



# Cisco TelePresence Manager Release 1.8 Administration and Installation Guide

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## Preface

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## Obtaining Documentation, Obtaining Support, and Security Guidelines

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

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

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS version 1.7.

## Audience and Scope

The *Cisco TelePresence Manager Administration and Installation Guide* is directed to the administrator that configures, monitors, and maintains the Cisco TelePresence Manager application, and troubleshoots problems that may occur.

## What's New in this Release

This section describes new and changed information in Cisco TelePresence Manager for Release 1.8:

### New in Release 1.8:

- **WebEx Multisite:** Provides the ability to expand the number of WebEx users managed by CTS-Manager by adding additional WebEx scheduling servers. WebEx scheduling servers are added in the **Configure > Bridges and Servers** window. Meeting organizers select the server to which they have been assigned in the **Meeting Manager** window, the first time they schedule a TelePresence Meeting with WebEx. For more information, refer to [Chapter 12, "Configuring Cisco WebEx OneTouch for Cisco TelePresence Manager."](#)

- **User Delegate:** Allows a meeting organizer to allow other users to manage their meetings. The delegate user(s) receive email notifications and have access to the same features as the meeting organizer, including the ability to access Meeting Manager to view meeting details, change meeting options and preferences. For more information, refer to [Allowing Other Users to Manage Your Meetings, page 23 in Chapter 14, “Meeting Manager and CTS-Manager Emails.”](#)
- **TelePresence Server Scheduling:** Now supported for scheduling multipoint meetings. It supports interoperability with videoconferencing and the new TelePresence call-in number feature. A TS is added in the Configure > Bridges and Servers window (refer to [Cisco TelePresence Server \(TS\), page 64 in Chapter 11, “Additional Installation Configurations for Cisco TelePresence Manager”](#)) and configured in the Configure > Application Settings > Bridges and Servers tab (refer to [Bridges and Servers, page 95 in Chapter 11, “Additional Installation Configurations for Cisco TelePresence Manager.”](#)
- **UCS Server:** The Cisco UCS C210 M2 server is now supported for CTS-Manager. It provides a high-performance solution for large-scale TelePresence environments. For information on how to install CTS-Manager on the UCS C210 M2 server, refer to [Chapter 8, “Configuring UCS Server and VMware for Cisco TelePresence Manager.”](#)
- **TelePresence Call-In Number:** Introduced in version 1.8 of Cisco TelePresence Multipoint Switch (CTMS) and Cisco TelePresence Manager (CTS-Manager), the Cisco TelePresence Call-in Number feature enables a Meeting Organizer to allow users to join the meeting from Cisco TelePresence endpoints that are not scheduled in the meeting invitation. For more information, refer to Cisco TelePresence Call-In Number:  
[http://www.cisco.com/en/US/docs/telepresence/cts\\_manager/1\\_8/call\\_in\\_number.html](http://www.cisco.com/en/US/docs/telepresence/cts_manager/1_8/call_in_number.html)
- **EX, MX and C-series Endpoints:** EX, MX and C-series endpoints can now be scheduled in TelePresence meetings. Endpoints with TC5.0 or later software that are registered to a Unified CM version 8.6(1) or later are discovered automatically by CTS-Manager. Endpoints with TC5.0 or later registered to a VCS must be added manually in the Configure > Endpoints window. Endpoints with TC5.0 or later support One-Button-to-Push. Endpoints with TC4.x or earlier function as VC endpoints.
- **Browser Security:** Secures communication between the CTS-Manager web server and the browser through which you access the CTS-Manager Administrative UI. Browser security eliminates website security certificate warnings, which you receive if your web server is not secure. In CTS-Manager, you can set up either inter-device security, which is an existing feature, or browser security, which is introduced in CTS-Manager release 1.8. The deployment of both security features at the same time is not supported.

For more information on browser security, see *Securing Cisco TelePresence Products, Release 1.8*:  
[http://www.cisco.com/en/US/products/ps8332/products\\_installation\\_and\\_configuration\\_guides\\_list.html](http://www.cisco.com/en/US/products/ps8332/products_installation_and_configuration_guides_list.html)

- **Intelligent link to Cisco Prime Collaboration Manager:** Provides a real-time unified view of Cisco TelePresence meetings and real-time troubleshooting to simplify video collaboration management. For more information, refer to [Collaboration Manager, page 74 in Chapter 11, “Additional Installation Configurations for Cisco TelePresence Manager,”](#) and [Generating Scheduled Meeting Reports, page 5 in Chapter 13, “Monitoring and Supporting Cisco TelePresence Manager.”](#)
- **Administration web user interface settings remembered for each user:** User layout options, like column sorting and filtering, are preserved for the next time a page is accessed or the user logs in.
- **Clustering Support Discontinued.**

Cisco no longer provides support for the clustering feature originally introduced in release 1.8. For questions, contact Ron Lewis: [ronlewis@cisco.com](mailto:ronlewis@cisco.com).



# CHAPTER 1

## General Information About Cisco TelePresence Manager

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  - [Terminology, page 1-3](#)
- [Introduction to the Cisco TelePresence System, page 1-4](#)
  - [Making Point-to-Point Cisco TelePresence calls, page 1-4](#)
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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.

**Table 1-1 Administration Guide Chapter Descriptions**

Chapter Title	Description
Chapter 1 <a href="#">General Information About Cisco TelePresence Manager</a>	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 <a href="#">Pre-Install System Setup for Cisco TelePresence Manager</a>	This chapter describes the pre-installation and installation features for CTS-Manager.
Chapter 3 <a href="#">Configuring Microsoft Exchange for Cisco TelePresence Manager</a>	This chapter describes the steps needed to configure either Microsoft Exchange 2003 or 2007 and Active Directory.
Chapter 4 <a href="#">Configuring IBM Domino Server for Cisco TelePresence Manager</a>	This chapter describes the steps needed to configure IBM Domino and Domino Directory Server for the CTS-Manager system.
Chapter 5 <a href="#">Configuring Scheduling API for Cisco TelePresence Manager</a>	This chapter describes the steps needed to configure the CTS-Manager scheduling API.
Chapter 6 <a href="#">Configuring Cisco Unified Communications Manager for Cisco TelePresence Manager</a>	This chapter describes adding parameters to Cisco Unified Communications Manager and gathering information from the current installation of Cisco Unified Communications Manager that will be used to configure Cisco TelePresence Manager during installation.
Chapter 7 <a href="#">Installing and Configuring Cisco PreQualification Assistant</a>	This chapter explains how to install and run the Cisco 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 <a href="#">Configuring UCS Server and VMware for Cisco TelePresence Manager</a>	This chapter explains how to configure the UCS server and VMware for Cisco TelePresence Manager
Chapter 9 <a href="#">Installing or Upgrading Cisco TelePresence Manager</a>	Describes how to install or upgrade CTS-Manager.

**Table 1-1 Administration Guide Chapter Descriptions**

Chapter Title	Description
Chapter 10 <a href="#">Initializing Cisco TelePresence Manager</a>	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 <a href="#">Additional Installation Configurations for Cisco TelePresence Manager</a>	Describes the configuration features available when you log into CTS-Manager using an Administrator role.
Chapter 12 <a href="#">Configuring Cisco WebEx OneTouch for Cisco TelePresence Manager</a>	Describes the steps for configuring WebEx OneTouch for CTS-Manager.
Chapter 13 <a href="#">Monitoring and Supporting Cisco TelePresence Manager</a>	Describes the monitoring and support features available when you log into CTS-Manager using a Live Desk role.
Chapter 14 <a href="#">Meeting Manager and CTS-Manager Emails</a>	Describes the different email notifications and meeting details window available to Meeting Organizers.
Chapter 15 <a href="#">Supported MIBs for Cisco TelePresence Manager</a>	Provides the MIBs used by the CTS-Manager.
Chapter 16 <a href="#">Troubleshooting Cisco TelePresence Manager</a>	Provides troubleshooting information for CTS-Manager Administrators.
Appendix A <a href="#">Cisco TelePresence Manager System Messages</a>	Provides detailed information about the messages displayed in the Troubleshoot > System Messages window, including explanation and recommended action.

## 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.
- **CUVC** - Cisco Unified Video Conferencing Server.
- **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

## 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. Endpoints with TC4.x or earlier software function as VC endpoints.
  - 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 Cisco Unified Video conferencing Systems (CUVC) and 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 1.8 Release Notes available on Cisco.com:

[http://www.cisco.com/en/US/docs/telepresence/cts\\_manager/1\\_8/release/ctm\\_rn1\\_8.htm](http://www.cisco.com/en/US/docs/telepresence/cts_manager/1_8/release/ctm_rn1_8.htm)

**Table 1-2**      *Product Specifications*

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

Table 1-3 System Requirements

Specifications	Description
Groupware connectivity:	<p>Microsoft</p> <ul style="list-style-type: none"> <li>Microsoft Exchange Server: <ul style="list-style-type: none"> <li>2003 SP2 (Windows Server 2003 Enterprise Edition SP2).</li> <li>2007 SP2 (Windows Server 2003 SP2 Enterprise Edition 64-bit).</li> <li>2007 SP2 and SP3 (Windows Server 2008 SP2 Enterprise Edition 64-bit).</li> </ul> </li> </ul> <p><b>Note</b> 2007 is supported with WebDAV and EWS.</p> <ul style="list-style-type: none"> <li>supported versions: [08.00.10685, 08.01.10240, 6.5.6944, 6.5.7226, 6.5.7638, 8.1.240.5, 8.2.176.2 6.5.6944, 6.5.7226, 6.5.7638, 8.1.240.5, 8.2.176.2, 8.3.083, 8.1.240.5, 8.2.176.2]</li> <li>2010 SP1 (Windows Server 2008 SP2 Enterprise Edition 64-bit).</li> </ul> <p><b>Note</b> The English language version of Microsoft Exchange is required.</p> <p><b>Note</b> For best results, network latency between CTS-Manager and Microsoft Exchange should not exceed 30 ms.</p> <ul style="list-style-type: none"> <li>Microsoft Outlook client: 2003, 2007 and 2010 <ul style="list-style-type: none"> <li>Required Installation: cumulative time zone update for Microsoft Windows operating systems (December 2008 or newer).</li> </ul> <p>For more information, refer to:</p> <p><a href="http://support.microsoft.com/kb/979306">http://support.microsoft.com/kb/979306</a>.</p></li> <li>Microsoft Outlook 2003 SP3 is supported only with the following bug fixes installed sequentially, available from Microsoft: <ul style="list-style-type: none"> <li><a href="http://support.microsoft.com/kb/956310">http://support.microsoft.com/kb/956310</a> 11.0.8233.0</li> <li><a href="http://support.microsoft.com/kb/957142">http://support.microsoft.com/kb/957142</a> 11.0.8234.0</li> <li><a href="http://support.microsoft.com/kb/959628">http://support.microsoft.com/kb/959628</a> 11.0.8238.0</li> <li><a href="http://support.microsoft.com/kb/965495">http://support.microsoft.com/kb/965495</a> 11.0.8249.0</li> <li><a href="http://support.microsoft.com/kb/968689">http://support.microsoft.com/kb/968689</a> 11.0.8309.0</li> <li><a href="http://support.microsoft.com/kb/971366">http://support.microsoft.com/kb/971366</a> 11.0.8312.0</li> </ul> </li> </ul> <p><b>Note</b> Microsoft Exchange with Entourage client is not supported.</p> <p>IBM</p> <ul style="list-style-type: none"> <li>IBM Domino Server: 8.5, 8.2, 8.0.x and 7.0.x (Operating System: Windows Server 2003 Enterprise Edition SP2, Windows 2008) <ul style="list-style-type: none"> <li>The Resource Reservation database must be initially created using the Resource Reservation Template 7 or later. Reservation templates prior to version 7 cannot be upgraded.</li> </ul> </li> <li>IBM Lotus Notes Client: 8.5.1, 8.0.x, 7.0.x, and 6.5.x</li> </ul> <p>Other</p> <ul style="list-style-type: none"> <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: <a href="http://developer.cisco.com">http://developer.cisco.com</a>.</li> </ul>

**Table 1-3**      **System Requirements (continued)**

Specifications	Description
Cisco Unified Communications Manager	Cisco Unified CM 7.1.5 or later. Version 8.6.1 is required for TC 5.0 endpoints to be discoverable by CTS-Manager.
Lightweight Directory Access Protocol (LDAP) connectivity	Active Directory 2003 SP2, 2008 SP2, 2008 R2 Domino Directory, versions: 7.0.x, 8.0.x, 8.5 <b>Note</b> 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 (Windows) Firefox 3.6 (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: <ul style="list-style-type: none"> <li>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.</li> <li>Metrics Dashboard and Reporting API: Survey and benefits reports and meeting information for external metrics reporting solutions.</li> <li>Scheduling API: Scheduling support for organizations that are not using MS Exchange or IBM Domino.</li> </ul>

## 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:

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

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.	<a href="#">Chapter 2, “Pre-Install System Setup for Cisco TelePresence Manager”</a>
Configure Microsoft Exchange for CTS-Manager	This chapter describes the steps needed to configure Microsoft Exchange and Active Directory for the CTS-Manager system.	<a href="#">Chapter 3, “Configuring Microsoft Exchange for Cisco TelePresence Manager”</a>

Setup and Installation Procedures Guidelines	Description	Location
Configure IBM Domino for CTS-Manager	This chapter describes the steps needed to configure IBM Domino and Domino server for the CTS-Manager system.	<a href="#">Chapter 4, “Configuring IBM Domino Server for Cisco TelePresence Manager”</a>
Configure Scheduling API for CTS-Manager	This chapter describes the steps needed to configure the Scheduling API for the CTS-Manager system.	<a href="#">Chapter 5, “Configuring Scheduling API for Cisco TelePresence Manager”</a>
Configuring Cisco Unified CM for CTS-Manager	Before installation, you must verify that Cisco Unified Communications Manager is configured for the CTS-Manager system.	<a href="#">Chapter 6, “Configuring Cisco Unified Communications Manager for Cisco TelePresence Manager”</a>
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	<a href="#">Chapter 7, “Installing and Configuring Cisco PreQualification Assistant”</a>
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.	<a href="#">Chapter 9, “Installing or Upgrading Cisco TelePresence Manager”</a>
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	<a href="#">Chapter 10, “Initializing Cisco TelePresence Manager”</a>

Setup and Installation Procedures Guidelines	Description	Location
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	<a href="#">Chapter 11, “Additional Installation Configurations for Cisco TelePresence Manager”</a>
Configure WebEx OneTouch	This chapter describes the steps required to configure the WebEx OneTouch feature for CTS-Manager.	<a href="#">Chapter 12, “Configuring Cisco WebEx OneTouch for Cisco TelePresence Manager”</a>



## CHAPTER 2

# Pre-Install System Setup for Cisco TelePresence Manager

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## Contents

- [Introduction, page 2-1](#)
- [System Components, page 2-1](#)
- [Pre-Installation Procedure Guidelines for Initial Network Setup, page 2-3](#)

## Introduction

The Cisco TelePresence meeting solution combines audio, video, and interactive elements to create the feeling of being “in person” with participants in remote locations.

To enable these features, you must ensure the system components are meeting the system version requirements. These are described in the next section.

## System Components

Before you proceed with Cisco TelePresence Manager (CTS-Manager) installation, the servers and applications within your telecommunications network must be configured so that CTS-Manager can find the resources and information needed to initialize the installation. These servers and applications may include one or more of the following:

- Cisco TelePresence System endpoints
- Cisco Unified Communications Manager
- LDAP server:
  - Active Directory
  - Domino Directory
- Calendar Server
  - Microsoft Exchange

- IBM Domino
  - Other calendar server via Scheduling API
- Scheduling Client
  - Microsoft Outlook
  - IBM Lotus Notes
  - Other scheduling client via Scheduling API

For details on the software versions supported, refer to: [Cisco TelePresence Manager Specifications and System Requirements, page 1-6](#)

## Installation Considerations

- When you install CTS-Manager, the Cisco Media Convergence Server hard drive is formatted, and any existing data on the drive is overwritten.
- Cisco recommends you configure the system using static IP addressing for easier management.
- To use HD Interop, all Cisco TelePresence System endpoints must be running software version 1.6 or later.



# Pre-Installation Procedure Guidelines for Initial Network Setup

This table provides guidelines for the procedures you will need to reference in order to preconfigure the network **before** installing the Cisco TelePresence Manager.



## Note

The system will use either Microsoft or IBM, but not both. For Microsoft, see [Configuring Microsoft Exchange for Cisco TelePresence Manager, page 3-1](#). For IBM, see [Configuring IBM Domino Server for Cisco TelePresence Manager, page 4-1](#).

**Table 2-1** *Pre-Installation Guidelines for Setting up Initial System Network for CTS-Manager*

Setup Procedure Guidelines before Installing CTS-Manager	Description	Location
Configure Microsoft Exchange	This chapter describes the steps needed to configure Microsoft Exchange and Active Directory for the CTS-Manager system.	<a href="#">Chapter 3, “Configuring Microsoft Exchange for Cisco TelePresence Manager”</a>
Configure IBM Domino	This chapter describes the steps needed to configure IBM Domino and Domino server for the CTS-Manager system.	<a href="#">Chapter 4, “Configuring IBM Domino Server for Cisco TelePresence Manager”</a>
Configure Scheduling API	This chapter describes the steps needed to configure the Scheduling API for the CTS-Manager system.	<a href="#">Chapter 5, “Configuring Scheduling API for Cisco TelePresence Manager”</a>
Configuring Cisco Unified CM	Before installation, you must verify that Cisco Unified Communications Manager is configured for the CTS-Manager system.	<a href="#">Chapter 6, “Configuring Cisco Unified Communications Manager for Cisco TelePresence Manager”</a>
Install and run PreQualification Assistant	Install and run the PreQualification Assistant to ensure that your pre-installation setup is configured correctly. The data you enter into the Tool Test Configuration forms are used to verify connections to the servers and get data from them to be used to configure CTS-Manager.	<a href="#">Chapter 7, “Installing and Configuring Cisco PreQualification Assistant”</a>

If at any time you encounter problems, go to [Chapter 13, Troubleshooting Cisco TelePresence Manager](#) to see how to correct the problem.





## CHAPTER 3

# Configuring Microsoft Exchange for Cisco TelePresence Manager

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- [Pre-Configuration Setup Guidelines, page 3-2](#)
- [Configuring Microsoft Exchange for CTS-Manager, page 3-3](#)
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- [Exchange Migration Guide, page 3-12](#)
  - [Migrating from Exchange Server 2003 to 2007, page 3-13](#)
  - [Migrating from Exchange Server 2003 to 2010, page 3-15](#)
  - [Migrating from Exchange Server 2007 to 2010, page 3-16](#)
- [Applying CTS-Manager Throttling Policy for Exchange 2010 SP1, page 3-17](#)

## Introduction

This chapter explains how to set up the Microsoft Outlook messaging software to be able to receive reminders and allow users to connect to a remote meeting site with the touch of a button.

To enable these features, you must provide CTS-Manager with the contact and access information it requires to connect to and talk with your network.

This chapter describes the steps needed to configure Microsoft Exchange 2003, 2007 and 2010.



**Note**

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CTS-Manager supports the English language version of Microsoft Exchange only.

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**Table 3-1** *Exchange Configuration Options*

Exchange Version	Integration Method
2003	WebDav
2007	WebDav or EWS
2010	EWS

**Note**

Microsoft Exchange with Entourage client is not supported.

It is recommended that [Chapter 10, “Initializing Cisco TelePresence Manager”](#) Manager, LDAP sections be reviewed to ensure that user set up is performed correctly.

## Pre-Configuration Setup Guidelines

The purpose of this section is to reference the chapters you will next need in order to preconfigure supporting software before installing the Cisco TelePresence Manager.

The flow of tasks you need to do for additional configurations before installing the CTS-Manager are provided in the following table.

**Table 3-2** *Microsoft Exchange Pre-Configuration Guidelines Before Installing CTS-Manager*

Setup Procedures before Installing CTS-Manager	Description	Location
Configure Microsoft Exchange	This chapter describes the steps needed to configure Microsoft Exchange and Active Directory for the CTS-Manager system.	Current Chapter.
<b>Next Steps After Microsoft Exchange Setup</b>		
Configuring Cisco Unified CM.	Before installation, you must verify that Cisco Unified Communications Manager is configured for the CTS-Manager system.	<a href="#">Chapter 6, “Configuring Cisco Unified Communications Manager for Cisco TelePresence Manager”</a>
Install and Configure PreQualification Assistant	Install and run 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 get data from them in order to configure CTS-Manager	<a href="#">Chapter 7, “Installing and Configuring Cisco PreQualification Assistant”</a>

# Configuring Microsoft Exchange for CTS-Manager

To configure Microsoft Exchange for CTS-Manager:

- If you are using secure mode, a certificate request must exist. If a certificate was not requested when Microsoft Exchange was installed, you can follow the procedure described in the tutorial found at the following Microsoft Exchange URL:  
<http://www.msexchange.org/tutorials/Securing-Exchange-Server-2003-Outlook-Web-Access-Chapter5.html>
  - See the sections “Installing the Microsoft Certificate Service” and “Creating the Certificate Request.”
- Make a copy of the certificate and place it in a folder accessible to the computer with browser access to the Cisco TelePresence Manager server.



## Note

Only one certificate can be used. Do not reuse it or give it a new name and then try to upload it to CTS-Manager. Also, if a certificate is expired, it cannot be uploaded.

- A copy of the certificate for Active Directory exists. To request a certificate for Active Directory, follow the below steps:
  1. By default, the certificate file is named `_cert`. An enterprise certificate authority (CA) automatically publishes the root certificates, and enterprise domain controllers automatically enroll for all domain controller certificates.
  2. Make sure the certificate, the CA, and the CA web interface are all installed on the same server. Using Internet Explorer, connect to `https://<CA server>/certsrv`.
  3. Authenticate as the administrator, making sure you specify the proper domain, for example, `demotest\administrator`. The Active Directory domain needs to be set to at least level 2.
  4. Choose **Download CA Certificate**, using Distinguished Encoding Rules as the encoding method.

## Deploying with Microsoft Exchange 2003

To deploy CTS-Manager with Microsoft Exchange 2003:

- |               |  |
|---------------|--|
| <b>Step 1</b> | Create an account in Microsoft Exchange 2003 for CTS-Manager, e.g. <b>ctsmmanaccount</b> .   |
| <b>Step 2</b> | Provide an adequate mailbox quota for the ctmmmanaccount. Cisco recommends providing at least 1 GB of mailbox quota for a deployment of up to 125 Cisco TelePresence System endpoints. Additional mailbox quota is recommended if feasible.  |
| <b>Step 3</b> | Log onto the <b>ctsmmanaccount</b> account once to verify it is set up correctly.  |
| <b>Step 4</b> | Create an account in Microsoft Exchange for each Cisco TelePresence System or video conferencing endpoint. You can use ‘Active Directory Users and Computers’ to create the room (endpoint) accounts, or use any custom script to create the room account. If the room is already created, use the information from the Cisco Unified CM and skip this step. |

**Caution**

In Microsoft Exchange software, some special characters are not supported in Recipient Policy Exchange server name, mailbox name, etc. These special characters will also not be supported by CTS-Manager.

Refer to the Microsoft support site for specific information on characters:

<http://support.microsoft.com/default.aspx?scid=kb;EN-US;841091>

Exchange 2007 Information

<http://technet.microsoft.com/en-us/library/dd285491.aspx>

- Step 5** Log onto the room (endpoint) account once using Outlook Web Access (OWA), or Outlook. This must be done or the room mailbox will not be set up properly in Exchange.
- Step 6** The CTS-Manager account (e.g. ctsmanaccount) must have read permission on the Calendar folder for each room's mailbox. You can use Outlook to set the Calendar Properties (the Permissions tab), or use Active Directory ("Full mailbox access" permissions).
- Step 7** Verify the CTS-Manager account has permissions for all room accounts.
- Use a supported browser and log onto the room account with OWA (<http://<exchange ip address>/exchange/<roomaccountname>>)
  - Log on using the CTS-Manager account (e.g. ctsmanaccount)
  - Validate the setup by sending a test email to any user in the same domain. Validate the user receives the email.
- Step 8** Synchronize the system clock in the CTS-Manager server to the same NTP server used by Exchange. Enter the hostname or IP address of one or more NTP servers. NTP Server 1 value is mandatory; NTP Servers 2-5 are optional. Thus, CTS-Manager and Exchange need to point to the same NTP and sync with the NTP to avoid having the room calendar not updating correctly.

**Note**

Cisco strongly recommends that you enter the NTP server by which Cisco Unified CM synchronizes its clock as the primary NTP server. If these servers are out of synchronization, CTS-Manager may not update and delete unwanted meetings.

### Cancelling a Meeting that Contains a Tentative or Proxy Room (Endpoint)

After the meeting organizer cancels a meeting, the tentative or proxy room owner must log in to room (endpoint) mailbox, and remove the meeting from the calendar.

## Deploying with Microsoft Exchange 2007 - WebDAV

Microsoft Exchange management tools can be found in the start menu in the Exchange server - "Start > All Programs > Microsoft Exchange Server 2007". It is not available in version 2010. There are 2 tools available as options:

- Exchange Management Console – GUI version which has online help.
- Exchange Management Shell – shell version that can be useful for scripting.

**Caution**

In Microsoft Exchange software, some special characters are not supported in Recipient Policy Exchange server name, mailbox name, etc. These special characters will also not be supported by CTS-Manager.

Exchange 2007 Information:

<http://technet.microsoft.com/en-us/library/dd285491.aspx><http://technet.microsoft.com/en-us/library/dd285491.aspx>

To deploy CTS-Manager with Microsoft Exchange 2007 - WebDAV:

- 
- Step 1** Create a user account in Exchange for CTS-Manager (e.g. **ctsmanaccount**).  
 .The user account is created from “Exchange Management Console” using the User Mailbox by doing the following:
- Select **Recipient Configuration > Mailbox**, right-click and select **New Mailbox**
  - Select **User Mailbox** type and follow the instructions to create the mailbox.
- Step 2** Provide an adequate mailbox quota for the ctsmanaccount account. Cisco recommends providing at least 1 GB of mailbox quota for a deployment of up to 125 Cisco TelePresence System endpoints. Additional mailbox quota is recommended, if feasible.
- Step 3** Log onto the CTS-Manager mailbox once to verify the user mailbox is set up correctly.
- Step 4** If a new endpoint needs to be added, the Admin needs to create the room (endpoint) in the Calendaring server first with appropriate permissions for the CTS-Manager application account and then create associated device(s) in Unified CM. If admin ends up creating a device in Unified CM beforehand, then the endpoint would appear in error in CTS-Manager. Once the room (endpoint) is configured in the calendaring server, the admin can resync the endpoint in CTS-Manager to resolve the error.
- Step 5** Create an account in Exchange for each Cisco TelePresence System or video conferencing endpoint. Use one of the following methods:
- In Exchange Management Console (EMC), select **Recipient Configuration > Mailbox**, right-click and select **New Mailbox**. Select **Room Mailbox** type and follow the instructions to create the mailbox.
  - Run the Exchange Management Shell (EMS) cmdlet to create a Room mailbox / account.
- Step 6** The CTS-Manager account needs to have full access on the Calendar folder of each room (endpoint) mailbox, or at minimum, read permission. Using EMS, run one of the two cmdlets in the following based on your preference:
- Add-mailboxpermission -identity “TelepresenceRoom9” -accessRights FullAccess -user ctmperf\ctsmanaccount
  - Add-mailboxpermission -identity “TelepresenceRoom9” -accessRights ReadPermission -user ctmperf\ctsmanaccount
- You can check the current permission setting of a Room by running one of the following cmdlets:
- Get-mailbox -server tsbu-ctmpc19 | get-mailboxpermission
  - Get-mailboxpermission -identity TelepresenceRoom9
- Step 7** Set the DeleteSubject and AddOrganizerToSubject properties in the room mailbox calendar to **False**. This sets the parameters for the meeting to be displayed on the IP Phone.
- Set-MailboxCalendarSettings -Identity TelepresenceRoom9 -DeleteSubject \$false
  - Set-MailboxCalendarSettings -Identity TelepresenceRoom9 -AddOrganizerToSubject \$false
- Step 8** It is recommended to set Auto-accept to **ON** using EMS.
- Note** This works only with room mailbox, not with user mailbox. Also CTS-Manager will not process meetings that are tentative. Meetings that are accepted if Microsoft AAA Agent is off will only access proxy if accepted.
- Set-MailboxCalendarSettings -Identity TelepresenceRoom9 -AutomateProcessing AutoAccept
- Check if Auto-accept has been configured for the room.



