Cisco TelePresence Multipoint Switch Release 1.1 Administration Guide

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Cisco TelePresence Multipoint Switch Release 1.1 Administration Guide

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Preface

Initial Release: May 5, 2008, OL-12586-02
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General Description

The Cisco TelePresence Multipoint Switch (CTMS) is designed to support multipoint (multi-location) Cisco TelePresence meetings for up to 48 table segments (48 single-screen systems, 16 three-screen systems, or a mix of both) in a single meeting. Table 1 summarizes some of the features of the CTMS:

Table 1 CTMS Features

Feature	Benefit
Scalability	CTMS is designed to support small workgroup applications to large Cisco TelePresence multipoint meetings. Up to 48 table segments are supported.
Simple scheduling and “one-button-to-push” dialing	CTMS and integration to Cisco TelePresence System Manager (CTS-Manager) allows scheduling through the enterprise calendar (for example, Microsoft Outlook) and easy one-button-to-push call launch for both point-to-point and multipoint meetings.
Scheduled and non-scheduled meeting support	During an active meeting, the conference manager can add another party using the CTMS Administration software.
Audio add-on	Audio only participants can be added to any multipoint meeting using the audio add-on feature supported by CTS endpoints.
Video switching	Voice-activated site and segment video switching supported.
Video announce	Upon joining the meeting, Cisco TelePresence rooms will be shown to all other rooms for two seconds. This prevents a muted room from joining without being noticed.
Comprehensive diagnostics	Diagnostics features include system status information, alarms, downloadable error logs and Simple Network Management Protocol (SNMP) support.
Call detail records	Call records provide meeting beginning and ending information as well as meeting participant details.

New in CTMS Release 1.1

Increase in the Number of Supported Segments

CTMS Release 1.1 now supports up to 48 table segments (48 single-screen systems, 16 three-screen systems, or a mix of both) in a single Cisco TelePresence conference.

Cisco TelePresence Interoperability With Legacy Video Conferencing Devices

Cisco TelePresence is based on open standards, including SIP, H.264. AAC-LD and G.711. With Cisco TelePresence System (CTS) Release 1.3 and CTMS Release 1.1, Cisco TelePresence now supports interoperability between Cisco TelePresence systems and traditional video conferencing/video telephony endpoints using the Cisco Unified Video Conferencing 3500 series MCU (CUVC).

System Requirements

- Cisco MCS-7845-H2 or MCS-7845-I2 Media Convergence Server
- Cisco TelePresence Manager, Release 1.3
- Cisco Unified Communications Manager (Unified CM), Release 6.0 or later
- Cisco TelePresence System software, Release 1.3
- CTS-1000 and/or CTS-3000 systems

CTMS Administration Guide Organization

The *CTMS Administration Guide* is organized into the following chapters:

- Chapter 1: “Using CTMS Administration Software”
  This section provides information about the CTMS Administration software interface
- Chapter 2: “Configuring Cisco Unified Communications Manager for CTMS”
  This section provides instructions on how to configure Cisco Unified Communications Manager (Unified CM) so that is supports CTMS functionality.
- Chapter 3: “Installing CTMS Administration Software”
  This section describes how to install the CTMS administration software on the Cisco MCS-7800 Series Media Convergence Server.
- Chapter 4: “Configuring CTMS Administration Software”
  This section provides information about configuring the initial CTMS system settings.
- Chapter 5: “Managing Meetings”
  This section describe how to set up and administer static and ad hoc meetings using CTMS Administration software.
- Chapter 6: “Monitoring CTMS System Processes”
  This section describes how to monitor the CTMS system processes using the tools available in CTMS.

- Chapter 7: “Troubleshooting the CTMS System”
  This section describes how to view and categorize system error messages and alerts, and how to filter and download log files.
- Chapter 8: “Interoperability with Legacy Video Conferencing Devices”
  This section describes how to configure settings in Unified CM ,CTMS and Cisco Unified Video Conferencing MCUs (CUVC) to support Cisco TelePresence Interoperability.
- Appendix A: “Command Line Interface (CLI) Commands:
  This section includes CLI commands that can be used to configure CTMS.

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly *What’s New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

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

CHAPTER 1

Using CTMS Administration Software

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Overview

Administrators use the CTMS Administration software to configure, to maintain, to monitor and to troubleshoot multipoint switching. Administrative tasks include the following:

- Configuring system settings. These tasks include configuring general system settings, Cisco TelePresence Manager (CTS-Manager) settings, and access management settings (such as administrative roles), System settings tasks are described in "Chapter 4: Configuring CTMS Administration Software."
- Managing meetings. These tasks include defining meeting templates, defining static and ad hoc meetings and managing active meetings, as well as being able to observe information about scheduled meetings. Meeting management tasks are described in "Chapter 5: Managing Meetings."
- Monitoring the system. These tasks include restarting the system and monitoring a variety of system processes. System monitoring tasks are described in "Chapter 6: Monitoring CTMS System Processes."
- Troubleshooting the system. These tasks include monitoring system errors and log files to determine the causes of system errors. Troubleshooting is described in "Chapter 7: Troubleshooting the CTMS System."

Prior to configuring CTMS Administration software, you must configure Cisco Unified Communications Manager (Unified CM) to support multipoint switching. Unified CM for CTMS configuration tasks are described in "Chapter 2: Configuring Cisco Unified Communications Manager for CTMS."

Installing CTMS Administration software is described in "Chapter 3: Installing CTMS Administration Software."

Administrative Roles

CTMS administration software recognizes three different administrative roles; access to task folders is dependent on defined administrative roles.

- Administrators: Administrators have the authority to perform all tasks associated with CTMS, including configuring system settings, managing multipoint meetings, maintaining, monitoring and troubleshooting CTMS. Administrators have access to all folders in CTMS Administration software.
- Meeting Scheduler: Meeting Schedulers have the authority to perform multipoint meeting management tasks, such as defining meeting templates, and setting up (and breaking down, as necessary) ad hoc, static and scheduled meetings. Meeting Schedulers have access to the Meeting Management folder in CTMS Administration software.
- Diagnostic Technicians: Diagnostic Technicians have the authority to perform CTMS monitoring and troubleshooting tasks. Diagnostic Technicians have access to the Troubleshooting and Monitoring folders in CTMS Administration software.

Administrative role configuration is described in "Chapter 4: Configuring CTMS Administration Software."

User Interface

CTMS Administration software user interface is similar to the interface used in Cisco TelePresence System Administration software and Cisco TelePresence Manager software. The user interface is organized as follows:

- Header, page 1-11
- System Status, page 1-11
- Navigation Pane, page 1-12
- Content Area, page 1-12

Figure 1-1 shows an example of the CTMS Administration software user interface.

Figure 1-1 CTMS Administration Software User Interface

Header

The header at the top of all CTMS Administration windows lists the name of the software application and provides links for the following functions:

- Admin—Roll your cursor over “Admin” to display the name of the user current logged in to CTM Administration.
- Logout—Click to log out of the system.
- Help—Click to display online help for using the CTMS Administration.
- About—Click to display software version and licensing information.

System Status

System status is always in view in the lower left corner of the CTMS Administration window. The system status is updated every 60 seconds. Click the **Refresh** button in the upper right corner of the box to obtain an immediate update.

The system status box shows the following information:

- Active meetings: Shows the number of meetings currently in progress.
- Errors: Shows the total number of system errors that are defined as either CRIT or ERROR. If the total number of system errors is 0, a green check is displayed. If the total number of system errors is more than 0, a red cross is displayed. System errors are described in “Chapter 7: Troubleshooting the CTMS System.”

- Warnings: Shows the total number of system errors defined as WARN. If the total number of system errors is 0, a green check is displayed. If the total number of system errors is more than 0, a red cross is displayed. System warnings are described in "Chapter 7: Troubleshooting the CTMS System."
- Status: Shows the current state of all system processes. If all system processes are in the RUNNING state, a green check is displayed. If one or more processes are in the STOPPED state, a red check is displayed. System processes are described in "Chapter 6: Monitoring CTMS System Processes."

Navigation Pane

In the navigation pane at the left side of the CTMS Administration window, the System Configuration, Meeting Management, Troubleshooting, and Monitoring folders display lists of tasks associated with CTMS. Lists of tasks are also displayed in the content area of the window when you click any folder in the navigation pane. Click the task name or the arrows in the left panel, or click the highlighted name in the content area to navigate to tasks.

Content Area

The right frame is the content area. When you select a folder or a task from the navigation pane, the content associated with that item displays in the content area. The gray bar above the content area shows the navigational path so you can quickly identify where you are at any time.

System Information

Choose **System Information** from the Navigation Pane to view information about the Cisco TelePresence Multipoint Switch. The information displayed under System Information is configured during CTMS software installation.

- SKU
- Hostname: Hostname of the CTMS.
- IP Address: IP address of the Cisco TelePresence Multipoint Switch.
- Hardware Model: Cisco MCS 7800 Series Media Convergence Server on which the Cisco TelePresence Multipoint Switch is running.
- Software Version: Version of CTMS Administration software currently installed.

CHAPTER 2

Configuring Cisco Unified Communications Manager for CTMS

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Overview

Before installing the CTMS Administration software on your Cisco MCS-7845 Media Convergence Server, you need to perform the following configuration tasks in Cisco Unified Communications Manager (Unified CM):

- Create a SIP security profile. This security profile will be used on the SIP trunk between CTMS and Unified CM.
- Create a Session Initiation Protocol (SIP) trunk. The SIP trunk is used for communication between Unified CM and CTMS.
- Create route patterns. A route pattern comprises a string of digits (an address) and a set of associated digit manipulations that route calls to a route list or a gateway. Route patterns are used for routing conferences numbers to the CTMS.

Prerequisites

Before starting the tasks in this chapter, make sure that the following conditions are met or that you understand the following information:

- Unified CM is running and using version 6.0 or later software.
- Cisco TelePresence System is running version 1.2.3 or later software. For interoperability with legacy video conferencing devices, Cisco TelePresence System must be running version 1.3 or later software.

For additional information about configuring Unified CM for Cisco TelePresence System, refer to the *Cisco Unified Communications Manager Installation Guide for the Cisco TelePresence System*.

Logging into the Unified CM Administration Application

To log into the Unified CM Administration application:

Step 1 Open a web browser.

Step 2 Access a web browser that is supported by the Unified CM Administration application from any user PC in your network. In the address bar of the web browser, enter the following URL:

```
https://CUCM-server-name
```

where *CUCM-server-name* is the name or IP address of the server.

Note You may need to specify the address of the server where Unified CM is installed. If your network uses DNS services, you can specify the hostname of the server. If your network does not use DNS services, you must specify the IP address of the server.

Step 3 Log in with your assigned administrative privileges.

Step 4 Select ***Cisco Unified Communications Manager Administration*** in the **Navigation** field at the upper right corner of the page and click ***Go*** to return to the Cisco Unified Communications Manager Administration home page.

Creating a SIP Trunk Security Profile

To create a SIP trunk security profile:

Step 1 Click ***System***. Under **Security Profile**, click ***SIP Trunk Security Profile***.

Step 2 Click the ***Add New*** button at the bottom of the page or click the ***+ sign*** at the top of the page.

Step 3 Enter the settings as indicated in Table 2-1 to configure the SIP trunk security profile. Leave default settings for fields not included in Table 2-1.

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Table 2-1 SIP Trunk Security Profile Settings

Field	Required	Setting
Name	Yes	Enter a text string identifying this SIP trunk security profile.
Description	—	Enter a text string describing this SIP trunk security profile.
Device Security Mode	Yes	Select ***Non Secure***.
Incoming Transport Type	Yes	Select ***TCP+UDP***.
Outgoing Transport Type	Yes	Select ***TCP***.
Incoming Port	Yes	Enter ***5060***.

Step 4 Click the ***Save*** button at the bottom of the page.

Creating a SIP Trunk

To create a SIP trunk:

Step 1 Click ***Device***. Click ***Trunk***.

Step 2 Click the ***Add New*** button at the bottom or click the ***+ sign*** at the top of the Trunk Configuration page.

Step 3 Select ***SIP Trunk*** from the **Trunk Type** pull-down menu, then click ***Next***.

Step 4 Enter the settings as indicated in Table 2-2 to configure the SIP trunk. Leave default settings for fields not included in Table 2-2.

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Table 2-2 SIP Trunk Settings

Field	Required	Setting
Device Information		
Device Name	Yes	Enter a text string identifying this SIP trunk.
Description	—	Enter a text string describing this SIP trunk.
Device Pool	Yes	Select ***Default***.
SIP Information		
Destination Address	Yes	Enter the IP address of the CTMS.
SIP Trunk Security Profile	Yes	Select the SIP trunk security profile that you created for CTMS.
SIP Profile	Yes	Select ***Standard SIP Profile***.

Step 5 Click the ***Save*** button at the bottom of the page.

Configuring a Route Pattern

A route pattern allows a Unified CM-managed device to access another device by dialing its number. Such devices may include gateways, Cisco TelePresence Multipoint Switch (CTMS) systems, or Cisco Unified Video Conferencing (CUVC) MCUs. Each device requires its own unique route pattern.

To configure a route pattern:

Step 1 Click ***Call Routing***. Under **Route/Hunt**, click ***Route Pattern***.

Step 2 Click the ***Add New*** button at the bottom or click the ***+ sign*** at the top of the Route Pattern Configuration page.

Step 3 Enter the settings as indicated in Table 2-3 to configure the SIP trunk. Leave default settings for fields not included in Table 2-3.

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Table 2-3 Route Pattern Configuration Settings

Field	Required	Setting
Pattern Definition		
Route Pattern	Yes	Enter the route pattern, including numbers and wildcards (do not use spaces); for example, for NANP, enter 9.@ for typical local access, or 8XXX for a typical private network numbering plan. The uppercase characters A, B, C, and D are valid characters. **Note** See the "Wildcards and Special Characters in Route Patterns and Hunt Pilots" section in the *Cisco CallManager System Guide* for more information about wildcards.
Description	—	Enter a text string describing this route pattern.
Gateway/Route List	Yes	Select the SIP trunk that you created for CTMS.
Call Classification	Yes	Select ***OnNet***.

Step 4 Click the ***Save*** button at the bottom of the page.

CHAPTER 3

Installing CTMS Administration Software

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Prerequisites

Before you install the Cisco TelePresence Multipoint Switch (CTMS) Administration software system files, you need the following equipment and information:

- Cisco TelePresence System (CTS)-1000 Release and/or CTS-3000 assembled and configured to support TelePresence conferencing. For more information, refer to the following guides:
  - *Cisco TelePresence System Release 1.3 Administrator's Guide*
  - *Cisco TelePresence 3000 Assembly, Use & Care, and Field Replacement Unit Guide*
  - *Cisco TelePresence 1000 Assembly, Use & Care, and Field Replacement Unit Guide*
- Cisco MCS-7845-H2 or MCS-7845-I2 Media Convergence Server, installed and connected to a Domain Name System (DNS) server and your network.
- Console able to access the Cisco MCS-7845-H2 Series Media Convergence Server.
- DVD that contains the CTMS Administration software application.
- Cisco Unified Communications Manager (Unified CM) 6.0 or higher configured to support CTS Release 1.3 and integrated to work with CTMS, meaning that a SIP security profile, SIP trunk, and route pattern specific to CTMS have been created. For more information about Unified CM for CTS configuration, refer to *Cisco Unified Communications Manager Installation Guide for the Cisco TelePresence System*.

Installing the CTMS Administration Software

To install the CTMS Administration software application:

Step 1 Insert the CTMS Administration software application DVD into the appropriate drive in the Cisco MCS-7800 Series Media Convergence Server and boot up the host.

Step 2 **Media Check**: The system asks if you wish to perform a media check on the inserted DVD. Select ***Yes*** or ***No*** and press the Enter key. If you select ***No***, the system bypasses the media check. If you select ***Yes***, the system performs a checksum to make sure that the media on the DVD is intact. When the checksum has successfully completed, select ***Okay*** and press the Enter key.

Note If the checksum fails, it could be because of a problem with either the DVD or the DVD drive. The DVD or the DVD drive could need cleaning; the DVD data could be corrupted; or the software image you are trying to load could be the wrong image.

Step 3 **Hard Drive Check**: The system then checks the status of the hard drives in the server. When cued to update BIOS, press the Enter key to continue.

Step 4 **Platform Installation Wizard**: Select ***Proceed*** and press the Enter key to continue.

Step 5 **Automatic Negotiation of Ethernet NIC Speed and Duplex**: Select ***Yes*** and press the Enter key to continue.

Step 6 **DHCP**: Cisco Systems recommends that you use a static IP address instead of DHCP. Select ***No*** to define a specific static IP address and press the Enter key. Enter the following information:

- Hostname: Hostname of the CTMS server
- IP Address: IP address of the CTMS server
- IP Mask: Subnet mask for the CTMS server IP address
- Gateway Address: IP address for the gateway to the CTMS server

Select ***Okay*** and press the Enter key to continue.

Step 7 **DNS Client**: Select ***Yes*** and press the Enter key. Enter the following information:

- Primary DNS: IP address of the primary DNS server
- Secondary DNS: IP address of the secondary DNS server
- Domain: Domain name for your company

Select ***Okay*** and press the Enter key to continue.

Step 8 **Platform Administrator Username and Password**: Enter the following information:

- Administration ID
- Password
- Confirm Password

Select ***Okay*** and press the Enter key to continue.

Step 9 **Certificate Information**: Enter the following information:

- Organization
- Unit
- Location

- State
- Country

Select ***Okay*** and press the Enter key to continue.

Step 10 **Network Time Protocol (NTP) Client Information**: Enter the following information:

- NTP Server 1: IP address of the primary NTP server
- NTP Server 2: IP address of the secondary NTP server
- NTP Server 3 through 5: IP addresses of additional NTP servers

Select ***Okay*** and press the Enter key to continue.

Note The NTP servers identified must be the same for CTMS, CTS and CTM. It is recommended that you provide at least three NTP servers.

Step 11 **Platform Configuration Confirmation**: Select ***Okay*** to continue with installation. select ***Back*** to go to previous screens in the installation procedure, or ***Cancel*** to abort the installation. When you have made your selection, press the Enter key. If you select ***Okay***, platform and application installation takes approximately 30 to 45 minutes. During installation, allow the default selection for the custom kernal to proceed.

Step 12 After the CTMS Administration software application files have been installed, the system automatically reboots. The system then performs a check of the network connectivity and setup. If the system determines that any of the information you entered during the preceding steps is incorrect, a message is displayed on the console, giving the you the following options:

- Retry: Select this option (and press the Enter key) to retry the installation procedure.
- Review: Select this option (and press the Enter key) if you need to change any of the data you entered during the preceding installation steps. If you select this option, navigate to the appropriate installation data entry screen, re-enter the data, and then proceed to the **Platform Configuration** screen to re-initiate installation.
- Halt: Select this option (and press the Enter key) if you need to abort installation.
- Ignore: Select this option (and press the Enter key) to ignore the system warning.

Step 13 After the network connectivity and setup check, the system reboots again. Following this reboot, the CTMS Administration software log-on screen is displayed. Enter your username and password to continue with CTMS Administration software configuration.

CHAPTER 4

Configuring CTMS Administration Software

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Contents

Overview

The following sections describe the System Configuration parameters for the Cisco TelePresence Multipoint Switch (CTMS). System Configuration is divided into the following areas:

System Settings

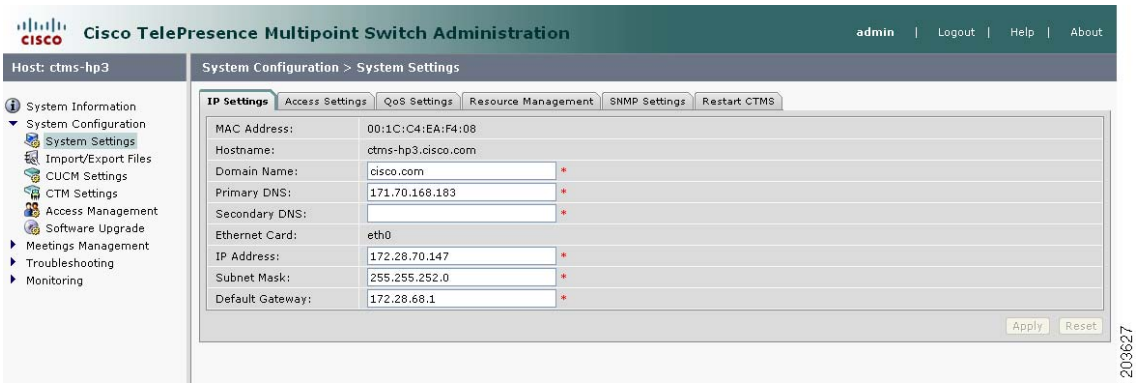
System Settings are initially configured during Cisco TelePresence Multipoint Switch (CTMS) Administration software set up. Use the System Settings to make changes to these initial settings. System Settings consists of four configuration areas:

- Editing IP Settings, page 4-22
- Editing Access Settings, page 4-23
- Configuring and Editing QoS Settings, page 4-24
- Configuring and Editing Resource Management, page 4-28

Editing IP Settings

Figure 4-1 shows the IP Settings screen.

Figure 4-1 IP Settings



To edit IP settings:

Step 1 Click ***System Settings*** under the **System Configuration** folder in the Navigation Pane.

Step 2 Click the ***IP Settings*** tab. IP Settings screen displays a table providing the IP Settings fields. Most of the settings displayed on the IP Settings screen are configured during initial installation of the CTMS Administration software. Only three fields can be configured on this screen:

- IP Address
- Subnet Mask
- Default Gateway

Edit settings (as needed) as described in Table 4-1

Table 4-1 IP Settings

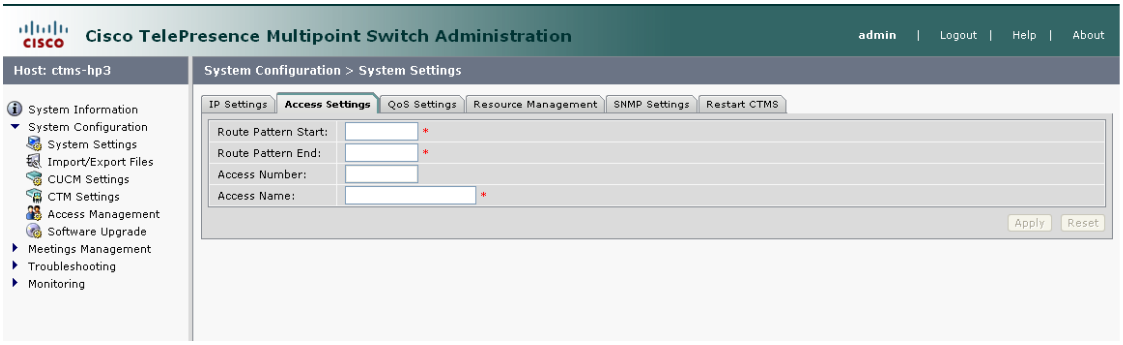
Field or Button	Setting
MAC Address	(View only) MAC address of the MCU device on which the Cisco TelePresence Multipoint Switch is located.
Hostname	(View only) Hostname configured for the MCU device on which the Cisco TelePresence Multipoint Switch is located.
Domain Name	(View only) Domain name in which the MCU device on which the Cisco TelePresence Multipoint Switch is located.
Primary DNS	(View only) IP address of the primary DNS for the MCU device on which the Cisco TelePresence Multipoint Switch is located.
Secondary DNS	(View only) IP address of the secondary DNS for the MCU device on which the Cisco TelePresence Multipoint Switch is located.
Ethernet Card	(View only) Ethernet card being used on the MCU server to connect to the network.
IP Address	IP address of the Cisco TelePresence Multipoint Switch. **Note** After changing the IP address, close your browser window, then log into CTMS again using your new IP address.
Subnet Mask	Subnet mask of the Cisco TelePresence Multipoint Switch.
Default Gateway	Default gateway IP address for the Cisco TelePresence Multipoint Switch.

- To register new or modified settings, click ***Apply***.
- To restore the original settings, click ***Reset***.

Editing Access Settings

Figure 4-2 shows the Access Settings screen.

Figure 4-2 Access Settings



To edit Access settings:

Step 1 Click ***System Settings*** under the **System Configuration** folder in the Navigation Pane.

Step 2 Click the ***Access Settings*** tab. Access Settings displays a table providing the Access Settings configuration fields. All of the settings on the Access Screen are derived from settings you configured in Cisco Unified Communications Manager (Unified CM).

Edit settings (as needed) as described in Table 4-2

Table 4-2 Access Settings

Field or Button	Setting
Route Pattern Start	Defines the first number in your defined route pattern as configured in Unified CM.
Route Pattern End	Defines the last number in your defined route pattern as configured in Unified CM.
Access Number	Displays the first number in the route pattern as defined in Unified CM. CTMS Administration software (CTMSA) automatically selects that number as the access number. That number is used for scheduled meetings and cannot be used for static meetings.
Access Name	Descriptive name for the access number. Maximum number of characters is 20.

- To register new or modified settings, click ***Apply***.
- To restore the original settings, click ***Reset***.

Configuring and Editing QoS Settings

Figure 4-3 shows the QoS Settings screen.

Figure 4-3 QoS Settings

To configure or edit QoS settings:

Step 1 Click ***System Settings*** under the **System Configuration** folder in the Navigation Pane to open the **System Settings** window.

Step 2 Click the ***QoS Settings*** tab. QoS Settings displays a table providing the QoS Settings configuration fields.

