dial Plan Area, page 1-23
- Global Location Area, page 1-24
- SSH Information Area, page 1-25
- External CTS Log Destination Area, page 1-28
- SNMP Configuration Parameters Area, page 1-30
- SNMP Trap Receiver Parameters Area, page 1-31
- Saving Your Settings, page 1-33

Using the Unified CM GUI to Add a Cisco TelePresence Device

To add a new Cisco TelePresence device to the Unified CM server, complete the following steps.

Step 1 Log in to the Cisco Unified CM Administration interface.

Step 2 If required, choose the Cisco Unified CM Administration drop-down choice and click **Go**.

Step 3 From the Device drop-down menu, choose **Phone**. The Find and List Phones Page appears.

Step 4 Click the **Add New** button at the bottom of the window. The Add a New Phone window appears.

Step 5 In the Add a New Phone window, click the **Phone Type** drop-down list and choose Cisco TelePresence system that corresponds with your device.

You added this phone type when you downloaded and applied the Cisco TelePresence file in the "Installing the Cisco TelePresence COP File to the Unified CM Server" section on page 1-3,

Step 6 Click **Next** to display the Phone Configuration window.

Step 7 Fill out the fields in the Phone Configuration window. Refer to Table 1-4 through Table 1-14 for a description of these fields.

Step 8 When you have finished making your changes, click **Save** to save your settings.

Device Information Area

Table 1-4 provides you with a description of the fields in the Device Information Area.

Note Fields marked with an asterisk (*) in the administration interface are required entries.

Table 1-4 Fields in the Device Information Area

Field	Setting
Registration	Read-only. Indicates whether the system is Registered with Cisco Unified Communications Manager and lists the registered Unified CM address.
IP Address	IP address for the Cisco TelePresence System. After you add the device, you can click on the address to see information for that phone in a new window.
Active Load ID	View-only field showing the status of the active load.
Device is Active check box	View only field.
Device is Trusted check box	View only field.
MAC Address*	MAC address for the Cisco TelePresence primary codec. For example, **000DD12345A1**.
Description	Short, free-format description of the device.
Device Pool*	Your device pools. Choose a device pool from the drop-down menu. Click **View Details** to open the Device Details window, which includes the following system setting information: • Device Pool Settings • Roaming Sensitive Settings • Device Mobility Related Information • Geolocation Configuration • Incoming Calling Party Settings • Incoming Called Party Settings

Table 1-4 Fields in the Device Information Area (continued)

Field	Setting
Common Device Configuration	Your configured devices. Leave field as < None>. Click **View Details** to open the Common Device Configuration Detail window, which includes the following system setting information: • Common Device Configuration Information • Multilevel Precedence and Preemption Information
Phone Button Template*	Standard_Cisco_TelePresence. **Note** Unless you have created extra button templates, you will see the default button template for your device.
Softkey Template (systems that use a Cisco Unified IP Phone for call control only)	<None> **Note** This field is only for systems that use a Cisco Unified IP Phone for call control.
Common Phone Profile*	Standard Common Phone Profile.
Calling Search Space	<None> **Note** Information in this field reflects Calling Search Spaces that have been created on this Unified CM.
Media Resource Group List	<None>
Location*	Hub_None. Additional choice is Phantom.
User Locale	<None> **Note** This field supports user locales listed in Table 2-4.
Network Locale	<None> **Note** This field supports network locales listed in Table 2-4.
Device Mobility Mode*	Default. Click **View Current Device Mobility Settings** to open the Device Mobility Details window, which shows the current device mobility settings.
Owner User ID	Saved User IDs. Leave field as <None>.
Phone Load Name	Specify required version of Cisco TelePresence System if no device default is set.
Use Trusted Relay Point*	Default.
Always Use Prime Line*	Default.
Always Use Prime Line for Voice Message*	Default.
Calling Party Transformation CSS	<None>
Geolocation	<None>
Check-Boxes in the Device Information Area	
Use Device Pool Calling Party Transformation CSS	Box is checked.
Retry Video Call as Audio	Box is checked.

Table 1-4 Fields in the Device Information Area (continued)

Field	Setting
Ignore Presentation Indicators	Box is un-checked.
Allow Control of Device from CTI	Box is checked.
Logged Into Hunt Group	Box is checked.
Remote Device	Box is un-checked.
Note When you are finished making changes, click **Save** to save your settings.	

Protocol-Specific Information Area

Table 1-5 provides you with a description of the fields in the Protocol-Specific Information area.

Note Fields marked with an asterisk (*) in the administration interface are required entries for basic configuration.

Table 1-5 Fields in the Protocol-Specific Information Area

Field	Setting
Packet Capture Mode*	<None>
Packet Capture Duration	0
Presence Group*	Standard Presence Group
SIP Dial Rules	<None>
MTP Preferred Originating Codec*	711ulaw (default).
Device Security Profile*	Cisco TelePresence *name of system* - Standard SIP Non-Secure Profile (default) **Note** For more information about configuring Cisco Unified CM security features, refer to the *Cisco Unified Communications Manager Security Guide, Release 7.1(2)*.
Rerouting Calling Search Space	<None> **Note** Information in this field reflects Calling Search Spaces that have been created on this Unified CM.
SUBSCRIBE Calling Search Space*	<None> **Note** Information in this field reflects Calling Search Spaces that have been created on this Unified CM.
SIP Profile*	Choose **Standard SIP Profile**. Information in this field reflects SIP profiles that have been created on this Unified CM.
Digest User	<None>
Check-Boxes	
Media Termination point Required	Box is un-checked.

Table 1-5 Fields in the Protocol-Specific Information Area (continued)

Field	Setting
Unattended Port	Box is un-checked.
Allow Presentation Sharing using BFCP	Box is checked.

Note When you are finished making changes, click **Save** to save your settings.

Certification Authority Proxy Function (CAPF) Information Area

Table 1-6 describes the fields in the Certification Authority Proxy Function (CAPF) Information area.

Note This option will not be visible unless you have enabled CAPF on the Cisco Unified Communications Manager service parameter.

The Security Profile contains additional CAPF settings.

For more information about CAPF, refer to the Securing Cisco TelePresence Products document for your software release, available at the following URL:

http://www.cisco.com/en/US/partner/products/ps8332/products_installation_and_configuration_guides_list.html

Note Fields marked with an asterisk (*) in the administration interface are required entries for basic configuration.

Table 1-6 Fields in the Certification Authority Proxy Function (CAPF) Information Area

Field	Required?	Setting
Certificate Operation*	Yes	No Pending Operation. Most configuration fields in the CAPF Information window cannot be modified. **Note** The drop-down menu allows you to Install/Upgrade, Delete, or Troubleshoot. If you choose one of these options, the remaining fields in the CAPF Information window can be modified.
Authentication Mode*	Yes	If No Pending Operation is chosen in the Certificate Operation field, this field is view only by default.
Authentication String	—	Leave this field unchanged.
Key Size (Bits)*	Yes	If No Pending Operation is chosen in the Certificate Operation field, this field is view only by default.
Operation Completes By	—	If No Pending Operation is chosen in the Certificate Operation field, this field is view only by default.
Certificate Operation Status	—	<None>

Note When you are finished making changes, click **Save** to save your settings.

MLPP Information Area

In the MLPP Information area, leave the **MLPP Domain** field at the default of <None>.

Product Specific Configuration Layout Area

Table 1-7 contains descriptions of the Product Specific Configuration Layout information fields.

Note Fields marked with an asterisk (*) in the administration interface are required entries for basic configuration.

Note Not all choices are available for all devices; some choices are product-specific.

For more information about these fields, see the "Product Specific Configuration Layout" section on page 5-10.

Table 1-7 Fields in the Product Specific Configuration Layout Area

Field	Description
Cisco TelePresence Type*	Indicates the type of Cisco TelePresence system you have installed.
Admin. Web Access*	When enabled, allows access to the Cisco TelePresence Web Administration interface. Default is Enabled
Room Name	Conference room name as described in Microsoft Exchange or Domino. Used to schedule conference calls. This field accepts a text string with a maximum of 64 characters. **Note** If you have the Cisco TelePresence Manager application, the name of the conference room is required. The name must exactly match the resource mailbox (including domain name) as it is entered in the Microsoft Exchange or Domino database. It will be used to schedule conference calls.
Maximum Call Duration (in minutes)	Maximum duration (in minutes) allowed for a Cisco TelePresence conference call. • Minimum is 0 • Maximum is 10080 (7 days). • Default is 0 (no call duration set). The default setting disables this feature. **Note** This feature is coordinated with the Maximum Call Duration Timer in the Cisco Unified Communications Manager service parameters. If values other than 0 are entered for either of these fields, the smaller value takes precedence.

Table 1-7 Fields in the Product Specific Configuration Layout Area (continued)

Field	Description
Quality (per Display)*	Bandwidth used by the system. Higher bandwidth increases video quality, but may also cause packets to be dropped and video to be interrupted. Choices are: • Highest Detail, Best Motion: 1080p (default) • Highest Detail, Better Motion: 1080p • Highest Detail, Good Motion: 1080p • High Detail, Best Motion: 720p • High Detail, Better Motion: 720p • High Detail, Good Motion: 720p • High Detail, Limited Motion: 720p (Lite) If your system uses a Cisco Unified IP Phone for call control, note the following caveats for the 720p (Lite) choice: – The audio addin conf softkey is not available. – You must have MIDlets installed on the Unified CM. • Network friendly for personal systems: 480p For more information about 720p (Lite), see Quality Per Display - 720p (Lite). **Note** Limited bandwidth mode: 360p may be listed as an option in this field but is not yet available; it is supported in a future release.
Bandwidth Allocation Weights*	Sets the bandwidth allocation ratio between conference video and presentation video. Default value of this parameter is a weight of 8 for main video and a weight of 2 for presentation video for a total weight of 10. Choices are: • 9 Main / 1 Presentation • 8 Main / 2 Presentation (default) • 6 Main / 4 Presentation • 4 Main / 6 Presentation • 3 Main / 7 Presentation See also the TX Software Features chapter of the *Administration Guide for Cisco TelePresence TX Software Release 6.0*.
Main Display Frames Per Second* (TX13x0 and TX9x00 systems only)*	Selects the frame rate, or frames per second (fps), on the main display screen. Choice are: • 30 fps main • 60 fps main
Presentation Input Device*	Indicates whether you have a presentation input device. Choices are: • None (default) • Document Camera **Note** This parameter must correctly reflect how your system is configured. Any discrepancy will cause CTS to function improperly.

Table 1-7 Fields in the Product Specific Configuration Layout Area (continued)

Field	**Description**
Presentation Output Device*	Indicates if you have a presentation output device. Choices are: • None (default) • Projector/Display **Note** This parameter must correctly reflect how your system is configured. Any discrepancy will cause CTS to function improperly.
Lights*	Defines how the lights operate in a CTS conference room. Choices are: • On with calls only (default) • On with display settings • On all the time **Note** On the CTS 500, the lights are powered by the display. When the display turns off according to the display settings in Unified CM, the lights also turn off. However, if you have chosen the "On all the time" setting for the lights, the setting is not honored during power saving/non-business hours (when display settings are not active). To bypass power saving/non-business hours defaults, extend the business hours to all the time in the Display On Duration field. See also Notes About Auxiliary Control.
Advertise G.722 Codec*	Wideband Codec. Indicates whether Cisco Telepresence endpoints will advertise the G.722 audio codec to Unified CM. When enabled, preference is given to this audio codec. Choices are: • Use System Default (default)—This CTS will defer to the setting specified in the enterprise parameter, Advertise G.722 Codec • Disabled—This CTS will not advertise G.722 to Unified CM • Enabled—This CTS will advertise G.722 to Unified CM See the Configuring Wideband Codec section of the *Cisco Unified IP Phone 7931G Administration Guide for Cisco Unified Communications Manager 6.1(3) (SCCP)* for more information about the G.722 codec.
External SYSLOG Address	Configures the external syslog address. Allowed values: Syslog address format can be either: • host or • host:port Host is either a hostname or IP address (up to 60 characters long). Port is a number between 0 and 65535. Default is 514.
Alternate CUCM for Directory Lookup	Configures the alternate Cisco Unified CM IP address that the CTS should query in the directory. This field can be either an IP address, domain name, or URL. Maximum length: 64.
TelePresence Recording Server Address	Configures the address (IP address or DNS name) of the Cisco TelePresence Recording Server (CTRS). Maximum length: 64.

Table 1-7 Fields in the Product Specific Configuration Layout Area (continued)

Field	Description
Presentation Frames Per Second*	Selects the frames per second (fps) for the external presentation.
Live Desk Number	Specifies the number that the system dials when the user presses the Live Desk button or softkey. For more information, refer to the Live Desk in Cisco Unified CM section of the *Release Notes for Cisco TelePresence System Software Release 1.9*.

User Preferences Area

Table 1-8 shows the fields in the User Preferences area.

Note Fields marked with an asterisk (*) in the administration interface are required entries for basic configuration.

Table 1-8 Fields in the User Preferences Area

Field	Description
Days Display Not Active	Specifies the days of the week that the Cisco TelePresence system display remains off by default. Choices are Monday through Sunday. Default is Saturday To select multiple days, hold down the Control key.
Display On Time	Specifies the time of day that the Cisco TelePresence system display(s) will remain on after being turned on. Enter a value using a 24-hour format where 00:00 indicates 12:00 midnight and 23:59 indicates 11:59 pm. Default is 07:30. **Note** If you clear the default value so that the field is blank, the display(s) turn off after the completion of each call.
Display On Duration	Specifies the length of time the Cisco TelePresence system display(s) will remain on if a "Display On Time" value is defined. Enter a value using a 24-hour format, where 1:30 indicates one hour and thirty minutes. The maximum value is 24:00 (24 hours). Default is 10:30. **Note** If you clear the default value so that the field is blank, then the display turns off at 11:59 pm. The time set in this field affects how the lights operate on the CTS 500. See the "Lights (CTS 500 only)" field description later in this table.
Idle Display*	Selects the idle screen ("home screen") on the phone interface when CTS is idle. Choices are: • Default Detailed (default) • Manual • Calendar • Directory • Favorites • Default Simple

Table 1-8 Fields in the User Preferences Area (continued)

Field	Description
CTS Auto Answer*	Allows the CTS endpoint to override the Unified CM DN settings on a shared line. Choices are: • Follow CUCM DN Settings (default)— – Internal calls are set to Auto Answer or No Auto Answer – External calls are set to No Auto Answer **Note** If your system uses a Cisco Unified IP phone for call control, you must configure the phone in Unified CM so that CTS Auto Answer is turned off. Otherwise, the phone might answer the call instead of the CTS system. • CTS Override - Auto Answer All—Sets Auto Answer on for both internal and external calls regardless of the DN configuration. • CTS Override - Auto Answer Internal Only—Sets Auto Answer on for internal calls regardless of the DN configuration. • CTS Override - Auto Answer External Only—Sets Auto Answer on for external calls regardless of the DN configuration. **Note** Auto Answer is set to **No** by default on the CTS 500 32.”
Second Row Capacity (CTS 32x0 systems only)*	Number of second-row conference room seats supported in a CTS 3210 or TX9200 meeting room. Default is 12 seats.
Table Microphone Count (CTS 1100, CTS 1300 and TX1310 systems only)*	Number of microphones that are available. Choose a number from the drop-down menu. **Note** See the “Setting Up the Microphones” section of the *Cisco TelePresence System 1300 Assembly, First-Time Setup, and Field-Replaceable Unit Guide* for more information.
Maximum Self View Time (in seconds)*	Leave the default setting. **Note** Camera loopback is always in self view or flipped mode. See the “Self View Control” section on page 2-13 for information about using the Self View feature.
Check Boxes	
Enable Audio Echo Cancellation (AEC)	Check this box to enable audio echo cancellation in the CTS. Default is True. **Note** This box is not available for CTS 500-32 and CTS 500-37 systems running Unified CM version 8.5 and higher (but is still available on all other CTS devices). To enable or disable AEC on the CTS 500-32 and CTS 500-37, use the set audio aec disable and set audio aec enable command-line interface (CLI) commands.
Enable Call Termination Ring	Check this box to enable the a ring tone at the termination of a call. Default is True.
Enable Single Microphone Mute	Check this box to enable the single microphone mute feature. Default is disabled. **Note** For multiple microphone systems only. See Single Microphone Mute.

Optional Hardware

Click the appropriate check boxes in the Optional Hardware area if the following optional hardware devices are installed:

- presentation codec: a CTS 500-37, CTS 1100 Series, CTS 1300-65, or CTS 3000 Series endpoint.
- A/V Expansion Box (audio/video extension unit)
- Auxiliary Control Unit

Note This parameter must correctly reflect how your system is configured. Any discrepancy will cause the CTS to function improperly. See the "Product Specific Configuration Layout Area" section on page 1-17 to find the default values for your system.

Some check boxes will not appear for some device types. The CTS 1100 and the CTS 1300 use the Auxiliary Control Unit by default, for example, so these boxes are automatically checked.

See the *Cisco TelePresence Hardware Options and Upgrade Guide* for more information about installing and maintaining optional hardware.

Figure 1-9 and Figure 1-13 show additional features that you can manage from the Product Specific Configuration Layout window:

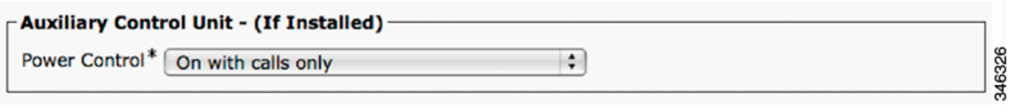
Auxiliary Control Unit

Required if installed. Only the following systems use the Auxiliary Control Unit: Cisco TelePresence Systems 1000, 1100, 1300-65, 3000, 3010, 3200

Choose the appropriate option from the drop-down list for Auxiliary Control Unit Power Control:

- On with calls only, as shown in Figure 1-9. See Notes About Auxiliary Control.
- On with display settings
- On all the time

Figure 1-9 Auxiliary Control Unit Settings



Auxiliary Control Unit - (If Installed)

Power Control* On with calls only

See the "Product Specific Configuration Layout Area" section on page 1-17 to find the default values for your system. See also the *Cisco TelePresence Hardware Options and Upgrade Guide* for more information about hardware options.

Note The CTS 1100 and the CTS 1300-65 use the Auxiliary Control Unit by default.

Notes About Auxiliary Control

- **Auxiliary Video Input**—On some systems, auxiliary video input may be displayed on the primary 65-inch main screen even when the auxiliary presentation display is powered off or is disconnected from the presentation codec.

Ensure that the Auxiliary presentation display is powered on and connected at all times. Consult the manual for your display to make any configuration changes.

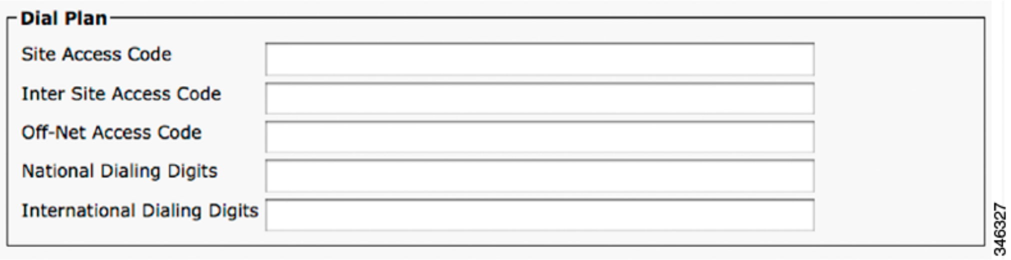
- **Auxiliary Power Control: On With Calls Only**—On some systems when Power Control is configured for "On with calls only" and there is an Auxiliary HDMI port connected (Active Display or Projector), the lights will remain on for 5 minutes after the call has been terminated. If no Auxiliary HDMI port is in use, the lights will go off immediately.

Dial Plan Area

Provide dial plan information for the Cisco TelePresence device using the descriptions in Table 1-9. Click **Save** to save your settings.

Tip Only numeric values are allowed.

Figure 1-10 Dial Plan Settings



Dial Plan

Site Access Code

Inter Site Access Code

Off-Net Access Code

National Dialing Digits

International Dialing Digits

Table 1-9 Cisco TelePresence Dial Plan Information

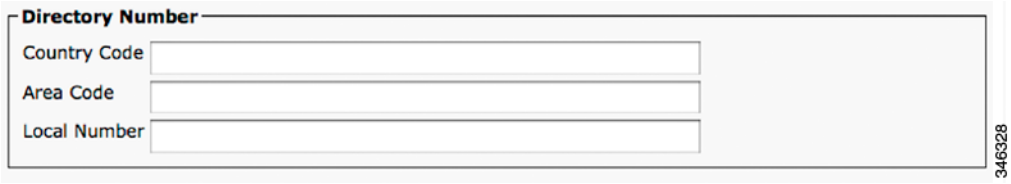
Field	Required?	Description
Site Access Code	—	Specifies the access code of this site (cluster). Maximum field length is 6.
Inter Site Access Code	—	Specifies the access code to dial another site (cluster). Maximum field length is 6.
Off-Net Access Code	—	Specifies the access code to dial outside of the network (PSTN). Maximum field length is 3.
National Dialing Digits	—	Specifies the digits dialed to place a national call. Maximum field length is 6.
International Dialing Digits	—	Specifies the digits dialed to place an international call. Maximum field length is 6.

Directory Number Area

Provide directory number information for the Cisco TelePresence device using the descriptions in Table 1-10. Click **Save** to save your settings.

Tip Only numeric values are accepted.

Figure 1-11 Directory Number Settings



Directory Number

Country Code	
Area Code	
Local Number	

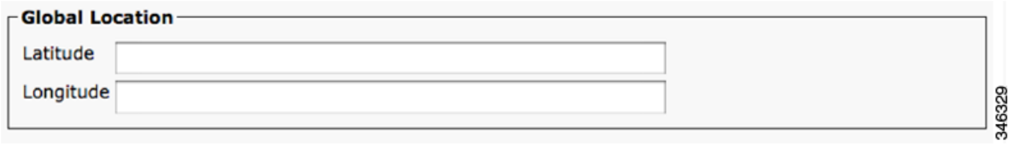
Table 1-10 Cisco TelePresence Directory Number

Field	Required?	Description
Country Code	—	Specifies the country code for this site. Maximum field length is 4.
Area Code	—	Specifies the area code for this site. Maximum field length is 6.
Local Number	—	Specifies the subscriber number of this Cisco TelePresence endpoint. Maximum field length is 15.

Global Location Area

Provide global location information for the Cisco TelePresence device using the descriptions in Table 1-11 as a guide. Click **Save** to save your settings.

Figure 1-12 Global Location Settings



Global Location

Latitude	
Longitude	

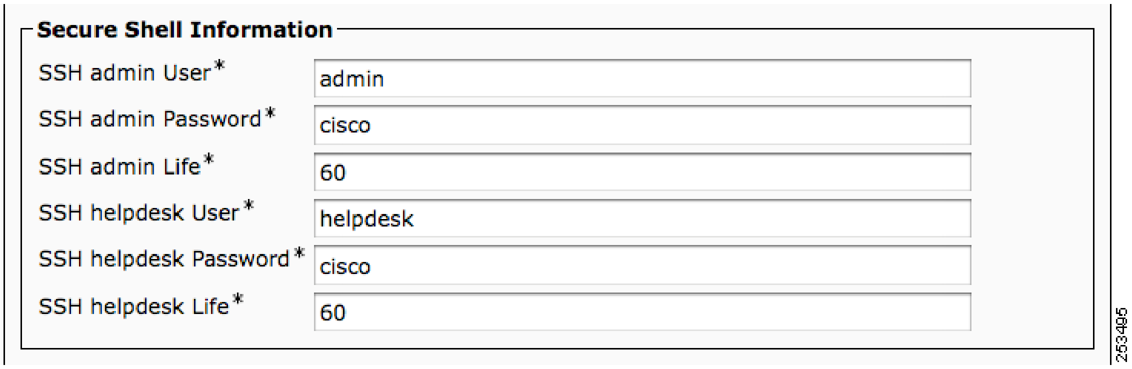
Table 1-11 Cisco TelePresence Global Location

Field	Required?	Description
Latitude	—	Indicates the site's latitude. The format for this field is as follows: dd mm ss P • dd—Degrees. Values are 0 to 89. • mm—Minutes. Values are 0 to 59. • ss—Seconds (optional). Values are 0 to 59. • P—Direction. Values are N (north) or S (south). Maximum field length is 15 characters.
Longitude	—	Indicates the site's longitude. The format for this field is as follows: ddd mm ss P • ddd—Degrees. Values are 0 to 179. • mm—Minutes. Values are 0 to 59. • ss—Seconds (optional). Values are 0 to 59. • P—Direction. Values are E (east) or W (west). Maximum field length is 15 characters.

SSH Information Area

Figure 1-13 shows the Secure Shell (SSH) Information window.

Figure 1-13 SSH Information Window



Secure Shell Information

SSH admin User*	admin
SSH admin Password*	cisco
SSH admin Life*	60
SSH helpdesk User*	helpdesk
SSH helpdesk Password*	cisco
SSH helpdesk Life*	60

Using the information in Table 1-12 as a guide, provide a username and password for the SSH account that will be used to access the command line interface (CLI) and the Cisco TelePresence Web Administration interface.

Changing the SSH username and password also changes the username and password for the Cisco TelePresence administration interface.

Click **Save** to save your settings.

Table 1-12 Cisco TelePresence Secure Shell Settings

Field	Required?	Setting
SSH Admin User	Yes	Username for the Secure Shell account. Used for SSH access and to access the Cisco TelePresence administration interface. Cisco Technical Assistance Center (TAC) uses secure shell for troubleshooting and debugging. Contact TAC for further assistance. Default user name is **admin**. The length of this username can be between 6 and 64 characters. This username supports CLI multi-level access (MLA). Do not use any of the following user names: **apache**, **daemon**, **help**, **helpdesk**, **nobody**, **operator**, or **shutdown**. Usernames and passwords can contain upper and lower case alphanumeric characters and the underscore and dash characters. User names cannot start with a - (dash) or _ (underscore). **Note for SSH admin and SSH helpdesk user names:** You cannot swap the SSH admin user name and the SSH Helpdesk user name without performing an interim user name change. For example, given an admin user name of **minad** and a helpdesk name of **deskhelp**, perform the following steps to change the admin name to **deskhelp** and the helpdesk name to **minad**: 1. Change the admin user name to a temporary password (for example, **admintemp**) and change the helpdesk name to **minad**. 2. Click **Save**, then click **Apply Config**. 3. Wait until the “Calls Not Possible” pop-up screen disappears from the Touch Device. 4. Change the admin user name to **deskhelp**.
SSH Admin Password	Yes	Password for the SSH account to be used for SSH access and to access the Cisco TelePresence Web Administration interface. Default password is **cisco**. • Maximum field length is 64 characters. • Minimum field length is 6 characters.

Table 1-12 Cisco TelePresence Secure Shell Settings (continued)

Field	Required?	Setting
SSH Admin Life	Yes	Sets the password expiration duration to ensure that the system is protected when using Cisco TelePresence Command Line Interface (CLI). You must periodically update this password. See Figure 1-13 to see updated SSH fields that are used to update your password. Password expiration can be set to have a value between 0 and 365. A setting of 0 disables password aging. Default is 60 days. Unless the configured life has been disabled (by being set to 0), password age is set to have 2 days remaining in the following situations: • New installations and factory resets. • Software upgrades (if the password age is less than the configured age). • Password recovery (using the **pwrecovery** command). An on-screen warning message is sent to the CLI user when 14 days remain on the current password, and so on until the password expires. If the password is allowed to expire, the system ignores the CLI login attempt and the user cannot access the system unless a new password is created by entering information in the SSH Information Area window. Save your changes by clicking **Restart**. This enables the updated configuration to be read, applied to the CTS, and then Calling Service is restarted. Alternately you can click **Reset**, which causes the CTS to reboot. On startup, the CTS reads the Unified CM configuration and applies any changes. See the *Cisco TelePresence System Command-Line Interface Reference Guide* for more information.

Table 1-12 Cisco TelePresence Secure Shell Settings (continued)

Field	Required?	Setting
SSH Helpdesk User	Yes	Username for the Helpdesk user secure shell account. Used for SSH access and to access the Cisco TelePresence administration interface. Cisco Technical Assistance Center (TAC) uses secure shell for troubleshooting and debugging. Contact TAC for further assistance. Default user name is **helpdesk**. The length of this username can be between 6 and 64 characters. The helpdesk user has limited access to the CLI and no **set** commands are allowed. Do not use any of the following user names: **admin**, **apache**, **daemon**, **nobody**, **operator**, or **shutdown**. User names and passwords can contain upper and lower case alphanumeric characters and the underscore and dash characters. User names cannot start with a - (dash) or _ (underscore). **Note for SSH admin and SSH helpdesk user names:** You cannot swap the SSH admin user name and the SSH Helpdesk user name without performing an interim user name change. For example, given an admin user name of **minad** and a helpdesk name of **deskhelp**, perform the following steps to change the admin name to **deskhelp** and the helpdesk name to **minad**: 1. Change the admin user name to a temporary password (for example, **admintemp**) and change the helpdesk name to **minad**. 2. Click **Save**, then click **Apply Config**. 3. Wait until the “Calls Not Possible” pop-up screen disappears from the Touch Device. 4. Change the admin user name to **deskhelp**. 5. Click **Save**, then click **Apply Config**.
SSH Helpdesk Password	Yes	Password for the SSH account to be used for SSH access and to access the Cisco TelePresence Web Administration interface. Default password is **cisco**. • Maximum field length is 64 characters. • Minimum field length is 6 characters.
SSH Helpdesk Life	Yes	

External CTS Log Destination Area

This subsection comprises six fields. The first four configure the CTS to “push” the captured log file to a remote server:

- External CTS Log Address
- Protocol
- External CTS Log User Name
- External CTS Log User Password

The second two fields configure the CTS to automatically capture logs on a periodic basis:

- Log Period

- Log Start Time

Note These two sets of fields can be configured independently of each other.

Enter external CTS log address information into the fields using the information in Table 1-12 as a guide. Click **Save** to save your settings.

Table 1-13 Cisco TelePresence External CTS Log Destination Settings

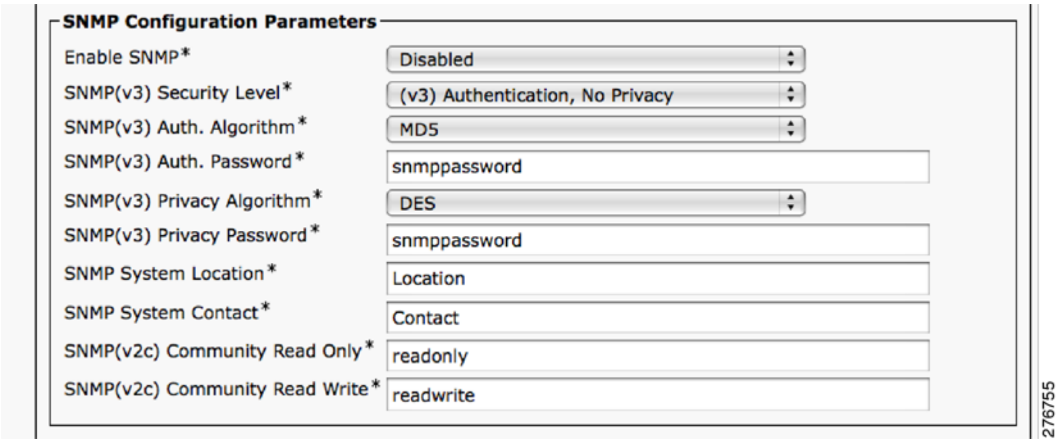
Field	Required?	Setting
External CTS Log Address	—	Configures the external CTS logging address. If populated, when CTS logs are generated, a copy of the logs will be sent to this address using the chosen protocol. You may append a destination path to the address of the remote machine. Address format can be either: • host or • host:port Host is either a hostname or IP address (up to 60 characters long). Port is a number between 0 and 65535. Default is 514.
Protocol	—	Selects the protocol to be used to transfer the CTS logs to the Logging Destination. Choose from the following: • SCP (default) • SFTP • FTP
External CTS Log User Name	—	Configures the external CTS logging user name. Maximum length: 64
External CTS Log User Password	—	Configures the external CTS logging user password. Password is write only. Maximum length: 64
Log Period	—	The frequency with which the system will automatically generate external CTS log information. Choose from the following: • Never (default) • Once per Day • Once per 3 Days • Once per Week
Log Start Time	—	Indicates the time of day CTS will generate logs. The value should be in a 24 hour format. Where 00:00 is the beginning of the day and 23:59 is the end of the day. Leaving this field blank will turn off the automatic logging function. Maximum length: 5

SNMP Configuration Parameters Area

Using the information in Table 1-14 as a guide, provide the required Simple Network Management Protocol (SNMP) configuration parameters for accessing the SNMP server that is associated with the Cisco TelePresence device. Figure 1-14 shows the SNMP Configuration Parameters screen.

Note Passwords in SNMP parameter fields can only be 32 characters in length.

Figure 1-14 SNMP Configuration Parameters



SNMP Configuration Parameters

Enable SNMP*	Disabled
SNMP(v3) Security Level*	(v3) Authentication, No Privacy
SNMP(v3) Auth. Algorithm*	MD5
SNMP(v3) Auth. Password*	snmppassword
SNMP(v3) Privacy Algorithm*	DES
SNMP(v3) Privacy Password*	snmppassword
SNMP System Location*	Location
SNMP System Contact*	Contact
SNMP(v2c) Community Read Only*	readonly
SNMP(v2c) Community Read Write*	readwrite

Note All SNMP fields are marked to reflect the applicable SNMP version.

