



# General Information About Cisco TelePresence Manager

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# **Overview of the Cisco TelePresence Manager Administration Guide**

Table 1-1 give a brief description of the contents of each chapter in the Cisco TelePresence Manager (CTS-Manager) Administration Guide.

Chapter Title	Description	
Chapter 1 General Information About Cisco TelePresence Manager	This chapter provides a general description of hardware and software components used within the Cisco TelePresence Manager system. It includes overviews of point-to-point calls, meeting scheduling, multipoint calls, interoperability with legacy endpoints, and intercompany Cisco TelePresence calls and administration roles.	
Chapter 2	This chapter describes the pre-installation and installation	
Pre-Install System Setup for Cisco TelePresence Manager	features for CTS-Manager.	
Chapter 3	This chapter describes the steps needed to configure either	
Configuring Microsoft Exchange for Cisco TelePresence Manager	Microsoft Exchange 2003 or 2007 and Active Directory.	
Chapter 4	This chapter describes the steps needed to configure IBM	
Configuring IBM Domino Server for Cisco TelePresence Manager	Domino and Domino Directory Server for the CTS-Manager system.	
Chapter 5	This chapter describes the steps needed to configure the	
Configuring Scheduling API for Cisco TelePresence Manager	CTS-Manager scheduling API.	
Chapter 6	This chapter describes adding parameters to	
Configuring Cisco Unified Communications Manager for	Cisco Unified Communications Manager and gathering information from the current installation of	
Cisco TelePresence Manager	Cisco Unified Communications Manager that will be used to configure Cisco TelePresence Manager during installation.	
Chapter 7	This chapter explains how to install and run the Cisco	
Installing and Configuring Cisco PreQualification Assistant	TelePresence Manager PreQualification Assistant tool. It is important to install and run the PreQualification assistant to ensure that the pre-installation setup is performed correctly.	
Chapter 8	This chapter explains how to configure the UCS server and	
Configuring UCS Server and VMware for Cisco TelePresence Manager	VMware for Cisco TelePresence Manager	
Chapter 9	Describes how to install or upgrade CTS-Manager.	
Installing or Upgrading Cisco TelePresence Manager		

 Table 1-1
 Administration Guide Chapter Descriptions

Chapter Title	Description	
Chapter 10 Initializing Cisco TelePresence Manager	The final process is initializing Cisco TelePresence Manager to enable access to information sources such as Microsoft Exchange Server for meeting requests from Microsoft Outlook, Active Directory for accessing user and conference room (endpoint) information, and Cisco Unified Communications Manager for conference room (endpoint) availability and telephone support.	
Chapter 11 Additional Installation Configurations for Cisco TelePresence Manager	Describes the configuration features available when you log into CTS-Manager using an Administrator role.	
Chapter 12 Configuring Cisco WebEx OneTouch for Cisco TelePresence Manager	Describes the steps for configuring WebEx OneTouch for CTS-Manager.	
Chapter 13 Monitoring and Supporting Cisco TelePresence Manager	Describes the monitoring and support features available when you log into CTS-Manager using a Live Desk role.	
Chapter 14 Meeting Manager and CTS-Manager Emails	Describes the different email notifications and meeting details window available to Meeting Organizers.	
Chapter 15 Supported MIBs for Cisco TelePresence Manager	Provides the MIBs used by the CTS-Manager.	
Chapter 16 Troubleshooting Cisco TelePresence Manager	Provides troubleshooting information for CTS-Manager Administrators.	
Appendix A Cisco TelePresence Manager System Messages	Provides detailed information about the messages displayed in the Troubleshoot > System Messages window, including explanation and recommended action.	

#### Table 1-1 Administration Guide Chapter Descriptions

### Terminology

The following terms are used in this guide:

• Audio call: An audio call refers to a call placed to or from an audio-only telephone for the purpose of conferencing the audio call into a Cisco TelePresence meeting.



Note Audio calls are placed or answered with the CTS phone's handset on-hook.

• Cisco TelePresence call: A Cisco TelePresence call is placed between two or more CTS endpoints.