Enter or edit settings (as needed) as described in Table 4-3

Table 4-3 QoS Settings

Field or Button	Setting
DSCP for Media	Traffic marking values for voice and video traffic used for network queuing. Available settings are: • AF11 DSCP (001010) • AF12 DSCP (001100) • AF13 DSCP (001110) • AF21 DSCP (010010) • AF22 DSCP (010100) • AF23 DSCP (010110) • AF31 DSCP (011010) • AF32 DSCP (011100) • AF33 DSCP (011110) • AF41 DSCP (100010) • AF42 DSCP (100100) • AF43 DSCP (100110) • CS1 (precedence 1) DSCP (001000) • CS2 (precedence 2) DSCP (010000) • CS3 (precedence 3) DSCP (011000) • CS4 (precedence 4) DSCP (100000) • CS5 (precedence 5) DSCP (101000) • CS6 (precedence 6) DSCP (110000) • CS7 (precedence 7) DSCP (111000) • Default DSCP (000000) • EF DSCP (101110) The default value for this field is CS4 (precedence 4) (100000). It is recommended that you use the default value for this field.

Table 4-3 QoS Settings

Field or Button	Setting
DSCP for Signaling	Traffic queuing techniques that define per-hop behavior based on the Differentiated Services Code Point (DSCP) value in the IP header of a packet. control stream Available settings are: • AF11 DSCP (001010) • AF12 DSCP (001100) • AF13 DSCP (001110) • AF21 DSCP (010010) • AF22 DSCP (010100) • AF23 DSCP (010110) • AF31 DSCP (011010) • AF32 DSCP (011100) • AF33 DSCP (011110) • AF41 DSCP (100010) • AF42 DSCP (100100) • AF43 DSCP (100110) • CS1 (precedence 1) DSCP (001000) • CS2 (precedence 2) DSCP (010000) • CS3 (precedence 3) DSCP (011000) • CS4 (precedence 4) DSCP (100000) • CS5 (precedence 5) DSCP (101000) • CS6 (precedence 6) DSCP (110000) • CS7 (precedence 7) DSCP (111000) • Default DSCP (000000) • EF DSCP (101110) The default value for this field is CS3 (precedence 3) (011000). It is recommended that you use the default value for this field.

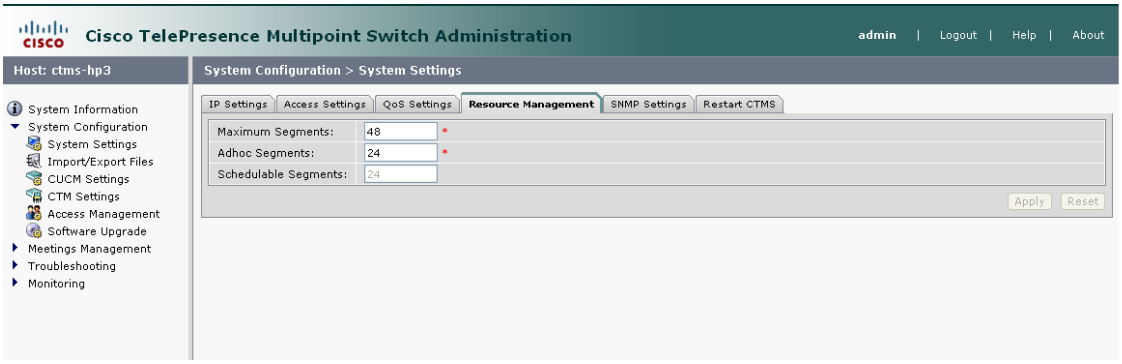
- To register new or modified settings, click ***Apply***.
- To restore the original settings, click ***Reset***.

Note We recommend that you use the same Quality settings for CTSM that you have configured in Cisco Unified Communications Manager for Cisco TelePresence Systems endpoints.

Configuring and Editing Resource Management

Figure 4-4 shows the Resource Management Settings screen.

Figure 4-4 Resource Management Settings



To configure or edit Resource Management settings:

Step 1 Click ***System Settings*** under the **System Configuration** folder in the Navigation Pane.

Step 2 Click the ***Resource Management*** tab. Resource Management displays a table providing the Resource Management Settings configuration fields.

Enter or edit settings (as needed) as described in Table 4-4

Table 4-4 Resource Management Settings

Field or Button	Setting
Maximum Segments	Defines the total number of table segments (individual video displays) this CTMS handles. Maximum number is 48.

Table 4-4 Resource Management Settings (continued)

Field or Button	Setting
Adhoc Segments	Defines the maximum number of table segments available for impromptu meetings. By defining the number of table segments available for adhoc meetings, you ensure that there will be sufficient table segments available for scheduled meetings. Maximum number is 48. **Note** Combined total for Schedulable Table Segments and Ad hoc Table Segments cannot exceed 48. **Note** In Interop calls (meaning that the teleconference includes both CTS and legacy teleconferencing (Cisco Unified Video Conferencing (CUVC)), CUVC occupies one segment per call. Segment use is dependint on the number of Interop calls; for example, if there are three on-going Interop calls, then three CTMS segments will be used to establish calls to CUVC.
Schedulable Segments	(View only) This field displays the number of table segments available at any one time for scheduled meetings; CTMS automatically derives this value by subtracting the defined number of Ad Hoc Table Segments from the defined number of Maximum Table Segments.

Note If you do not have Cisco TelePresence Manager installed, all table segments must be ad hoc.

- To register new or modified settings, click ***Apply***.
- To restore the original settings, click ***Reset***.

Configuring and Editing SNMP Settings

The Simple Network Management Protocol (SNMP) is an application layer protocol that facilitates the exchange of management information between network devices; it enables network administrators to manage network performance, find and solve network problems, and plan for network growth by analyzing information gathered using MIBs.

With SNMP for CTMS, you first enable (or disable) SNMP; when you enable SNMP, you turn on the SNMP daemon so CTMS is registered with SNMP (so that SNMP can begin monitoring CTMS and gathering data). You can also designate a particular server where SNMP trap messages are gathered and stored. Both of these configuration steps require separate username and password authentication.

By default, SNMP service is disabled. Once SNMP is enabled, the following default SNMP settings are also enabled:

- One SNMP username set to “admin”. This name cannot be changed.

- SNMP service password set to “snmppassword”. The password should be changed.
- No trap receiver configured. Use the Trap Receiver Configuration fields in this window to configure a trap receiver. The fields collect trap receiver username, password, authentication algorithm, hostname or IP address, and port.

Figure 4-5 shows the SNMP Settings screen.

Figure 4-5 SNMP Settings

To edit SNMP settings:

Step 1 Click ***System Settings*** under the **System Configuration** folder in the Navigation Pane.

Step 2 Click the ***SNMP Settings*** tab. SNMP Settings displays a table providing the SNMP Settings configuration fields.

Edit settings (as needed) as described in Table 4-5

Table 4-5 SNMP Settings

Field or Button	Setting
Engine ID	(View only) The engine ID for the SNMP agent on this Cisco TelePresence Multipoint Switch. This number is usually based on the CTMS MAC address. If you configure the trap receiver, this engine ID is used to create a trap user on the trap receiver system and to compute the security digest for authenticating and encrypting packets sent to a user on the remote host.
SNMP	Enable or disable SNMP for CTMS. Click the appropriate radio button to select. When SNMP is enabled, supply a password for the SNMP server in the **Configuration** area.
Configuration	
User Name	SNMP server username.

Table 4-5 SNMP Settings

Field or Button	Setting
Current Password	SNMP server password. The password must be 8 characters long. Enter it twice for verification.
Trap Receiver Configuration	To select whether to use an SNMP trap receiver, click the **Yes** or **No** radio button, as appropriate. When a trap receiver is used, supply login information for the trap receiver in the following fields.
User Name	Trap receiver username.
Current Password	Trap receiver password. The password must be 8 characters long. Enter it twice for verification.
Authentication Algorithm	Choose Message Digest 5 (MD5) or Secure Hash Algorithm (SHA) for authentication.

- To register new or modified settings, click ***Apply***.
- To restore the original settings, click ***Reset***.

Restarting CTMS

Figure 4-6 shows the Restart CTMS screen.

Figure 4-6 Restart CTMS Settings

To restart CTMS or to shutdown CTSM:

Step 1 Click ***System Settings*** under the **System Configuration** folder in the Navigation Pane.

Step 2 Click the ***Restart CTMS*** tab.

Step 3 Click ***Restart*** to restart—meaning shutdown and then reboot—CTMS.

Step 4 Click ***Shutdown*** to completely shutdown CTMS.

Importing and Exporting Files

Import/Export Files enables you to reuse previously defined user and configuration files (such as meeting templates) when upgrading to a new version of CTMS Administration Software. To reuse previously defined user and configuration files, you must first export the files to a secure location, upgrade to the new version of CTMS Administration software, and then import the files.

Figure 4-7 shows the Restart CTMS screen.

Figure 4-7 Import/Export Files Settings

To import or export files:

Step 1 Click ***Import/Export Files*** under the **System Configuration** folder in the Navigation Pane.

Step 2 Click ***Export Files*** to import defined user and configuration files. Click ***Browse*** to select the exported user and configuration files, then click ***Install Config Files*** to unzip and install the files.

Step 3 Click ***Import Files*** to import defined user and configuration files. Click ***Browse*** to select the exported user and configuration files, then click ***Install Config Files*** to unzip and install the files.

Cisco Unified Communications Manager Settings

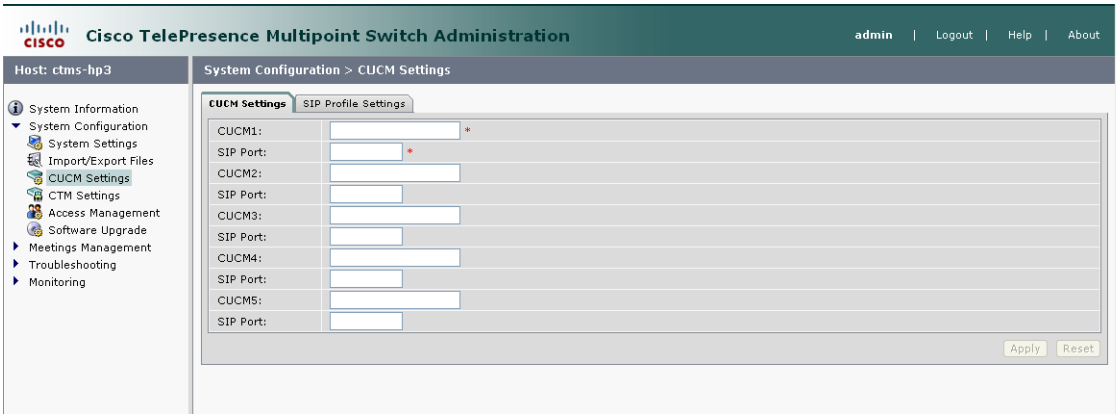
Cisco Unified Communications Manager Settings (Unified CM) consists of two configuration areas:

- Configuring and Editing Unified CM Settings, page 4-33
- Configuring and Editing SIP Profile Settings, page 4-33

Configuring and Editing Unified CM Settings

Figure 4-8 shows the Unified CM Settings screen.

Figure 4-8 Unified CM Settings



To configure or edit Unified CM settings:

Step 1 Click ***Unified CM Settings*** under the **System Configuration** folder in the Navigation Pane.

Step 2 Click the ***Unified CM Settings*** tab. Unified CM Settings displays a table providing the Unified CM Settings configuration fields. Enter settings (as needed) as described in Table 4-6

Table 4-6 Unified CM Settings

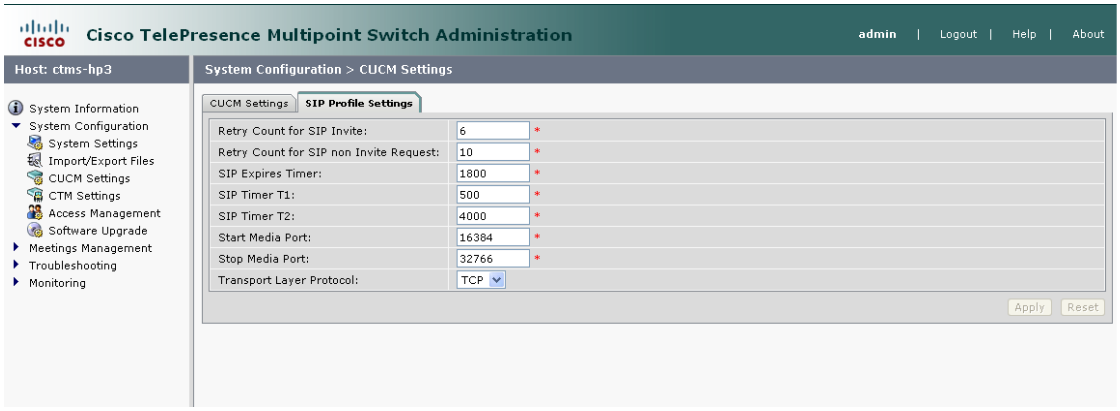
Field or Button	Setting
Unified CM 1 through 5	Hostnames or IP address(es) of the Cisco Unified Communications Manager (Unified CM) server. **Note** It is important to add all Unified CM servers in the cluster.
SIP Port	Port number for Cisco Unified SIP IP Phones that are using UDP to listen for SIP messages from Unified CM. The default setting equals 5060.

- To register new or modified settings, click ***Apply***.
- To restore the original settings, click ***Reset***.

Configuring and Editing SIP Profile Settings

Figure 4-9 shows the SIP Profile Settings screen.

Figure 4-9 SIP Profile Settings



To configure or edit SIP Profile settings:

Step 1 Click ***Unified CM Settings*** under the **System Configuration** folder in the Navigation Pane to open the **Unified CM Settings** window.

Step 2 Click the ***SIP Profile Settings*** tab. SIP Profile Settings displays a table providing the SIP Profile Settings configuration fields.

Enter or edit settings (as needed) as described in Table 4-7

Table 4-7 SIP Profile Settings

Field or Button	Setting
Retry Count for SIP Invite	Specifies the number of times that Cisco Unified Communications Manager (Unified CM) will re-send the INVITE message. This is a required field. Minimum is 1. Maximum is 10 Default is 6.
Retry Count for SIP non-Invite Request	Specifies the number of times that Unified CM will re-send the non-INVITE message. This is a required field. Minimum is 1. Maximum is 10 Default is 6.
SIP Expires Timer	Specifies the maximum time that an INVITE message remains valid. If Unified CM has not received an answer before this timer expires, Unified CM tears down the call. This is a required field. Minimum is 60000 (msec). Maximum is 300000 (msec). Default is 180000 (msec).
SIP Timer T1	Specifies the lowest value, in milliseconds, of the retransmission timer for SIP messages. Valid values include any positive number. Default specifies 500.
SIP Timer T2	Specifies the highest value, in milliseconds, of the retransmission timer for SIP messages. Valid values include any positive number. Default specifies 4000.
Start Media Port	Designates the start real-time protocol (RTP) port for media. Media port ranges from 16384 to 32766. Default specifies 16384.

Table 4-7 SIP Profile Settings

Field or Button	Setting
Stop Media Port	Designates the stop real-time protocol (RTP) port for media. Media port ranges from 16384 to 32766. Default specifies 32766.
Transport Layer Protocol	Select TCP or UDP for this field. Both transport types are supported. TCP is the recommended transport type. **Note** Whenever the transport type is modified in CTMS, the corresponding transport type for the Unified CM trunk setting must be changed to match the CTMS transport type.

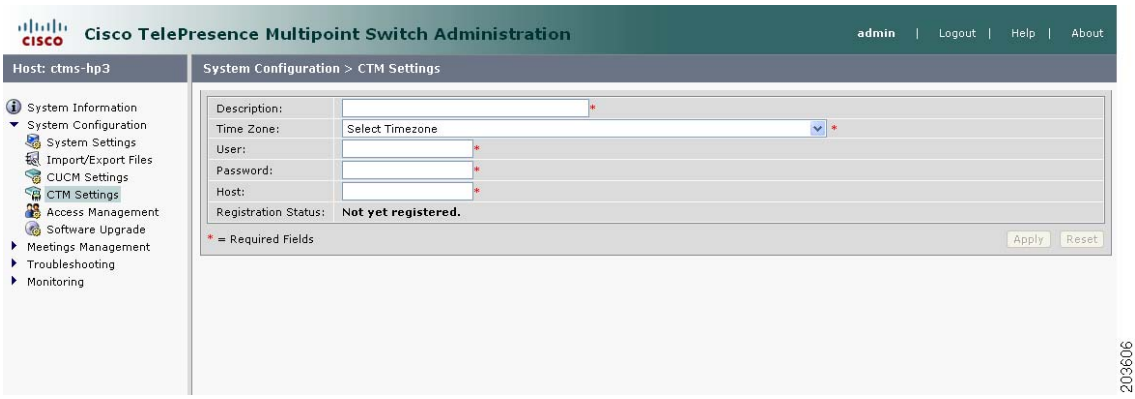
- To register new or modified settings, click ***Apply***.
- To restore the original settings, click ***Reset***.

Configuring and Editing Cisco TelePresence Manager Settings

These setting are used to register CTMS with Cisco TelePresence Manager (CTS-Man) for scheduled meetings.

Figure 4-10 shows the Cisco TelePresence Manager Settings screen.

Figure 4-10 Cisco TelePresence Manager Settings



To configure or edit CTS-Manager settings:

Step 1 Click ***CTM Settings*** under the **System Configuration** folder in the Navigation Pane to open the **CTM Settings** window.

Step 2 CTM Settings displays a table providing the Cisco TelePresence Manager Settings configuration fields.

Enter or edit settings (as needed) as described in Table 4-8

Table 4-8 Cisco TelePresence Manager Settings

Field or Button	Setting
Description	Text describing or identifying this particular CTMS. The maximum number of characters for this field is 62 characters.
Time Zone	Indicates the time zone in which the CTMS is located. Click "Time Zone" to display the list of available time zone options. Click option to highlight and select.
User	Username with which CTMS web services communicates with CTS Manager. **Note** Usernames must be at least 5 characters, but not more than 64 characters in length, and can contain upper and lower case alphanumeric characters and the underscore and dash characters. The following usernames are not allowed: apache, daemon, nobody, operator, and shutdown. **Note** User name and password configured on the CTMS and CTS-Man need to be the same.
Password	Password with which CTMS web services communicates with CTS Manager. **Note** Passwords must be at least 5 characters, but not more than 64 characters in length, and can contain upper and lower case alphanumeric characters and the underscore and dash characters. The following usernames are not allowed: apache, daemon, nobody, operator, and shutdown. **Note** User name and password configured on the CTMS and CTS-Man need to be the same.
Host	Host is the IP address or host name of the CTS-Man.
Registration Status	(View only) Registration state of the CTMS and CTS-Man.

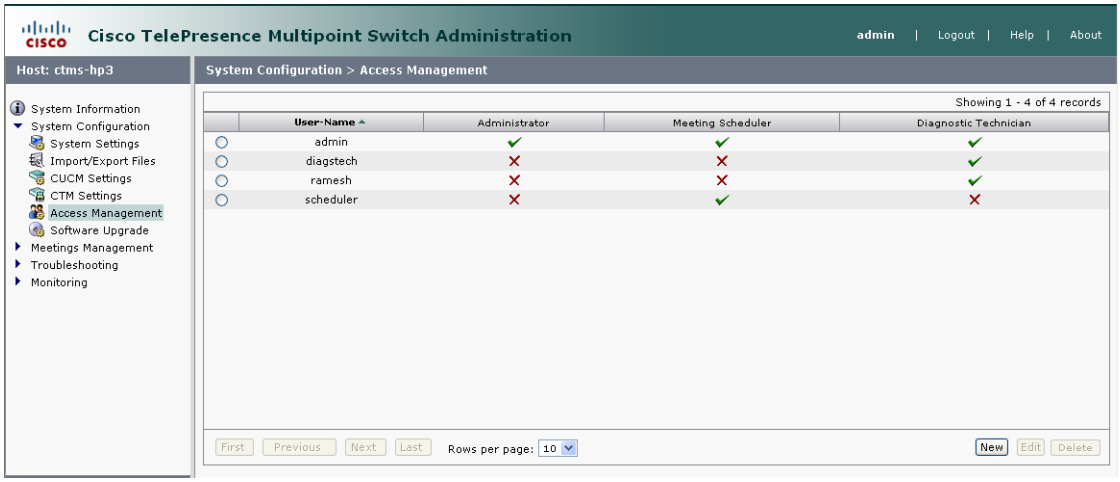
- To register new or modified settings, click ***Apply***.
- To restore the original settings, click ***Reset***.

Configuring and Editing Access Management

CTMS administration software recognizes three different administrative roles; access to task folders is dependent on defined administrative roles. So, administrative roles are considered a form of access management and are defined using Access Management settings.

Figure 4-11 shows the Access Management screen.

Figure 4-11 Access Management



To configure or edit Access Management settings:

Step 1 Click ***Access Management*** under the **System Configuration** folder in the Navigation Pane to open the **Access Management** window.

Step 2 Access Management initially displays a table providing the following information about already-defined users as described in Table 4-9.

Table 4-9 Access Management Table Field Descriptions

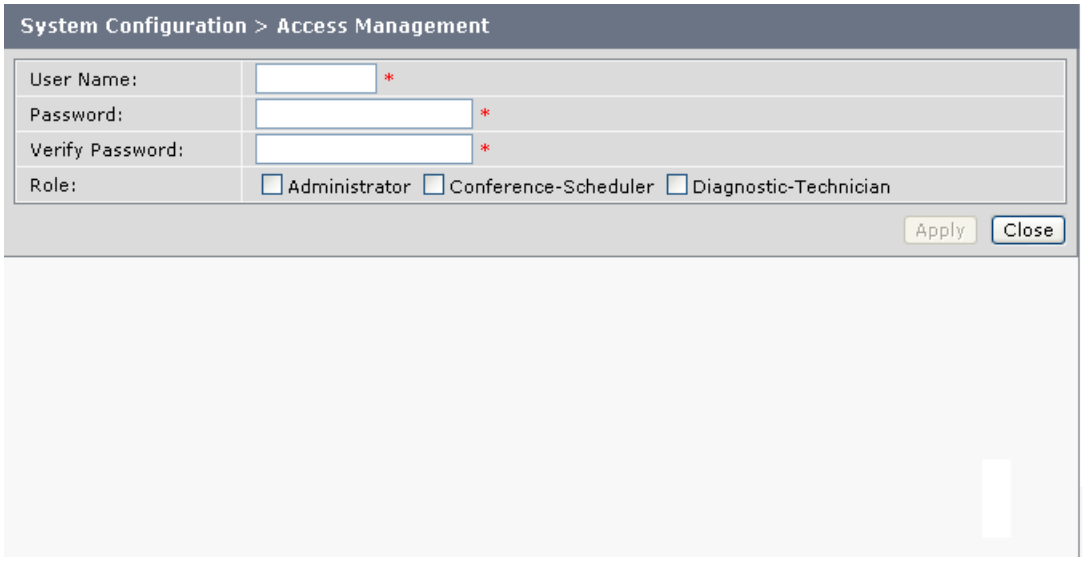
Field	Description
Username	Username of a specific CTMS user.
Administrator	Administrators have the authority to perform all tasks associated with CTMS, including configuring system settings, managing multipoint meetings, maintaining, monitoring and troubleshooting CTMS. Administrators have access to all folders in CTMS Administration software. A green check in this field indicates that the selected user has been designated as an administrator.
Meeting Scheduler	Meeting Schedulers have the authority to perform multipoint meeting management tasks, such as defining meeting templates, and setting up (and breaking down, as necessary) ad hoc, static and scheduled meetings. Meeting Schedulers have access to the Meeting Management folder in CTMS Administration software. A green check in this field indicates that the selected user has been designated as a meeting scheduler.
Diagnostic Technician	Diagnostic Technicians have the authority to perform CTMS monitoring and troubleshooting tasks. Diagnostic Technicians have access to the Troubleshooting and Monitoring folders in CTMS Administration software. A green check in this field indicates that the selected user has been designated as a diagnostic technician.

- To delete one of the defined administrators, click the radio button to the left of the table entry, and then click ***Delete***.

- To edit one of the defined administrators, click the radio button to the left of the table entry, and then click ***Edit***.
- To define a new administrator, click ***New***,

Step 3 When you click ***New*** from the Access Management screen, CTMS Administration software takes you to the New User Settings table as shown in Figure 4-12.

Figure 4-12 New User Settings



Step 4 Enter settings as described in Table 4-10

Table 4-10 New User Settings

Field or Button	Setting
Username	Username identifying a defined role as selected from the Role field. **Note** Usernames must be at least 5 characters, but not more than 64 characters in length, and can contain upper and lower case alphanumeric characters and the underscore and dash characters. The following usernames are not allowed: apache, daemon, nobody, operator, and shutdown.
Password	Password for the username indicated in the Username field. **Note** Passwords must be at least 5 characters, but not more than 64 characters in length, and can contain upper and lower case alphanumeric characters and the underscore and dash characters. The following usernames are not allowed: apache, daemon, nobody, operator, and shutdown.

Table 4-10 New User Settings

Field or Button	Setting
Verify Password	Re-enter the password defined for this user.
Role	Defines a specific user role. In CTMS Administration software, there are three possible roles, each with specific levels of administrative access: • Administrator: Administrators have access to all screens and configuration tasks in CTMS Administration software. • Conference Scheduler: Conference-Schedulers have access only to the Meeting Management screens and associated configuration tasks in CTMS Administration software. • Diagnostic Technician: Diagnostic Technicians have access only to Monitoring and Troubleshooting screens and one task (system restart) in CTMS Administration software. **Note** A single user can have more than one role. Click the appropriate radio button to select.

- To register new or modified settings, click ***Apply***.
- To close this window without applying settings, click ***Close***.

Step 5 To edit an existing user profile, click the radio button to the left of the table entry to select the user, and then click ***Edit***. When you click ***Edit*** from the Access Management screen, CTMS Administration software takes you to the Edit User Settings table. Enter settings (as needed) as described in Table 4-11

Table 4-11 Edit User Settings

Field or Button	Setting
User	(View only.) Defined role.
Password	Password for the username indicated in the Username field. **Note** Passwords must be at least 5 characters, but not more than 64 characters in length, and can contain upper and lower case alphanumeric characters and the underscore and dash characters. The following usernames are not allowed: apache, daemon, nobody, operator, and shutdown.
Verify New Password	Re-enter the password defined for this user.