Get-MailboxCalendarSettings -Identity TelepresenceRoom9 | fl



**Note**

Cisco recommends to not switch the room (endpoint) mailbox acceptance mode once it is set. If it is configured to auto-accept and then switched to manual proxy mode, the meeting will not appear in CTS-Manager nor will it be pushed to the phone UI. The user will have to manually accept the meeting again.

**Step 9** Log onto the room mailbox once using Outlook Web Access (OWA) or Outlook 2007. This important step ensures the room mailbox is set up correctly in MS Exchange. In Exchange 2007, you won't be able to directly log onto the room\* mailbox using the room username, because the user account of the room mailbox is disabled by default. There are two possible scenarios (based on the decision made in step 5):

- Note** \*Only when mailbox is created as the Room Mailbox type. If mailbox is created as "User Mailbox" type, then it would be the same step as it is with Exchange 2003 to log on to the mailbox.
- a. The CTS-Manager user (e.g. `ctsmanaccount`) has been given full access to the room (endpoint) mailboxes. In this case, use the `ctsmanaccount` credentials to log on to each room mailbox.
    - First log into `ctsmanaccount` mailbox using OWA, using a supported web browser (IE 6.x) and typing: `http://<exchange ip address>/owa/`. Once logged on as the `ctsmanaccount` user, click the **ctsmanaccount** tab on the top, enter the room account name, and click **Open**. It would open the room mailbox in another window.
    - Alternatively, you can log onto the room (endpoint) account using either Outlook 2007 or Outlook Web Access:  
`http://<exchange ip address>/owa/<endpoint_name@domain_name>`. Again, here you will need to log on using the `ctsmanaccount` credentials.
  - b. The second scenario is where the `ctsmanaccount` was only given read permission to the room(endpoint) mailboxes. In this case, you must have a third user account which has full access to the room mailboxes, let's say this user is "Joe Smith." Use Joe Smith credential to log on to his mailbox using Outlook 2007, then follow the these steps:
    - i. Once logged on, click **Calendar** in the left pane.
    - ii Click **Open a Shared Calendar** and enter the room (endpoint) name.
    - iii The room calendar appears under **People's Calendar** in the left pane. Right-click the room name, and select **Properties**.
    - iv. Click **Permissions** tab
    - v. Click **Add** and select the `ctsmanaccount` account name.
    - vi. In the **Permissions > Permission Level** drop-down field, select **Reviewer**.
    - vii. In the **Permissions > Read** section, check **Full Details**.
    - viii. Click **OK**.
    - ix. Repeat step ii to viii for each room that will be managed by CTS-Manager.

**Step 10** Form-based authentication (FBA) is enabled by default in Exchange 2007. For Cisco TelePresence Manager to work, you must disable FBA.

- a. Go to **EMC > Server Configuration > Client Access > Outlook Web Access > Exchange (Default Web Site) > Properties > Authentication** tab.
- b. Select **Use one or more standard authentication method**.

- c. Check **Integrated Windows Authentication** and/or **Basic Authentication (password is sent in clear text)** boxes.
- d. Click **OK** in the warning message that says IIS restart is required.
- e. Run **iisreset /noforce** from a command prompt, or go to **Services Manager** and restart **IIS Admin service**.

**Step 11** Open IIS Manager and enable WebDAV.

**For Exchange 2007 installed on Windows 2003:**

- a. Go to **Internet Information Services** > *[server\_name]* > **Web Service Extension**
- b. Select **WebDAV** and click the **Allow** button, if it is showing “Prohibited” for its status.
- a. Click the **Allow** button, if it is showing **Prohibited** in Status.

**For Exchange 2007 installed on Windows 2008:**

Refer to the following information from Microsoft on how to configure WebDAV for IIS7:

[http://technet.microsoft.com/en-us/library/cc431377.aspx#Install\\_WebDAV](http://technet.microsoft.com/en-us/library/cc431377.aspx#Install_WebDAV)



**Note**

WebDAV is not available for IIS6.

**Step 12** Verify that the Web Sites Authentication Method is configured correctly for Exchange website.



**Note**

If using EWS Authentication with CTS-Manager 1.6.2 or earlier: Only Integrated Windows Authentication (NTLM) v1 authentication is supported. Please ensure that NTLMv1 authentication scheme is enabled for EWS site.

**Step 13** Repeat these steps for the “Default Web Site” setting:

- a. In **IIS Manager**, go to **Internet Information Services** > *[server\_name]* > **Web Sites** > *Exchange*
- b. Right-click *Exchange* and select **Properties**.
- c. Go to the **Directory Security** tab
- d. In the Authentication and access control section:
  - Click the **Edit** button
  - Check the desired authentication access method - **Integrated Windows Authentication** and/or **Basic Authentication (password is sent in clear text)** boxes.
  - Click **OK**
- e. This step is required **only if** you need to configure CTS-Manager with the non-secure binding to the Exchange server. In the Secure communications section:
  - Click the **Edit** button
  - Uncheck the **Require secure channel (SSL)** box, and click **OK**.
- f. Click **OK** on all the dialog boxes that follow.

**Step 14** Synchronize the system clock in the CTS-Manager server to the same NTP server used by Exchange. Enter the hostname or IP address of one or more NTP servers. NTP Server 1 value is mandatory; NTP Servers 2-5 are optional. Thus, CTS-Manager and Exchange need to point to the same NTP and sync with the NTP to avoid having the room calendar not updating correctly.

**Note**

Cisco strongly recommends that you enter the NTP server by which Cisco Unified CM synchronizes its clock as the primary NTP server. If these servers are out of synchronization, CTS-Manager may not update and delete unwanted meetings.

CTS-Manager and Microsoft Exchange server automatically renew subscriptions every 40 minutes. If there are any changes for room status in Exchange, the CTS-Manager will not be notified of the change until that 40 minute update time. The exception is if CTS-Manager is forced to sync with the Exchange server by either doing a reboot or a restart.

## Deploying with Microsoft Exchange 2007 and 2010 EWS

Microsoft Exchange 2007 management tools can be found in the start menu in the Exchange server - **Start > All Programs > Microsoft Exchange Server 2007**. There are two tools available:

- Exchange Management Console – GUI version which has online help.
- Exchange Management Shell – shell version that can be useful for scripting.

**Caution**

In Microsoft Exchange software, some special characters are not supported in the Recipient Policy Exchange server name, mailbox name, etc. These special characters are also not supported by CTS-Manager.

Exchange 2007 Information:

<http://technet.microsoft.com/en-us/library/dd285491.aspx>

To deploy CTS-Manager with Microsoft Exchange 2007 and 2010 EWS:

- Step 1** Create a user account in Exchange for CTS-Manager (e.g. **ctsmanaccount**).  
The user account is created from “Exchange Management Console” using the User Mailbox by doing the following:
  - a. Select **Recipient Configuration > Mailbox**, right-click and select **New Mailbox**
  - b. Select **User Mailbox** type and follow the dialog to create the mailbox.
- Step 2** Provide an adequate mailbox quota for the ctsmanaccount. Cisco recommends providing at least 1 GB of mailbox quota for a deployment of up to 125 Cisco TelePresence System endpoints. Additional mailbox quota is recommended, if feasible.
- Step 3** Log onto the CTS-Manager mailbox once to verify the user mailbox is set up correctly.
- Step 4** If a new endpoint needs to be added, the Admin needs to create the room in the calendaring server first with appropriate permissions for the CTS-Manager application account and then create associated device(s) in Unified CM. If the admin creates devices in Unified CM beforehand, then the endpoint would appear in error in CTS-Manager. Once the room is configured in the calendaring server, the admin can resync the endpoint in CTS-Manager to resolve the error.

- Step 5** Create an account in Exchange for each Cisco TelePresence System or video conferencing endpoint. Use one of the following methods:
- In **Exchange Management Console (EMC)**, select **Recipient Configuration > Mailbox**, right-click and select **New Mailbox**. Select **Room Mailbox** type and follow the dialogs to create the mailbox.
  - Run the Exchange Management Shell (EMS) cmdlet to create a room mailbox / account.
- Step 6** The CTS-Manager account needs to have full access on the Calendar folder of each room mailbox, or at minimum it needs to have read permission. Using EMS, run one of the two cmdlets in the following based on your preference:
- Add-mailboxpermission -identity "TelepresenceRoom9" -accessRights FullAccess -user ctmperf\ctsmanaccount
  - Add-mailboxpermission -identity "TelepresenceRoom9" -accessRights ReadPermission -user ctmperf\ctsmanaccount
- You can check the current permission setting of a Room by running one of the following cmdlets:
- Get-mailbox -server example-ctmpc19 | get-mailboxpermission
  - Get-mailboxpermission -identity TelepresenceRoom9
- Step 7** Set the "DeleteSubject" and "AddOrganizerToSubject" properties in room mailbox calendar to **False**. This sets the parameters for the meeting to be displayed on the IP Phone.

**For Exchange 2007:**

- Set-MailboxCalendarSettings -Identity TelepresenceRoom9 -DeleteSubject \$false
- Set-MailboxCalendarSettings -Identity TelepresenceRoom9 -AddOrganizerToSubject \$false

**For Exchange 2010:**

- Set-CalendarProcessing -Identity "room5" -DeleteSubject \$false
- Set-CalendarProcessing -Identity "room5" -AddOrganizerToSubject \$false

- Step 8** It is recommended to set Auto-accept to **ON** using EMS.

**Note** This works only with room mailbox, not with user mailbox. Also CTS-Manager will not process meetings that are tentative. Meetings that are accepted if Microsoft AAA Agent is off will only access proxy if accepted.

**For Exchange 2007:**

Set-MailboxCalendarSettings -Identity TelepresenceRoom9 -AutomateProcessing AutoAccept

**For Exchange 2010:**

Set-CalendarProcessing -Identity "room1" -AutomateProcessing AutoAccept

- Check if Auto-accept has been configured for the room (endpoint).

Get-MailboxCalendarSettings -Identity TelepresenceRoom9 | fl

**Note**

It is recommended not to switch room (endpoint) mailbox acceptance mode once set. If it is configured auto-accept then switched to manual proxy mode the meeting does not show up in CTS-Manager Web UI nor is it pushed to the phone UI. The user will have to manually re-accept the meeting.

**Step 9** Log onto the room (endpoint) mailbox once using Outlook Web Access (OWA) or Outlook 2007. This is an important step, as room mailbox will not be setup appropriately in MS Exchange. In Exchange 2007, you won't be able to directly log on to the room\* mailbox using the room username, because the user account of the room mailbox is disabled by default. There are 2 possible scenarios (based on the decision made in step 5):

**Note** \*Only when mailbox is created as "Room Mailbox" type. If mailbox is created as "User Mailbox" type, then it would be the same step as it is with Exchange 2003 to log onto the mailbox.

- a. The CTS-Manager user (e.g. `ctsmanaccount`) has been given full access to the room mailboxes. In this case, use `ctsmanaccount` credential to log onto each room (endpoint) mailbox.
  - First log into `ctsmanaccount` mailbox using OWA, using a supported web browser (IE 6.x) and typing: `http://<exchange ip address>/owa/`. Once logged on as `ctsmanaccount` user, click the **ctsmanaccount** tab at the top, enter the room account name, and click **Open**. The room (endpoint) mailbox opens in another window.
  - Alternatively, you can log on to the room (endpoint) account using either Outlook 2007 or Outlook Web Access:  
`http://<exchange ip address>/owa/<endpoint_name@domain_name>`. Again, here you will need to log on using the `ctsmanaccount` credential.
- b. The second scenario is where the `ctsmanaccount` was only given read permission to the room(endpoint) mailboxes. In such case, you need to have a third user account which has "full access" to the room (endpoint) mailboxes, let's say this user is "Joe Smith." Use Joe Smith credential to log onto his mailbox using Outlook 2007, then follow the below steps:
  - i. Once logged on, click **Calendar** in the left pane.
  - ii Click **Open a Shared Calendar** and enter the room (endpoint) name.
  - iii The room calendar would show up under **People's Calendar** on the left pane. Right-click the room(endpoint) name, and select **Properties**.
  - iv. Click **Permissions** tab
  - v. Click **Add** and select `ctsmanaccount` account name.
  - vi. In **Permissions** > **Permission Level** drop-down field, select **Reviewer**.
  - vii. In **Permissions** > **Read** section, check **Full Details**.
  - viii. Click **OK**.
  - ix. Repeat step ii to viii for each endpoint that will be managed by CTS-Manager.

**Step 10** Verify that the Web Sites Authentication Method is configured correctly for "EWS" web site.

**Step 11** Repeat these steps for the "Default Web Site" setting:

- a. In "IIS Manager," go to "Internet Information Services" > `[server_name]` > "Web Sites" > "EWS"
- b. Right-click the *EWS* and select **Properties**.
- c. Go to the **Directory Security** tab
- d. In the Authentication and access control section:
  - Click the **Edit** button
  - Check the desired authentication access method - **Integrated Windows Authentication** and/or **Basic Authentication (password is sent in clear text)** boxes.
  - Click **OK**

- e. This step is required **only if** you need to configure CTS-Manager with the non-secure binding to the Exchange server. In the Secure communications section:
  - Click the **Edit** button
  - Uncheck the **Require secure channel (SSL)** box, and click **OK**.
- f. Click **OK** on all the dialog boxes that follow.

**Step 12** Synchronize the system clock in the CTS-Manager server to the same NTP server used by Exchange. Enter the hostname or IP address of one or more NTP servers. NTP Server 1 value is mandatory; NTP Servers 2-5 are optional. Thus, CTS-Manager and Exchange need to point to the same NTP and sync with the NTP to avoid having the room calendar not updating correctly.



**Note** Cisco strongly recommends that you enter the NTP server by which Cisco Unified CM synchronizes its clock as the primary NTP server. If these servers are out of synchronization, CTS-Manager may not update and delete unwanted meetings.

**Step 13** If you installed Exchange 2010 SP1, you must apply the CTS-Manager Throttling Policy for Exchange 2010 SP1. For more information, see: [Applying CTS-Manager Throttling Policy for Exchange 2010 SP1, page 3-17](#).

CTS-Manager and Microsoft EWS server automatically renew subscriptions every 20 minutes. If there are any changes for room status in EWS, the CTS-Manager will not be notified of the change until that 20 minute update time. The exception is if CTS-Manager is forced to sync with the EWS server by either doing a reboot or a restart.

### Cancelling a Meeting that Contains a Tentative or Proxy Room (Endpoint)

After the meeting organizer cancels a meeting, tentative or proxy room owners may have to log in to the room (endpoint) calendar and remove the meeting from the calendar:

- If the **Autoprocessing** parameter for the room (endpoint) is set to 'None', the tentative or proxy room owner must log in to the room (endpoint) mailbox, and remove the meeting from the calendar.
- If the **Autoprocessing** parameter for the room (endpoint) is set to 'AutoUpdate', no action is required by the tentative or proxy room owner, because the meeting is automatically removed when the meeting organizer cancels the meeting.

## Exchange Migration Guide

CTS-Manager integrates with Exchange Server 2003, Exchange Server 2007 and Exchange Server 2010. This section highlights the steps required in CTS-Manager when an existing Exchange Server is upgraded. Please refer to official Microsoft documentation on how to:

- Migrate Exchange Server from a previous release to a newer version
- Set up Client Access Server (CAS) against previous version mailbox server

## Migrating from Exchange Server 2003 to 2007

CTS-Manager accesses Exchange Server 2003 via the WebDAV protocol. This protocol is supported by Exchange Server 2007. In addition, Microsoft has introduced a new access method via Exchange Web Service (HTTP/SOAP) protocol.

Microsoft does not support in-place upgrade from Exchange Server 2003 to 2007. A separate Exchange Server 2007 must be installed and data can be migrated over time. Depending on the size of your installation, this process can take from hours to months. For more information, refer to the following documentation from Microsoft:

<http://technet.microsoft.com/en-us/library/bb124008%28EXCHG.80%29.aspx>


There are 2 possible migration paths for CTS-Manager:

- [Continue Using WebDAV Protocol, page 3-13](#)
- [Use EWS Access, page 3-14](#)

### Continue Using WebDAV Protocol

If the CTS-Manager version is earlier than 1.6, this is the only upgrade path available.

To migrate to Exchange 2007 and continue using WebDAV:

- 
- |               |  |
|---------------|--|
| <b>Step 1</b> | Set up Exchange Server 2007.   |
| <b>Step 2</b> | Identify the CAS server to which CTS-Manager will integrate.               |
| <b>Step 3</b> | Shut down CTS-Manager.   |
| <b>Step 4</b> | Migrate CTS-Manager account mailbox to 2007 mailbox server at the minimum. |
- 
- |  |  |
|--|--|
| <br><b>Note</b> | Cisco recommends migrating all TelePresence room (endpoint) mailboxes. |
|--|--|
- 
- |               |  |
|---------------|--|
| <b>Step 5</b> | Start up CTS-Manager.  |
| <b>Step 6</b> | Log in to CTS-Manager.   |
| <b>Step 7</b> | Go to <b>Configure &gt; Microsoft Exchange</b> .<br><br>The connection to Exchange may be down. This is expected.  |
| <b>Step 8</b> | Enter the connection parameters identified in step 2, click <b>Test Connection</b> and make sure that the test is successful.  |
| <b>Step 9</b> | Click the <b>Apply</b> button and wait for CTS-Manager to sync up the data from all of the TelePresence mailboxes. This could take from few minutes to a few hours depending on the size of your deployment. |
- 

**Note**

Please note that for step 4, if the downtime of CTS-Manager exceeds your company policy about permissible downtime, only the CTS-Manager account mailbox needs to be migrated. The TelePresence room (endpoint) mailboxes can still reside in Exchange 2003 Mailbox server. Ensure that those mailboxes are accessible from the CAS server identified in step 2. Please consult Microsoft documentation on how to set up a CAS server against a previous version's mailbox

## Use EWS Access

This upgrade path is only available for CTS-Manager release 1.6 or later.

Upgrading CTS-Manager to the new EWS mode is recommended for the following reasons:

- Microsoft discontinued official support for the WebDAV protocol. An extension to the support agreement is required.
- EWS is a more secure implementation. CTS-Manager in EWS mode supports basic and integrated Windows authentication (NTLMv1 in CTS-Manager 1.6.2 or earlier, NTLM v1 and v2 in CTS-Manager 1.6.3 or later and NTLMv2 session in CTS-Manager 1.7.2 or later).
- EWS is more scalable.
- EWS ensures an easier future upgrade. In Exchange 2010, the WebDAV access to Exchange server has been disabled.

To migrate to Exchange 2007 and continue using EWS:

- 
- |               |  |
|---------------|--|
| <b>Step 1</b> | Set up Exchange Server 2007.   |
| <b>Step 2</b> | Identify the CAS server to which CTS-Manager will integrate.   |
| <b>Step 3</b> | Shut down CTS-Manager.   |
| <b>Step 4</b> | Migrate the CTS-Manager account mailbox to the 2007 mailbox server. Cisco recommends to also migrate all TelePresence room (endpoint) mailboxes. |
| <b>Step 5</b> | Start CTS-Manager.   |
| <b>Step 6</b> | Log in to CTS-Manager  |
| <b>Step 7</b> | Go to the <b>Configure &gt; Microsoft Exchange</b> window.<br>The connection to Exchange may be down. This is expected.                          |
| <b>Step 8</b> | Click <b>Configure EWS</b> . The MS Exchange Web Services window appears. See <a href="#">Figure 3-1 on page 3-15</a> .                          |



Figure 3-1 Configure EWS Window

**Cisco TelePresence Manager**

1 - ExchangeWebServices  
2 - Confirmation

### MS Exchange Web Services

Enter configurations for the Microsoft Exchange Web Services.

Host:  \*

Bind Method: ☐ Secure ☒ Normal

Port:  \*

Domain Name:  \*

Username:  \*

Password:  \*

Certificate:  Browse... \*

**Test Connection**

- Host: the Microsoft Exchange Web Services server host name or IP address.
- Username/Password: Left hand side of the email address of the user account that has read access to the Exchange web services server. Password necessary for authentication.

\* Required Fields

< Back   Next >   Cancel

- Step 9** In the MS Exchange Web Services window, enter the connection parameters identified in step 2, click **Test Connection** and make sure that the test is a success.
- Step 10** Click the **Apply** button and wait for CTS-Manager to sync up the data from all of the TelePresence mailboxes. This could take from a few minutes to a few hours depending on the size of your deployment.

## Migrating from Exchange Server 2003 to 2010

Exchange Server 2010 discontinued WebDAV access; therefore CTS-Manager must be configured in EWS mode before the upgrade process.

Use the following procedure to migrate from Exchange 2003 to Exchange 2010:

- Step 1** Install and configure the Exchange 2010 server.

- Step 2** In CTS-Manager, go to **Configure > Microsoft Exchange**.
- Step 3** Click the **Configure EWS** button in the right pane, enter and apply the Exchange 2010 CAS server configuration information.
- Step 4** If running in secure mode, add the 2010 CAS server certificate.
- Step 5** Click **Test Connection** and then click **Apply**.  
CTS-Manager will sync all rooms.
- Step 6** Shut down the CTS-Manager server.  
This is important so that users do not use CTS-Manager during migration.
- Step 7** Migrate all Cisco TelePresence endpoints to the Exchange 2010 server.  
Verify that all Cisco TelePresence endpoints are of the type “RoomMailbox.”  
This is required for Auto-Accept to be enabled.  
After the migration is complete, add full access permission for the delegates to any proxy.
- Step 8** If you installed Exchange 2010 SP1, you must apply the CTS-Manager Throttling Policy for Exchange 2010 SP1. For more information, see: [Applying CTS-Manager Throttling Policy for Exchange 2010 SP1, page 3-17](#).


## Migrating from Exchange Server 2007 to 2010

Support for Exchange 2010 is introduced in release 1.7. This upgrade path is only available for CTS-Manager release 1.7 or later.

The migration path depends on how CTS-Manager is configured to access Exchange Server 2007.

- WebDAV mode
- EWS mode

Use the following procedure to migrate from Exchange 2007 to Exchange 2010:

- Step 1** Install and configure the Exchange 2010 server.
- Step 2** If CTS-Manager is running in 2007 WebDAV mode, configure EWS (see [Deploying with Microsoft Exchange 2007 and 2010 EWS, page 3-9](#).) and move to 2007 EWS. If CTS-Manager is already running in EWS mode, go to step 3.
- Step 3** Shut down CTS-Manager.
- Step 4** Migrate the CTS-Manager account mailbox to the 2010 mailbox server.
- Step 5** Set the Throttling policy for 2010 (see [Applying CTS-Manager Throttling Policy for Exchange 2010 SP1, page 3-17](#)).
- Step 6** Move the Exchange 2007 rooms to Exchange 2010.
-  **Note** Cisco recommends migrating all TelePresence room mailboxes.
- Step 7** Make sure the CTS-Manager account has full permission to the 2010 room mailboxes.
- Step 8** Identify the 2010 CAS server to which CTS-Manager will integrate.

- Step 9 Start up CTS-Manager.
  - Step 10 Log in to CTS-Manager.
  - Step 11 Go to **Configure** > **Microsoft Exchange** and click the **Configuration** tab.
  - Step 12 Change the Exchange server to 2010 CAS server.
  - Step 13 If running in secure mode, add the 2010 CAS server certificate.
  - Step 14 Click **Test Connection** and then click **Apply**.
  - Step 15 CTS-Manager will sync all rooms.
- 

## Applying CTS-Manager Throttling Policy for Exchange 2010 SP1

With Exchange 2010 SP1 update, Microsoft has enabled the client throttling policy feature by default. For more information, refer to: <http://technet.microsoft.com/en-us/library/dd297964.aspx>

If there's no throttling policy already configured, Microsoft will apply a default policy to all users. The default throttling policy is tailored for end-user load and not for an enterprise application like CTS-Manager.

In order for all CTS-Manager features to work, a custom throttling policy must be applied to the CTS-Manager application user.



**Note**

This throttling policy is required for Exchange 2010 SP1.

---

To apply the CTS-Manager Throttling Policy for Exchange 2010 SP1:

---

- Step 1 Log in to the CAS server for Exchange 2010.
  - Step 2 Open Exchange Management Shell application.
  - Step 3 Create a custom throttling policy:
    - a. **Run > New-ThrottlingPolicy Cisco\_CTSManager\_ThrottlingPolicy**
    - b. **Run > Set-ThrottlingPolicy -Identity Cisco\_CTSManager\_ThrottlingPolicy -EWSFastSearchTimeoutInSeconds 300 -EWSFindCountLimit 6000 -EWSMaxConcurrency \$null -EWSMaxSubscriptions 5000 -EWSPercentTimeInAD 200 -EWSPercentTimeInMailboxRPC 300 -EWSPercentTimeInCAS 500**
  - Step 4 Assign the policy to CTS-Manager application user
    - a. **Run > \$b = Get-ThrottlingPolicy Cisco\_CTSManager\_ThrottlingPolicy**
    - b. **Run > Set-Mailbox -Identity <superuser account> -ThrottlingPolicy \$b**
- 



**Note**

If you encounter any errors after applying the CTS-Manager throttling policy, you can revert back to the Microsoft throttling policy. For more information, refer to: [Restoring the Microsoft Throttling Policy for Exchange 2010 SP1, page 3-21](#).

---

## Throttling Policy Parameter Definitions and Values

The default values used in the above steps satisfy most CTS-Manager deployments. If your deployment requires adjustments, you can adjust the **Set-ThrottlingPolicy** values and rerun step 3b above.



### Caution

Please contact the Cisco TelePresence support team before adjusting any of the default values.

The following tables describe the policy parameters and values for the **Set-Throttling Policy** command of Exchange 2010 SP1 for the following deployments:

- [Throttling Policy Parameters for 300 or Fewer Rooms](#)
- [Throttling Policy Parameters for More than 300 Rooms](#)

**Table 3-3** *Throttling Policy Parameters for 300 or Fewer Rooms*

Name	Description	CTS-Manager Default Policy Value	Note
EWSFastSearchTimeoutInSeconds	The length, in seconds, of an Exchange Web Services search before it times out. If the length of the search exceeds the specified value, the search ends, and the system returns an error.	300	Each CTS-Manager call has a default time out of 180 second. 300 is granted since each call could be phased out.
EWSFindCountLimit	The maximum number of FindItem or FindFolder requests that the CAS memory can store for the CTS-Manager application user. If the maximum number exceeds the specified value, the system returns an error.  Requests made for an indexed page view are an exception. In this case, search results include only the number of items allowed by the policy limit. Results that are not currently viewable by the user can be accessed using FindItem or FindFolder requests.	6000	This parameter governs the maximum number of entries for all requests combined at a given time.  CTS-Manager only requests for 200 entries to be returned

**Table 3-3** *Throttling Policy Parameters for 300 or Fewer Rooms (continued)*

Name	Description	CTS-Manager Default Policy Value	Note
EWSMaxConcurrency	The maximum number of connections between an Exchange Web Services user and an Exchange server. (A connection begins when a connection request is received and ends after the entire response is sent.) If the maximum number of connections between the two entities is reached, the existing connections are unaffected, but any subsequent connection requests from the user are denied.  The valid range is 0 through 2147483647 inclusive.	500	Due to the nature of EWS notification, you can't measure the number of concurrent requests. \$null value is required to indicate that no throttling is necessary for this criteria.
EWSPercentTimeInAD	The portion of each minute, expressed as a percentage, that an Exchange Web Services user can dedicate to handling LDAP requests. For example, if you specify 100, the Exchange Web Services user can spend 100 percent of each minute on LDAP requests.	200	The value is higher than 100 since this counts for all concurrent requests at any given time.
EWSPercentTimeInMailboxRPC	The portion of each minute, expressed as a percentage, that an Exchange Web Services user can dedicate to handling mailbox remote procedure call (RPC) requests.	300	The value is higher than 100 since it counts for all concurrent requests at any given time.
EWSPercentTimeInCAS	The portion of each minute, expressed as a percentage, that an Exchange Web Services user can dedicate to handling CAS code.	500	The value is higher than 100 since this counts for all concurrent requests at any given time.
EWSMaxSubscriptions	The maximum number of active push and pull subscriptions that the CAS can store for a particular user. If the maximum number of subscriptions is reached, any subsequent subscription requests will fail and an event will be recorded in the Event Viewer log.	5000	This number should be set to (2 * the number of managed endpoints). Please allocate a number that allows for future growth.