Table 1-14 Cisco TelePresence SNMP Configuration Parameters

Field	Required?	Setting
Enable SNMP	Yes	Enables or disables SNMP on the CTS. SNMP must be enabled for the Cisco TelePresence system to support SNMP. Options include the following: • Disabled (default) • Enabled (v3) • Enabled (v3/v2) • Enabled (v2c) **Note** SNMP username is automatically configured by the system as “admin”.
SNMP (v3) Security Level	Yes	Level of security supported by the SNMP user. This field is only used for SNMP v3. Choose from the following security levels: • (v3) Authentication, No Privacy • (v3) Authentication, Privacy

Table 1-14 Cisco TelePresence SNMP Configuration Parameters (continued)

Field	Required?	Setting
SNMP (v3) Auth. Algorithm	Yes	Authentication algorithm supported by the SNMP user. This field is only used for SNMP v3. Choose from the following algorithms: • MD5—Message-Digest algorithm 5 • SHA—Secure Hash Algorithm
SNMP (v3) Auth. Password	Yes	SNMP administration user authentication password used to gain access to the SNMP v3 server associated with the Cisco TelePresence system. Default password is **snmppassword**. • Maximum field length is 32 characters. • Minimum field length is 8 characters.
SNMP (v3) Privacy Algorithm	Yes	Privacy algorithm supported by the SNMP user. This field is only used for SNMP v3. Choose from the following privacy algorithms: • DES—Data Encryption Standard • AES—Advanced Encryption Standard
SNMP (v3) Privacy Password	Yes	SNMP administration privacy password used to gain access via SNMP v3 on the Cisco TelePresence system. Default password is **snmppassword**. • Maximum field length is 32 characters. • Minimum field length is 8 characters.
SNMP System Location	Yes	SNMP System Location associated with this Cisco TelePresence system. Maximum field length is 64 characters. Default is Location.
SNMP System Contact	Yes	Name of the SNMP system contact associated with this Cisco TelePresence system. Maximum field length is 64 characters. Default is Contact.
SNMP (v2c) Community Read Only	Yes	SNMP community strings authenticate access to MIB objects and function as embedded passwords. Read-only gives read access to authorized management stations to all objects in the MIB except the community strings, but does not allow write access. This field is only used for SNMP v2c. Default is readonly.
SNMP (v2c) Community Read Write	Yes	SNMP community strings authenticate access to MIB objects and function as embedded passwords. Read-write gives read and write access to authorized management stations to all objects in the MIB, but does not allow access to the community strings. This field is only used for SNMP v2c. Default is readwrite.

SNMP Trap Receiver Parameters Area

Table 1-15 lists the preset SNMP trap receiver parameters that are associated with the Cisco TelePresence device.

Note Using the information in Table 1-15 as a guide, you can set up to five trap destinations.

Table 1-15 Cisco TelePresence SNMP Trap Receiver Parameters

Field	Required?	Setting
SNMP Trap Receiver 1		
SNMP (v3) Trap Receiver Address	—	IPV4 IP address or hostname of the SNMP trap receiver (the remote SNMP system) where SNMP traps will be sent. Maximum field length is 64 characters.
SNMP (v3) Trap Username	—	SNMP v3 only. Username used to access the system where SNMP traps are received. Maximum field length is 32 characters. Username must begin with a letter. **Note:** Do not use a username of **admin** in this field.
SNMP Security Level	Yes	SNMP v3 only. Level of security supported by the SNMP Trap Receiver. Possible field values are: • (v3) No Authentication, No Privacy (default) • (v3) Authentication, No Privacy • (v3) Authentication, Privacy • (v2c) Notification
SNMP (v3) Auth. Algorithm	Yes	SNMP v3 only. Choose from the following authenticated algorithms: • MD5—Message-Digest algorithm 5 • SHA—Secure Hash Algorithm
SNMP (v3) Auth. Password	Yes	SNMP v3 only. Password used to gain access to the SNMP server associated with the Cisco TelePresence system. Default password is **snmppassword**. • Maximum field length is 32 characters. • Minimum field length is 8 characters. **Note** Each algorithm requires different privacy and authentication passwords.
SNMP (v3) Privacy Algorithm	Yes	SNMP v3 only. Choose from the following privacy algorithms: • AES—Advanced Encryption Standard • DES—Data Encryption Standard
SNMP (v3) Privacy Password	Yes	SNMP v3 only. Default password is **snmppassword1**. • Maximum field length is 32 characters. • Minimum field length is 8 characters. **Note** Each algorithm requires different privacy and authentication passwords.
SNMP(v2c) Community String	Yes	Community string supported by the Trap Receiver. This field is only used for SNMP v2c. Default is communityString. Maximum length: 64

Managing SNMP MIBs and SNMP Traps

See the *Cisco TelePresence System Message Guide* for information about managing SNMP MIBs and Traps.

Saving Your Settings

When you have finished making changes to the parameters in the Phone Configuration window, click **Save** then **Apply Config**. The Apply Configuration Information window appears showing the chosen device name.

Note You must save the configuration before continuing. When you click **Apply Config**, the device might go through a restart. When restart is initiated, connected calls will be preserved but calls in progress may be dropped.

Configuring the Directory Number for the Cisco TelePresence Device

Note You must restart your system after you have completed the configuration tasks in this section.

Use the information in the following sections to configure the directory number in the Directory Number Configuration window. When you have finished entering configuration information, click **Save** and follow the prompts to restart the system.

- Directory Number Information, page 1-33
- Directory Number Settings, page 1-34
- AAR Settings, page 1-35
- Call Forward and Call Pickup Settings, page 1-36
- MLPP Alternate Party Settings, page 1-37
- Line Settings for All Devices, page 1-37
- Line X on Device X, page 1-37
- Multiple Call/Call Waiting Settings on Device SEPXXXXXXXXXXXX, page 1-38
- Forwarded Call Information Display on Device SEPXXXXXXXXXXXX, page 1-39

Directory Number Information

To configure settings in the Directory Number Information box, complete the following steps:

Step 1 If you have not already done so, click **Add a new DN** in the Association Information box to open the Directory Number Configuration window.

Step 2 Enter the directory information using the information in Table 1-16 as a guide.

Table 1-16 Cisco TelePresence Device Directory Number Information

Field	Required?	Setting
Directory Number	Yes	Phone number for the Cisco TelePresence device. **Note** To use Cisco WebEx features, the phone number that is entered in Cisco Unified CM administration must be configured in full, including the country code, and must exactly match the phone number that is entered in the CTMS administration Dial In Number field.
Route Partition	—	Choose from the drop-down menu or leave the default, <None>.
Description	—	Optional. Enter a device description.
Alerting Name	Yes	Enter the CTS endpoint name.
ASCII Alerting Name	—	Optional. Enter the ASCII alerting name.

Step 3 Make sure that the check box at the bottom of the Directory Number Information section is marked as indicated:
Active: Checked

Step 4 Click **Save** to save your settings.

Directory Number Settings

The fields described in Table 1-17 are left unchanged in the Directory Number Settings box:

Table 1-17 Cisco TelePresence Device Directory Number Settings

Field	Required?	Setting
Voice Mail Profile	—	Set to “NoVoiceMail” if you do not have voicemail capability.
Calling Search Space	—	<None>
Presence Group	Yes	Leave the default setting.
User Hold MOH Audio Source	—	<None>

Table 1-17 Cisco TelePresence Device Directory Number Settings

Field	Required?	Setting
Network Hold MOH Audio Source	—	<None>
Auto Answer	Yes	Leave the default setting. Additional drop-down menu choices: • Auto Answer Off **Note** Optionally, you can set Auto Answer Off and instead configure the Product Specific Configuration Layout Area “CTS Auto Answer” setting to have the CTS pick up the call. • Auto Answer with Headset • Auto Answer with Speakerphone **Note** To assign a directory number for the shared-line Cisco Unified IP Phone, choose **Auto Answer with Speakerphone**. See the “Assigning a Directory Number for the Shared-Line Cisco Unified IP Phone” section on page 5-22. **Note** If you are using the IP Phone and the call is connected as audio only, verify that the following check-boxes are checked: —Disable Speakerphone —Disable Speakerphone and Headset

AAR Settings

The fields described in Table 1-18 are left unchanged in the AAR Settings box:

Table 1-18 Cisco TelePresence Device AAR Settings

Field	Required?	Setting
AAR	—	**Voice Mail** Check the box to select. **AAR Destination Mask** AAR Destination Mask details. **AAR Group** Leave the default setting in the drop-down menu.

Note Check the box to retain the current destination information in the call forwarding history.

Call Forward and Call Pickup Settings

The fields described in Table 1-19 are left unchanged in the Call Forward and Call Pickup Settings box:

Table 1-19 Cisco TelePresence Device Call Forward and Call Pickup Settings

Field	Required?	Setting
Calling Search Space Activation Policy		
	—	**Calling Search Space** Use System Default. Additional drop-down menu choices: • With Configured CSS • With Activating Device/Line CSS
Forward All	—	**Voice Mail** Check the box to select. **Destination** Destination details. **Calling Search Space** Leave field as <None>.
Secondary Calling Search Space for Fall Forward		
Forward Busy Internal	—	**Voice Mail** Check the box to select. **Destination** Destination details. **Calling Search Space** Leave field as <None>.
Forward Busy External	—	
Forward No Answer Internal	Yes (if no voicemail capability)	
Forward No Answer External	Yes (if no voicemail capability)	
Forward No Coverage Internal	—	**Voice Mail** Check the box to select. **Destination** Destination details. **Calling Search Space** Leave field as <None>.
Forward No Coverage External	—	
Forward on CTI Failure	—	
Forward Unregistered Internal	—	
Forward Unregistered External	—	
Forward Unregistered External	—	
Call Pickup Group	—	

MLPP Alternate Party Settings

The fields described in Table 1-20 are left unchanged in the multilevel precedence and preemption (MLPP) Alternate Party Settings box:

Table 1-20 Cisco TelePresence Device MLPP Alternate Party Settings

Field	Required?	Setting
Target (Destination)	—	Leave the default setting. Supported characters: 0-9, +, *, #.
MLPP Calling Search Space	—	<None>
AARMLPP No Answer Ring Duration (seconds)	—	Leave the default setting.

Line Settings for All Devices

The fields described in Table 1-21 are left unchanged in the Line Settings for All Devices Settings box:

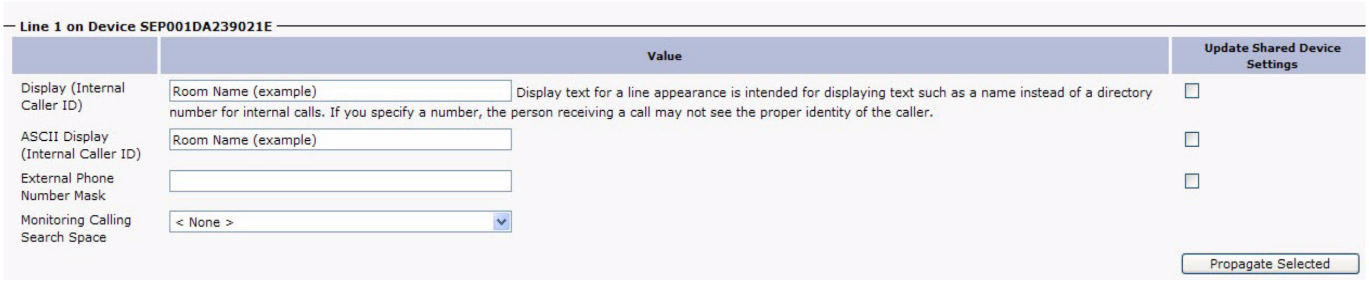
Table 1-21 Cisco TelePresence Device Line Settings for All Devices Settings

Field	Required?	Setting
Hold Reversion Ring Duration (seconds)	—	Leave the default setting. **Note** Setting the Hold Reversion Ring Duration to zero will disable the feature.
Hold Reversion Notification Interval (seconds)	—	Leave the default setting. **Note** Setting the Hold Reversion Notification Interval to zero will disable the feature.

Line X on Device X

Manage the TFTP profile for the Cisco TelePresence endpoint by configuring the meeting room name so that the room name appears on the Cisco WebEx Participant List, as shown in Figure 1-15.

Figure 1-15 Display (Internal Caller ID) Fields



Line 1 on Device SEP001DA239021E

	Value	Update Shared Device Settings
Display (Internal Caller ID)	Room Name (example) Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.	□
ASCII Display (Internal Caller ID)	Room Name (example)	□
External Phone Number Mask		□
Monitoring Calling Search Space	< None >	

Line X on Device X Fields are described in Table 1-22.

Table 1-22 Cisco TelePresence Device Line X on Device X Settings

Field	Required?	Setting
Display (Internal Caller ID)	—	Leave the default setting. For Cisco WebEx, enter your room name so that the room name appears on the Cisco WebEx Participant List. **Note** Display text for a line appearance is intended for displaying text such as a name instead of a directory number for internal calls. If you specify a number, the person receiving a call may not see the proper identity of the caller.
ASCII Display (Internal Caller ID)	—	Leave the default setting. For Cisco WebEx, enter your room name so that the room name appears on the Cisco WebEx Participant List.
External Phone Number Mask	—	Leave the default setting.
Visual Message Waiting Indicator Policy	Yes	Leave the default setting.
Audible Message Waiting Indicator Policy	Yes	Leave the default setting.
Ring Setting (Phone Idle)	Yes	Leave the default setting.
Ring Setting (Phone Active)	—	Leave the default setting. Applies to this line when any line on the phone has a call in progress.
Call Pickup Group Audio Alert Setting (Phone Idle)	—	Leave the default setting.
Recording Option	Yes	Leave the default setting.
Recording Profile	—	<None>
Monitoring Calling Search Space	—	<None>

Multiple Call/Call Waiting Settings on Device SEPXXXXXXXXXXX

The Multiple Call/Call Waiting settings make it possible to place a meeting on hold, dial a phone number, and have up to four active calls on one device. This feature is useful for adding phone calls to a Cisco TelePresence meeting.

The default setting for the maximum number of additional phone calls allowed on the CTS Cisco Unified IP phone is 4.

Note Valid range for Maximum Number of calls is 1-46.

To configure multiple call waiting settings on a specific device:

Step 1 Enter configuration settings in the fields provided using the information in Table 1-23 as a guide.

Step 2 Click **Save** to save your settings.

Table 1-23 Cisco TelePresence Device Multiple Call/Call Waiting Settings

Field	Required?	Setting
Maximum Number of Calls	Yes	Up to 4.
Busy Trigger	Yes	2 (Recommended) **Note** Less than or equal to the maximum number of calls. By default, after two calls are started, a third attempt at connecting to the IP phone results in a busy signal.

Forwarded Call Information Display on Device SEPXXXXXXXXXXXX

Leave the following information unchanged in the Forwarded Call Information Display on Device *X* Settings box:

- Caller Name
- Caller Number
- Redirected Number
- Dialed Number

Where to Go Next

If you have an IP Phone, proceed to Chapter 5, "Configuring and Managing the Cisco Unified IP Phone."

Configuring Cisco TelePresence Features

Revised: June 9, 2015, OL-21851-01

Contents

Managing the Speed-Dial Directory (Favorites)

This section contains the following information:

- Adding Speed-Dial Numbers (Favorites) from the Unified CM Administration Page, page 2-1
- Adding Speed-Dial Numbers (Favorites) from the User Options Page, page 2-3

Adding Speed-Dial Numbers (Favorites) from the Unified CM Administration Page

To add speed-dial numbers to your Cisco TelePresence System:

Step 1 Log in to the Cisco Unified Communications Manager Administration interface.

Step 2 From the Device drop-down menu, choose **Phone**. The Find and List Phones Page appears.

Step 3 Enter your search criteria in the fields provided and click **Find**.

Step 4 Click on the phone that you want to configure with speed-dial buttons. The Phone Configuration window for that phone appears.

Step 5 Click the **Related Links** drop-down list box at the top right side of the window.

Step 6 Choose **Add/Update Speed Dials** and click **Go**. The Speed Dial Configuration window for this phone appears with the following configurable fields:

- Speed Dial (Button) Settings—numbers 1 through 40.
- Speed Dial (Abbreviated Dial) Settings—numbers 41 through 199. CTS does not support abbreviated dialing, so you do not need to use this field.

Step 7 Create your favorites list in these Speed Dial (Button) Settings field using the information in Table 2-1 as a guide.

Table 2-1 Speed Dial Configuration Window

Number	Field	Description
Number from 1 to 40.	—	Indicates the order of your contacts in your Favorites list.
	Number	Enter the number that you want the system to dial when the user calls the contact from the Favorites list. The following digits and characters are allowed: • Digits 0 through 9 • * (Asterisk) • # (Number sign or hash) • + (Plus sign, escape symbol) **Note** The speed-dial (favorites) function does not allow pauses or waits.
	Label	Enter the text that you want to display to identify your contact.
	ASCII Label	This field provides the same information as the *Label* field, but you must limit input to ASCII characters. Devices that do not support unicode (internationalized) characters display the content of the *ASCII Label* field.

Step 8 Click **Save** to apply your changes, then click **Close** to close the window.

Step 9 Click **Save** and then **Apply Config**. The phone will reboot for the changes to take effect. This will take a few minutes.

Note Do not click **Reset**. Doing so will cause the phone to reset and the phone could take 10 to 30 minutes to come back up.

Step 10 View your Favorites by tapping **Directory** and then **Favorites** on your Touch 12 device.

For more information about making a call using favorites, refer to the Placing and Receiving Calls chapter in the *Cisco TelePresence System User Guide*.

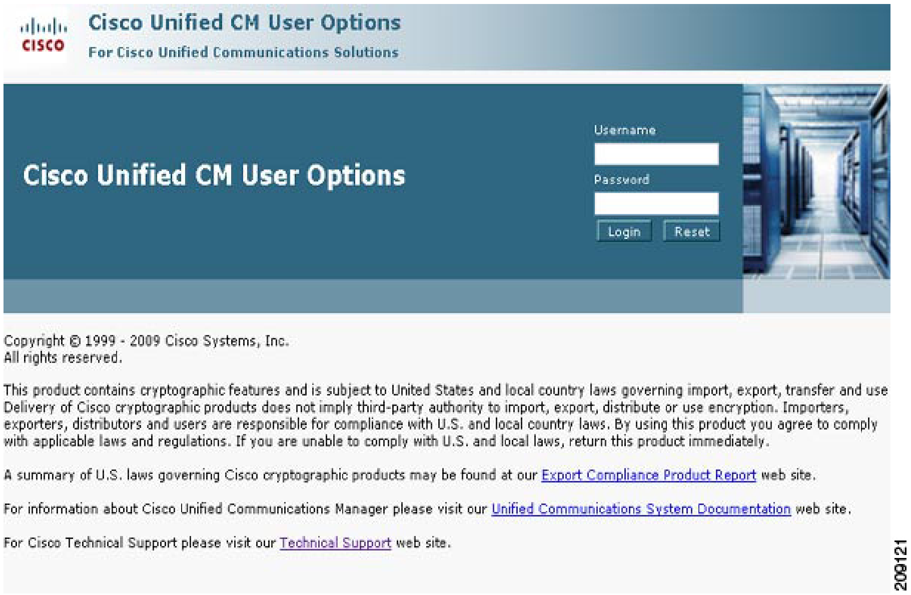
Adding Speed-Dial Numbers (Favorites) from the User Options Page

End-users can easily log in to the Cisco Personal Communications Assistant (if installed) and then choose User Options from the menu bar to navigate to User Options. When logged in and viewing User Options, you can access a User Guide, change the locale for the windows, and access additional configuration options from the Related Links drop-down list, including speed dials, phone services, and line-specific options (call forwarding, message-waiting indicators, and ring patterns).

To manage your Speed-Dials (Favorites) from User Options:

Step 1 Log in to the Cisco Unified CM User Options page, as shown in Figure 2-1.

Figure 2-1 Cisco Unified CM User Options Log In


cisco
Cisco Unified CM User Options
For Cisco Unified Communications Solutions
Cisco Unified CM User Options
Username
Password
Login
Reset
209121

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This product contains cryptographic features and is subject to United States and local country laws governing import, export, transfer and use Delivery of Cisco cryptographic products does not imply third-party authority to import, export, distribute or use encryption. Importers, exporters, distributors and users are responsible for compliance with U.S. and local country laws. By using this product you agree to comply with applicable laws and regulations. If you are unable to comply with U.S. and local laws, return this product immediately.

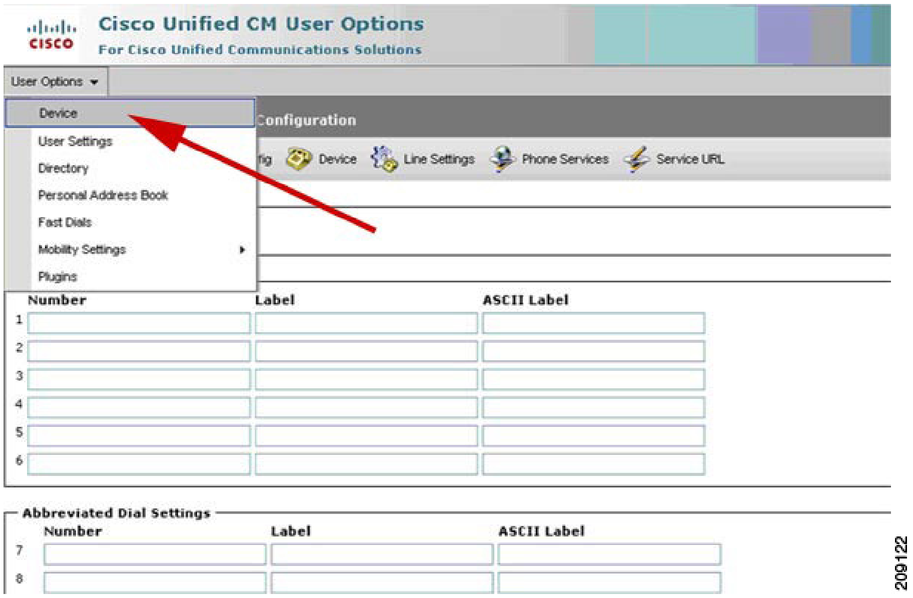
A summary of U.S. laws governing Cisco cryptographic products may be found at our Export Compliance Product Report web site.

For information about Cisco Unified Communications Manager please visit our Unified Communications System Documentation web site.

For Cisco Technical Support please visit our Technical Support web site.

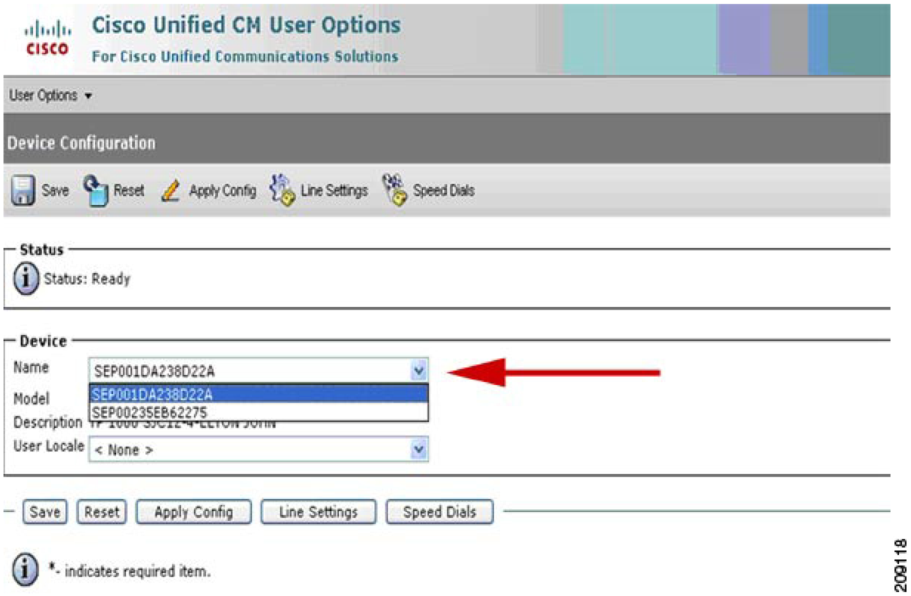
Step 2 Click **User Options** and select **Device**, as shown in Figure 2-2. The Device Configuration page appears, as shown in Figure 2-3.

Figure 2-2 User Options > Device



Step 3 In the **Device** box, click the **Name** drop down menu and select the phone for which you would like to create, modify, or delete speed dials, as shown in Figure 2-3. The model name will appear in the Description field, as shown in Figure 2-4.

Figure 2-3 Device Configuration



Status

Status: Ready

Device

Name SEP001DA238D22A

SEP001DA238D22A
SEP00235EB62275

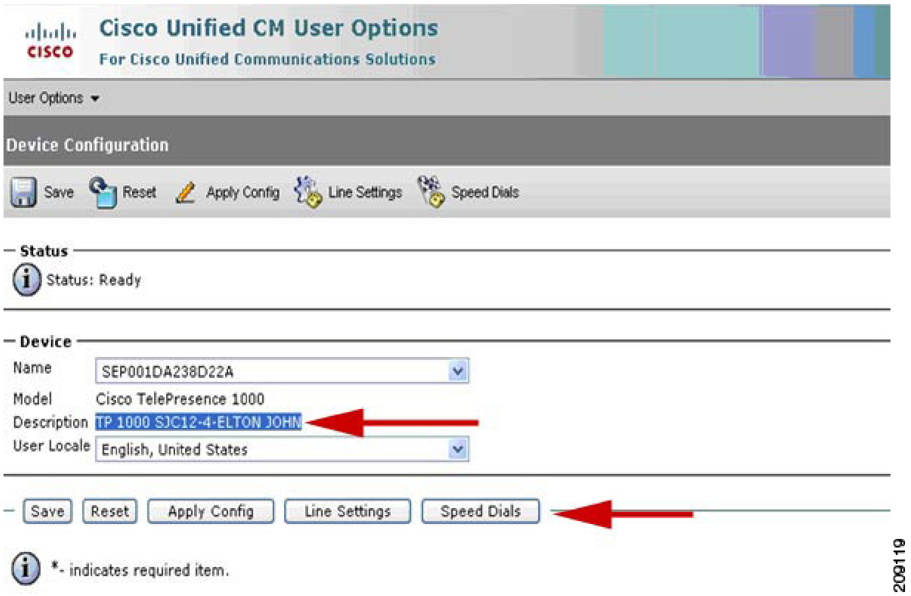
Model

Description

User Locale < None >

*- indicates required item.

Figure 2-4 Device Description



Status

Status: Ready

Device

Name SEP001DA238D22A

Model Cisco TelePresence 1000

Description TP 1000 SJC12-4-ELTON JOHN

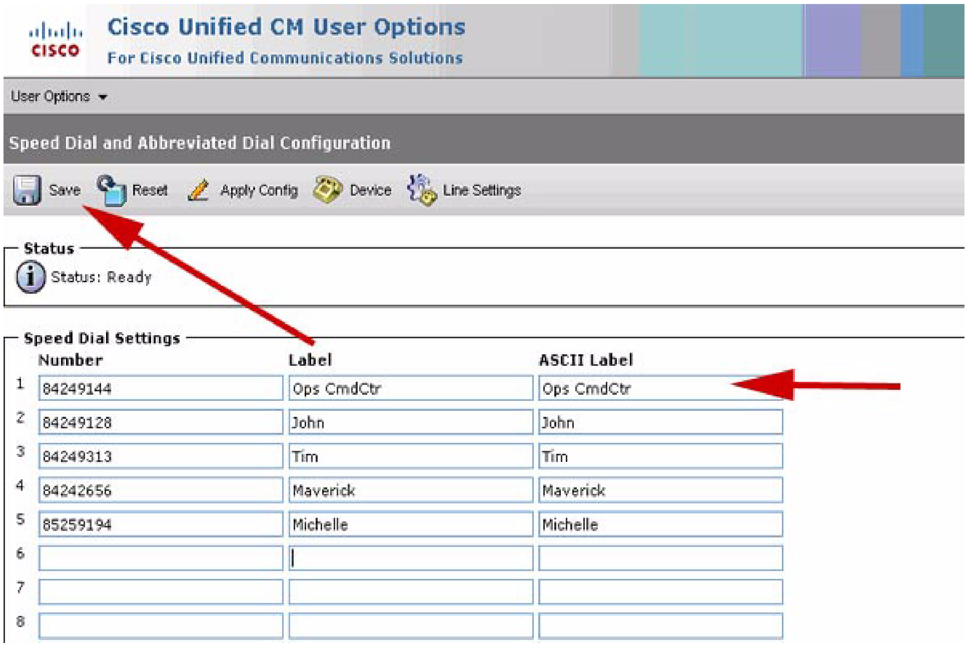
User Locale English, United States

*- indicates required item.

Step 4 Click **Save.**

Step 5 Click **Speed Dials**. The Speed Dial and Abbreviated Dial Configuration page appears, as shown in Figure 2-5.

Figure 2-5 Speed Dial and Abbreviated Dial Configuration


Cisco Unified CM User Options
For Cisco Unified Communications Solutions
User Options
Speed Dial and Abbreviated Dial Configuration
Save
Reset
Apply Config
Device
Line Settings

Status

Status: Ready

Speed Dial Settings

	Number	Label	ASCII Label
1	84249144	Ops CmdCtr	Ops CmdCtr
2	84249128	John	John
3	84249313	Tim	Tim
4	84242656	Maverick	Maverick
5	85259194	Michelle	Michelle
6			
7			
8			

Step 6 In the Speed Dial Settings **Number** field, enter the Cisco TelePresence telephone numbers (for example, 84243737). See Figure 2-5.

Step 7 In the Speed Dial Settings **Label** and **ASCII Label** fields, enter a name or friendly name. These can be a combination of letters or numbers. Hyphens and spaces are ok, but do not use any special characters (for example, % @ ! $). See Figure 2-5.

Step 8 Click **Save** and **Apply Config** when you are done. Once you save, the phone will reboot for the changes to take effect. This will take a few minutes.

Note Do not click **Reset**. Doing so will cause the phone to reset and the phone could take 10 to 30 minutes to come back up.

Step 9 View your Favorites by tapping **Directory** and then **Favorites** on your Touch 12 device.

For more information about making a call using favorites, refer to the Placing and Receiving Calls chapter in the *Cisco TelePresence System User Guide*.

Enabling the Directory Feature

The **Directory** button on the Cisco TelePresence Touch 12 allows a user to look up TelePresence phone numbers for co-workers. To support this feature, you must configure corporate directories. See Configuring a Corporate Directory for more information.

To set up Directory for the user from the Cisco Unified Communications Manager Administration interface:

Step 1 Log in to the Cisco Unified Communications Manager Administration interface.

Step 2 Go to **System** > **Enterprise Parameters**.

Step 3 Scroll to **CCMUser Parameters**.

Step 4 Locate Show Directory from the list and choose **True** from the drop-down menu.

This parameter determines whether or not the option Directory appears on your call control device Options web (CCMUser). If this option is enabled, the user can search directory.

Step 5 Click **Save** to save your settings. The change will take effect on next login to Cisco Unified Communications Manager User Options window. Default is True.

Configuring a Corporate Directory

Cisco Unified Communications Manager uses a Lightweight Directory Access Protocol (LDAP) directory to store authentication and authorization information about users of Cisco Unified Communications Manager applications that interface with Cisco Unified Communications Manager. Authentication establishes the users' rights to access the system. Authorization identifies the telephony resources that a user is permitted to use, such as a specific telephone extension.

To install and set up these features, refer to the following chapters in the *Cisco Unified Communications Manager Administration Guide*:

- LDAP System Configuration
- LDAP Directory Configuration

- LDAP Authentication Configuration

In Cisco Unified Communications Manager Administration, use the **User Management > End User** menu path to configure end users.

The End User Configuration window in Cisco Unified Communications Manager Administration allows the administrator to add, search, display, and maintain information about Cisco Unified Communications Manager end users. End users can control phones after you associate a phone in the End User Configuration window.

Tips About Configuring End Users

Consult the following information before you begin to configure end users:

- To verify whether the Enable Synchronizing from LDAP Server check box is checked, choose **System > LDAP > LDAP System**. If the check box is checked, LDAP synchronization is enabled; if not, LDAP synchronization is disabled.
- If you enable LDAP synchronization in Cisco Unified Communications Manager Administration, you thereby configure your system to use the LDAP corporate directory as the end user directory for Cisco Unified Communications Manager. In this scenario, you cannot add or delete users in Cisco Unified Communications Manager Administration. You add and remove end users in the corporate LDAP directory.
- If you enable LDAP synchronization in Cisco Unified Communications Manager Administration, you cannot change some existing user information, including user IDs, in the End User Configuration windows. Instead, you must use the corporate LDAP directory to update some user information.
- If you configure your system to authenticate users against the LDAP directory, you cannot configure or change end user passwords in Cisco Unified Communications Manager Administration. You configure and change end user passwords in the corporate LDAP directory.

After the LDAP directory configuration completes, users can use the Corporate Directory service on your Cisco Unified IP Phone 7970 Series to look up users in the corporate directory.

Cisco-Provided Default IP Phone Services

Table 2-2 displays the Cisco-provided default IP phone services that display if you specify the search parameter, IP Phone Service, and then click **Find**. Cisco Unified Communications Manager automatically provisions these Cisco-provided default services. To update these services, click the link in the Find and List IP Phone Service window. You can change the name of the service, where the default service displays on the phone, and the service URL. If you change the service URL for the default services, choose **Both** from the Service Provisioning drop-down list box, which displays in the Phone Configuration window, the Enterprise Parameter Configuration window, and the Common Phone Profile Configuration window.

Tip Some Cisco Unified IP Phone models do not support IP phone services. To determine the support for your phone model, see the *Cisco Unified IP Phone Administration Guide* and the *Cisco Unified Communications Manager Software Compatibility Matrix* on Cisco.com.