- To register new settings, click ***Save***.
- To close this window without applying settings, click ***Close***.

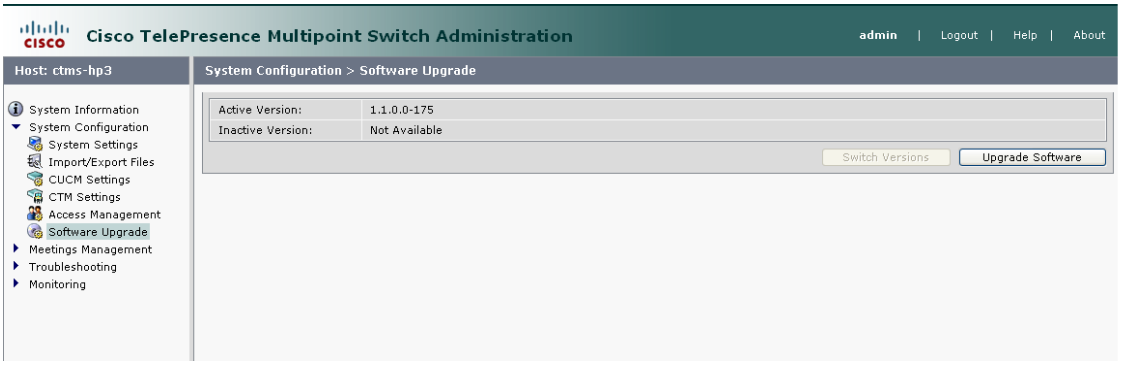
Upgrading Software Version

There are also two functions to assist you in maintaining the system software, as follows:

- Switch Version: The hard drive on the server on which CTMS is installed is partitioned into two areas. Each area can contain a system image. Switch Version allows you to switch the location of two stored versions of the system software.
- Upgrade Software: CTMS provides a patch file for upgrading system software. The Cisco-supplied patch file can be stored on a CD-ROM or a Secure FTP (SFTP) host network. A wizard displays dialog boxes to prompt you through the process.

Figure 4-13 shows the Software Upgrade screen.

Figure 4-13 System Upgrade Screen



To switch software versions:

- Click the Switch Version button.

The system will swap the software versions and reboot. Screens will describe activity.

The active partition in the server hard drive contains the active system image. The software versions that are loaded will be displayed in the Active Version and Inactive Version fields.

To upgrade software:

Step 1 To start the software upgrade process, click the Upgrade Software button.

The Source Selection dialog box appears.

If you need to stop the software installation, click the Cancel button when the button is active.

Step 2 Click the CD-ROM or Network radio button to choose the location of the patch file.

If you chose CD-ROM, click Next to go to the File Selection window.

If you chose Network, provide the hostname, login username, password, and the path to the patch file. By default, port 22 is used to access the server; supply the correct port number, if required. Click Next to go to the File Selection window.

Step 3 At the File Selection window, choose the file to load by clicking its radio button. Then click Next.

Step 4 The Patch File Preparation window appears. Watch this window to monitor the progress of the file download. Buttons will be inactive until the patch file is loaded.

Once the file is loaded, the window displays a Confirmation message.

The software wizard displays the software versions that are installed and provides active Yes and No radio buttons so you can choose to switch the newly loaded software to the active partition.

Step 5 Click Yes or No to make your choice. Then click Next to finish the software upgrade task.

The install wizard displays a dialog window that logs the progress of the update.

Step 6 When the log indicates that the files have been switched, click Finish to complete this task.

Interface Failover

Interface failover provides a backup mechanism for Ethernet adapters. When enabled, the secondary adapter handles all network traffic if the primary adapter or its connection fails.

To enable interface failover:

Step 1 Make sure that the primary Ethernet adapter (Ethernet interface 0) is connected to the network and that its static IP address and gateway parameters were correctly configured during system installation.

Step 2 Connect the secondary Ethernet cable (Ethernet interface 1) to a network switch. The connection port can be on the same switch as Ethernet interface 0 or on a different switch but both Ethernet interface 0 and Ethernet interface 1 must be on the same gateway.

Step 3 From the ***Interface Failover*** window, click the **Enable** button, then click **Apply**.

Note If the **Enable** button is grayed out, check your network connection.

To disable interface failover:

Step 1 With no active meetings in progress, click the **Disable** button.

Step 2 Click **Apply**. Your network adapters will be configured and restarted and the interface failover disabled.

CHAPTER 5

Managing Meetings

Initial Release: May 5, 2008, OL-12586-02
Last Revised: August 4, 2008

Contents

Overview

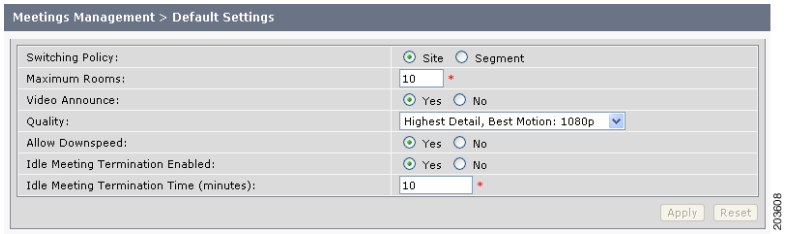
This chapter describes how to set up and administer static (reservationless) and ad hoc meetings using the CTMS Administration software.

Defining and Editing Default Settings

Default settings are those that the CTMS Administration software automatically assigns to meeting profiles unless you configure specific settings for ad hoc and static meetings.

Figure 5-1 shows the Default Settings screen.

Figure 5-1 Default Settings



To define default settings:

Step 1 Click ***Default Settings*** under the **Meetings Management** folder in the Navigation Pane.

Step 2 Default Settings displays a table providing the following configuration fields:

Table 5-1 Default Settings

Field or Button	Setting
Switching Policy	Defines how CTMS calls are displayed during a meeting. CTMS displays active speakers on screen. There are two active speaker display options: • ***Segment***: With segment switching, each individual table segment (defined as a display and a camera) is displayed on the screen as that segment becomes the active speaker. • ***Site***: When you select "site," all table segments for a particular room are displayed on screen when any segment in that room is the active speaker. Click the appropriate radio button to select.
Maximum Rooms	Defines the maximum number of Cisco TelePresence rooms allowed to dial into in a static multi-point meeting. The range is from **1 to 48**.
Video announce	If this option is selected, when a new attendee joins the meeting, the new attendee is displayed for 2 seconds. Options are ***Yes*** and ***No***. Click the appropriate radio button to select.

Table 5-1 Default Settings

Field or Button	Setting
Quality	This field sets the system bandwidth and screen resolution. A higher bandwidth increases video quality, but may also cause packets to be dropped and video to be interrupted. Choices: • Highest Detail, Best Motion: 4Mbps 1080p • Highest Detail, Better Motion: 3.5Mbps, 1080p • Highest Detail, Good Motion: 3Mbps, 1080p • High Detail, Best Motion: 3Mbps, 720p • High Detail, Better Motion: 2Mbps, 720p • High Detail, Good Motion: 1Mbps, 720p Default is Highest Detail, Best Motion: 4Mbps 1080p.
Allow Downspeed	When selected, if an endpoint joins the meeting with a lower Quality value than other endpoints, the endpoint is allowed to join the meeting and all other endpoints downgrade their Quality to match the lower value. If this option is not selected, endpoints with a lower Quality value are not allowed to join the meeting. Options are **Yes** and **No**. Click the appropriate radio button to select.
Idle Meeting Termination Enabled:	When selected, the meeting is terminated if the system does not detect an active speaker for the value set in the Idle Meeting Termination Time field. Options are **Yes** and **No**. Click the appropriate radio button to select.
Idle Meeting Termination Time (minutes)	If the Idle Meeting Termination Enabled field is set to "Yes," this field defines the number of minutes before a meeting is terminated (if the system does not detect an active speaker). Possible values range from **1 to 59** minutes. The default is 10 minutes.

- To register new or modified settings, click **Apply**.
- To restore the original settings, click **Reset**.

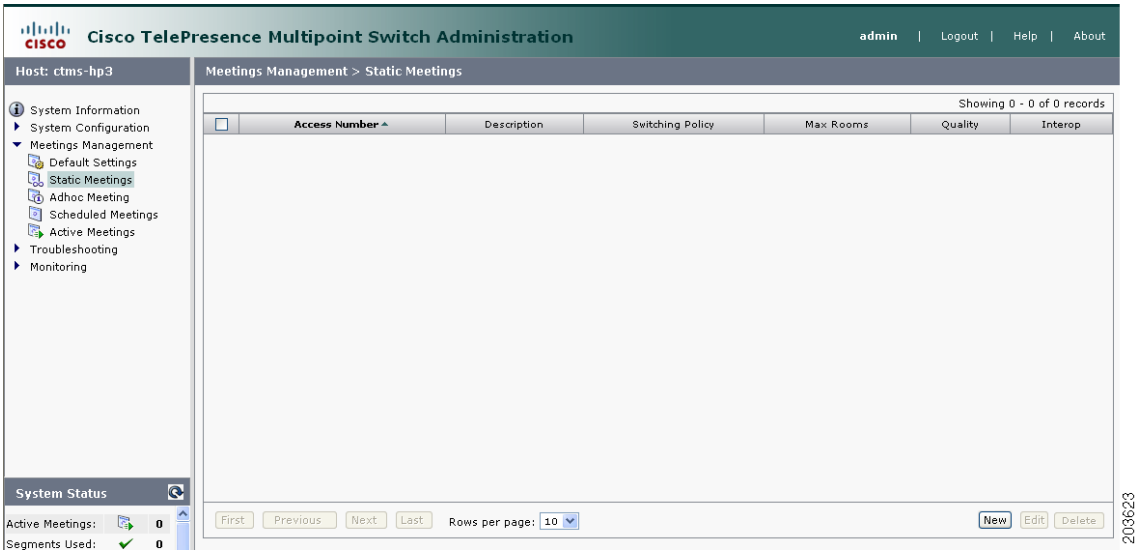
Creating and Editing Static Meetings

Static meetings are meetings that are permanently available after they have been configured. Each static meeting has its own associated meeting number; meetings attendees dial into that specific number when attending a static meeting. You can also add participants to a static meeting through the Active Meetings page.

Note Static meetings use ad hoc meeting resources.

Figure 5-2 shows the Static Meetings screen.

Figure 5-2 Static Meetings



To create or edit a static meeting:

Step 1 Click ***Static Meetings*** under the **Meetings Management** folder in the Navigation Pane.

Step 2 The Static Meetings setting screen initially displays a table providing the following information about already defined static meetings:

Table 5-2 Static Meetings Table Field Descriptions

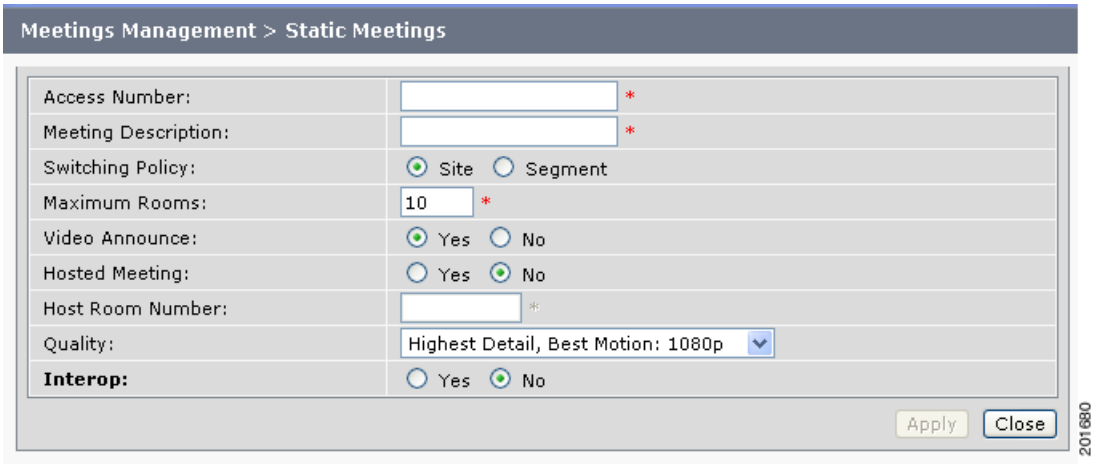
Field	Description
Access Number	Displays the access number that rooms call to attend this meeting.
Description	Displays the defined description for this static meeting.
Switching Policy	Displays the defined switching policy (site or segment) for this static meeting.
Max Rooms	Displays the maximum number of sites that can participate in this static meeting.
Quality	Sets the maximum bit rate and video resolution to be used for the meeting.
Interop	A green check indicates that this particular Cisco TelePresence multipoint meeting supports Cisco Unified Video Conferencing (CUVC) systems (interoperability mode). A red “X” indicates that this meeting is not configured to cascade with CUVC systems.
CUVC Number	(Optional) Number dialed to CUVC for interoperability meetings.

- To delete one of the defined static meetings, click the radio button to the left of the table entry, and then click ***Delete***.
- To edit one of the defined static meetings, click the radio button to the left of the table entry, and then click ***Edit***.

- To define a new static meeting, click ***New***.

Step 3 When you click ***Edit*** or ***New***, CTMS Administration software takes you to the Static Meeting Settings table. Figure 5-3 shows the New Static Meetings Settings screen.

Figure 5-3 New Static Meetings Settings



Step 4 Enter settings as described in Table 5-3:

Table 5-3 Static Meeting Settings

Field or Button	Setting
Access Number	Defines the telephone number that participants call to attend this static meeting.
Meeting Description	Text describing or identifying this static meeting. The maximum number of characters for this field is 62 characters.

Table 5-3 Static Meeting Settings

Field or Button	Setting
Switching Policy	Defines how CTMS calls are displayed during a meeting. CTMS displays active speakers on screen. There are two active speaker display options: • ***Segment***: (Speaker) With segment switching, each individual table segment (defined as a display and a camera) is displayed on the screen as that segment becomes the active speaker. • ***Site***: (Room) When you select "site," all table segments for a particular room are displayed on screen when any segment in that room is the active speaker. Click the appropriate radio button to select. **Note** If you are running CTS 1.3 or later, you can control how Cisco TelePresence calls are displayed from the Cisco TelePresence phone interface. Press the ***Speaker*** softkey to display the active segment; press the ***Room*** softkey to display all segements from a particular site.
Maximum Rooms	Defines the maximum number of Cisco TelePresence rooms allowed to dial into in a static multi-point meeting. The range for this setting is from 1 to 48.
Video Announce	If this option is selected, when a new room joins the meeting, the new room is displayed on-screen for 2 seconds. Options are ***Yes*** and ***No***. Click the appropriate radio button to select.
Hosted Meeting	Hosted meetings mean that one particular room is identified as the host for a meeting; other meeting rooms will not be added to the meeting until the host room dials in. If you have selected "Video announce," then each meeting room will be displayed in 2-second intervals in the order that they joined the meeting. Options are ***Yes*** and ***No***. Click the appropriate radio button to select.
Host Room Number	Defines the host Cisco TelePresence System room number.
Quality	This field sets the system bandwidth and screen resolution. A higher bandwidth increases video quality, but may also cause packets to be dropped and video to be interrupted. Choices: • Highest Detail, Best Motion: 4Mbps 1080p • Highest Detail, Better Motion: 3.5Mbps, 1080p • Highest Detail, Good Motion: 3Mbps, 1080p • Highest Detail, Best Motion: 3Mbps, 720p • Highest Detail, Better Motion: 2Mbps, 720p • Highest Detail, Good Motion: 1Mbps, 720p Default is Highest Detail, Best Motion: 4Mbps 1080p.

Table 5-3 Static Meeting Settings

Field or Button	Setting
Interop	Determines whether this particular Cisco TelePresence multipoint meeting should automatically dial out to legacy Cisco Unified Video Conferencing (CUVC) systems (interop). Options are **Yes** and **No**. Click the appropriate radio button to select.
CUVC Number	Defines the number that CTMS dials to establish contact with CUVC. Each CUVC number must be unique for each CTMS conference. The CUVC number consists of the service prefix and then the remaining dialed digits. The service prefix can be the same for different meetings. The remaining digits in the dialed number designate the CUVC meeting instance. Each CTMS conference requires its own CUVC meeting instance. **Note** This number must start with the CUVC service prefix defined during CUVC configuration.

- To register new or modified settings, click ***Apply***.
- To restore the original settings, click ***Reset***.

Ad Hoc Meetings

Ad Hoc meetings are impromptu meetings. Unlike static meetings (which, after they are defined, stay active indefinitely), Ad Hoc meetings begin when they are configured, and end when the last meeting room disconnects from the meeting, or when the administrator or conference-scheduler ends the meeting. With Ad Hoc meetings, the CTMS dials meeting rooms invited to attend the meeting; after the start of a meeting, the administrator can add rooms through the Active Meetings page.

If you have meetings that regularly include a particular set of meeting rooms, you can create meeting templates; meeting templates are predefined groups of CTMS meeting room (end points).

Note Ad Hoc meeting do not support interoperability meetings in CTMS Release 1.1.

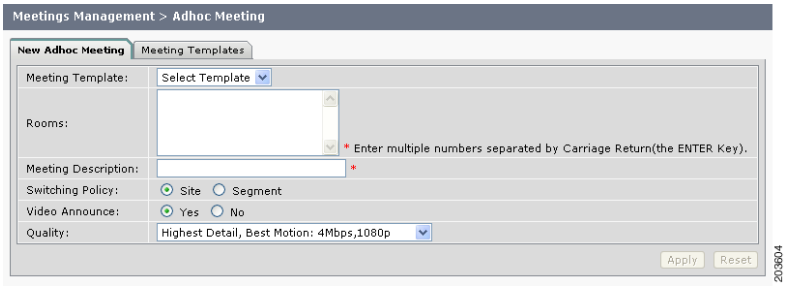
Ad Hoc Meeting configuration is divided into two separate tasks:

- Creating and Editing Ad Hoc Meetings, page 5-49
- Creating and Editing Meeting Templates, page 5-51

Creating and Editing Ad Hoc Meetings

Figure 5-4 shows the Ad Hoc Meetings screen.

Figure 5-4 Ad Hoc Meetings



To create or edit an ad hoc meeting:

Step 1 Click ***Ad Hoc Meetings*** under the **Meetings Management** folder in the Navigation Pane to open the **Ad Hoc Meeting** window.

Step 2 CTMS Administration software displays the New Ad Hoc Meeting Settings table. Enter settings as described in Table 5-4:

Table 5-4 New Ad Hoc Meetings Settings

Field	Description
Meeting Template	This field allows you to select a predefined meeting template. (Meeting templates are predefined groups of CTMS end points.) Click the down arrow to display the available meeting templates; double click a particular template to select.
Rooms	Defines the meeting room number of the CTMS end points invited to attend this ad hoc meeting. When entering multiple meeting room numbers, separate each room number with a carriage return by pressing **Enter**.
Meeting Description	Text describing or identifying this particular meeting. The maximum number of characters for this field is 62 characters.

Table 5-4 New Ad Hoc Meetings Settings

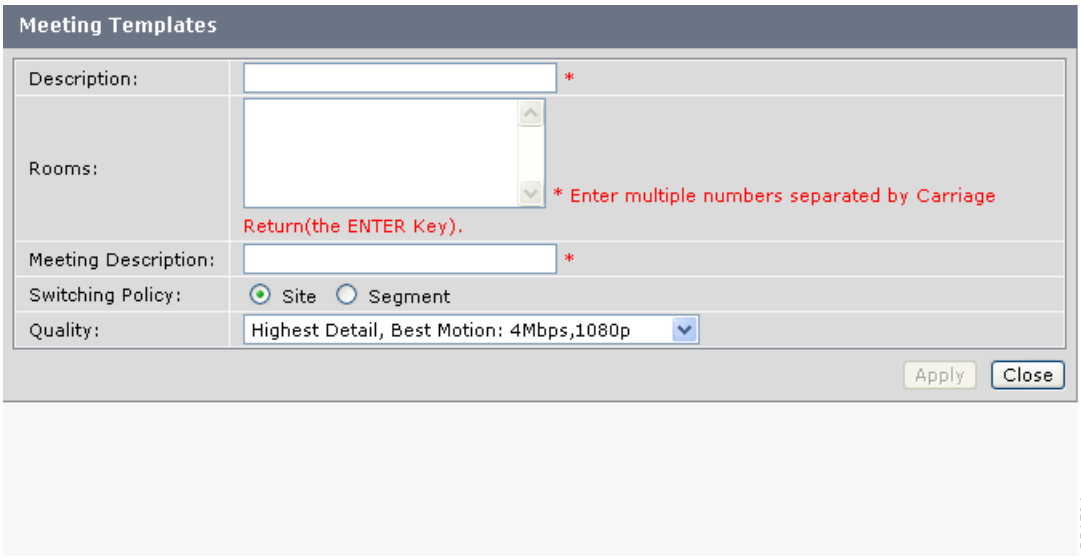
Field	Description
Switching Policy	Defines how CTMS calls are displayed during a meeting. CTMS displays active speakers on screen. There are two active speaker display options: • **Segment**: (Speaker) With segment switching, each individual table segment (defined as a display and a camera) is displayed on the screen as that segment becomes the active speaker. • **Site**: (Room) When you select "site," all table segments for a particular room are displayed on screen when any segment in that room is the active speaker. Click the appropriate radio button to select. **Note** If you are running CTS 1.3 or later, you can control how Cisco TelePresence calls are displayed from the Cisco TelePresence phone interface. Press the ***Speaker*** softkey to display the active segment; press the ***Room*** softkey to display all segements from a particular site.
Video Announce	When selected, if a new attendee joins the meeting, the attendee is displayed on-screen for 2 seconds. Options are **Yes** and **No**. Click the appropriate radio button to select.
Quality (per Display)	This field sets the system bandwidth and screen resolution. A higher bandwidth increases video quality, but may also cause packets to be dropped and video to be interrupted. Choices: • Highest Detail, Best Motion: 4Mbps 1080p • Highest Detail, Better Motion: 3.5Mbps, 1080p • Highest Detail, Good Motion: 3Mbps, 1080p • High Detail, Best Motion: 3Mbps, 720p • High Detail, Better Motion: 2Mbps, 720p • High Detail, Good Motion: 1Mbps, 720p Default is Highest Detail, Best Motion: 4Mbps 1080p.

- To register new or modified settings, click ***Apply***.
- To restore the original settings, click ***Reset***.

Creating and Editing Meeting Templates

The Meeting Template setting screen initially displays a table providing the following information about already defined meeting templates. Figure 5-5 shows the Meeting Templates screen.

Figure 5-5 Meeting Templates



To create or edit a meeting template:

Step 1 Click ***Ad Hoc Meetings*** under the **Meetings Management** folder in the Navigation Pane to open the **Ad Hoc Meetings** window.

Step 2 Click the ***Meeting Template*** tab to display the **Meeting Template** page.

Step 3 The Meeting Template setting screen initially displays a table providing the following information about already defined meeting templates, as described in Table 5-5.

Table 5-5 Meeting Template Table Field Descriptions

Field	Description
ID	Name identifying this particular meeting template.
Description	Text describing this particular meeting template.

- To display a defined number of table rows, click the down arrow next to **Rows per page**. Click to highlight and select predetermined amounts.
- To delete one of the defined meeting templates, click the radio button to the left of the table entry, and then click ***Delete***.
- To edit one of the defined meeting templates, click the radio button to the left of the table entry, and then click ***Edit***.
- To define a new meeting template, click ***New***.

Step 4 When you click ***Edit*** or ***New***, CTMS Administration software displays the Meeting Templates Settings table. Enter settings as described in Table 5-6:

Table 5-6 Meeting Templates Settings

Field	Description
Description	Name identifying this particular meeting template. This name appears in the drop-down list of defined meeting templates. The maximum number of characters for this field is 62 characters
Rooms	Defines the meeting room number of the CTMS end points invited to attend this ad hoc meeting. When entering multiple meeting room numbers, separate each room number with a carriage return by pressing "enter."
Meeting Description	Text describing this particular meeting template. The maximum number of characters for this field is 62 characters
Switching Policy	Defines how CTMS calls are displayed during a meeting. CTMS displays active speakers on screen. There are two active speaker display options: • ***Segment***: (Speaker) With segment switching, each individual table segment (defined as a display and a camera) is displayed on the screen as that segment becomes the active speaker. • ***Site***: (Room) When you select "site," all table segments for a particular room are displayed on screen when any segment in that room is the active speaker. Click the appropriate radio button to select. **Note** If you are running CTS 1.3 or later, you can control how Cisco TelePresence calls are displayed from the Cisco TelePresence phone interface. Press the ***Speaker*** softkey to display the active segment; press the ***Room*** softkey to display all segements from a particular site.
Quality	This field sets the system bandwidth and screen resolution. A higher bandwidth increases video quality, but may also cause packets to be dropped and video to be interrupted. Choices: • Highest Detail, Best Motion: 4Mbps 1080p • Highest Detail, Better Motion: 3.5Mbps, 1080p • Highest Detail, Good Motion: 3Mbps, 1080p • High Detail, Best Motion: 3Mbps, 720p • High Detail, Better Motion: 2Mbps, 720p • High Detail, Good Motion: 1Mbps, 720p Default is Highest Detail, Best Motion: 4Mbps 1080p.