**Table 3-4** *Throttling Policy Parameters for More than 300 Rooms*

Name	Description	CTS-Manager Default Policy Value	Note
EWSFastSearchTimeoutInSeconds	The length, in seconds, of an Exchange Web Services search before it times out. If the length of the search exceeds the specified value, the search ends, and the system returns an error.	\$null	Each CTS-Manager call has a default time out of 180 second. 300 is granted since each call could be phased out.
EWSFindCountLimit	The maximum number of FindItem or FindFolder requests that the CAS memory can store for the CTS-Manager application user. If the maximum number exceeds the specified value, the system returns an error.  Requests made for an indexed page view are an exception. In this case, search results include only the number of items allowed by the policy limit. Results that are not currently viewable by the user can be accessed using FindItem or FindFolder requests.	\$null	This parameter governs the maximum number of entries for all requests combined at a given time.  CTS-Manager only requests for 200 entries to be returned
EWSMaxConcurrency	The maximum number of connections between an Exchange Web Services user and an Exchange server. (A connection begins when a connection request is received and ends after the entire response is sent.) If the maximum number of connections between the two entities is reached, the existing connections are unaffected, but any subsequent connection requests from the user are denied.  The valid range is 0 through 2147483647 inclusive.	\$null	Due to the nature of EWS notification, you can't measure the number of concurrent requests. \$null value is required to indicate that no throttling is necessary for this criteria.

**Table 3-4** *Throttling Policy Parameters for More than 300 Rooms (continued)*

Name	Description	CTS-Manager Default Policy Value	Note
EWSPercentTimeInAD	The portion of each minute, expressed as a percentage, that an Exchange Web Services user can dedicate to handling LDAP requests. For example, if you specify 100, the Exchange Web Services user can spend 100 percent of each minute on LDAP requests.	\$null	The value is higher than 100 since this counts for all concurrent requests at any given time.
EWSPercentTimeInMailbox RPC	The portion of each minute, expressed as a percentage, that an Exchange Web Services user can dedicate to handling mailbox remote procedure call (RPC) requests.	\$null	The value is higher than 100 since it counts for all concurrent requests at any given time.
EWSPercentTimeInCAS	The portion of each minute, expressed as a percentage, that an Exchange Web Services user can dedicate to handling CAS code.	\$null	The value is higher than 100 since this counts for all concurrent requests at any given time.
EWSMaxSubscriptions	The maximum number of active push and pull subscriptions that the CAS can store for a particular user. If the maximum number of subscriptions is reached, any subsequent subscription requests will fail and an event will be recorded in the Event Viewer log.	\$null	This number should be set to (2 * the number of managed endpoints). Please allocate a number that allows for future growth.

## Restoring the Microsoft Throttling Policy for Exchange 2010 SP1

If for any reason, you encounter errors applying the CTS-Manager throttling policy for Exchange 2010 SP1, you can revert back to the default Microsoft throttling policy.

To restore the Microsoft throttling policy for Exchange 2010 SP1:

- 
- Step 1** Log in to the CAS server for Exchange 2010.
- Step 2** Open Exchange Management Shell application.
- Step 3** Remove Throttling policy association from CTS-Manager application user:
- **Run > Set-Mailbox -Identity <superuser account> -ThrottlingPolicy \$null**
- Step 4** Remove the custom policy:
- **Run > Remove-ThrottlingPolicy Cisco\_CTSManager\_ThrottlingPolicy**
-







## CHAPTER 4

# Configuring IBM Domino Server for Cisco TelePresence Manager

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## Contents

- [Introduction, page 4-1](#)
- [Important Considerations, page 4-1](#)
- [Pre-Configuration Procedure Guidelines for IBM Domino Setup, page 4-2](#)
- [Configuring IBM Domino for CTS-Manager, page 4-2](#)
- [Directory Assistance in a Domino Deployment, page 4-4](#)

## Introduction

This chapter describes the steps needed to configure IBM Domino and Domino Directory Server for the Cisco TelePresence Manager.

## Important Considerations

Before you proceed with CTS-Manager installation, the servers and applications within your telecommunications network must be configured so that Cisco TelePresence Manager can find the resources and information needed to initialize the installation. These servers and applications for the IBM include the following:

These servers and applications may include one or more of the following:

- Cisco Unified Communications Manager should already be installed and configured.
- IBM Domino



**Note**

Active Directory is NOT supported for Domino Calendar server deployment with CTS-Manager

# Pre-Configuration Procedure Guidelines for IBM Domino Setup

The purpose of this guide is to outline the chapters you will need to reference in order to preconfigure the IBM Domino before installing the CTS-Manager.

**Table 4-1** *IBM Domino Pre-Configuration Guidelines Before Installing CTS-Manager*

Setup Guidelines before Installing CTS-Manager	Description	Location
Configuring IBM Domino	This chapter describes the steps needed to configure IBM Domino and Domino server for the CTS-Manager system.	Current Chapter
<b>Next Steps After IBM Domino configuration</b>		
Configuring Cisco Unified CM.	Before installation, you must verify that Cisco Unified Communications Manager is configured for the CTS-Manager system.	<a href="#">Chapter 6, “Configuring Cisco Unified Communications Manager for Cisco TelePresence Manager”</a>
Install and Configure PreQualification Assistant Tool	Install and configure the PreQualification Assistant to ensure that your pre-installation setup is configured correctly. The data you enter into the Tool Test Configuration forms are used to verify connections to the servers and get data from them to be used to configure CTS-Manager.	<a href="#">Chapter 7, “Installing and Configuring Cisco PreQualification Assistant”</a>

The procedures in the next section must be completed before installing and initializing Cisco TelePresence Manager.

If at any time you encounter problems, go to [Chapter 16, “Troubleshooting Cisco TelePresence Manager”](#) to see how to correct the problem.

For additional information on setting up the Cisco TelePresence System, refer to the [CTS Administration Guide](#).

## Configuring IBM Domino for CTS-Manager

- Step 1** Create an account in IBM Domino for CTS- Manager (e.g. CTS-Manager account). CTS-Manager LDAP user and SysAdmin need read permission to the Domino Directory.

Use information on

[http://www-12.lotus.com/ldd/doc/domino\\_notes/7.0/help7\\_admin.nsf/Main?OpenFrameSet](http://www-12.lotus.com/ldd/doc/domino_notes/7.0/help7_admin.nsf/Main?OpenFrameSet) to create user account. Refer to ‘Setting up Notes users’ section for specific details.

**Note** Internet password for this account **MUST** be set.

**Step 2** Provide an adequate mailbox quota for the CTS-Manager account.

**Note** Cisco System recommends setting up a CTS-Manager account with at least 1 GB of mailbox quota for a deployment of up to 50 endpoints. Additional mailbox quota allocated to this user is recommended if feasible.

**Step 3** Log into the CTS-Manager account once to verify it is set up correctly.

The CTS-Manager account needs to have read permission for each resource reservation database which contains any Cisco TelePresence room (endpoint). Select the specific resource reservation database and right click to select *Database>Access Control*. Choose the account as specified below and set permissions per the instructions.

The CTS-Manager account also needs to have editor permissions to its own mailbox. This is required to allow storing copies of emails sent out in “Sent Items” folder.

**Step 4** Create a room resource in IBM Domino for each TelePresence or video conferencing endpoint. The steps might involve creating a new resource reservation database, creating a new site profile document and adding Cisco TelePresence rooms for Domino.



**Note** The Resource Reservation database **must** be initially created using the Resource Reservation Template 7 or later. Reservation templates prior to version 7 cannot be upgraded.

**Step 5** CTS-Manager displays user and resource display name when displaying meeting details to end user. The display name is done by performing a full text search against domino. Once a display name is obtained, CTS-Manager will cache that information and retrieve the value from the cache.

Subsequent name resolution consults the value of this cache. A full text search operation might fail with an error “NotesException: Notes error: Maximum allowable documents exceeded for a temporary full text index” on an unindexed domino directory database.

If you encounter this issue, there are several workarounds:

- 1. Indexed the domino directory (names.nsf) on the Domino Calendar Server, the server to be used to configure as “Host” in CTS-Manager under Configure > IBM Domino.
- 2. Increase the parameter Temp\_Index\_Max\_Doc that limits the number of records to search. This value needs to be set to a value higher than the number of user or resource whichever is higher. For more information on this parameter and other related parameter, please check the following link: <http://www.ibm.com/developerworks/lotus/documentation/notes-ini/ptot.html>

**Step 6** CTS-Manager uses Java Notes API to retrieve schedule information. Make sure the following server tasks are running on the Domino server.

- DIIOP Server
- HTTP Server
- LDAP Server

## Directory Assistance in a Domino Deployment

Directory Assistance provides seamless authentication and authorization of Domino users existing outside the Domino directory. In order to support external LDAP users logging into CTS-Manager as a Live Desk, your Domino Administrator must configure Directory Assistance to authenticate users in the external directory. In addition, users, with login privileges, must have their member groups assigned to the CTS-Manager Access Management roles.

Please refer to your Domino Administration documentation on how to configure Directory Assistance to use an external LDAP directory.

In order to verify that DA is configured correctly, perform an LDAP search pointing to the Domino LDAP directory using the search filter and based dn of the external directory. This should return the user details in the external directory.

In addition, if the external directory also has a mail server setup (e.g. Exchange), DA will resolve the email ids of the external users. To verify this, log into the Domino client as a Domino user and try scheduling a meeting with the external user as the invitee. External users should be found in the meeting scheduling view.



# CHAPTER 5

## Configuring Scheduling API for Cisco TelePresence Manager

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### Contents

- [Introduction, page 5-1](#)
- [Important Considerations, page 5-3](#)
- [Pre-Configuration Procedure Guidelines for Scheduling API Setup, page 5-3](#)
- [Configuring Scheduling API for CTS-Manager, page 5-4](#)

### Introduction

This chapter describes the steps needed to configure the Scheduling API for Cisco TelePresence Manager.

### Overview

The CTS-Manager Scheduling API (Scheduling API) interfaces Cisco TelePresence services to third-party Enterprise Calendaring Applications (ECA).

Currently, CTS-Manager supports Microsoft Exchange and IBM Domino calendaring. If you use any other calendar server, or if no calendar server is available, you must use the Scheduling API.

You can perform the following functions with the Scheduling API:

- Retrieve calendar data for CTS End points from the ECA.
- ECA uses **getTLiteMeetings** API call to sync meeting by comparing the lastModified attribute for each meeting to determine any meetings that have been modified.
- Schedule a TelePresence meeting providing a One-Button-To-Push number to start meetings on CTS endpoints.
- Cancel a TelePresence meeting
- Retrieve CTS endpoints room (endpoint) names

- Receive notifications from CTS-Manager based on certain events, such as meeting attribute change or CTS endpoints addition and deletion

CTS-Manager is not a calendaring solution. You use the ECA as the calendar application. You use the ECA to reserve Cisco TelePresence endpoints (Cisco TelePresence rooms) the same as you invite users or resources in the ECA. The Scheduling API then provides for the ECA to provide CTS-Manager information about the new meeting, including the Cisco TelePresence endpoint(s), in iCalendar (iCal) format.

Once CTS-Manager receives the meeting invitation, it performs the following tasks:

- It schedules the Cisco TelePresence Multipoint Switch (CTMS), Cisco TelePresence Recording Server (CTRS), WebEx, Cisco Unified Videoconferencing Manager (CUVC), and any other resources that are required for the meeting, based on the number of Cisco TelePresence endpoints that are invited and other options that are allowed or selected by the meeting organizer.
- It notifies the Cisco TelePresence endpoints of the schedule of meetings for that endpoint and provides the OBTP number that is used to start the meeting. These details are displayed on the Cisco Unified IP Phone immediately before the meeting starts.

For details on how to use the Scheduling API and which features of CTS-Manager are supported, refer to the Cisco TelePresence Manager Scheduling API Developer's Guide, available at:

<http://developer.cisco.com/group/telesched/docs>.

## Requirements

The following sections describe the software and licensing requirements for the Scheduling API and includes the following topics:

- [CTS-Manager Requirements, page 5-2](#)
- [Licensing Requirements, page 5-3](#)
- [LDAP Requirements, page 5-3](#)

## CTS-Manager Requirements

To use the Scheduling API, you must deploy CTS-Manager in Scheduling API mode. This mode is available with CTS-Manager release 1.7 and later.

If your CTS-Manager release 1.6 is deployed in No Calendar mode, you can upgrade to Scheduling API mode by first migrating to CTS-Manager release 1.8 in No Calendar mode, then configuring your migrated CTS-Manager to be in Scheduling API mode. You make these changes using the CTS-Manager administrative GUI.

In all other cases, a fresh installation of release 1.8 is required for Scheduling API mode.



### Note

If you deploy CTS-Manager in Exchange or Domino calendaring mode, you cannot switch to Scheduling API mode and must reinstall the CTS-Manager application.

After you configure CTS-Manager in Scheduling API mode, you cannot configure any other mode (for example, calendar server mode).

If you perform a new installation, you lose all existing data when you migrate to the new release.

## Licensing Requirements

After installing CTS-Manager, you must install the license for the Scheduling API. For detailed information about the license and how to install it, refer to [Licensing for CTS-Manager, page 11-6](#).

## LDAP Requirements

You must provide the Lightweight Directory Access Protocol (LDAP) server information during first-time setup of CTS-Manager. All Cisco TelePresence rooms (endpoints) and schedulers should be part of this LDAP server. The API will retrieve the scheduler display name and room display name from this LDAP server.

The LDAP administrator should create a new user account in the LDAP server. This account represents the ECA. When the ECA invokes the API, it uses this account to authenticate itself to CTS-Manager. During the first-time setup of CTS-Manager, you should use this account on the ECA configuration page. For more information, refer to [Initializing Cisco TelePresence Manager, page 10-1](#).

## Important Considerations

Before you proceed with CTS-Manager installation, the servers and applications within your telecommunications network must be configured so that Cisco TelePresence Manager can find the resources and information needed to initialize the installation.

These servers and applications include one or more of the following:

- Cisco Unified Communications Manager should already be installed and configured.



Note

For a complete list of system requirements, refer to: [Cisco TelePresence Manager Specifications and System Requirements, page 1-6](#)

## Pre-Configuration Procedure Guidelines for Scheduling API Setup

The purpose of this guide is to outline the chapters you will need to reference in order to preconfigure the Scheduling API before installing the CTS-Manager.

**Table 5-1** *Pre-Configuration Guidelines for Scheduling API Before Installing CTS-Manager*

Setup Guidelines before Installing CTS-Manager	Description	Location
Configuring Scheduling API.	This chapter describes the steps needed to configure a scheduling API for the CTS-Manager system.	Current Chapter
Next Steps After Scheduling API configuration		

**Table 5-1** *Pre-Configuration Guidelines for Scheduling API Before Installing CTS-Manager (continued)*

Setup Guidelines before Installing CTS-Manager	Description	Location
Configuring Cisco Unified CM.	Before installation, you must verify that Cisco Unified Communications Manager is configured for the CTS-Manager system.	<a href="#">Chapter 6, “Configuring Cisco Unified Communications Manager for Cisco TelePresence Manager”</a>
Install and Configure PreQualification Assistant Tool	Install and configure the PreQualification Assistant to ensure that your pre-installation setup is configured correctly. The data you enter into the Tool Test Configuration forms are used to verify connections to the servers and get data from them to be used to configure CTS-Manager.	<a href="#">Chapter 7, “Installing and Configuring Cisco PreQualification Assistant”</a>

The procedures in the next section must be completed to configure the Scheduling API in Cisco TelePresence Manager.

If at any time you encounter problems, go to [Chapter 16, “Troubleshooting Cisco TelePresence Manager”](#) to see how to correct the problem.

For additional information on setting up the Cisco TelePresence System, refer to the [CTS Administration Guide](#).

## Configuring Scheduling API for CTS-Manager

To configure the Scheduling API:

- Step 1** Create a user account for the ECA in the LDAP server that will be configured in CTS-Manager.
- Step 2** Designate one computer to be an ECA host. This machine will host the ECA.
- Step 3** (Optional) Install and run the PreQualification tool. For complete details, see [Installing and Configuring Cisco PreQualification Assistant, page 7-1](#).
- Step 4** Install CTS-Manager. For complete details, see [Installing or Upgrading Cisco TelePresence Manager, page 9-1](#).
- Step 5** Initialize CTS-Manager in Scheduling API mode. During initialization, in the LDAP Servers page, use the ECA account details created for LDAP in Step 1 and in the Calendar Server configuration page, specify the ECA host that you configured in Step 2. For complete details, see [Initializing Cisco TelePresence Manager, page 10-1](#).



### Tip

You can also initialize CTS-Manager in No Calendaring Service mode and configure the Scheduling API after initialization in the Configure > Scheduling API window.

- Step 6** Install Apache Tomcat on the ECA host.



**Step 7** Download the CTS-Manager certificate and import it into the keystore.

**Step 8** Implement ECA using Scheduling API calls and deploy it as web app.

For more information, refer to the Cisco TelePresence Manager Scheduling API Developer's Guide, available at: <http://developer.cisco.com>.

**Step 9** After you start the ECA, use the *getStatus* API to make sure that CTS-Manager is up and running, and to verify the user authentication between the ECA and CTS-Manager.

**Step 10** If the API indicates that the CTS-Manager is running, continue to the next step.



**Note**

You must invoke the *getStatus* API every few minutes to check CTS-Manager status. In case of an error, the ECA may choose to “bubble it up” (pass the error from the bottom of the calling hierarchy) and notify the administrator.

**Step 11** Subscribe the ECA to CTS-Manager notifications.

For more information, refer to the “Configuring the ECA to Receive Notifications” section in the Cisco TelePresence Manager Scheduling API Developer's Guide.

**Step 12** Use the *getTRooms* API to retrieve TelePresence endpoints that are managed by CTS-Manager.

The ECA must use only these endpoints in iCal data when scheduling meetings. ECA can choose to cache these endpoints and validate iCal requests before submitting the requests to CTS-Manager.

**Step 13** Invoke the remaining ECA APIs.

Whenever there is a request for scheduling a meeting, the ECA should generate iCal data conforming to RFC2445 and 2446 format for the meeting and then invoke the *scheduleTMeetings* API. When the iCal data is well formed and there are no errors, the TelePresence meeting is scheduled.





## CHAPTER 6

# Configuring Cisco Unified Communications Manager for Cisco TelePresence Manager

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## Contents

- [Introduction, page 6-1](#)
- [Important Considerations, page 6-1](#)
- [Pre-Configuration Procedure Guidelines for Cisco Unified CM Setup, page 6-2](#)
- [Configuring Cisco Unified CM for CTS-Manager, page 6-3](#)
- [For Deployments Using Microsoft Exchange or IBM Domino or Scheduling API, page 6-3](#)
- [Logging into Cisco Unified CM Administrator, page 6-6](#)
- [Configuring the Options File, page 6-6](#)
- [Adding a Cisco TelePresence Device, page 6-7](#)
- [Creating and Configuring a Cisco TelePresence Device, page 6-8](#)

## Introduction

This section describes adding parameters to Cisco Unified Communications Manager (Cisco Unified CM) and researching information from the current installation of Cisco that will be used to initialize the Cisco TelePresence Manager installation. For more information refer to [Cisco Unified Communications Manager Configuration Guide for Cisco TelePresence System](#).

## Important Considerations

Before you proceed with CTS-Manager installation, the servers and applications within your network must be configured so that Cisco TelePresence Manager can find the resources and information needed to initialize the installation. This section describes the following applications:

- Cisco Unified CM should already be installed and configured. For more information refer to section [Logging into Cisco Unified CM Administrator, page 6-6](#) or refer to the [Cisco Unified Communications Manager Configuration Guide for Cisco TelePresence System](#).

**Note**

If you see the test connection failure message, you may need to specify IP addresses for your Cisco Unified Communications Manager server(s) if this is a non-DNS environment, as well as other network devices. You can change any server name values in Cisco Unified Communications Manager. Cisco recommends you configure the system using static IP addressing so it will be easier to manage.

## Pre-Configuration Procedure Guidelines for Cisco Unified CM Setup

This table provides a guideline for the procedures you will need to reference in order to preconfigure the Cisco Unified Communications Manager **before** installing the Cisco TelePresence Manager.

**Note**

The system uses either Microsoft or IBM not both. So either Chapter 3 or Chapter 4 needs to be referenced when doing the preconfiguration.

**Table 6-1*****Pre-Configuration Guidelines for Setting Up Unified CM for CTS-Manager***

Setup Procedure Guidelines before Installing CTS-MAN	Description	Location
Configuring Cisco Unified CM	Before CTS-Manager installation, you must verify that Cisco Unified Communications Manager is configured for the CTS-Manager system.	Current Chapter
Install and Configuring PreQualification Assistant	Install and run the PreQualification Assistant to ensure that your pre-installation setup is configured 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	<a href="#">Chapter 7, “Installing and Configuring Cisco PreQualification Assistant”</a>

# Configuring Cisco Unified CM for CTS-Manager

The procedures in the next section must be completed before installing and initializing Cisco TelePresence Manager.

If at any time you encounter problems, go to [Chapter 16, “Troubleshooting Cisco TelePresence Manager”](#) to see how to correct the problem.

## For Deployments Using Microsoft Exchange or IBM Domino or Scheduling API

- A Cisco Unified Communications Manager certificate must be accessible for CTS-Manager to communicate with Unified CM.



### Note

Only one certificate can be used. Do not reuse it or give it a new name and then try to upload it to CTS-Manager. Also, if a certificate is expired, it cannot be uploaded.

- Unified CM Certificate
  - To get a Cisco Unified Communications Manager certificate do the following:
    1. Log into the Cisco Unified CM Administration application
    2. From the Navigation menu, select **Cisco Unified OS Administration** and click **Go**.
    3. From the Security menu click **Certificate Management**.
    4. Click the link for **tomcat.der**.
    5. In the Certificate Configuration window, click the **Download** button.
  - This saves a copy of the certificate on your computer. Make sure this file is accessible to the computer that has browser access to the Cisco TelePresence Manager server.



### Note

Deleting a Unified CM won't delete the CTS-Trust certificate corresponding to that Unified CM. If the administrator adds the deleted Unified CM back, then he/she doesn't need to upload the trust certificate again as it is already there in the system. If the administrator tries to upload it again, an error will be detected.

### Step 1

Create an application user for CTS-Manager. Refer to section [Logging into Cisco Unified CM Administrator](#), page 6-6 or to your [Cisco Unified Communications Manager Configuration Guide for Cisco TelePresence System](#) for the steps to perform this. Save these credentials for the CTS-Manager initialization procedure that follows.



### Warning

Application user names must contain only ASCII characters to work correctly with CTS-Manager.



### Note

Make sure that the application user you've created has all the endpoints assigned to it that you plan to use.

Assign all TelePresence units/IP phone devices to this user profile. MAC Address of each unit and shared phone should be added to the user profile. Add TelePresence endpoints in the Cisco Unified CM Admin UI, by going to Device > Phone.



**Note**

It is not required to add an IP phone associated with the CTS to the application user.



**Note**

To secure CTS-Manager, add the “Standard CTI Secure Connection” group to the application user.

- Step 2** For each TelePresence endpoint device, follow these steps:
- Go to Device > Phone and click the device name corresponding to the TelePresence endpoint device.
  - At the bottom of the Device Information section, check the **Allow Control of Device from CTI** checkbox.
  - In the Product Specific Configuration Layout section, enter the endpoint email address in the **Room Name** field.



**Caution**

You cannot assign the same email address to more than one endpoint. If you do, you must fix the problem in Unified CM and then do a resync in the Microsoft Exchange or IBM Domino window in CTS-Manager.

- Assign the same DN as the IP phone that is associated with this TelePresence endpoint device.
  - In the Directory Number Information section of Directory Number Configuration, check the **Allow Control of Device from CTI** checkbox.
- Step 3** For each IP phone device that is associated to TelePresence endpoint device, check the **Allow Control of Device from CTI** checkbox at the bottom of the **Device Information** section.
- Step 4** Go to User Management > Application User, and create an application user in Cisco Unified CM for Cisco TelePresence Manager. Save these credentials for use during the Cisco TelePresence Manager first time setup.
- Step 5** Assign all TelePresence endpoints and their associated IP phone devices to this application user. The MAC Address of each unit and IP phone should be added to the user profile.
- Step 6** Create a user group in the CiscoUnified CM for Cisco Telepresence Manager.
- Assign the following roles to this user group:
    - Standard AXL API access
    - Standard CTI enabled
    - Standard serviceability
    - Standard CCM Admin Users
    - Standard RealtimeandTracesCollection
  - Add the above application user to the newly created user group.
- Step 7** Verify all required services are activated and running on the Cisco Unified CM node. It is required to have Cisco AXL Web Service activated on the Cisco Unified CM Publisher node. Similarly, Cisco RIS Data Collector should be running on the Cisco Unified CM Publisher node. Cisco CTIManager should

be activated and running, but can be running on any node inside the same Cisco Unified CM Cluster. Please refer to the Cisco Unified CM Configuration Guide for details on service activation and start/stop.

- Step 8** Download the certificate for Cisco Unified CM using IE Browser. User is prompted with a certificate when browser is pointed to Cisco Unified CM server. You can save cert file on local machine. This would be used later while configuring the CTS-Manager during first time setup. You cannot upload a certificate twice even if you change the name of the certificate.



**Note** If an endpoint's display name is changed once CTS-Manager is up and running, CTS-Manager reads new display name once every 24 hours, so the new name will display after this 24 hour period. In addition, when a new endpoint is added to Unified CM, restarting CTS-Manager is also not required.

## Configuring Cisco Unified CM Server Names

- Step 1** Log into Cisco Unified Communications Manager as an Administrator.
- Step 2** Choose the **Server** option from the **System** menu.
- Step 3** Click **Find** to discover all the servers in your Cisco Unified Communications Manager cluster.
- Step 4** In the Cisco TelePresence Manager's Configuration > Cisco UCM Host field, use only IP address in a non-DNS environment. If DNS is configured and accessible, use either hostname or IP address.

As you add a Unified CM, do not set up a non-DNS and DNS in a mixed mode environment, i.e., where Unified CM is configured with DNS and CTS-Manager is configured with non-DNS environment. Unified CM is configured with DNS but has IP address in the Server Config. In a typical deployment, all applications are in either DNS or non-DNS. Identifying a Unified CM node as publisher does not support mixed mode.

To display and modify settings that associate CTS-Manager with Cisco Unified CM, choose **Configure > Unified CM** in the CTS-Manager.

The **Configure > Unified CM** window opens. This window provides Service Status and the listings of the Unified CM connections.



**Note** If changing settings in the Unified CM, it is necessary to perform a Discovery in CTS-Manager to register the new settings. Otherwise, CTS-Manager won't display or connect to the correct settings.

# Logging into Cisco Unified CM Administrator

To log into the Cisco Unified CM Administration application, follow these steps:

**Step 1** Open a web browser.



**Note**

The Cisco Unified CM Administration program is compatible with the Microsoft Internet Explorer version 6 or a later version web browser.

**Step 2** Access a web server that is supported by the Cisco Unified CM Administration application from any user PC in your network.

**Step 3** In the address bar of the web browser, enter the following URL:

`https://CCM-server-name`

Where *CCM-server-name* is the name or IP address of the server.



**Note**

You may need to specify the address of the server where Cisco 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 4** Log in with your assigned administrative privileges.

**Step 5** 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 CM Administration home page.

## Configuring the Options File

Cisco Unified CM is customized with an options file to configure support for the Cisco TelePresence device.

To configure the options file, follow these steps:

**Step 1** Log into the Cisco Unified CM Administration application. See the [“Logging into Cisco Unified CM Administrator”](#) section on page 6-6.

**Step 2** Add the Cisco TelePresence device pack to Cisco Unified CM. The device pack adds functionality to Cisco Unified Communications Manager so that you can create a Cisco TelePresence device. See the [“Adding a Cisco TelePresence Device”](#) section on page 6-7.

**Step 3** Create a Cisco TelePresence device to register the Cisco TelePresence device as a Cisco Unified IP Phone. See the [“Creating and Configuring a Cisco TelePresence Device”](#) section on page 6-8.

**Step 4** Assign a directory number to the Cisco TelePresence device. See the [“Assigning a Directory Number to a TelePresence Device”](#) section on page 6-13.

**Step 5** Create a Cisco Unified IP Phone 7975 device type.



**Note**

Auto registration cannot be used to create the device type.