- **Cisco TelePresence meeting**: A Cisco TelePresence meeting refers to two or more endpoints connected by a Cisco TelePresence call.
- Conference: A conference refers to a Cisco TelePresence meeting that includes an audio call.
- Endpoint: An endpoint, or 'CTS endpoint' refers to the combination of hardware and software that comprise a Cisco TelePresence System. Examples of a CTS endpoint are the CTS 3200 and the CTS 500. CTS endpoints were previously referred to as Cisco TelePresence rooms.
- **Interop**: Interoperability with video conferencing. The ability for TelePresence meetings to include Cisco TelePresence endpoints and traditional video conferencing/video telephony endpoints.
- LDAP: Lightweight Directory Access Protocol
- VC: Video conferencing
- MXE: Media Experience Engine

## Introduction to the Cisco TelePresence System

The Cisco TelePresence System is composed of several hardware and software components. The Cisco TelePresence System also gets information and services with peripheral components such as Cisco Unified Communications Manager (Unified CM), and calendar services such as Microsoft Exchange or IBM Domino. Together all the peripheral and CTS components offer the features and services needed to schedule, place, and manage Cisco TelePresence calls and maintain all the Cisco TelePresence System components.

The following sections provide a general overview of the components that make up the Cisco TelePresence System.

### Making Point-to-Point Cisco TelePresence calls

Placing a call between two CTS endpoints is similar to making a simple audio call. If you know the phone number of the endpoint you can dial it directly using the CTS IP phone.

#### **Supported Endpoints**

The following endpoint models are supported by Cisco Unified CM.

- **CTS 500** For data sheets and other product literature refer to the product page. For hardware installation information refer to the Cisco TelePresence System 500 Assembly, Use & Care, and Field-replaceable Unit Guide.
- **CTS 1100** For data sheets and other product literature refer to the product page. For hardware installation information refer to the Cisco TelePresence System 1100 Assembly, Use & Care, and Field-replaceable Unit Guide.
- **CTS 1300** For data sheets and other product literature refer to the product page. For hardware installation information refer to the Cisco TelePresence System 1300 Assembly, Use & Care, and Field-replaceable Unit Guide.
- **CTS 3000** For data sheets and other product literature refer to the product page. For hardware installation information refer to the Cisco TelePresence System 3000 Assembly, Use & Care, and Field-replaceable Unit Guide.

- **CTS 3200** For data sheets and other product literature refer to the product page. For hardware installation information refer to the Cisco TelePresence System 3200 Assembly, Use & Care, and Field-replaceable Unit Guide.
- EX, MX and C-series With TC5.0 or later software and Unified CM version 8.6.1.20000-1 or later with device pack 8.6.1.21019-1 installed, these endpoints are discovered automatically. With TC5.0 or earlier software and Unified CM 8.5(1) or earlier, these endpoints must be added manually like video conferencing (VC) endpoints. Only endpoints with TC5.0 or later software support One-Button-to-Push.
  - A point-to-point meeting between an EX, MX or C-series endpoint and a CTS is supported if the CTS supports TIP. If the CTS does not support TIP, a multipoint scheduling device is required.

Each endpoint is configured and maintained through Unified CM and the CTS Administration software. The CTS Administration software is installed on each endpoint and is accessible by browser. For information about installing, configuring, and maintaining CTS endpoints refer to the CTS Administrator's Guide.

### **Components of the Cisco TelePresence System**

In order to schedule meetings in advance you need to include CTS-Manager in your Cisco TelePresence system. CTS-Manager works with Microsoft Exchange or IBM Domino servers to schedule Cisco TelePresence endpoints and enable One-Button-To-Push meeting access.

CTS-Manager communicates with the following components:

- **CTS endpoints** CTS-Manager polls endpoints and reports errors to your CTS-Manager Administrator. CTS-Manager also pushes an endpoint's meeting schedule to the endpoint, which is then displayed on the display device.
- **Cisco Unified CM** CTS-Manager works with Cisco Unified CM to maintain current configurations for each endpoint, and to discover new endpoints as they are added to your Cisco TelePresence network.
- **Calendar server** Each CTS endpoint has a corresponding mailbox on a calendar server to support scheduling through Outlook, Lotus Notes, or other groupware client. CTS-Manager monitors endpoint calendars and reports errors. CTS-Manager also uses the scheduling information to push meeting schedules to each CTS endpoint which is displayed on the IP phone.
- LDAP/Active Directory Each CTS endpoint's room (endpoint) ID is stored in LDAP/Active Directory. CTS-Manager is the conduit between Active Directory and an endpoint. On login to CTS-Manager users are authenticated to LDAP/AD. No user IDs or passwords are stored in CTS-Manager.
- **Cisco TelePresence Multipoint Switch (CTMS)** A CTMS provides the resources for multipoint (three or more endpoints) and WebEx meetings. CTS-Manager reports errors with a CTMS and specifies which CTMS is used for each scheduled Cisco TelePresence meeting. Cisco TelePresence supports the ability to conference existing standards-based video conference sessions into a Cisco TelePresence meeting by integrating the Cisco TelePresence Multipoint Switch (CTMS) with Media Experience Engine (MXE). This provides interoperability with many standards-based video conferencing systems installed today.
- **Cisco TelePresence Server** Provides the resources for multipoint (three or more endpoints) meetings.