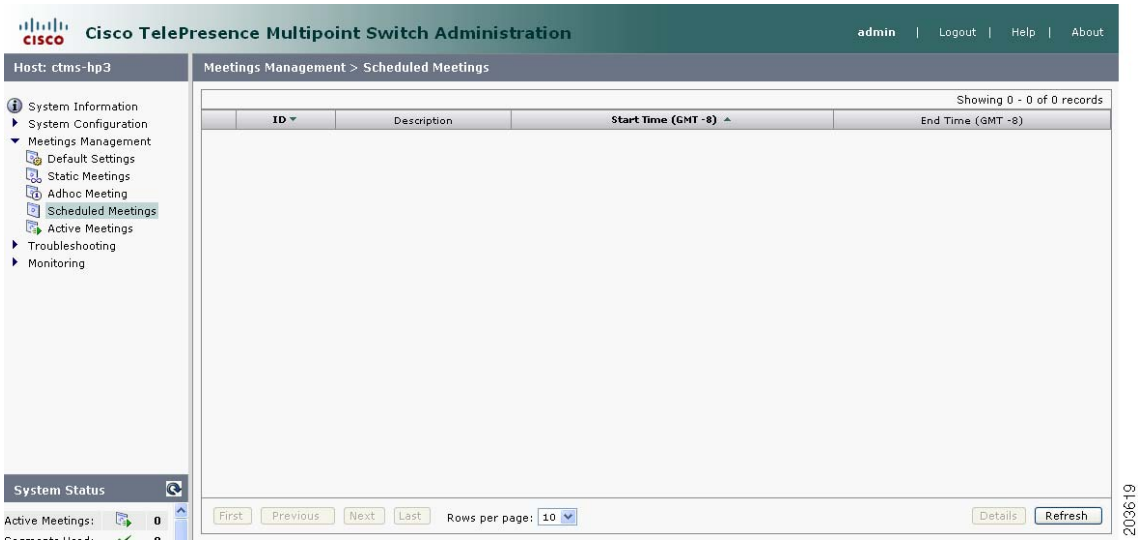
- To register new or modified settings, click Apply.
- To restore the original settings, click Reset.

Viewing Scheduled Meetings

Scheduled Meetings lists all of the meetings scheduled using CTS-Man.

Figure 5-6 shows the Scheduled Meetings screen.

Figure 5-6 Scheduled Meetings



To view information about scheduled meetings:

Step 1 Click ***Scheduled Meetings*** under the **Meetings Management** folder in the Navigation Pane to open the **Scheduled Meetings** window.

Step 2 The Scheduled Meetings setting screen initially displays a table providing the following information about already scheduled meetings, as described in Table 5-7

Table 5-7 Scheduled Meetings Table Field Descriptions

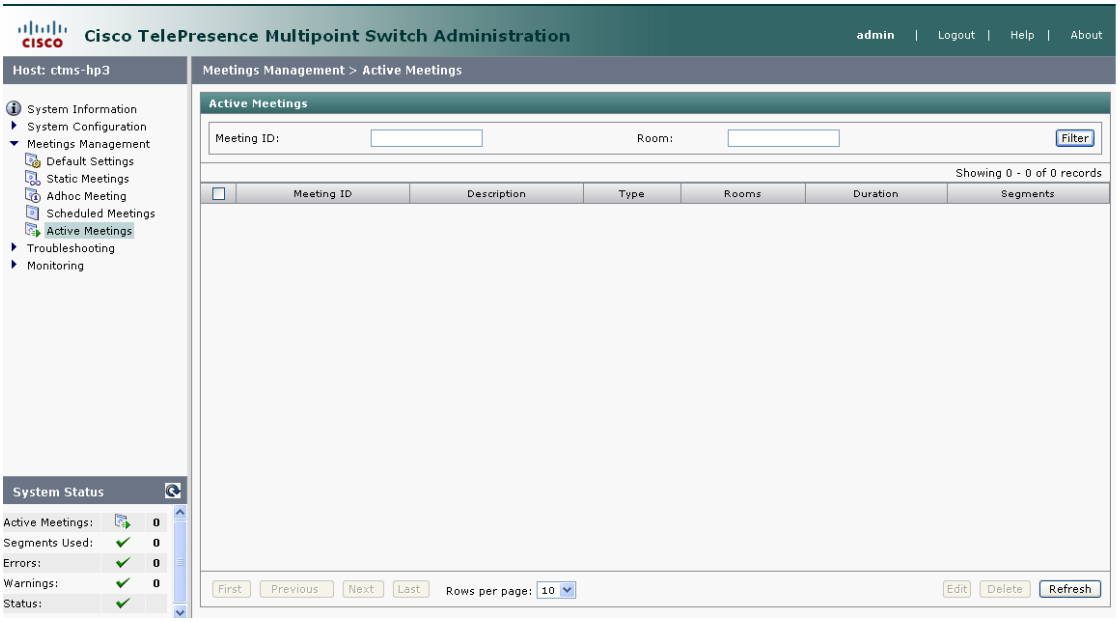
Field	Description
ID	Meeting IDs for the scheduled meetings. Click the arrow to change the order (descending, ascending based on Meeting IDs) in which the scheduled meetings are displayed.
Description	Displays the defined meeting description.
Start Time GMT-8	Displays the start time (Greenwich Mean Time, Pacific Standard Time) for this scheduled meeting. Click the arrow to change the order (descending, ascending based on meeting start time) in which the scheduled meetings are displayed.
End Time GMT-8	Displays the end time (Greenwich Mean Time, Pacific Standard Time) for this scheduled meeting. Click the arrow to change the order (descending, ascending based on meeting end time) in which the scheduled meetings are displayed.

- Click the radio button to the left of a table entry to select a specific scheduled meeting.
- Click ***Details*** to display additional information about the selected scheduled meeting.
- Click ***Refresh*** to refresh the Schedule Meetings table displayed.
- To display a defined number of table rows, click the down arrow next to ***Rows Per Page***. Click to highlight and select predetermined amounts.
- If there are multiple pages listing log files, click the ***First***, ***Previous***, ***Next***, or ***Last*** button to navigate to the desired page.

Viewing and Editing Active Meetings

Active Meetings is where you either view information about an active meeting, or edit meetings that are currently in progress. Figure 5-7 shows the Active Meetings screen.

Figure 5-7 Active Meetings Screen



To view or edit an active meeting:

Step 1 Click ***Active Meetings*** under the **Meetings Management** folder in the Navigation Pane to open the **Active Meetings** window.

Step 2 The Active Meetings setting screen displays a table listing all currently active meetings. Meetings are listed in the table by Meeting ID number.

- To display a defined number of table rows, click the down arrow next to ***Rows Per Page***. Click to highlight and select predetermined amounts.
- If there are multiple pages, click the ***First***, ***Previous***, ***Next***, or ***Last*** button to navigate to the desired page.

- Click ***Refresh*** to refresh the Active Meetings table displayed.

Step 3 To use the filter at the top of the table to find a particular meeting, enter either the Meeting ID number or the Meeting Room number in the appropriate field and then click ***Filter***.

Step 4 Click the radio button to the left of a table entry to select a particular meeting. Click ***Edit*** to display the Active Meetings setting table. Active Meeting management tasks (and information about active meetings) are described in Table 5-8

Table 5-8 Active Meetings Settings

Field	Description
Meeting ID	Displays the Meeting ID Number of the meeting selected. To delete this meeting (in other words, end this meeting), click the ***Delete Meeting*** radio button. Click ***Apply*** to end the meeting.
Meeting Description	Displays the defined description for this meeting.
Meeting Type	Displays the defined meeting type. Meeting types are static and ad hoc.
Room1, Room2...	Lists the CTS end points (meeting rooms) attending this meeting. To delete a particular CTS end point, click the ***Delete Room*** radio button for that particular room. Click **Apply** to remove that room from the meeting. **Note** For interoperability meetings, the CUVC connection is shown as one room in the Maximum Rooms setting.
Add Room(s)	Defines additional meeting room numbers (CTMS end points) to attend this meeting. When entering multiple meeting room numbers, separate each room number with a carriage return by pressing “Enter.” **Note** An interoperability connection cannot be dynamically added to a conference. It must be configured in the Static Meeting definition.

Table 5-8 Active Meetings Settings

Field	Description
Switching Policy	Defines how CTMS calls are displayed during a meeting. CTMS displays active speakers on screen. There are two active speaker display options: • ***Segment***: (Speaker) With segment switching, each individual table segment (defined as a display and a camera) is displayed on the screen as that segment becomes the active speaker. • ***Site***: (Room) When you select "site," all table segments for a particular room are displayed on screen when any segment in that room is the active speaker. Click the appropriate radio button to select. **Note** If you are running CTS 1.3 or later, you can control how Cisco TelePresence calls are displayed from the Cisco TelePresence phone interface. Press the ***Speaker*** softkey to display the active segment; press the ***Room*** softkey to display all segements from a particular site.
Video Announce	When selected, if a new attendee joins the meeting, the attendee is displayed on-screen for 2 seconds. Options are **Yes** and **No**. Click the appropriate radio button to select.
Quality	This field sets the system bandwidth and screen resolution. A higher bandwidth increases video quality, but may also cause packets to be dropped and video to be interrupted. Choices: • Highest Detail, Best Motion: 4Mbps 1080p • Highest Detail, Better Motion: 3.5Mbps, 1080p • Highest Detail, Good Motion: 3Mbps, 1080p • High Detail, Best Motion: 3Mbps, 720p • High Detail, Better Motion: 2Mbps, 720p • High Detail, Good Motion: 1Mbps, 720p Default is Highest Detail, Best Motion: 4Mbps 1080p.
VIP Mode	When selected, one endpoint is defined as the "VIP." A VIP is broadcast to all other meeting attendees for the entire meeting. The VIP's endpoint continues to switch between endpoints with active speakers. Only one VIP can be defined per meeting. Options are "Yes" and "No." Click the appropriate radio button to select.
Lock	Locking the meeting means that no settings can be changed for this meeting. Options are **Yes** and **No**. Click the appropriate radio button to select.

Table 5-8 Active Meetings Settings

Field	Description
VIP Source	Defines how the VIP is displayed to all endpoints. Options are: **Room**: If selected, all segments for the CTS endpoint identified as "VIP" are displayed. **Center Segment**: If selected (and the CTS endpoint identified as "VIP" is a CTS-3000), then only the center segment is displayed. Click the appropriate radio button to select.
<Meeting Attendees>	Defines roles for participates if VIP mode is selected. Options are: **VIP**: This attendee is broadcast to all other meeting attendees for the entire meeting. The VIP's endpoint continues to switch between endpoints with active speakers. Only one VIP can be defined per meeting. **Viewer**: The VIP is broadcast to this attendee. **NA**: The attendee is neither a viewer or a VIP. The NA's endpoint continues to switch between end points with active speakers. Click the appropriate radio button to select.

- To register new or modified settings, click **Save**.
- To exit and return to the Active Meetings list, click **Close**.

CHAPTER 6

Troubleshooting the CTMS System

Initial Release: May 5, 2008, OL-12586-02
Last Revised: August 4, 2008

Contents

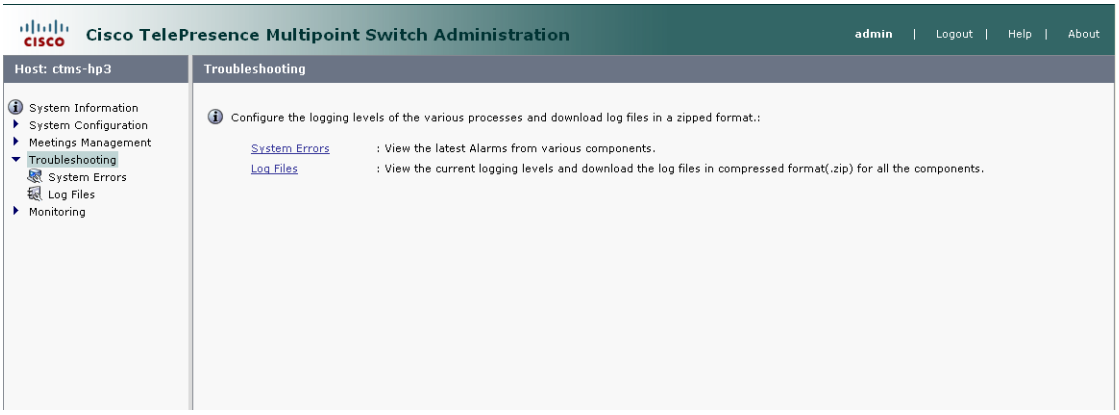
Overview

The Troubleshooting folder contains tools that enable you to do the following:

- View the latest CTMS alarms and system error messages
- Configure the severity level of system level error messages and alarms for specific process areas
- Filter the Log File table listings.

Figure 6-1 shows the main Troubleshooting window,

Figure 6-1 Troubleshooting Window



Viewing CTMS Alarms and System Error Messages

You can view CTMS alarms, systems error and system warning messages in one of two ways:

- Click ***System Errors*** under the **Troubleshooting** folder in the Navigation Pane. You will see a list of all warning and error messages.
- From the ***System Status*** bar, click the icon for **Warnings** or **Errors**.
  - If you click the icon for **Warnings**, you will see endpoint alert information. Warnings are issued every 20 seconds when an endpoint crosses its packet loss threshold. If congestion continues for more than 40 seconds, the endpoint will be dropped.
  - If you click the icon for **Errors**, you will see endpoint drop information. Whenever an endpoint drops from high packet loss, an error is issued with the error code "CONGESTION."

Whether you select System Errors under Troubleshooting, or click Error or Warning icons, messages are displayed in the following tabular format as shown in Figure 6-2.

Figure 6-2 System Errors Screen

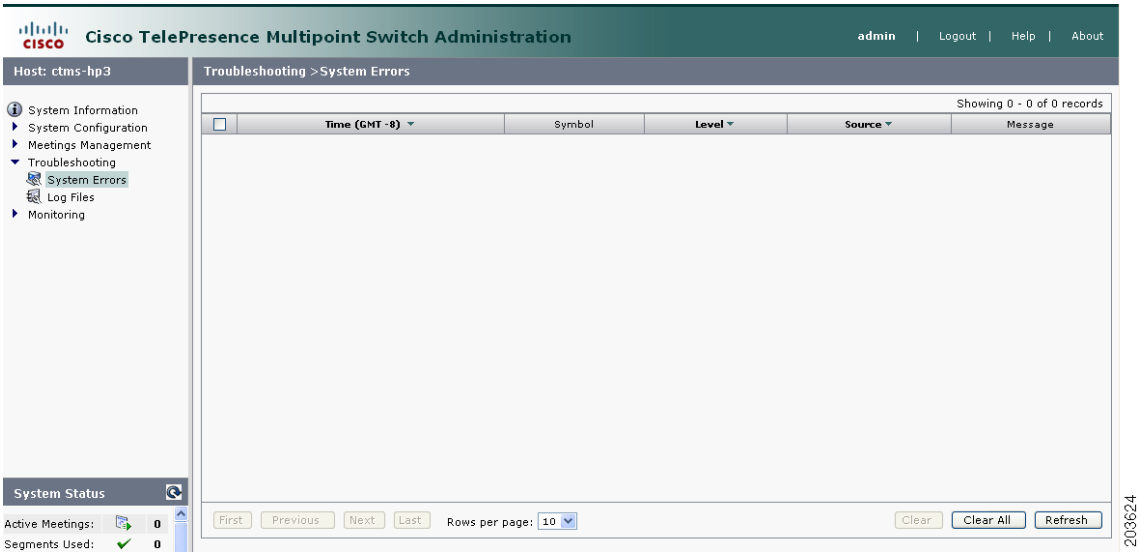


Table 6-1 System Error Table Field Descriptions

Field	Description
Time (GMT-8)	Displays the time at which this error occurred. Click the arrow to change the order (descending, ascending based on time) in which the errors are displayed.
Symbol	Text string (name) of the error message or alarm.
Level	Indicates the severity level of the error message or alarm. There are eight severity levels as follows: • OFF • CRIT • ERROR • WARN • INFO • DEBUG • DEBUG2 • DEBUG3 Click the arrow to change the order (descending, ascending based on level) in which the errors are displayed.
Source	Indicates the CTMS system process associated with this alarm or error message. Click the arrow to change the order (descending, ascending based on source) in which the errors are displayed.
Message	Message describing the error or alarm.

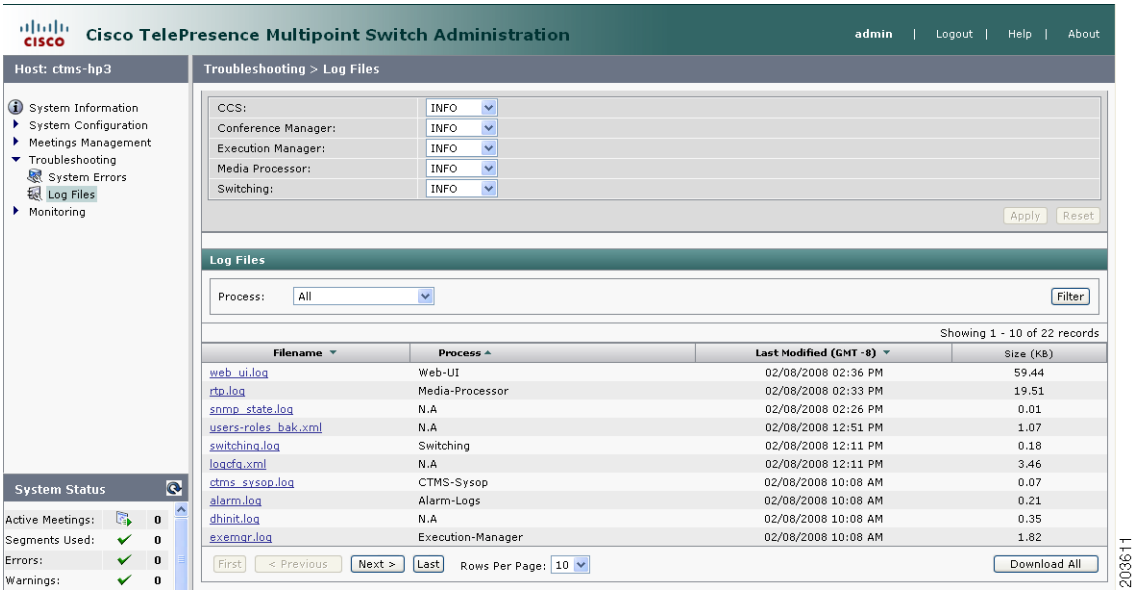
- To display a defined number of table rows, click the down arrow next to **Rows Per Page**. Click to highlight and select predetermined amounts.
- If there are multiple pages listing log files, click the **First**, **<Previous**, **Next>**, or **Last** button to navigate to the desired page.
- To delete one of the error messages, click the radio button to the left of the table entry, and then click **Clear**.
- To delete all error messages displayed, click **Clear All**.

Configuring the Severity Level of System Error Messages

To configure the severity level of system level error messages and alarms for specific process areas:

Step 1 Click ***Log Files*** under the **Troubleshooting** folder in the Navigation Pane to open the **Log Files** window. Figure 6-3 shows the Log File Screen.

Figure 6-3 Log Files Screen



Step 2 At the top of the Log Files screen, there is a table listing the following CTMS system processes:

- CCS
- Conference Manager
- Execution Manager
- Media Processor
- Switching

To the left of each process is a drop-down list, listing the following severity levels:

- OFF

- CRIT
- ERROR
- WARN
- INFO
- DEBUG
- DEBUG2
- DEBUG3

Click the down arrow to display the drop-down list of defined levels of severity, and then click to highlight and select a specific severity level for all error messages and alarms associated a particular CTMS system process.

Note Log levels create varying amounts of data; for example, DEBUG creates more log entries than CRIT. Because verbose logs can impact system performance, use verbose logs only to track a problem.

Filtering the Log File Table Listings

To filter the log files displayed in the Log File Table:

Step 1 Click ***Log Files*** under the **Troubleshooting** folder in the Navigation Pane to open the **Log Files** window.

Step 2 At the middle of the Log Files screen, click the down arrow to the right of **Processes** to display a list of CTMS process areas, then click to highlight and select a specific process area on which to filter log files. Choices are:

- All
- CCS
- Conference Manager
- Execution Manager
- Media Processor
- Switching
- SIP
- Web-UI
- CDR Logs
- Core
- Alarm Logs

Step 3 Click the **Filter** button to display the logs files associated with the selected process area in the Log Files table.

Downloading Log Files

To download log files from the Log File table:

Step 1 Click ***Log Files*** under the **Troubleshooting** folder in the Navigation Pane to open the **Log Files** window.

Step 2 At the bottom of the Log Files screen is the Log File table, which lists the available log files. The table is organized as follows:

Table 6-2 Log Table Field Descriptions

Field	Description
Filename	Filename of the log file. Click the arrow to change the order (descending, ascending based on alphabetical order of the filenames) in which the log files are displayed.
Process	CTMS system process area. Click the arrow to change the order (descending, ascending based on alphabetical order of the processes) in which the log files are displayed.
Last Modified (GMT-8)	Time (Greenwich Mean Time, Pacific Standard Time) at which the log file was collected. Click the arrow to change the order (descending, ascending based on time) in which the log files are displayed.
Size	Size (in kilobytes) of the compressed log file.

Step 3 To display a defined number of table rows, click the down arrow next to **Rows per Page**. Click to highlight and select predetermined amounts. If there are multiple pages listing log files, click the **First**, **Previous**, **Next**, or **Last** button to navigate to the desired page.

Step 4 Click the filename of a log file to download that file. Click the **Download All** button to download all log files listed.

Troubleshooting Specific Issues

Table 6-3 describes some specific problems and possible solutions.

Table 6-3 Specific Problems and Possible Solutions

Problem	Possible Solutions
Unable to connect to static meetings or to initiate ad hoc meetings	1. Verify network connectivity. 2. Verify IP address of the CTMS configured on Unified CM SIP trunk.
Unable to connect to static meetings but able to connect to ad hoc meetings	1. Verify the that static number being dialed is a valid number. 2. Verify that SIP Trunk security profile "Outbound transport type" is set to "UDP." 3. Verify that all Unified CM servers are entered in Unified CM settings.
Unable to connect to ad hoc meetings but able to connect to static meetings	1. Verify that the CTS endpoints numbers are entered correctly. 2. Verify that rooms are available.
Scheduled meetings don't connect	1. Check the registration status of the CTMS on the CTM page. 2. Verify that the scheduled meeting is listed on the CTMS (under Scheduled Meetings).
Cisco TelePresence Interoperability: Unified CM sends an error message of "Service not available" to CTMS when CTMS tries to establish call to CUVC.	1. Check to see if there are sufficient ports. Unified CM delivers a "Service not available" message when CTMS places a call to CUVC and there are an insufficient number of ports available. 2. Verify the number dialed for the CUVC connection is defined to Unified CM as a SIP trunk, and is correctly configured.

CHAPTER 7

Monitoring CTMS System Processes

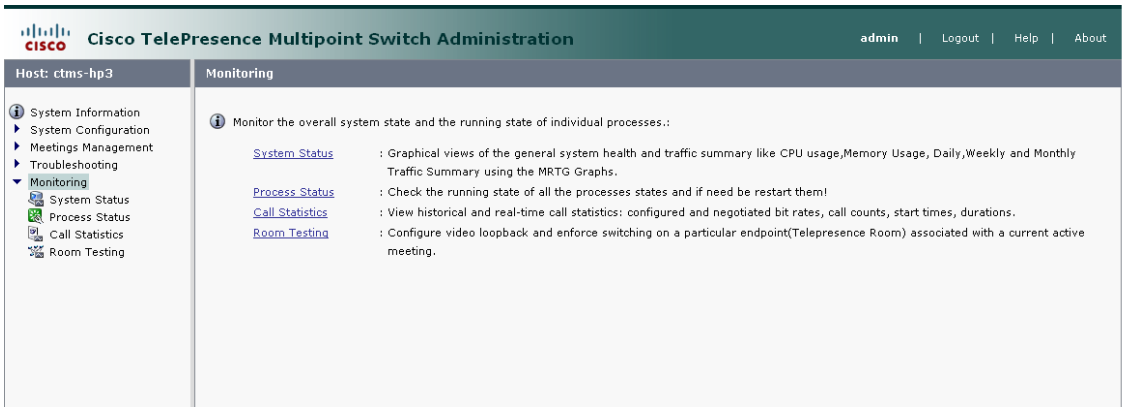
Initial Release: May 5, 2008, OL-12586-02
Last Revised: August 4, 2008

Contents

Overview

The Monitor folder contains tools that enable you to monitor the overall CTMS system state and the running state of individual processes. Figure 7-1 shows the initial Monitoring window.

Figure 7-1 Monitoring Window

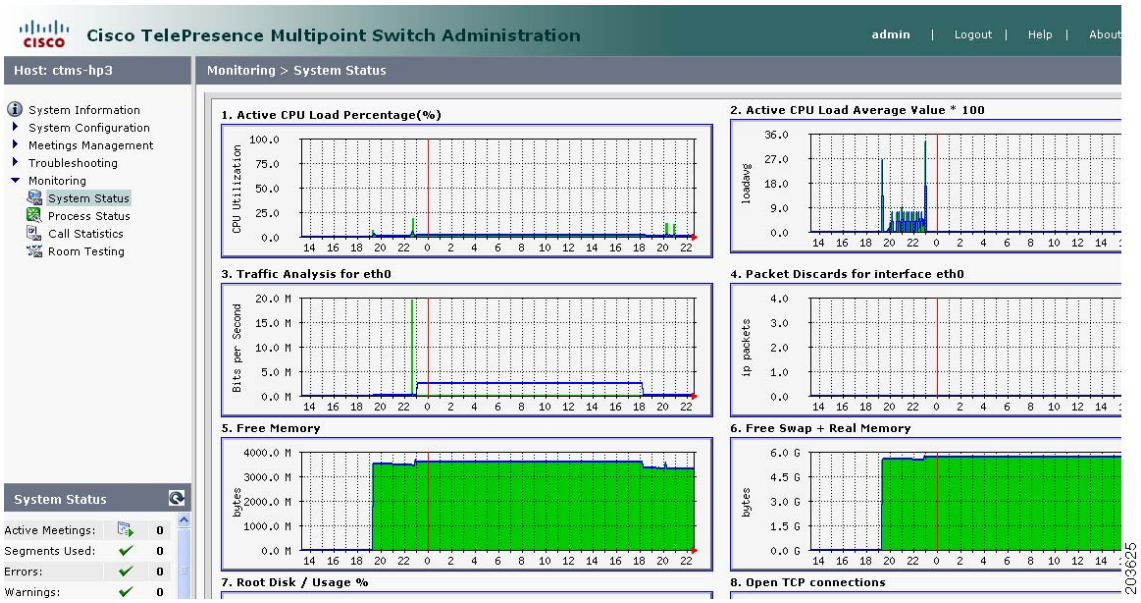


Monitoring System Status

To view the status of CTMS system processes:

Step 1 Click ***System Status*** under the **Monitoring** folder in the Navigation Pane to open the **System Status** window. Figure 7-2 shows the System Status screen.