# Adding a Cisco TelePresence Device


Use the information in the following sections to add a CTS device:

- [Download Device Pack, page 6-7](#)
- [Install Device Pack, page 6-8](#)

## Download Device Pack


If the Cisco TelePresence device is not listed on the Cisco Unified Communications Manager phone list, you must add the device. The Cisco TelePresence device is included in the latest device packs for Cisco Unified CM.

To download device packs, follow these steps:

- 
- Step 1** Go to the following location on Cisco.com:
- Support**  
The Support and Downloads page appears.
  - Under the Product Support tab, click **Voice & Unified Communications**  
The Voice and Unified Communications window appears.
  - At the top of the Voice and Unified Communications window, click **Browse All Voice and Unified Communications Categories**  
The Select Your Product or Technology page appears.
  - In the far-right column, click **IP Telephony**
  - Click **Call Control**
  - Scroll down (if necessary) and click **Cisco Unified Communications Manager (CallManager)**  
The Introduction page appears.
- Step 2** Click **Download Software**.
- Step 3** (If needed) Enter your Cisco username and password and click **Log In**.  
The Select a Product page appears.
- Step 4** In the Cisco Unified Communications Manager (CallManager) section, click the version that corresponds to the Unified CM version you have configured in CTS-Manager.
- Step 5** Click **Unified Communications Manager/CallManager Device Packages**.
- Step 6** Click the latest release.
-  **Note** To register EX, MX and C-series endpoints, Unified CM 8.6.1.20000-1 and device pack 8.6.1.21019-1 are required.
- 
- The software download page for that release opens.
- Step 7** Click **Download Now** to begin the download process.
-

## Install Device Pack

To install a device pack, follow these steps:

- 
- Step 1** Log into the Cisco Unified CM Administration application.
- Step 2** At the Cisco IPT Platform Administration window, choose **Software Installation/Upgrade**.
- 
-  **Note** For an explanation of how to access the Cisco IPT Platform Administration window, see the [Cisco IP Telephony Platform Administration Guide for Cisco Unified Mobility Manager, Release 1.2](#).
- 
- Step 3** From the **Source** drop-down list, choose the source for the device pack.
- Step 4** Click **Next**. The Options/Upgrades window appears.
- Step 5** Choose the appropriate file from the drop-down list and click **Next**. The system compiles a checksum value.
- Step 6** Click **Save** to accept the checksum value and start installation.
- Step 7** After installation is complete, restart.

The installation process can take several minutes. An on-screen log reports status of the installation. Once the device pack is installed, you can begin configuring the Cisco TelePresence device.

---

## Creating and Configuring a Cisco TelePresence Device

The following sections describe how to create and configure a Cisco TelePresence device (endpoint) so you can register it as a Cisco Unified IP phone:

- [Adding a Cisco TelePresence Device, page 6-8](#)
- [Configuring a Cisco TelePresence Device, page 6-9](#)
- [Assigning a Directory Number to a TelePresence Device, page 6-13](#)
- [Verifying a TelePresence Device is Registered to Unified CM, page 6-13](#)
- [Adding a TelePresence Device to the Application User, page 6-14](#)

## Adding a Cisco TelePresence Device



**Note** Before you begin this procedure, note the MAC address of the Cisco TelePresence device.

---

To add a Cisco TelePresence device, follow these steps from the Cisco Unified Communications Manager Administration menu bar:

---

- Step 1** Log into the Cisco Unified CM Administration application.
- Step 2** From the Device drop-down menu, select **Phone**. The Find and List Phones Page appears.
- Step 3** Click the **Add New** button at the bottom of the window. The Add a New Phone window appears.

- Step 4** In the Add a New Phone window, click the **Phone Type** drop-down list and choose the **Cisco TelePresence** device you want to add.
- Step 5** Click **Next** to display the Phone Configuration window.
- Step 6** Proceed to [Configuring a Cisco TelePresence Device](#).

## Configuring a Cisco TelePresence Device



### Note

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

This section describes how to configure Cisco TelePresence devices and their associated parameters.

To configure the Cisco TelePresence device, perform the tasks in this section. When you are finished configuring your settings, click **Save** and follow the prompts to restart the system.

## Device Information for Cisco TelePresence Devices

- Step 1** To configure a Cisco TelePresence device, enter the information appropriate for the device you are configuring using the information in the following sections:
- [Cisco TelePresence System \(CTS\) Devices, page 6-9](#)
  - [EX and C-series Devices, page 6-11](#)

### Cisco TelePresence System (CTS) Devices

**Table 6-2** *Cisco TelePresence System Device Information*

Field	Required?	Setting
MAC Address	Yes	MAC address for the Cisco TelePresence primary codec.
Description	—	Short description of the device.
Device Pool	Yes	Any
Common Device Configuration	—	Leave field as <None>.
Phone Button Template	Yes	Standard_Cisco_TelePresence
Common Phone Profile	Yes	Standard Common Phone Profile
Calling Search Space	—	Leave field as <Any>.
Media Resource Group List	—	Leave field as <None>.
Location	Yes	Hub_None
User Locale	—	Leave field as <None>.
Network Locale	—	Leave field as <None>.
Owner User ID	—	Leave field as <None>.
Phone Load Name	—	Specify required version of Cisco TelePresence System if no device default is set.

**Table 6-2** *Cisco TelePresence System Device Information (continued)*

Field	Required?	Setting
Use Trusted Relay Point	—	Chose from the following: <ul style="list-style-type: none"><li>• Default</li><li>• On</li><li>• Off</li></ul>
Calling Party Transformation CSS	—	Leave field as <None>.

## EX and C-series Devices

To register EX, MX and C-series devices, TC version 5 or later and Unified CM version 8.6.1.20000-1 or later are required. Endpoints with a previous TC firmware version must be upgraded to version 5 before they can be registered with Unified CM and be discovered by CTS-Manager.

The TC5.0.0 firmware for the endpoints is available in both .pkg and .cop formats.

- For TC4.x to TC5.0 upgrades, use the .pkg format. The .pkg file is uploaded directly onto each endpoint. Because it is a prerequisite that the endpoint run TC5.0 to be able to register with Unified CM, you must use the .pkg file to upgrade them first, and then provision them in Unified CM.

For more information, go to the following link:

<http://www.cisco.com/cisco/software/release.html?mdfid=283645026&softwareid=280886992&release=TC5.0.0&rellifecycle=&relind=AVAILABLE&reltype=all>

- For TC5.0.0 to TC5.0.x or later upgrades, use the .cop file format. The .cop file is installed on Unified CM, which extracts the .pkg file into the TFTP directory on the Unified CM and sets the Device Defaults to point to it so that all TC endpoints registered to Unified CM will be upgraded to that .pkg version.

For more information, go to the following link:

<http://www.cisco.com/cisco/software/release.html?mdfid=283645026&softwareid=280886992&release=TC5.0.0-CUCM&rellifecycle=&relind=AVAILABLE&reltype=all>

**Table 6-3** Cisco TelePresence EX and C-series Device Information

Field	Required?	Setting
MAC Address	Yes	MAC address for the Cisco TelePresence EX or C-series primary codec.
Description	—	Short description of the device.
Device Pool	Yes	Default
Common Device Configuration	—	Leave field as <None>.
Phone Button Template	Yes	Standard_Cisco_TelePresence <endpoint model name>
Common Phone Profile	Yes	Standard Common Phone Profile
Calling Search Space	—	Leave field as <Any>.
Media Resource Group List	—	Leave field as <None>.
Location	Yes	Hub_None
User Locale	—	Leave field as <None>.
Network Locale	—	Leave field as <None>.
Owner User ID	—	Leave field as <None>.
Phone Load Name	—	Specify required version of Cisco TelePresence System if no device default is set.
Use Trusted Relay Point	—	Chose from the following: <ul style="list-style-type: none"> <li>Default</li> <li>On</li> <li>Off</li> </ul>
Calling Party Transformation CSS	—	Leave field as <None>.

- Step 2** Make sure that the following check boxes at the bottom of the Device Information section are marked as indicated:
- **Use Device Pool Calling Party Transformation CSS**—Checked
  - **Is Active**—Checked
  - **Retry Video Call as Audio**—Checked
  - **Ignore Presentation Indicators**—Unchecked
  - **Allow Control of Device from CTI**—Checked
  - **Logged Into Hunt Group**—Checked
  - **Remote Device**—Unchecked
- Step 3** (EX and C-Series Devices Only) In the Protocol Specific Information section:
- Set Device Security Profile to Standard SIP Non-secure for non-secure or create and select your own secure profile.
  - Set Sip Profile to **Standard SIP Profile**
- Step 4** (EX and C-Series, including MX200, Devices Only) In the Product Specific Configuration Layout section:
- For Room Name, enter the Exchange Conference Room Name from Microsoft Exchange  
This setting must be the email address used in Exchange (e.g. room1@cisco.com).
  - (Optional) Web Access  
This indicates whether the device will accept connections from a web browser or other HTTP client. Disabling web access for the device blocks access to the phone's internal web pages and certain support capabilities, but does not degrade normal operation. A device RESET is required for this parameter to take effect.
  - (Optional) SSH Access  
This parameter indicates whether the device accepts SSH connections. Disabling the SSH server functionality blocks certain support capabilities such as log file collection but does not degrade normal operation.
  - Default Call Protocol  
This parameter sets the default call protocol of the device. This device only supports SIP when registering to Cisco Unified Communications Manager.
  - Quality Improvement Server  
Specifies a hostname or IP address of a remote system to collect quality improvement reports from the device. Use the default hostname or IP address, unless otherwise directed by the specific device documentation.
  - Admin Username and Password  
Admin Username and Password are required for CTS-Manager to discover endpoints and provide One-Button-to-Push scheduling to them.
    - a. Enter a user ID for the admin user (default: **admin**).



**Note** Username must be between 1 and 64 characters long and cannot be “apache”, “daemon”, “nobody”, “root”, or “shutdown”.

- b. Enter a password for the admin user (default: “”).

**Note**

Password must be between 1 and 64 characters long and can only contain printable ASCII characters, except space.

**Caution**

You must configure Admin Username and Password individually on both Unified CM and the endpoint device. If the username and/or passwords do not match between Unified CM and the endpoint device, the endpoint will not be discoverable or schedulable by CTS-Manager. If you change these in the future, it is recommended that you do so immediately before a maintenance cycle. If you do it during another time, you must go to **Configure > Unified CM**, select the Unified CM to which the endpoint is registered and click **Discover Rooms**.

- Step 5** Click **Save** to save your settings.

The Phone Configuration screen appears.

Proceed to [Assigning a Directory Number to a TelePresence Device](#).

## Assigning a Directory Number to a TelePresence Device

In the Phone Configuration screen for the TelePresence device you configured, do the following to assign a directory number to the TelePresence Device:

- Step 1** Under Association Information, click **Add a new DN**
- Step 2** Under Directory Number Information, enter a phone number for your TelePresence device in the Directory Number field.
- Step 3** Click **Save**.
- Step 4** Verify that the Associated Devices field contains information that begins with “SEP” (Example: SEP6C504EDA443C).
- Step 5** In the Line 1 on Device section, toward the bottom of the page, enter a name for your endpoint in the Display (Internal Caller ID) field.

**Note**

If this field is left blank, the endpoint name will not display properly in the WebEx participant’s list for TelePresence meetings with WebEx.

- Step 6** Click **Apply Config**.
- Step 7** Click **OK** to confirm.

## Verifying a TelePresence Device is Registered to Unified CM

After assigning a directory number to a TelePresence device, you can verify that the device is now registered to Unified CM by doing the following:

- 
- Step 1** First, you must find the device:
- a. From the Device drop-down menu, select **Phone**. The Find and List Phones Page appears containing a list of configured phones.  
If a list of configured phones is not displayed, click the plus sign (+) under **Find and List Phones**.
  - b. To find all phones that are registered in the database, follow these steps:
    - a. Choose **Device Name** from the list of fields.
    - b. Choose **is not empty** from the list of patterns.
    - c. Click **Find**.
- Or
- a. Choose the appropriate search pattern for your text search (for example, “Begins with”).
  - b. Enter your search text in the **Find** field.
  - c. Click **Find**.
- Step 2** Under Device Name, the TelePresence device name should appear and under the Status column make sure that the device is shown as “Registered with” the name of the Unified CM.
- 

## Adding a TelePresence Device to the Application User

The final step to making a TelePresence device schedulable through CTS-Manager, is to add the TelePresence device to the application user used by CTS-Manager. For more information, refer to [Cisco Unified Communications Manager Configuration Guide for Cisco TelePresence System](#) for the steps to perform this.





## CHAPTER 7

# Installing and Configuring Cisco PreQualification Assistant

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First Published: Nov 2, 2011, OL-22226-01

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- [Calendar Server \(Microsoft Exchange\) Host Configuration Form, page 7-20](#)
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- [Test Configuration Forms in a Microsoft Exchange Web Services \(EWS\) Environment, page 7-30](#)
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# Introduction

This chapter explains how to install and configure the Cisco TelePresence Manager PreQualification Assistant tool.

It is important to install and run the PreQualification Assistant to ensure that the preconfiguration setup is performed correctly. The data you enter into the Tool Test Configuration forms are used to verify connections to the servers and validate data from them that is used to configure CTS-Manager.

## Pre-Configuration Procedure Guidelines for Checking Initial Network Setup

This table provides a guideline for the procedures you will need to reference in order to check the setup of the network **before** installing Cisco TelePresence Manager.

This table also lists the next couple to tasks to be performed when installing the CTS-Manager system.

**Table 7-1** *Pre-Configuration Guidelines for Testing the System Network Setup for CTS-Manager*

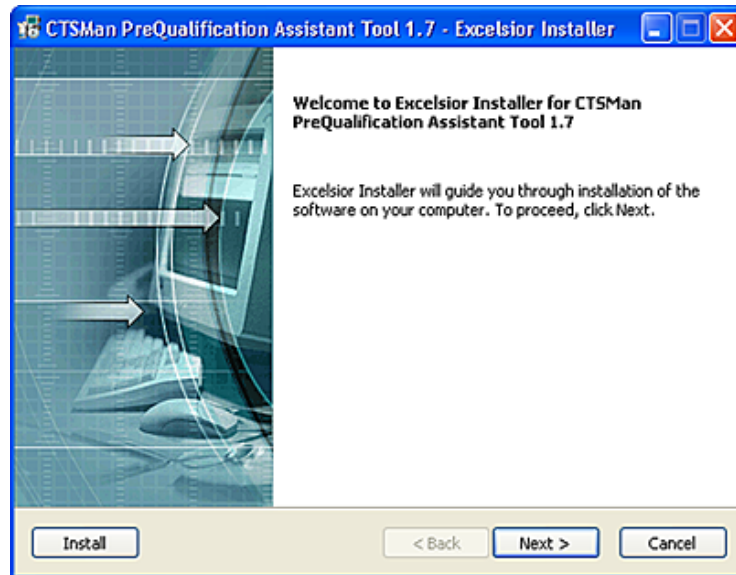
Setup Procedure Guidelines before Installing CTS-Manager	Description	Location
Install and configure PreQualification Assistant	Install, configure, and run the PreQualification Assistant to ensure that your preconfiguration setup is performed correctly. The data you enter into the Tool Test Configuration forms are used to verify connections to the servers and get data from them to be used to configure CTS-Manager	Current Chapter.
<b>Next Step after Pre-Configuration</b>		
(For installations on UCS server only) Configuring the UCS Server and VMware for Cisco TelePresence Manager	1	<a href="#">Chapter 8, “Configuring UCS Server and VMware for Cisco TelePresence Manager”</a>
Install or Upgrade Cisco TelePresence Manager		<a href="#">Chapter 9, “Installing or Upgrading Cisco TelePresence Manager”</a>

# Installing the PreQualification Assistant Tool

After you have downloaded the PreQualification executable, use the following procedures to install the tool.

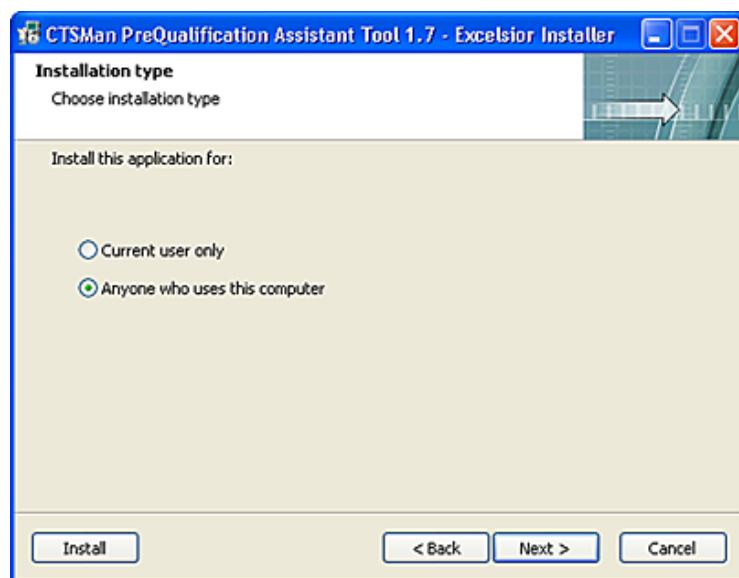
- Step 1** Double-click the executable to begin the install process. After the Installer window appears, click the **Next** button.

*Figure 7-1 PreQualification Assistant Installer Window*



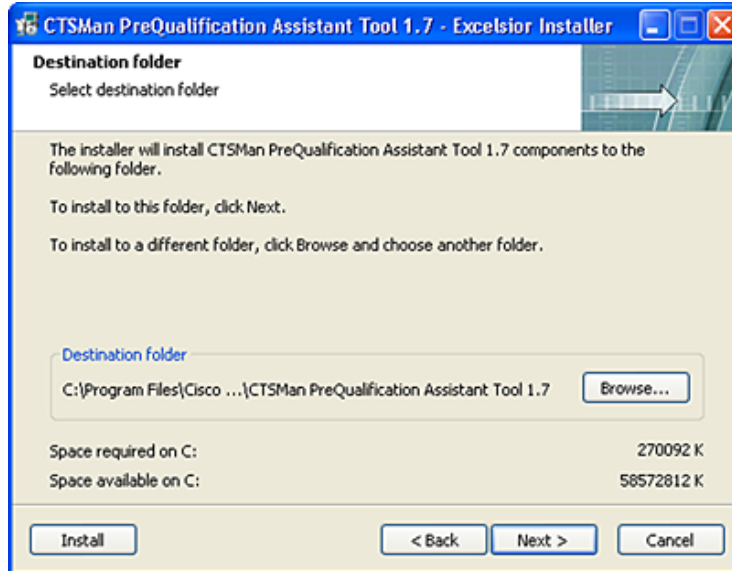
- Step 2** Specify if the application is to be a personal profile or can be used by others. Then click the **Next** button.

*Figure 7-2 Installation Type Window*



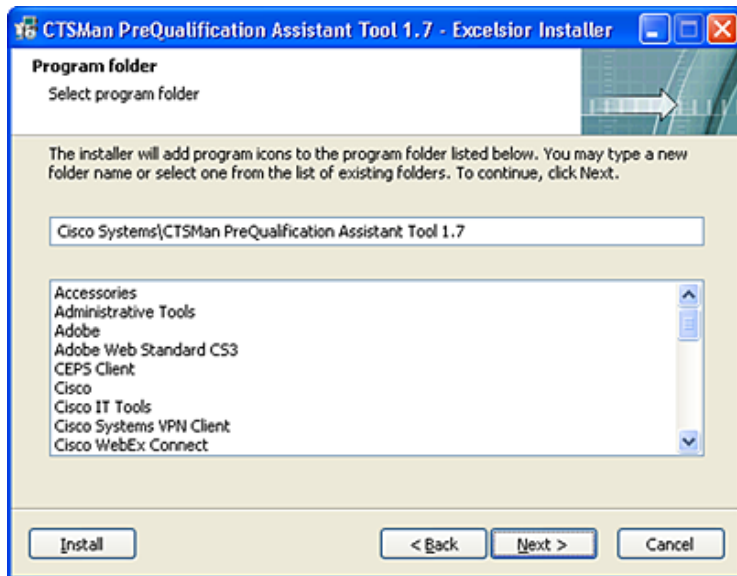
- Step 3** Review and accept the destination folder defaults and click the **Next** button.

Figure 7-3 Destination Folder Window

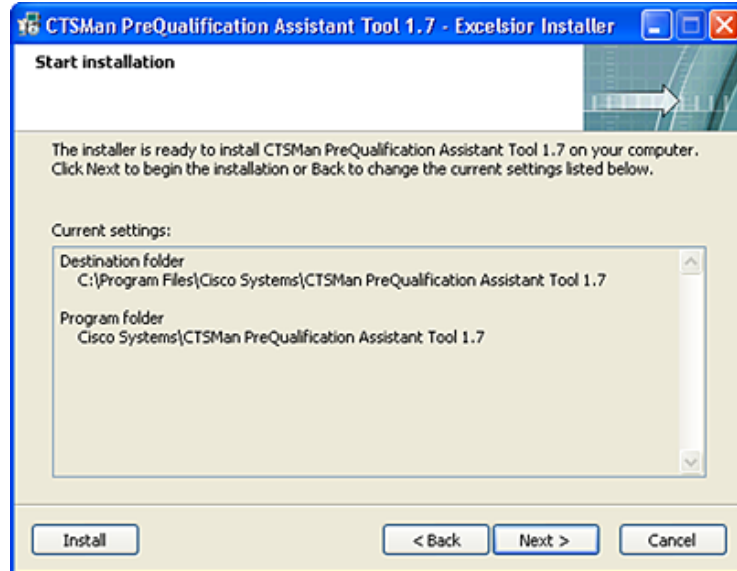


Step 4 Review the program folder destination, accept the defaults and click the **Next** button.

Figure 7-4 Program Folder Window



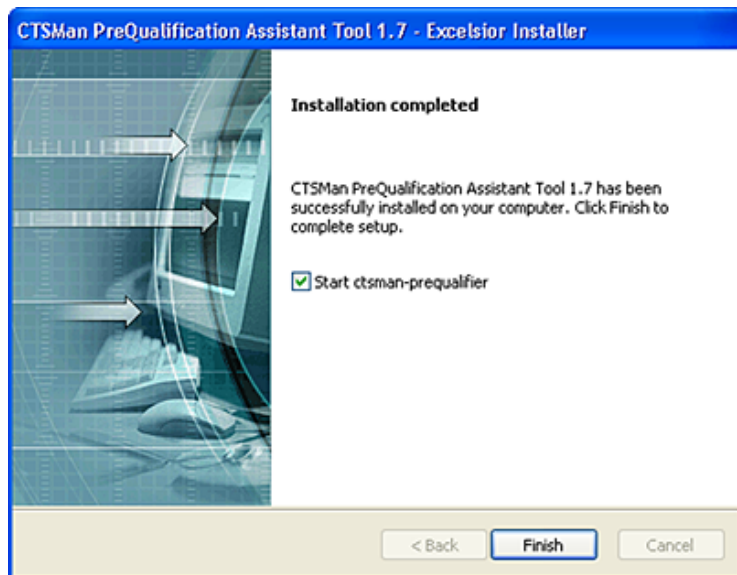
Step 5 In the Start Installation window, review the folder information and if correct, click the **Next** button.

**Figure 7-5** Start Installation Window

**Step 6** If you are ready to finalize the installation, click **Finish** button.

**Note**

Uncheck the **Start** checkbox if you don't want to launch the tool immediately after completing the installation.

**Figure 7-6** Installation Completed Window

### Uninstalling a Previous Version

Uninstall previous versions using the PreQualification uninstaller.

**Note**

The directory is not removed at the end of the uninstall.

To uninstall the CTS-Manager PreQualification Assistant Tool:

- 
- Step 1** Close the window.
  - Step 2** Open the Windows Task Manager window on the PC and notice that both the uninstall processes are still running.
  - Step 3** In the Task Manager window, to the processes Tab and look for the PreQualification UI. Highlight it and click **End Process**.
  - Step 4** Go to the Control Panel, Add or Remove Programs. Remove the PreQualification program. This will terminate the directory and it can be removed.
- 

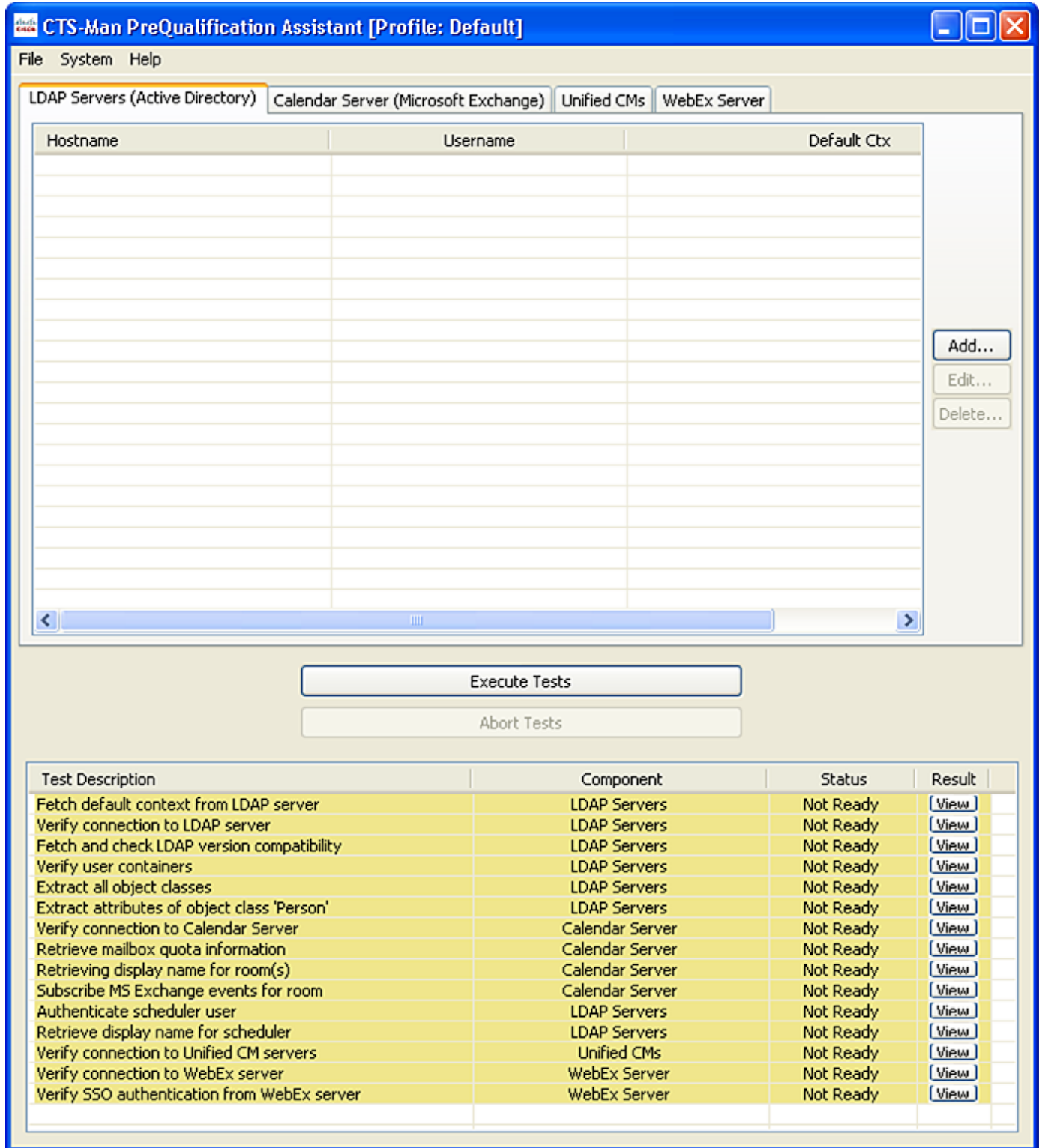
## Running the Tool - Using the Tool Application Window

The CTS-Manager PreQualification tool allows administrators to determine if any changes are needed to their network to support a CTS-Manager installation.

The tool runs a series of tests to determine if your LDAP server, Calendar server, and Cisco Unified CM configurations meet the requirements to support CTS-Manager. The set of tests you run are determined by the Calendar server running on your network (IBM Domino or Microsoft Exchange). You can also run a set of tests without specifying a calendar server.

In order to run a series of tests you need to provide the tool with configuration information for your LDAP servers, Calendar server, Cisco Unified CM servers and WebEx server. The four-tabbed window displays the information that is configured for the servers. To add, edit or delete this information, use the Add, Edit, or Delete buttons to access the host configurations forms used to enter configuration data.