Table 2-2 Cisco-provided Default Services

Default Services	Description
Corporate Directory	This XML service allows the phone to display the corporate directory on the phone. By default, for phones with a Directory button/option, the corporate directory option displays when a user presses the Directory button/option on the phone. By default, the service URL is Application:Cisco/CorporateDirectory. By default, the corporate directory automatically displays on all phones that support services in the cluster, and you (or the end user) cannot subscribe to the service. If you update the corporate directory option because you want to configure this option to support a custom directory, for example, you update the Service URL to point to your custom directory, make sure that Both is chosen from the Service Provisioning drop-down list box, which displays in the Phone Configuration window, Enterprise Parameter Configuration window, or the Common Phone Profile Configuration window.
Intercom Calls	This XML service allows the phone to display the history records for intercom calls. By default, for phones with a Directory button/option, the intercom history option displays when a user presses the Directory button/option on the phone. By default, the service URL is Application: Cisco/IntercomCalls. This service does not automatically display on all phones that support services in the cluster; therefore, you must manually subscribe to the service; for example, you can subscribe to the service in the Cisco Unified CM User Options.
Missed Calls	This XML service allows the phone to display missed calls on the phone. By default, for phones with a Directory button/option, the missed calls option displays when a user presses the Directory button/option on the phone. By default, the service URL is Application:Cisco/MissedCalls. By default, the Missed Calls option automatically displays on all phones that support services in the cluster, and you (or the end user) cannot subscribe to the service.
Placed Calls	This XML service allows the phone to display calls that the user has placed on the phone. By default, for phones with a Directory button/option, the placed calls option displays when a user presses the Directory button/option on the phone. By default, the service URL is Application:Cisco/PlacedCalls. By default, the Placed Calls option automatically displays on all phones that support services in the cluster, and you (or the end user) cannot subscribe to the service.
Received Calls	This XML service allows the phone to display received calls on the phone. By default, for phones with a Directory button/option, the received calls option displays when a user presses the Directory button/option on the phone. By default, the service URL is Application:Cisco/ReceivedCalls. By default, the Received Calls option automatically displays on all phones that support services in the cluster, and you (or the end user) cannot subscribe to the service.

Table 2-2 Cisco-provided Default Services (continued)

Default Services	Description
Voicemail	This XML service allows users to retrieve voice messages on the phone. By default, for phones with a Messages button/option, the voice mail option displays when a user presses the Messages button/option on the phone. By default, the service URL is Application:Cisco/Voicemail. By default, the Voicemail option automatically displays on all phones that support services in the cluster, and you (or the end user) cannot subscribe to the service.

Configuring the BFCP over UDP Collaboration Feature

Binary Floor Control Protocol (BFCP) is used for controlling access to the media resources in a meeting. BFCP allows the CTS and the remote endpoint to view presentation and main display video simultaneously with improved presentation resolution for all third-party telepresence endpoints.

The CTS offers three media lines: one for audio, one for the main video, and the other for presentation or content using the session description protocol (SDP). Additionally, an application line is sent in the SDP for the BFCP control channel. The bandwidth of the presentation media line matches the capability of the CTS. For example, if the CTS is capable of 30 frames per second (fps), the presentation media line bandwidth will be 4Mbps.

The CTS uses BFCP over user datagram protocol (UDP) in both secure and non-secure BFCP modes. BFCP requires a minimum CTS Release of 1.8 and a minimum Unified CM release of 8.6(2a)SU2.

BFCP Backward Compatibility

BFCP is enabled by default on all CTS endpoints beginning with CTS Release 1.8. Endpoints using CTS software prior to CTS Release 1.8 must either disable BFCP on all new SIP profiles in the Unified CM Administration interface, or upgrade all CTS endpoints to CTS Release 1.8.

Configure your system in the following order:

1. Configuring the VCS Zone, page 2-9
2. Adding a New BFCP Profile, page 2-11
3. Configuring the Unified CM Trunk, page 2-11

Configuring the VCS Zone

Note The Cisco VCS and Unified CM must be operational before you begin.

To enable BFCP with Cisco VCS, the trunk from the Cisco VCS to Unified CM must have a custom BFCP profile configured in the Cisco Unified Communications Manager Administration interface and you must change the VCS Zone in the Cisco VCS administration interface.

For complete Cisco VCS configuration support, see the *Cisco Unified Communications Manager with Cisco VCS Cisco TelePresence Deployment Guide*.

To change the Zone configuration in Cisco VCS:

Step 1 Navigate to the CUCM neighbor zone **VCS Configuration** > **Zones**.

Step 2 Change the Advanced Zone profile from Cisco Unified Communications Manager to **Custom**.

Step 3 Set the parameters listed in Table 2-3.

Table 2-3 Zone Parameters

Parameter	Value
Monitor peer status	Yes
Call signaling routed mode	Auto
Automatically respond to H.323 searches	Off
Automatically respond to SIP searches	Off
Empty INVITE allowed	On
SIP poison mode	Off
SIP encryption mode	Auto
SIP SDP attribute line limit mode	Off
SIP SDP attribute line limit length	130
SIP multipart MIME strip mode	Off
SIP UPDATE strip mode	On
Interworking SIP Search Strategy	Options
SIP UDP/BFCP filter mode	On
SIP Duo Video filter mode	Off
SIP record route address type	IP
SIP Proxy-Require header strip list	<Blank>

Note To use BFCP with endpoints registered to CUCM 8.6(2a)SU2 or later, select **Custom for the Advanced Zone** profile, configure the entries as above, then change SIP UDP/BFCP filter mode to **Off**.

If your system uses TLS connectivity from the Cisco VCS to Unified CM, and Cisco VCS is configured with optimal routing, either Unified CM has to trust the certificates for each Cisco VCS in the network, or you must select **Custom** for the Advanced Zone profile, configure the entries as above, then change Call signaling routed mode to **Always**. This ensures that the VCS neighbored to Unified CM will remain in the call signaling path for calls to and from Unified CM, so that Unified CM only has to trust this VCS cluster's certificates.

Step 4 Ensure that SIP UDP/BFCP filter mode is set to **Off**.

For more information about the VCS, go to the Cisco TelePresence Video Communication Server (VCS) home page on Cisco.com.

Configuring BFCP For Your Cisco TelePresence Device

This section includes the steps you perform to configure BFCP and apply it to your Cisco TelePresence system and includes the following topics:

- Adding a New BFCP Profile, page 2-11
- Configuring the Unified CM Trunk, page 2-11

Adding a New BFCP Profile

To add a new profile for BFCP and to associate the BFCP profile to the trunk configuration on Unified CM for the trunk between VCS and CUCM, follow the steps in this section. This profile needs to be associated with every trunk and device that will use BFCP for presentation.

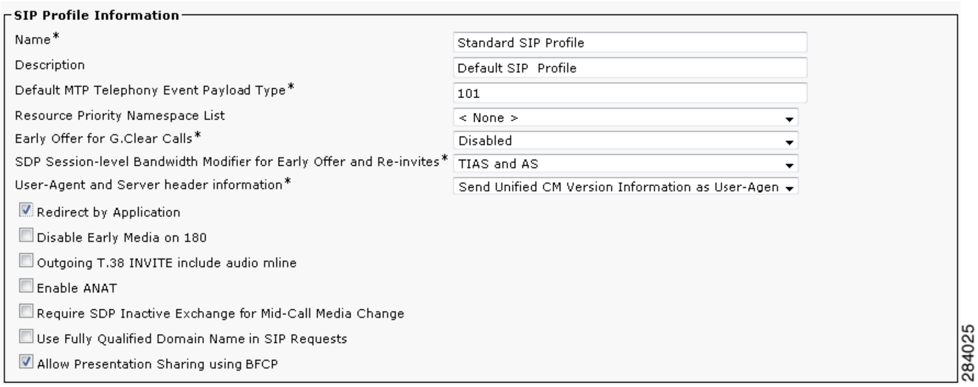
Step 1 Go to **Device** > **Device Settings** > **SIP Profile**.

Step 2 Click **Add New**. The SIP Profile Configuration window appears.

Step 3 Create a name for the BFCP profile. For example, “Standard BFCP SIP Profile.”

Step 4 Click to select the **Allow Presentation Sharing using BFCP** check box, as shown in Figure 2-6.

Figure 2-6 SIP Profile Information - Allow Presentation Sharing Using BFCP



SIP Profile Information

Name* Standard SIP Profile

Description Default SIP Profile

Default MTP Telephony Event Payload Type* 101

Resource Priority Namespace List < None >

Early Offer for G.Clear Calls* Disabled

SDP Session-level Bandwidth Modifier for Early Offer and Re-invites* TIAS and AS

User-Agent and Server header information* Send Unified CM Version Information as User-Agen

☑ Redirect by Application

□ Disable Early Media on 180

□ Outgoing T.38 INVITE include audio mline

□ Enable ANAT

□ Require SDP Inactive Exchange for Mid-Call Media Change

□ Use Fully Qualified Domain Name in SIP Requests

☑ Allow Presentation Sharing using BFCP

Step 5 Leave the remaining field defaults and click **Apply Config** and then **Save**.

Step 6 Configure the BFCP trunk by performing the tasks in the “Configuring the Unified CM Trunk” section on page 2-11.

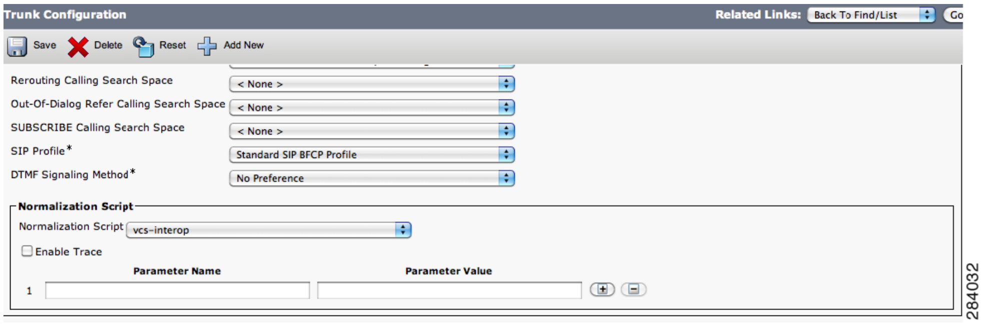
Configuring the Unified CM Trunk

Step 1 Go to **Device** > **Trunk**.

Step 2 Select the trunk for the Cisco VCS and set it to use the new BFCP profile.

Step 3 (Optional) Configure security between the Unified CM and Cisco VCS for Cisco TelePresence EX and Cisco TelePresence C Series endpoints by choosing **vcs interop** in the Normalization Script window (Unified CM 8.6(2a)SU2 and later releases), as shown in Figure 2-7.

Figure 2-7 Normalization Script Window - VCS Interop Security



Rerouting Calling Search Space	< None >
Out-Of-Dialog Refer Calling Search Space	< None >
SUBSCRIBE Calling Search Space	< None >
SIP Profile*	Standard SIP BFCP Profile
DTMF Signaling Method*	No Preference

Normalization Script

Normalization Script: vcs-interop

□ Enable Trace

	Parameter Name	Parameter Value
1		

Step 4 Click **Save** to save your settings.

See the *Cisco Unified Communications Manager with Cisco VCS Cisco TelePresence Deployment Guide* for complete VCS security support information.

T1 Support Extended Reach

Note The following information applies only to single-screen systems.

The Quality per Display field in the Product Specific Configuration Layout Area window has a new setting: “High Detail, Limited Motion: 720p (Lite)” as part of the Extended Reach feature. Extended Reach users in locations where bandwidth is costly or unreliable. Because internet bandwidth is not dedicated, there may be experience issues or even call drops at certain times of the day due to a decrease in available bandwidth. Extended Reach is directly related to the quality of the call.

This feature enables the following:

- T1/E1 with QoS: 720p (Lite) and 720p (Good). See Quality Per Display - 720p (Lite). Any endpoint configured “High Detail, Limited Motion: 720p (Lite)” is in T1 mode and advertises bandwidth as appropriate.
- “Best Effort” premium broadband (Fiber-Optic Broadband Internet (FIOS), Cable).
- Sends and receives audio and video from legacy T1/E1 endpoints.
- Video output: 936Kbps.
- Presentation output: 100Kbps using 1 frame per second (FPS).
- Four jitter buffer sizes: 85ms, 125ms, 165ms, and 245ms.
- Progressive iFrames.
- Multi-point Long Term Reference Picture (LTRP) repair mechanism in H.264 codecs.
- High definition (HD) inter-operability with third-party endpoints.

- Media eXperience Engine (MXE) compatibility.

This feature disables the following:

- Audio add-in (conference) is disabled for a T1 endpoint—Only one audio or audio-video call can be made at a time.
- Backward compatibility prior to CTS Release 1.5 is not available—The endpoint displays the following message “Remote site not compatible – Contact Help Desk.”
- Standard definition (SD) interop endpoints will not see the T1 endpoint when that endpoint is detected to be the loudest endpoint speaking during a call.

Quality Per Display - 720p (Lite)

The Quality Per Display field is where you can set the bandwidth that will be used by the system. Higher bandwidth increases video quality, but may also cause packets to be dropped and video to be interrupted. The following describes expected behavior and feature limitations of the High Detail, Limited Motion: 720p (Lite) bandwidth option:

1. CTS Release 1.5.3 endpoints are not supported on an HD interop bridge; calls are dropped.
2. CTS Release 1.6.x endpoints running 720p (Lite) are supported on an HD interop bridge. All other CTS endpoints are then downgraded to 720p (Lite).
3. If a CTS Release 1.6.x endpoint running 720p (Lite) calls into a non-HD common intermediate format (CIF) interop bridge, video from legacy video endpoints will be seen on the 720p (Lite) CTS. However, video from the 720p (Lite) CTS will not be seen on the legacy endpoint. Video from other CTS endpoints in the call will be seen on both legacy and 720p (Lite) endpoints.

For configuration information, see Product Specific Configuration Layout Area.

Self View Control

The Self View feature allows you to view how you will be seen by others in a Cisco TelePresence meeting before the meeting begins. By touching the **Self View** softkey on your CTS Cisco Unified IP phone while the CTS is idle (not in a call), you can see a mirror image of you and your room for a specified amount of time (5 to 180 seconds), as configured in the Maximum Self View Time (in seconds) field in the Product Specific Configuration Layout Area fields for your system.

While in Self View mode, any active presentation is visible in the Presentation-in-Picture (PiP) or on the LCD display. On multi-screen systems (CTS 3000 Series and TX9000 Series), the Self View mirror image appears on all screens. On the CTS 1300, which has three cameras and a single display, the self view image is displayed from the center camera. Once you are in Self View mode, you can use the CTS Cisco Unified IP phone to select between Left, Center, and Right camera views.

Note You cannot use the Self View feature while in an active call.

See the “Product Specific Configuration Layout Area” section on page 1-17 for information about setting the Self View time in the Maximum Self View Time (in seconds) field.

See the following sections for more information:

- Self View Control Feature Behavior, page 2-14

- Related Self View Feature Information, page 2-14

Self View Control Feature Behavior

The following sections describe Self View features and behavior:

- Shroud Lights, page 2-14
- Answering Calls, page 2-14
- Dismissing Calls, page 2-14

Shroud Lights

The lights that surround the main display screen are activated when accessing the Self View feature. When answering an incoming call in Self View mode, the lights remain on throughout the call. When you exit Self View mode, the lights remain on for a short period of time, similar to the system's behavior at the end of a normal Cisco TelePresence call.

Answering Calls

If the CTS system is configured for Auto Answer and is in Self View mode when it receives an incoming call, the standard incoming call alert is heard and you can answer the call manually.

When a call is received while you are in Self View mode, you can exit the feature to accept the incoming video. If there is an active presentation on-screen when the call comes through, options on the CTS Cisco Unified IP phone allow you to share or hide the presentation.

Dismissing Calls

You can dismiss calls while in Self View mode without disrupting the Self View video and active presentation. Press **Ignore** to dismiss the call and return to the Self View page.

Pressing Ignore while in Self View mode does not divert the call. The incoming call continues to ring inaudibly until the remote end disconnects from the call. You can choose to answer the incoming call by pressing **Answer**, or wait until the call times out.

Note If you have voicemail configured in Unified CM, the incoming call alert is not issued because the call goes directly to voicemail.

Related Self View Feature Information

For more information about the Self View feature, refer to the *Cisco TelePresence System User Guide* that corresponds with your system's software release.

Conference Control Protocol (CCP) VPN Security Solution

This feature allows an administrative domain that is hosting a Business-to-Business (B2B) conference to configure its Cisco TelePresence Multipoint Switch (CTMS) using a specific URL structure. This URL structure allows the CCP HTTP traffic of participating CTS endpoints to be routed hop by hop across one or more service provider (SP) HTTP proxies to reach the correct CTMS.

In the CCP VPN model (fixed path) solution, the Administrator configures the enterprise by adding a static (fixed path) configuration file to the Cisco Unified Communications Manager (Unified CM). When the CTS joins a CTMS meeting, it attempts to route CCP traffic based on this configuration file. All CCP HTTP traffic then attempts to go to the local CTMS. If no local CTMS matches, packet traffic is routed to the HTTP proxy.

You can verify configuration status by checking the system status messages for your system and by checking the configuration using command-line interface (CLI) commands. When configuration is complete, the **Meeting Control** button is active on the CTS Cisco Unified IP phone.

Note This feature is only active if the enterprise configuration file on the Cisco Unified Communications Manager TFTP server is configured. If there is no TFTP configuration file present on the system, conference control uses the Internet model (free path).

This feature cannot be configured while in an active Cisco TelePresence call.

Related CCP VPN Feature Information

For more information, see the following documentation on Cisco.com:

- *Cisco TelePresence Multipoint Switch*
- *Cisco TelePresence System Command-Line Interface Reference Guide*
- *Cisco TelePresence System Messages Guide*
- *Cisco TelePresence System User Guide*

Single Microphone Mute

On systems with multiple microphones, you can mute individual microphones by pressing and holding the **Mute** button for three seconds until the green LED light turns off. That microphone is now muted (no muted Microphone icon displays on the main screen). To unmute the locally muted microphone, press the **Mute** button once. The green LED light turns on and the microphone is active again (or muted if the room is already muted).

Note Global room muting is still available by pressing the **Mute** button once on any table microphone.

This feature is supported on Gen 2 and all TX series devices. To check if you are running a Gen 2 device, enter the following command:

```
admin: show hardware audio
Audio DSP Build ID                 : 01.07.0003
Audio Base Board ID                : 0xAB   (? Gen 2)
```

Once you have verified that you are running a Gen 2 device, go to the Cisco Unified Communications Manager Administration interface and check the Enable Single Microphone Mute box at the bottom of the device Product Specific Configuration Layout window. This feature is disabled by default.

Single microphone mute is supported in Unified CM firmware release 8.5.1 and later releases.

Watermark Removal

Broadcast customers who want to remove the Cisco logo from their video presentations when it interferes with on-screen elements can do so in the Unified CM Administration interface by downloading a Broadcast license.

Step 1 Request a Broadcast license from your Cisco account representative.

Your license arrives in separate emails.

Step 2 Rename the license .txt file to SEPxxxxxxxxxxxx.lic (where xxx is the MAC address in all caps).

Note Be sure to keep the .lic extension in lower case.

Step 3 Upload your newly named file to the Unified CM TFTP directory and restart the TFTP.

Step 4 Restart you TelePresence system by logging in to the TelePresence system and entering the **utils system restart** command at the admin prompt.

Step 5 Once your broadcast license is loaded, log in as admin to check your license status using command-line interface (CLI).

Step 6 At the admin prompt enter **show license status**. The license status shows that it is disabled. For example:

```
admin:show license status
License feature status
satellite:
  No feature license found
broadcast:
  Valid license found
  License feature is disabled ?
  Feature is currently not running
admin:
```

Step 7 At the admin prompt enter **set license broadcast enable**.

Step 8 Reboot the system by entering the **utils system restart** command at the admin prompt.

Your Broadcast license is now installed and enabled.

Screen Dimming

To save power and extend the lifespan of the Cisco TelePresence Touch 12 device, the Touch 12 will dim between the hours specified in the User Preferences Area in Unified CM. For more information, see the "User Preferences Area" section on page 1-20.

When dimming is active, the screen is dimmed and the home button is glowing. If the Touch 12 or one of its hard buttons is touched, the device will turn back on. The device will stay on until the system has been idle for one hour. At that time, the screen will dim again.

The screen will not dim during the specified hours when the system is in a call, recording or troubleshooting. The screen will automatically wake up when an incoming call or pop-up notification appears, or when an upgrade begins.

Installing Language Versions

Note This feature is only supported on systems that use the Touch 12 device for call control, and that use software release 1.10.0 or 6.0.0 or later.

Unified CM enables you to configure devices for a specific locale, language and country. This configuration alters the text and date/time formats of the user interface (UI), as well as tones.

In order to change the UI language and tones, you must install the appropriate locale packs. These packs allow you to view and receive the chosen translated text or ringtones on your Touch 12 device.

Cisco provides a locale pack file bundle on cisco.com that 14 languages other than English. Table 2-4 contains a list of these available languages.

Table 2-4 Languages Available for Cisco TelePresence Systems

Language	CTS/TX Locale Code	Unified CM Locale Code	Unified CM User Locale Value
Arabic	ar_DEF	ar_EG	العربية, جمهورية مصر العربية
English	en_DEF	—	English, United States or <None>
Chinese (Simplified) - China	zh_DEF	zh_CN or zh_HK	简体中文, 普通话, 简体字, 中华人民共和国
Chinese (Traditional) - Taiwan	zh_TW	zh_TW	繁體中文, 語言, 正體字, 國語, 臺灣
Dutch	nl_DEF	nl_NL	Nederlands, Koninkrijk der Nederlanden
French	fr_DEF	fr_FR	Français, République française
French - Canada	fr_CA	fr_CA **Note** The Unified CM locale installer for this language is not available on cisco.com for Unified CM releases prior to 9.1. To order this locale installer for earlier releases, contact your Systems Engineer.	Français canadien, Canada
German	de_DEF	de_DE	Deutsch, Deutschland
Italian	it_DEF	it_IT	Italiano, Repubblica Italiana

Table 2-4 Languages Available for Cisco TelePresence Systems (continued)

Language	CTS/TX Locale Code	Unified CM Locale Code	Unified CM User Locale Value
Japanese	ja_DEF	ja_JP	日本語, Nihongo, Japanese, 日本国
Korean	ko_DEF	ko_KR	한국어, 대한민국
Portuguese - Brazil	pt_BR	pt_BR **Note** pt_PT is not supported.	Português Brasileiro, República Federativa do Brasil
Russian	ru_DEF	ru_RU	Русский, Российская Федерация
Spanish - USA and Latin America	es_DEF	es_CO or es_MX	Español, República de Colombia
Spanish - Spain	es_ES	es_ES	Español, Reino de España
Turkish	tr_DEF	tr_TR	Tûrkçe, Türkiye

Understanding Locale Pack File Types and Naming Conventions

There are two types of locale files: **locale installers** for Unified CM and **locale packs** for CTS and TX systems.

Locale Installers

Locale installer files are installed to Unified CM. They must be installed before the locale packs are installed. The locale installer files on Unified CM enable the CTS or TX system and the Touch 12 device to install and use the locale packs properly.

Note Cisco highly recommends that you install both the Combined Network locale installer and the locale installer for your preferred language and country. The Combined Network locale installer contains country-specific files for various network items, including ringtones, annunciators and gateway tones.

Locale installer files use the following naming conventions:

cm-locale-*UnifiedCMLocaleCode-M.m.a.p-b*.cop.sgn

where:

UnifiedCMLocaleCode = the five-character locale identifier expressed as ll_RR or combined_network

- ll = the language, such as **es** (Spanish) or **zh** (Chinese).
- RR = the specific region to which the language is targeted, such as **ES** (Spanish - Spain) or **TW** (Chinese - Taiwan).

M = Major release number

m = Minor release number

a = Maintenance release number

p = Patch number

b = Build number

Locale Packs

Each locale pack contains language information for a specific language and country. When installed to the CTS or TX system, the locale pack changes the language of the Touch 12 device.

The locale pack file bundle for CTS uses the following naming conventions:

po-locale-ctsmain_combo-*M.m.a.p-b*.cop.sgn

where:

M = Major release number

m = Minor release number

a = Maintenance release number

p = Patch number

b = Build number

Installing Locale Installers for the Unified CM Server

Prior to installing the locale files to your system, you must download the locale installer for both the Combined Network and your country of preference. To install your locale installer, complete the following steps:

Step 1 Log in to cisco.com.

Step 2 Navigate to **Support > All Downloads.**

Step 3 Navigate to **Products > Voice and Unified Communications > IP Telephony > Unified Communications Platform > Cisco Unified Communications Manager (CallManager) > Cisco Unified Communications Manager Version** {*your version number*}.

Step 4 Click the link that says **Unified Communications Manager/CallManager Locale Installer**.

Step 5 Download the locale installer (*.cop.sgn file) for the Combined Network.

Step 6 Download the locale installer (*.cop.sgn file) for your language and country of choice. See Table 2-4 for a list of the Unified CM locale codes that correspond with each language and country.

Step 7 Copy the files to a TFTP server that is accessible by Unified CM.

Step 8 Log in to Unified CM and upload the locale installers to the Unified CM Server. See "Installing the Cisco TelePresence COP File to the Unified CM Server" section on page 1-3 (Step 13 through Step 23) for instructions.

Note If the upgrade file is located on a Linux or Unix server, you must enter a forward slash at the beginning of the directory path. For example, if the upgrade file is in the "patches" directory, you must enter "/patches". If the upgrade file is located on a Windows server, check with your system administrator for the correct directory path.

Installing Locale Packs for the CTS or TX System and Touch 12 Device

Note The process to install the COP files used for locale packs on to Unified CM for Cisco TelePresence Systems is the same process as that used to install COP files for Cisco Unified IP Phones. For more information about COP files, refer to Chapter 3, "Loading Cisco Options Package (COP) Files on the Cisco TelePresence System".

To install your locale pack, complete the following steps:

Step 1 Log in to cisco.com.

Step 2 Navigate to **Support > All Downloads > Products > TelePresence > TelePresence Endpoints - Immersive >** *your TelePresence series* **>** *your TelePresence system.*

Step 3 Download the locale pack file bundle: **Cisco TelePresence Language Pack for CTS500-32, CTS1300-47, TX1310-65, TX9000, TX9200** (*.cop.sgn file).

Step 4 Copy the file bundle to a TFTP server that is accessible by Unified CM.

Step 5 Log in to Unified CM and upload the file bundle to the Unified CM server. See "Installing the Cisco TelePresence COP File to the Unified CM Server" section on page 1-3 (Step 13 through Step 23) for instructions.

Step 6 Restart the TFTP server to activate the newly-installed locale packs.

Note Do not restart the TFTP server until you have installed the locale packs on all servers in the cluster.

Step 7 Continue to the "Configuring User Interface Language, Ringtones and Date and Time" section on page 2-20.

Configuring User Interface Language, Ringtones and Date and Time

After you upload the file to Unified CM and restart the TFTP server, complete the following steps to apply your preferred language settings:

Step 1 Log in to **Cisco Unified CM Administration**.

Step 2 Navigate to **System > Device Pool** (to change device dates and time settings).

- Enter search criteria for your device pool and click **Find**.
- Click the hyperlink under Date/Time Group that corresponds with your device pool.
- Change the **Separator**, **Date Format** and **Time Format** fields to your preferred settings.
- Click **Save**.

Note For more information on how to set up a device pool, or how to set up your date and time format, refer to the Device Pool Setup and Date and Time Group Setup chapters of the *Cisco Unified Communications Manager Administration Guide*.

Step 3 Navigate to **Device > Phone**.

Step 4 Search for your device and click on the hyperlink under **Device Name** to select it.

Step 5 Navigate to **Device Information** to change the device language and ringtones.

- Change the **User Locale** field to your language and country of preference. To find the Unified CM User Locale Value that corresponds with your language, see Table 2-4. Changing this field changes the language on the Touch 12 device. Onscreen messages also change on the following systems: CTS 500-32, CTS 1300-47, TX 1310-65, and TX 9x00 series.

Note The User Locale value that you select must correspond with the locale pack you installed. See Table 2-4 for the CTS locale codes. If you select <None>, the Touch 12 language will default to English, United States.

- Change the **Network Locale** field to the country name of the locale installer you installed. This action changes the Touch 12 device ringtone sound and cadence. If you select <None>, your CTS tones will default to United States English.

Step 6 Click **Save**, then click **OK** when prompted.

Step 7 Click **Apply Config**, then click **OK** when prompted.

Note If you upgrade your system to the newest software release, you must download and install the locale packs whose numbering matches your new software. For example, if you upgraded from TX 6.0.0 to 6.0.1, you would need to download both the 6.0.1 TX files and the locale pack file bundle for 6.0.1.

Related Information

For more information about Cisco TelePresence features that you configure in Unified CM, refer to the Cisco TelePresence System User Guide on cisco.com that corresponds with your system's software release.

Loading Cisco Options Package (COP) Files on the Cisco TelePresence System

Revised: June 9, 2015, OL-21851-01

Contents

This chapter contains the following sections:

Understanding COP Files

Before you can use the Cisco TelePresence Touch 12, you must install a Cisco Options Package (COP) file to Cisco Unified Communications Manager (Unified CM). The COP file is a zipped file that contains the codec and control device (for example, Cisco TelePresence Touch 12 or Cisco Unified IP Phone) image files, and a loads file that lists the contents of the COP file. For more information, see the “Understanding Contents of the COP File” section on page 1-3.

The COP file is the default method of file distribution for all releases 1.8.0 and beyond, whether your system uses either a Cisco TelePresence Touch 12 or a Cisco Unified IP Phone for call control.

Systems that are running Cisco TelePresence System software release 1.7.4 or 1.7.5 can use a COP file to upgrade and install software, even though the Cisco TelePresence Touch 12 is not supported on any releases prior to 1.8.0. Systems that are running Cisco TelePresence System software releases 1.8.0 and above must use a COP file to upgrade and install their software.

After you use a COP file to upgrade your system, carry out all subsequent upgrades by using the COP file. Perform the upgrade by specifying the file name in Unified CM and omitting all file extensions.

Note Specifying a codec image file with a specific file extension, or specifying a file that is not included in a COP file, might result in the system reporting a version mismatch.

Find the COP file in the "Download" section of the Cisco support site for your product, located at the following URL:

http://www.cisco.com/cisco/web/support/index.html

Distinguishing Between the Cisco TelePresence Touch 12 and the Cisco Unified IP Phone in Unified CM

You do not register the Cisco TelePresence Touch 12 in Unified CM. This configuration method differs from the configuration for a Cisco TelePresence system that uses a Cisco Unified IP Phone for call control, where you register both the codec and Cisco Unified IP Phone in Unified CM. With a system that uses a Cisco TelePresence Touch 12 device, you only register the codec in Unified CM.

To upgrade your system, specify the name of the COP file, with no file types or extensions, in the Unified CM Administration interface. You can specify the name in either of the following fields:

- Unified CM Device Defaults Load Information field—Specifies this file for all devices of the same type
- Device Phone Load Name field—Specifies this file for a single device.

Note If your system is running a CTS version earlier than 1.7.4, you first specify the file name with an .sbn or .SPA extension, then you specify the file name with no extension. For detailed steps, see the "Upgrading From Cisco TelePresence Software Releases Prior to CTS 1.7.4" section on page 1-12.

Unified CM automatically extracts the codec and Cisco TelePresence Touch 12 files from the COP file and applies them to your Cisco TelePresence system.

For more information, see the "Upgrading From Cisco TelePresence Software Releases 1.7.4 and Above" section on page 1-5 and "Upgrading From Cisco TelePresence Software Releases Prior to CTS 1.7.4" section on page 1-12.

Understanding COP File Naming Convention

The COP file uses the following naming convention:

CTS.*r*-*r*-*r*-*bbb*R-K9.P*v*.cop.sgn

where:

- *r*-*r*-*r* is the Cisco TelePresence System (CTS) software release
- *bbb* is the build name
- *v* specifies the hardware version

The P*v* variable differs depending on the contents of the COP file and the codec that is used by the system.

Understanding Contents of the COP File

The COP file can contain multiple files, including any of the following types of files:

- Codec image files
- Cisco TelePresence Touch 12 image files
- MIDlet files

For the purpose of understanding how COP files are used with the Cisco TelePresence Touch 12, assume that the COP file contains three files: a loads file, a codec image file, and a Cisco TelePresence Touch 12 image file.

The loads file lists the file names of the specific codec and Cisco TelePresence Touch 12 image files. It contains the following entries:

- <copname>: The COP file name.
- <ctsmainImage>: The codec image file name.
- <ctsdevImage>: The Cisco TelePresence Touch 12 image file name.

Using COP Files to Upgrade From the IP Phone to a Cisco TelePresence Touch 12

Note Do not physically connect the Touch 12 to the system until you complete the software upgrade procedure. The Touch 12 requires software version 1.8 or higher.

The following sections describe how to upgrade your system from a Cisco Unified IP Phone to a Cisco TelePresence Touch 12:

- Determining the Type of Codec Used by Your System, page 1-3
- Kit and Parts List, page 1-5
- Upgrading From Cisco TelePresence Software Releases 1.7.4 and Above, page 1-5
- Upgrading From Cisco TelePresence Software Releases Prior to CTS 1.7.4, page 1-12
- Connecting the Cisco TelePresence Touch 12 to the System, page 1-20

Caution The display used in this product contains mercury. Dispose of according to local, state, and federal laws.

Determining the Type of Codec Used by Your System

Note See the "Understanding COP Files" section on page 1-1 before working with COP files.