Figure 7-2 System Status



Step 2 System Status shows snapshots of the following CTMS system processes:

- Active CPU Load Percentage
- Active CPU Load Average Value
- Traffic Analysis for <interface>
- Packet Discards for <interface>
- Free Memory
- Free Swap + Real Memory
- Root Disk / Usage %
- Open TCP Connections

Click each snapshot to reveal daily, weekly, monthly and yearly averages.

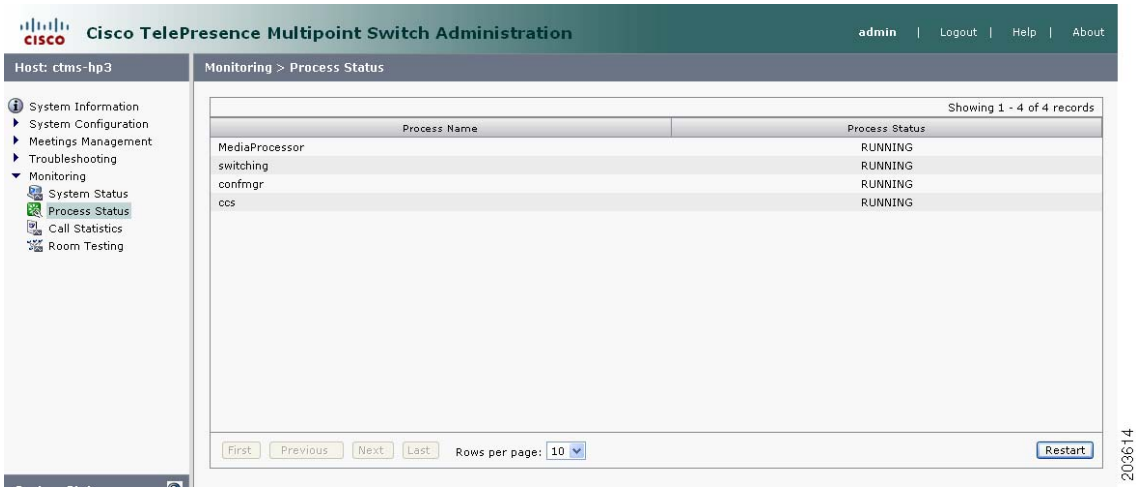
Monitoring and Restarting System Processes

Process Status lists all processes currently running; the information on this page automatically refreshes every 10 seconds.

To monitor or restart system processes:

Step 1 Click ***Process Status*** under the **Monitoring** folder in the Navigation Pane to open the **Process Status** window. Figure 7-3 shows the Process Status screen.

Figure 7-3 Process Status Screen



Step 2 The Process Status screen initially displays a table providing the following information:

Table 7-1 Process Status Table Field Descriptions

Field	Description
Process	Process name
Status	Status of this particular process.

Step 3 To display a defined number of table rows, click the down arrow next to "Rows per page." Click to highlight and select predetermined amounts. If there are multiple pages listing log files, click the ***First***, ***Previous***, ***Next***, or ***Last*** button to navigate to the desired page.

Step 4 Click "Restart" to restart all of the processes.

Warning **When you restart CTMS system processes, all active meetings are dropped. Check for active meetings before using this command.**

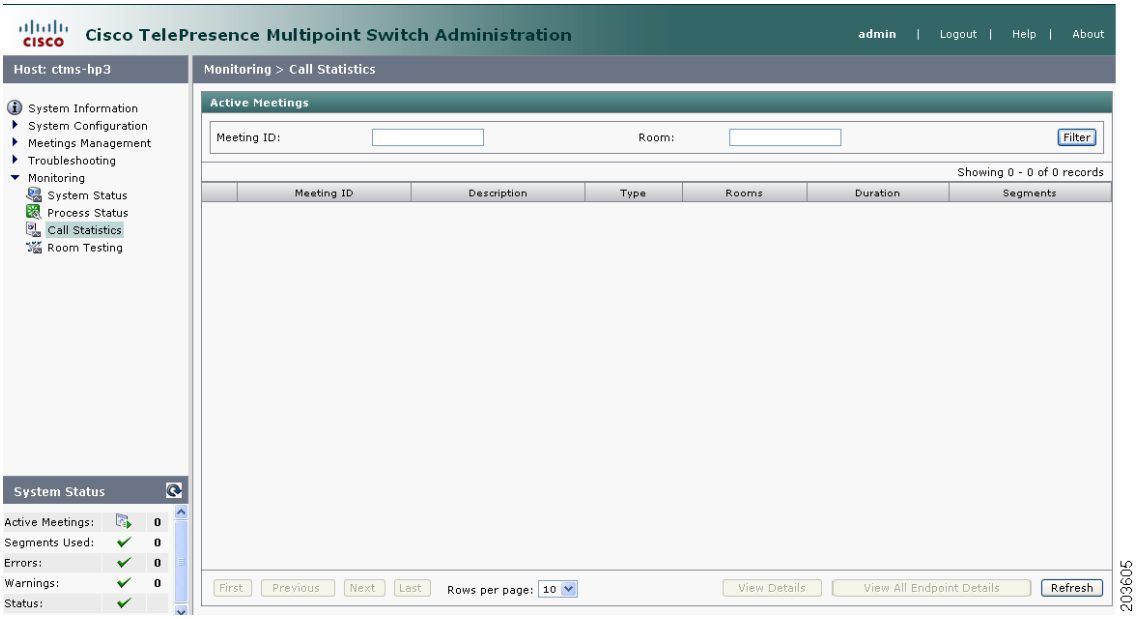
Viewing Call Statistics

Use Call Statistics to view detailed RTP information about all call segments for active CTMS meetings.

To view call statistics:

Step 1 Click ***Call Status*** under the **Monitoring** folder in the Navigation Pane to open the **Call Statistics** window. Figure 7-4 shows the Call Statistics screen.

Figure 7-4 Call Statistics Screen



Step 2 The initial Call Statistics screen displays a table providing the following information, listing all currently active meetings by ID numbers:

Table 7-2 Call Statistics Table Field Descriptions

Field	Description
Meeting ID	ID number uniquely identifying an active meeting.
Description	Text describing the active meeting.
Type	Displays the defined meeting type. Meeting types are static and ad hoc.
Rooms	Lists the CTS end points (meeting rooms) attending this meeting.
Duration	Length of time this meeting has been active, listed in hours, minutes and seconds.
Segments	Total number of segments for all rooms attending this meeting.

Step 3 To use the filter at the top of the table to find a particular meeting, enter either the Meeting ID number or the Room number in the appropriate field and then press “Filter.”

Step 4 To display a defined number of table rows, click the down arrow next to "Rows per page." Click to highlight and select predetermined amounts. If there are multiple pages, click the ***First***, ***Previous***, ***Next***, or ***Last*** button to navigate to the desired page.

Step 5 Click ***Refresh*** to refresh the active meetings displayed.

Step 6 Click the radio button to the left of a table entry to select a particular meeting. Click ***View Details*** to display an abbreviated view of RTP statistics for the selected meeting. To see all RTP call statistics details for a particular meeting, click ***Details*** from the abbreviated view.

Step 7 Click ***View All Endpoint Details*** to display a subset of audio and video RTP statistics for all active meetings. To see all RTP call statistics details for all meeting, click ***Details*** from the abbreviated view.

Complete RTP statistic details include the following information for each CTMS call segment:

Audio Statistics

- SSRC (Receive)
- SSRC (Transmit)
- Max Jitter (Period)
- Max Jitter (Call)
- Mean Jitter (Period)
- Mean Jitter (Call)
- Jitter Standard Deviation (Period)
- Jitter Standard Deviation (Call)
- Jitter Spike (Period)
- Jitter Spike (Call)
- Jitter Spike Rate % (Period)
- Jitter Spike Rate % (Call)
- Total Packets (Receive)
- Total Packets (Transmit)
- Lost Packet Rate % (Receive)
- Lost Packet Rate (Transmit)
- Duplicate Packets
- Out of Order Packets
- Total Switching (Call)
- Max Switching (Period)

Video Statistics

- SSRC (Receive)
- SSRC (Transmit)
- Max Jitter (Period)
- Max Jitter (Call)
- Mean Jitter (Period)
- Mean Jitter (Call)

- Jitter Standard Deviation (Period)
- Jitter Standard Deviation (Call)
- Jitter Spike (Period)
- Jitter Spike (Call)
- Jitter Spike Rate % (Period)
- Jitter Spike Rate % (Call)
- Total Packets (Receive)
- Total Packets (Transmit)
- Lost Packet Rate % (Receive)
- Lost Packet Rate (Transmit)
- Duplicate Packets
- Out of Order Packets
- Total Switching (Call)
- Max Switching (Period)
- Feedback Packets Dropped
- Total NAKs
- Max Frame Window (Period)
- Max Frame Window (Call)
- Frame Window Spikes (Period)
- Frame Window Spikes (Call)
- Frame Window Spike Rate % (Period)
- Frame Window Spike Rate % (Call)
- IDR Packets (Received)
- IDR Packets (Transmit)

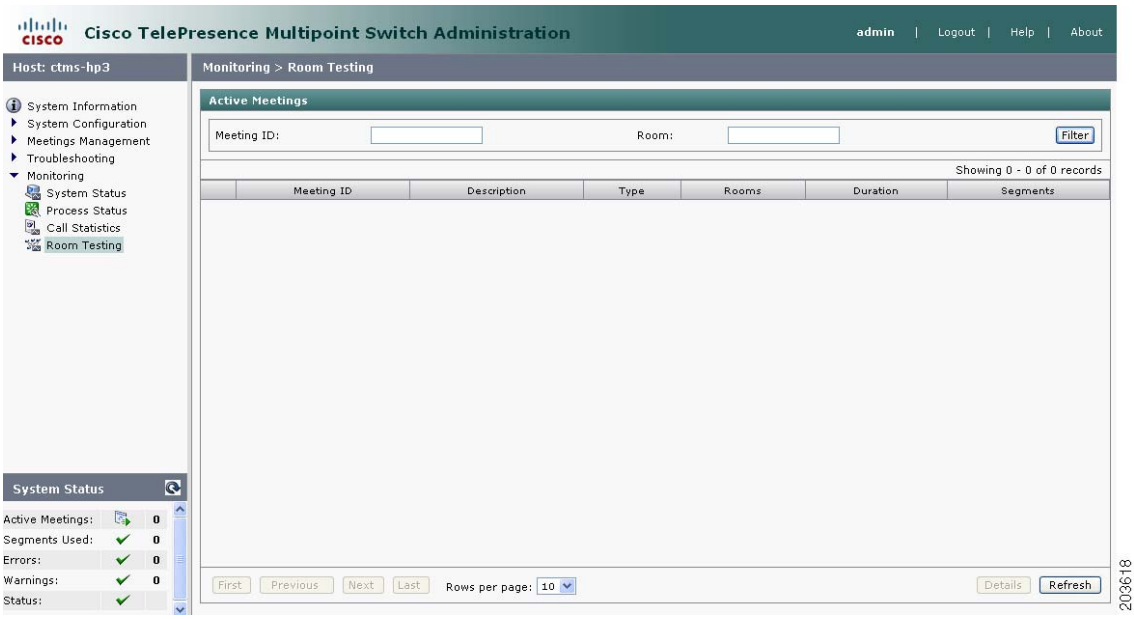
Room Testing

Use Room Testing to perform loopback or force switch testing.

To perform loopback or force switch testing:

Step 1 Click ***Room Testing*** under the **Monitoring** folder in the Navigation Pane to open the **Room Testing** window. Figure 7-5 shows the Room Testing screen.

Figure 7-5 Room Testing Screen



Step 2 The initial Room Testing screen displays a table providing the following information, listing all currently active meetings by ID numbers:

Table 7-3 Room Testing Table Field Descriptions

Field	Description
Meeting ID	ID number uniquely identifying an active meeting.
Description	Text describing the active meeting.
Type	Displays the defined meeting type. Meeting types are static and ad hoc.
Rooms	Lists the CTS end points (meeting rooms) attending this meeting.
Duration	Length of time this meeting has been active, listed in hours, minutes and seconds.
Segments	Total number of segments for all rooms attending this meeting.

Step 3 To use the filter at the top of the table to find a particular meeting, enter either the Meeting ID number or the Room number in the appropriate field and then press “Filter.”

Step 4 To display a defined number of table rows, click the down arrow next to “Rows per page.” Click to highlight and select predetermined amounts. If there are multiple pages, click the ***First***, ***Previous***, ***Next***, or ***Last*** button to navigate to the desired page.

Step 5 Click “Refresh” to refresh the active meetings displayed.

Step 6 Click the radio button to the left of a table entry to select a particular meeting. Click “Details” to display the Room Testing screen for the rooms in that meeting.

a. Click “Loopback” to display the transmitted camera image (image is looped-back so that attendees see themselves) in each of the rooms for the selected meeting.

b. Click “Force Switch” to force site switching between all of the rooms in the selected meeting.

c. Click “Close” to return to the Room Testing active meeting listing screen.

CHAPTER 8

Interoperability with Legacy Video Conferencing Devices

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Contents

Overview

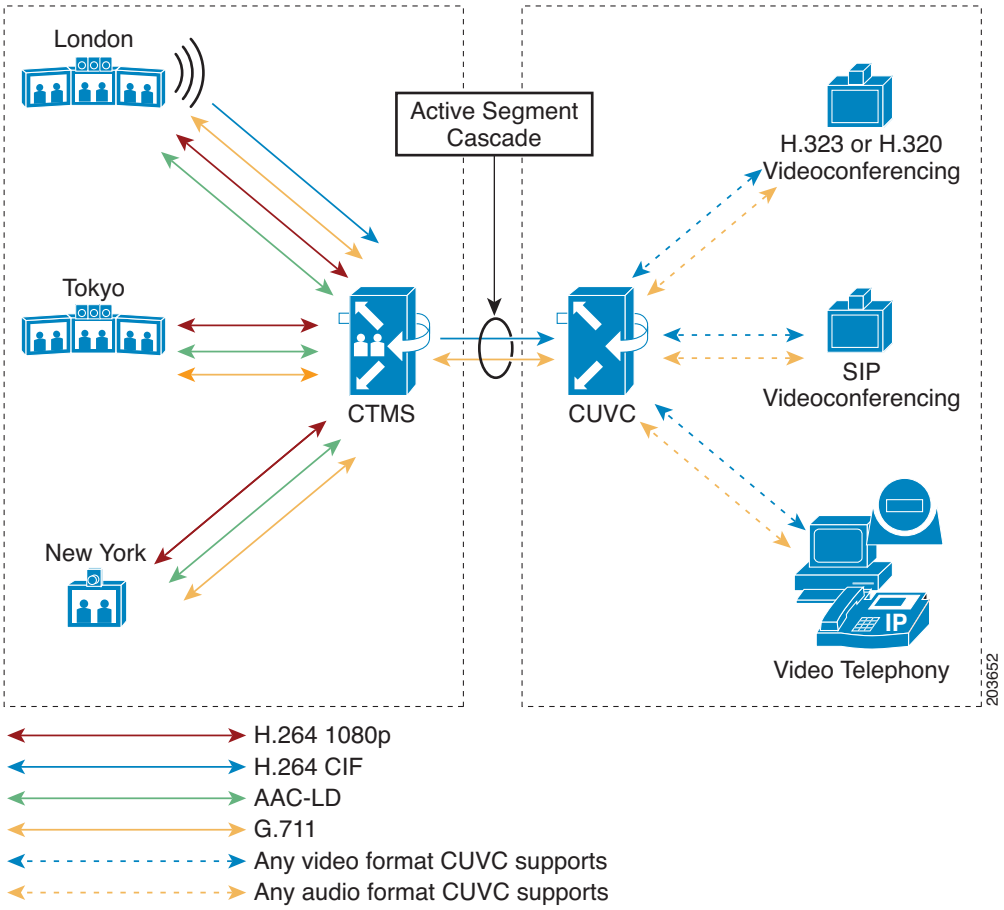
Cisco TelePresence is based on open standards, including SIP, H.264 and G.711. With Cisco TelePresence System (CTS) Release 1.3 and CTMS Release 1.1, Cisco TelePresence now supports interoperability between Cisco TelePresence systems and standard definition video conferencing/video telephony using the Cisco Unified Video Conferencing 3500 series MCU (CUVC).

How Cisco TelePresence Interoperability Works

As shown in Figure 8-1, CTS endpoints send a copy of their audio in G.711 format to the CTMS server. CTMS then determines which CTS segment is emitting the most dominant audio and requests that segment to send a copy of that segment's video in Common Intermediate Format (CIF) resolution. CTMS

mixes the G.711 channels for all CTS endpoints into a single G.711 audio and switches CIF and G.711 to CUVC. As the dominant audio segment changes throughout the meeting, CTMS switches the CIF video stream accordingly. Audio-only participants on the CUVC side can join directly into the CUVC.

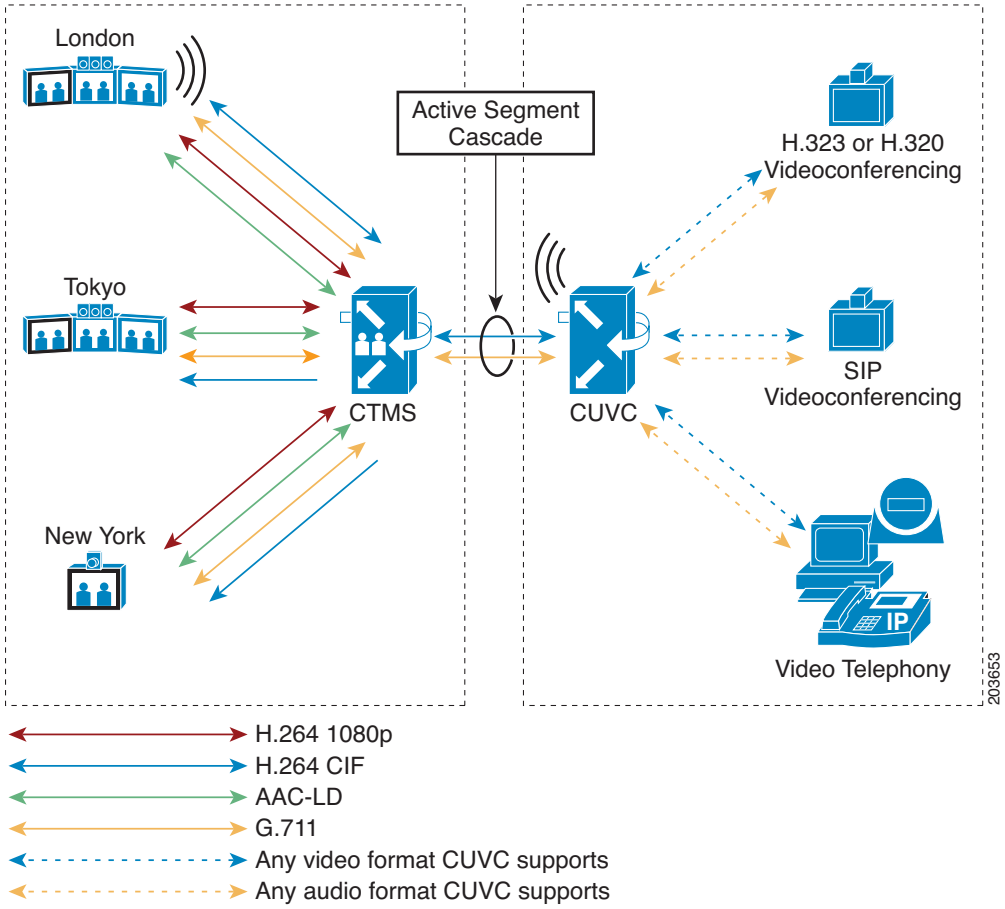
Figure 8-1 Cisco TelePresence Interoperability: From CTS/CTMS to CUVC



As shown in Figure 8-2, audio and video coming from CUVC to CTMS is switched to all CTS endpoints when the audio coming from CUVC is deemed to be the most dominant segment. The CIF image from CUVC is presented on the left screen of each CTS-3000 surrounded by black borders. With the CTS-1000, the CIF image is displayed when CTMS senses that the CUVC participant is the active speaker. The incoming 352x288 CIF image is stretched to 4CIF when displayed on either the CTS-1000 or CTS3000 high-definition plasma screen.

Note If you wish to see more than one CUVC participant displayed at one time, you can customize the CUVC MCU layout configuration to display up to 16 CUVC participants. We recommend the 1x1 layout for consistency with the Telepresence experience.

Figure 8-2 Cisco TelePresence Interoperability: From CUVC to CTS/CTMS



Benefits

Cisco TelePresence Interoperability maintains the immersive experience for Cisco TelePresence meeting participants. It also provides standards-based interoperability with minimal additional hardware (CUVC 3500 Series MCU) requirements. CTS and CTMS software upgrades are available at no charge.

Caveats

- Cisco TelePresence Interoperability increases the required amount of bandwidth to and from each CTS by an additional 704 kbps to transmit and receive the CIF and 64 kbps to transmit and receive G.711 streams.
- The interoperability segment is limited to CIF resolution video at 768 kbps and G.711 audio in CTMS Release 1.1.
- CUVC is the only supported MCU in this release. CUVC requires software version 5.5.0.0.54 or later.

- CUVC participants will not experience the spatial audio generated by CTS. CUVC participants hear all Cisco TelePresence participants mixed together in G.711.
- CUVC as an SCCP conference resource managed by Unified CM is not a supported option.The CUVC must be defined as a SIP trunk (and optionally an H.323 gateway) to Unified CM.
- CTS participants hear CUVC participants mixed together in G.711; audio will be heard from the same segment as that which is showing the CIF video.
- CTS and CUVC participants are not able to share slides or documents using H.239. Use another application for document sharing between CTS and CUVC, such as MeetingPlace or WebEx.
- Far End Camera Control (FECC) is not available to CTS participants during an interoperability call.
- Each interop conference uses one CTMS port and one CUVC port for each conference because each meeting utilizes a port for the cascade link. For example, CTMS normally can support 48 segments, and CUVC-3515-24 can support up to 24 participants. During interop meetings, CTMS supports a maximum of 47 segments and CUVC supports a maximum of 23 participants.
- Encryption is not supported for CTMS, Release 1.1, including interoperability calls.

Prerequisites

Interoperability between traditional video conferencing devices and CTS requires three components:

- CTMS
- Cisco Unified Communications Manager (Unified CM)
- CUVC MCU

The software and hardware requirements for Cisco TelePresence Interoperability are as follows:

CUVC Software and Hardware Requirements

- CUVC MCU Release 5.5.0.0.54:MP or later
- CUVC EMP Release 5.5.2.0.2:EMP or later

For additional information about configuring CUVC, refer to the *Configuration Guide for the Cisco Unified Videoconferencing 3545 MCU Release 5.5.*

Unified CM Software Requirements

- Unified CM Software Release 6.0 or later

For additional information about configuring Unified CM for Cisco TelePresence System, refer to the *Cisco Unified Communications Manager Installation Guide for the Cisco TelePresence System.*

For information about configuring Unified CM, refer to *Cisco Unified Communications Manager Version 6.0* and *Cisco Unified Communications Manager Version 6.1*.

CTS Endpoint Software Requirements

- CTS Software Release 1.3 or later

For more information about CTS Administration Software, refer to the *Cisco TelePresence System Release 1.3 Administrator's Guide*.

Configuring Cisco TelePresence Interoperability

To configure Cisco TelePresence Interoperability, you must complete the following configuration tasks:

- Configure Unified CM to support Cisco TelePresence Interoperability
- Configure CUVC to support Cisco TelePresence Interoperability
- Add at least one static meeting to CTMS with interoperability enabled

Configuring Unified CM for Cisco TelePresence Interoperability

To configure Unified CM for Cisco TelePresence Interoperability, you must create a SIP trunk security profile and a SIP trunk using the same configuration parameters as you would in defining a SIP trunk for CTMS. Then you must add a new route pattern in Unified CM that points to the CUVC. CTMS dials the CUVC using the number defined in the "CUVC number" field of the CTMS meeting definition when the first CTS participant joins the meeting.

Creating a SIP Trunk Security Profile

To create a SIP trunk security profile:

Step 1 Click ***System***. Under **Security Profile**, click ***SIP Trunk Security Profile***.

Step 2 Click the ***Add New*** button at the bottom of the page or click the ***+ sign*** at the top of the page.

Step 3 Enter the settings as indicated in Table 8-1 to configure the SIP trunk security profile. Leave default settings for fields not included in Table 8-1.

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Table 8-1 SIP Trunk Security Profile Settings

Field	Required	Setting
Name	Yes	Enter a text string identifying this SIP trunk security profile.
Description	—	Enter a text string describing this SIP trunk security profile.
Device Security Mode	Yes	Select ***Non Secure***.
Incoming Transport Type	Yes	Select ***TCP+UDP***.
Outgoing Transport Type	Yes	Select ***TCP***.
Incoming Port	Yes	Enter ***5060***.

Step 4 Click the ***Save*** button at the bottom of the page.

Note Use the same SIP Trunk Security Profile settings for the CTMS SIP trunk and the CUVC SIP trunk.