**Figure 7-7      Tool Application Window**



The Tool application runs a series of tests to determine if your LDAP server, Calendar server, and Cisco Unified CM server configurations meet the requirements to support CTS-Manager. The set of tests you run are determined by the Calendar server running on your network (IBM Domino, Microsoft Exchange (Active Directory), or Microsoft Exchange EWS). You can also run a set of tests without specifying a Calendar server.

The lower part of the window displays the status of each test after clicking the Execute Tests button. Once you have run a set of tests you can view the results of each test in a Test Result window. The test results contain troubleshooting data needed to prepare your LDAP servers, Calendar server, and Cisco Unified CM servers to work with CTS-Manager.

If additional analysis is required to prepare your network, you can create a zip file for technical support that includes all the test results.

The Tool application window has three main areas which are explained in the following sections.

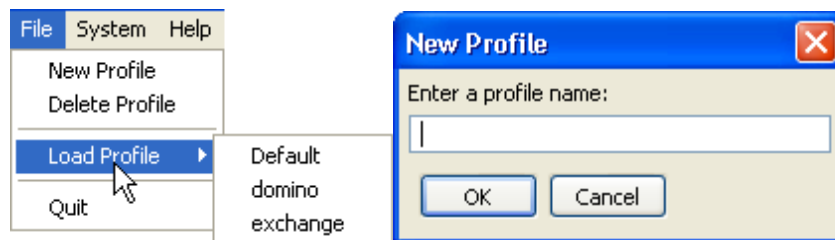
## Menu Commands

The following sections describe the commands in the File menu.

### File Menu Commands

- The **New Profile** command saves all the Test form field values you have entered to a profile that can be used again.
- The **Delete Profile** command asks you to confirm your deletion of the active profile.
- The **Load Profile** command lists the saved profiles. You can choose which profile you want to use to run the PreQualification tests.

**Figure 7-8** File Menu Commands



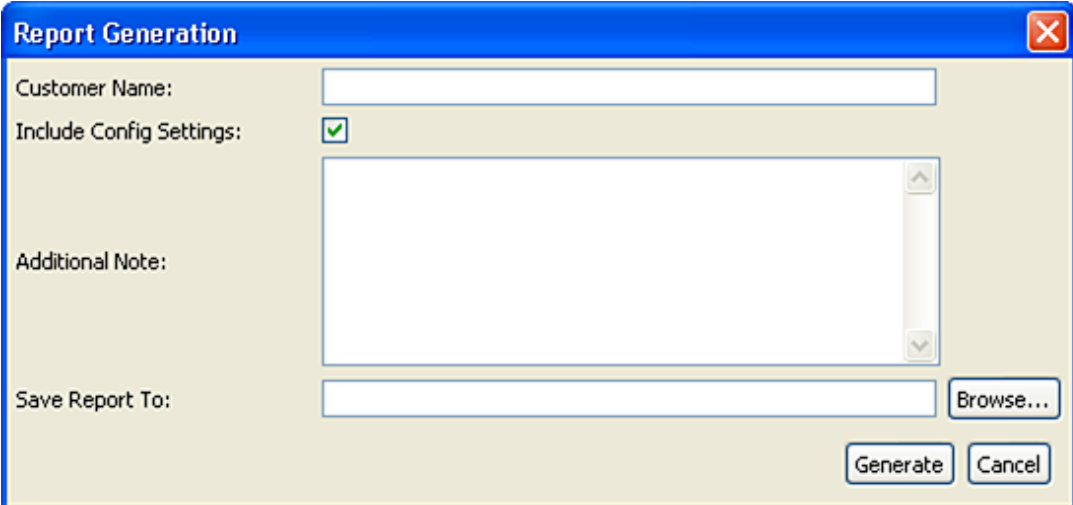
### System Menu Command

- The **Select Calendar Server** lists the Calendar servers. Choose either None, Microsoft Exchange, Domino, or Microsoft Exchange EWS to display the corresponding Test Configuration forms.
- The **Execute Tests** command performs the same function as the Execute Tests button displayed above the Test Status list at the bottom of the application window.
- The **Collect Logs** command collects all the tests you've run into a zip file to make it easy to transport the results to Cisco Technical Support, refer to [Figure 7-9](#).



- If you check the **Include Config Settings** checkbox, the values you entered into the Host Configuration forms are collected and included in the zipped report.

**Figure 7-9** Report Generation Window

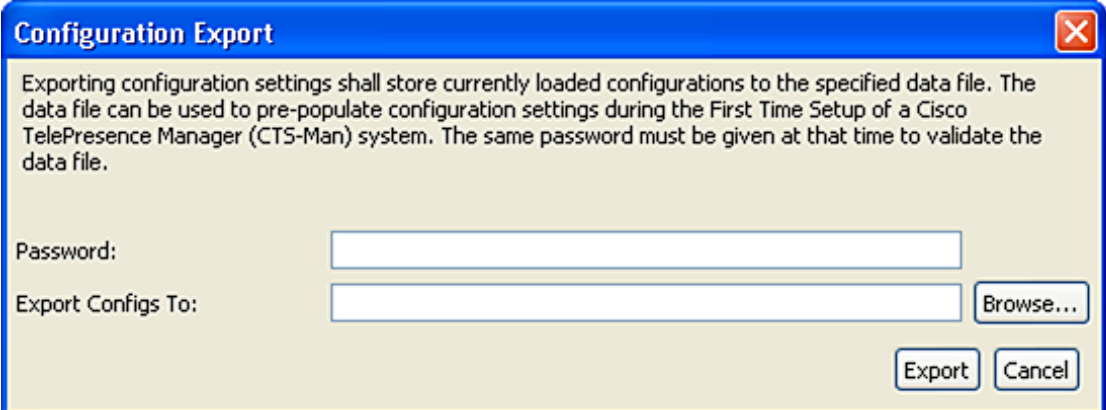


The **Report Generation** window has a blue title bar with a close button. It contains the following fields and controls:

- Customer Name:** A text input field.
- Include Config Settings:** A checkbox that is checked, with a green checkmark icon to its right.
- Additional Note:** A large text area with a vertical scrollbar.
- Save Report To:** A text input field followed by a **Browse...** button.
- Generate** and **Cancel** buttons at the bottom right.

- The **System > Export Configurations** selection allows you to export all the configurations you have saved to a data file.

**Figure 7-10** LDAP Configuration Export Window



The **Configuration Export** window has a blue title bar with a close button. It contains the following text and controls:

Exporting configuration settings shall store currently loaded configurations to the specified data file. The data file can be used to pre-populate configuration settings during the First Time Setup of a Cisco TelePresence Manager (CTS-Man) system. The same password must be given at that time to validate the data file.

- Password:** A text input field.
- Export Configs To:** A text input field followed by a **Browse...** button.
- Export** and **Cancel** buttons at the bottom right.

## Host Configuration Window

The PreQualification Configuration window presents four areas, selected by individual tabs. The tabs display the LDAP server, Calendar server and Unified CM server configurations you've chosen from the Select Calendar Server command in the System menu.



### Note

The Test and Add/Edit Configuration Form fields and how they are used are described in the [Using PreQualification Configuration Forms](#) section.

## Test Status Window

The bottom of the application window lists the tests available. This will change depending on which server type is chosen. The Component area lists which tests are available for each server type.

**Figure 7-11** The Test Status Window

Test Description	Component	Status	Result
Fetch default context from LDAP server	LDAP Servers	Not Ready	<a href="#">View</a>
Verify connection to LDAP server	LDAP Servers	Not Ready	<a href="#">View</a>
Fetch and check LDAP version compatibility	LDAP Servers	Not Ready	<a href="#">View</a>
Verify user containers	LDAP Servers	Not Ready	<a href="#">View</a>
Extract all object classes	LDAP Servers	Not Ready	<a href="#">View</a>
Extract attributes of object class 'Person'	LDAP Servers	Not Ready	<a href="#">View</a>
Verify connection to Calendar Server	Calendar Server	Not Ready	<a href="#">View</a>
Retrieve mailbox quota information	Calendar Server	Not Ready	<a href="#">View</a>
Retrieving display name for room(s)	Calendar Server	Not Ready	<a href="#">View</a>
Subscribe MS Exchange events for room	Calendar Server	Not Ready	<a href="#">View</a>
Authenticate scheduler user	LDAP Servers	Not Ready	<a href="#">View</a>
Retrieve display name for scheduler	LDAP Servers	Not Ready	<a href="#">View</a>
Verify connection to Unified CM servers	Unified CMs	Not Ready	<a href="#">View</a>
Verify connection to WebEx server	WebEx Server	Not Ready	<a href="#">View</a>
Verify SSO authentication from WebEx server	WebEx Server	Not Ready	<a href="#">View</a>

**Table 7-2** Test Status Columns

<b>Test Description</b>	This column describes the test.
<b>Component</b>	This column displays the type of test available on the different servers.
<b>Status</b>	<p>This column displays the status of the test. The statuses are:</p> <ul style="list-style-type: none"> <li>• <b>Not Ready</b> - All the required Test Configuration Form fields do not have values.</li> <li>• <b>Ready</b> - All the required Test Configuration Form fields have the required values entered.</li> <li>• <b>Not Applicable</b> - The test will not be run, because the LDAP/Calendar server does not need the test results</li> <li>• <b>Failed</b> - The test did not pass. Refer to the Test Results window by clicking the <b>View</b> button to the right of the failed test.</li> <li>• <b>Passed</b> - The test passed. There are no configuration changes needed to support the test results.</li> </ul>
<b>Result</b>	This column contains the View buttons for viewing the results for each test.



If it is necessary to change the configuration of one, highlight the line, and click the **Edit** button to change the configuration.

To remove one, highlight it and then click the **Delete** button.

When adding a Unified CM, click the **Add** button and the following Host Configuration window appears.

**Figure 7-13** The Cisco Unified CM Add/Edit Configuration Form

**Table 7-3** The Cisco Unified CM Add/Edit Configuration Form Fields

Field Name	Field Value
Host	The hostname or IP address of Cisco Unified CM
Bind Mode	This is always set to secure mode.
Port	This is always set to port 8443.
Username	Login account with Cisco Unified CM Application User account name. The admin username is not needed.
Password	Password for Cisco Unified CM. Again, the Application User account
Certificate	The full pathname to the Cisco Unified CM security certificate.
Save	Use this button to save the configuration.
Cancel	Cancel from this window if not adding a new Unified CM or editing the configuration.

## Test(s) Enabled by the Host Configuration Form

- Verify connection to Cisco Unified CM servers.

## Test Host Configuration Forms in a Generic Environment

You can use the PreQualification Tool to test your LDAP server without specifying a calendar server. This applies when the user selects Calendar Server, “None.”

This window lists all the generic LDAP servers that have been configured for the CTS-Manager. If all of the servers have been configured, use the Execute Tests button to make sure that they have been configured correctly.

**Figure 7-14** LDAP Server Generic Window

Test Description	Component	Status	Result
Verify connection to LDAP server	LDAP Servers	Not Ready	<a href="#">View</a>
Verify user containers	LDAP Servers	Not Ready	<a href="#">View</a>
Extract all object classes	LDAP Servers	Not Ready	<a href="#">View</a>
Extract attributes of object class 'Person'	LDAP Servers	Not Ready	<a href="#">View</a>
Authenticate scheduler user	LDAP Servers	Not Ready	<a href="#">View</a>
Retrieve display name for scheduler	LDAP Servers	Not Ready	<a href="#">View</a>

If it is necessary to change the configuration of one, highlight the line, and click the **Edit** button to change the configuration and the Host Configuration window appears, refer to [Figure 7-15](#).

To remove one, highlight it and then click the **Delete** button.

When adding another LDAP server, click the **Add** button and the following configuration window appears.

Select the Unified CM's tab. This window lists all the generic Cisco Unified CMs that have been configured for the CTS-Manager. If all of the Unified CMs have been configured, use the Execute Tests button to make sure that they have been configured correctly.

## LDAP (Generic) Test Configuration Form

*Figure 7-15 The LDAP Server (Generic) Add/Edit Configuration Form*

**LDAP Server**

**Host Configuration**

Host:

Bind Mode: ☒ Normal ☐ Secure

Port:

Username:

Password:

Certificate:

Default Context:  Default Server: ☐ Default ☒ NonDefault

**Scheduler Authentication**

User Containers:

Scheduler Username:

Scheduler Password:

Login Attribute (EmailID):

**Table 7-4 The LDAP Server (Generic) Add/Edit Configuration Form Fields**

Field Name	Field Value
Host	The hostname or IP address of the LDAP server.
Bind Mode	If you set this to secure you'll need to provide a security certificate.
Port	In Normal bind mode the port setting is 389. In Secure bind mode the port setting default is 636.
Username	Enter the Active Directory user account username as the user fully qualified domain name (not the login name).  <b>Note</b> You also include the default context in the Username field. Examples are: <i>cn=administrator, cn=users,</i> <i>dc=mycompany, dc=com.</i>
Password	Password for LDAP server with administrative privileges.
Certificate	The full pathname to the LDAP security certificate. This is needed only if you are using the Secure Bind Mode.
NonDefault or Default Context	The NonDefault button is selected as the default. To change this, select Default and enter the default context in the form: <i>o=ciscoDev</i>
<b>Scheduler Authentication</b>	
User Containers	The containers from which queries are performed to retrieve user objects. More than one user container or user object can be specified. The Cisco Telepresence server uses the values entered to search through the containers in sequence to retrieve user and meeting room information from the Directory Server. Additionally, these containers are used to retrieve user information for authentication.  User containers are entered in the Entry field above the User Containers field. Use the Add button to add a user container to the list. To delete a user container from the list, select the specific user container and click Delete.
Scheduler Username	When the user selects "None" option, then this is not needed for generic LDAP environment, otherwise use your logon name.

**Table 7-4      The LDAP Server (Generic) Add/Edit Configuration Form Fields (continued)**

Field Name	Field Value
Scheduler Password	When the user selects “None” option, then this is not needed for generic LDAP environment, otherwise use the same as the Password for LDAP server with administrative privileges
Login Attribute (EmailID)	For “None” option use “mail” or for Exchange 2007 use “proxy Address.”

**Test(s) Enabled by this Test Configuration Form**

- Verify connection to LDAP server
- Verify user containers
- Extract all object classes
- Extract attributes of object class ‘Person’

## Test Configuration Forms in a Microsoft Exchange Environment

You can use the PreQualification Tool to test your LDAP server when specifying a Microsoft (Active Directory) calendar server. This applies when the user selects Calender Server, “Microsoft Exchange.”

This window lists all the LDAP servers that have been configured for the CTS-Manager. If all of the servers have been configured, use the Execute Tests button to make sure that they have been configured correctly.



[illegible]

When adding a LDAP server, click the **Add** button and the following configuration window appears.

## LDAP Server (Active Directory) Test Configuration Form

Figure 7-17 The LDAP Server (Active Directory) Add/Edit Configuration Form

Test Description	Component	Status	Result
Verify connection to LDAP server	LDAP Servers	Not Ready	<a href="#">View</a>
Verify user containers	LDAP Servers	Not Ready	<a href="#">View</a>

Table 7-5 The LDAP Server (Active Directory) Test Configuration Form Fields

Field Name	Field Value
Host	The hostname or IP address of the LDAP server.
Bind Mode	If you set this to secure you'll need to provide a security certificate.
Port	In Normal bind mode the port setting is 389. In Secure bind mode the port setting default is 636.
NonDefault or Default Context	The NonDefault button is selected as the default. To change this, select enter the default context in the form <i>dc=mycompany, dc=com</i>

**Table 7-5 The LDAP Server (Active Directory) Test Configuration Form Fields (continued)**

Field Name	Field Value
Username	<p>Enter the Username as the user fully qualified domain name.</p> <p><b>Note</b> You also include the default context in the Username field. Examples are:  <i>cn=administrator, cn=users, dc=mycompany, dc=com.</i></p>
Password	Password for LDAP server with administrative privileges.
Certificate	The full pathname to the LDAP security certificate. This is needed only if you are using the Secure Bind Mode.
User Containers	<p>The containers from which queries are performed to retrieve user objects. More than one user container or user object can be specified. Cisco TelePresence Manager uses the values entered to search through the containers in sequence to retrieve user and meeting room (endpoint) information from the Directory Server. Additionally, these containers are used to retrieve user information for authentication.</p> <p>User containers are entered in the Entry field above the User Containers field. Use the Add button to add a user container to the list. To delete a user container from the list, select the specific user container and click Delete.</p>
Scheduler Username	The scheduler username is the value of an end user ID.
Scheduler Password	When the user selects “None” option, then this is not needed for generic LDAP environment, otherwise use the same as the Password for LDAP server with administrative privileges
Login Attribute (EmailID)	For “None” option use “mail”

**Test(s) Enabled by this Test Configuration Form**

- Verify connection to LDAP server
- Verify user containers
- Extract all object classes
- Extract attributes of object class “Person”
- Retrieve display name for scheduler
- Authenticate scheduler user

## Calendar Server (Microsoft Exchange) Host Configuration Form

Figure 7-18 The Calendar Server (Microsoft Exchange) Host Configuration Form

CTS-Man PreQualification Assistant [Profile: Default]

File System Help

LDAP Servers (Active Directory) Calendar Server (Microsoft Exchange) Unified CMs WebEx Server

**Host Configuration**

Host: 192.168.10.11

Bind Mode: ☐ Normal ☒ Secure

Port: 443

SMTP Domain: tsbu-tme.com

Logon Name: ctsman

SMTP LHS: ctsman

Password: \*\*\*\*\*

Certificate: C:\Documents and Settings\aglowack\Desktop\2007\exch.cer [Browse...](#)

**Room Subscription**

Room Email IDs: room2@tsbu-tme.com  
room3@tsbu-tme.com  
room1@tsbu-tme.com [Add...](#) [Delete...](#)

[Execute Tests](#) [Abort Tests](#)

Test Description	Component	Status	Result
Fetch default context from LDAP server	LDAP Servers	Ready	<a href="#">View</a>
Verify connection to LDAP server	LDAP Servers	Ready	<a href="#">View</a>
Fetch and check LDAP version compatibility	LDAP Servers	Ready	<a href="#">View</a>
Verify user containers	LDAP Servers	Ready	<a href="#">View</a>
Extract all object classes	LDAP Servers	Ready	<a href="#">View</a>
Extract attributes of object class 'Person'	LDAP Servers	Ready	<a href="#">View</a>
Verify connection to Calendar Server	Calendar Server	Ready	<a href="#">View</a>

Table 7-6 The Calendar Server (Microsoft Exchange) Host Configuration Fields

Field Name	Field Value
Host	The hostname or IP address of the Exchange server.
Bind Mode	If you set this to secure you'll need to provide a security certificate.
Port	In Normal bind mode the port setting is 80. In Secure bind mode the port setting default is 443.
SMTP LHS	Enter the CTS-Manager account or test account for full access or read access to rooms (endpoints).
Password	Enter the password for the CTS-Manager test account or Exchange administrative account, using English characters only.

**Table 7-6      The Calendar Server (Microsoft Exchange) Host Configuration Fields (continued)**

Field Name	Field Value
Certificate	The full pathname to the Exchange security certificate. This is needed only if you are using the Secure Bind Mode.
Logon Name	Enter the logon name for the full access or read access privileges to rooms (endpoints). Enter the logon name in the same form as the SMTP LHS.
Domain	Enter the domain for the logon name.
Room Email IDs	Enter the full email address for each CTS endpoint, up to 5.

**Test(s) Enabled by this Test Configuration Form**

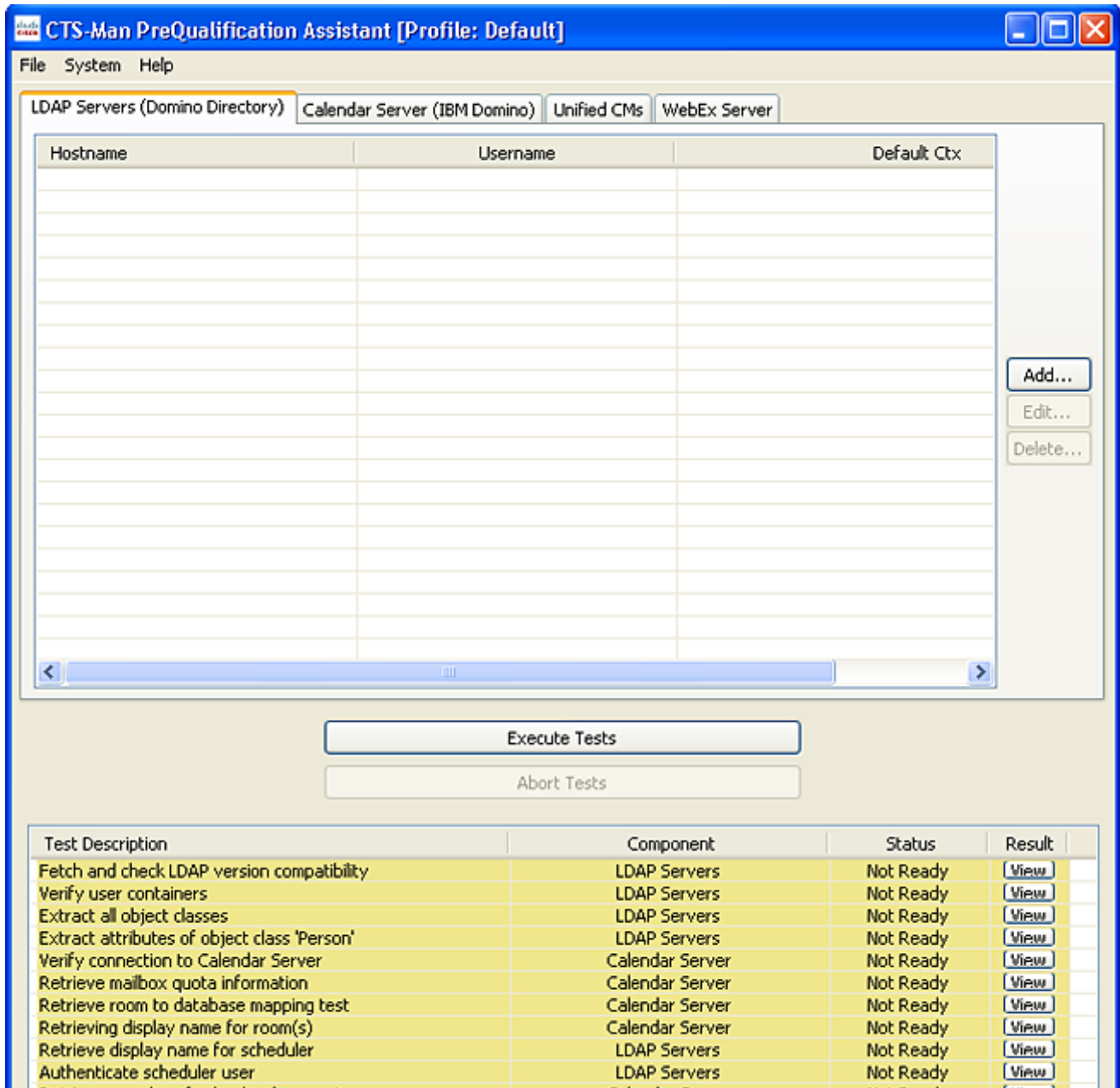
- Verify connection to Calendar Server
- Retrieve mailbox quota information
- Retrieving display name for room(s) (endpoints)
- Subscribe MS Exchange events for room (endpoint)

## Test Configuration Forms in an IBM Domino Environment

You can use the PreQualification Assistant to test your LDAP server when specifying a IBM Domino calendar server. This applies when the user selects Calender Server, “Microsoft Exchange.”

This window lists all the LDAP servers that have been configured for the CTS-Manager. If all of the servers have been configured, use the Execute Tests button to make sure that they have been configured correctly.

Figure 7-19 LDAP Server IBM Domino Window



This window lists all the LDAP (Domino Directory) servers that have been configured for the CTS-Manager. If all of the LDAP servers have been configured, use the **Execute Tests** button to make sure that they have been configured correctly.

If it is necessary to change the configuration of one, highlight the line, and click the **Edit** button to change the configuration.

To remove one, highlight it and then click the **Delete** button.

When adding a LDAP server, click the **Add** button and the following configuration window appears.

## LDAP (Domino Directory) Host Configuration Form

Figure 7-20 The LDAP Server (Domino Directory) Add/Edit Configuration Form

**LDAP Server**

**Host Configuration**

Host:

Bind Mode: ☒ Normal ☐ Secure

Port:

Username:

Password:

Certificate:

Default Context:  Default Server: ☐ Default ☒ NonDefault

**Scheduler Authentication**

User Containers:

Scheduler Username:

Scheduler Password:

Login Attribute (EmailID):

Table 7-7 The LDAP Server (Domino Directory) Test Configuration Form Fields

Field Name	Field Value
Host	The hostname or IP address of the LDAP server.
Bind Mode	If you set this to secure you'll need to provide a security certificate.
Port	In Normal bind mode the port setting is 389. In Secure bind mode the port setting default is 636.
Username	Enter the Active Directory user account username (not the logon name) in the form <i>cn=ctm account</i>  <b>Note</b> You must also include the default context in the Username field. For example, <i>cn=ctm account,o=ciscoDev</i> .
Password	Password for LDAP server with read privileges.

**Table 7-7 The LDAP Server (Domino Directory) Test Configuration Form Fields (continued)**

Field Name	Field Value
Certificate	The full pathname to the LDAP security certificate. This is needed only if you are using the Secure Bind Mode.
Default Context	Enter the default context in the form <i>o=ciscoDev</i>
<b>Scheduler Authentication</b>	
User Containers	<p>The containers from which queries are performed to retrieve user objects. More than one user container or user object can be specified. The Cisco Telepresence server uses the values entered to search through the containers in sequence to retrieve user and meeting room (endpoint) information from the Directory Server. Additionally, these containers are used to retrieve user information for authentication.</p> <p>User containers are entered in the Entry field above the User Containers field. Use the Add button to add a user container to the list. To delete a user container from the list, select the specific user container and click Delete.</p>
Scheduler Username	The scheduler username is the value of an end user ID (the logon name).
Scheduler Password	When the user selects “None” option, then this is not needed for generic LDAP environment, otherwise use the same as the Password for LDAP server with administrative privileges
Login Attribute (EmailID)	For this field use “mail”.

**Test(s) Enabled by the Execute Tests button**

- Fetch and check LDAP version compatibility
- Verify user containers
- Extract all object classes
- Extract attributes of object class “Person”
- Retrieve display name for scheduler
- Authenticate scheduler user
- Verify connection to Unified CM servers



## Calendar Server (IBM Domino) Configuration Form

You can use the PreQualification Assistant to test your LDAP Calendar server configurations when specifying a IBM Domino Calendar server. This applies when from the pull-down menu, the user selects **System > Select Calendar Server > IBM Domino**.

The Calendar Server (IBM Domino) window appears as shown in [Figure 7-21](#)

**Figure 7-21** The Calendar Server (Domino Directory) Add/Delete Configuration Form

Test Description	Component	Status	Result
Fetch and check LDAP version compatibility	LDAP Servers	Not Ready	<a href="#">View</a>
Verify user containers	LDAP Servers	Not Ready	<a href="#">View</a>
Extract all object classes	LDAP Servers	Not Ready	<a href="#">View</a>
Extract attributes of object class 'Person'	LDAP Servers	Not Ready	<a href="#">View</a>
Verify connection to Calendar Server	Calendar Server	Not Ready	<a href="#">View</a>
Retrieve mailbox quota information	Calendar Server	Not Ready	<a href="#">View</a>
Retrieve room to database mapping test	Calendar Server	Not Ready	<a href="#">View</a>
Retrieving display name for room(s)	Calendar Server	Not Ready	<a href="#">View</a>
Retrieve display name for scheduler	LDAP Servers	Not Ready	<a href="#">View</a>
Authenticate scheduler user	LDAP Servers	Not Ready	<a href="#">View</a>
Retrieve samples of calendar documents	Calendar Server	Not Ready	<a href="#">View</a>
Verify connection to Unified CM servers	Unified CMs	Not Ready	<a href="#">View</a>

This window lists the Calendar server that has been configured for the CTS-Manager. If the server and the room (endpoint) subscriptions have been configured, use the Execute Tests button to make sure that they have been configured correctly.

If it is necessary to add the room email ID, enter the room email ID and click the **Add** button.

To remove one, highlight it and then click the **Delete** button.