- WebEx TelePresence Meetings with Webex are scheduled by CTS-Manager through a direct connection to the WebEx Scheduling Server. When the meeting organizer schedules TelePresence meetings with WebEx, the WebEx meeting ID and password are provided in the email sent to meeting organizers for them to forward to the meeting participants.
- For data sheets and other product literature refer to the product page. For hardware installation and CTMS maintenance refer to the Cisco TelePresence Multipoint Switch administration guide.

## **Cisco TelePresence Manager Specifications and System Requirements**

Table 1-2 provides product specifications and Table 1-3 provides system requirements for Cisco TelePresence Manager. Table 1-4 provides the flow of tasks you need follow to install the CTS-Manager system.

For hardware support and upgrade path information, refer to the CTS-Manager 1.9 Release Notes available on Cisco.com:

http://www.cisco.com/en/US/docs/telepresence/cts\_manager/1\_9/release/ctm\_rn1\_9.html

#### Table 1-2 Product Specifications

Specifications	Description	
Protocols	HTTP, HTTPS, Administrative XML (AXL)/SOAP, Simple Networ Management Protocol (SNMP), and CTI	
Connectivity	IP	
Reliability and availability	High availability through Cisco 7845 Media Convergence Server and UCS platforms	

Specifications	Description
Groupware connectivity:	Microsoft
	Microsoft Exchange Server:
	- 2003 SP2 (Windows Server 2003 Enterprise Edition SP2).
	- 2007 SP3 (Windows Server 2003 SP2 Enterprise Edition 64-bit).
	- 2007 SP3 (Windows Server 2008 SP2 Enterprise Edition 64-bit).
	- 2007 SP3 (Windows Server 2008 R2 Enterprise Edition 64-bit).
	2007 is supported with WebDAV and EWS.
	- 2010 SP1, SP 2 (Windows Server 2008 SP2 Enterprise Edition 64-bit).
	- 2010 SP3 is supported with CTS-Manager 1.9.1 or later.
	<b>Note</b> The English language version of Microsoft Exchange is required.
	<b>Note</b> For best results, network latency between CTS-Manager and Microsoft Exchange should not exceed 30 ms one way or 60 ms round trip.
	<ul> <li>Microsoft Outlook client: 2003, 2007 and 2010</li> <li>Required Installation: cumulative time zone update for Microsoft Windows operating systems (December 2008 or newer).</li> </ul>
	For more information, refer to:
	http://support.microsoft.com/kb/979306.
	<ul> <li>Microsoft Outlook 2003 SP3 is supported only with the following bug fixes installed sequentially, available from Microsoft:</li> </ul>
	http://support.microsoft.com/kb/956310 11.0.8233.0
	http://support.microsoft.com/kb/957142 11.0.8234.0
	http://support.microsoft.com/kb/959628 11.0.8238.0
	http://support.microsoft.com/kb/965495 11.0.8249.0
	http://support.microsoft.com/kb/968689 11.0.8309.0
	http://support.microsoft.com/kb/971366 11.0.8312.0
	<b>Note</b> Microsoft Exchange with Entourage client is not supported.
	IBM
	• IBM Domino Server: 8.5.1 (Operating System: Windows Server 2003 Enterprise Edition SP2, Windows 2008)
	<ul> <li>The Resource Reservation database must be initially created using the Resource Reservation Template 7 or later. Reservation templates prior to version 7 cannot b upgraded.</li> </ul>
	• IBM Lotus Notes Client: 8.5.1
	Other
	<ul> <li>Other Groupware integrations with CTS-Manager are allowed using the Cisco Developer CTS-Manager Scheduling-API. Information on the Scheduling API for customers or developers can be found at: http://developer.cisco.com.</li> </ul>