Creating a SIP Trunk

To create a SIP trunk for CTMS calls to the CUVC:

Step 1 Click ***Device***. Click ***Trunk***.

Step 2 Click the ***Add New*** button at the bottom or click the ***+ sign*** at the top of the Trunk Configuration page.

Step 3 Select ***SIP Trunk*** from the **Trunk Type** pull-down menu, then click ***Next***.

Step 4 Enter the settings as indicated in Table 8-2 to configure the SIP trunk. Leave default settings for fields not included in Table 8-2.

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Table 8-2 SIP Trunk Settings

Field	Required	Setting
Device Information		
Device Name	Yes	Enter a text string identifying this SIP trunk.
Description	—	Enter a text string describing this SIP trunk.
Device Pool	Yes	Select ***Default***.
SIP Information		
Destination Address	Yes	Enter the IP address of the CUVC.
SIP Trunk Security Profile	Yes	Select the SIP trunk security profile that you created for CTMS.
SIP Profile	Yes	Select ***Standard SIP Profile***.

Step 5 Click the ***Save*** button at the bottom of the page.

Configuring a Route Pattern

A route pattern allows a Unified CM-managed device to access another device by dialing its number. Such devices may include gateways, Cisco TelePresence Multipoint Switch (CTMS) systems, or Cisco Unified Video Conferencing (CUVC) units. Each device requires its own unique route pattern.

To configure a route pattern:

Step 1 Click ***Call Routing***. Under **Route/Hunt**, click ***Route Pattern***.

Step 2 Click the ***Add New*** button at the bottom or click the ***+ sign*** at the top of the Route Pattern Configuration page.

Step 3 Enter the settings as indicated in Table 8-3 to configure the SIP trunk. Leave default settings for fields not included in Table 8-3.

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Table 8-3 Route Pattern Configuration Settings

Field	Required	Setting
Pattern Definition		
Route Pattern	Yes	Enter the route pattern, including numbers and wildcards (do not use spaces); for example, for NANP, enter 9.@ for typical local access, or 8XXX for a typical private network numbering plan. The uppercase characters A, B, C, and D are valid characters. **Note** The portion of the route pattern's digit string sent to the CUVC must begin with a valid service prefix as defined on the CUVC. **Note** See the "Wildcards and Special Characters in Route Patterns and Hunt Pilots" section in the *Cisco CallManager System Guide* for more information about wildcards.
Description	—	Enter a text string describing this route pattern.
Gateway/Route List	Yes	Select the SIP trunk that you created for CUVC.
Call Classification	Yes	Select ***OnNet***.

Step 4 Click the ***Save*** button at the bottom of the page.

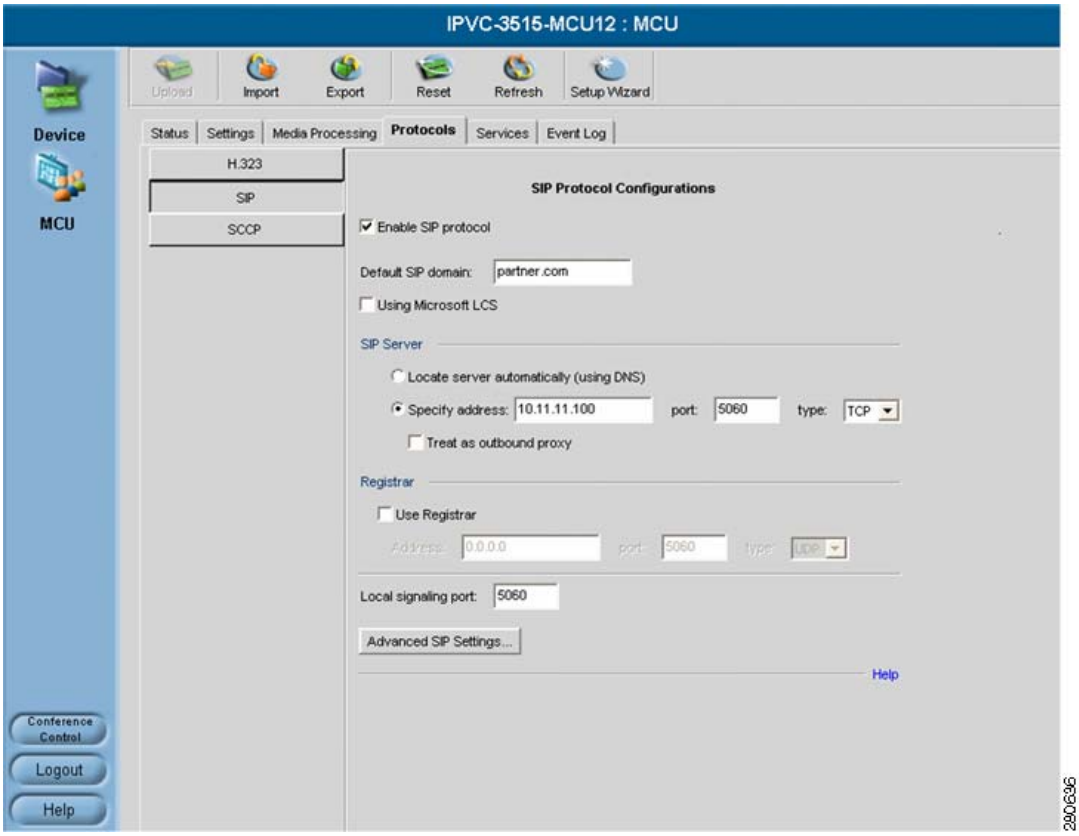
Configuring CUVC for Cisco TelePresence Interoperability

After basic CUVC configuration has been completed and the unit has been connected to the host network, you need to perform the following tasks to configure the CUVC for Cisco TelePresence Interoperability:

- Verify that the MCU and EMP are running the correct software version.
  - Log into the CUVC Administration console and click the ***Media Processing*** tab.
  - Verify that the MCU is running Version 5.5.0.0.54:MP.
  - Verify that all EMPs are running Version 5.5.2.0.2:EMP.
- EMP resources must be available and the MCU service must be defined to use HD/SD Continuous Presence with a Max Call Rate of 768 kbps or greater. "HD Switch Mode" is not supported. If you choose a service configuration such as "HD Switched Video," the cascade connection between CTMS and CUVC will fail to connect.

- Enable SIP signaling on the CUVC. A SIP proxy is not required for interoperability.
  - From the ***Protocols*** tab, click **SIP.** Click the ***Enable SIP Protocol*** box as shown in Figure 8-3.

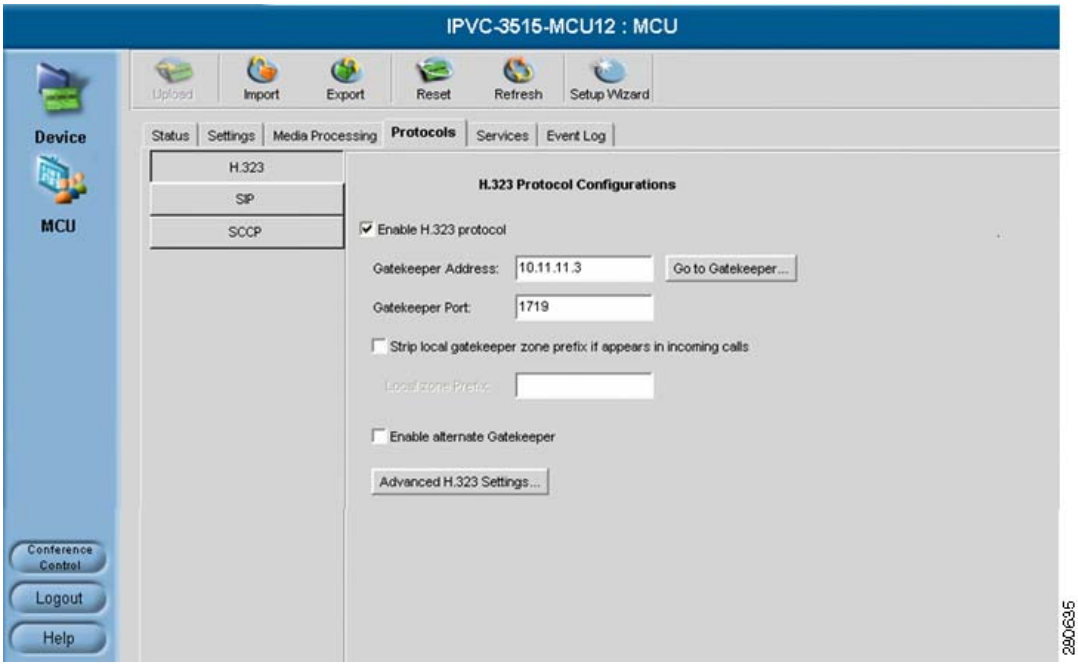
Figure 8-3 SIP Configuration Screen



Note SIP must be enabled on the CUVC. CTMS must connect to CUVC using SIP. When CTMS dials the CUVC number, it sends a SIP INVITE to Unified CM for that number. Unified CM must be configured to route that number to CUVC using a SIP trunk. CUVC can connect to legacy video conferencing participants using either SIP or H.323.

- (Optional) Disable the SCCP protocol to save ports.
  - From the ***Protocols*** tab, click **SCCP** as shown in Fix XX**.** Click the ***Disable SCCP Protocol*** box.
- Enable H.323 signaling on the CUVC.
  - From the ***Protocols*** tab, click **H.323** and the click the ***Enable H.323 Protocol*** box as shown in Figure 8-4.

Figure 8-4 H.323 Configuration Screen



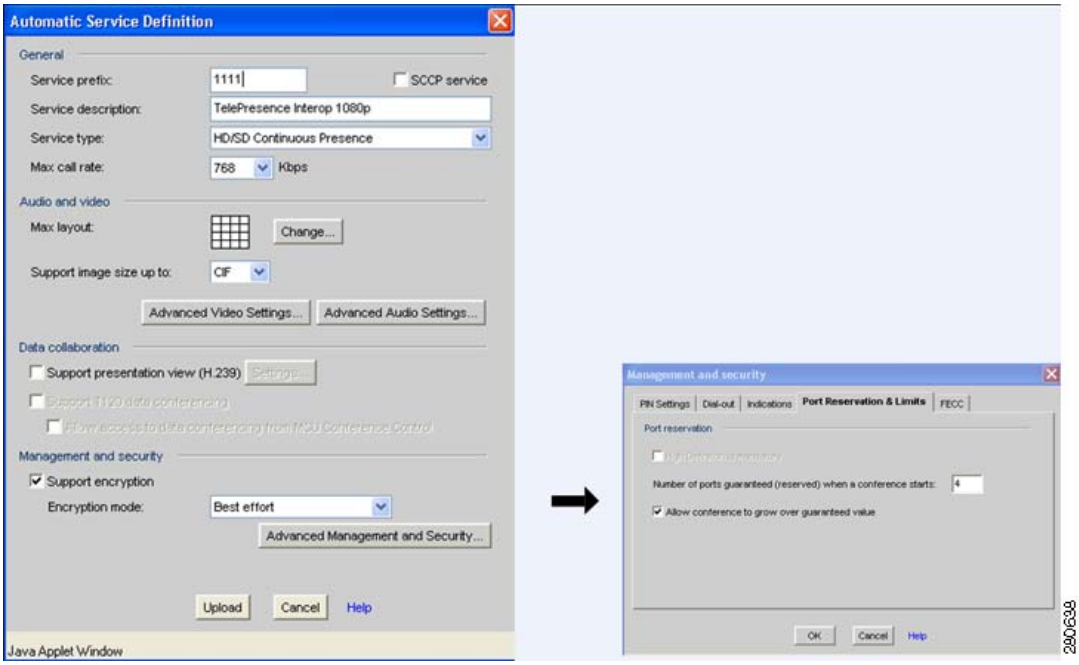
  - If you are using an H.323 Gatekeeper, define the Gatekeeper IP address and the Gatekeeper Port as 1719.
  - If you are using an MCU as an H.323 trunk in Unified Communications, go to ***Advanced H.323 Settings*** on the CUVC Protocols configuration page and record the RAS port number and Signaling Port parameter value. Use the Signaling Port value for the Unified Communications H.323 Trunk Port definition.

- Configure CUVC meeting characteristics for Cisco TelePresence Interoperability. CUVC meeting characteristics are configured individually using the service prefix. Service prefixes define the CUVC meeting characteristics, and are defined on the CUVC Administration page under ***Services***.

  From the **Automatic Service Definitions** page under ***Services*** as shown in Figure 8-5, configure the following attributes:

  - Max Call Rate: 768 Kbps
  - Max layout: 1x1
  - Supported image size up to: CIF

Figure 8-5 Automatic Service Definition Screen



Click the **Advanced Management and Security** button under ***Automatic Services*** to open the Management and Security Screen. Click the **Port Reservation and Limits** tab. Configure the following attributes:

- Define the minimum number of guaranteed ports for interoperability conferences.
- Check the ***Allow conference to grow over guaranteed value*** box.
- Click ***OK***.

From the **Advanced Audio Settings** page under ***Automatic Services***, configure the following attributes:

- Verify that G.711 is in the supported codecs list; select ***G.711***.

From the **Advanced Video Settings** page under ***Automatic Services***, configure the following attributes:

- Check ***Enable "No Self See"*** box.
- Verify that H.264 is in the supported codecs list; select ***H.264***.
- Click ***Settings*** to enter welcome text as required.

Click ***Upload*** for these changes to take effect.

Note The route pattern created for CUVC in Unified CM should match the CUVC number and service prefix configured in CUVC.

- Suppress reflected video for the initial caller. When a caller joins the CUVC as the first participant of a Cisco Telepresence conference, the default behavior is for that caller to see his or her own image. To have that initial caller see a black screen instead, you must suppress reflected video. To suppress the reflected video:
  - From the MCU configuration page, select the ***Settings*** tab, then click ***Advanced***. The page refreshes and displays a ***Command*** button.
  - Click ***Commands***. The Advanced Commands window appears.
  - In the Commands field, enter: **mc:notselfseeforfirstpart**
  - In the Parameter field, enter the service prefix number followed by either **0** (to deactivate) or **1** (activate) suppressed reflection.
  - Click ***Send*** to issue request to the CUVC. If the command is successful, the response field indicates "OK."
- Network Configuration: The CUVC MCU and EMP cards each have their own Ethernet cables and IP addresses. Make sure that the switch to where the two cables attach is defined to allow QoS to be passed through to the network as a trusted device. This requirement applies to all video devices including CTS and CTMS. Configuration example is as follows:

```
interface TenGigabitEthernet 4/2
  description ===connection to telepresence gateway 2===
ip address 10.xx.xx.xx 255.255.255.252
ip pim sparse-dense-mode
mls qos trust dscp end
```

For general information about the CUVC configuration tasks, refer to the *Configuration Guide for the Cisco Unified Videoconferencing 3545 MCU Release 5.5.*

Configuring CTMS for Cisco TelePresence Interoperability

The next step is to configure a static meeting in CTMS in "interop mode." When the first CTS caller joins the teleconference, CTMS dials out to the CUVC using the Interoperability number configured in the CTMS meeting definition. CTMS dials out to the CUVC using the SIP trunk defined in Unified CM. CTMS cannot use H.323 signaling for this connection. When configuring the SIP trunk, specify a device pool with a region configured for a video bandwidth of 768 kpbs or higher.

Creating Static Meetings in CTMS for Interoperability

To create a static meeting:

Step 1 Click ***Static Meetings*** under the **Meetings Management** folder in the Navigation Pane.

Step 2 The Static Meetings setting screen initially displays a table providing the following information about already defined static meetings.

Table 8-4 Static Meetings Table Field Descriptions

Field	Description
Access Number	Displays the access number that rooms call to attend this meeting.
Description	Displays the defined description for this static meeting.

Table 8-4 Static Meetings Table Field Descriptions

Field	Description
Switching Policy	Displays the defined switching policy (site or segment) for this static meeting.
Max Rooms	Displays the maximum number of sites that can participate in this static meeting.
Quality	Sets the maximum bit rate and video resolution to be used for the meeting.
Interop	A green check indicates that this particular Cisco TelePresence multipoint meeting supports Cisco Unified Video Conferencing (CUVC) systems (interoperability mode). A red "X" indicates that this meeting is not configured to cascade with CUVC systems.
CUVC Number	(Optional) Number dialed to CUVC for interoperability meetings.

- To delete one of the defined static meetings, click the radio button to the left of the table entry, and then click ***Delete***.
- To edit one of the defined static meetings, click the radio button to the left of the table entry, and then click ***Edit***.
- To define a new static meeting, click ***New***.

Step 3 When you click ***Edit*** or ***New***, CTMS Administration software takes you to the Static Meeting Settings table. Enter settings as described in Table 8-5:

Table 8-5 Static Meeting Settings

Field or Button	Setting
Access Number	Defines the telephone number that participants call to attend this static meeting.
Meeting Description	Text describing or identifying this static meeting. The maximum number of characters for this field is 62 characters.
Switching Policy	Defines how CTMS calls are displayed during a meeting. CTMS displays active speakers on screen. There are two active speaker display options: • ***Segment***: (Speaker) With segment switching, each individual table segment (defined as a display and a camera) is displayed on the screen as that segment becomes the active speaker. • ***Site***: (Room) When you select "site," all table segments for a particular room are displayed on screen when any segment in that room is the active speaker. Click the appropriate radio button to select. **Note** If you are running CTS 1.3 or later, you can control how Cisco TelePresence calls are displayed from the Cisco TelePresence phone interface. Press the ***Speaker*** softkey to display the active segment; press the ***Room*** softkey to display all segements from a particular site.

Table 8-5 Static Meeting Settings

Field or Button	Setting
Maximum Rooms	Defines the maximum number of Cisco TelePresence rooms allowed to dial into in a static multi-point meeting. The range for this setting is from 2 to 48.
Video Announce	If this option is selected, when a new room joins the meeting, the new room is displayed on-screen for 2 seconds. Options are ***Yes*** and ***No***. Click the appropriate radio button to select.
Hosted Meeting	Hosted meetings mean that one particular room is identified as the host for a meeting; other meeting rooms will not be added to the meeting until the host room dials in. If you have selected "Video announce," then each meeting room will be displayed in 2-second intervals in the order that they joined the meeting. Options are ***Yes*** and ***No***. Click the appropriate radio button to select.
Host Room Number	Defines the host Cisco TelePresence System room number.
Quality	This field sets the system bandwidth and screen resolution. A higher bandwidth increases video quality, but may also cause packets to be dropped and video to be interrupted. Choices: • Highest Detail, Best Motion: 4Mbps 1080p • Highest Detail, Better Motion: 3.5Mbps, 1080p • Highest Detail, Good Motion: 3Mbps, 1080p • Highest Detail, Best Motion: 3Mbps, 720p • Highest Detail, Better Motion: 2Mbps, 720p • Highest Detail, Good Motion: 1Mbps, 720p Default is Highest Detail, Best Motion: 4Mbps 1080p.
Interop	Determines whether this particular Cisco TelePresence multipoint meeting accepts legacy Cisco Unified Video Conferencing (CUVC) systems (interop). Options are **Yes** and **No**. Click the appropriate radio button to select.
CUVC Number	Defines the number that CTMS dials to establish contact with CUVC. Each CUVC number must be unique for each CTMS conference. The CUVC number consists of the service prefix and then the remaining dialed digits. The service prefix can be the same for different meetings. The remaining digits in the dialed number designate the CUVC meeting instance. Each CTMS conference requires it owns CUVC meeting instance. **Note** This number must start with the CUVC service prefix defined during CUVC configuration.

- To register new or modified settings, click ***Apply***.
- To restore the original settings, click ***Reset***.

Troubleshooting Cisco TelePresence Interoperability

Table 8-6 describes some specific problems and possible solutions.

Table 8-6 Specific Problems and Possible Solutions

Problem	Possible Solutions
Unified CM sends an error message of "Service not available" to CTMS when CTMS tries to establish call to CUVC.	• Check to see if there are sufficient ports. Unified CM delivers a "Service not available" message when CTMS places a call to CUVC and there are an insufficient number of ports available. • Disable SCCP on the CUVC.

APPENDIX A

Command Line Interface (CLI) Commands

Initial Release: August 4, 2008, OL-12586-02

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Introduction

This chapter explains how to use Cisco TelePresence Multipoint Switch (CTMS) Command Line Interface (CLI) commands.

Starting a CLI Session

You can access the CTMS CLI through the physical console or remotely. If accessing the CTMS CLI remote, use Secure Shell (SSH) from a personal computer or workstation to connect securely to CTMS.

Before you begin, be sure that you have the following information:

- CTMS IP address
- Admin ID and password

You will need this information to log into CTMS.

Note The admin ID and password can be changed from the default in the Cisco Unified Communications Manager (Unified CM) for CTMS device page.

To start a CLI session:

Step 1 From a remote system, use SSH to connect securely to CTMS. In the SSH client, enter the following information: ssh adminname@IP Address

- adminname is the Admin ID
- IP Address is the IP address of CTMS

Step 2 When the system prompts you, enter the password.

Step 3 The CLI prompt (admin) displays. You can now enter any CLI command.

Note The prompt will always be "admin."

CLI Command Basics

- Enter the beginning of a command and press **Tab** to have the system complete the command for you.
- Enter a full command and press **Tab** to display all commands or subcommands that are available. If you press **Tab** and the current command line repeats, no additional expansions are available.
- To get detailed help, enter **help** *command name* at the CLI prompt.
- To get command syntax for a particular command, enter *command name*? at the CLI prompt

Ending a CLI Session

To end a CLI session:

Step 1 At the CLI prompt, enter **quit**.

CTMS CLI Commands

The following CLI commands are used with Cisco TelePresence Multipoint Switch:

confmgmt

confmgmt {listconf | listconfdetail}

Syntax Description

listconf	Displays the active conference identification number.
listconfdetail	Lists conference details by conference identification number or participant identification number.

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to obtain an active CTMS conference identification number or to display conference details for a given conference ID or participant ID.

Examples

```
admin:confmgmt listconf
```

Related Commands

Command	Description
None	

media GetDSCP

media GetDSCP

Syntax Description None

Command Modes Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines Use this command to obtain DSCP values being inserted into media packets.

Examples

```
admin:media GetDSCP
Current DSCP value:128
```

Related Commands

Command	Description
None	

set bad_ep_detect

set bad_ep_detect {**enable** | **disable**}

Syntax Description

enable	Enables bad endpoint detection feature; if detected, CTMS will drop a bad endpoint from conferences
disable	Disables bad endpoint detection feature.

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to either enable or disable the bad endpoint detection feature. If this command is set to **enable**, bad source endpoints will be dropped from conferences; if set to **disable**, the bad endpoint will be kept in the meeting.

Examples

```
admin:set bad_ep_detect disable
Telepresence Multipoint Switch; drop bad endpoint: disable
```

Related Commands

Command	Description
show badep	Displays whether bad endpoint detection has been enabled or disabled

set commandcount

set commandcount {**enable** | **disable**}

Syntax Description

enable	Enables command count feature. Using **enable** changes the CLI command prompt so that it displays a numeric value showing how many CLI commands have been executed
disable	Disables command count feature. Using **disable** changes the CLI command prompt so that it stops displaying a numeric value showing how many CLI commands have been executed.

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to either enable or disable the command count feature. This command changes the CLI command prompt so that it displays a numeric value showing how many CLI commands have been executed. This setting is valid for current session only.

Examples

```
admin:set commandcount enable
admin 0005:
```

Related Commands

Command	Description
set logging	Enables or disables logging feature

set conferencetermination

set conferencetermination {**true** | **false**}

Syntax Description

true	Enables conference termination for scheduled conferences.
false	Disables conference termination for scheduled conferences.

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to either enable or disable conference termination for scheduled conferences.

Note This command takes effect when CTMS is registered with Cisco TelePresence Manager but not supported by Cisco TelePresence Manager.

Examples

```
admin:set conferencetermination true
```

Related Commands

Command	Description
show conferencetermination	Displays list of conferences with enabled or disabled conference termination

set cuvcdialrepeatinterval

set cuvcdialrepeatinterval *number*

Syntax Description

number	Length of time, in seconds, that the CTMS system waits between redialing the CUVC. The default is 30.

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to configure the time (in seconds) for CTMS to redial a CUVC participant.

Examples

```
admin: set cuvcdialrepeatinterval 30
```

Related Commands

Command	Description
set cuvcdialrepeattime	Configures the number of times CTMS redials a CUVC participant

set cuvcdialrepeattime

set cuvcdialrepeattime *number*

Syntax Description

number	Number of times CTMS will redial a CUVC meeting participant. The default is 50.

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to configure the number of times CTMS will redial a CTMS meeting participant.

Examples

```
admin: set cuvcdialrepeattime 10
```

Related Commands

Command	Description
set cuvcdialrepeatinterval	Configures the time (in seconds) for CTMS to redial a CUVC participant

set damping

set damping {s | l | b | o} {fast | medium | slow}

Syntax Description

s	Switching mode; switching damping refers to how long people must talk to be switched in as active speaker.
l	Lecture mode; lecture damping refers to how long somebody other than the lecturer must talk to take the conference out of lecture mode.
b	Bounce mode; bounce damping refers to how long somebody must talk to override a bounceback source.
o	Override mode; override damping refers to how long, after being overridden, a bounceback source is switched back in.
fast	Fast mode speed: .5 to 1.5 seconds
medium	Medium mode speed: 1.5 to 2.5 seconds
slow	Slow mode speed: 2.5 to 3.5 seconds

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to set damping values for switching.

Examples

```
admin:set damping s fast
```

Related Commands

Command	Description
show damping	Displays damping speeds for configured damping modes.

set feedbackwaitbasetime

set feedbackwaitbasetime *value*

Syntax Description

value	Sets RTP feedback base wait time in milliseconds. Values are from 30 to 400. Default is 150.