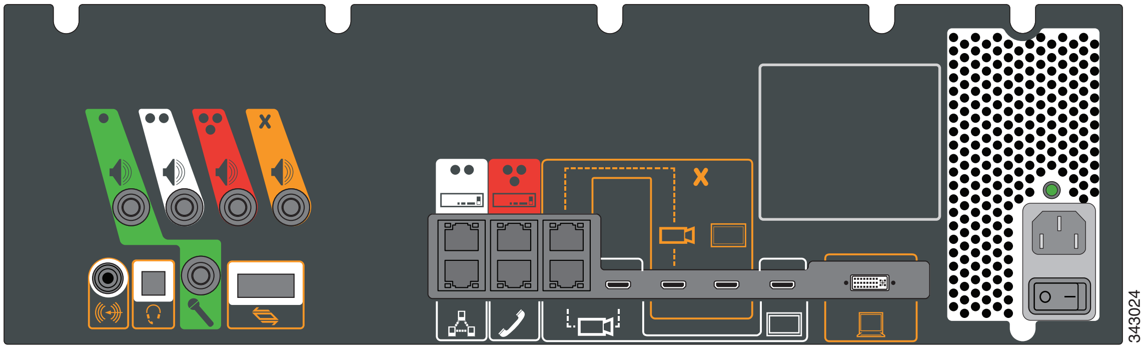
The following installation instructions specify loading an .sbn or .SPA file in Unified CM before you specify the COP file name with no extensions. The file extension depends on the type of codec you use in your system. To determine the type of file you specify, use the following guide:

Codec Example 1

If your codec looks like the one in Figure 3-1, use the .sbn file. The following systems use this codec:

- Cisco TelePresence System 500-37 (PID: CTS-500-37)
- Cisco TelePresence System 1000 (PID: CTS-1000)
- Cisco TelePresence System 1100 (PID: CTS-1100)
- Cisco TelePresence System 1300-65 (PID: CTS-1300)
- Cisco TelePresence System 3000 (PID: CTS-3000)
- Cisco TelePresence System 3010 (PID: CTS-3010)
- Cisco TelePresence System 3200 (PID: CTS-3200)
- Cisco TelePresence System 3210 (PID: CTS-3210)

Figure 3-1 Codec CTS-CODEC-PRI-G2 or CTS-CODEC-PRIM

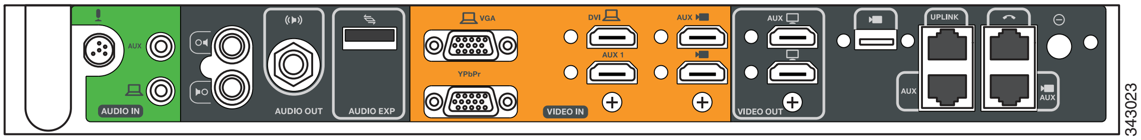


Codec Example 2

If your codec looks like the one in Figure 3-2, use the .SPA file. The following systems use this codec:

- Cisco TelePresence System 500-32 (PID: CTS-500-32)
- Cisco TelePresence System TX1300 47 (PID: CTS-1300-47)
- Cisco TelePresence System TX1310-65 (PID: CTS-TX1310-65)
- Cisco TelePresence System TX9000 (PID: CTS-TX9000)
- Cisco TelePresence System TX9200 (PID: CTS-TX9200)

Figure 3-2 Codec CTS-CODEC-SING-G1 or CTS-CODEC-PRI-G2R



Kit and Parts List

Table 3-1 lists kits to order to upgrade your system from a Cisco Unified IP Phone to a Cisco TelePresence Touch 12 (Touch 12).

Table 3-1 Cisco TelePresence Touch 12 Upgrade Kit and Parts List

Kit Number	CTS
CTS-CTRL-DV12-A	• Cisco TelePresence System 500-32 (PID: CTS-500-32) • Cisco TelePresence System TX1300 47 (PID: CTS-1300-47) • Cisco TelePresence System TX1310 65 (PID: CTS-TX1310-65) • Cisco TelePresence System TX9000 (PID: CTS-TX9000) • Cisco TelePresence System TX9200 (PID: CTS-TX9200) Includes the Touch 12 device, part number CTS-CTRL-DV12.
CTS-CTRL-DV12-B	• Cisco TelePresence System 1000 (PID: CTS-1000) • Cisco TelePresence System 1100 (PID: CTS-1100) • Cisco TelePresence System 1300-65 (PID: CTS-1300) • Cisco TelePresence System 3000 (PID: CTS-3000) • Cisco TelePresence System 3010 (PID: CTS-3010) • Cisco TelePresence System 3200 (PID: CTS-3200) • Cisco TelePresence System 3210 (PID: CTS-3210) Includes: • CTS-CTRL-DV12—Touch 12 device • AIR-PWRINJ4—The Power injector for the Touch 12 • CTS-JUMPER-CORD—This cord connects the power injector to the power distribution unit (PDU) for your system. The PDU end of the cord uses a IEC 60320 C19 connector to connect to the PDU.
CTS-CTRL-DV12-C	Cisco TelePresence System 500-37 (PID: CTS-500-37) CTS-CTRL-DV12-C contains the same parts as the CTS-CTRL-DV12-B; however the CTS-JUMPER-CORD is removed and replaced with a country-specific power cord. This change is required because a Cisco TelePresence System 500-37 does not ship with a PDU.

Upgrading From Cisco TelePresence Software Releases 1.7.4 and Above

To load the COP files to Unified CM and upgrade your codec and Touch 12 software for systems that are running CTS software version 1.7.4 and above, complete the following steps.

Step 1 Copy the COP file to a Secure File Transfer Protocol (SFTP) server that is accessible by Unified CM.

Step 2 Log in to the Unified CM administration interface (GUI).

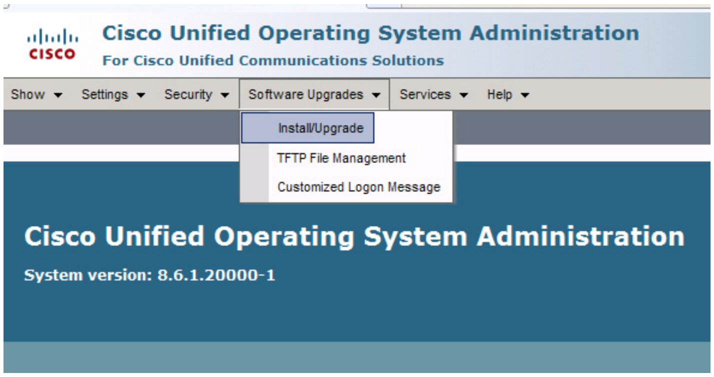
Step 3 From the Navigation drop-down menu, on the top right of the GUI, select Cisco Unified OS Administration.

The Cisco Unified Operation System Administration screen appears.

Step 4 Enter your user ID and password if prompted to do so.

Step 5 Navigate to **Software Upgrades > Install/Upgrade**, as shown in Figure 3-3.

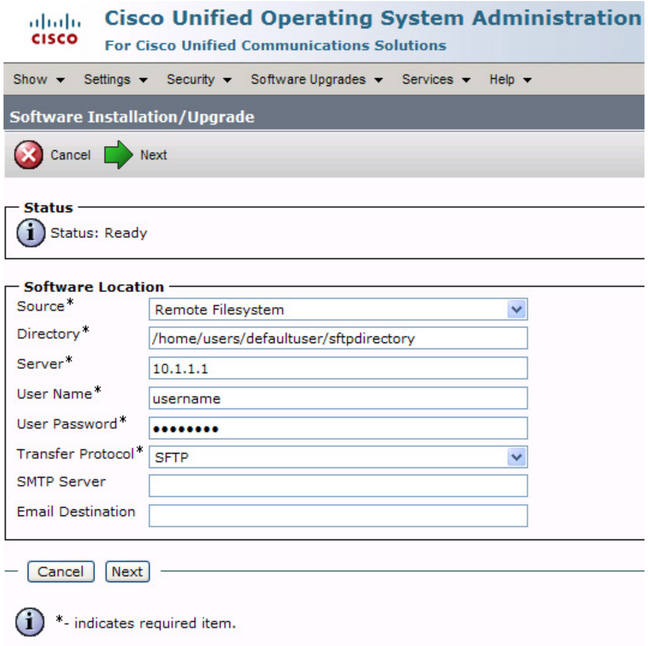
Figure 3-3 Cisco Unified Operating System Administration Screen


Cisco Unified Operating System Administration
For Cisco Unified Communications Solutions
Show
Settings
Security
Software Upgrades
Services
Help
Install/Upgrade
TFTP File Management
Customized Logon Message
Cisco Unified Operating System Administration
System version: 8.6.1.20000-1

Step 6 In the Software Location area, specify the following information in the fields, as shown in Figure 3-4.:

- In the Source drop-down menu, select **Remote Filesystem**.
- In the Directory and Server fields, enter the location of the COP file on the SFTP server.
- In the User Name and User Password fields, enter the user name and password used to access the SFTP server.
- In the Transfer Protocol drop-down menu, select **SFTP**.

Figure 3-4 Specifying SFTP Server and File Location


Cisco Unified Operating System Administration
For Cisco Unified Communications Solutions
Show
Settings
Security
Software Upgrades
Services
Help
Software Installation/Upgrade
Cancel
Next

Status

Status: Ready

Software Location

Source* Remote Filesystem

Directory* /home/users/defaultuser/sftpdirectory

Server* 10.1.1.1

User Name* username

User Password* ••••••••

Transfer Protocol* SFTP

SMTP Server

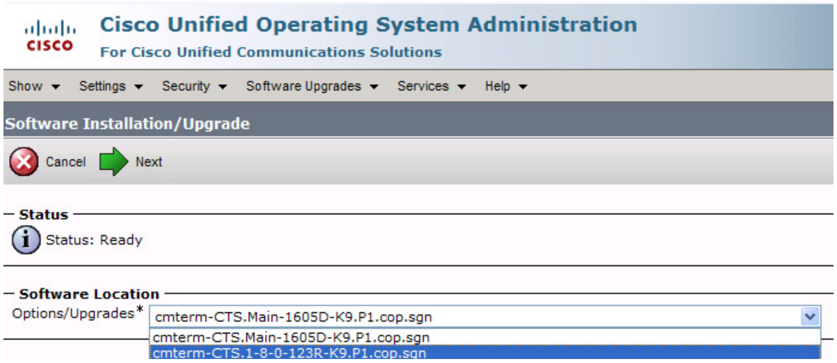
Email Destination

*- indicates required item.

Step 7 Click **Next**. Unified CM accesses the SFTP server. The Software Location area lists the COP files that Unified CM finds in the directory that you specified.

Step 8 In the Options/Upgrades drop-down menu, choose the COP file that you want to install from the available file names, as shown in Figure 3-5.

Figure 3-5 Specifying the File To Be Used After Installing the COP File


Cisco Unified Operating System Administration
For Cisco Unified Communications Solutions
Show
Settings
Security
Software Upgrades
Services
Help
Software Installation/Upgrade
Cancel
Next
Status

Status: Ready

Software Location

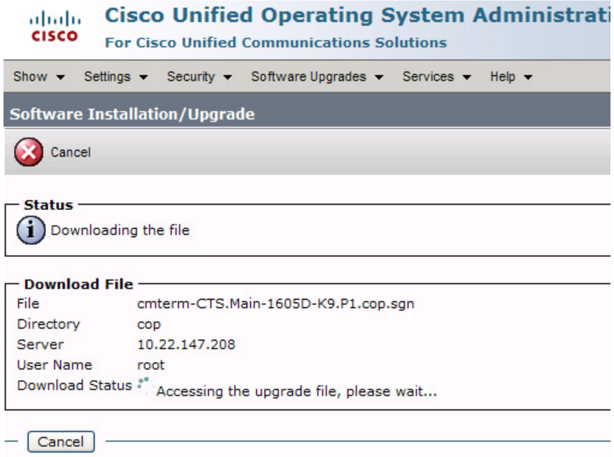
Options/Upgrades* cmterm-CTS.Main-1605D-K9.P1.cop.sgn

cmterm-CTS.Main-1605D-K9.P1.cop.sgn
cmterm-CTS.1-8-0-123R-K9.P1.cop.sgn

Step 9 Click **Next**.

The Unified CM GUI shows the COP file being installed, as shown in Figure 3-6.

Figure 3-6 COP File Installation


Cisco Unified Operating System Administrati
For Cisco Unified Communications Solutions
Show
Settings
Security
Software Upgrades
Services
Help
Software Installation/Upgrade
Cancel
Status
Download File
Cancel

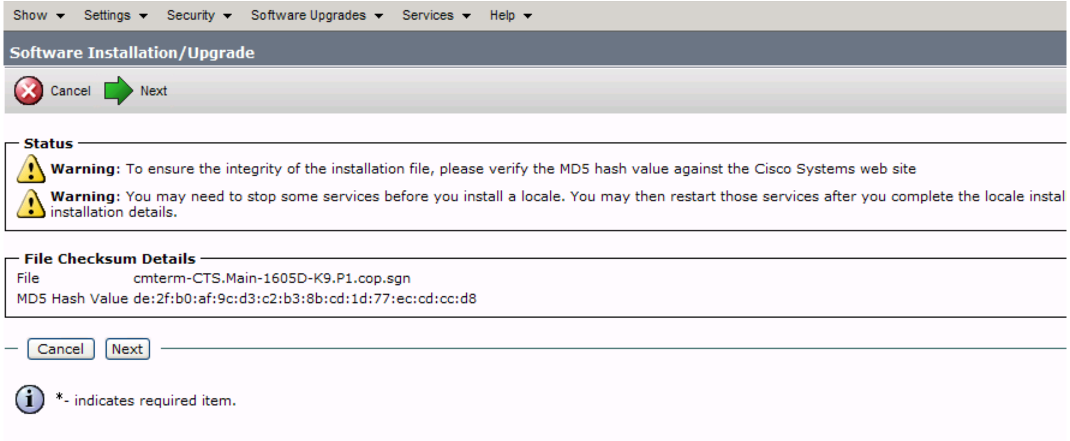
Downloading the file

File	cmterm-CTS.Main-1605D-K9.P1.cop.sgn
Directory	cop
Server	10.22.147.208
User Name	root
Download Status	Accessing the upgrade file, please wait...

Step 10 After installation completes, verify the file validity by completing the following steps:

a. Make a note of the information in the File Checksum Details area. This value is circled in Figure 3-7.

Figure 3-7 File Checksum Details Area



Status

Warning: To ensure the integrity of the installation file, please verify the MD5 hash value against the Cisco Systems web site

Warning: You may need to stop some services before you install a locale. You may then restart those services after you complete the locale instal installation details.

File Checksum Details

File	cmterm-CTS.Main-1605D-K9.P1.cop.sgn
MD5 Hash Value	de:2f:b0:af:9c:d3:c2:b3:8b:cd:1d:77:ec:cd:cc:d8

*- indicates required item.

b. Log in to the SFTP server and enter the following command:

c. **md5sum** *filename*.cop.sgn

where:

filename is the file name of the COP file on the SFTP server.

d. Make a note of the checksum value that displays as a result of the **md5sum** command.

e. Compare the MD5 Hash Value that displays in this area to the MD5 checksum value that you find in the COP file on the server and make sure that they match to ensure that the file is not corrupted.

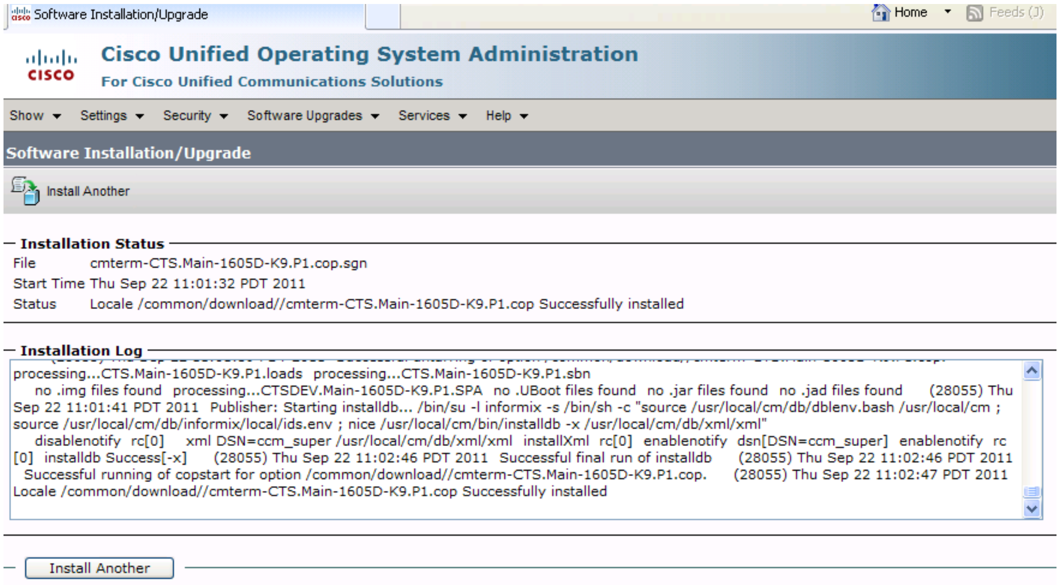
f. If the values match, continue to the next step; if the values do not match, retry the file installation.

Step 11 Click **Next** to begin installation.

The installation log shows the installation progress.

After the .loads, codec and Touch 12 files are extracted, the interface shows Complete in the Installation Status window, as shown in Figure 3-7.

Figure 3-8 Installation Status Window


Software Installation/Upgrade
Home
Feeds (3)
Cisco Unified Operating System Administration
For Cisco Unified Communications Solutions
Show
Settings
Security
Software Upgrades
Services
Help
Software Installation/Upgrade
Install Another

Installation Status

File cmterm-CTS.Main-1605D-K9.P1.cop.sgn
Start Time Thu Sep 22 11:01:32 PDT 2011
Status Locale /common/download//cmterm-CTS.Main-1605D-K9.P1.cop Successfully installed

Installation Log

```
processing...CTS.Main-1605D-K9.P1.loads  processing...CTS.Main-1605D-K9.P1.sbn
   no .img files found  processing...CTSDEV.Main-1605D-K9.P1.SPA  no .UBoot files found  no .jar files found  no .jad files found     (28055) Thu
Sep 22 11:01:41 PDT 2011  Publisher: Starting installdb... /bin/su -l informix -s /bin/sh -c "source /usr/local/cm/db/dblenv.bash /usr/local/cm ;
source /usr/local/cm/db/informix/local/ids.env ; nice /usr/local/cm/bin/installdb -x /usr/local/cm/db/xml/xml"
   disablenotify  rc[0]    xml DSN=ccm_super /usr/local/cm/db/xml/xml  installXml  rc[0]  enablenotify  dsn[DSN=ccm_super]  enablenotify  rc
[0]  installdb Success[-x]     (28055) Thu Sep 22 11:02:46 PDT 2011  Successful final run of installdb     (28055) Thu Sep 22 11:02:46 PDT 2011
  Successful running of copstart for option /common/download//cmterm-CTS.Main-1605D-K9.P1.cop.     (28055) Thu Sep 22 11:02:47 PDT 2011
Locale /common/download//cmterm-CTS.Main-1605D-K9.P1.cop Successfully installed
```

Step 12 From the Navigation drop-down menu on the top right of the GUI, select **Cisco Unified Serviceability** and click **Go**.

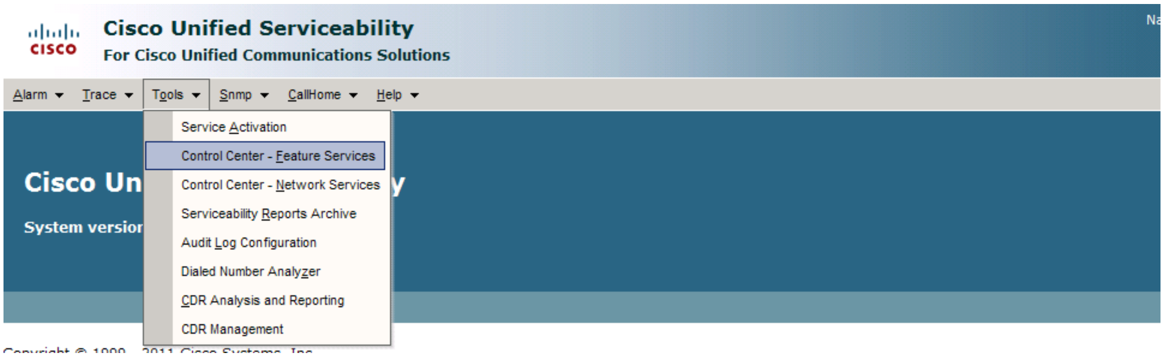
The Cisco Unified Serviceability window appears.

Step 13 Enter your user ID and password if prompted to do so.

Step 14 Restart the TFTP server by completing the following steps:

a. Navigate to **Tools > Control Center - Feature Services**, as shown in Figure 3-9.

Figure 3-9 Cisco Unified Serviceability Window


Cisco Unified Serviceability
For Cisco Unified Communications Solutions
Na
Alarm
Trace
Tools
Snmp
CallHome
Help
Service Activation
Control Center - Feature Services
Control Center - Network Services
Serviceability Reports Archive
Audit Log Configuration
Dialed Number Analyzer
CDR Analysis and Reporting
CDR Management
Cisco Un
y
System versior
Copyright © 1999 - 2011 Cisco Systems, Inc.

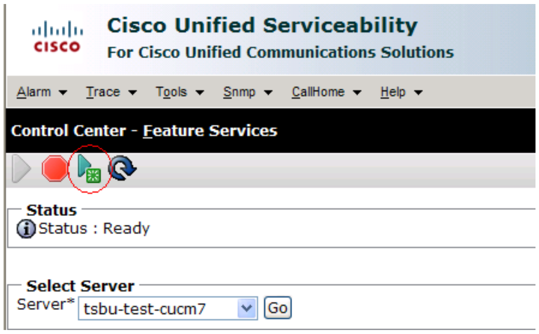
b. Choose the correct TFTP server from the drop-down menu and click **Go**.

c. In the CM Services area, click the Cisco **Tftp** radio button.

d. Click the **Restart** button

Tip You can use either the Restart button on the bottom of the page, or the button circled in red in Figure 3-10.

Figure 3-10 Restart Button in Features Services Page


Cisco Unified Serviceability
For Cisco Unified Communications Solutions
Alarm
Trace
Tools
Snmp
CallHome
Help
Control Center - Feature Services
Status
Select Server
Go

Status : Ready

Server* tsbu-test-cucm7

Step 15 From the Navigation drop-down menu on the top right of the GUI, select **Cisco Unified CM Administration** and click **Go**.

The Cisco Unified CM Administration window appears.

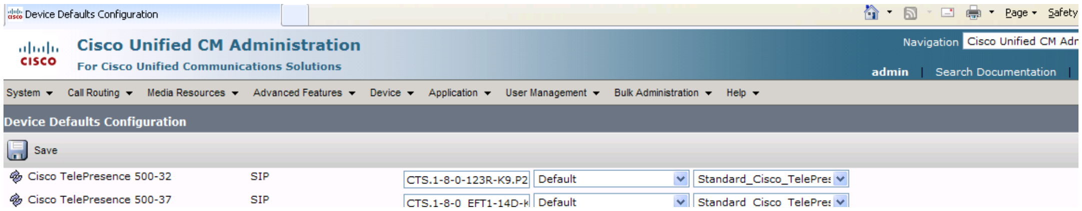
Step 16 To apply the software to all devices of a specified type, complete the following steps:

Note To load the software per device, rather than apply it as a default, continue to Step 17.

- **a.** Navigate to **Device > Device Settings > Device Defaults**.
- **b.** Locate the system to which you want to apply a default codec image.
- **c.** Apply the 1.8.0 codec image file as the default image file for all systems of a specified type by completing the following steps:
  1. In the Load Information field, enter the name of the COP file, removing the cmterm- in front of the file name.

     In the example in Figure 3-11, the administrator specified a default codec file image of CTS.1-8-0-123R-K9.P2 for all Cisco TelePresence 500-32 systems.

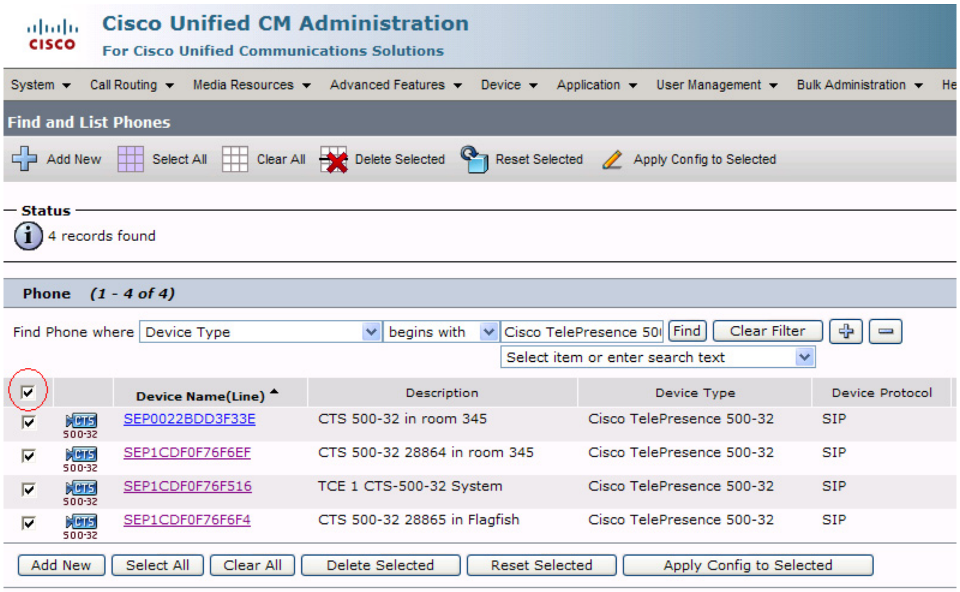
Figure 3-11 Specifying the Default Codec File Image for All Systems of a Specified Type



Cisco TelePresence 500-32	SIP	CTS.1-8-0-123R-K9.P2	Default	Standard_Cisco_TelePres
Cisco TelePresence 500-37	SIP	CTS.1-8-0_EFT1-14D-K	Default	Standard_Cisco_TelePres

  2. Click **Save** to save your changes.
- **d.** Navigate to **Device > Phone**.
- **e.** Search and access the device type for which you want to apply the new codec image file by completing the following steps:
  1. In the Find Phone Where area, choose the **Device Type** and **begins with** drop-down choices.
  2. Enter the device type for the endpoint; for example, **Cisco TelePresence 500-32**.
  3. Click **Find**. An example results screen is shown in Figure 3-12.

Figure 3-12 Results Screen After Device Type Search



Status

4 records found

Phone (1 - 4 of 4)

Find Phone where Device Type begins with Cisco TelePresence 50 Select item or enter search text

☑		Device Name(Line)	Description	Device Type	Device Protocol
☑	CTS 500-32	SEP0022BDD3F33E	CTS 500-32 in room 345	Cisco TelePresence 500-32	SIP
☑	CTS 500-32	SEP1CDF0F76F6EF	CTS 500-32 28864 in room 345	Cisco TelePresence 500-32	SIP
☑	CTS 500-32	SEP1CDF0F76F516	TCE 1 CTS-500-32 System	Cisco TelePresence 500-32	SIP
☑	CTS 500-32	SEP1CDF0F76F6F4	CTS 500-32 28865 in Flagfish	Cisco TelePresence 500-32	SIP

4. Select the check box on the left side of the page to select all devices.

Tip This check box is circled in red in Figure 3-12.

5. Click **Apply Config to Selected** to apply the configuration to all selected devices.

f. Continue to Step 18.

Step 17 To load the software for a specific device, complete the following steps:

a. Navigate to **Device > Phone**.

b. Search and access your device by completing the following steps:

1. Use the drop-down choices to specify a valid search term, or leave the fields blank to find all devices.

2. Click **Find**.

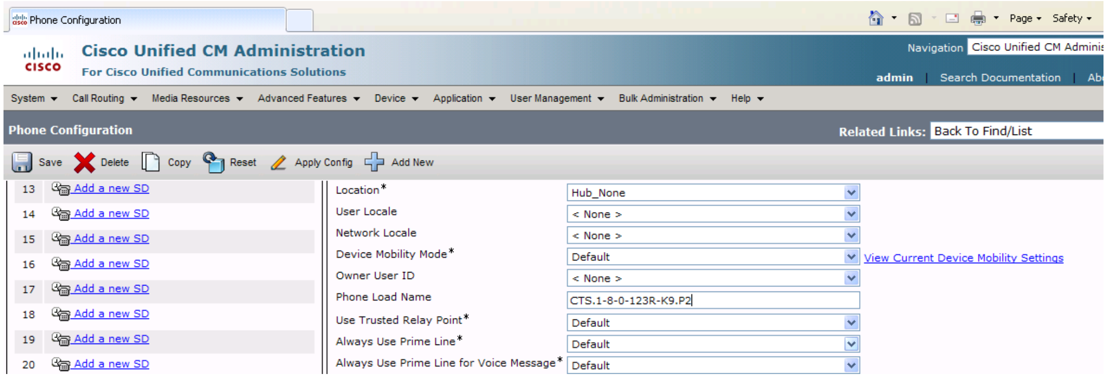
3. Click the hypertext link in the Device Name (Line) row that corresponds to your device.

Step 18 Apply the codec file image to your system by completing the following steps:

a. In the Phone Load Name field, enter the name of the COP file, removing the cmterm-in front of the file name.

In the example in Figure 3-13, the administrator specified a file name of CTS.1-8-0-123R-K9.P2.

Figure 3-13 Phone Load Name Field



Location*	Hub_None
User Locale	< None >
Network Locale	< None >
Device Mobility Mode*	Default
Owner User ID	< None >
Phone Load Name	CTS.1-8-0-123R-K9.P2
Use Trusted Relay Point*	Default
Always Use Prime Line*	Default
Always Use Prime Line for Voice Message*	Default

b. Click **Save**.

c. Click **Apply Config**.

Step 19 Connect the Touch 12 to the system as described in the "Connecting the Cisco TelePresence Touch 12 to the System" section on page 1-20.

Upgrading From Cisco TelePresence Software Releases Prior to CTS 1.7.4

To load the .sbn or .SPA and COP files to Unified CM and upgrade your codec and Touch 12 software in systems that are running CTS software versions that are lower than 1.7.4, complete the following steps.

Step 1 Copy the COP file to a Secure File Transfer Protocol (SFTP) server that is accessible by Unified CM.

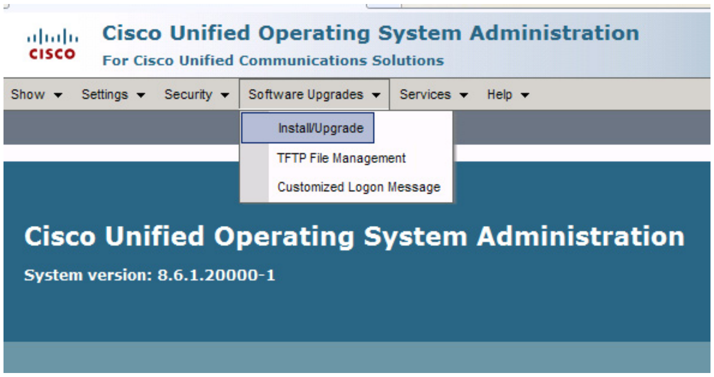
Step 2 Log in to the Unified CM Administration interface.

Step 3 From the Navigation drop-down menu, on the top right of the GUI, select **Cisco Unified OS Administration**. The Cisco Unified Operation System Administration screen appears.

Step 4 Enter your user ID and password if prompted to do so.

Step 5 Navigate to **Software Upgrades** > **Install/Upgrade**.

Figure 3-14 Cisco Unified Operating System Administration Screen

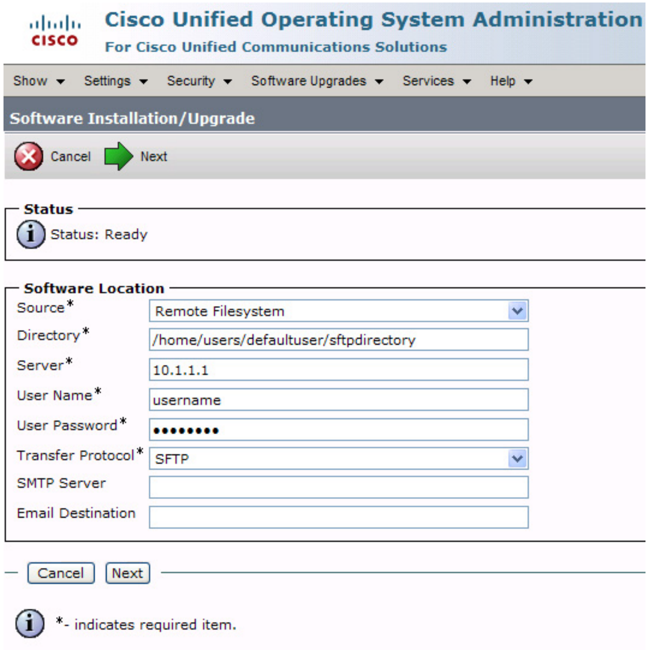

Cisco Unified Operating System Administration
For Cisco Unified Communications Solutions
Show
Settings
Security
Software Upgrades
Services
Help
Install/Upgrade
TFTP File Management
Customized Logon Message
Cisco Unified Operating System Administration

System version: 8.6.1.20000-1

Step 6 In the Software Location window, specify the following information in the fields, as shown in Figure 3-15:

- In the Source drop-down menu, select **Remote Filesystem**.
- In the Directory and Server fields, enter the location of the COP file on the SFTP server.
- In the User Name and User Password fields, enter the user name and password used to access the SFTP server.
- In the Transfer Protocol drop-down menu, select **SFTP**.
-

Figure 3-15 Specifying SFTP Server and File Location


Cisco Unified Operating System Administration
For Cisco Unified Communications Solutions
Show
Settings
Security
Software Upgrades
Services
Help
Software Installation/Upgrade
Cancel
Next
Cancel
Next

Status

Status: Ready

Software Location

Source*	Remote Filesystem
Directory*	/home/users/defaultuser/sftpdirectory
Server*	10.1.1.1
User Name*	username
User Password*	••••••••
Transfer Protocol*	SFTP
SMTP Server	
Email Destination	

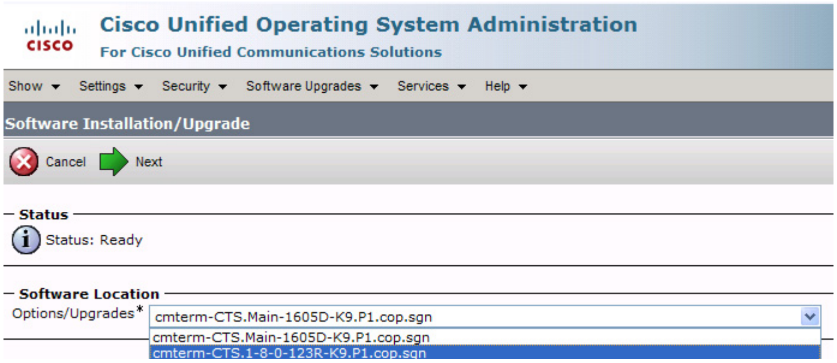
*- indicates required item.