**Table 7-8 The Calendar Server (IBM Domino) Host Configuration Form Fields**

Field Name	Field Value
Host	The hostname or IP address of the Domino Calendar server.
Bind Mode	If you set this to secure you'll need to provide a security certificate.
Port	In Normal bind mode the port setting is 80. In Secure bind mode the port setting default is 443.
Organization Name	Enter the Domino Organization name.
Username	Enter the account name used to log on to the Domino server. The format is determined by the Email ID fields in the Person object classes and attributes.
Password	Enter the password for the username. The user must have a minimum of read permission on the resource database being used to test.
Certificate	The full pathname to the Domino security certificate. This is needed only if you are using the Secure Bind Mode.
Resource DB	Enter the name of the resource DB. For example, <i>Telepres.nsf</i> .
<b>Room Subscription</b>	
Room Email IDs	Enter the full email id for each CTS endpoint. The format for each Email id is: <i>Testendpoint/Site1</i>

#### Test(s) Enabled by the Execute Tests button

- Verify connection to Calendar Server
- Retrieve mailbox quota information
- Retrieve room (endpoint) to database mapping test
- Retrieving display name for room(s) (endpoints)
- Retrieve samples of calendar documents

## Cisco Unified Communications Manager Server (IBM Domino) Configuration Window

This window lists all the Cisco Unified CM (Unified CM) servers that have been configured for the CTS-Manager. If all of the Unified CM servers have been configured, use the Execute Tests button to make sure that they have been configured correctly.

If it is necessary to change the configuration of one, highlight the line, and click the **Edit** button to change the configuration.

To remove one, highlight it and then click the **Delete** button.

When adding a Unified CM, click the **Add** button and the following Host Configuration window appears.

The screenshot shows the CTS-Man PreQualification Assistant application. The title bar reads "CTS-Man PreQualification Assistant [Profile: Default]". The menu bar includes "File", "System", and "Help". Below the menu bar are four tabs: "LDAP Servers (Domino Directory)", "Calendar Server (IBM Domino)", "Unified CMs", and "WebEx Server". The "Unified CMs" tab is currently selected.

The main area contains a large table with two columns: "Hostname" and "Username". The table is empty. To the right of the table are three buttons: "Add...", "Edit...", and "Delete...".

Below the table are two buttons: "Execute Tests" and "Abort Tests".

At the bottom of the window is a results table with four columns: "Test Description", "Component", "Status", and "Result". The table contains several rows of test results, all showing "Not Ready" status.

Test Description	Component	Status	Result
Fetch and check LDAP version compatibility	LDAP Servers	Not Ready	<a href="#">View</a>
Verify user containers	LDAP Servers	Not Ready	<a href="#">View</a>
Extract all object classes	LDAP Servers	Not Ready	<a href="#">View</a>
Extract attributes of object class 'Person'	LDAP Servers	Not Ready	<a href="#">View</a>
Verify connection to Calendar Server	Calendar Server	Not Ready	<a href="#">View</a>
Retrieve mailbox quota information	Calendar Server	Not Ready	<a href="#">View</a>
Retrieve room to database mapping test	Calendar Server	Not Ready	<a href="#">View</a>
Retrieving display name for room(s)	Calendar Server	Not Ready	<a href="#">View</a>
Retrieve display name for scheduler	LDAP Servers	Not Ready	<a href="#">View</a>
Authenticate scheduler user	LDAP Servers	Not Ready	<a href="#">View</a>
Retrieve samples of calendar documents	Calendar Server	Not Ready	<a href="#">View</a>
Verify connection to Unified CM servers	Unified CMs	Not Ready	<a href="#">View</a>

When adding an LDAP server, click the **Add** button and the following configuration window appears.

## LDAP (Domino Directory) Host Configuration Form

**Figure 7-23** The Cisco Unified CM Add/Edit Configuration Form

**Table 7-9** The Cisco Unified CM Add/Edit Configuration Form Fields

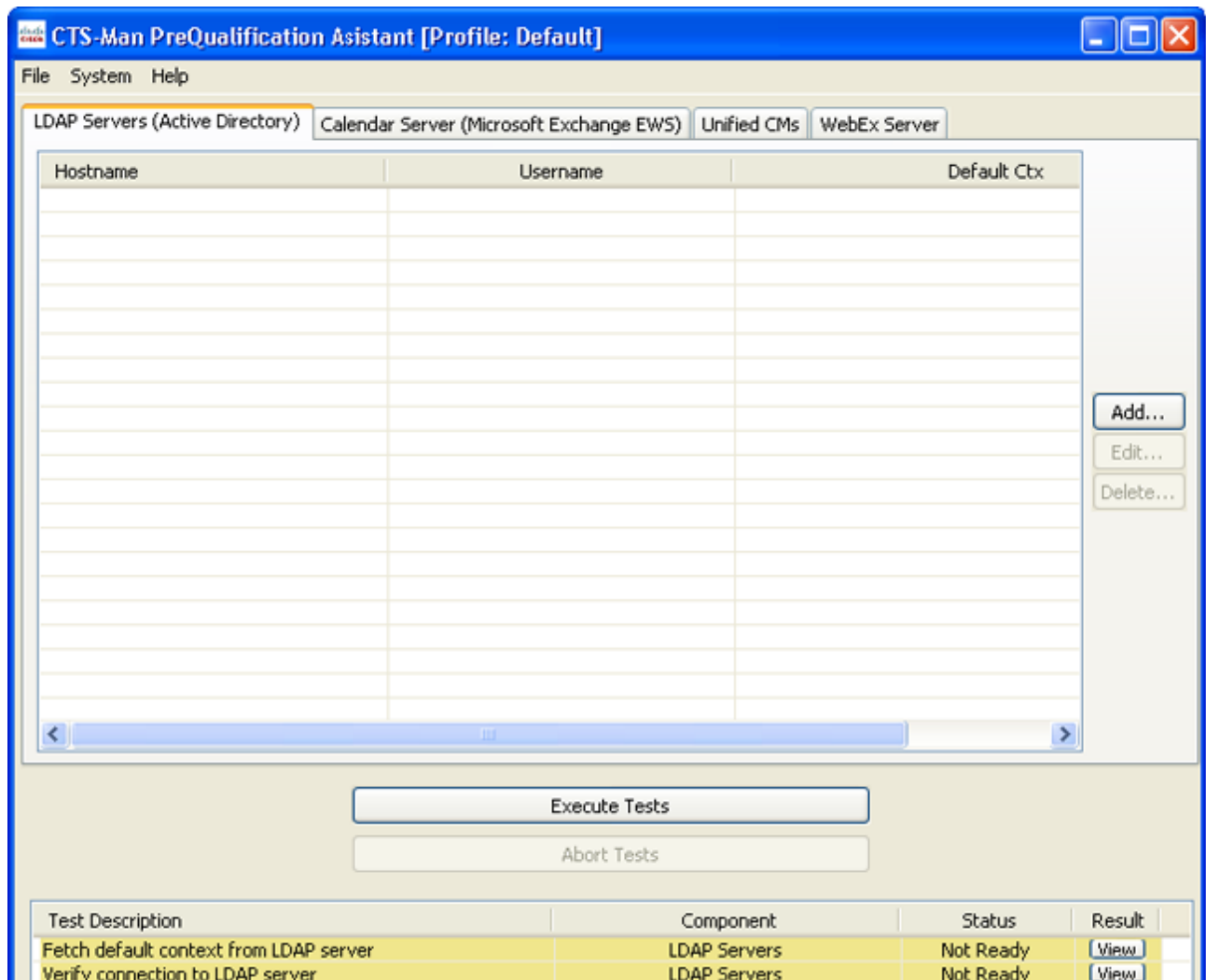
Field Name	Field Value
Host	The hostname or IP address of Cisco Unified CM
Bind Mode	This is always set to secure mode.
Port	This is always set to port 8443.
Username	Login account with Cisco Unified CM Application Username. The admin username is not needed.
Password	Password for Cisco Unified CM Admin account.
Certificate	The full pathname to the Cisco Unified CM security certificate.
Save	Use this button to save the configuration.
Cancel	Cancel from this window if not adding a new Unified CM or editing the configuration.

## Test Configuration Forms in a Microsoft Exchange Web Services (EWS) Environment

You can use the PreQualification Tool to test your LDAP server when specifying a Microsoft Exchange EWS calendar server. This applies when the user selects Calendar Server, “Microsoft Exchange EWS.”

This window lists all the LDAP servers that have been configured for the CTS-Manager. If all of the servers have been configured, use the Execute Tests button to make sure that they have been configured correctly.

**Figure 7-24** LDAP Servers with Microsoft Exchange EWS Calendar Server window



This window lists all the Microsoft LDAP servers that have been configured for the CTS-Manager. If all of the servers have been configured, use the Execute Tests button to make sure that they have been configured correctly.

If it is necessary to change the configuration of one, highlight the line, and click the **Edit** button to change the configuration and the Host Configuration window appears, refer to [Figure 7-25](#).

To remove one, highlight it and then click the **Delete** button.

When adding another LDAP server, click the **Add** button and the following configuration window appears.

## LDAP Server (Active Directory) Add/Edit Configuration Form

This is the same configuration form that appears when adding any Microsoft Exchange server.

**Figure 7-25** The LDAP Server (Active Directory) Add/Edit Configuration Form

**Table 7-10** LDAP Server (Active Directory) Test Configuration Form Fields

Field Name	Field Value
Host	The hostname or IP address of the LDAP server.
Bind Mode	If you set this to secure you'll need to provide a security certificate.
Port	In Normal bind mode the port setting is 389. In Secure bind mode the port setting default is 636.
Username	Enter the Username as the user fully qualified domain name.  <b>Note</b> You also include the default context in the Username field. Examples are: <i>cn=administrator, cn=users, dc=mycompany, dc=com.</i>

**Table 7-10 LDAP Server (Active Directory) Test Configuration Form Fields (continued)**

Field Name	Field Value
Password	Password for LDAP server with administrative privileges.
Certificate	The full pathname to the LDAP security certificate. This is needed only if you are using the Secure Bind Mode.
NonDefault or Default Context	The NonDefault button is selected as the default. To change this, select enter the default context in the form <i>dc=mycompany, dc=com</i>
<b>Scheduler Authentication</b>	
User Containers	<p>The containers from which queries are performed to retrieve user objects. More than one user container or user object can be specified. The Cisco Telepresence server uses the values entered to search through the containers in sequence to retrieve user and meeting room (endpoint) information from the Directory Server. Additionally, these containers are used to retrieve user information for authentication.</p> <p>User containers are entered in the Entry field above the User Containers field. Use the Add button to add a user container to the list. To delete a user container from the list, select the specific user container and click Delete.</p>
Scheduler Username	The scheduler username is the value of an end user ID.
Scheduler Password	The password associated with the scheduler username.
Login Attribute (EmailID)	Use the “proxyAddresses” EmailID attribute.

**Test(s) Enabled by the Execute Tests Button**

- Fetch default context from LDAP server
- Verify connection to LDAP server
- Fetch and check LDAP version compatibility
- Verify user containers
- Extract all object classes
- Extract attributes of object class “Person”
- Verify connection to Calendar Server
- Retrieve mailbox quota information
- Retrieving display name for room(s) (endpoints)
- Subscribe MSEWS events for room (endpoint)



- Retrieve display name for scheduler
- Authenticate scheduler user

## LDAP Server Microsoft Exchange EWS Calendar Server Configuration Form

When you select the Calendar Server tab, [Figure 7-26](#) appears. This window allows you to configure the calendar server for Microsoft Exchange EWS and add or delete room (endpoint) subscriptions.


**Figure 7-26** LDAP Calendar Server Microsoft Exchange EWS Configuration Window

Test Description	Component	Status
Fetch default context from LDAP server	LDAP Servers	Not Ready
Verify connection to LDAP server	LDAP Servers	Not Ready
Fetch and check LDAP version compatibility	LDAP Servers	Not Ready

**Table 7-11** Calendar Server (Microsoft Exchange) Host Configuration Form Fields

Field Name	Field Value
Host	The hostname or IP address of the Exchange server.
Bind Mode	If you set this to secure you'll need to provide a security certificate.

**Table 7-11**      *Calendar Server (Microsoft Exchange) Host Configuration Form Fields (continued)*

Field Name	Field Value
Port	In Normal bind mode the port setting is 80. In Secure bind mode the port setting default is 443.
Domain	Enter the domain for the logon name.
Username	Enter the username for the Exchange EWS server. <b>Note</b> If you are using Windows authentication, the format is: <b>domain\username</b> . If you are using basic authentication, the format is: <b>username@ldapdomainname.com</b>
Password	Enter the password for the CTS-Manager test account or Exchange administrative account, using English characters only.
Certificate	The full pathname to the Exchange security certificate. This is needed only if you are using the Secure Bind Mode.
<b>Room Subscription</b>	
Room Email IDs	Enter the full email address for each CTS endpoint, up to 5.  <div>  <b>Caution</b>    If the CTS-Manager user logon name is different from the LHS of the email ID and there is no matching email ID for the user, Microsoft Exchange EWS will fail the mailbox quota test. To avoid this, add a secondary email ID that uses the CTS-Manager logon name as the LHS of the email ID appended with the SMTP domain. </div>

## WebEx Server

On this tab you configure a connection to the WebEx scheduling server, necessary for enabling the WebEx feature in CTS-Manager. The purpose of this is to test connectivity to the WebEx site. This information is not imported into CTS-Manager during first-time setup.

Figure 7-27 WebEx Server Window

CTS-Man PreQualification Assistant [Profile: Default]

File System Help

LDAP Servers (Active Directory) Calendar Server (Microsoft Exchange) Unified CMs **WebEx Server**

**Host Configuration**

Host:

Site URL:

Admin Username:

Admin Access Code:

Certificate:

Test Description	Component	Status	Result
Fetch default context from LDAP server	LDAP Servers	Not Ready	<a href="#">View</a>
Verify connection to LDAP server	LDAP Servers	Not Ready	<a href="#">View</a>
Fetch and check LDAP version compatibility	LDAP Servers	Not Ready	<a href="#">View</a>
Verify user containers	LDAP Servers	Not Ready	<a href="#">View</a>
Extract all object classes	LDAP Servers	Not Ready	<a href="#">View</a>
Extract attributes of object class 'Person'	LDAP Servers	Not Ready	<a href="#">View</a>
Verify connection to Calendar Server	Calendar Server	Not Ready	<a href="#">View</a>
Retrieve mailbox quota information	Calendar Server	Not Ready	<a href="#">View</a>
Retrieving display name for room(s)	Calendar Server	Not Ready	<a href="#">View</a>
Subscribe MS Exchange events for room	Calendar Server	Not Ready	<a href="#">View</a>
Authenticate scheduler user	LDAP Servers	Not Ready	<a href="#">View</a>
Retrieve display name for scheduler	LDAP Servers	Not Ready	<a href="#">View</a>
Verify connection to Unified CM servers	Unified CMs	Not Ready	<a href="#">View</a>
Verify connection to WebEx server	WebEx Server	Ready	<a href="#">View</a>
Verify SSO authentication from WebEx server	WebEx Server	Ready	<a href="#">View</a>

**Table 7-12**      *WebEx Server Host Configuration Form Fields*

Field	Description or Settings
Host	The configured hostname of the WebEx scheduling server.
Site URL	The address used to construct the URL that's used to access this meeting. This is the actual URL that CTS-Manager uses to communicate with WebEx. This is published in the email from CTS-Manager, and is displayed to users on the WebEx page of the CTS phone UI.
Admin Username	WebEx administrator's username (provided by the WebEx team)
Admin Access Code	WebEx administrator's access code (provided by the WebEx team)
Certificate	<p>Certificate from the hostname (WebEx scheduling server)</p> <p><b>Note</b> To get the certificate, open a web browser window and go to the hostname URL and download the certificate to your computer, then click Browse to select it and upload it to CTS-Manager. For detailed instructions on downloading the certificate with different browsers, see <a href="#">First-Time Scheduling of TelePresence Meetings with WebEx</a>, page 12-14.</p>



## CHAPTER 8

# Configuring UCS Server and VMware for Cisco TelePresence Manager

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First Published: Nov 2, 2011

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## Introduction

This chapter describes how to configure the UCS C-210 M2 server and VMware for Cisco TelePresence (CTS) Manager.



**Note**

If you are going to install CTS-Manager on an MCS server, skip this chapter and go directly to [Chapter 9, “Installing or Upgrading Cisco TelePresence Manager.”](#)

# Installation Guidelines

The purpose of this section is to provide the information you need in order to install the CTS-Manager software.

The tasks required to install and configure CTS-Manager are provided in the following table.

**Table 8-1** *Installation Overview for CTS-Manager*

Setup Procedures	Description	Location
Configuring the UCS Server and VMware for Cisco TelePresence Manager		Current chapter
Installing or Upgrading Cisco TelePresence Manager		<a href="#">Chapter 9, “Installing or Upgrading Cisco TelePresence Manager”</a>
Initializing CTS-Manager	After installing the CTS-Manager software, the next process is to initialize 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	<a href="#">Chapter 10, “Initializing Cisco TelePresence Manager”</a>
Additional Installation Procedures for CTS-Manager	The administrator makes use of the Configure section to perform system configuration tasks such as synchronizing system databases, managing security, and reconfiguring system settings	<a href="#">Chapter 11, “Additional Installation Configurations for Cisco TelePresence Manager”</a>
Configuring Cisco TelePresence WebEx OneTouch for CTS-Manager	Describes how to set up Cisco TelePresence WebEx OneTouch in CTS-Manager, which allows WebEx participants to join TelePresence meetings.	<a href="#">Chapter 12, “Configuring Cisco WebEx OneTouch for Cisco TelePresence Manager”</a>
<b>Next Step after Pre-Configuration</b>		
Monitoring CTS-Manager	Monitoring and updating meeting schedules and monitoring the status of rooms (endpoints) and system services	<a href="#">Chapter 13, “Monitoring and Supporting Cisco TelePresence Manager”</a>

# Requirements

Before you begin, make sure you have the following items:

- Hostname and IP address for the VMware ESXi host (UCS server)
- Hostname and IP address for Cisco TelePresence Manager (Virtual machine)
- IP address of DNS server
- Subnet mask
- Default gateway
- Domain name
- IP address of NTP server
- Cisco UCS Server Configuration Utility CD
- VMware ESXi 4.1/vSphere 5 Standard for 1 processor (Purchase from Cisco or VMware.)
  - When purchasing from Cisco, use the following SKU: VMW-VS5-STD-1A.
  - When downloading the VMware software, make sure to select ESXi 4.1.
  - ESXi 4.0 is also supported.
- OVF template file for CTS-Manager (Download from Cisco.com)
- PC running Microsoft Windows connected to the same network as the UCS server
- CTS-Manager 1.8 installation software



**Note** Only a single CTS-Manager can be installed on a UCS server at one time. Except for the required VMware software, no other software can be installed on the UCS. This includes Cisco TelePresence Multipoint Switch (CTMS) and Cisco TelePresence Recording Server (CTRS).

## Firmware Recommendation and Upgrade

For the best results, Cisco recommends UCS firmware version 1.2.2d or later.

## Checking the Firmware Version on the UCS Server

To check the firmware version on the UCS server:

- 
- Step 1** Set up Cisco Integrated Management Controller (CIMC) for your UCS Server.
- For more information, refer to:  
[http://www.cisco.com/en/US/products/ps10493/products\\_configuration\\_example09186a0080b10d66.shtml](http://www.cisco.com/en/US/products/ps10493/products_configuration_example09186a0080b10d66.shtml)
- Step 2** In the CIMC Configuration Utility, configure the IP address and save the changes:
- NIC mode: dedicated
  - NIC redundancy: none
- Step 3** Open a browser and go to the CIMC IP address.

- Step 4** Log in to the CIMC  
By default, the username is **admin** and the password is **password**.
- Step 5** Go to **Admin > Firmware Management**.  
The firmware version is displayed here. It is also displayed on the login page.
- Step 6** If you want to upgrade the firmware, go to the next section: [Upgrading the Firmware on the UCS Server, page 8-4](#)
- 

## Upgrading the Firmware on the UCS Server

To upgrade the firmware on the UCS server:

- 
- Step 1** Download the firmware from Cisco:
- Go to: <http://cisco.com/support>
  - Click the **Downloads** tab
  - Click in the Find field, enter **UCS** and click **Find**.  
The Select a Product page appears.
  - Click the link for the **Cisco UCS C-210 M2 Rack-Mount Server Software**.  
The Download Software page appears.
  - Click the link for **Unified Computing System (UCS) Server Firmware**.  
The available firmware releases are displayed.
  - Select a firmware release and click **Download Now**.
  - Log in to Cisco.com (if required).
  - In the Download Cart page, click **Proceed With Download**.  
The End User License Agreement page appears.
  - Click **Agree**.
  - Select one of the available download options.
  - Click the **Download** link.
- Step 2** Log in to the CIMC (if not already logged in).
- Step 3** Go to **Admin > Firmware Management**
- Step 4** Click **Install CIMC Firmware through Browser Client**.  
The Install Firmware window appears.
- Step 5** Click **Browse**, select the firmware you downloaded and click **Install Firmware**.
- Step 6** When a message appears indicating the upgrade is completed successfully, click **Activate CIMC Firmware**.
- Step 7** The upgrade takes about 20 minutes.
- Step 8** When the upgrade is complete, reboot the UCS server.
-



# Configuring RAID on the UCS Server

This section describes the process for configuring RAID on the UCS server. RAID must be configured before installing VMware, setting up the virtual machine and installing CTS-Manager.

**Note**

If the UCS server was purchased from the TelePresence Technology Group (TTG) or Voice Technology Group (VTG) at Cisco, the RAID will be preconfigured. In this case, skip this section and start in the [Installing VMware on the UCS Server](#) section.

To configure RAID on the UCS Server:


- 
- Step 1** Insert the Cisco UCS Server Configuration Utility CD and reboot UCS server.  
Cisco UCS Server Configuration Utility version 1.0.0 screen appears.
- Step 2** Wait for application to load and the License Agreement screen to appear.
- Step 3** Click **I Accept** and click **Next**.  
The My Server screen appears.
- Step 4** Click RAID Configuration  
The Choose RAID Controllers screen appears.
- Step 5** Click **LSI MegaRAID SAS 9261-8i (External)** and click **Next**.
- Step 6** The RAID Configuration screen appears.
- Step 7** Click **Create custom or multiple RAID Arrays (advanced)** and click **Next**.  
The Select Drives for Logical Drive screen appears.
- Step 8** Select Disks **0** and **1** and click **Next**.  
The Select Hotspare Drives screen appears.
- Step 9** Click **Next**.  
The Define Array Attributes screen appears.
- Step 10** Set the fields the following way:
- RAID Level: **1**
  - Stripe size: **64k** (only option)
  - Read policy: **Read Ahead** (other options: No Read Ahead, Adaptive Read Ahead)
  - Write Policy: **Write Through** (other option: Write Back)
  - Cache Policy: **Direct IO** (other option: Cache IO)
  - Size(MB): **139236**
- Step 11** Click **Next**.  
The Summary screen appears displaying RAID array information.
- Step 12** Click **Create Array**.  
The Array Definition Complete screen appears with the message “Virtual Drive Created Successfully”.
- Step 13** Click **Create Another Array**.  
The Choose RAID Controllers screen appears.

- Step 14** Click **LSI MegaRAID SAS 9261-8i (External)** and click **Next**.
- Step 15** Click **Create custom or multiple RAID Arrays (advanced)** and click **Next**.  
The Select Drives for Logical Drive screen appears.
- Step 16** Select disks **2** through **9** and click **Next**.  
The Define Array Attributes screen appears.
- Step 17** Set the fields the following way:
- RAID Level: **5**
  - Stripe size: **64k** (only option)
  - Read policy: **Read Ahead** (other options: No Read Ahead, Adaptive Read Ahead)
  - Write Policy: **Write Through** (other option: Write Back)
  - Cache Policy: **Direct IO** (other option: Cache IO)
  - Size(MB): **974652**
- Step 18** Click **Next**.  
The Summary screen appears displaying RAID array information.
- Step 19** Click **Create Array**.  
The Array Definition Complete screen appears with the message “Virtual Drive Created Successfully.”
- Step 20** Click **Finish**.  
The My Server screen appears.
- Step 21** Eject the CD.
-

# Installing VMware on the UCS Server

This section describes how to install VMware on the UCS C-210 M2 server. VMware ESXi 4.0 and 4.1 are supported for this version of CTS-Manager on the UCS C-210 M2 server.

To install VMware on the UCS server:

- 
- Step 1** Insert the VMware Installer CD.
- Step 2** Reboot the UCS server by doing either of the following:
- If RAID on your UCS server was preconfigured by Cisco: Reboot the UCS server.
  - If you configured RAID on your UCS (following the steps in the previous section): In the My Server screen, click **Exit** and then click **OK** to confirm and reboot the UCS server.
- The VMware screen appears.
- Step 3** Wait for the bootup process to complete. Do not press any keys.
- The bootup is complete when the VMware ESXi Installer screen appears with a welcome message.
- Step 4** Press **Enter** to install VMware.
- The End User License Agreement (EULA) screen appears.
- Step 5** Press **F11** to accept the agreement and continue.
- The Select a Disk screen appears displaying the installed disks and their size.
- Step 6** Use the arrow keys to select the disk for the RAID 1 array and press **Enter**.
-  **Note** The RAID 1 array is the smaller of the two RAID arrays.
- 
- The Confirm Install screen appears.
- Step 7** Press **F11** to start the installation.
- The installation begins.
- The installation is finished when the Installation Complete screen appears.
- Step 8** Eject the VMware CD.
- Step 9** Press **Enter** to reboot the UCS server.
- When bootup is complete, the VMware ESXi screen appears with the message:
- “Download tools to manage this host from:” followed by a URL.
- Step 10** Press **F2** to customize the system.
- The System Customization screen appears.
- Step 11** Select Configure Password (selected by default) and press **Enter**.
- The Configure Password screen appears.
- Step 12** In the New Password field, enter a password and press **Tab**.
- Step 13** In the Confirm Password field, re-enter that password and press **Enter**.
- Step 14** Select **Configure Management Network** and press **Enter**.
- The Configure Management Network screen appears.

- Step 15** Select Network Adaptors (selected by default) and press **Enter**.  
The Network Adaptors screen appears.
  - Step 16** Select the adaptor which is connected and press **Enter**.
  - Step 17** Select IP configuration and press **Enter**.  
The IP Configuration screen appears.
  - Step 18** Select **Set Static IP address and network configuration**.
  - Step 19** Enter IP address, Subnet Mask and Default Gateway and press **Enter**.
  - Step 20** Select **DNS Configuration** and press **Enter**.
  - Step 21** The DNS Configuration screen appears.
  - Step 22** Select **Use the following DNS server addresses and hostname**.
  - Step 23** Enter Primary DNS Server and Hostname (including domain name) and press **Enter**.
  - Step 24** In the Configure Management Network window, press **Esc** to return to the System Customization window.
  - Step 25** Select Test Management Network and press **Enter**.  
The Test Management Network screen appears.
  - Step 26** Press **Enter**.  
The VMware software will attempt to ping your default gateway, DNS server and hostname. The test should display “OK” for each ping attempt.
  - Step 27** Press **Enter**.  
The System Customization window appears.
  - Step 28** Log out of the VMware ESXi Installer by pressing **Esc**.  
The VMware ESXi screen appears.
  - Step 29** Note the IP address displayed on this screen. You will use this IP address to download the VMware vSphere client to your PC to create your virtual machine in the next section.
- 

## Installing the VMware Client and Setting Up the Datastore

This section describes how to install the VMware vSphere Client and create the datastore for the CTS-Manager virtual machine. To complete this section, you must use a PC that is connected to the same network as your UCS server.

**To install the VMware client and set up the datastore:**

- 
- Step 1** From your PC, open a web browser and go to the IP address displayed on the VMware ESXi screen at the end of the previous section.  
The VMware ESXi Welcome page appears.
  - Step 2** Click Download vSphere Client and follow the on-screen instructions to install the vSphere Client on your PC.



**Note** During the installation, you have the option of installing the vSphere Host Update Utility. You can install this, but it is not required.