Command Modes Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines Use this command to set RTP feedback base wait time in milliseconds. Real feedback wait time is equal to the maximum latency value plus the feedback wait base time.

Examples

```
admin:set feedbackwaitbasetime 200
```

Related Commands

Command	Description
show feedbackwaitbasetime	Displays RTP feedback base wait time in milliseconds

set holdresume

set holdresume {true | false}

Syntax Description

true	Enables server side hold/resume feature for static and scheduled conferences. (User sees an hour glass icon on the display.)
false	Disables server side hold/resume feature for static and scheduled conferences. (User sees a blank screen.)

Command Modes

Admin

Command History

Release	Modification
1.1	This command was first documented.

Usage Guidelines

Use this command to enable or disable server side hold/resume feature for static and scheduled conferences.

Examples

```
admin: set holdresume true
```

Related Commands

Command	Description
show holdresume	Retrieves current server side hold/resume settings for static and scheduled conferences

set lateendmins

set latenedmins *value*

Syntax Description		
	value	Number of minutes after which a conference will be terminated when the meeting exceeds the scheduled end time.

Command Modes Admin

Command History	Release	Modifications
	1.1	This command was first documented.

Usage Guidelines Use this command to define the number of minutes after which a conference will be terminated when the meeting exceeds the scheduled end time.

Note This command takes effect when CTMS is registered with Cisco TelePresence Manager but not supported by Cisco TelePresence Manager.

Examples

```
admin: set lateendmins 3
```

Related Commands	Command	Description
	None	

set logging

set logging {**enable** | **disable**}

Syntax Description		
	enable	Enables logging.
	disable	Disables logging.

Command Modes Admin

Command History	Release	Modifications
	1.1	This command was first documented.

Usage Guidelines Use this command to either enable or disable logging.

Examples

```
admin:set logging enable
```

Related Commands	Command	Description
	set commandcount	Enables or disables command count feature

set network dns

set network dns {primary *address* **| secondary** *address***}**

Syntax Description

primary *address*	Defines a new address for the primary DNS server. Values for *address* are valid dotted decimal IP addresses.
secondary *address*	Defines a new address for the secondary DNS server. Values for *address* are valid dotted decimal IP addresses.

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to define new IP addresses for primary or secondary DNS servers.

This command causes a temporary loss of network connectivity. If you want to continue with defining a new address for the DNS server, type **Yes**. Otherwise, click any other key to abort.

Examples

```
admin:set network dns primary 1.2.3.4
*** WARNING ***
This will cause the system to temporarily lose network connectivity
Do you want to continue?
Enter "yes" to continue or any other key to abort
yes
```

Related Commands

Command	Description
set network ip eth0	Defines a new IP address and subnet mask for Ethernet 0

set network ip eth0

set network ip eth0 *address*

Syntax Description

address	Defines a new IP address and subnet mask for Ethernet 0. Values for *address* are valid dotted decimal IP addresses followed by subnet mask value.

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to define a new IP address and subnet mask for Ethernet 0. The system automatically reboots after you execute this command.

Examples

```
admin:set network ip eth0 192.168.1.5 255.255.255.0
*** WARNING ***
This will cause the system to restart - Do you want to continue?
Enter "yes" to continue and restart or any other key to abort
yes
```

Related Commands

Command	Description
set network dns	Defines new IP addresses for primary or secondary DNS servers

set password admin

set password admin

Syntax Description

None

Command Modes

Admin

Command History

Command	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to set a new administrator password.

Note Passwords must be at least 6 characters, but not more than 64 characters in length, and can contain upper and lower case alphanumeric characters and the underscore and dash characters. The following usernames are not allowed: apache, daemon, nobody, operator, and shutdown.

Examples

```
admin:set password admin
Please enter the old password: ******
Please enter the new password: ********
Re-enter new password to confirm: ********
```

Related Commands

Command	Description
None	

set timezone

set timezone *timezone*

Syntax Description		
	timezone	Enter the appropriate text string or timezone code for the zone you want to configure. Use the **show timezone list** command to display a complete list of available timezone codes.

Command Modes Admin

Command History	Release	Modifications
	1.1	This command was first documented.

Usage Guidelines Use this command to set a new timezone value. This sets system time on CTMS server

Examples

```
admin:set timezone Pac
```

Related Commands	Command	Description
	show timezone config	Displays the current timezone setting
	show timezone list	Displays a list of valid timezones

show account

show account

Syntax Description None

Command Modes Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines Use this command to display a list of all administrative accounts except for the master administrator account.

Examples

```
admin:show account
Name = test, Privilege = 1
```

Related Commands

Command	Description
None	

show active conference

show active conference

Syntax Description None

Command Modes Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines Use this command to display a list of active conference identification numbers.

Examples

```
admin:show active conference
9059578056
```

Related Commands

Command	Description
None	

show badep

show badep

Syntax Description None

Command Modes Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines Use this command to display whether bad endpoint detection is enabled or disabled.

Examples

```
admin:show badep
Current setting to drop bad endpoint: enable
```

Related Commands

Command	Description
set bad_ep_detect	Enables or disabled bad endpoint detection

show conferencetermination

show conferencetermination

Syntax Description None

Command Modes Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines Use this command to display a list of conferences with enabled or disabled conference termination.

Examples

```
admin: show conferencetermination
```

Related Commands

Command	Description
set conferencetermination	Enables or disables conference termination for scheduled conferences

show cuvcdialrepeatinterval

show cuvcdialrepeatinterval

Syntax Description None

Command Modes Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines Use this command to view the CUVC redial time in seconds.

Examples

```
admin: show cuvcdialrepeatinterval
```

Related Commands

Command	Description
show cuvcdialrepeattime	Displays configured CUVC redial retries

show cuvcdialrepeattime

show cuvcdialrepeattime

Syntax Description None

Command Modes Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines Use this command to view configured CUVC redial retry value.

Examples

```
admin:show cuvcdialrepeattime
cuvc retry time is 50
```

Related Commands

Command	Description
show cuvcdialrepeatinterval	Displays the CUVC redial time in seconds

show damping

show damping {s | l | b | o}

Syntax Description

s	Switching mode; switching damping refers to how long people must talk to be switched in as active speaker.
l	Lecture mode; lecture damping refers to how long somebody other than the lecturer must talk to take the conference out of lecture mode.
b	Bounce mode; bounce damping refers to how long somebody must talk to override a bounceback source.
o	Override mode; override damping refers to how long, after being overridden, a bounceback source is switched back in.

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to display damping speeds for defined damping modes.

Examples

```
admin:show damping s
Damping time is currently set to medium
admin:show damping l
Lecture damping time is currently set to medium
```

Related Commands

Command	Descriptions
set damping	Sets damping values for switching.

show details

show details {conference | participant}

Syntax Description

conference	Conference identification number
participant	Participant identification number.

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to list conference details either by conference identification number or by participant identification number.

Examples

```
admin:show details conference 9059578056
Conference Id: 9059578056
Conference type: Immediate
Participant list: 11080, 11081, 11082
Conference description: TESTING
Switching policy: SITE
AutoLecture Mode: false
Video Announce: true
Total segments: 3
Resolution & Bandwidth: 1080p 4MBps
IsLocked: false
```

Related Commands

Command	Description
None	

show dscp packet

show dscp packet

Syntax Description None

Command Modes Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines Use this command to display configured DSCP values being inserted in media packets.

Examples

```
admin:show dscp packet
Current DSCP value:128
```

Related Commands

Command	Description
None	

show feedbackwaittime

set feedbackwaittime confid *number*

Syntax Description		
	confid *number*	Conference identification number

Command Modes Admin

Command History	Release	Modifications
	1.1	This command was first documented.

Usage Guidelines Use this command to return feedback wait time information for a conference in milliseconds. Feedback wait time is equal to maximum latency per conference plus feedback wait base time.

Examples

```
admin:show feedbackwaittime 9059578056
FBWaitTime=254
```

Related Commands	Command	Description
	set feedbackwaitbasetime	Set RTPs feedback base wait time in milliseconds
	show feedbackwaitbasetime	Displays RTP feedback base wait time in milliseconds

show feedbackwaitbasetime

show feedbackwaitbasetime

Syntax Description

None

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to display RTP feedback base wait time in milliseconds.

Examples

```
admin:show feedbackwaitbasetime
Current Feedback wait base time is 250 ms
```

Related Commands

Command	Description
set feedbackwaitbasetime	Set RTPs feedback base wait time in milliseconds

show firewall list

show firewall list [detail | page | file *name***]**

Syntax Description

detail	Shows details
page	Pauses input after one page
file *name*	Outputs the information to the indicated file name.

Note The file will be saved in platform/cli/fname.txt. *Name* should not contain periods.

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to display a list of current firewall port information.

Examples

```
admin:show firewall list
Chain INPUT (policy ACCEPT)
target     prot opt source               destination
DROP       all  --  localhost            anywhere
ACCEPT     udp  --  anywhere             anywhere           udp dpt:syslog
DROP       udp  --  anywhere             anywhere           udp dpt:syslog
ACCEPT     ipv6-crypt--  anywhere             anywhere
ACCEPT     icmp --  anywhere             anywhere           icmp echo-request limit: avg
10/sec burst 5
LOG        icmp --  anywhere             anywhere           icmp echo-request limit: avg
1/min burst 5 LOG level warning prefix `ping flood '
DROP       icmp --  anywhere             anywhere           icmp echo-request
DROP       tcp  --  anywhere             anywhere           tcp dpt:ftp
DROP       udp  --  anywhere             anywhere           udp dpt:ftp
DROP       tcp  --  anywhere             anywhere           tcp dpt:telnet
DROP       udp  --  anywhere             anywhere           udp dpt:telnet
DROP       tcp  --  anywhere             anywhere           tcp dpt:tftp
DROP       tcp  --  anywhere             anywhere           tcp dpt:gopher
DROP       udp  --  anywhere             anywhere           udp dpt:gopher
DROP       tcp  --  anywhere             anywhere           tcp dpt:finger
DROP       udp  --  anywhere             anywhere           udp dpt:finger
DROP       udp  --  anywhere             anywhere           udp dpt:http
DROP       tcp  --  anywhere             anywhere           tcp dpt:rtelnet
DROP       udp  --  anywhere             anywhere           udp dpt:rtelnet
DROP       tcp  --  anywhere             anywhere           tcp dpt:pop2
DROP       udp  --  anywhere             anywhere           udp dpt:pop2
DROP       tcp  --  anywhere             anywhere           tcp dpt:pop3
DROP       udp  --  anywhere             anywhere           udp dpt:pop3
DROP       tcp  --  anywhere             anywhere           tcp dpt:sunrpc
```

```
DROP       udp  --  anywhere             anywhere            udp dpt:sunrpc
DROP       tcp  --  anywhere             anywhere            tcp dpt:uucp-path
DROP       udp  --  anywhere             anywhere            udp dpt:uucp-path
DROP       tcp  --  anywhere             anywhere            tcp dpt:imap
DROP       udp  --  anywhere             anywhere            udp dpt:imap
DROP       tcp  --  anywhere             anywhere            tcp dpt:xdmcp
DROP       udp  --  anywhere             anywhere            udp dpt:xdmcp
DROP       tcp  --  anywhere             anywhere            tcp dpt:nextstep
DROP       udp  --  anywhere             anywhere            udp dpt:nextstep
DROP       tcp  --  anywhere             anywhere            tcp dpt:irc
DROP       udp  --  anywhere             anywhere            udp dpt:irc
DROP       tcp  --  anywhere             anywhere            tcp dpt:imap3
DROP       udp  --  anywhere             anywhere            udp dpt:imap3
DROP       tcp  --  anywhere             anywhere            tcp dpt:fatserv
DROP       udp  --  anywhere             anywhere            udp dpt:fatserv
DROP       udp  --  anywhere             anywhere            udp dpt:https
DROP       tcp  --  anywhere             anywhere            tcp dpt:saft
DROP       udp  --  anywhere             anywhere            udp dpt:saft
DROP       tcp  --  anywhere             anywhere            tcp dpt:shell
DROP       udp  --  anywhere             anywhere            udp dpt:syslog
DROP       tcp  --  anywhere             anywhere            tcp dpt:printer
DROP       udp  --  anywhere             anywhere            udp dpt:printer
DROP       tcp  --  anywhere             anywhere            tcp dpt:uucp
DROP       udp  --  anywhere             anywhere            udp dpt:540
DROP       tcp  --  anywhere             anywhere            tcp dpt:klogin
DROP       tcp  --  anywhere             anywhere            tcp dpt:kshell
DROP       tcp  --  anywhere             anywhere            tcp dpt:remotefs
DROP       tcp  --  anywhere             anywhere            tcp dpt:ipp
DROP       udp  --  anywhere             anywhere            udp dpt:ipp
DROP       tcp  --  anywhere             anywhere            tcp dpt:676
DROP       udp  --  anywhere             anywhere            udp dpt:676
DROP       tcp  --  anywhere             anywhere            tcp dpt:rsync
DROP       udp  --  anywhere             anywhere            udp dpt:rsync
DROP       tcp  --  anywhere             anywhere            tcp dpt:telnets
DROP       udp  --  anywhere             anywhere            udp dpt:telnets
DROP       tcp  --  anywhere             anywhere            tcp dpt:imaps
DROP       udp  --  anywhere             anywhere            udp dpt:imaps
DROP       tcp  --  anywhere             anywhere            tcp dpt:pop3s
DROP       udp  --  anywhere             anywhere            udp dpt:pop3s
DROP       tcp  --  anywhere             anywhere            tcp dpt:nfs
DROP       udp  --  anywhere             anywhere            udp dpt:nfs
DROP       tcp  --  anywhere             anywhere            tcp dpt:x11
DROP       tcp  --  anywhere             anywhere            tcp dpt:6001
DROP       tcp  --  anywhere             anywhere            tcp dpt:6002
DROP       tcp  --  anywhere             anywhere            tcp dpt:6003
DROP       tcp  --  anywhere             anywhere            tcp dpt:6004
DROP       tcp  --  anywhere             anywhere            tcp dpt:6005
DROP       tcp  --  anywhere             anywhere            tcp dpt:6006
DROP       tcp  --  anywhere             anywhere            tcp dpt:6007
DROP       tcp  --  anywhere             anywhere            tcp dpt:6008
DROP       tcp  --  anywhere             anywhere            tcp dpt:6009
DROP       tcp  --  anywhere             anywhere            tcp dpt:xfs
ACCEPT     tcp  --  anywhere             anywhere            tcp dpt:https
ACCEPT     tcp  --  anywhere             anywhere            tcp dpt:http
ACCEPT     tcp  --  anywhere             anywhere            tcp dpt:1500
DROP       tcp  --  anywhere             anywhere            tcp dpt:1500
ACCEPT     udp  --  anywhere             anywhere            udp dpt:1500
DROP       udp  --  anywhere             anywhere            udp dpt:1500
ACCEPT     tcp  --  anywhere             anywhere            tcp dpt:1501
DROP       tcp  --  anywhere             anywhere            tcp dpt:1501
ACCEPT     udp  --  anywhere             anywhere            udp dpt:1501
DROP       udp  --  anywhere             anywhere            udp dpt:1501
ACCEPT     tcp  --  anywhere             anywhere            tcp dpt:1502
DROP       tcp  --  anywhere             anywhere            tcp dpt:1502
```

```
ACCEPT     udp  --  anywhere            anywhere           udp dpt:1502
DROP       udp  --  anywhere            anywhere           udp dpt:1502
ACCEPT     tcp  --  anywhere            anywhere           tcp dpt:1503
DROP       tcp  --  anywhere            anywhere           tcp dpt:1503
ACCEPT     udp  --  anywhere            anywhere           udp dpt:1503
DROP       udp  --  anywhere            anywhere           udp dpt:1503
ACCEPT     tcp  --  anywhere            anywhere           tcp dpt:1504
DROP       tcp  --  anywhere            anywhere           tcp dpt:1504
ACCEPT     udp  --  anywhere            anywhere           udp dpt:1504
DROP       udp  --  anywhere            anywhere           udp dpt:1504
ACCEPT     tcp  --  anywhere            anywhere           tcp dpt:1505
DROP       tcp  --  anywhere            anywhere           tcp dpt:1505
ACCEPT     udp  --  anywhere            anywhere           udp dpt:1505
DROP       udp  --  anywhere            anywhere           udp dpt:1505
ACCEPT     tcp  --  anywhere            anywhere           tcp dpt:1515
DROP       tcp  --  anywhere            anywhere           tcp dpt:1515
ACCEPT     udp  --  anywhere            anywhere           udp dpt:1515
DROP       udp  --  anywhere            anywhere           udp dpt:1515
ACCEPT     tcp  --  anywhere            anywhere           tcp dpt:8009
DROP       tcp  --  anywhere            anywhere           tcp dpt:8009
ACCEPT     tcp  --  anywhere            anywhere           tcp dpt:8083
DROP       tcp  --  anywhere            anywhere           tcp dpt:8083
ACCEPT     tcp  --  anywhere            anywhere           tcp dpt:8093
DROP       tcp  --  anywhere            anywhere           tcp dpt:8093
ACCEPT     tcp  --  anywhere            anywhere           tcp dpt:krb524
DROP       tcp  --  anywhere            anywhere           tcp dpt:krb524
ACCEPT     tcp  --  anywhere            anywhere           tcp dpt:4445
DROP       tcp  --  anywhere            anywhere           tcp dpt:4445
ACCEPT     tcp  --  anywhere            anywhere           tcp dpt:5001
DROP       tcp  --  anywhere            anywhere           tcp dpt:5001
ACCEPT     tcp  --  anywhere            anywhere           tcp dpt:1098
DROP       tcp  --  anywhere            anywhere           tcp dpt:1098
ACCEPT     tcp  --  anywhere            anywhere           tcp dpt:8999
DROP       tcp  --  anywhere            anywhere           tcp dpt:8999
ACCEPT     tcp  --  anywhere            anywhere           tcp dpt:12100
DROP       tcp  --  anywhere            anywhere           tcp dpt:12100
ACCEPT     tcp  --  anywhere            anywhere           tcp dpt:12101
DROP       tcp  --  anywhere            anywhere           tcp dpt:12101
ACCEPT     tcp  --  anywhere            anywhere           tcp dpt:12102
DROP       tcp  --  anywhere            anywhere           tcp dpt:12102
ACCEPT     tcp  --  anywhere            anywhere           tcp dpt:12103
DROP       tcp  --  anywhere            anywhere           tcp dpt:12103
ACCEPT     tcp  --  anywhere            anywhere           tcp dpt:12104
DROP       tcp  --  anywhere            anywhere           tcp dpt:12104
ACCEPT     tcp  --  anywhere            anywhere           tcp dpt:9700
DROP       tcp  --  anywhere            anywhere           tcp dpt:9700
ACCEPT     tcp  --  anywhere            anywhere           tcp dpt:9000
DROP       tcp  --  anywhere            anywhere           tcp dpt:9000

Chain FORWARD (policy ACCEPT)
target     prot opt source              destination

Chain OUTPUT (policy ACCEPT)
target     prot opt source              destination
```

Related Commands

Command	Description
None	

show hardware

show hardware

Syntax Description

None

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to retrieve basic hardware information.

Examples

```
admin:show hardware

HW Platform       : 7845I2
Processors        : 2
Type              : Intel(R) Xeon(R) CPU            5140  @ 2.33GHz
CPU Speed         : 2333
Memory            : 4096 MBytes
Object ID         : 1.3.6.1.4.1.9.1.587
OS Version        : UCOS 2.0.1.0-41
RAID Details      : Controllers found: 1

------------------------------------------------------------------------
Logical drive information
------------------------------------------------------------------------
Logical drive number 1
   Logical drive name                  : Drive 1
   RAID level                          : 1
   Status of logical drive             : Okay
   Size                                : 69890 MB
   Read-cache mode                     : Enabled
   Write-cache mode                    : Enabled (write-back)
   Write-cache setting                 : Enabled (write-back)
   Number of chunks                    : 2
   Drive(s) (Channel,Device)           : 0,0 0,1
Press <enter> for 1 line, <space> for one page, or <q> to quit
```

Related Commands

Command	Description
None	

show holdresume

show holdresume

Syntax Description

None

Command Modes

Admin

Command History

Release	Modifications
1.1	The command was first documented.

Usage Guidelines

Use this command to retrieve current server side hold/resume settings for static and scheduled conferences.

Examples

```
admin:show holdresume
server side hold_resume is enabled
```

Related Commands

Command	Description
set holdresume	Enables or disables server side hold/resume feature for static and scheduled conferences

show lateendmins

show lateendmins

Syntax Description None

Command Modes Admin

Command History

Release	Modifications
1.1	The command was first documented.

Usage Guidelines Use this command to show the defined number of minutes after which a conference will be terminated when the meeting exceeds the scheduled end time.

Examples

```
admin:show latenedmins
```

Related Commands

Command	Description
set lateendmins	Defines the number of minutes after which a conference will be terminated when the meeting exceeds the scheduled end time

show logins

show logins [*number*]

Syntax Description

number	The optional parameter can be used to specify the number of displayed logins. A value of 0 will display all previously saved logins. The default is 20.

Command Modes

Admin

Command History

Release	Modifications
1.1	The command was first documented.

Usage Guidelines

Use this command to display platform administrator logins.

Examples

```
admin:show logins

admin    pts/0        dhcp-171-71-227- Wed Aug  6 22:09   still logged in
admin    pts/1        dhcp-171-70-12-1 Wed Aug  6 21:52 - 21:55  (00:02)
admin    pts/0        dilkrish-lnx2.ci Wed Aug  6 21:50 - 22:09  (00:19)
dhroot   pts/24       tsbu-lnx-3.cisco Wed Aug  6 19:09 - 19:48  (00:39)
admin    pts/24       tsbu-lnx-3.cisco Wed Aug  6 19:09 - 19:09  (00:00)
dhroot   pts/21       tsbu-lnx-3.cisco Wed Aug  6 18:54 - 19:10  (00:16)
dhroot   pts/20       tsbu-lnx-3.cisco Wed Aug  6 18:54 - 19:10  (00:16)
dhroot   pts/17       tsbu-lnx-3.cisco Wed Aug  6 18:54 - 19:10  (00:16)
dhroot   pts/16       tsbu-lnx-3.cisco Wed Aug  6 18:54 - 19:10  (00:16)
admin    pts/19       tsbu-lnx-3.cisco Wed Aug  6 18:54 - 18:54  (00:00)
admin    pts/18       tsbu-lnx-3.cisco Wed Aug  6 18:54 - 18:54  (00:00)
admin    pts/17       tsbu-lnx-3.cisco Wed Aug  6 18:54 - 18:54  (00:00)
admin    pts/16       tsbu-lnx-3.cisco Wed Aug  6 18:54 - 18:54  (00:00)
dhroot   pts/14       tsbu-lnx-3.cisco Wed Aug  6 18:53 - 19:47  (00:54)
dhroot   pts/11       tsbu-lnx-3.cisco Wed Aug  6 18:53 - 19:47  (00:54)
dhroot   pts/10       tsbu-lnx-3.cisco Wed Aug  6 18:53 - 19:47  (00:54)
dhroot   pts/7        tsbu-lnx-3.cisco Wed Aug  6 18:53 - 19:47  (00:54)
dhroot   pts/6        tsbu-lnx-3.cisco Wed Aug  6 18:53 - 19:47  (00:54)
admin    pts/10       tsbu-lnx-3.cisco Wed Aug  6 18:53 - 18:53  (00:00)
admin    pts/9        tsbu-lnx-3.cisco Wed Aug  6 18:53 - 18:53  (00:00)
```

Related Commands

Command	Description
None	

show myself

show myself

Syntax Description None

Command Modes Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines Use this command to show information about the current account.

Examples

```
admin:show myself
Machine Name    : tsbu-sr2
account name    : admin
privilege level : 4
output setting  : disabled
logging setting : disabled
```

Related Commands

Command	Description
None	

show network all

show network all

Syntax Description

None

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to display all **show network** command information.

Examples

```
admin:show network all
Ethernet 0
DHCP         : disabled           Status     : up
IP Address   : 172.28.68.76       IP Mask    : 255.255.252.0
Link Detected: yes                Mode       : Auto enabled, Full, 1000MB/s
Duplicate IP : no

DNS
Primary      : 171.70.168.183     Secondary  : 171.68.226.120
Options      : timeout:5 attempts:2
Domain       : cisco.com
Gateway      : 172.28.68.1 on Ethernet 0
172.28.68.0/22 dev eth0  proto kernel  scope link  src 172.28.68.76
169.254.0.0/16 dev eth0  scope link
default via 172.28.68.1 dev eth0

Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address               Foreign Address             State
tcp        0      0 localhost:12101             localhost:42806             ESTABLISHED
tcp        0      0 localhost:9500              localhost:35897             TIME_WAIT
tcp        0      0 localhost:9500              localhost:35896             TIME_WAIT
tcp        0      0 tsbu-dhsr-76.cisco.co:35612 tsbu-ccm-b19.cisco.com:5060 ESTABLISHED
tcp        0      0 localhost:12101             localhost:42752             ESTABLISHED
tcp        0      0 localhost:9000              localhost:32795             ESTABLISHED
tcp        0      0 tsbu-dhsr-76.cisco.com:5060 tsbu-ccm-b19.cisco.co:33559 ESTABLISHED
tcp        0      0 localhost:32795             localhost:9000              ESTABLISHED
tcp        0      0 localhost:12101             localhost:44268             ESTABLISHED
tcp        0      0 localhost:12101             localhost:40958             ESTABLISHED
tcp        0      0 localhost:12101             localhost:44278             ESTABLISHED
tcp        0      0 tsbu-dhsr-76.cisco.com:ssh  dhcp-171-71-227-202.ci:2316 ESTABLISHED
tcp        0      0 tsbu-dhsr-76.cisco.com:8443 dhcp-171-70-12-166.cis:4069 ESTABLISHED
tcp        0      0 tsbu-dhsr-76.cisco.com:8443 dhcp-171-70-12-166.cis:4068 ESTABLISHED
Active UNIX domain sockets (w/o servers)
Proto RefCnt Flags       Type       State         I-Node Path
unix  14     [ ]         DGRAM                    5112   /dev/log
unix  2      [ ]         DGRAM                    8829728
unix  3      [ ]         STREAM     CONNECTED     8803057
```

```
unix  3      [ ]         STREAM     CONNECTED     8803056
unix  2      [ ]         DGRAM                    28107
unix  2      [ ]         DGRAM                    28101
unix  2      [ ]         DGRAM                    28084
unix  2      [ ]         DGRAM                    14227
unix  2      [ ]         DGRAM                    11947
unix  2      [ ]         DGRAM                    10619
unix  2      [ ]         DGRAM                    10548
unix  2      [ ]         DGRAM                    10443
unix  2      [ ]         STREAM     CONNECTED     9469
unix  2      [ ]         DGRAM                    5334
unix  2      [ ]         DGRAM                    5302
unix  2      [ ]         DGRAM                    5275
unix  2      [ ]         DGRAM                    5121
```

Related Commands

Command	Description
show network eth0	Displays basic Ethernet 0 platform network information
show network failover	Displays NIC Teaming network fault tolerance information
show network ip_conntrack	Retrieves the current utilization of ip_conntrack
show network max_ip_conntrack	Retrieves the current ip_conntrack_max information
show network route	Displays basic network route information
show network status	Displays basic network status information

show network eth0

show network eth0

Syntax Description

None

Command Modes

Admin

Command History

Release	Modification
1.1	The command was first documented.