Table 1-3System Requirements

Specifications	Description	
Cisco Unified Communications Manager	Cisco Unified CM 7.1.5, 8.5.1 and 8.6.2.21008-1 are required for TC 5.0 endpoints to be discoverable by CTS-Manager. Version 8.6.1a or 8.6.2 is required for CTMS Network Multipoint feature.	
Lightweight Directory Access	Active Directory 2003 SP2, 2008 SP2, 2008 R2	
Protocol (LDAP) connectivity	Domino Directory, versions: 7.0.x, 8.0.x, 8.5	
	Note CTS-Manager LDAP user and SysAdmin need read permission to the Domino Directory.	
Ethernet Cable	Connect to MCS server's NIC Port 1	
Web browsers supported	Microsoft Internet Explorer 7.x, 8.x, 9.x (Windows) Firefox 11, 12 (Mac and Windows).	
	<b>Note</b> Cisco cannot guarantee correct system behavior using unsupported browsers. When using Firefox, the height of the browser window must be equal to at least 50 percent of the height of the computer screen. If it is less than 50 percent, windows with secondary tabs and tables may not display properly.	
Licensing	Licenses are required for the following features:	
	• Endpoints: TelePresence endpoint (room) license. Licenses are available in groups of 10, 50 and 100 endpoints. All TelePresence endpoints must be licensed to be used with CTS-Manager.	
	• Metrics Dashboard and Reporting API: Survey and benefits reports and meeting information for external metrics reporting solutions.	
	• Scheduling API: Scheduling support for organizations that are not using MS Exchange or IBM Domino.	
Cisco WebEx Productivity	WebEx version FR26/FR29 or T28	
Tools Plug-in for Microsoft Outlook	• Exchange server 2007/2010	
Outlook	Outlook version 2007/2010 for Windows	

	Table 1-3	System Requirements (continued)
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CTS-Manager is supported only in an enterprise intranet environment. NAT deployment is not supported.

# **Installation Procedures Guidelines**

The flow of tasks you need to perform in order to configure the Cisco TelePresence network and install and configure CTS-Manager are provided in the following table:

Setup and Installation Procedures Guidelines	Description	Location
Pre-install Procedures	Provides Cisco TelePresence Manager with the contact and access information it requires to connect to and talk with your network.	Chapter 2, "Pre-Install System Setup for Cisco TelePresence Manager"
Configure Microsoft Exchange for CTS-Manager	This chapter describes the steps needed to configure Microsoft Exchange and Active Directory for the CTS-Manager system.	Chapter 3, "Configuring Microsoft Exchange for Cisco TelePresence Manager"
Configure IBM Domino for CTS-Manager	This chapter describes the steps needed to configure IBM Domino and Domino server for the CTS-Manager system.	Chapter 4, "Configuring IBM Domino Server for Cisco TelePresence Manager"
Configure Scheduling API for CTS-Manager	This chapter describes the steps needed to configure the Scheduling API for the CTS-Manager system.	Chapter 5, "Configuring Scheduling API for Cisco TelePresence Manager"
Configuring Cisco Unified CM for CTS-Manager	Before installation, you must verify that Cisco Unified Communications Manager is configured for the CTS-Manager system.	Chapter 6, "Configuring Cisco Unified Communications Manager for Cisco TelePresence Manager"
Install and Configure PreQualification Assistant	Install and configure the PreQualification Assistant to ensure that your pre-installation setup is performed correctly. The data you enter into the Tool Test Configuration forms are used to verify connections to the servers and retrieve data from them to be used to configure CTS-Manager	Chapter 7, "Installing and Configuring Cisco PreQualification Assistant"
Installing or Upgrading CTS-Manager software	Installing the CTS-Manager software. In addition, the installation requires information about your network and the rules for finding and exchanging information.	Chapter 9, "Installing or Upgrading Cisco TelePresence Manager"

#### Table 1-4 Install and Configuration Procedures Guidelines for setting up the CTS-Manager System

Setup and Installation Procedures Guidelines	Description	Location
Initializing CTS-Manager	After installing the CTS-Manager software, the next process is initializing Cisco TelePresence Manager to enable access to information sources such as Microsoft Exchange Server for meeting requests from Microsoft Outlook, Active Directory for accessing user and conference room (endpoint) information, and Cisco Unified Communications Manager for conference room (endpoint) availability and telephone support	Chapter 10, "Initializing Cisco TelePresence Manager"
Additional Installation Procedures for CTS-Manager	The administrator makes use of the configuration windows to perform system configuration tasks such as uploading licenses, synchronizing system databases, managing security, and reconfigure system settings	Chapter 11, "Additional Installation Configurations for Cisco TelePresence Manager"
Configure WebEx OneTouch	This chapter describes the steps required to configure the WebEx OneTouch feature for CTS-Manager.	Chapter 12, "Configuring Cisco WebEx OneTouch for Cisco TelePresence Manager"