Step 7 Click **Next**.

Unified CM accesses the SFTP server. The Software Location area lists the COP files that Unified CM finds in the directory that you specified.

Step 8 Choose the COP file that you want to install from the available file names in the Options/Upgrades drop-down menu, as shown in Figure 3-16.

Figure 3-16 Specifying the COP File


Cisco Unified Operating System Administration
For Cisco Unified Communications Solutions
Show Settings Security Software Upgrades Services Help
Cancel
Next

Software Installation/Upgrade

Status

Status: Ready

Software Location

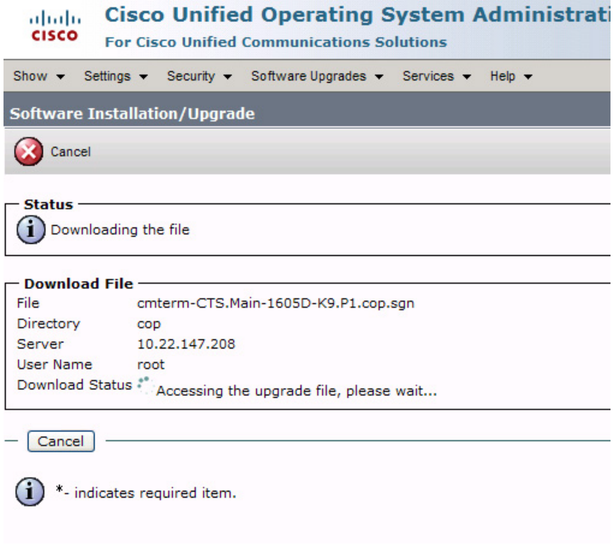
Options/Upgrades* cmterm-CTS.Main-1605D-K9.P1.cop.sgn

cmterm-CTS.Main-1605D-K9.P1.cop.sgn
cmterm-CTS.1-8-0-123R-K9.P1.cop.sgn

Step 9 Click **Next**.

The Unified CM GUI shows the COP file being installed, as shown in Figure 3-17.

Figure 3-17 COP File Installation


Cisco Unified Operating System Administrati
For Cisco Unified Communications Solutions
Show Settings Security Software Upgrades Services Help
Cancel
Cancel

Software Installation/Upgrade

Status

Downloading the file

Download File

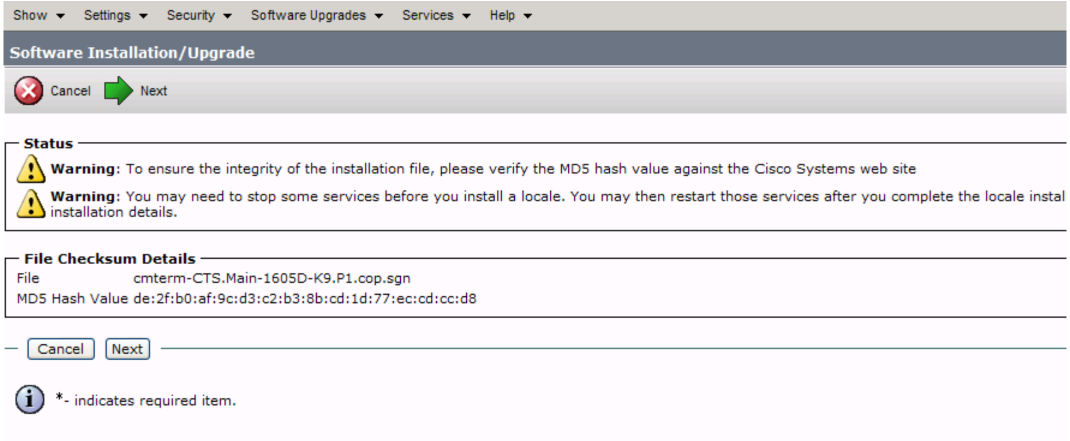
File	cmterm-CTS.Main-1605D-K9.P1.cop.sgn
Directory	cop
Server	10.22.147.208
User Name	root
Download Status	Accessing the upgrade file, please wait...

*- indicates required item.

Step 10 After installation completes, verify the file validity by completing the following steps:

a. Make a note of the information in the File Checksum Details window, as shown in Figure 3-18.

Figure 3-18 File Checksum Details Window



Status

Warning: To ensure the integrity of the installation file, please verify the MD5 hash value against the Cisco Systems web site

Warning: You may need to stop some services before you install a locale. You may then restart those services after you complete the locale instal
installation details.

File Checksum Details

File cmterm-CTS.Main-1605D-K9.P1.cop.sgn
MD5 Hash Value de:2f:b0:af:9c:d3:c2:b3:8b:cd:1d:77:ec:cd:cc:d8

*- indicates required item.

b. Log in to the SFTP server and enter the following command:

c. **md5sum** *filename*.cop.sgn

where *filename* is the file name of the COP file on the SFTP server.

d. Make a note of the checksum value that displays as a result of the **md5sum** command.

e. Compare the MD5 Hash Value that displays in this area to the MD5 checksum value that you find in the COP file on the server and make sure that they match to ensure that the file is not corrupted.

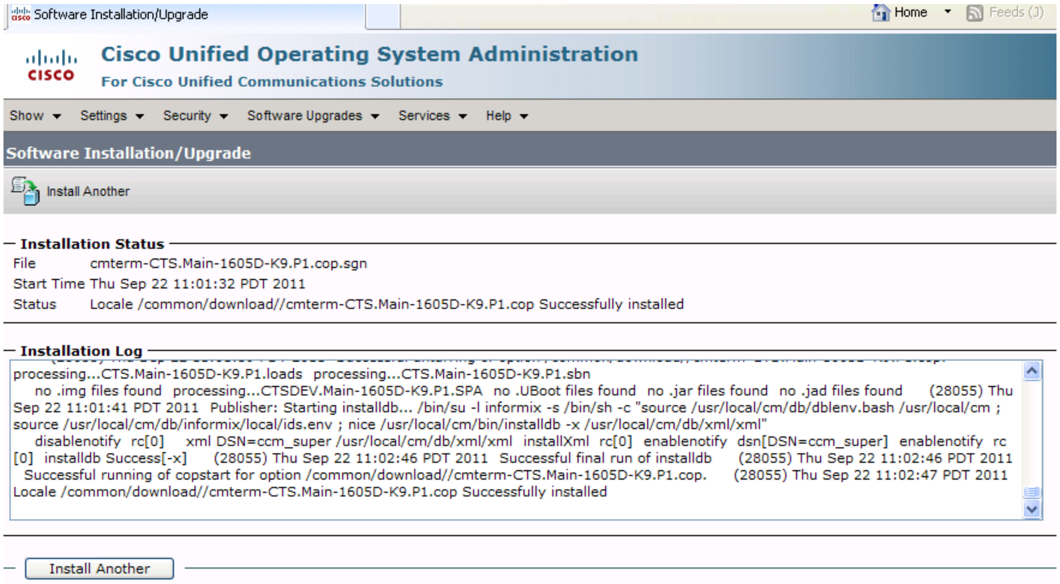
f. If the values match, continue to the next step; if the values do not match, retry the file installation.

Step 11 Click **Next** to begin installation.

The installation log shows the installation progress.

After the .loads, codec and Touch 12 files are extracted, the interface shows Complete in the Installation Status window, as shown in Figure 3-19.

Figure 3-19 Installation Status Window


Software Installation/Upgrade
Home
Feeds (J)
Cisco Unified Operating System Administration
For Cisco Unified Communications Solutions
Show
Settings
Security
Software Upgrades
Services
Help
Software Installation/Upgrade
Install Another
Installation Status
Installation Log
Install Another

File cmterm-CTS.Main-1605D-K9.P1.cop.sgn
Start Time Thu Sep 22 11:01:32 PDT 2011
Status Locale /common/download//cmterm-CTS.Main-1605D-K9.P1.cop Successfully installed

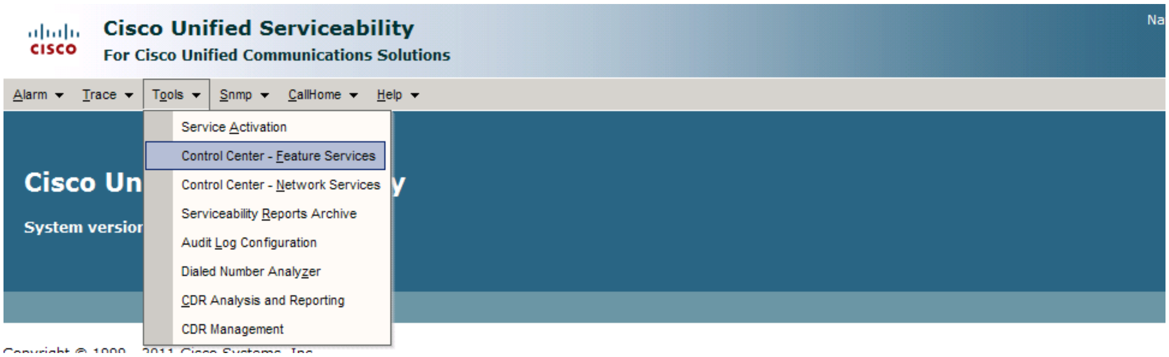
```
processing...CTS.Main-1605D-K9.P1.loads  processing...CTS.Main-1605D-K9.P1.sbn
   no .img files found  processing...CTSDEV.Main-1605D-K9.P1.SPA  no .UBoot files found  no .jar files found  no .jad files found    (28055) Thu
Sep 22 11:01:41 PDT 2011  Publisher: Starting installdb... /bin/su -l informix -s /bin/sh -c "source /usr/local/cm/db/dblenv.bash /usr/local/cm ;
source /usr/local/cm/db/informix/local/ids.env ; nice /usr/local/cm/bin/installdb -x /usr/local/cm/db/xml/xml"
   disablenotify  rc[0]    xml DSN=ccm_super /usr/local/cm/db/xml/xml  installXml  rc[0]  enablenotify  dsn[DSN=ccm_super]  enablenotify  rc
[0]  installdb Success[-x]    (28055) Thu Sep 22 11:02:46 PDT 2011  Successful final run of installdb    (28055) Thu Sep 22 11:02:46 PDT 2011
  Successful running of copstart for option /common/download//cmterm-CTS.Main-1605D-K9.P1.cop.    (28055) Thu Sep 22 11:02:47 PDT 2011
Locale /common/download//cmterm-CTS.Main-1605D-K9.P1.cop Successfully installed
```

Step 12 From the Navigation drop-down menu on the top right of the GUI, select **Cisco Unified Serviceability** and click **Go**.

The Cisco Unified Serviceability window appears, as shown in Figure 3-20.

Step 13 Enter your user ID and password if prompted to do so.

Figure 3-20 Cisco Unified Serviceability Window

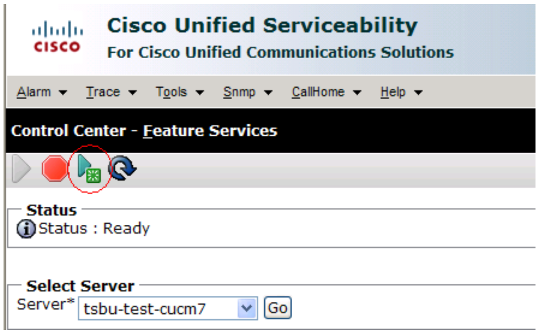

Cisco Unified Serviceability
For Cisco Unified Communications Solutions
Na
Alarm
Trace
Tools
Snmp
CallHome
Help
Service Activation
Control Center - Feature Services
Control Center - Network Services
Serviceability Reports Archive
Audit Log Configuration
Dialed Number Analyzer
CDR Analysis and Reporting
CDR Management
Cisco Un
y
System version

Step 14 Restart the TFTP server by completing the following steps:

- **a.** Navigate to **Tools > Control Center - Feature Services**.
- **b.** Choose the correct TFTP server from the drop-down menu and click **Go**.
- **c.** In the CM Services window click the Cisco **TFTP** radio button.
- **d.** Click the **Restart** button.

Tip You can use either the **Restart** button on the bottom of the page or the button circled in red in Figure 3-21.

Figure 3-21 Restart Button in Features Services Page


Cisco Unified Serviceability
For Cisco Unified Communications Solutions
Alarm
Trace
Tools
Snmp
CallHome
Help
Control Center - Feature Services
Status
Select Server
Go

Status : Ready

Server* tsbu-test-cucm7

Step 15 From the Navigation drop-down menu on the top right of the GUI, select **Cisco Unified CM Administration** and click **Go**.

The Cisco Unified CM Administration window appears.

Step 16 To apply the software to all devices of a specified type, complete the following steps:

Note To load the software per device, rather than apply it as a default, continue to Step 17.

a. Navigate to **Device > Device Settings > Device Defaults**.

b. Locate the system to which you want to apply a default codec image.

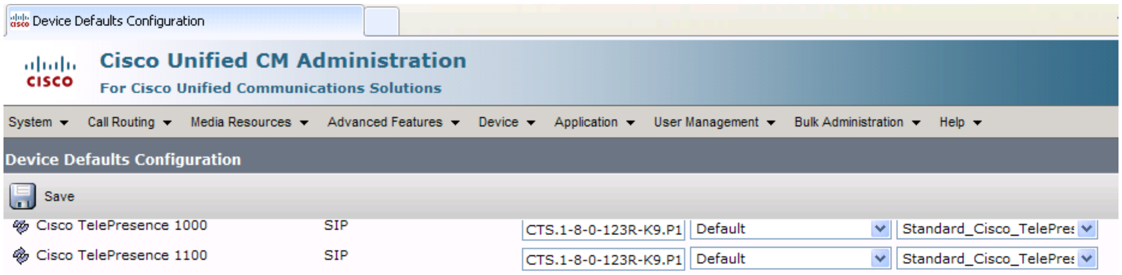
c. Apply the 1.8.0 codec image file as the default image file for all systems of a specified type by completing the following steps:

1. In the Load Information field, enter the name of the COP file, making the following changes:

- If your system uses the codec shown in Figure 3-1, append a file type of .sbn.

  In the example in Figure 3-22, the administrator specified a default codec file image of CTS.1-8-0-123R-K9.P1.sbn for all CTS 1100 systems. The original COP file name was cmterm-CTS.1-8-0-123R-K9.P1.

Figure 3-22 Specifying the Default .sbn File Image for All Systems of a Specified Type

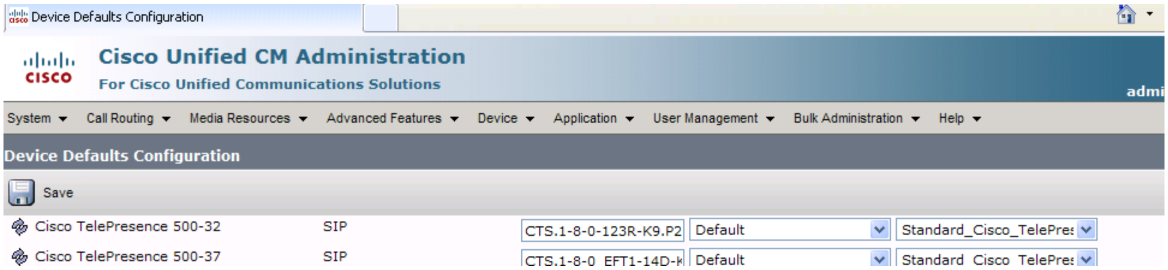

Device Defaults Configuration
Cisco Unified CM Administration
For Cisco Unified Communications Solutions
System
Call Routing
Media Resources
Advanced Features
Device
Application
User Management
Bulk Administration
Help
Device Defaults Configuration
Save

Cisco TelePresence 1000	SIP	CTS.1-8-0-123R-K9.P1	Default	Standard_Cisco_TelePres
Cisco TelePresence 1100	SIP	CTS.1-8-0-123R-K9.P1	Default	Standard_Cisco_TelePres

- If your system uses the codec shown in Figure 3-2, append a file type of .SPA.

  In the example in Figure 3-23, the administrator specified device a default codec file image of CTS.1-8-0-123R-K9.P2.SPA for all CTS 500-32 systems. The original COP file name was cmterm-CTS.1-8-0-123R-K9.P2.

Figure 3-23 Specifying the Default .SPA File Image for All Systems of a Specified Type


Device Defaults Configuration
Cisco Unified CM Administration
For Cisco Unified Communications Solutions
admi
System
Call Routing
Media Resources
Advanced Features
Device
Application
User Management
Bulk Administration
Help
Device Defaults Configuration
Save

Cisco TelePresence 500-32	SIP	CTS.1-8-0-123R-K9.P2	Default	Standard_Cisco_TelePres
Cisco TelePresence 500-37	SIP	CTS.1-8-0_EFT1-14D-K	Default	Standard_Cisco_TelePres

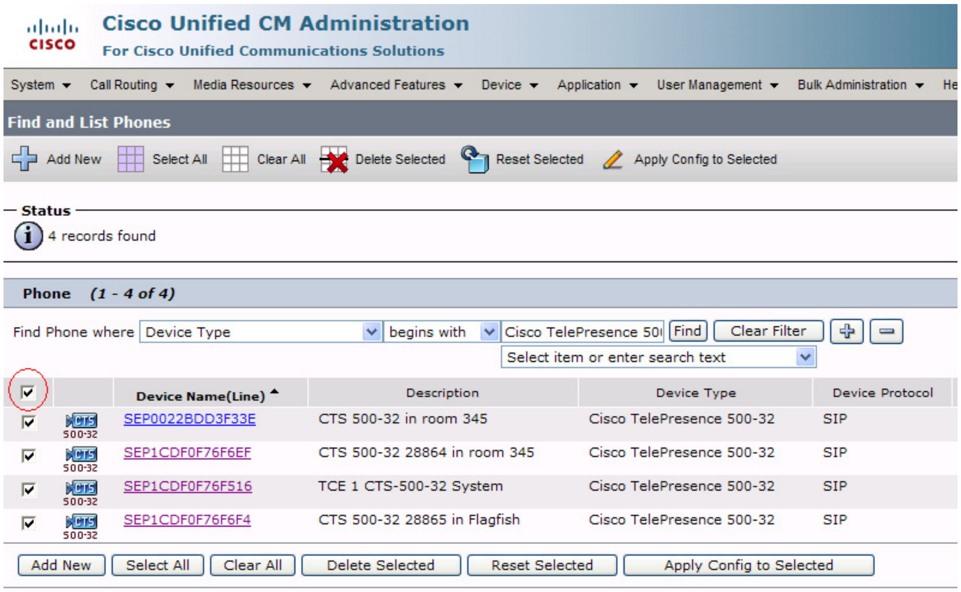
2. Click **Save** to save your changes.

d. Navigate to **Device > Phone**.

e. Search and access the device type for which you want to apply the new codec image file by completing the following steps:

1. In the Find Phone Where area, choose the **Device Type** and **begins with** drop-down choices.
2. Enter the device type for the endpoint; for example, **Cisco TelePresence 500-32**.
3. Click **Find**. An example results screen is shown in Figure 3-24.

Figure 3-24 Results Screen After Device Type Search



Status

4 records found

Phone (1 - 4 of 4)

Find Phone where Device Type begins with Cisco TelePresence 50 Find Clear Filter

Select item or enter search text

☑		Device Name(Line) ▲	Description	Device Type	Device Protocol
☑	CTS 500-32	SEP0022BDD3F33E	CTS 500-32 in room 345	Cisco TelePresence 500-32	SIP
☑	CTS 500-32	SEP1CDF0F76F6EF	CTS 500-32 28864 in room 345	Cisco TelePresence 500-32	SIP
☑	CTS 500-32	SEP1CDF0F76F516	TCE 1 CTS-500-32 System	Cisco TelePresence 500-32	SIP
☑	CTS 500-32	SEP1CDF0F76F6F4	CTS 500-32 28865 in Flagfish	Cisco TelePresence 500-32	SIP

4. Select the check box on the left side of the page to select all devices.

Tip This check box is circled in red in Figure 3-24.

5. Click **Apply Config to Selected** to apply the configuration to all selected devices.

f. Continue to Step 18.

Step 17 To load the software for a specific device, complete the following steps:

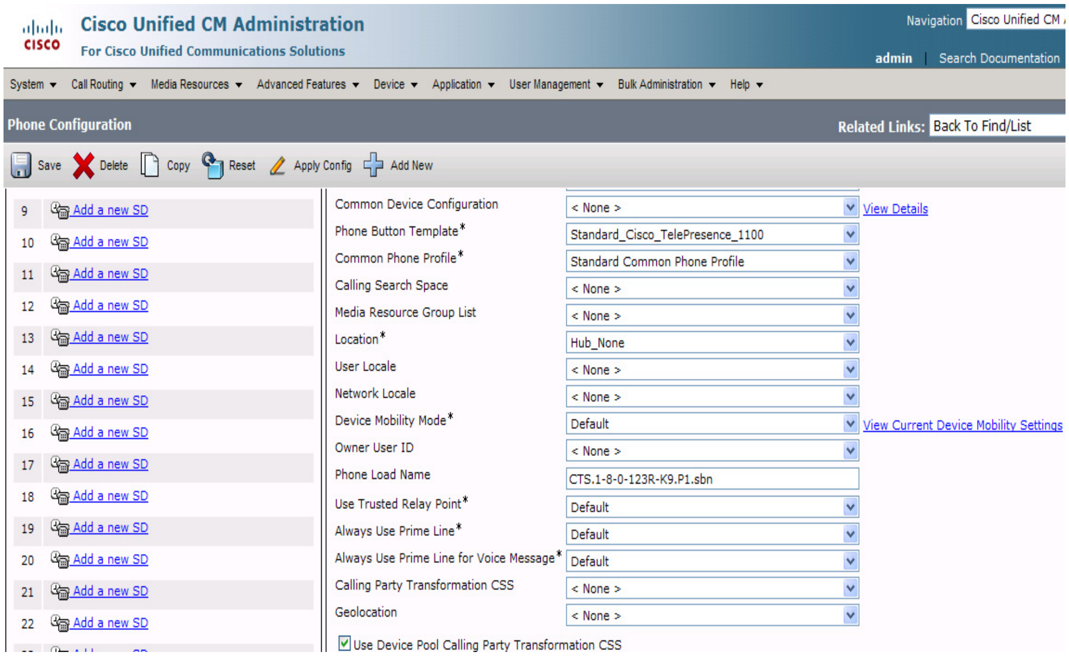
- **a.** Navigate to **Device > Phone**.
- **b.** Search and access your device by completing the following steps:
  1. Use the drop-down choices to specify a valid search term, or leave the fields blank to find all devices.
  2. Click **Find**.
  3. Click the hypertext link in the Device Name (Line) row that corresponds to your device.

Step 18 Apply the codec file image to your system by completing the following steps:

- **a.** If your system uses the codec shown in Figure 3-1, append a file type of .sbn.

  In the example in Figure 3-25, the administrator specified a default codec file image of CTS.1-8-0-123R-K9.P1.sbn for all the specified system. The original COP file name was cmterm-CTS.1-8-0-123R-K9.P1.

Figure 3-25 Specifying an .sbn File Image for a Specific System


Cisco Unified CM Administration
For Cisco Unified Communications Solutions
Navigation Cisco Unified CM
admin | Search Documentation
System Call Routing Media Resources Advanced Features Device Application User Management Bulk Administration Help
Phone Configuration
Related Links: Back To Find/List
Save Delete Copy Reset Apply Config Add New
9 Add a new SD
10 Add a new SD
11 Add a new SD
12 Add a new SD
13 Add a new SD
14 Add a new SD
15 Add a new SD
16 Add a new SD
17 Add a new SD
18 Add a new SD
19 Add a new SD
20 Add a new SD
21 Add a new SD
22 Add a new SD
View Details
View Current Device Mobility Settings

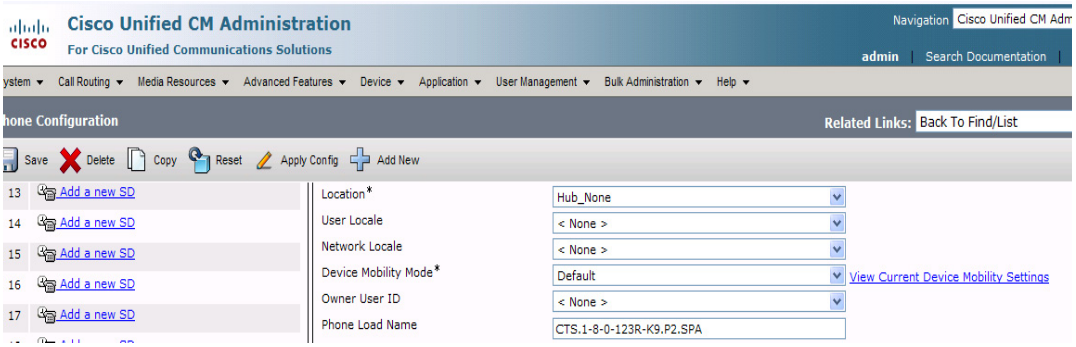
Common Device Configuration	< None >
Phone Button Template*	Standard_Cisco_TelePresence_1100
Common Phone Profile*	Standard Common Phone Profile
Calling Search Space	< None >
Media Resource Group List	< None >
Location*	Hub_None
User Locale	< None >
Network Locale	< None >
Device Mobility Mode*	Default
Owner User ID	< None >
Phone Load Name	CTS.1-8-0-123R-K9.P1.sbn
Use Trusted Relay Point*	Default
Always Use Prime Line*	Default
Always Use Prime Line for Voice Message*	Default
Calling Party Transformation CSS	< None >
Geolocation	< None >

☑ Use Device Pool Calling Party Transformation CSS

- **b.** If your system uses the codec shown in Figure 3-2, append a file type of .SPA.

  In the example in Figure 3-26, the administrator specified a codec file image of CTS.1-8-0-123R-K9.P2.SPA. The original COP file name was cmterm-CTS.1-8-0-123R-K9.P2.

Figure 3-26 Specifying an .SPA File Image for a Specific System


Cisco Unified CM Administration
For Cisco Unified Communications Solutions
Navigation Cisco Unified CM Adm
admin | Search Documentation
ystem ▾ Call Routing ▾ Media Resources ▾ Advanced Features ▾ Device ▾ Application ▾ User Management ▾ Bulk Administration ▾ Help ▾
hone Configuration
Related Links: Back To Find/List
Save Delete Copy Reset Apply Config Add New
13 Add a new SD
14 Add a new SD
15 Add a new SD
16 Add a new SD
17 Add a new SD
View Current Device Mobility Settings

Location* Hub_None
User Locale < None >
Network Locale < None >
Device Mobility Mode* Default
Owner User ID < None >
Phone Load Name CTS.1-8-0-123R-K9.P2.SPA

c. Click **Save**.

d. Click **Apply Config** to apply the configuration to this device.

The codec shuts down, applies the .SPA codec file as its boot file, and reboots.

Step 19 Apply the COP (Loads) file to the codec, which in turn allows the Touch 12 file to be installed by the Touch 12, by completing the following steps:

a. Redo Step 15 through Step 17 in this section, making the following changes:

b. In the Load Information field (for all devices of a specified type) or the Phone Load Name field (for a single device), enter the name of the COP file, omitting all file types.

In the examples in Figure 3-23 and Figure 3-26, you would change the file name from CTS.1-8-0-123R-K9.P2.SPA to CTS.1-8-0-123R-K9.P2. In the examples in Figure 3-22 and Figure 3-25, you would change the file name from CTS.1-8-0-123R-K9.P1.sbn to CTS.1-8-0-123R-K9.P1.

c. Click **Save**.

d. Click **Apply Config**.

Step 20 Connect the Touch 12 to the system as described in the "Connecting the Cisco TelePresence Touch 12 to the System" section on page 1-20.

Connecting the Cisco TelePresence Touch 12 to the System

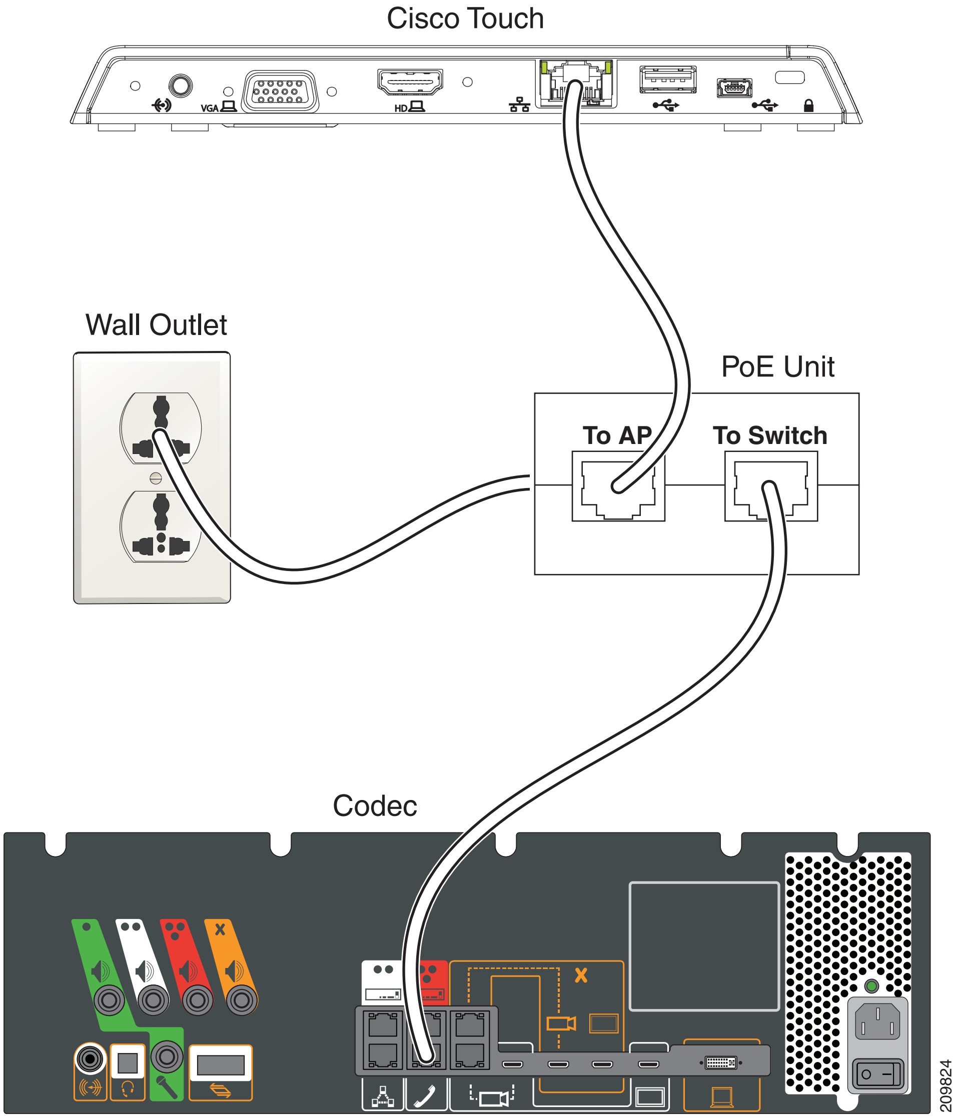
For systems that use the codec shown in Figure 3-1, connect the Touch 12 device, by completing the following tasks:

Step 1 Connect one Ethernet cable between the "Network Uplink Input RJ-45" port on the rear of the Touch 12 and the connection labeled "To AP" on the PoE unit.

Step 2 Connect one Ethernet cable between the "To Phone" connection on the codec and the connection labeled "To Switch" on the PoE unit, as shown in Figure 3-27.

Step 3 Connect one end of the power cord to the PoE unit and plug the other end into a wall outlet.

Figure 3-27 Cisco TelePresence Touch Connections with Power over Ethernet Unit



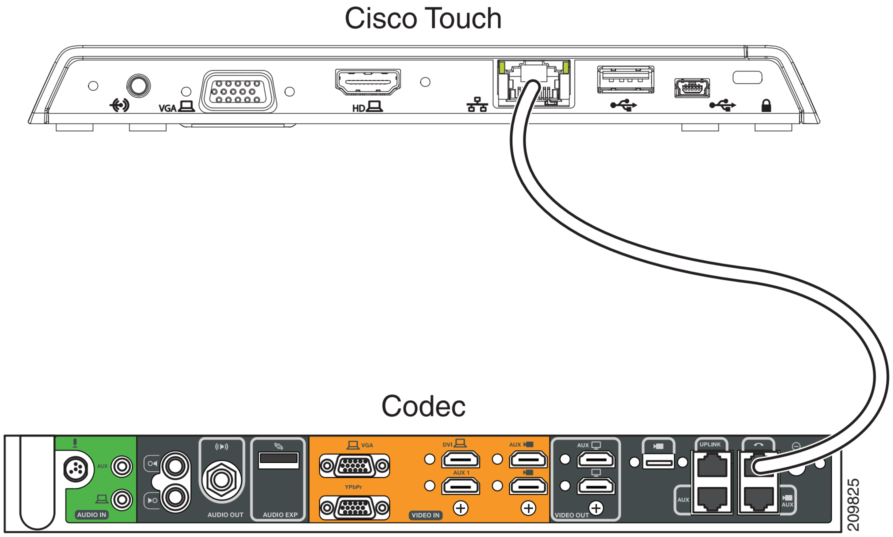
Note After you connect the Touch device, you should see a series of circled numbers on the lower left side of the Touch display. The numbers change to check marks as the device is starting. If the circled numbers do not change to check marks or you receive a message on the Touch device that it could not register to the codec, disconnect the Touch device, wait 5 minutes, then reconnect it.

For systems that use the codec shown in Figure 3-2, connect the Touch 12 by doing the following:

Step 1 Connect the other side of the Ethernet cable to the “To Phone” connection on the system codec.