Usage Guidelines

Use this command to display basic Ethernet 0 platform network information.

Examples

```
admin:show network eth0
Ethernet 0
DHCP         : disabled           Status     : up
IP Address   : 172.28.68.76       IP Mask    : 255.255.252.0
Link Detected: yes                Mode       : Auto enabled, Full, 1000MB/s
Duplicate IP : no

DNS
Primary      : 171.70.168.183     Secondary  : 171.68.226.120
Options      : timeout:5 attempts:2
Domain       : cisco.com
Gateway      : 172.28.68.1 on Ethernet 0
```

Related Commands

Command	Description
show network all	Displays all **show network** command information
show network failover	Displays NIC Teaming network fault tolerance information
show network ip_conntrack	Retrieves the current utilization of ip_conntrack
show network max_ip_conntrack	Retrieves the current ip_conntrack_max information
show network route	Displays basic network route information
show network status	Displays basic network status information

show network failover

show network failover

Syntax Description

None

Command Modes

Admin

Command History

Release	Modification
1.1	This command was first documented.

Usage Guidelines

Use this command to display NIC Teaming network fault tolerance information.

Examples

```
admin:show network failover
Network Fault Tolerance is not configured.
```

Related Commands

Command	Description
show network all	Displays all **show network** command information
show network eth0	Displays basic Ethernet 0 platform network information
show network ip_conntrack	Retrieves the current utilization of ip_conntrack
show network max_ip_conntrack	Retrieves the current ip_conntrack_max information
show network route	Displays basic network route information
show network status	Displays basic network status information

show network ip_conntrack

show config all [page]

Syntax Description

None

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to retrieve the current utilization of ip_conntrack.

Examples

```
admin:show network ip_conntrack

56
```

Related Commands

Command	Description
show network all	Displays all **show network** command information
show network eth0	Displays basic Ethernet 0 platform network information
show network failover	Displays NIC Teaming network fault tolerance information
show network max_ip_conntrack	Retrieves the current ip_conntrack_max information
show network route	Displays basic network route information
show network status	Displays basic network status information

show network max_ip_conntrack

show network max_ip_conntrack

Syntax Description

None

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to retrieve the current ip_conntrack_max information.

Examples

```
admin:show network max_ip_conntrack

256000
```

Related Commands

Command	Description
show network all	Displays all **show network** command information
show network eth0	Displays basic Ethernet 0 platform network information
show network failover	Displays NIC Teaming network fault tolerance information
show network ip_conntrack	Retrieves the current utilization of ip_conntrack
show network route	Displays basic network route information
show network status	Displays basic network status information

show network route

show network route

Syntax Description

None

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to display basic network route information.

Examples

```
admin:show network route
10.94.150.0/24 dev eth0  proto kernel  scope link  src 10.94.150.94
169.254.0.0/16 dev eth0  scope link
default via 10.94.150.1 dev eth0
```

Example with failover (NFT) enabled:

```
admin:show network route
10.94.150.0/24 dev bond0  proto kernel  scope link  src 10.94.150.98
10.94.150.0/24 dev eth0  proto kernel  scope link  src 10.94.150.98
10.94.150.0/24 dev eth1  proto kernel  scope link  src 10.94.150.98
169.254.0.0/16 dev bond0  scope link
default via 10.94.150.1 dev bond0
```

Related Commands

Command	Description
show network all	Displays all **show network** command information
show network eth0	Displays basic Ethernet 0 platform network information
show network failover	Displays NIC Teaming network fault tolerance information
show network ip_conntrack	Retrieves the current utilization of ip_conntrack
show network max_ip_conntrack	Retrieves the current ip_conntrack_max information
show network status	Displays basic network status information

show network status

show network status [search *name***]**

Syntax Description

search *name*	Optional search feature
name	Text string indicating network. String cannot contain spaces or tabs and is case insensitive.

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to retrieve basic network route information.

Examples

```
admin:show network status
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address               Foreign Address             State
tcp        0      0 vv1-rush.cisco.com:40266    vv1-rush.cisco:vv1_rush_ccm ESTABLISHED
tcp        0      0 localhost:32824             localhost:8001              ESTABLISHED
```

Example with optional **search** *name*:

```
admin:show network status search cisco.com
tcp        0      0 vv1-rush.cisco.com:38775    vv1-rush.cisco:vv1_rush_ccm ESTABLISHED
tcp        0      0 vv1-rush.cisco.com:ssh      philly.cisco.com:48528      ESTABLISHED
tcp        0      0 vv1-rush.cisco.com:46993    vv1-rush.cisco.com:32812    TIME_WAIT
```

Related Commands

Command	Description
show network all	Displays all **show network** command information
show network eth0	Displays basic Ethernet 0 platform network information
show network failover	Displays NIC Teaming network fault tolerance information
show network ip_conntrack	Retrieves the current utilization of ip_conntrack
show network max_ip_conntrack	Retrieves the current ip_conntrack_max information
show network route	Displays basic network route information

show packages

show packages {active *name* **| active *}| {inactive** *name* **| inactive *}**

Syntax Description

active *name*	Retrieves the version number for a specific package on the active partition.
active *	Retrieves the version numbers for all package on the active partition.
inactive *name*	Retrieves the version number for a specific package on the inactive partition.
inactive *	Retrieves the version number for all packages on the inactive partition.

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to retrieve the version number for one or more packages on the active or inactive partition.

Examples

```
admin:show packages active kernel
Active Side Package(s): for kernel package(s)
tg3-kernel-update-2.4.21-47.ELsmp
kernel-smp-2.4.21-47.EL
kernel-pcmcia-cs-3.1.31-19
kernel-2.4.21-47.EL
kernel-utils-2.4-8.37.15
kernel-2.4.2149.ELcustom-1
```

Related Commands

Command	Description
None	

show rtpsleep

show rtpsleep

Syntax Description None

Command Modes Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines Use this command to get current RTP thread sleep time.

Examples

```
admin:show rtpsleep
Current RTP thread sleep time is 1 ms
```

Related Commands

Command	Description
None	

show statistics

show statistics {all | conference *confid***}**

Syntax Description

all	Shows statistics for all conferences.
conference *confid*	Shows statistics for a specific conference, identified by conference identification number.

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to display statistics for all conferences or a specific conference.

Examples

```
admin:show statistics all
[Media Statistics:2008/8/6 22:42:13.073588 UTC]

EndPoint[0]:ipaddr:172.20.233.55 confid:17 callid:217 epid:50 muxVersion:3 audio
port:16384 video port:16386 audio latency(ms):0 video latency(ms):0
epid type rxssrc   txssrc   state pmaxj cmaxj pjs   cjs   rxtl     rxls     txtl     txls
dupl  ooo   srsw  pmxsg  cmxsg  pmxpg  cmxpg  cmj
50   A    a784011  16ca4111 1:1:1 7     7     0     0     147602   0:0      147592   0:0
0     0     1:1   0      0      26     26     0.85
50   A    0        5ae26112 0:0:1 6     8     0     0     0        0:0      147268   0:0
0     0     1:1   0      0      25     27     0.75
50   A    0        0        0:0:0 0     0     0     0     0        0:0      0        0:0
0     0     0:0   0      0      0      0      0.00
50   A    0        0        0:0:0 0     0     0     0     0        0:0      0        0:0
0     0     0:0   0      0      0      0      0.00
50   A    0        0        0:0:0 0     0     0     0     0        0:0      0        0:0
0     0     0:0   0      0      0      0      0.00
epid type rxssrc   txssrc   state pmaxj cmaxj pmaxd cmaxd pjs   cjs   pds   cds   rxtl
rxls     txtl     txls     iIDR  oIDR  nak   fbls  dupl  ooo   srsw  pmxsg  cmxsg  pmxpg
cmxpg  cmj
50   V    a784011  16ca4011 1:0:1 2     3     32    34    0     0     0     0     2027
0:0      1352920  0:0      2     5     0     0     0     0     2:1   0      5      22
33     0.57
50   V    0        0        0:0:0 0     0     0     0     0     0     0     0     0
0:0      0        0:0      0     0     0     0     0     0     0:0   0      0      0
0      0.00

EndPoint[1]:ipaddr:172.20.233.69 confid:17 callid:218 epid:1 muxVersion:3 audio port:16384
video port:16386 audio latency(ms):0 video latency(ms):0
epid type rxssrc   txssrc   state pmaxj cmaxj pjs   cjs   rxtl     rxls     txtl     txls
dupl  ooo   srsw  pmxsg  cmxsg  pmxpg  cmxpg  cmj
1    A    16ca4011 5ae26111 1:1:1 6     8     0     0     147602   0:0      147268   0:0
0     0     1:1   0      0      25     27     0.75
```

```
1    A    0        a784112  0:0:1 4     7     0     0     0        0:0      147266   0:0
0     0     1:1    0       0       21     24     2.22
1    A    0        0        0:0:0 0     0     0     0     0        0:0      0        0:0
0     0     0:0    0       0       0       0       0.00
1    A    0        0        0:0:0 0     0     0     0     0        0:0      0        0:0
0     0     0:0    0       0       0       0       0.00
1    A    0        0        0:0:0 0     0     0     0     0        0:0      0        0:0
0     0     0:0    0       0       0       0       0.00
epid type rxssrc   txssrc   state pmaxj cmaxj pmaxd cmaxd pjs   cjs   pds   cds   rxtl
rxls     txtl     txls     iIDR  oIDR  nak   fbls  dupl  ooo   srsw  pmxsg  cmxsg  pmxpg
cmxpg  cmj
1    V    16ca4011 5ae26011 1:1:1 2     5     33    34    0     0     0     0     1350788
0:0      1347710  0:0      2     4     0     0     0     0     3:3   0      16     16
33     0.55
1    V    0        0        0:0:0 0     0     0     0     0     0     0     0     0
0:0      0        0:0      0     0     0     0     0     0     0:0   0      0      0
0      0.00

EndPoint[2]:ipaddr:172.20.233.82 confid:17 callid:219 epid:2 muxVersion:3 audio port:16384
video port:16386 audio latency(ms):0 video latency(ms):0
epid type rxssrc   txssrc   state pmaxj cmaxj pjs   cjs   rxtl     rxls     txtl     txls
dupl  ooo   srsw  pmxsg  cmxsg  pmxpg  cmxpg  cmj
2    A    5ae26011 16ca4111 1:1:1 7     7     0     0     147604   0:0      147567   0:0
0     0     1:1    0       0       26     26     0.85
2    A    0        a784112  0:0:1 4     7     0     0     0        0:0      147266   0:0
0     0     1:1    0       0       21     24     2.22
2    A    0        0        0:0:0 0     0     0     0     0        0:0      0        0:0
0     0     0:0    0       0       0       0       0.00
2    A    0        0        0:0:0 0     0     0     0     0        0:0      0        0:0
0     0     0:0    0       0       0       0       0.00
2    A    0        0        0:0:0 0     0     0     0     0        0:0      0        0:0
0     0     0:0    0       0       0       0       0.00
epid type rxssrc   txssrc   state pmaxj cmaxj pmaxd cmaxd pjs   cjs   pds   cds   rxtl
rxls     txtl     txls     iIDR  oIDR  nak   fbls  dupl  ooo   srsw  pmxsg  cmxsg  pmxpg
cmxpg  cmj
2    V    5ae26011 16ca4011 1:1:1 3     4     32    34    0     0     0     0     1347866
0:0      1352810  0:0      4     4     1     0     0     0     2:1   0      1      22
33     1.38
2    V    0        0        0:0:0 0     0     0     0     0     0     0     0     0
0:0      0        0:0      0     0     0     0     0     0     0:0   0      0      0
0      0.00

admin:show statistics conference 9059578056
[Media Statistics:2008/8/6 22:43:18.905158 UTC]

EndPoint[0]:ipaddr:172.20.233.55 confid:17 callid:217 epid:50 muxVersion:3 audio
port:16384 video port:16386 audio latency(ms):0 video latency(ms):0
epid type rxssrc   txssrc   state pmaxj cmaxj pjs   cjs   rxtl     rxls     txtl     txls
dupl  ooo   srsw  pmxsg  cmxsg  pmxpg  cmxpg  cmj
50   A    a784011  16ca4111 1:1:1 6     7     0     0     150894   0:0      150883   0:0
0     0     1:1    0       0       25     26     0.85
50   A    0        5ae26112 0:0:1 5     8     0     0     0        0:0      150559   0:0
0     0     1:1    0       0       25     27     0.77
50   A    0        0        0:0:0 0     0     0     0     0        0:0      0        0:0
0     0     0:0    0       0       0       0       0.00
50   A    0        0        0:0:0 0     0     0     0     0        0:0      0        0:0
0     0     0:0    0       0       0       0       0.00
50   A    0        0        0:0:0 0     0     0     0     0        0:0      0        0:0
0     0     0:0    0       0       0       0       0.00
epid type rxssrc   txssrc   state pmaxj cmaxj pmaxd cmaxd pjs   cjs   pds   cds   rxtl
rxls     txtl     txls     iIDR  oIDR  nak   fbls  dupl  ooo   srsw  pmxsg  cmxsg  pmxpg
cmxpg  cmj
```

```
50   V    a784011  16ca4011 1:0:1 2     3     32    34    0     0     0     0     2027
0:0      1383047  0:0      2     5     0     0     0     0     2:1   0      5      23
33     0.57
50   V    0        0        0:0:0 0     0     0     0     0     0     0     0     0
0:0      0        0:0      0     0     0     0     0     0     0:0   0      0      0
0      0.00

EndPoint[1]:ipaddr:172.20.233.69 confid:17 callid:218 epid:1 muxVersion:3 audio port:16384
video port:16386 audio latency(ms):0 video latency(ms):0
epid type rxssrc   txssrc   state pmaxj cmaxj pjs   cjs   rxtl     rxls     txtl     txls
dupl  ooo   srsw  pmxsg  cmxsg  pmxpg  cmxpg  cmj
1    A    16ca4011 5ae26111 1:1:1 5     8     0     0     150893   0:0      150559   0:0
0     0     1:1   0      0      25     27     0.77
1    A    0        a784112  0:0:1 4     7     0     0     0        0:0      150558   0:0
0     0     1:1   0      0      21     24     2.22
1    A    0        0        0:0:0 0     0     0     0     0        0:0      0        0:0
0     0     0:0   0      0      0      0      0.00
1    A    0        0        0:0:0 0     0     0     0     0        0:0      0        0:0
0     0     0:0   0      0      0      0      0.00
1    A    0        0        0:0:0 0     0     0     0     0        0:0      0        0:0
0     0     0:0   0      0      0      0      0.00
epid type rxssrc   txssrc   state pmaxj cmaxj pmaxd cmaxd pjs   cjs   pds   cds   rxtl
rxls     txtl     txls     iIDR  oIDR  nak   fbls  dupl  ooo   srsw  pmxsg  cmxsg  pmxpg
cmxpg  cmj
1    V    16ca4011 5ae26011 1:1:1 2     5     33    34    0     0     0     0     1380914
0:0      1377800  0:0      2     4     0     0     0     0     3:3   0      16     12
33     0.55
1    V    0        0        0:0:0 0     0     0     0     0     0     0     0     0
0:0      0        0:0      0     0     0     0     0     0     0:0   0      0      0
0      0.00

EndPoint[2]:ipaddr:172.20.233.82 confid:17 callid:219 epid:2 muxVersion:3 audio port:16384
video port:16386 audio latency(ms):0 video latency(ms):0
epid type rxssrc   txssrc   state pmaxj cmaxj pjs   cjs   rxtl     rxls     txtl     txls
dupl  ooo   srsw  pmxsg  cmxsg  pmxpg  cmxpg  cmj
2    A    5ae26011 16ca4111 1:1:1 6     7     0     0     150895   0:0      150858   0:0
0     0     1:1   0      0      25     26     0.85
2    A    0        a784112  0:0:1 4     7     0     0     0        0:0      150558   0:0
0     0     1:1   0      0      21     24     2.22
2    A    0        0        0:0:0 0     0     0     0     0        0:0      0        0:0
0     0     0:0   0      0      0      0      0.00
2    A    0        0        0:0:0 0     0     0     0     0        0:0      0        0:0
0     0     0:0   0      0      0      0      0.00
2    A    0        0        0:0:0 0     0     0     0     0        0:0      0        0:0
0     0     0:0   0      0      0      0      0.00
epid type rxssrc   txssrc   state pmaxj cmaxj pmaxd cmaxd pjs   cjs   pds   cds   rxtl
rxls     txtl     txls     iIDR  oIDR  nak   fbls  dupl  ooo   srsw  pmxsg  cmxsg  pmxpg
cmxpg  cmj
2    V    5ae26011 16ca4011 1:1:1 3     4     32    34    0     0     0     0     1377955
0:0      1382937  0:0      4     4     1     0     0     0     2:1   0      1      23
33     1.38
2    V    0        0        0:0:0 0     0     0     0     0     0     0     0     0
0:0      0        0:0      0     0     0     0     0     0     0:0   0      0      0
0      0.00
```

Related Commands

Command	Description
None	

show status

show status

Syntax Description

None

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to retrieve basic platform status information.

Examples

```
admin:show status
Host Name     : testsys
Date          : Tue Dec 13, 2005 12:46:57
Time Zone     : UTC
Locale        : en_US.UTF-8
Product Ver   : 1.0.0.0-6
Platform Ver  : 2.0.0.0-1

Resources
CPU             Idle: 100.00%   System: 00.00%    User: 00.00%

                        Total            Free            Used
Memory                254984K          72964K         182020K
Disk/active          3020140K        1580608K        1286116K (45%)
Disk/inactive        3020172K        2833924K          32828K (2%)


admin:show status

Host Name     : tsbu-dhsr-76
Date          : Wed Aug 6, 2008 22:44:36
Time Zone     : UTC
Locale        : en_US.UTF-8
Product Ver   : 1.1.1.0-30
Platform Ver  : 2.0.0.1-1

Uptime:
 22:44:37  up  5:02,  1 user,  load average: 0.00, 0.00, 0.00

CPU Idle:  97.44%  System:  00.51%    User:  01.28%
  IOWAIT:  00.00%     IRQ:  00.00%    Soft:  00.77%   Intr/sec: 2998.98

Memory Total:        4087680K
        Free:        3190292K
        Used:         897388K
      Cached:         262320K
      Shared:              0K
```

```
     Buffers:          68972K

                        Total           Free           Used
Disk/active          4032124K       2117232K       1710064K (45%)
Disk/inactive        4032092K       1857492K       1969776K (52%)
Disk/logging        70438620K      63214064K       3646484K (6%)
```

Related Commands

Command	Description
None	

show threshold

show threshold

Syntax Description None

Command Modes Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines Use this command to get current maximum burst packet threshold.

Examples

```
admin: show threshold
Current max burst packet threshold is 20
```

Related Commands

Command	Description
None	

show timezone

show timezone {config | list}

Syntax Description

config	Displays the current timezone setting.
list	Lists all available timezones.

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to display the current timezone settings or to display a list of all available timezones in long format.

Note The first value is the timezone index, which may be used to set a new timezone using the set timezone command. You can also use the timezone name.

Examples

```
admin:show timezone list

  0 - (GMT-12:00) Eniwetok, Kwajalein
  1 - (GMT-11:00) Midway Island, Samoa
  2 - (GMT-10:00) Hawaii

Current timezone: (GMT+10:00) Canberra, Melbourne, Sydney
Current timezone: (GMT+10:00) Canberra, Melbourne, Sydney

The numbers in first column 0, 1, 2 represent index that can be used in set timezone
command

  0 - (GMT-12:00) Eniwetok, Kwajalein
  1 - (GMT-11:00) Midway Island, Samoa
  2 - (GMT-10:00) Hawaii
  3 - (GMT-09:00) Alaska
  4 - (GMT-08:00) Pacific Time (US & Canada)
  5 - (GMT-07:00) Arizona
  6 - (GMT-07:00) Mountain Time (US & Canada)
  7 - (GMT-06:00) Central Time (US & Canada)
  8 - (GMT-06:00) Central America
  9 - (GMT-06:00) Saskatchewan
 10 - (GMT-06:00) Mexico City
 11 - (GMT-05:00) Bogota, Lima, Quito
 12 - (GMT-05:00) Indiana (East)
 13 - (GMT-05:00) Eastern Time (US & Canada)
 14 - (GMT-04:00) Atlantic Time (Canada)
 15 - (GMT-04:00) Caracas, La Paz
 16 - (GMT-04:00) Santiago
```

```
 17 - (GMT-03:30) Newfoundland
 18 - (GMT-03:00) Brasilia
 19 - (GMT-03:00) Greenland
 20 - (GMT-03:00) Buenos Aires, Georgetown
 21 - (GMT-02:00) Mid-Atlantic
 22 - (GMT-01:00) Azores
Press <enter> for 1 line, <space> for one page, or <q> to quit
```

Related Commands

Command	Description
set timezone	Defines a new timezone

show version

show version {active | inactive}

Syntax Description		
	active	Displays the version number of the software on the active partition.
	inactive	Displays the version number of the software on the inactive partition.

Command Modes Admin

Command History	Release	Modifications
	1.1	This command was first documented.

Usage Guidelines Use this command to display information about the version number of the software on the inactive or active partition.

Examples

```
admin:show version active
Active Master Version: 1.1.1.0-30

Active Version Installed Software Options:
No Installed Software Options Found.
```

Related Commands	Command	Description
	None	

show workingdir

show workingdir

Syntax Description None

Command Modes Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines Use this command to display the current working directories for activelog, inactivelog, and the tftp system directories.

Examples

```
admin:show workingdir

activelog : <not set, using default path>
inactivelog : <not set, using default path>
tftp : <not set, using default path>
```

Related Commands

Command	Description
None	

utils remote_account

utils remote_account {enable | disable}

Syntax Description

enable	Enables an already-created remote account so that Cisco Technical Support can access the system.
disable	Removes remote account.

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to enable already-created remote accounts so that Cisco Technical Support can access the system, and to remove remote accounts.

Examples

```
admin:utils remote_account enable
```

Related Commands

Command	Description
utils remote_account create	Creates a remote account
utils remote_account status	Shows status of an already-created remote account

utils remote_account create

utils remote_account create *name*

Syntax Description

name	Identifier for remote account

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to create remote accounts so that Cisco Technical Support can access the system.

Examples

```
admin:utils remote_account create ciscotech 1
Account Successfully created
Account        : ciscotech
Passphrase     : 7RZT7ARZK5
Expiry         : 12-14-2005:15:50:21 (MM-DD-YYYY:Hr:Min:Sec)
```

Related Commands

Command	Description
utils remote_account	Enables or removes already-created remote accounts
utils remote_account status	Shows status of an already-created remote account

utils remote_account status

utils remote_account status

Syntax Description

None

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to retrieve status information for remote accounts used by Cisco Technical Support to access the system.

Examples

```
admin:utils remote_account status
Remote Support
Status         : enabled
Decode Version : 1
Account        : dhroot
Passphrase     : BDLHBP4JMY
Expiry         : 8-24-2008:20:00:00(MM-DD-YYYY:Hr:Min:Sec)
```

Related Commands

Command	Description
utils remote_account	Enables or removes already-created remote accounts
utils remote_account create	Creates a remote account

utils system restart

utils system restart

Syntax Description

None

Command Modes

Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines

Use this command to reboot the CTMS.

Examples

```
admin:utils system restart
Do you really want to restart ?
Enter "yes" to restart or any other key to abort
```

Related Commands

Command	Description
utils system shutdown	Powers off CTMS
utils system switch-version	Switches to another software version installed on CTMS

utils system shutdown

utils system shutdown

Syntax Description None

Command Modes Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines Use this command to power off CTMS.

Examples

```
admin:utils system shutdown
Do you really want to shutdown ?
Enter "yes" to shutdown or any other key to abort
```

Related Commands

Command	Description
utils system restart	Restarts CTMS
utils system switch-version	Switches to another software version installed on CTMS

utils system switch-version

utils system switch-version

Syntax Description None

Command Modes Admin

Command History

Release	Modifications
1.1	This command was first documented.

Usage Guidelines Use this command to switch to another software version installed on CTMS.

Examples

```
admin:utils system switch-version
Do you really want to switch versions ?
Enter "yes" to switch-version or any other key to abort
```

Note If any other response is entered, the procedure will be aborted.

Related Commands

Command	Description
utils system restart	Restarts CTMS
utils system shutdown	Powers off CTMS