- Step 3** Open the VMware vSphere Client.
- Step 4** Log in to the ESXi host on the UCS server using the following information:
- IP address / name: IP address of UCS server (used in step 1)
  - User name: **root**
  - Password: VMware password created during installation on the UCS server
- A Security Warning window appears, indicating that an untrusted SSL certificate is installed.
- Step 5** Click the checkbox for “Install this certificate and do not display any security warnings” and click **Ignore**.
- A VMware Evaluation Notice window appears, indicating that you must upgrade your ESX Host license. The initial evaluation license expires 60 days after installation.
- Step 6** Click **OK** to close the VMware Evaluation Notice window.
- The vSphere Client window opens with the UCS server (identified by IP address) displayed in the left-hand side of the window.
- The next step is to align the datastore on which you will set up the CTS-Manager virtual machine, which improves disk performance and prevents disk blocks from being fragmented.
- Step 7** Click the **Summary** tab.
- Step 8** In the Datastore area, right-click the datastore with the largest capacity and select **Delete**.
- A confirmation window appears.
- Step 9** Click **Yes** to confirm you want to delete the datastore.
- In the Recent Tasks area at the bottom of the window, the Remove Datastore task appears.
- Step 10** Wait for the task to display a status of “Completed.”
- Step 11** Click the **Configuration** tab.
- Step 12** In the Hardware area on the left, click **Storage**.
- In the Datastores area, the remaining datastore is displayed.
- Step 13** In the upper right above the Datastores area, click **Add Storage...**
- The Add Storage window opens and the Select Storage Type screen is displayed.
- Step 14** Select **Disk/LUN** (selected by default) and click **Next**.
- The Select Disk/LUN screen appears.
- Step 15** Click the **Local LSI Disk** and click **Next**.
- The Current Disk Layout screen appears confirming the disk partition you will create.
- Step 16** Click **Next**.
- The Properties screen appears.
- Step 17** Enter a name for your datastore and click **Next**.
- The Disk/LUN Formatting screen appears.
- Step 18** From the Maximum file size drop-down list, choose **256 GB**, **Block size: 1 MB** and make sure **Maximize Capacity** is checked.

**Step 19** Click **Next**.

The Ready to Complete screen appears.

**Step 20** Click **Finish**.

In the Recent Tasks area at the bottom of the window, the Create VMFS Datastore task appears.

**Step 21** Wait for the task to display a status of “Completed.”

After completion, you have two datastores. The datastore with the smaller capacity is the RAID 1 configuration, where the VMware software is installed, and the datastore with the larger capacity is the RAID 5 configuration, where you will deploy the virtual machine and install CTS-Manager.

## Disabling LRO (ESXi 4.1 only)

If you are running VMware ESXi 4.1 on the UCS server, you may experience slow TCP performance of the virtual machine. You can resolve this by disabling Large Receive Offload (LRO) on the ESXi host.

To disable LRO:

**Step 1** Log into the ESXi host on the UCS server with the VMware vSphere Client (if not already logged in).

**Step 2** Click the UCS server icon in the left-hand side of the window.

**Step 3** Click the **Configuration** tab.

**Step 4** In the Software section, click **Advanced Settings**.

**Step 5** Select **Net** and scroll down slightly more than half way.

**Step 6** Set the following parameters from 1 to 0:

- Net.VmxnetSwLROSL
- Net.Vmxnet3SwLRO
- Net.Vmxnet3HwLRO
- Net.Vmxnet2SwLRO
- Net.Vmxnet2HwLRO

**Step 7** Right-click the UCS server and select **Reboot**.

Your virtual machine should now have normal TCP networking performance.

## Creating the Virtual Machine

This section describes how to deploy the Open Virtualization Format (OVF) template for CTS-Manager to create the virtual machine on which to install the CTS-Manager software. OVF is a standard for packaging and distributing virtual machines. The OVF template streamlines the process of setting provided by Cisco contains all the virtual machine settings required for CTS-Manager.

To create the virtual machine:

- 
- Step 1** Download the OVF template from Cisco:
- Go to: <http://cisco.com/support>
  - Click the **Downloads** tab
  - Click in the Find field, enter **Cisco TelePresence Manager** and click **Find**.  
The Select a Product page appears.
  - Click the link for the **Cisco TelePresence Manager Release 1.8**.  
The Download Software page appears.
  - Find **CTSMAN\_1.8\_v1.0.ova** and click **Download Now**.
  - Log in to Cisco.com (if required).
  - In the Download Cart page, click **Proceed With Download**.  
The End User License Agreement page appears.
  - Click **Agree**.
  - Select one of the available download options.
  - Click the **Download** link.
- Step 2** Log into the ESXi host on the UCS server with VMware vSphere Client (if not already logged in).
- Step 3** Select **File > Deploy OVF Template**.  
The Deploy OVF Template window opens.
- Step 4** Select **Deploy from File**.
- Step 5** Click **Browse**
- Step 6** Select the OVF template that you downloaded and click **Open**.
- Step 7** Click **Next**.  
The OVF Template Details page appears.
- Step 8** Click **Next**.
- Step 9** Enter a name for your virtual machine and click **Next**.  
The Datastore page appears.
- Step 10** Click the datastore (with the largest capacity) that you created in the [Installing the VMware Client and Setting Up the Datastore](#) section and click **Next**.  
The Ready to Complete page appears.
- Step 11** Click **Finish**.
- Step 12** When the OVF template is deployed successfully, the Deployment Completed Successfully window appears.
- Step 13** Click **Close**.
-

# Installing CTS-Manager

This section describes how to install CTS-Manager on the virtual machine you created and configured.

To install CTS-Manager:

- 
- Step 1** Insert the installer DVD into your PC (unless the you downloaded the software from Cisco.com).



---

**Note** If a CDROM window appears asking what you want Windows to do, click **Cancel**.

---

- Step 2** Log into the ESXi host on the UCS server with VMware vSphere Client (if not already logged in).

- Step 3** In the left-hand side of the window, click the virtual machine you created for CTS-Manager and click the **Console** tab.

- Step 4** Right-click the CTS-Manager virtual machine and choose **Power > Power On**.

- Step 5** On the toolbar, click the button with the CD and Wrench icon and wait for the menu to pop up.

- Step 6** Choose **CD/DVD Drive 1 > Connect to D:** (or the letter associated with the drive in which you inserted the DVD).



---

**Note** If you downloaded the CTS-Manager software to your PC from Cisco.com, select **Connect to ISO image on local disk. . .**, select the CTS-Manager .iso file and click **Open**.

---

- Step 7** Right-click the CTS-Manager virtual machine and select **Guest > Send Ctrl + Alt + del**.

The CTS-Manager virtual machine reboots.

After bootup, the installer startup process begins in the console window.

- Step 8** Click inside the console window to make it active, so you can use your keyboard during the installation process.



---

**Note** After clicking in the console window, you can no longer use your mouse. This is normal behavior, because you cannot use the mouse in the console. If at any time you need to regain control of your mouse, press **Ctrl+Alt**. To make the console window active again, click in the console window.

---

- Step 9** Follow the rest of the installation as detailed in [Installing Cisco TelePresence Manager from DVD, page 9-3 of Chapter 9, "Installing or Upgrading Cisco TelePresence Manager."](#)

- Step 10** After completing the installation, press **Ctrl+Alt** to exit the console window and regain control of your mouse.

- Step 11** Close the VMware vSphere Client by selecting **File > Exit**.
- 

## Upgrading VMware Tools

This section describes how to upgrade the VMware tools which is required after installing CTS-Manager.



**To upgrade VMware tools:**

- 
- Step 1** Log into the ESXi host on the UCS server with VMware vSphere Client.
  - Step 2** Make sure the virtual machine for CTS-Manager is powered on.
  - Step 3** Right-click the CTS-Manager virtual machine, and choose **Guest > Install/Upgrade VMware Tools**.
  - Step 4** In the popup window that appears, choose **Automatic Tools Upgrade** and click **OK**.
  - Step 5** In the Recent Tasks area at the bottom of the vSphere Client window, wait for the VMware Tools Installer Mount to display a status of Completed.
- 

## Installing the VMware License Key

This section describes how to install the VMware software license key. After installation, the VMware software works for 60 days. Before the 60 days have elapsed, you must install a license key to continue using the software.

When you purchase ESXi 4.1/vSphere 5, you receive a licensing confirmation email with your license key. You can also retrieve your license key from the vSphere License portal at: <http://downloads.vmware.com/licensing/license.portal>

**To install the VMware license key:**

- 
- Step 1** Log in to the VMware vSphere Client.  
The VMware vSphere Client opens and a VMware Evaluation Notice window appears.
  - Step 2** Click **OK** to close the VMware Evaluation Notice window.
  - Step 3** Click the VMware host icon at the top of the left-hand column of the vSphere Client window.
  - Step 4** Click the **Configuration** tab.
  - Step 5** In the Software area in the middle-left side of the vSphere Client window, click **Licensed Features**.  
The Licensed Features information for the ESX Server License Type appears.
  - Step 6** In the upper-right part of the window, click **Edit**.  
The Assign License window appears.
  - Step 7** Click **Assign a new license key to this host** and click **Enter Key**.
  - Step 8** The Add License Key window appears.
  - Step 9** Enter the license key you received from VMware and click **OK**.
  - Step 10** Click **OK** again to close the Assign License window.
-

## Setting Automatic Startup for CTS-Manager

You can configure your CTS-Manager virtual machine to automatically start when the UCS server is started. The advantage of enabling Automatic Startup is that in the event of a power outage, you only need to start up the UCS server to get CTS-Manager up and running again.

To set Automatic Startup for CTS-Manager:

- 
- Step 1** Log in to the VMware vSphere Client.
  - Step 2** Click the VMware host in the left side of the vSphere Client window to select it.
  - Step 3** Click the **Configuration** tab.
  - Step 4** In the Software area in the middle-left side of the vSphere Client window, click **Virtual Machine Startup/Shutdown**.  
The Virtual Machine Startup and Shutdown information appears.
  - Step 5** In the upper-right part of the window, click **Properties**.  
The Virtual Machine Startup and Shutdown window appears.
  - Step 6** Check **Allow virtual machines to start and stop automatically with the system**.
  - Step 7** Select the CTS-Manager virtual machine in the table and move it up to the Automatic Startup section.
  - Step 8** Click **OK**.
-



## CHAPTER 9

# Installing or Upgrading Cisco TelePresence Manager

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- [Installing Cisco TelePresence Manager from DVD, page 9-3](#)
- [Installation Procedure for Cisco TelePresence Manager, page 9-3](#)
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- [Recovering Administrator and Security Passwords, page 9-7](#)
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- [Upgrading to Cisco TelePresence Manager 1.8, page 9-11](#)
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## Introduction

This chapter explains how to install the Cisco TelePresence Manager software in your network. After completing this installation, you will be able to schedule Cisco TelePresence meetings through existing Microsoft Outlook or Lotus Notes software, receive reminders, and connect to a remote meeting with the touch of a button.

To enable these features, you must provide Cisco TelePresence Manager with the contact and access information it requires to connect to and communicate with your network. The purpose of this chapter is to walk you through each step using the Cisco TelePresence Manager installation DVD.

The installation requires information about your network and the rules for finding and exchanging information. Once this pre-installation data is set up, then you can install Cisco TelePresence Manager from DVD. In addition, you can use the **Configure > Software Upgrade** window to upgrade the system software.

# Installation Guidelines

The purpose of this section is to provide the information you need in order to install the CTS-Manager software.

The tasks required to install and configure CTS-Manager are provided in the following table.

**Table 9-1** *Installation Overview for CTS-Manager*

Setup Procedures	Description	Location
Installing or Upgrading Cisco TelePresence Manager		Current Chapter.
Initializing CTS-Manager	After installing the CTS-Manager software, the next process is to initialize 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	<a href="#">Chapter 10, “Initializing Cisco TelePresence Manager”</a>
Additional Installation Procedures for CTS-Manager	The administrator makes use of the Configure section to perform system configuration tasks such as synchronizing system databases, managing security, and reconfiguring system settings	<a href="#">Chapter 11, “Additional Installation Configurations for Cisco TelePresence Manager”</a>
Configuring Cisco TelePresence WebEx OneTouch for CTS-Manager	Describes how to set up Cisco TelePresence WebEx OneTouch in CTS-Manager, which allows WebEx participants to join TelePresence meetings.	<a href="#">Chapter 12, “Configuring Cisco WebEx OneTouch for Cisco TelePresence Manager”</a>
<b>Next Step after Pre-Configuration</b>		
Monitoring CTS-Manager	Monitoring and updating meeting schedules and monitoring the status of rooms (endpoints) and system services	<a href="#">Chapter 13, “Monitoring and Supporting Cisco TelePresence Manager”</a>

# Installing Cisco TelePresence Manager from DVD

The following section provides installation procedures for CTS-Manager.

## Required Information and Equipment

To install Cisco TelePresence Manager, the following equipment and information are needed:

- The Model 7845 Cisco Media Convergence Server or UCS C-210 M2 server included with Cisco TelePresence Manager, installed and connected to a Domain Name System (DNS) server and your network.
- DNS configuration for both forward and reverse name resolution is required for all servers configured in CTS-Manager, so that all server names can be resolved bidirectionally by DNS. This includes the server name for CTS-Manager itself.
- The information listed in [Table 9-2 “Installation Window and Field Definitions”](#) that includes your system-specific values and parameters.
- A management console to access the Model 7845 Cisco Media Convergence Server.
- The DVD included in your Cisco TelePresence Manager documentation and installation packet. Use the Installation Wizard included on this disk.
- Endpoint license. If you do not have this license, you will not be able to add TelePresence endpoints to CTS-Manager. After installation and initialization, the SysAdmin must go to the Configure > Licenses window and click the License Files tab to upload the license.

## Installation Procedure for Cisco TelePresence Manager

- Step 1** Insert the CTS-Manager installation DVD into the DVD drive of the server and boot up the server. There may be a short delay while the installer validates the integrity of the files on the DVD and configures the server for the operating system and the CTS-Manager software.

**Note**

Cisco recommends using the default selections (which are highlighted by a grey box). For example, on the DVD Found screen that appears after inserting the DVD, “Yes” is the default selection.

**Caution**

Remove the DVD after the installation/upgrade is complete. Leaving the DVD in the drive can prevent CTS-Manager from restarting properly after rebooting the server.

- Step 2** When the DVD Found screen appears, select **Yes** to perform a media check of the DVD, or **No** to abort the installation.
- Step 3** Once the media check passes, click **OK** to proceed.
- The Product Deployment Selection screen appears, indicating Cisco TelePresence Manager suite will be installed.
- Step 4** Click **OK** to proceed.
- The installer checks for a prior installation of CTS-Manager software.

- Step 5** If you choose **Yes** to continue the installation, the Platform Installation Wizard opens in the next window. Read and become familiar with the wizard conventions.
- Step 6** Select **Proceed**.
- Step 7** Fill in each window with the information defined in [Table 9-2, “Installation Window and Field Definitions”](#).
- Step 8** When you are satisfied that the information is correct, click **OK** in the Platform Configuration Confirmation window to begin the installation process. Be patient while the process takes place.
- When the installation is complete, the server reboots. The installer then checks for network connectivity and access to a DNS server. If it cannot find these connections, an error message is displayed. If the installation process completes successfully, the message “The Installation of the Cisco TelePresence Manager Has Completed Successfully” is displayed.

**Caution**

Remove the DVD from the DVD drive after the installation/upgrade is complete. Leaving the DVD in the drive can prevent Cisco TelePresence Manager from restarting properly after rebooting the server.

- Step 9** Proceed to [Chapter 10, “Initializing Cisco TelePresence Manager,”](#) to initialize Cisco TelePresence Manager.

## Installation Page Values Defined

[Table 9-2](#) explains in detail the window and field definitions of the Cisco TelePresence Manager installation process in detail.



**Table 9-2** *Installation Window and Field Definitions*

Installation Windows and Fields	Description and Usage
<b>Installation Wizard</b>	
Proceed:	The installation wizard requests necessary configuration information before installing CTS-Manager files.
Skip:	Skip this wizard and install CTS-Manager files without configuration information. After the files are installed and the system reboots, the installation program will request configuration information.
Cancel:	Cancel this installation.
<b>Apply Patch</b>	
Yes:	Applies upgrade patch from the DVD as part of the installation.
No:	Proceeds with install without installing upgrade patch.
Back:	Goes back to previous screen.
<b>Basic Install</b>	
Continue	Proceeds with installation without importing any data.
<b>Time zone Configuration</b>	
OK	Proceeds with installation using the selected time zone.
Back	Goes back to the previous screen.

Table 9-2 Installation Window and Field Definitions (continued)

Installation Windows and Fields	Description and Usage
Help	Provides additional information about selecting time zones.
<b>Autonegotiation Window Configuration</b>	
NIC Speed	<p>The speed of the server network interface card (NIC), in megabits per second.</p> <ul style="list-style-type: none"> <li>The possible speeds are 10, 100, and 1000 mbps. <b>Default is 100 mbps.</b></li> </ul> <p><b>Note</b> Cisco recommends a NIC speed of at least 100 mbps for best performance.</p>
Duplex Configuration	<p>The duplex setting of the server NIC.</p> <ul style="list-style-type: none"> <li>The possible settings are Half and Full. <b>Default is Full.</b></li> </ul> <p><b>Note</b> Cisco recommends full duplex for best performance.</p>
<b>MTU Configuration</b>	
	<p>This screen gives you the option to change the Maximum Transmission Unit (MTU). This is the size of the largest packet that a network protocol can send. It is recommended to use the default of 'No.'</p>
<b>DHCP Configuration</b>	
	<p>This screen gives you the option to choose DHCP to run on CTS-Manager. It is recommended to select the default of 'No.'</p>
<b>Status Network Configuration</b>	
Host Name	<p>A hostname is an alias that is assigned to an IP address to help identify it.</p> <ul style="list-style-type: none"> <li>Enter a hostname that is unique to your network.</li> <li>The hostname can consist of up to 64 characters and can contain alphanumeric characters and hyphens.</li> </ul>
IP Address	<p>The IP address uniquely identifies a server on your network.</p> <ul style="list-style-type: none"> <li>Enter the IP address in the form <i>ddd.ddd.ddd.ddd</i>, where <i>ddd</i> can have a value from 0 to 255 (except 0.0.0.0).</li> </ul>
IP Mask	<p>The IP subnet mask of this machine. The subnet mask together with the IP address defines the network address and the host address.</p> <ul style="list-style-type: none"> <li>Enter the IP mask in the form <i>ddd.ddd.ddd.ddd</i>, where <i>ddd</i> can have a value from 0 to 255 (except 0.0.0.0).</li> </ul> <p>Valid example: 255.255.240.0. Invalid example: 255.255.240.240.</p>
GW Address	<p>GW Address are for static configurations. A network point that acts as an entrance to another network. Outbound packets are sent to the gateway that will forward them to their final destination.</p> <ul style="list-style-type: none"> <li>Enter the IP address of the gateway in the format <i>ddd.ddd.ddd.ddd</i>, where <i>ddd</i> can have a value from 0 to 255 (except 0.0.0.0).</li> </ul> <p><b>Note</b> If you do not have a gateway, you must still fill in this field by setting it to 255.255.255.255. Not having a gateway may limit you to communicating only with devices on your subnet.</p>
<b>DNS Client Configuration</b>	

Table 9-2 Installation Window and Field Definitions (continued)

Installation Windows and Fields	Description and Usage
	This screen gives you the option to enable DNS for CTS-Manager. It is recommended to select the default of 'Yes.'
<b>DNS Client Configuration</b>	<p>You will be prompted to enter DNS server information. A DNS server is a device that resolves a hostname into an IP address or an IP address into a hostname.</p> <p><b>Note</b> If you have a DNS server, Cisco requires choosing <b>Yes</b> to enable DNS. Disabling DNS limits the system's ability to resolve some domain names.</p>
Primary DNS	CTS-Manager contacts this DNS server first when attempting to resolve hostnames. This field is mandatory.
Secondary DNS (optional)	<p>When a primary DNS server fails, CTS-Manager will attempt to connect to the secondary DNS server.</p> <ul style="list-style-type: none"> <li>Enter the IP address in dotted decimal format as <i>ddd.ddd.ddd.ddd</i>, where <i>ddd</i> can have a value from 0 to 255 (except 0.0.0.0).</li> </ul>
Domain	A sequence of case-insensitive ASCII labels separated by dots (for example, "cisco.com")—defined for subtrees in the Internet Domain Name System and used in other Internet identifiers, such as hostnames, mailbox names, and URLs.
<b>Administrative Login Configuration</b>	
Admin ID	<p>The username for the CTS-Manager Administrator. This is the administrator login that includes SysAdmin permissions.</p> <ul style="list-style-type: none"> <li>Ensure that the name is unique. It is recommended to start with a lowercase alphanumeric character and can contain alphanumeric characters (uppercase and lowercase), hyphens, and underscores.</li> </ul> <p> <b>Caution</b> The admin ID cannot be changed after installation without reinstalling CTS-Manager. Record it for safekeeping.</p>
Password / Confirm	<p>A password that allows the administrator to log into CTS-Manager.</p> <ul style="list-style-type: none"> <li>The password must be at least six characters long and maximum of 31 characters. It is recommended to start with a lowercase alphanumeric character, using English characters only. International characters are not supported in this version.</li> </ul> <p>This field can be changed at Cisco TelePresence Manager web interface. Record it for safekeeping.</p> <p> <b>Note</b> The password cannot be changed until at least 24 hours after it was created, unless you reinstall CTS-Manager.</p> <p><b>Recovering Administrator and Security Passwords</b></p> <p>If you lose the administrator password or security password, two different procedures can be followed to reset these passwords. These procedures are in the section following this table.</p>



**Table 9-2**      *Installation Window and Field Definitions (continued)*

Installation Windows and Fields	Description and Usage
Certificate Information	<p>A certificate signing request (CSR) is a message sent from an applicant to a certificate authority in order to apply for a digital identity certificate.</p> <ul style="list-style-type: none"> <li>These values create a CSR for the server where the certificate will be installed.</li> </ul>
Organization	Your company or organization name.
Unit	Your business unit, group, or organizational unit name.
Location	The physical location of the organization, most often a city.
State	The region, state, province, or other region where the organization resides.
Country	Your company or organization country of record.
Network Time Protocol Client Configuration	NTP is used to synchronize the clocks on Cisco IP telephony servers with an external network time server that uses NTP.
NTP Server 1	Enter the IP address of one or more NTP server.
NTP Servers 2–5	<ul style="list-style-type: none"> <li>NTP Servers 1 and 2 values are mandatory; NTP Servers 3–5 are optional.</li> </ul> <p><b>Note</b> Cisco strongly recommends that you enter the NTP server by which Cisco Unified CM synchronizes its clock as the primary NTP server. If these servers are out of synchronization, CTS-Manager will not operate properly.</p>
Security Configuration	Cisco TelePresence Manager uses the security password to communicate with its database.
Security Password / Confirm	<ul style="list-style-type: none"> <li>The password must be at least six characters long and a maximum of 31 characters. It is recommended to start with a lowercase alphanumeric character., using English characters only.</li> </ul>
SMTP Host Configuration	Selecting <b>Yes</b> enables Simple Mail Transfer Protocol so CTS-Manager can send emails to meeting organizers or the SysAdmin.
Application User Configuration	Create an Application User name and password for logging in to the CTS-Manager administrative web pages.

## Recovering Administrator and Security Passwords

If you lose the administrator password or security password, two different procedures can be followed to reset these passwords.



### Note

During this procedure, you must remove and then insert a valid DVD in the disk drive to prove that you have physical access to the system.



### Note

The password cannot be changed until at least 24 hours after it was created, unless you reinstall CTS-Manager.

## Recovery Procedure 1:

**Step 1** Log in to the system with the following username and password:

Username: **pwrecovery**

Password: **pwreset**

- Step 2** The Welcome to platform password reset window displays.
  - Step 3** Press any key to continue.
  - Step 4** If you have a DVD in the disk drive, remove it now.
  - Step 5** Press any key to continue. The system tests to ensure that you have removed the DVD from the disk drive.
  - Step 6** Insert a valid DVD into the disk drive. The system tests to ensure that you have inserted the disk.
  - Step 7** After the system verifies that you have inserted the disk, you see a prompt to enter one of the following options:
    - a. Enter **a** to reset the administrator password.
    - b. Enter **s** to reset the security password.
    - c. Enter **q** to quit.
  - Step 8** Enter a new password of the type that you chose.
  - Step 9** Reenter the new password.
  - Step 10** After the system verifies the strength of the new password, the password gets reset, and you're prompted to press any key to exit the password reset utility.
- 

## Recovery Procedure 2:

If your password is lost, reinstall Cisco TelePresence Manager to regain access.

# System Log Error Detection

When a problem is detected, you must collect system errors and logs files so they can be analyzed for prompt resolution

## System Messages

Go to Troubleshoot > System Messages to see a list of system messages. You can filter the list by starting and ending dates and message type All, Emergency, Alert, Critical, Error, Warning, Notice, Info and Debug as follows:

- Use the Calendar icon to choose dates, or enter the dates in the **Start On** and **End On** fields using the MM/DD/YYYY date format.
- Click **Filter** to generate the list.

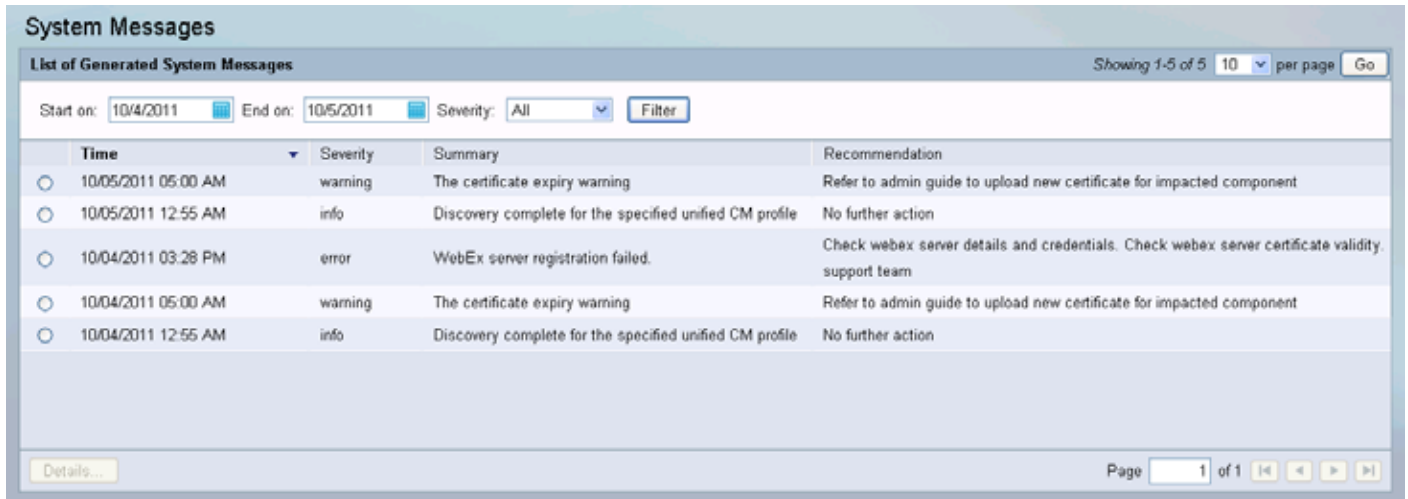
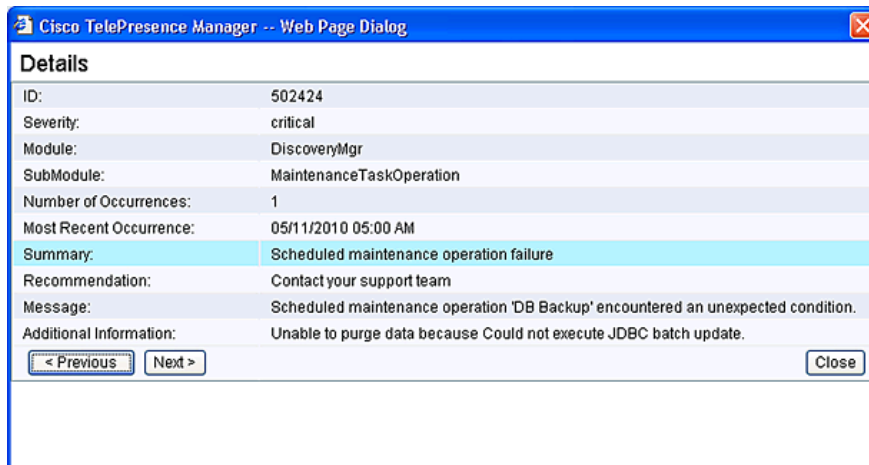
**Figure 9-1**      *System Messages Window*

Table 9-3 lists the messages provided by the system.