Step 2 Connect one side of the Ethernet cable that is supplied with the Touch 12 to the “Network Uplink Input RJ-45” port on the rear of the device, as shown in Figure 3-28.

Figure 3-28 Cisco TelePresence Touch Connection



Note After you connect the Touch device, you should see a series of circled numbers on the lower left side of the Touch display. The numbers change to check marks as the device is starting. If the circled numbers do not change to check marks or you receive a message on the Touch device that it could not register to the codec, disconnect the Touch device, wait 5 minutes, then reconnect it.

Configuring the Directory on the Cisco TelePresence Touch 12

Note The Cisco TelePresence Touch 12 requires Unified CM 8.5.1 or higher.

To use the directory service for the Cisco TelePresence Touch 12, you must make the following changes in Cisco Unified Communications Manager (Unified CM):

1. Enable Cisco User Data Services (UDS) on systems running a minimum of Unified CM 8.6(2).
2. Configure the User Search Limit to 500.

Tip The Cisco TelePresence Touch 12 still functions if you do not enable User Data Services in Unified CM 8.6(1) or higher, but you cannot access the directory.

Go to the following sections to configure the directory:

- Enabling User Data Services, page 1-23
- Configuring the Search User Limit, page 1-23

Enabling User Data Services

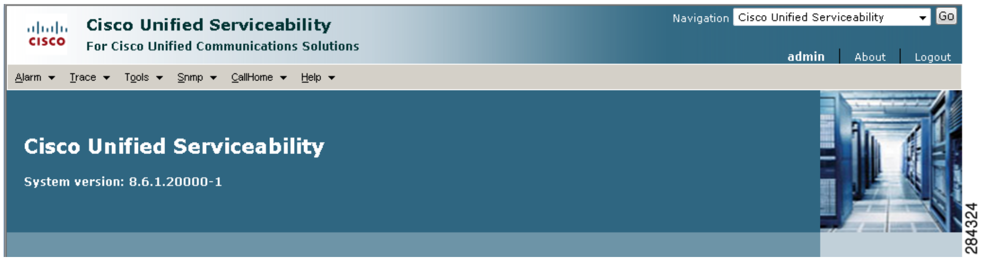
To enable Cisco User Data Services:

Step 1 Log in to the Cisco Unified CM Administration interface.

Step 2 From the Navigation drop-down menu on the top right of the Unified CM Administration interface, select **Cisco Unified Serviceability** and click **Go**.

The Cisco Unified Serviceability window appears, as shown in Figure 3-29.

Figure 3-29 Cisco Unified Serviceability Window


Cisco Unified Serviceability
For Cisco Unified Communications Solutions
Navigation
Cisco Unified Serviceability
Go
admin
About
Logout
Alarm
Trace
Tools
Snmp
CallHome
Help
284324

Cisco Unified Serviceability

System version: 8.6.1.20000-1

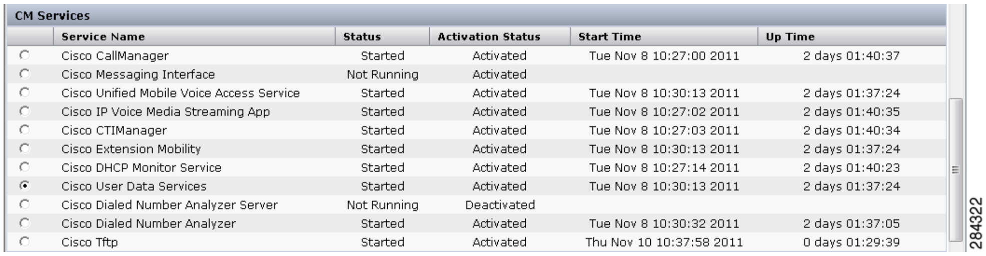
Step 3 Enter your user ID and password if prompted to do so.

Step 4 Navigate to **Tools > Control Center—Feature Services**.

Step 5 Select the Unified CM server from the drop-down menu and click **Go**.

Step 6 Scroll to the CM Services window and click the **Cisco User Data Services** radio button, as shown in Figure 3-30.

Figure 3-30 Cisco User Data Services



CM Services

	Service Name	Status	Activation Status	Start Time	Up Time
○	Cisco CallManager	Started	Activated	Tue Nov 8 10:27:00 2011	2 days 01:40:37
○	Cisco Messaging Interface	Not Running	Activated		
○	Cisco Unified Mobile Voice Access Service	Started	Activated	Tue Nov 8 10:30:13 2011	2 days 01:37:24
○	Cisco IP Voice Media Streaming App	Started	Activated	Tue Nov 8 10:27:02 2011	2 days 01:40:35
○	Cisco CTIManager	Started	Activated	Tue Nov 8 10:27:03 2011	2 days 01:40:34
○	Cisco Extension Mobility	Started	Activated	Tue Nov 8 10:30:13 2011	2 days 01:37:24
○	Cisco DHCP Monitor Service	Started	Activated	Tue Nov 8 10:27:14 2011	2 days 01:40:23
●	Cisco User Data Services	Started	Activated	Tue Nov 8 10:30:13 2011	2 days 01:37:24
○	Cisco Dialed Number Analyzer Server	Not Running	Deactivated		
○	Cisco Dialed Number Analyzer	Started	Activated	Tue Nov 8 10:30:32 2011	2 days 01:37:05
○	Cisco Tftp	Started	Activated	Thu Nov 10 10:37:58 2011	0 days 01:29:39

Step 7 Click **Restart** to save your changes and start the service.

Step 8 Proceed to Configuring the Search User Limit.

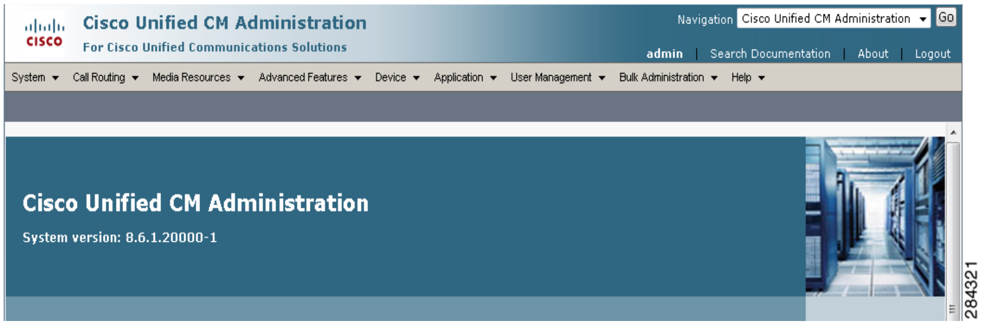
Configuring the Search User Limit

To configure the Search User Limit to 500:

Step 1 From the Navigation drop-down menu on the top right of the Unified CM Administration interface, select **Cisco Unified CM Administration** and click **Go**.

Step 2 The Cisco Unified CM Administration window appears, as shown in Figure 3-31.

Figure 3-31 Cisco Unified CM Administration Window


Cisco Unified CM Administration
For Cisco Unified Communications Solutions
Navigation Cisco Unified CM Administration Go
admin | Search Documentation | About | Logout
System Call Routing Media Resources Advanced Features Device Application User Management Bulk Administration Help
284321

Cisco Unified CM Administration

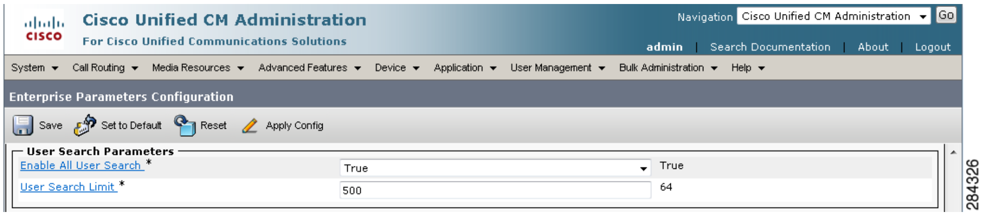
System version: 8.6.1.20000-1

Step 3 Navigate to **System** > **Enterprise Parameter**s.

Step 4 Scroll to the User Search Parameters window.

Step 5 Enter **500** in the User Search Limit field, as shown in Figure 3-32.

Figure 3-32 User Search Parameters Window


Cisco Unified CM Administration
For Cisco Unified Communications Solutions
Navigation Cisco Unified CM Administration Go
admin | Search Documentation | About | Logout
System Call Routing Media Resources Advanced Features Device Application User Management Bulk Administration Help
Save Set to Default Reset Apply Config
284326

Enterprise Parameters Configuration

User Search Parameters

Enable All User Search *	True	True
User Search Limit *	500	64

Step 6 Click **Save** to save your changes.

Step 7 Click **Apply Config** to apply your changes.

Setting the Idle Display Default ("Home") Screen

The steps to set the idle display default screen on the Cisco TelePresence Touch 12 are the same in the Cisco Unified Communications Manager Administration interface as those for the Cisco Unified IP phone.

To choose the default ("home") screen:

Step 1 Navigate to the user device by going to **Device** > **Phone**.

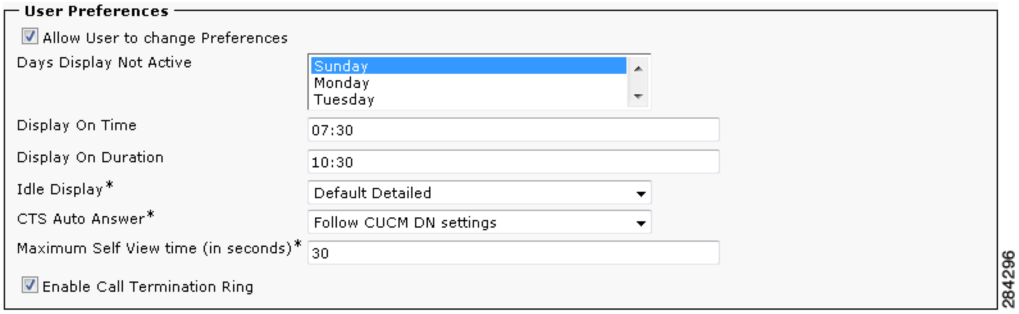
Step 2 Scroll to the User Preferences window.

Step 3 In the Idle Display field, choose one of the following options from the drop-down menu:

- Default Detailed
- Manual
- Directory
- Favorites
- Default Simple

Step 4 Optional. Check the box at the top of the User Preferences window to allow the user to change preferences, as shown in Figure 3-33.

Figure 3-33 Set User Preferences - Idle Display "Home" Screen



User Preferences

☑ Allow User to change Preferences

Days Display Not Active: Sunday, Monday, Tuesday

Display On Time: 07:30

Display On Duration: 10:30

Idle Display*: Default Detailed

CTS Auto Answer*: Follow CUCM DN settings

Maximum Self View time (in seconds)*: 30

☑ Enable Call Termination Ring

Tip Only two preferences are allowed to be changed by the user on the Cisco TelePresence Touch 12 when you check the "Allow User to change Preferences" box: Auto Answer (on or off) and Ringtone.

Step 5 Click **Apply Config** then click **Save**.

Related Information

See the following documentation for more information:

- *Cisco TelePresence Command-Line Interface Reference Guide*
- *Cisco Unified Serviceability Administration Guide*
- *Disaster Recovery System Administration Guide*
- *Installing and Configuring the Cisco TelePresence Touch 12*
- Cisco TelePresence Touch

Verifying and Troubleshooting the Cisco TelePresence System Configuration

Revised: June 9, 2015, OL-21851-01

Contents

The following sections describe how to verify your Cisco TelePresence System with Cisco Unified Communications Manager (Unified CM) configuration:

Troubleshooting Your Configuration

Use the information in Table 4-1 to help you troubleshoot your configuration.

Before You Begin

First check that the following conditions have been met:

- Power has been applied.
- The Cisco TelePresence System has been installed and configured according to the instructions in Cisco TelePresence System Assembly Guides.
- Unified CM has been configured to support the Cisco TelePresence System as described in this guide.
- The endpoint can be accessed with an IP address through the Web UI.

Testing Your Unified CM Server

You also can test for proper communication between your Unified CM server by completing the following steps:

Step 1 Log in to the Admin CLI with Secure Shell (SSH).

Step 2 Enter the command **utils network ping** {*X*}, where X is the IP address or DNS name of the Unified CM server. If the command results in a 0% packet loss, the network is functioning properly. If there is any packet loss, check your network for errors.

Table 4-1 Troubleshooting the Cisco TelePresence Configuration

Problem	Possible Cause	Possible Solutions
The system does not upgrade.	• The system cannot find or download the upgrade file from the Cisco Unified CM TFTP server. • AutoUpgrade is set to false.	1. Check that the correct upgrade file name is configured on the TX system Device page in Cisco Unified CM. 2. Check whether the upgrade file is uploaded to the TFTP server. 3. Check whether TFTP service has been restarted after the upgrade file is uploaded. 4. Check whether the TX system is pointed to correct the TFTP server where the upgrade file is located. 5. Set AutoUpgrade to **True**. Determine your settings by entering the following CLI command: **show upgrade det** If AutoUpgrade is set to False, re-set it to True. Contact TAC for assistance. See also the Cisco TelePresence Administration Software Command References home page on Cisco.com for information about CLI commands
The system was moved to a different Unified CM and the registration is rejected.	**CTL File Issues** The system was associated with a different secure Unified CM at one time and the system preserved the previous Certificate Trust List (CTL) file.	Delete the CTL file through the administration interface in the Cisco Unified CM Administration interface.

Table 4-1 Troubleshooting the Cisco TelePresence Configuration (continued)

Problem	Possible Cause	Possible Solutions
The Cisco TelePresence unit does not register with Unified CM: • From the Unified CM device page, the system status shows unregistered or unknown. • From the codec Web user interface (UI), system status shows unknown or inaccessible for Unified CM.	**CTS Unknown Issues** Cisco TelePresence System could be unknown: • MAC address is entered incorrectly. • Cisco Unified CM does not know about the system. • System is not registered because it is unplugged. **Profile or Provisioning Issues** • System profile is not provisioned properly in Cisco Unified CM. **Directory Number Issues** • Directory Number (DN) is not configured.	• Verify the phone registration by doing the following: – Log in to the Cisco Unified CM Administration interface. – Click on the IP address and verify the phone registration. • Log in to Unified CM and make sure that the system profile and the directory number (DN) are created and configured properly. • Make sure the system MAC address is entered correctly in Unified CM. • Delete the CTL file through the administration interface. • Completely delete the system from Unified CM, including its associated DN, then add it back to Unified CM. **Tip** Even if you make minor changes on the Unified CM Device page (such as in the Description field), remember to click **Save** and restart the system.
	TFTP Issues • Unified CM or TFTP service issue. • TFTP port 6970 is blocked so that the CTS cannot download the “device config xml” file from Unified CM TFTP server. **XML Issues** • XML configuration file is suspected to be corrupted on the Unified CM database.	• Make sure Unified CM and TFTP service is running. Restart services if necessary. • Make sure there is no firewall or device between the system and Cisco Unified CM that blocks the 6970 port.
	Hostname Issues • Cannot resolve hostname of Unified CM.	If you are using the Unified CM hostname as the TFTP server on the system, make sure that the hostname can be resolved by the domain name system (DNS).
System un-registers from time to time.	**SIP Issues** • The system experiences a SIP registration timeout. **Network Issues** • Intermittent network issues could cause packets to be dropped.	**1.** Confirm that Unified CM is receiving SIP messages and whether the system is responding. **2.** Collect a packet capture if necessary to submit to Cisco technical response for further review.

Table 4-1 Troubleshooting the Cisco TelePresence Configuration (continued)

Problem	Possible Cause	Possible Solutions
Orange question mark appears in the Administration interface **Troubleshooting > Microphones** page for the two outside microphones of the second row table (CTS 32x0 and TX9200 only).	The second row was configured for a "reduced configuration" second row that seats eight people rather than 12. The two outside microphones are not recognized by the system.	Change the Second Row Capacity setting from 8 to 12. See Product Specific Configuration Layout Area to update your Second Row Capacity settings.
The Touch 12 device is not recognized or not available.	**COP File Issues** • The image COP file was not installed or not correctly installed. **Device Information Issues** • The Phone Load Name is not correct in Unified CM. **Device Pack Issues** • The Device Pack was not installed or not correctly installed. • The system software upgraded, but a new Device Pack was not installed.	• Re-install the COP file. Refer to the "Upgrading From Cisco TelePresence Software Releases 1.7.4 and Above" section on page 1-5 for instructions. • Enter the correct Phone Load Name in Unified CM: – Log in to Unified CM and navigate to **Device** > **Phone**. – Enter search criteria for your device, and click on the hyperlink under **Device Name** to view the Device Information page. – Enter the correct Phone Load Name. • Re-install the Device Pack.
Time does not show correctly on the system or Touch 12.	Network Time Protocol (NTP) is not configured properly or the codec does not sync up with NTP.	1. If NTP is not configured, access Cisco Unified CM date/time group, configure NTP properly and assign to a system device pool. 2. Make sure that the system can ping NTP, and there is no firewall blocking the 123 NTP port. See also the Cisco TelePresence System Administration Guide.

Managing Passwords

The following sections contain information to help you manage your passwords:

- Resetting Your Unified CM Secure Shell Password, page 4-5
- Resetting Your CTS Codec Password, page 4-5
- Related Information, page 4-8

Resetting Your Unified CM Secure Shell Password

To reset your secure shell password:

Step 1 Log into the Cisco Unified CM Administration interface.

Step 2 Navigate to **Device** > **Phone**. The Find and List Phones window appears.

Step 3 To locate a specific phone, enter search criteria and click **Find**.

Step 4 Click on the hyperlink under **Device Name**, and scroll down to the Product Specific Configuration Layout Area.

Step 5 Scroll down to the SSH Information Area.

Step 6 Change your password using the following guidelines:

- Maximum field length—64 characters
- Minimum field length—6 characters

Step 7 Under **SSH admin Life**, enter a number between 0 and 365. This will dictate the time parameter of your password:

- If 0, the password will never expire.
- If 365, the password will expire in 365 days.

Step 8 Save your changes by clicking **Restart**. This enables the updated configuration to be read and applied to the system; and then Calling Service is restarted. Alternately you can click **Reset**, which causes the system to reboot. On startup, the system reads the Unified CM configuration and applies any changes.

See the "SSH Information Area" section on page 1-25 for more information about password aging.

Resetting Your CTS Codec Password

Note You must be in the Cisco TelePresence room to read the newly requested pass code that shows on the main display.

At each point where the pwrecovery account requires input, the program will wait up to 60 seconds. If nothing is entered, the Cisco TelePresence System will inform you that the entry took too long and will exit.

If you encounter any difficulty, open a case with Technical Assistance Center (TAC) via the Internet at http://tools.cisco.com/ServiceRequestTool/create/, or contact your Cisco technical support representative and provide the representative with the information you have gathered about the problem.

Before You Begin

Make sure that the system is not in a call, and that there is only one instance of someone trying to reset the password, otherwise the session will abort.

Procedure

To reset your system codec password:

Step 1 SSH into the codec from your laptop.

Step 2 Login with the following:

- Username: **pwrecovery**
- Password: **pwreset**

The following message appears in the SSH client window:

Example 4-1 Welcome to Password Reset

```
dhcp-249:~ $ ssh pwrecovery@10.00.00.100
pwrecovery@10.00.00.100's password:

***********************************************
***********************************************
**                                           **
**     Welcome to password reset              **
**                                           **
***********************************************
***********************************************

Do you want to continue ? (y/n):y
Preparing the system...
Please enter the passcode:
```

Step 3 The system will ask whether you want to continue. Type **Y** then **return** to continue

Note If desired, type any other key then **return** to exit.

This system will now prepare for password reset and prompt you for a passcode. The new passcode is displayed on the system main display, as shown in the following example:

Password reset is now being run

Passcode: 919175

Note The passcode is a randomly generated number and will be different for each login attempt. If you enter the wrong passcode, the system will inform you that the passcode was incorrect and will exit, as shown in the following example. If this happens, repeat Step 1 and Step 2.

Example 4-2 Invalid Password Reset Request

```
Do you want to continue ? (y/n):y
Preparing the system...
Please enter the passcode:12345
Sorry that was an invalid passcode...
Logging off
Connection to 10.00.00.100 closed.
dhcp-249:~ $
```

When you enter the correct passcode, the system will then reset the administration account name and password to the system defaults. The following example shows successful password reset information:

Example 4-3 Successful Password Reset Request

```
Please enter the passcode:507530
resetting admin name and password
stopping any existing admin session
admin account and password reset to default
success in applying security rules
Logging off
Connection to 10.00.00.100 closed.
dhcp-249:~ $
```

Note If you are using the system with a Cisco Unified Communications Manager, the next time you perform a “Refresh” or “Reset” from the Unified CM, the administration account name and password will be reconfigured to the values specified in the Unified CM device page.

Managing Phone Reset and Codec Connectivity

The following sections contain information about managing the following system components:

- Resetting a Cisco TelePresence System, page 4-7
- Synchronizing a Cisco TelePresence System, page 4-7
- Restoring Connectivity to the Codec, page 4-8

Resetting a Cisco TelePresence System

If a device is not registered with Cisco Unified Communications Manager, you cannot reset or restart it. If a device is registered, to restart a device without shutting it down, click the **Restart** button. To shut down a device and bring it back up, click the **Reset** button. To return to the previous window without resetting or restarting the device, click **Close**.

Synchronizing a Cisco TelePresence System

To synchronize a phone with the most recent configuration changes, perform the following procedure, which applies any outstanding configuration settings in the least-intrusive manner possible. (For example, a reset/restart may not be required on some affected devices.)

Procedure

Step 1 Choose **Device > Phone**. The Find and List Phones window appears.

Step 2 Choose the search criteria to use and Click **Find**. The window displays a list of phones that match the search criteria.

Step 3 Check the check boxes next to the phones that you want to synchronize. To choose all phones in the window, check the check box in the matching records title bar.

Step 4 Click **Apply Config to Selected**. The Apply Configuration Information dialog displays.

Step 5 Click **OK**.

Restoring Connectivity to the Codec

If you lose connectivity to the CTS codec(s), power off the system by turning the following power switches to the **Off** position: the two left PDUs, single right PDU, and the PDU or auxiliary control unit behind the center display assembly (if present). Then power on the system by turning each switch to the **On** position. Connectivity should automatically be restored.

For more information about the system codec, refer to the Cisco TelePresence System Assembly, Use & Care, and Field-Replaceable Unit Guide for your system on Cisco.com:

Support > **Products** > **TelePresence** > **Cisco TelePresence System**

Related Information

See the Cisco TelePresence System Troubleshooting Guide for information about system passwords and troubleshooting the Cisco TelePresence System and Cisco Unified CM Administration interfaces and related hardware components.

Configuring and Managing the Cisco Unified IP Phone

Revised: June 9, 2015, OL-21851-01

> **Note** This chapter does not apply to systems that use a Touch 12 device for call control or that use software release 6.0.0 or later. Midlets are only used for systems that use a Cisco Unified IP Phone for call control.

Contents

This chapter describes how to configure and manage the Cisco Unified IP Phone and the Enhanced Phone User Interface that uses Java MIDlets on the Cisco Unified IP phone.

This chapter contains the following information:

Important Notes

See the following advisories and important notes that may affect system behavior:

MIDlets Software Releases

The supported MIDlets version is embedded in the software files that are available on the Cisco Unified Communications Manager Support page at the following URL:

http://www.cisco.com/en/US/products/sw/voicesw/ps556/tsd_products_support_series_home.html

Adding a New Phone with MIDlets Capability

If you are using Unified CM release 8.0 and wish to enable MIDlets features on new phone installations, you must first enable Web Access. Web Access is not enabled by default; it must be enabled manually in the Web Access field of the Product Specific Configuration Layout window.

Configuring the Cisco Unified IP Phone

Use the information in this section to perform the following tasks:

- Adding a New Phone, page 5-2
- Managing Cisco Unified IP Phones, page 5-3

Note The Cisco Unified IP Phone is connected to the Cisco TelePresence device with an Ethernet cable. See the cabling chapters in the Cisco TelePresence Assembly guides for more detailed cabling instructions. Go to the Cisco Support Pages to find installation documentation for your Cisco TelePresence System: **Support** > **Cisco TelePresence** > **Cisco TelePresence System**

Adding a New Phone

To add a new phone:

Step 1 Log in to the Cisco Unified CM Administration interface.

Step 2 From the Device drop-down menu, choose **Phone**. The Find and List Phones Page appears.

Step 3 Choose the type of Cisco Unified IP Phone you have (**Cisco 7970**, **Cisco 7971**, or **Cisco 7975**) from the Phone Type drop-down menu.

Step 4 Click **Next**. The Phone Configuration window appears.

Step 5 Choose **SIP** from the Select the Device Protocol drop-down menu.

Step 6 Click **Next**. The Phone Configuration window is updated with the following configuration fields:

- Device Information
- Protocol Specific Information
- Certification Authority Proxy Function (CAPF) Information
- Expansion Module Information
- External Data Locations Information
- Extension Information
- MLPP Information
- Do Not Disturb
- Secure Shell Information
- Product Specific Configuration Layout

Step 7 Proceed to "Managing Cisco Unified IP Phones" section on page 5-3 to configure the fields found in the Phone Configuration window.

Managing Cisco Unified IP Phones

Before You Begin

Before starting the following procedure, note the MAC address of the Cisco TelePresence phone device. See the Before You Begin section for information about determining the MAC address.

Note You must restart your system after you have completed the configuration tasks in this section.

Use the tasks in this section to configure the Cisco Unified IP Phone for MIDlets. When you are finished configuring your settings, click **Save** and follow the prompts to restart the system.

To configure the Cisco Unified IP phone:

Step 1 Log in to the Cisco Unified CM Administration interface.

Step 2 From the Device drop-down menu, choose **Phone**. The Find and List Phones Page appears.

Step 3 Search for a phone using the fields provided or choose a phone from the drop-down menu.

Tip Search for a device type that contains “7970” or “7975.”

Step 4 Click **Find**. A list of devices appears.

Step 5 Click on a device in the Device Name (Line) column. The Phone Configuration page for that device appears.

Step 6 In the Phone Type box, verify the following requirements:

- Phone Type—**Cisco 7970**, **Cisco 7971**, or **Cisco 7975**
- Device Protocol—**SIP**

Step 7 Enter information in the following sections found on the Phone Configuration page to configure the Cisco IP Phone 7970 Series:

- Device Information, page 5-3
- Protocol Specific Information, page 5-7
- Certification Authority Proxy Function (CAPF) Information, page 5-7
- Expansion Module Information, page 5-8
- External Data Locations Information, page 5-8
- Extension Information, page 5-9
- MLPP Information, page 5-10
- Do Not Disturb, page 5-10
- Secure Shell Information, page 5-10
- Product Specific Configuration Layout, page 5-10

Device Information

Enter the settings to configure the Cisco Unified IP Phone 7970 Series using the information in Table 5-1 as a guide.

Note Assign the same directory number that is assigned to the Cisco TelePresence device to the Cisco Unified IP Phone 7970 Series.

Note The "Required" column in the table reflects fields marked with an asterisk (*) in the administration interface, which are required entries for basic configuration.

Table 5-1 Cisco Unified IP Phone 7970 Series Device Information

Field	Required?	Setting
Registration	—	Read-only. Indicates whether the system is Registered with Cisco Unified Communications Manager and lists the registered Unified CM address.
IP Address	—	Cisco Unified IP Phone IP address. Click on the IP address to log into the phone in a new Device Information window.
Active Load ID	—	View-only field showing the status of the active load. **Note** Available on the Cisco Unified IP Phone but not available on the CTS.
Device is active	—	A green check mark indicates that the device is active.
Device is trusted	—	A green check mark indicates that the device is trusted.
MAC Address	Yes	MAC address for the Cisco Unified IP Phone 7975.
Description	—	Short description of the device.
Device Pool	Yes	Your device pools. Leave field as Default. Click **View Details** to open the Device Details window, which includes the following system setting information: • Device Pool Settings • Roaming Sensitive Settings • Device Mobility Related Information • Incoming Calling Party Settings
Common Device Configuration	—	Your configured devices. Leave field as <None>. Click **Details** or **View** to see the following information in a new window: • Common Device Configuration Information • Multilevel Precedence and Preemption Information

Table 5-1 Cisco Unified IP Phone 7970 Series Device Information (continued)

Field	Required?	Setting
Phone Button Template	Yes	Standard_7975 SIP. **Note** Unless you have created extra button templates, you will see the default button template for your device.
Softkey Template	—	<None>
Common Phone Profile	Yes	Standard Common Phone Profile.
Calling Search Space	—	<None>
AAR Calling Search Space	—	<None>
Media Resource Group List	—	<None>
User Hold MOH Audio Source	—	<None>
Network Hold MOH Audio Source	—	<None>
Location	Yes	Hub_None.
AAR Group	—	<None>
User Locale	—	<None> **Note** This field user locales in the United States.
Network Locale	—	<None> **Note** This field user locales in the United States.
Built In Bridge	Yes	Default.
Privacy	Yes	Default.
Device Mobility Mode	Yes	Default. **Note** Click **Current Device Mobility Settings** or **View** to see Device Mobility Details for the current device in a new window:
Owner User ID	—	Saved User IDs. Leave field as <None>.
Phone Personalization	Yes	Default.
Services Provisioning	Yes	Default.
Phone Load Name	—	Leave default setting.
Single Button Barge	—	Default.
Join Across Lines	—	Default.
Use Trusted Relay Point	Yes	Default.
BLF Audible Alert Setting (Phone Idle)	Yes	Default.
BLF Audible Alert Setting (Phone Busy)	Yes	Default.
Always Use Prime Line	Yes	Default.
Always Use Prime Line for Voice Message	Yes	Default.
Calling Party Transformation CSS	—	<None>

Table 5-1 Cisco Unified IP Phone 7970 Series Device Information (continued)

Field	Required?	Setting
Geolocation	—	<None>
Check-Boxes		
Use Device Pool Calling Party Transformation CSS	—	Box is checked.
Ignore Presentation Indicators		Box is unchecked.
Retry Video Call as Audio		Box is checked.
Allow Control of Device from CTI		Box is checked.
Logged Into Hunt Group		Box is checked.
Remote Device		Box is unchecked
Protected Device	—	A new Softkey template without supplementary service Softkeys must be used for a protected phone.
Hot Line Device	—	A custom Softkey template without supplementary service Softkeys must be used for a Hot line Device.
Note When you are finished making changes, click **Save** to save your settings.		

Protocol Specific Information

Link the Cisco TelePresence device to Cisco Unified Communications Manager phone profiles for the presence group and security-related SIP phone settings using the information in Table 5-2 as a guide.

Note The "Required" column in the table reflects fields marked with an asterisk (*) in the administration interface, which are required entries for basic configuration.

Table 5-2 Cisco Unified IP Phone 7970 Series Protocol-Specific Information

Field	Required?	Setting
Packet Capture Mode	Yes	<None>
Packet Capture Duration	—	0
Presence Group	Yes	Standard Presence group.
SIP Dial Rules	—	<None>
MTP Preferred Originating Codec	Yes	711ulaw
Device Security Profile	Yes	Use the default setting. **Note** For more information about configuring Cisco Unified CM security features, refer to the *Cisco Unified Communications Manager Security Guide, Release 7.1(2)*.
Rerouting Calling Search Space	—	<None>
SUBSCRIBE Calling Search Space	—	<None>
SIP Profile	Yes	Choose from the following: • Standard SIP Profile • Standard BFCP SIP Profile Information in this field reflects SIP profiles that have been created on this Unified CM. See "Configuring the BFCP over UDP Collaboration Feature" in Chapter 2, "Configuring Cisco TelePresence Features."
Digest User	—	<None>
Check-Boxes		
Media Termination point Required	—	Box is un-checked.
Unattended Port		
Require DTMF Reception		
Note When you are finished making changes, click **Save** to save your settings.		

Certification Authority Proxy Function (CAPF) Information

Table 5-3 describes fields found in the Certification Authority Proxy Function (CAPF) Information section on the Phone Configuration page. Leave all fields unchanged.

Table 5-3 CAPF Settings

Field	Required?	Setting
Certificate Operation	Yes	No Pending Operation.
Authentication Mode	Yes	Leave this field unchanged.
Authentication String	—	
Key Size (Bits)	Yes	
Operation Completes By	Optional	
Certificate Operation Status	—	<None>
Note	Security Profile Contains Additional CAPF Settings. See the "Phone Security Profile CAPF Information" section on page 1-11.	

Expansion Module Information

Table 5-4 describes fields found in the Expansion Module Information section on the Phone Configuration page. Leave all fields unchanged.

Table 5-4 Expansion Module Information

Field	Required?	Setting
Module 1	—	<None>
Module 1 Load Name	—	Leave blank.
Module 2	—	<None>
Module 2 Load Name	—	Leave blank.

External Data Locations Information

Define the server locations for external data using the information in the following sections as a guide:

- External Data Location Settings for CTS Release 1.7 and Later—Table 5-5

Note **Observe the Following**—The server designation can be either the IP address or the hostname of the Cisco TelePresence device that is associated with this phone.

If a server hostname is used, it must be resolvable by the Cisco Unified IP Phone 7970 Series DNS.

- The format for each required field is http://*server hostname:* or *IP address:* Followed by the 8080 port address, then a slash and one of the following, depending on the field:
  - services.html
  - getservicesmenu.jsp
  - authenticate.html - For CTS release 1.6 systems with MIDlets and earlier (only allowable option)
  - idle.html
- Leave fields in the External Data Locations Information table blank to use the default settings.

Tip Be careful when typing URLs to avoid typos.

External Data Location Settings for CTS Release 1.7 and Later

Note CTS Release 1.7 and later releases require that your system be running MIDlets.

Table 5-5 External Data Location Settings for CTS Release 1.7 and Later

Field	Setting
Information	Leave all fields blank to use the default. **Note** Default settings that were configured in the Enterprise Parameters Configuration.
Directory	
Messages	
Services	
Authentication Server	
Proxy Server	
Idle	
Idle Timer (seconds)	Set to 0 to use the default.
Secure Authentication URL	Leave all fields blank to use the default.
Secure Directory URL	Enter the secure URL for the server from which the phone obtains directory information. This parameter specifies the URL that secured Cisco Unified IP Phones use when you press the Directory button. **Note** If you do not provide a Secure Directory URL, the device uses the nonsecure URL. If you provide both a secure URL and a nonsecure URL, the device chooses the appropriate URL, based on its capabilities. Leave this field blank to accept the default setting. Maximum length: 255
Secure Idle URL	—
Secure Information URL	—
Secure Message URL	—
Secure Services URL	—

Extension Information

Table 5-6 describes fields found in the Extension Information section on the Phone Configuration page.

Note Leave all fields unchanged.

Table 5-6 Cisco Unified IP Phone 7970 Series Extension Information

Field	Required?	Setting
Check-Box Enable Extension Mobility	—	Leave box unchecked.
Log Out Profile	—	Current Device Settings.
Log in Time	—	<None>
Log Out Time		

MLPP Information

Leave the multilevel precedence and preemption information (MLPP) Domain field as <None>.

Do Not Disturb

Table 5-7 describes fields found in the Do Not Disturb (DND) section on the Phone Configuration page.

Table 5-7 Cisco Unified IP Phone 7970 Series Do Not Disturb Fields

Field	Required?	Setting
Check-Box Do Not Disturb	—	Leave box unchecked.
DND Option	Yes	Common Phone Profile Setting.
DND Incoming Call Alert	—	<None>

Secure Shell Information

Table 5-8 describes fields found in the Secure Shell Information section on the Phone Configuration page. Leave all fields unchanged.

Table 5-8 Cisco Unified IP Phone 7970 Series Secure Shell Information Fields

Field	Required?	Setting
Secure Shell Admin User	—	Leave field blank.
Secure Shell Admin Password		

Product Specific Configuration Layout

Table 5-9 describes fields found in the Product Specific Configuration Layout section on the Phone Configuration page. Leave all fields unchanged. To access this information from the administration interface, click the question mark icon (online help) located at the top of the Product Specific Configuration Layout Area box.

Table 5-9 Product Specific Configuration Layout Fields

Field	Required?	Setting	Description
Check-Box Disable Speakerphone	Yes	Leave the box checked (speakerphone disabled).	Disable only the speakerphone functionality. Disabling speakerphone functionality will not affect the headset. You can use lines and speed dials with headset/handset.
Check-Box Disable Speakerphone and Headset	Yes	Leave the box checked (speakerphone and headset disabled). **Note** The Auto Answer feature does not work if the Disable Speakerphone and Headset box is unchecked.	Disable all speakerphone functions and headset microphone.
Forwarding Delay	Yes	Disabled.	Indicates whether the internal switch begins forwarding packets between the PC port and switched port on your phone when your phone becomes active. When forwarding delay is set to disabled, the internal switch begins forwarding packets immediately. When forwarding delay is set to enabled, the internal switch waits 8 seconds before forwarding packets between the PC port and the SW port. You should set Forwarding Delay to enabled when you connect both ports to switches for redundant uplinks or when you daisy chain phones together.
PC Port	Yes	Disabled.	Indicates whether the PC port on the phone is enabled or disabled. The port labeled “10/100 PC” on the back of the phone connects a PC or workstation to the phone so they can share a single network connection.
Settings Access	Yes	Enabled.	Indicates whether the Settings button on the phone is functional. When Settings Access is enabled, you can change the phone network configuration, ring type, and volume on the phone. When Settings Access is disabled, the Settings button is completely disabled; no options appear when you press the button. Also, you cannot adjust the ringer volume or save any volume settings. When Settings Access is restricted, you can only access User Preferences and volume settings.

Table 5-9 Product Specific Configuration Layout Fields (continued)

Field	Required?	Setting	Description
Gratuitous ARP	Yes	Disabled.	Indicates whether the phone will learn MAC addresses from Gratuitous ARP responses. Disabling the phones ability to accept Gratuitous ARP will prevent applications which use this mechanism for monitoring and recording of voice streams from working. If monitoring capability is not desired, change this setting to Disabled.
PC Voice VLAN Access	Yes	Enabled.	Indicates whether the phone will allow a device attached to the PC port to access the Voice VLAN. Disabling Voice VLAN Access will prevent the attached PC from sending and receiving data on the Voice VLAN. It will also prevent the PC from receiving data sent and received by the phone. Set this setting to Enabled if an application is being run on the PC that requires monitoring of the phones traffic. These could include monitoring and recording applications and use of network monitoring software for analysis purposes.
Video Capabilities	Yes	Disabled.	—
Auto Line Select	Yes	Disabled.	When enabled, indicates that the phone will shift the call focus to incoming calls on all lines. When disabled, the phone will only shift the focus to incoming calls on the currently used line.
Web Access	Yes	Choose Enabled. **Note** If you are using Cisco Unified CM firmware release 8.0 and wish to enable MIDlets features on new phone installations, you must first enable this field.	Indicates whether the phone will accept connections from a web browser or other HTTP client. Disabling the web server functionality of the phone will block access to the phones internal web pages. These pages provide statistics and configuration information. Features, such as QRT (Quality Report Tool), will not function properly without access to the phones web pages. This setting will also affect any serviceability application such as CiscoWorks 2000 that relies on web access.
Days Display Not Active	—	Choose a day of the week.	Allows the user to specify the days that the backlight is to remain off by default. Typically this would be Saturday and Sunday for US corporate customers. Saturday and Sunday should be the default. The list contains all of the days of the week. To turn off backlight on Saturday and Sunday the User would hold down Control and select Saturday and Sunday.

Table 5-9 Product Specific Configuration Layout Fields (continued)

Field	Required?	Setting	Description
Display On Time	—	Leave the default setting.	Indicates the time of day the display is to automatically turn itself on for days listed in the off schedule. The value should be in a 24 hour format. Where 0:00 is the beginning of the day and 23:59 is the end of the day. Leaving this field blank will activate the display at the beginning of the day (e.g. - “0:00”). To set the display to turn on at 7:00AM the user would enter “07:00” without the quotes. If you wanted the display to turn on at 2:00PM you would enter “14:00” without the quotes. Maximum length: 5.
Display On Duration	—	Leave the default setting.	Indicates the amount of time the display is to be active for when it is turned on by the programmed schedule. No value indicates the end of the day. Maximum value is 24 hours. This value is in free form hours and minutes. “1:30” would activate the display for one hour and 30 minutes. Maximum length: 5.
Display Idle Timeout	—	Leave the default setting.	Indicates how long to wait before the display is turned off when it was turned on by user activity. This inactivity timer will continually reset itself during user activity. Leaving this field blank will make the phone use a pre-determined default value of one hour. Maximum value is 24 hours. This value can be in free form hours and minutes. “1:30” would turn off the display after one hour and 30 minutes of inactivity. Maximum length: 5.
Span to PC Port	Yes	Disabled.	Indicates whether the phone will forward packets transmitted and received on the Phone Port to the PC Port. Select Enabled if an application is being run on the PC Port that requires monitoring of the IP Phone's traffic such as monitoring and recording applications (common in call center environments) or network packet capture tools used for diagnostic purposes. To use this feature PC Voice VLAN access must be enabled.
Logging Display	Yes	PC Controlled.	Selects what type of console logging is allowed. This option does not control the generation of logs - just whether the logs display. Disabled indicates that logging does not display to the console, nor to the connected downstream port. PC Controlled indicates that the workstation attached to the PC port will control whether logging is enabled. Enabled indicates that logs are always sent both to the console and to downstream port. Use Enabled to force logs on so they can be captured with a packet sniffer.

Table 5-9 Product Specific Configuration Layout Fields (continued)

Field	Required?	Setting	Description
Load Server	—	Leave field blank.	Indicates that the phone will use an alternative server to obtain firmware loads and upgrades, rather than the defined TFTP server. This option enables you to indicate a local server to be used for firmware upgrades, which can assist in reducing install times, particularly for upgrades over a WAN. Enter the hostname or the IP address (using standard IP addressing format) of the server. The indicated server must be running TFTP services and have the load file in the TFTP path. If the load file is not found, the load will not install. The phone will not be redirected to the TFTP server. If this field is left blank, the phone will use the designated TFTP server to obtain its load files and upgrades. Maximum length: 256.
Recording Tone	Yes	Disabled.	Configures the recording tone to enabled or disabled on the phone. If enabled, the phone mixes the recording tone into both directions for every call.
Recording Tone Local Volume	Yes	Leave default setting.	Configures the loudness setting of the recording tone that the local party hears. This loudness setting applies regardless of the actual device used for hearing (handset, speakerphone, headset). The loudness setting should be in the range of 0% to 100%, with 0% being no tone and 100% being at the same level as the current volume setting. Minimum: 0, Maximum: 100.
Recording Tone Remote Volume	Yes	Leave default setting.	Configures the loudness setting of the recording tone that the remote party hears. The loudness setting should be in the range of 0% to 100%, with 0% being less than -66dBM and 100% being -4dBM. Minimum: 0, Maximum: 100.
Recording Tone Duration	—	Leave field blank.	Indicates the length of time in milliseconds for which the recording tone is inserted in the audio stream. The default for this parameter is set to the value in the Network Locale file for this field. The valid range for this parameter is a value between 1 and 3000 milliseconds. Minimum: 1, Maximum: 3000.
Display On When Incoming Call	Yes	Disabled.	When the phone is in Screen Save mode this will turn the display on when a call is ringing.
RTCP	Yes	Disabled.	Maintains statistics for audio.

Table 5-9 Product Specific Configuration Layout Fields (continued)

Field	Required?	Setting	Description
"More" Softkey Timer	—	Leave default setting.	Revert the soft keys displayed to the initial set after you touch the **more** soft key. The valid range of values for this timer are 5 to 30 -- indicating the number of seconds before the softkey set reverts. A value of 0 may also be entered to disable the timer. Maximum length: 2.
Auto Call Select	Yes	Enabled.	Enables or disables the automatic call focus switching feature. When "Enabled," the phone UI will automatically switch focus to certain calls on the same line if no user interaction has occurred for 10 seconds. If "Disabled", the phone UI will not automatically switch call focus. Disabling the Auto Call Select feature automatically disables the Auto Line Select feature.
Log Server	—	Leave field blank.	Specifies an IP address and port of a remote system where log messages are sent. Maximum length: 32.
Advertise G.722 Codec	Yes	Use System Default.	Indicates whether Cisco Unified IP Phones will advertise the G.722 codec to Cisco Unified Communications Manager. Codec negotiation involves two steps: 1. The phone must advertise the supported codec(s) to Cisco Unified Communications Manager (not all endpoints support the same set of codecs). 2. When Cisco Unified Communications Manager gets the list of supported codecs from all phones involved in the call attempt, it chooses a commonly-supported codec based on various factors, including the region pair setting. Valid values specify Use System Default (this phone will defer to the setting specified in the enterprise parameter, Advertise G.722 Codec), Disabled (this phone will not advertise G.722 to Cisco Unified Communications Manager) or Enabled (this phone will advertise G.722 to Cisco Unified Communications Manager).
Wideband Headset UI Control	Yes	Enabled.	Users can enable or disable Wideband Headset option on phone user interface (UI).
Wideband Headset	Yes	Enabled.	Enables or disables the use of a Wideband Headset on the phone. Used in conjunction with User Control Wideband Headset.

Table 5-9 Product Specific Configuration Layout Fields (continued)

Field	Required?	Setting	Description
Peer Firmware Sharing	Yes	Disabled.	PPID. Enables or disables Pee- to-Peer image distribution in order to allow a single phone in a subnet to retrieve an image firmware file then distribute it to its peers - thus reducing TFTP bandwidth and providing for a faster firmware upgrade time.
Cisco Discovery Protocol (CDP): Switch Port	Yes	Enabled.	Administrators can enable or disable Cisco Discovery Protocol (CDP) on the switch port. ⚠ **Warning** **CDP should only be disabled on the Network port if this phone is connected to a non-Cisco switch.**
Cisco Discovery Protocol (CDP): PC Port	Yes	Enabled.	Administrators can enable or disable Cisco Discovery Protocol (CDP) on the PC port. ⚠ **Warning** **Disabling CDP on the PC port will prevent Cisco VT Advantage/Unified Video Advantage from working properly on this phone.**
Link Layer Discovery Protocol - Media Endpoint Discover (LLDP-MED): Switch Port	Yes	Enabled.	Administrators can enable or disable Link Layer Discovery Protocol (LLDP-MED) on the switch port.
Link Layer Discovery Protocol (LLDP): PC Port	Yes	Enabled.	Administrators can enable or disable Link Layer Discovery Protocol (LLDP) on the PC port.
LLDP Asset ID	—	Leave field blank.	Administrators can set Asset ID for Link Layer Discovery Protocol. Maximum length: 32.
LLDP Power Priority	Yes	Leave the default setting.	Administrators can set Power Priority for Link Layer Discovery Protocol.
Wireless Headset Hookswitch Control	Yes	Disabled.	Administrators can enable or disable Wireless Headset Hookswitch Control.

Table 5-9 Product Specific Configuration Layout Fields (continued)

Field	Required?	Setting	Description
IPv6 Load Server	—	Leave blank.	Indicates that the phone will use an alternative IPv6 server to obtain firmware loads and upgrades, rather than the defined TFTP server. This option enables you to indicate a local IPv6 server to be used for firmware upgrades, which can assist in reducing install times, particularly for upgrades over a WAN. Enter the hostname or the IPv6 address (using standard IPv6 addressing format) of the server. The indicated server must be running TFTP services and have the load file in the TFTP path. If the load file is not found, the load will not install. The phone will not be redirected to the TFTP server. If this field is left blank, the phone will use the designated TFTP server to obtain its load files and upgrades. Maximum length: 256.
IPv6 Log Server	—	Leave blank.	Specifies an IPv6 address and port of a remote system where log messages are sent. The phone sends the log data to the IPv6 server specified in this field. However, as of Unified CM release 7.1(2), the log viewer application cannot receive log data that gets sent to an IPv6 address. You can view the log data by using a network packet sniffer. Maximum length: 256.
802.1x Authentication	—	User Controlled.	Specifies the 802.1x authentication feature status.
Detect Unified CM Connection Failure	Yes	Leave the default setting (Normal).	Determines the sensitivity that the phone has for detecting a connection failure to Cisco Unified Communications Manager (Unified CM), which is the first step before device failover to a backup Unified CM/SRST occurs. Valid values specify Normal (detection of a Unified CM connection failure occurs at the standard system rate) or Delayed (detection of a Unified CM connection failover occurs approximately four times slower than Normal). For faster recognition of a Unified CM connection failure, choose Normal. If you prefer failover to be delayed slightly to give the connection the opportunity to reestablish, choose Delayed. Note that the precise time difference between Normal and Delayed connection failure detection depends on many variables that are constantly changing.

Table 5-9 Product Specific Configuration Layout Fields (continued)

Field	Required?	Setting	Description
Minimum Ring Volume	Yes	0-Silent. Additional drop-down menu choices: • 2 through 15.	Controls the minimum ring volume on an IP phone. This value is set by the administrator, and can not be changed by an end user. The end user can increase the ring volume, but may not decrease the ring volume below the level defined. The minimum ring volume range is from 0 to 15, with 0 (silent) being the default value.
HTTPS Server	Yes	HTTP and HTTPS Enabled.	Allows the administrator to permit HTTP and HTTPS or HTTPS-only connections if Web Access is enabled.
Handset/Headset Monitor	—	Disabled.	When handset/headset monitoring is enabled, a supervisor can pick up the inactive handset/headset and hear the call in progress. For example, if an agent is on a call on the headset, a supervisor can hear the other party on the handset. Only the microphone on the active handset/headset is in use. For example, if an agent is active on the headset, then the headset microphone is active and the handset microphone is disabled.
Enbloc Dialing	—	Enabled.	—
Switch Port Remote Configuration	Yes	Disabled.	—
PC Port Remote Configuration	Yes	Disabled.	—
Automatic Port Synchronization	Yes	Disabled.	—
SSH Access	Yes	Disabled.	—
80-bit SRTCP	Yes	Disabled.	—

Configuring MIDlets

To use the Enhanced Phone User Interface (MIDlets), your Cisco Unified IP Phone 7970 Series must be configured to run a new application service. This section explains how to implement the MIDlets interface, which is available in Cisco TelePresence System (CTS) Release 1.5 and later releases.

The Cisco Unified IP Phone auto-configures the IP address of the CTS. The CTS obtains the phone IP address using CDP data and CTS sends the command to the Cisco Unified IP Phone to start the MIDlet. The launch command specifies the IP address of the CTS.

Before You Begin

If you are upgrading from an older XML specification identifier (XSI) user interface to MIDlets, you must reset the phone and reset the CTS to allow the Java MIDlets application to work with the Cisco Unified IP Phone. See the “Managing Phone Reset and Codec Connectivity” section on page 4-7 for reset information.

Procedure

This section contains the following configuration tasks:

- Creating MIDlets IP Phone Service in Unified CM, page 5-19
- Configuring the MIDlets IP Phone Interface, page 5-20
- Setting Phone URL Parameters for MIDlets, page 5-20

Creating MIDlets IP Phone Service in Unified CM

To create IP Phone Service in Unified CM:

Step 1 Log in to the Cisco Unified CM Administration interface.

Step 2 From the Navigation drop-down menu in the upper right corner, choose **Cisco Unified CM Administration** and click **Go**.

Step 3 From the Device drop-down menu, go to **Device Settings** and click on **Phone Services**. The Find and List IP Phone Services window appears.

Step 4 Click the **Add New** button. The IP Phone Services Configuration screen appears.

Step 5 Fill in the following fields:

a. **Service Name**—Required. The Service Name must match the filename of the .jad file.

Note Your filename must not contain the .jad extension. The .jad extension is appended automatically when you name the file.

b. **ASCII Service Name**—Required. The ASCII service name must match the configured service name.

c. **Service Description**—MIDlet UI.

d. **Service URL**—Required. IP address of the Service URL must be that of the Unified CM and in the following format:

http://xx.xx.xx.xx:6970/TSPM-y-y-y-YY.jad

The following describes the necessary Service URL content:

- **xx.xx.xx.xx** is the IP address of the Unified CM server.
- **y-y-y-** is the version of the MIDlet application being added to Unified CM.
- **YY** is the build version of the MIDlet application being added to Unified CM.

e. **Service Category**—Required. Choose **Java MIDlet** from the drop-down menu.

f. **Service Type**—Required. Choose Standard IP Phone Service.

g. **Service Vendor Name**—Must be exactly “Cisco” (case-sensitive).

h. **Service Version**—Leave blank.

Step 6 Click the **Enable** check box.

Step 7 Click **Save** to save your changes.

Configuring the MIDlets IP Phone Interface

The Cisco Unified IP Phone auto-configures the IP address of the CTS; the CTS obtains the phone IP address using CDP data and the CTS sends the command to the Cisco Unified IP Phone to start the MIDlet. The system launch command specifies the IP address of the CTS.

To configure each Cisco Unified IP Phone 7970 Series to run the MIDlet IP phone interface:

Step 1 Log in to the Cisco Unified CM Administration interface.

Step 2 From the Navigation drop-down menu in the upper right corner, choose **Cisco Unified CM Administration** and click **Go**.

Step 3 From the Device drop-down menu, choose **Phone**. The Find and List Phones Page appears.

Step 4 Search for a phone using the fields provided or choose a phone from the drop-down menu and click **Find**. A list of devices appears.

Step 5 Click on a device in the Device Name (Line) column. The Phone Configuration page for that device appears.

Step 6 From the Related Links drop-down menu in the upper right corner, choose **Subscribe/Unsubscribe Services** and then click **Go**. The Subscribed Cisco IP Phone Services window for that device appears.

Step 7 In the Service Information box, choose **MIDlet IP** phone service from the Select a Service drop-down list and click **Next**. The Subscribed Cisco IP Phone Services window is updated with configurable Service Name and ASCII Service Name fields.

Step 8 Click **Subscribe** to save your settings or **Back** to return to the original Subscribed Cisco IP Phone Services window.

If the phone is already subscribed to an older MIDlet version:

a. Unsubscribe the phone from the older service.

b. Subscribe the phone to the new IP phone service that you created in the "Creating MIDlets IP Phone Service in Unified CM" section on page 5-19.

Step 9 Click **Save** to save your settings.

Note If you are upgrading from an older XML specification identifier (XSI) user interface to MIDlets, you must reset the phone and reset the CTS to allow the Java MIDlets application to work with the Cisco Unified IP Phone. See the "Managing Phone Reset and Codec Connectivity" section on page 4-7 for reset information.

Setting Phone URL Parameters for MIDlets

Make sure the default services URL is set for MIDlets. To override default settings:

Step 1 Log in to the Cisco Unified CM Administration interface.

Step 2 Choose **System** > **Enterprise Parameters Configuration**.

Step 3 In the Phone URL Parameters box, set the URL Services in the following format:

http://*xx.xx.xx.xx*:8080/ccmcip/getservicesmenu.jsp

Where *xx.xx.xx.xx* is the IP address of the Unified CM server.

Note You may use a hostname providing the CTS and the phone is provisioned with a DNS name server.

Step 4 Click **Save** to save your settings.

MIDlets Troubleshooting Tips

- If the MIDlet does not come up at all, verify that the Unified CM is subscribed. Reset the phone.
- Verify that the phone has the correct firmware for that MIDlet.
- Verify that the CTS has the correct image for that MIDlet.
- If the MIDlet comes up with a blank white screen, verify that the Service URL for the phone is blank.
- If the phone fails to register, verify that phone type is set correctly. For example, Cisco Unified IP Phone 7970 should not be set as 7975.
- If the phone is stuck in the initializing phase, restart TSPS on the CTS. If after the restart the phone shows “phoneui=xsi,” reboot the CTS.
- Check the Service URL. If it ends with “services.html,” make it blank and apply changes. Reboot the CTS.
- If no services appear on the phone, even though subscribed to a valid service, check the “Services Provisioning” field to make sure it is set to **Default**.
- If the MIDlet fails to start, make sure that the **Enable** box checked.
- Make sure the service that you are using to subscribe your phone is pointing to the correct JAD file.

Assigning a Directory Number for the Shared-Line Cisco Unified IP Phone

To assign a directory number to a shared-line Cisco Unified IP phone, perform the following tasks using the Cisco Unified Communications Manager Administration interface.

- Adding a New Directory Number, page 5-22
- Configuring the Directory Number for a Shared Line, page 5-22

Adding a New Directory Number

To add a new directory number:

Step 1 Log in to the Cisco Unified CM Administration interface.

Step 2 From the Device drop-down menu, choose **Phone**. The Find and List Phones Page appears.

Step 3 Locate and click the highlighted Cisco Unified IP phone device that you created in the "Adding a Cisco TelePresence Image to the Cisco Unified Communications Manager Server" section on page 1-1. The Association Information window appears.

Step 4 In the Association Information window, click **Line [1] - Add a new DN**. The Directory Number Configuration window appears.

Note Use the device MAC address to help you determine which line to select. The MAC address is also used as a device number (represented by ***X*** in this document) for the settings in the Directory Number Configuration window.

Step 5 Proceed to the "Configuring the Directory Number for a Shared Line" section on page 5-22 to configure the directory number for a shared line in the Directory Number Configuration window.

Configuring the Directory Number for a Shared Line

Note You must restart your system after you have completed the configuration tasks in this section.

To configure the directory number for a shared line, perform the tasks in the following sections. When you are finished configuring your settings, click **Save** and follow the prompts to restart the system.

- Configuring Directory Number Information, page 5-23
- Enabling Auto Answer Option, page 5-23
- Call Forward and Call Pickup Settings, page 5-23
- MLPP Information, page 5-24
- Line X on Device X, page 5-24
- Multiple Call/Call Waiting Settings on Device X, page 5-24

- Forwarded Call Information Display on Device X, page 5-24

Configuring Directory Number Information

To configure directory number information:

Step 1 Enter the directory number settings for the shared Cisco Unified IP Phone line using the information in Table 5-10 as a guide.

Table 5-10 Shared-Line Directory Number Information

Field	Required?	Setting
Directory Number	Yes	Directory number for the Cisco Unified IP Phone 7970 Series.
Route Partition	—	<Any>
Description		
Alerting Name		
ASCII Alerting Name		

Step 2 Make sure that the following check box at the bottom of the **Directory Number Information** window is marked as indicated:

- **Active:** Checked

Step 3 Click **Save** to save your settings.

Enabling Auto Answer Option

To enable the Auto Answer option:

Step 1 Choose **Auto Answer with Speakerphone** in the Auto Answer drop-down menu. Use default settings for all other selections. See the "Directory Number Settings" section on page 1-34.

Step 2 Click **Save** to save your settings.

Call Forward and Call Pickup Settings

Leave all fields unchanged. See the "Call Forward and Call Pickup Settings" section on page 1-36.

MLPP Information

Leave the following fields unchanged:

- Multilevel precedence
- Preemption information

Line *X* on Device *X*

Leave all fields unchanged. See the "Line X on Device X" section on page 1-37.

Multiple Call/Call Waiting Settings on Device *X*

See the "Multiple Call/Call Waiting Settings on Device SEPXXXXXXXXXXXX" procedure on page 1-38.

Forwarded Call Information Display on Device *X*

Leave the following information unchanged in the Forwarded Call Information Display on Device *X* Settings box:

- Caller Name
- Caller Number
- Redirected Number
- Dialed Number

Verifying and Troubleshooting IP Phone Configuration

The following sections describe how to verify your Cisco TelePresence System (CTS) with Cisco Unified Communications Manager (Unified CM) configuration:

- Verifying Your Configuration, page 5-24
- Troubleshooting Your IP Phone Configuration, page 5-25
- Managing Phone Reset and Codec Connectivity, page 5-27

Verifying Your Configuration

To verify that your Cisco TelePresence System is configured successfully:

Step 1 Log in to the Cisco Unified CM Administration interface.

Step 2 From the Device drop-down menu, choose **Phone**. The Find and List Phones Page appears.

Step 3 Search for a phone using the fields provided or choose a phone from the drop-down menu.

Tip Search for a device type that contains "7970" or "7975."

Step 4 Click **Find**. A list of devices appears.

Step 5 Click on a device in the Device Name (Line) column. The Phone Configuration page for that device appears.

Step 6 Verify that the following devices are registered:

- The Cisco TelePresence device
- The Cisco Unified IP Phone 7970 Series

Troubleshooting Your IP Phone Configuration

Use the information in Table 5-11 to help you troubleshoot your configuration.

Table 5-11 Troubleshooting the Cisco TelePresence Configuration

Problem	Possible Cause	Possible Solutions
The Cisco Unified IP Phone 7970 Series does not register.	Phone could be unknown: • Unified CM does not know about it. • CTS is not registered because it is unplugged. • CTS MAC address is entered incorrectly.	**Verify Phone Registration**—Log in to the Cisco Unified CM Administration interface. Click on the IP address and verify phone registration.
The phone does not display the Cisco TelePresence idle screen.	• Phone could be unknown: – Unified CM does not know about it. – CTS is not registered because it is unplugged. – The phone did not receive an IP address. • There could be errors in the Cisco Unified Communications Manager Phone Configuration window: – Incorrect IP address – Typos in the external location URLs	1. **Verify Phone Registration**—Log in to the Cisco Unified CM Administration interface. Click on the IP address and verify phone registration. 2. **Verify Phone in the System**—Log in to the Cisco TelePresence System Administration interface to verify that the system can detect the phone. 3. **Correct Typos in URL**—See Managing Cisco Unified IP Phones for information about configuring external URLs.

Table 5-11 Troubleshooting the Cisco TelePresence Configuration (continued)

Problem	Possible Cause	Possible Solutions
CTS does not auto answer when the feature is enabled	- An incoming conference call is ringing and the CTS does not auto answer immediately. - The call is connected but there is no video.	The CTS rings and auto-answers a call based on how these features were configured in Unified CM. If the call is connected as audio only, check your IP phone configuration and make sure the "Disable Speaker/Headset" box is checked. To disable the IP phone speaker/headset: **1.** Log on to the Cisco Unified CM Administration interface. **2.** Search for your directory number (DN). Two devices are displayed: CTS and IP Phone **3.** Click on the IP_Phone device. **4.** Scroll down to the Product Specific Configuration Layout Area window. **5.** Verify that the following check-boxes are checked in the Product Specific Configuration Layout window: – Disable Speakerphone – Disable Speakerphone and Headset **6.** Apply and Save the configuration. **7.** Reset the device. See the "Managing Phone Reset and Codec Connectivity" section on page 5-27 for reset information.
MIDlet fails to start up properly, shows the following message: `"setting up network connections"`	**TCP Issues** MIDlet cannot establish TCP connections with the CTS. **CTS IP Address Issues** Possible incorrect CTS IP address is assigned to the phone profile authentication server URL.	**1.** Ensure that the correct CTS IP address is in the Authentication Server URL for the phone device in Unified CM. **2.** Click **Save**. **3.** Reset the phone. See Managing Cisco Unified IP Phones for information about configuring external URLs. See also the "Managing Phone Reset and Codec Connectivity" section on page 5-27 for reset information.
MIDlet upgrade hangs, shows the following message: `"Error contact administrator"`	**MIDlet Upgrade Issues** The phone firmware is unable to uninstall the older version cleanly to make way for the new version. The issue happens during upgrade of the MIDlet if the phone is not reset after the upgrade.	Reset the phone after upgrade. See the "Managing Phone Reset and Codec Connectivity" section on page 5-27 for reset information. See also Managing Cisco Unified IP Phones for information about configuring external URLs.

Table 5-11 Troubleshooting the Cisco TelePresence Configuration (continued)

Problem	Possible Cause	Possible Solutions
MIDlet fails to initialize properly, showing the following message: `"Configuration error."`	**Authentication Issues** The MIDlet does not find Authentication Server URL or it does not recognize its format. **Supported Character Issues** Non-English characters are used on phone device profile.	1. Properly configure the Authentication Server URL for the phone 2. Click **Save**. 3. Reset the phone. **Tip** Use only English characters. See Managing Cisco Unified IP Phones for information about configuring external URLs. See also the "Managing Phone Reset and Codec Connectivity" section on page 5-27 for reset information.
Cisco Unified IP Phone 7970 Series goes dead during CTS endpoint or MIDlet upgrade.	**Phone Firmware Issues** Occasionally, an unexpected phone power cycle can occur during a CTS endpoint or MIDlet version upgrade. During CTS endpoint upgrades, the CTS briefly powers off the phone then brings it back up when upgrade is complete. But if the phone power cycle is occurring at the same time, the phone's firmware image can be damaged and the phone will not power back on.	To avoid this problem, unplug the phone before upgrading the CTS endpoint. When upgrade is complete, plug the phone back in and upgrade the MIDlet. If you encounter a phone that will not power back on after a CTS endpoint or MIDlet upgrade, perform a phone factory reset to restore the firmware image. See Resetting the Cisco Unified IP Phone 7970 Series Factory Image.
On some CTS 500 installations, the Cisco Unified IP Phone rejects a direct firmware upgrade.	During installation, Cisco Unified Communications Manager will automatically upgrade the firmware on Cisco Unified IP Phone 7970 Series to the minimum version required. But if the firmware on the IP phone is outdated, the phone may reject the direct firmware upgrade.	Upgrade the IP Phone 7970 Series to an intermediate unsigned firmware version before upgrading to the final firmware required by the endpoint. See Adding a Cisco TelePresence Image to the Cisco Unified Communications Manager Server for download instructions. See also the Cisco Unified Communications Operating System Administration Guide for complete software upgrade instructions.

Managing Phone Reset and Codec Connectivity

The following sections contain information about managing the following system components:

- Information About Phone Reset, page 5-28
- Resetting the Cisco Unified IP Phone 7970 Series, page 5-28
- Synchronizing a Phone, page 5-28
- Resetting the Cisco Unified IP Phone 7970 Series Factory Image, page 5-29

Information About Phone Reset

If a device is not registered with Cisco Unified Communications Manager, you cannot reset or restart it. If a device is registered, to restart a device without shutting it down, click the **Restart** button. To shut down a device and bring it back up, click the **Reset** button. To return to the previous window without resetting or restarting the device, click **Close**.

Note Resetting a gateway/trunk/media devices drops any calls in progress that are using that gateway/trunk/media devices. Restarting a gateway/media devices tries to preserve the calls in progress that are using that gateway/media devices, if possible. Other devices wait until calls are complete before restarting or resetting. Resetting/restarting a H323 device does not physically reset/restart the hardware; it only reinitializes the configuration loaded by Cisco Unified Communications Manager.

Resetting the Cisco Unified IP Phone 7970 Series

Reset a Cisco Unified IP Phone at any time by following these steps:

Note If a call is in progress, the phone does not reset until the call completes.

Step 1 Choose **Device** > **Phone**. The Find and List Phones window appears.

Step 2 To locate a specific phone, enter search criteria and click **Find**. A list of phones that match the search criteria displays.

Step 3 Click the check boxes next to the phones that you want to reset. To choose all the phones in the window, click **Select All**.

Step 4 Click **Reset Selected**. The Device Reset window appears.

Step 5 Choose **Reset** from the listed options in the Device Reset window.

This shuts down the chosen devices and brings them back up (performs a complete shutdown and reinitialization of the phones).

Note See the "Synchronizing a Phone" section on page 5-28 for instructions on updating the phone with the latest configuration changes by using the least-intrusive method.

Synchronizing a Phone

To synchronize a phone with the most recent configuration changes, perform the following procedure, which applies any outstanding configuration settings in the least-intrusive manner possible. (For example, a reset/restart may not be required on some affected devices.).

Procedure

Step 1 Choose **Device > Phone**. The Find and List Phones window appears.

Step 2 Choose the search criteria to use and Click **Find**. The window displays a list of phones that match the search criteria.

Step 3 Check the check boxes next to the phones that you want to synchronize. To choose all phones in the window, check the check box in the matching records title bar.

Step 4 Click **Apply Config to Selected**. The Apply Configuration Information dialog displays.

Step 5 Click **OK**.

Resetting the Cisco Unified IP Phone 7970 Series Factory Image

To reset the phone to the factory image:

Step 1 Disconnect the power from the phone.

Step 2 While holding down the "#" key, reconnect the power.

Step 3 As soon as you see the line button lights to the right side of the display cycling yellow, release the "#" key.

Step 4 Press the following buttons in sequence: 3, 4, 9, 1, 6, 7, 2, 8, 5, 0, *, #.

The cycling line button lights then change from yellow to red. Within a few minutes the phone will begin booting.

Satellite Licenses for the Cisco TelePresence System

Revised: June 9, 2015, OL-21851-01

Contents

The information in this appendix explains how to order and enable satellite licenses. This appendix contains the following sections:

Cisco TelePresence over Satellite Networks

The Cisco TelePresence over Satellite Networks solution extends the reach of Cisco TelePresence to remote, tactical locations where terrestrial bandwidth is not available. This solution incorporates existing Cisco TelePresence endpoint and infrastructure products with new software releases designed to function more effectively on poor, high-delay networks.

The following features and benefits are supported:

- Relaxed latency, jitter, and packet-loss thresholds allow the Cisco TelePresence meeting application to function effectively over poor, high-delay, real-world satellite networks.
- Qualification and testing of Type 1 encryption devices with the Cisco TelePresence application enable military-grade security for Cisco TelePresence calls.
- New network and environment recommendations provide guidance for remote, tactical, and even mobile deployments of the Cisco TelePresence System (CTS).

This section contains the following information:

Supported CTS Devices

The CTS 500, CTS 1000, CTS 1100, and CTS 1300 endpoint models are supported as the remote endpoint on the far end of a satellite link.

Other endpoint models (CTS 3000 Series and CTS 3200 Series) have not been qualified to work on the remote side of a satellite link because the bandwidth needed for these three-screen systems quickly becomes cost-prohibitive to run over satellite networks. Any Cisco TelePresence endpoint or mix of endpoints (for a multipoint call) can be used on the terrestrial side of the satellite link.

Supported CTS Software

You must be running CTS software version 1.5 or a later release on all Cisco TelePresence endpoints, Cisco TelePresence Multipoint Switches, and Cisco TelePresence Managers within your network to participate in a satellite call.

Note CTS Release Software is backward compatible up to two prior releases.

Supported Satellite Bandwidth

You will need a minimum of 3-MB bandwidth (at 720p, good motion handling) in a single-channel-per-carrier (SCPC) configuration over a single-hop satellite link.

Note Because the Cisco TelePresence video and audio are traveling up to the satellite and back down to an earth station, significant (500 ms or more) latency is introduced into the signal. The result is noticeable delay in the conversation. In addition, atmospheric conditions or other interference may impact satellite-link performance and introduce jitter or packet loss into the call. The result may be noticeable degradation of the video quality.

CTS software release 1.5 and later releases support satellite deployment configurations that significantly raise the thresholds for network warning messages and call termination. When a satellite endpoint joins a call (point-to-point or multipoint), all other endpoints in the call negotiate the new threshold setting, so no one in the call gets warning messages or gets dropped just because a satellite-based endpoint joins the call.

For information about Cisco TelePresence service level requirements including bandwidth, latency (delay), jitter (variations in delay), and packet loss, see the *Cisco TelePresence Network Systems 2.0 Design Guide* on Cisco.com.

Satellite Security

The Cisco TelePresence application Transport Layer Security (TLS) and Secure Real-Time Transport Protocol (SRTP) encryption for signaling and media paths.

Ordering a Satellite License

You can order satellite licenses when you initially order your CTS, or you can purchase separate satellite licenses to upgrade an existing CTS. Note the following details when you order a satellite license:

- The product authorization key (PAK) will either be physically delivered to your location or electronically delivered via E-mail.
- Product Number:
  - Physical: CTS-SATELLITE=
  - Electronic: L-CTS-SATELLITE=

Loading a Satellite License on Unified CM

After you have received the satellite license, load it on Unified CM by following these steps:

Caution Do not edit or change the contents of the license or it will become invalid.

Step 1 Load the license file into the Unified CM TFTP directory.

Step 2 After making sure that the license is available on your computer, log in to the Unified CM Administration interface and follow these steps:

a. From the Navigation drop-down menu in the upper right corner, choose **Cisco Unified OS Administration** and click **Go**.

b. Log in to Cisco Unified OS Administration interface.

c. From the Software Upgrades drop-down menu, choose **TFTP File Management** and click the **Upload File** button. A dialog box appears.

d. Browse to find the appropriate license and upload the license. Leave the Directory field blank.

Step 3 Restart the Unified CM TFTP server and complete these steps:

a. From the Navigation drop-down menu, choose **Cisco Unified Serviceability** and click **Go.**

b. Log into Cisco Unified Serviceability.

c. From the Tools drop-down menu, choose **Control Center - Feature Services**.

d. In the Select Server box, choose the TFTP server from the drop-down menu and click **Go**.

e. In the CM Services box, click the **Cisco TFTP** radio button.

f. Click **Restart**.

g. Repeat Step c through Step e for all TFTP servers.

Identifying the CTS Satellite Endpoints

After you have loaded the satellite license on Unified CM, identify the CTS satellite endpoints so that they can retrieve the satellite licenses.

To identify the CTS satellite endpoints using the Cisco Unified CM Administration interface:

Step 1 Log in to the Cisco Unified CM Administration interface.

Step 2 From the Device drop-down menu, choose **Phone**.

Step 3 Using the Find search fields, locate the CTS that will be used as a satellite endpoint.

Step 4 Click **Reset** to bring up a new dialog box, and then click **Restart**.

Step 5 Repeat Step 2 through Step 4 for each CTS satellite endpoint.

Enabling the Satellite Feature

After the satellite license has been loaded on Unified CM, and the CTS satellite endpoints have been identified, you are ready to enable the satellite feature using CTS command-line interface (CLI) commands. For information about using CTS CLI commands, see the *Cisco TelePresence System Command-Line Interface Reference Guide*.

To enable the satellite feature:

Step 1 Check to see that the satellite license is available. From the CTS CLI admin command prompt, enter the following command:

```
admin:show license status

License feature status
satellite:
  Valid license found
  License feature is disabled
  Feature is currently not running
```

Step 2 Enable the satellite feature using the following command:

```
admin:set license satellite enable

License for satellite feature changed to enabled
```

Step 3 Restart the calling services using the following command:

```
admin:utils service restart Calling

Calling_Services   Restarting...done
```

Additional Licensing Information

See the Cisco TelePresence Administration Software Licensing Information page on Cisco.com.

GLOSSARY

OL-21851-01

A

ACU Auxiliary Control Unit. Provides the ability to conserve energy by powering the lights, projector, and optional peripherals for Cisco TelePresence systems on and off. The ACU is controlled by the CTS Administrator.

ad hoc meeting Non-scheduled, administrator-initiated, dial-out meeting. A meeting scheduler or administrator initiates the meeting through the Cisco TelePresence Multipoint Switch (CTMS) administration interface by listing the telephone number of the rooms which will participate in the multipoint meeting. See static meeting.

AES Advanced Encryption Standard. An encryption standard comprising three block ciphers, AES-128, AES-192, and AES-256, adopted from a larger collection originally published as Rijndael. Each AES cipher has a 128-bit block size, with key sizes of 128, 192 and 256 bits, respectively.

Auto Answer A phone set to automatically answer an inbound call. Use the Auto Answer feature in Cisco Unified Communications Manager. Activating this option or button causes the speaker phone to go off hook automatically when an incoming call is received.

Auto Collaborate Cisco TelePresence simple information sharing using a powerful “Auto Collaborate” feature that allows any object, document, or PC application to be displayed in a plug-and-play fashion.
Auto Collaborate enables you to share images instantly in multiple locations by plugging in a laptop computer or high-definition ceiling document camera. The Cisco TelePresence 3000 Series built-in projector automatically displays images from the most recently activated device.

Ceiling cameras are perfect for capturing images of objects that are too valuable to ship, or cannot easily be copied or sent electronically. Cisco recommends and document cameras made by WolfVision, specifically the WolfVision Visualizer. This is a special live-camera system designed for picking up any object on a working surface with perfect illumination and depth of focus. All types of objects (e.g., photos, books, brochures, transparencies, slides, or three-dimensional objects) can be picked up quickly and easily, and meeting participants can use a wireless remote to control light, zoom, or focus.

Cisco TelePresence 3000 and 1000 systems support the Auto Collaborate capability, and meeting organizers can project content in multiple locations, including above or below displays, or on the side of a room.

A/V Expansion Box Audio/video extension unit. Required if your system uses an Auxiliary Control Unit (ACU).

AXL Administrative XML. SOAP-based protocol that enables remote provisioning of Unified CM. Cisco AXL Web Service allows Unified CM to be updated from Architecture for Voice, Video and Integrated Data (AVVID) client-based applications that use AXL.

B

bit rate Speed at which bits are transmitted, usually expressed in bits per second.

black screen codes System status information messages that appear on the main display screen before your meeting starts and while the screen is still black. For example, “Please wait, you are the first meeting participant.”

For more information, see the *Cisco TelePresence System User Guide*.

BPDU Bridge Protocol Data Units. Data frames that exchange information about bridge IDs and root path costs. A bridge sends a BPDU frame using the unique MAC address of the port as a source address, and a destination address of the Spanning Tree Protocol (STP) multicast address 01:80:C2:00:00:00.

C

CCP The Conference Control Protocol (CCP) is an interface between the CTS and the CTMS that controls the following elements of a Cisco TelePresence conference:

- Locks a meeting.
- Sets the switching policy.
- Sends end meeting notifications.
- Obtains the roster list.
- Requests to meeting to be extended.
- Sends black screen messages. See black screen codes.
- Allows you to specify default outbound http proxy route.

CIF Common Intermediate Format. A video standard that provides 352x288 pixels, or picture elements, of video resolution.

Cisco CTI Manager CTI Manager is required in a cluster for applications that use TAPI or JTAPI Computer Telephony Integration (CTI). The CTI Manager acts as a broker between the CTI application and the Cisco Unified Communications Manager Service. It provides authentication of the application and enables control or monitoring of authorized devices. The CTI application communicates with a primary CTI Manager and, in the event of a failure, will switch to a backup CTI Manager. The CTI Manager should be enabled only on call processing subscribers, thus allowing for a maximum of eight CTI Managers in a cluster. Cisco recommends that you load-balance CTI applications across the various CTI Managers in the cluster to provide maximum resilience, performance, and redundancy.

Cisco TelePresence TX Series The Cisco TelePresence TX Series high-definition presentation capabilities and simple controls on a touch display help make your meeting as immersive and natural as possible. See Immersive Telepresence Endpoints.

Cisco Unified Communications Manager Unified CM. Application that extends enterprise telephony features and capabilities to packet telephony network devices such as IP phones and multimedia applications. Open telephony application interfaces make possible services such as multimedia conferencing and interactive multimedia response systems.

codec The "brain" of the CTS. The primary codec connects with the network and Cisco Unified Communications Manager (Cisco Unified CM) to perform call management functions for the system. The secondary codec performs processing for the system elements that are attached to them. The optional presentation codec the document camera (if present), auxiliary displays, and works with an auxiliary control unit and audio extension unit for additional audio/video applications. The number and type of codecs your system uses depends on which CTS device you are using.

See presentation codec, primary codec, secondary codec.

CTMS Cisco TelePresence Multipoint Switch. Support for voice-activated switching in up to 48 locations in a single meeting across many endpoints.

CTRS Cisco TelePresence Recording Server. Providing HD studio recording capabilities in existing Cisco TelePresence rooms. Recordings can be archived automatically on a schedule or transferred to a digital content management system. The CTRS can deliver Cisco TelePresence recordings to any video-enabled device including PCs, smartphones, and digital signs. CTRS runs on the same reliable Media Convergence Server platform as Cisco TelePresence Multipoint Switch and Cisco TelePresence Manager.

CTS device Cisco TelePresence System (CTS) device: CTS 500, CTS 1000, CTS 1100, CTS 1300, CTS 3000 series, CTS 3200 series.

CTS-Manager Cisco TelePresence Manager. Software application that schedules and manages Cisco TelePresence calls using common enterprise groupware such as Microsoft Exchange and Lotus Notes.

CTS Manager PreQualification Assistant The CTS-Man PreQualification Assistant ensures that your pre-configuration set-up is performed correctly. The data that is entered into the Tool Test Configuration forms that are used to verify connections to the servers and to get data from them to be used to configure CTS-Man.

CUCM Cisco Unified Communications Manager (Unified CM).

D

default gateway A router on a computer network that serves as an access point to another network.

DES Data Encryption Standard. A block cipher (a form of shared secret encryption) that was selected by the National Bureau of Standards as an official Federal Information Processing Standard (FIPS) for the United States in 1976 and which has subsequently enjoyed widespread use internationally. It is based on a symmetric-key algorithm that uses a 56-bit key.

DHCP Dynamic Host Configuration Protocol. Provides a mechanism for allocating IP addresses dynamically so that addresses can be reused when hosts no longer need them.

Directory Button or Softkey on the Cisco Unified IP Phone that is configured from the Administration and User interfaces. Gives users access to several directories including the Corporate Directory and the Personal Directory.

display screen animation System information icons that may be displayed on the Cisco TelePresence System (CTS) main display screen. System information includes call connection status alerts, meeting alerts, and maintenance alerts. These alerts fade from one state to another to show the status of the system.

display screen icon System information icons that may be displayed on the Cisco TelePresence System (CTS) display screen. System information includes call connection status alerts, meeting alerts, and maintenance alerts.

DMP Digital Media Player. Cisco Digital Media Players are highly-reliable, IP-based endpoints that can play high-definition live and on-demand video, motion graphics, web pages, and dynamic content on digital displays, usually an LCD Professional Series display or any other directly attached television screen, monitor, or projector (analog or digital, standard-definition or high-definition) that shows media to an audience. There is an extra input connector for the Digital Media Player (DMP) on your Cisco TelePresence device. See the Cisco Digital Media Players home page on Cisco.com.

See also LCD.

DN Directory number.

DNS Domain Name System. Domain in which the phone resides. Primary Domain Name System (DNS) server (DNS Server 1) and optional backup DNS servers (DNS Server 2-5) used by the phone. Redundant DNS servers that point to the Cisco Unified CM are configured and listed on the in-room phone by navigating to **Settings** > **Network Configuration** > **IPv4 Configuration**.

DSCP Differentiated Services Code Point. A field in the header of IP packets for packet classification purposes. DSCP for TelePresence Calls field description: This parameter specifies the DSCP value for Cisco TelePresence calls. This parameter is set to the default value unless a Cisco support engineer instructs otherwise. This is a required field, if present on your system. Default: CS4(precedence 4) DSCP (100000) and is selectable per device.

DVI DVI cables are used for direct digital connections between source video (namely, video cards) and LCD monitors. Plugs into desktop, PC, or laptop docking station. See also VGA.

E

enbloc dialing Allows you to compose and edit the number to dial on your phone's display before it is sent to the phone system to be dialed.

endpoint Cisco TelePresence System (CTS) endpoint. The combination of hardware and software that comprise a Cisco TelePresence System. The hardware for an endpoint includes a Cisco Unified IP Phone 7900 Series, one or more large-screen meeting displays, plus presentation devices, cameras, microphones, speakers, and in some models, lighting systems.

EWS Exchange Web Services. Managed API that provides an intuitive interface for developing client applications that use Exchange Web Services. The EWS Managed API provides unified access to Microsoft Exchange Server resources, while using Microsoft Office Outlook–compatible business logic. The EWS Managed API communicates with the Exchange Client Access server by means of EWS SOAP messages.

extranet An extranet is a private network that uses Internet protocols and network connectivity. An extranet can be viewed as part of a company's intranet that is extended to users outside the company, usually via the Internet. It has also been described as a “state of mind” in which the Internet is perceived as a way to do business with a selected set of other companies (business-to-business, B2B), in isolation from all other Internet users. In contrast, business-to-consumer (B2C) models involve known servers of one or more companies, communicating with previously unknown consumer users.

An extranet can be understood as an intranet mapped onto the public Internet or some other transmission system not accessible to the general public, but managed by more than one company's administrator(s). For example, military networks of different security levels may map onto a common military radio transmission system that never connects to the Internet. Any private network mapped onto a public one is a virtual private network (VPN), often using special security protocols.

F

Favorites The Favorites softkey and screen on the CTS Cisco Unified IP Phone.

fluorescent lamp A lamp that uses electricity to excite mercury vapor in a gas that results in an energy that produces short-wave ultraviolet light. This light then causes a phosphor to fluoresce, producing visible light. Sources of light in most rooms are either incandescent light bulbs that use tungsten filaments or fluorescent lights. Each of these light sources, and the amount of light in terms of lumens or watts, produces a different color temperature. This color temperature is sometimes expressed using terms such cool, warm, or daylight, but can be expressed more precisely in kelvins (K) as a numeric value. When adjusting the images on the display screens for the Cisco TelePresence system, you must take the color temperature of the ambient light in the room into consideration.

full duplex mode Transmission of data in two directions simultaneously.

G

guest operating system An operating system that is installed and run in a virtual machine. In the Cisco TelePresence environment, the CTS Manager, CTMS, and CTRS are guest operating systems. Before you can install the guest operating system, you must obtain the installation media for the operating system and configure the virtual machine to use the CD/DVD drive to access the installation media. See VMware.

gzip GNU zip. Software application used for file compression.

H

half duplex mode Transmission of data in one direction at a time.

HD

High definition display. High-definition video or HD video refers to any video system of higher resolution than standard-definition (SD) video, and most commonly involves display resolutions of 1280×720 pixels (720p) or 1920×1080 pixels (1080i/1080p).

HDMI

Document camera input and cable.

I

IDR

An IDR frame is a special kind of I frame used in MPEG-4 AVC encoding. IDR frames can be used to create Advanced Video Coding (AVC) streams, which can be easily edited.

Immersive Telepresence Endpoints

CTS 3210, CTS 1300, Cisco TelePresence T3. Provides an immersive, interactive in-person experience. See also personal system.

incandescent lamp

A lamp that allows an electric current to pass through a thin filament, heating it and causing it to emit light. Sources of light in most rooms are either incandescent light bulbs that use tungsten filaments or fluorescent lights. Each of these light sources, and the amount of light in terms of lumens or watts, produces a different color temperature. This color temperature is sometimes expressed using terms such cool, warm, or daylight, but can be expressed more precisely in kelvins (K) as a numeric value. When adjusting the images on the display screens for the Cisco TelePresence system, you must take the color temperature of the ambient light in the room into consideration.

Internet model (free path)

The Internet model is an unsecured “free path” model of packet delivery: Packets are delivered in any way possible and each uncontrolled router on the way to the destination handles how to deliver the packet to the next stop. See VPN model (fixed path).

IP address

A device identifier on a TCP/IP network.

J

jitter

Variation in packet transit delay caused by queuing, contention, and serialization effects on the path through the network. In general, higher levels of jitter are more likely to occur on either slow or heavily congested links.

jitter call

Jitter call is the average jitter measurement per call. Shown in the Jitter/Call output field as part of Per Call Jitter and Packet Loss Reporting.

jitter period

Jitter period is the interval between two times of maximum effect (or minimum effect) of a signal characteristic that varies regularly with time. Jitter frequency, the more commonly quoted figure, is its inverse.

The CTS measures jitter every 10 seconds. The Jitter/Period field reports the jitter measurement for the last 10-second period.

The CTS calculates jitter as the sum of the maximum deviation (both late and early) from the expected arrival time as given by the frame period. CMA computes frame jitter based on the arrival time of the last packet of a frame.

L

LCD

Liquid crystal display. The LCD display is an accessory for the Cisco Digital Media Player (DMP) for use in your digital signage network or your enterprise TV network. It is used for displaying video, images, or computer data during a Cisco TelePresence meeting. See the Cisco LCD Professional Series Displays home page on Cisco.com for more information.

See also DMP.

LED

Light-emitting diode. Indicators on the CTS that determine whether the user is sitting within camera range.

light temperature

A theoretical means of describing visible light that is determined by comparing its hue with a heated black-body radiator. The lamp's color temperature is the temperature in kelvins at which the heated black-body radiator matches the hue of the lamp.

Live Desk

The Live Desk is a person who has been assigned to a Cisco TelePresence endpoint to assist you with problems that may occur during a meeting. To connect to Live Desk, touch the **Live Desk** softkey. If a Live Desk has not been assigned to your Cisco TelePresence endpoint, the following message is displayed on your phone screen: "There is no Live Desk number configured"

If your system is running CTS software release 1.9.1 or later, you can configure Live Desk using the Live Desk field in Unified CM. For more information, refer to the Live Desk in Cisco Unified CM section of the *Release Notes for Cisco TelePresence System Software Release 1.9*.

If your system is running CTS software release prior to 1.9.1, you can configure Live Desk in the **Configure** > **Live Desks** Window of the CTS-Manager Administration interface. Refer to the *Cisco TelePresence Manager Installation and Configuration Guide* on Cisco.com.

LTRP

Long Term Reference Picture.

M

MAC address

Media Access Control address. A hardware address that uniquely identifies each node of a network.

MD5

Message-Digest algorithm 5. Widely used cryptographic hash function with a 128-bit hash value. As an Internet standard (RFC 1321), MD5 has been employed in a wide variety of security applications, and is also commonly used to check the integrity of files. MD5 is not suitable for applications like SSL certificates or digital signatures that rely on this property. An MD5 hash is typically expressed as a 32 digit hexadecimal number.

Meeting Extension

Meeting Extension feature that can be used from the CTS Cisco Unified IP phone when MIDlets are configured. This feature provides an option on the CTS Cisco Unified IP phone to extend Cisco TelePresence meetings past their scheduled end time. Meeting participants may request to extend the scheduled meeting using the phone softkey options. CTS Manager Administrators can configure Meeting Extension settings using the Meeting Options tab on the **CTS Manager System Configuration** > **Application Settings** page.

MIDlets Mobile Information Device Profile (MIDP). A Java application designed to run on resource-constrained devices such as phones, PDAs, intelligent appliances, and the like. A MIDlet (in J2ME) is similar to a Java Applet (in J2SE), but more specialized, efficient, and optimized for limited devices. MIDlets graphics and animation, multimedia, touchscreen, networking, persistent data storage, and provides excellent Look And Feel (LAF) integration with the host platform.

The Cisco Unified IP Phone uses MIDlets as part of the Cisco TelePresence System Enhanced Phone User Interface: MIDlets support CTS Cisco Unified IP phone features. Configure MIDlets in the Cisco Unified CM Administration interface for Cisco TelePresence.

See *Configuring and Managing the Cisco Unified IP Phone* for more information.

mixed mode Cluster Security Mode field is set to **1** in the Configuration Settings for CTL Client in **Cisco Unified CM Administration** > **System > Enterprise Parameters**. To configure and verify cluster security mode, see the Verifying the Cisco Unified Communications Manager Security Mode section of the *Cisco TelePresence Security Solutions Guide*.

multipoint meeting Multipoint is where you are able to connect more than two sites in one video conference. This normally requires a bridge, although some video conference units are also able to connect multiple sites.

MXE Media eXperience Engine. The Cisco Media Experience Engine is a modular media processing system that provides interoperability between Cisco TelePresence and video conferencing devices, extending the reach of collaboration and communication within organizations. MXE provides 720p interoperability with video conferencing.

Configure MXE in CTS-Manager. See also Cisco TelePresence Firewall and Access List Considerations for support information for Cisco TelePresence.

N

nonce A nonce value (a random number that digest authentication) is used to calculate the MD5 hash of the digest authentication password.

Non-permitted User Cisco WebEx user role configured in the CTS Manager Administration interface. These users are not permitted to request Cisco WebEx; no Cisco WebEx meeting options are available to these users. See Permitted User.

O

One-Button-to-Push Launches a call with Cisco TelePresence Manager. Cisco TelePresence Manager works with enterprise groupware software such as Microsoft Exchange and Lotus Notes to allow you to schedule Cisco TelePresence meetings just as you would a regular meeting. Enterprise groupware sends Cisco TelePresence Manager the meeting schedule, and the software pushes that information to the in-room phone for call launch. The “One-Button-to-Push” feature allows you to simply touch the meeting that is listed on the in-room IP phone to start a Cisco TelePresence meeting.

P

Participant List A list of Cisco WebEx meeting participants displayed on the phone that are visible when you touch the **Participant List** softkey or the phone screen touch button on the fully configured CTS Cisco Unified Phone. This list is configured in Cisco Unified CM Display (Internal Caller ID) fields.

P-frame An easily compressible video frame type. A video frame is compressed using different algorithms that allow varied amounts of data compression. These different algorithms for video frames are called picture types or frame types. The three major picture types used in the different video algorithms are I, P, and B.

Permitted User Cisco WebEx user role configured in the CTS Manager Administration interface. These users are permitted to request Cisco WebEx for specific meetings using CTS Manager. See Non-permitted User.

personal system Personal Cisco TelePresence System. The virtual, in-person experience of Cisco TelePresence directly into the private office. The CTS 500 and CTS 1000 are considered to be personal systems. See also Immersive Telepresence Endpoints.

PiP Presentation-in-Picture. Data or graphics content sharing through an external monitor known as presentation-in-picture (PiP) format for space-constrained offices. Using the **PiPCtrl** softkey and options in the PiP control screen on your CTS Cisco Unified IP phone, you can toggle the position of the PiP between center, left, or right locations on the screen or change its size in relation to the meeting participant video input during a meeting.

PoE Power over Ethernet.

point-to-point meeting The direct connection of two sites in a video conference. This only works if both sites use the same type of connection (either IP or ISDN).

Premium User Cisco WebEx user role configured in the CTS Manager Administration interface: Cisco WebEx is always on. Controlled on the CTS Manager LDAP configuration page.

presentation codec The presentation codec provides 30 frames per second to support full-motion video presentations between Cisco TelePresence endpoints.

Presenter Cisco WebEx user role configured in the CTS Manager Administration interface: A Presenter shares presentations, specific applications, or the entire desktop. The Presenter controls the annotation tools and can grant and revoke remote control over the shared applications and desktop to individual Attendees.

primary codec The primary codec is the primary unit; it communicates with secondary units, sends and receives packets on the uplink network. It contains an onboard Gigabit Ethernet switch. For example, in a CTS 3000 or CTS 3200 system, the primary codec controls two secondary codecs as well as many system components and the graphical user interfaces (GUI). In a Cisco TelePresence 1000, it controls all system functions.

PCB Printed circuit board.

R

RFC Request for Comments. Document series used as the primary means for communicating information about the Internet. Some RFCs are designated by the IAB as Internet standards.

S

scheduled meeting Multipoint TelePresence meetings are scheduled by end users using Microsoft Exchange or IBM Domino clients in the same manner that a point-to-point meeting is scheduled. Scheduled meetings require no CTMS administrator interaction. CTS Manager is a required component for scheduled meetings. It provides the interface between Microsoft Exchange or Lotus Domino and the CTMS, allowing the appropriate resources on the CTMS to be reserved for the multipoint meeting.

Scheduling API Cisco TelePresence Scheduling API provides programmatic access to your organization's CTS-Manager using a simple, powerful, and secure application-programming interface for customers who are not using Microsoft Exchange or IBM Domino Notes. For developers this API allows groupware applications to utilize Cisco TelePresence Manager for scheduling Cisco TelePresence calls with resource reservations and One-Button-to-Push.

screen resolution The fineness of detail that can be presented in the image on the CTS main display screen. Recommended screen resolution for Cisco TelePresence is 1024 x 768.

SD Standard definition display. See HD.

secondary codec Codecs that assist the primary codec in the large Cisco TelePresence 3000/3200 systems. Secondary codecs process audio and video signals and send them to the primary codec, which multiplexes the signals into separate, single RTP streams.

Show and Share If your Cisco TelePresence network administrator has configured Cisco Show and Share as your enterprise video portal, you can immediately publish your recording or save a draft to Cisco Show and Share from the Cisco TelePresence Touch 12 or Cisco Unified IP phone. For more information on creating and viewing recordings, see the *Cisco TelePresence System User Guide* on Cisco.com that corresponds with your system's software release.

single system A Cisco TelePresence System featuring a single main display screen.

SHA Secure Hash Algorithm. A set of cryptographic hash functions designed by the National Security Agency (NSA) and published by the NIST as a U.S. Federal Information Processing Standard. The three SHA algorithms are structured differently and are distinguished as SHA-0, SHA-1, and SHA-2.

SIP Session Initiation Protocol. Protocol designed to signal the setup of voice and multimedia calls over IP networks.

SNMP Simple Network Management Protocol. Network management protocol used almost exclusively in TCP/IP networks as a means to monitor and control network devices, and to manage configurations, statistics collection, performance, and security. See the *Cisco TelePresence System Message Guide*.

SOAP Simple Object Access Protocol. XML-based protocol to let applications exchange information over HTTP.

SSCD System Status Collection Daemon. The daemon gathers statistics about the system it is running on and stores this information. Those statistics can then be used to find current performance bottlenecks (performance analysis, for example) and predict future system load (capacity planning, for example).

static meeting Non-scheduled meetings configured on the Cisco TelePresence Multipoint Switch (CTMS) through the administration interface. A meeting scheduler or administrator, who sets up the static meeting, manually assigns a meeting access number that is used to access the meeting. See ad hoc meeting.

switching mode CTS Manager configuration. CTS 3000 and CTS 3200 endpoints only.

Auto-Assign—Switching mode is determined by the default CTMS policy, which is configured in System **Configuration** > **Policy Management** page of your CTMS setup.

Room—All the participant displays of the endpoint are switched each time the meeting participant who is speaking changes to a meeting participant at a different endpoint.

Speaker—Only the corresponding participant display (left, center, or right) is switched; the remaining participant displays are not switched. Using the speaker switching mode provides the ability to view up to three different remote endpoints at the same time.

Sysop System Operation (sysop) Logs. Sysop messages describe system activity. Some messages can help you identify and resolve system operation problems. These messages are available to the user from the CTS Administration interface. See the *Cisco TelePresence System Administration Guide* on Cisco.com.

Syslog System Logs (syslog). Debugging logs that are collected from your system and used by Cisco technical response to diagnose and resolve issues. These messages are not ordinarily seen by the user.

T

.tar tar (derived from tape archive) is both file format (in the form of a type of archive bitstream) and the name of the program used to handle such files. Used to collate collections of files into one larger file, for distribution or archiving, while preserving file system information such as user and group permissions, dates, and directory structures. Downloadable Linux or Unix files found on the internet are compressed using a tar or tar.gz compression format.

untar Open a tar file, or “untar” it.

trap An SNMP trap is a message which is initiated by a network element and sent to the network management system. See the *Cisco TelePresence System Message Guide*.

triple system A Cisco TelePresence System featuring three main screen display screens.

TFTP

Trivial File Transfer Protocol. Simplified version of FTP that allows files to be transferred from one computer to another over a network, usually without the use of client authentication (for example, username and password).

TIP

Telepresence Interoperability Protocol. The TIP Specification provides a protocol for interoperability between videoconferencing products, including streaming of audio, video, and data to and from videoconferencing products.

This feature adds TIP 7 support to the CTS and CTMS 1.7 release. The main purpose of the feature is for CTS and CTMS to operate in a strict TIP V7 mode when communicating with devices advertising TIP V7 support. This feature adds the ability to differentiate between MUX and TIP modes of operation to help with the strict adherence to the TIP V7 specifications as well as improving debugging and other operational processes. This feature adds the ability for the CTS to be configured for operation in a TIP-only mode and configured with a set of media features typically not used in Cisco-only deployments. This helps the CTS and CTMS inter-operate with third-party TIP devices.

TIP allows only endpoints with Restricted media settings to join Cisco TelePresence meetings. TIP endpoints are expected to be able to send restricted media and to drop endpoints that can only transmit un-restricted media. See the Telepresence Interoperability Protocol for Developers home page on Cisco.com.

U

UDI

Unique device identification.

V

VGA

Video Graphics Array port and cable for Cisco TelePresence. A CTS endpoint initiates a presentation at any point by plugging the VGA Auxiliary cable into the CTS endpoint presenter's laptop, which automatically shares from the presenter’s laptop. The last participant in the meeting to plug in their laptop with the VGA cable shares their presentation using PiP. See the Cisco TelePresence System User Guide for more information about sharing presentations.

virtual machine

A virtual machine (VM) is a software implementation of a machine (a computer, for example) that executes programs like a physical machine does. A system virtual machine provides a complete system platform which the execution of a complete operating system (OS). See the Cisco TelePresence System Commercial Express Installation Guide on Cisco.com for more information.

VLAN ID

The identification of the virtual LAN, which is used by the standard IEEE 802.1Q. Being on 12 bits, it allows the identification of 4096 VLANs.

VMware VMware software provides a completely virtualized set of hardware to the guest operating system. VMware software virtualizes the hardware for a video adapter, a network adapter, and hard disk adapters. The host provides pass-through drivers for guest USB, serial, and parallel devices. In this way, VMware virtual machines become highly portable between computers, because every host looks nearly identical to the guest. In practice, a system administrator can pause operations on a virtual machine guest, move or copy that guest to another physical computer, and there resume execution exactly at the point of suspension. Alternately, for enterprise servers, a feature called VMotion allows the migration of operational guest virtual machines between similar but separate hardware hosts sharing the same storage. Each of these transitions is completely transparent to any users on the virtual machine at the time it is being migrated. See the Cisco TelePresence System Commercial Express Installation Guide on Cisco.com for more information.

VPN model (fixed path) The VPN model uses a fixed, more secure path for packet delivery. VPNs only allow authorized personnel to gain access to their network.

W

WebDAV Web-based Distributed Authoring and Versioning (WebDAV) is a set of methods based on the Hypertext Transfer Protocol (HTTP) that facilitates collaboration between users in editing and managing documents and files stored on World Wide Web servers. WebDAV was defined in RFC 4918 by a working group of the Internet Engineering Task Force (IETF).

WebEx Cisco WebEx collaboration tools combine real-time desktop sharing with phone conferencing. See the Cisco TelePresence WebEx OneTouch Configuration Guide for the Cisco TelePresence System for first-time setup information. See also the *Cisco TelePresence System User Guide* that corresponds with your system.

INDEX