**Table 9-3**      *System Messages*

Field	Description
Time(+)	Date and time the message was logged. You can sort the messages in ascending or descending order by the time stamp.
Severity	Message type.
Summary	Explanation of problem detected. Message identification number. You can sort the reports in ascending or descending order by ID.
Recommendation	Recommended course of action

To view the details of a system message, click its corresponding radio button and then click the **Details** button.

**Figure 9-2**      *System Messages > Details Window*

## System Error - AXL Error or Invalid Credential

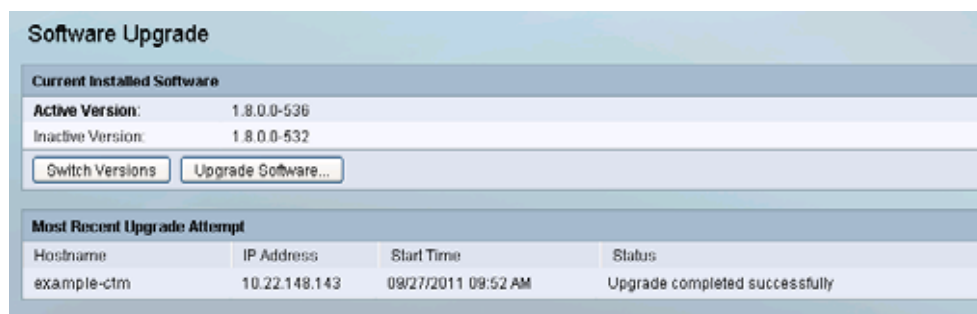
If the System Messages > Details message in the Syslog appears or the Invalid Credentials message appears when testing connections, the user should make sure that all the required services are running. Also, the user may need to refer to [Chapter 6, “Configuring Cisco Unified Communications Manager for Cisco TelePresence Manager”](#) to review what services need to be running on the Cisco UCM for CTS-Manager.

If it is necessary to drill down further into error data, go to the Log files. For further information about Log details, go to [Chapter 16, “Troubleshooting Cisco TelePresence Manager”](#)

## Software Upgrade

If you are the system administrator and know the SysAdmin password, you can access the Software Upgrade window to monitor and maintain system software by going to Configure > Software Upgrade. This window displays the version number of the system software. There are also two buttons to assist you in version maintenance between primary (active) and backup (inactive) and upgrading the system software, as follows:

**Figure 9-3** *Configure > Software Upgrade Window*



- [Switch Versions](#)—The hard drive on the server on which this CTS-Manager is installed is partitioned into two areas. Each area can contain a system image. The **Switch Version** button allows you to switch between the Active and Inactive versions of the system software.
- [Upgrade Software](#)—This button loads 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. In addition to SFTP, FTP is also supported on a best-effort basis due to variations of behavior between different FTP servers. Only username/password-based login is supported. Anonymous login is not supported.



**Note**

After successfully upgrading from CTS-Manager 1.6 or 1.7 to 1.8, the status message in the Most Recent Upgrade Attempt section, will display “Software versions switched” instead of “Upgrade completed successfully”.



**Note**

Secure FTP (SFTP) is the recommended mode for downloading the upgrade software over the network.

**Caution**

For the upgrade to be successful, the NTP server(s) specified in the Configure > System Settings > NTP tab must be an IP address.

## Upgrading to Cisco TelePresence Manager 1.8

Important notes about upgrading to CTS-Manager 1.8:

- Switching calendar application type, e.g. changing from Exchange to Domino, during upgrade is not supported. A fresh install is required to install Cisco TelePresence Manager to switch to Domino deployment.
- Software upgrade is only supported from CTS-Manager 1.6.x, and 1.7x.
- Data is automatically migrated during software upgrade, with the following exceptions:
  - custom email templates
  - log files
- Perform a backup before performing a CTS-Manager upgrade and another backup after upgrade is completed and verified.
- If for any reason you must revert to a previous release after the upgrade is completed, you can switch to the old partition from CTS-Manager.
- Make sure you have an endpoint license before you upgrade to CTS-Manager 1.8. If you do not have this license, you will not be able to add TelePresence rooms (endpoints) to CTS-Manager. After upgrade, the SysAdmin must go to the Configure > Licenses window and click the License Files tab to upload the license.
- After successfully upgrading from CTS-Manager 1.7 to 1.8, the upgrade status displays “Software versions switched” instead of “Upgrade completed successfully.”

**Note**

In rare instances, upgrades could take up to 5 hours or more. Please allow ample time and do not assume that the system has frozen during upgrades. Do not reboot.

## Switch Versions

The hard drive on the CTS-Manager server is divided into two partitions. CTS-Manager is always using the software on the Active partition, while the other partition always contains the previous software version. The software image versions are identified in the Configure > Software Upgrade window.

You may find it necessary to switch the version of the CTS-Manager software.

- To switch between the software versions stored on the two partitions, click the **Switch Version** button.

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

## Upgrade Software

This task upgrades the CTS-Manager software by loading and applying a patch file from either a CD-ROM or an SFTP/FTP network host. Before starting this task, determine the source of the patch file.

To upgrade the CTS-Manager software:

**Step 1** Click the **Upgrade Software** button.

The Source Selection dialog box appears.



**Note** Once you have launched the Upgrade Wizard the upgrade process cannot be started by any other user logged into the same Cisco TelePresence Manager server.

**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 following information, and then click **Next** to go to the File Selection window.

- **Host**—The hostname of the network server.
- **Port**—The port. By default, port 22 is used to access the server; supply the correct port number, if required.



**Note** If you choose to perform the software upgrade using FTP, you do not need to supply a port number.

- **Username and Password**—The user account and password are required to log into the server.
- **Storage Path**—The file path to the patch file, e.g. */localview/ctm\_patch*



**Caution**

Performing FTP for Upgrade, Backup and Restore is provided on a best-effort basis, due to potential variations in the responses sent by the FTP server. Only username/password-based login is supported. Anonymous login is not supported.

Secure FTP (SFTP) is the recommended mode of transferring files over the network.

**Figure 9-4**      *Software Upgrade - Source Selection Window*

**Cisco TelePresence Manager - Mozilla Firefox**

**Software Upgrade**

**1 - Source Selection**

**2 - File Selection**

**3 - File Preparation**

**4 - Confirmation**

**Source Selection**

Select the source of the file. To upgrade from CD-ROM/DVD, the disk must be mounted in the server. When using the Network option, a wired connection is recommended for the best results.

Source Type: ☐ CD-ROM ☒ Network

Transfer Protocol: ☒ SFTP ☐ FTP

Host:  \*

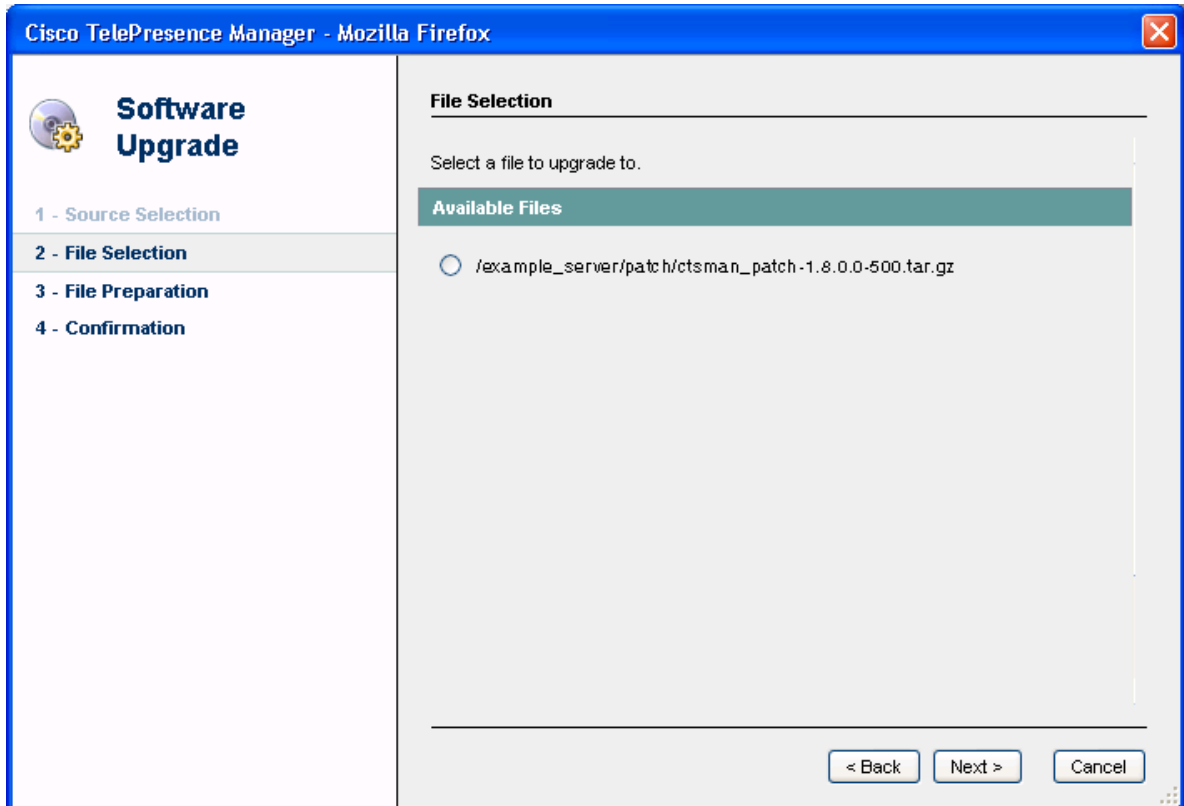
Port:  \*

Username:  \*

Password:  \*

Storage Path:  \*

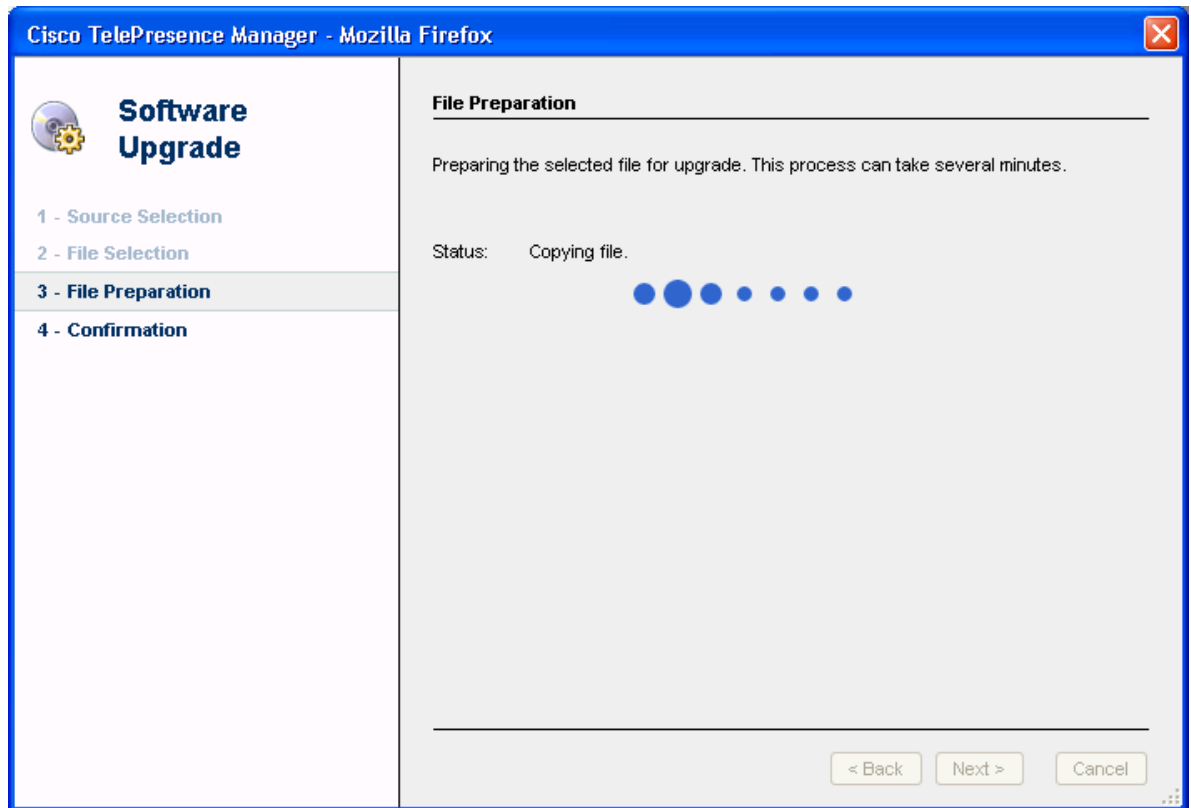
Figure 9-5 Software Upgrade - File Selection window



**Step 3** In the File Selection page, choose the file to load by clicking its radio button. Then click **Next**.

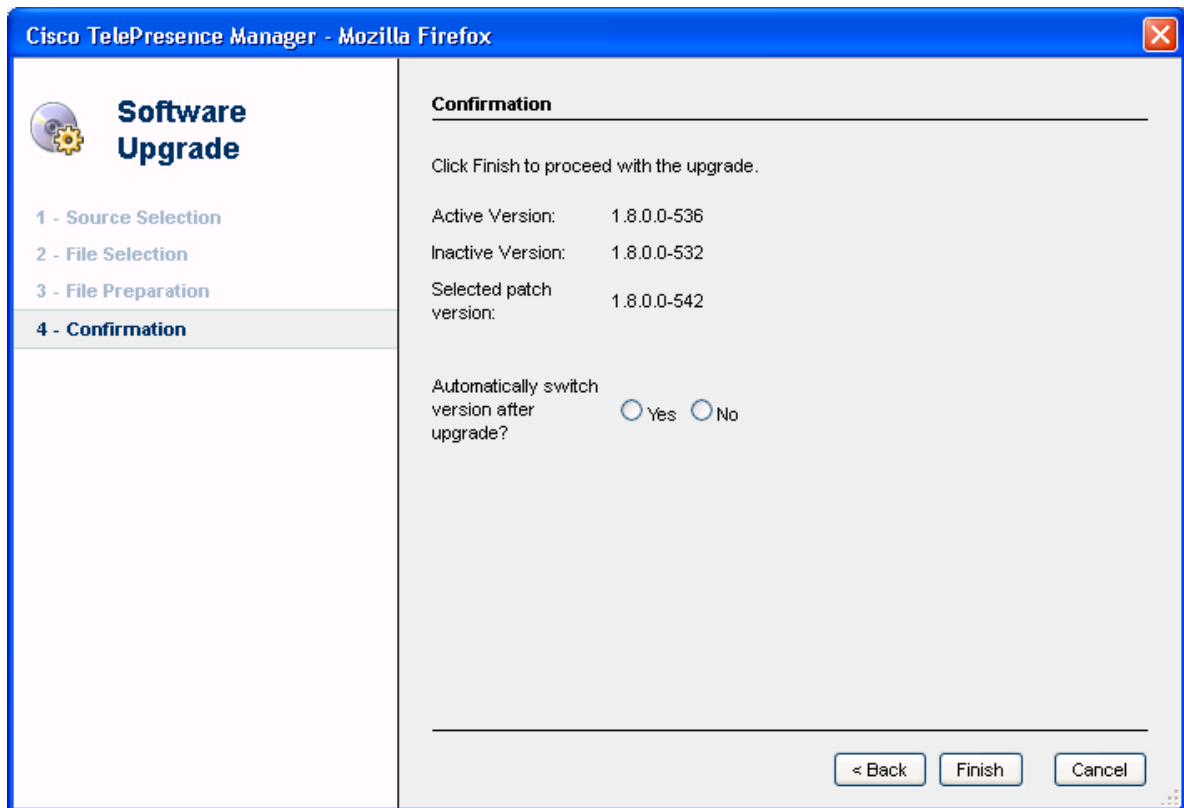


**Figure 9-6**      *Software Upgrade - Patch File Preparation Window*



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.

Figure 9-7 Software Upgrade - Confirmation Window



The software upgrade 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 4** Click **Yes** or **No** to make your choice and then click **Next** to finish the software upgrade task. A confirmation dialog box appears.



**Note** If you select Yes, the current active version will become the inactive version after upgrade is complete.

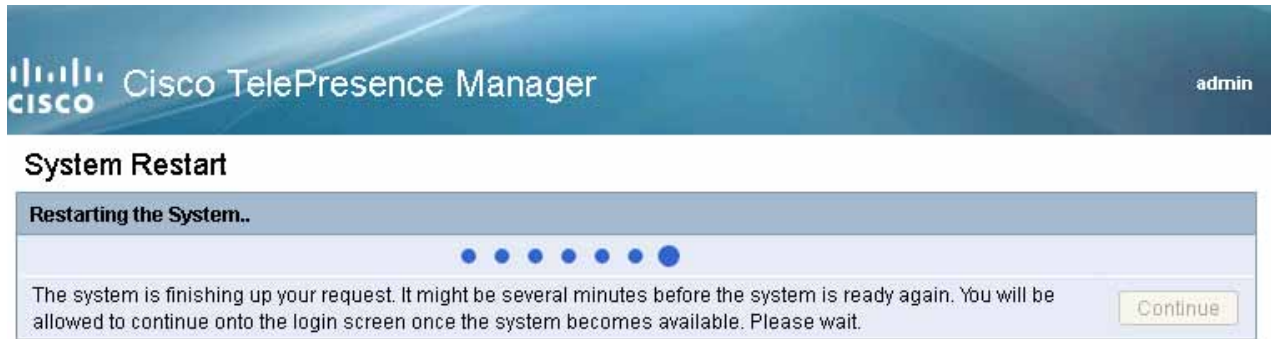
- Step 5** Click **Finish** to proceed with the upgrade.



**Caution** Once you click **OK** to confirm, you cannot cancel the upgrade.

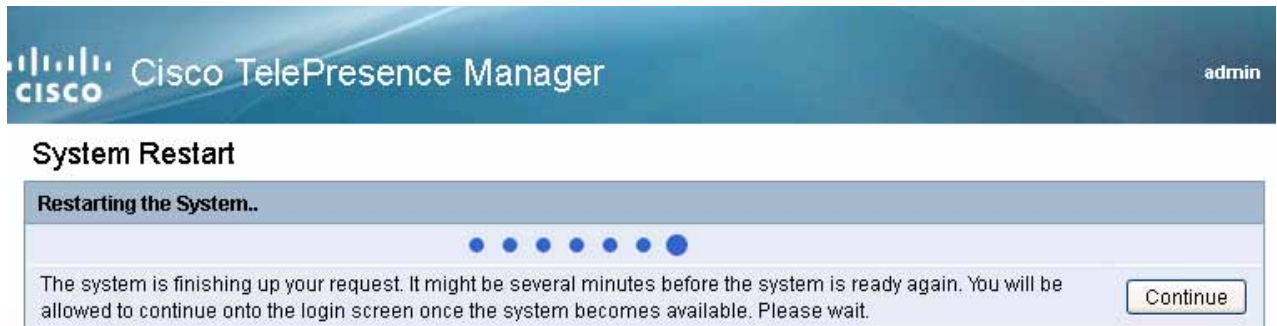
The software upgrade wizard closes revealing the Software Upgrade window in CTS-Manager. A progress indicator is displayed on the screen to show the upgrade is in progress. The Status field displays the current step being completed. When the final step is completed, CTS-Manager restarts.

**Figure 9-8**      *Software Upgrade - CTS-Manager Restarting*



While CTS-Manager is restarting, the Continue button is greyed out.

**Figure 9-9**      *Software Upgrade - CTS-Manager Upgrade Completed Window*



When CTS-Manager is restarted, the Continue will no longer be greyed out.

**Step 6**      Click **Continue** to go to the CTS-Manager login screen and log in to CTS-Manager.

If you are upgrading from release 1.6 of CTS-Manager, the SysAdmin must upload licenses to enable the license-based features. The Endpoint (Room) license is required in order to schedule TelePresence meetings.

Go to [Licensing for CTS-Manager, page 11-6](#) for more information.

**Figure 9-10**     *Software Upgrade - CTS-Manager Login Window*

The image shows the login window for Cisco TelePresence Manager. It has a dark blue background with a subtle wave pattern. In the top left, there is the Cisco logo (a stylized bridge) followed by the text "Cisco TelePresence Manager". On the right side, there are two white input fields: the top one is labeled "Username:" and the bottom one is labeled "Password:". Below the password field is a "Log In" button with a black border. In the bottom left corner, there is a copyright notice: "© 2006-2011 Cisco Systems, Inc. Cisco, Cisco Systems and Cisco Systems logo are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and certain other countries. [View the EULA](#)".

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# Cisco TelePresence Manager Window

The Cisco TelePresence Manager window is divided into several panes with different functionality.

## Header Pane

Figure 9-11 Cisco TelePresence Manager Header Pane

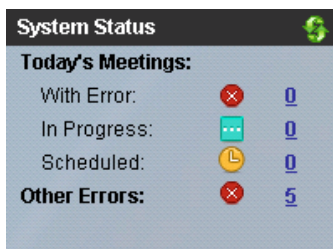


A header at the top of all CTS-Manager windows shows either “admin” or the login name of the Live Desk currently logged in and provides four links:

- **Preferences**—Display the Browser’s location information.
- **Log Out**—Log out of the system.
- **About**—Display licensing information.
- **Help**—Display online help for CTS-Manager.

## System Status Pane

Figure 9-12 System Status Pane



System Status is always in view in the lower left corner of the CTS-Manager window. Both the Live Desk and the administrator must closely monitor this area for notification of system errors and changes in the status of today’s meetings.

The icons and numbers are links. They will take you to a window in the CTS-Manager that helps you identify problems for the With Error state or see more information about meetings in the In Progress and Scheduled states.

The following meeting states are displayed for Today’s Meetings:

- With Error
- In Progress
- Scheduled

The Other Errors area displays a cumulative number of errors listed in the Dashboard.

## Navigation Pane

The navigation pane contains the list of commands you can run within Cisco TelePresence Manager. The commands are divided into three drop-down lists:

- **Monitor**— This drop-down list contains commands available to a Live Desk, Administrator, or SysAdmin.
- **Support**— This drop-down list contains commands available to a Live Desk, Administrator, or SysAdmin.
- **Configure**— This drop-down list contains commands available to an Administrator or SysAdmin. If you log in as a SysAdmin the System Settings and Software Upgrade commands are included in the list.
- **Troubleshoot**— This drop-down list contains commands available to an Administrator or SysAdmin.

**Figure 9-13**      *Navigation Pane*



## Work Pane

Figure 9-14 Work Pane



The frame to the right of the Navigation pane is the work area. The gray bar above the content area shows the navigational path so you can see where you are at any time.

The following sections describe objects, functions, and information displayed in the Work pane associated with a specific command.

### Tabs

Some windows have tabs that you click to display additional functionality related to a command.

### Filtering Information

Some windows provide fields where you can enter criteria to filter the information contained in a report. Click the Filter button to display the reports using the criteria you specify. The settings are temporary; when you exit the page, the criteria are removed.

### Obtaining Additional Information and Help

To access additional information or relevant windows, click a highlighted link.

## Navigating Long Lists

When there is a long list of data in a window, you can navigate through it using Next, Last, First, and Previous buttons at the bottom of the window. The Rows Per Page drop-down list also found at the bottom of the window can be used to change the number of rows displayed. Choose 10, 20, 50, or 100 rows per page. The setting is temporary, and when you exit the page the default setting is restored.

## Copying and Pasting Information

You can place information displayed by the CTS-Manager in a file using standard copy-and-paste functions.

## Entering Information in Fields

For information provided in fields, use the mouse to highlight and delete existing information. Enter new information.

New or modified information is applied using the Apply button.

To back out of changes and return to original settings, use the Reset button.

## Entering Telephone Numbers

Telephone numbers must be entered into CTS-Manager fields exactly as they will be dialed by the IP phone. For example, if you need to dial 9 to get an outside telephone line and you are calling a different area code or international dialing code, you must provide all the required numbers to the CTS-Manager in the exact sequence in which they should be dialed. The following is an example: **915105550100**.

## Entering Meeting Room (Endpoint) Names

The names of meeting rooms (endpoints) must be entered into CTS-Manager fields exactly as they are stored in your Microsoft Exchange, or IBM Domino database. If an endpoint is listed as **M-Room 1/3 at Main** in the Microsoft Outlook or Lotus Notes list of resources, that name must be entered exactly the same way in the CTS-Manager. Otherwise, the system will not be able to match records and an error occurs.

## Viewing All Information

Sometimes only a portion of text is visible and is completed by ellipses. You can see the full text in a tooltip by slowly passing the mouse pointer over the partial text. You can do this in any field in the user interface where text is cut off.

# Preferences

Clicking Preferences in the header pane displays the Preferences window.

**Figure 9-15**      *Preferences Link in the Header Pane*





The first time you log in, you need to specify the time zone you are in. This localizes Cisco TelePresence Manager's meeting times to your location. You can use the Preferences window to change the time zone later.

**Note**

The time zone setting in the Preferences window is for the user only and does not affect the time zone setting of the CTS-Manager server, which is configured during installation.

**Figure 9-16**      *Preferences window*

Preferences	
⚙ = Required fields	
⚙ Time Zone:	(UTC -7.0) America/Los_Angeles
Observes DST:	Yes
Previous Login:	Oct 1, 2011 9:24 AM (America/Los_Angeles) from 10.21.150.227
<input type="button" value="Apply"/> <input type="button" value="OK"/> <input type="button" value="Cancel"/>	





# CHAPTER 10

## Initializing Cisco TelePresence Manager

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First Published: Nov 2, 2011, OL-22226-01

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### Introduction

After a first-time or fresh installation of Cisco TelePresence Manager, the next step is to initialize the program.



#### Note

If you have upgraded to Cisco TelePresence Manager 1.8, you do not initialize the program but you must install an endpoint license. Without this license, your configured endpoints will not be recognized and you will not be able to schedule meetings. For more information, go to [Chapter 11, “Additional Installation Configurations for Cisco TelePresence Manager”](#).

Initializing Cisco TelePresence Manager enables 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 room (endpoint) availability and telephone support.

The tasks for initializing the Cisco TelePresence Manager are described in the following sections.

## Post-Install Guidelines for CTS-Manager

The purpose of this section is to outline the information you need to initialize CTS-Manager after either a fresh or first-time installation.

The tasks required for additional configurations of CTS-Manager are provided in the following table.

**Table 10-1** *Post-Install Procedure Guidelines for Setting Up CTS-Manager*

Setup Procedure Guidelines after Installing CTS-Manager	Description	Location
Initializing CTS-Manager	After first-time installation of the CTS-Manager software, the next process is initializing CTS-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	Current Chapter
Additional Configuration Procedures for CTS-Manager	The administrator makes use of the System Configuration window to perform system configuration tasks such as uploading licenses, synchronizing system databases, managing security, and reconfigure system settings	<a href="#">Chapter 11, “Additional Installation Configurations for Cisco TelePresence Manager”</a>
Configuring Cisco TelePresence WebEx OneTouch for CTS-Manager	Describes how to set up Cisco TelePresence WebEx OneTouch in CTS-Manager, which allows WebEx participants to join TelePresence meetings.	<a href="#">Chapter 12, “Configuring Cisco WebEx OneTouch for Cisco TelePresence Manager”</a>

**Table 10-1** *Post-Install Procedure Guidelines for Setting Up CTS-Manager (continued)*

Setup Procedure Guidelines after Installing CTS-Manager	Description	Location
Monitoring and Supporting CTS-Manager	Describes the support features available when you log into CTS-Manager using a Live Desk role.	<a href="#">Chapter 13, “Monitoring and Supporting Cisco TelePresence Manager”</a>
Email and Meeting Action Requirements	The Calendar service (either Microsoft Exchange or IBM Domino) sends an acceptance email to the meeting organizer, with the notice that the rooms (endpoints) have been reserved and placed on the calendar. CTS-Manager also sends either a Confirmation email or an Action Required email to the meeting organizer when a meeting is scheduled.	<a href="#">Chapter 14, “Meeting Manager and CTS-Manager Emails”</a>

If at any time you encounter problems, go to [Chapter 16, “Troubleshooting Cisco TelePresence Manager”](#) to see how to correct the problem.

## Initializing CTS-Manager After Installation

This section contains the following topics pertaining to initialization:

- [Required Information and Equipment, page 10-3](#)
- [Initialization Procedure, page 10-4](#)

To initialize Cisco TelePresence Manager, you must enter contact and access information for your Microsoft Exchange Server, Lightweight Directory Access Protocol (LDAP) server, and Cisco Unified CM in a series of one-time-only, post-installation initialization windows.

### Required Information and Equipment

To set up and initialize Cisco TelePresence Manager, you need the information previously entered or created during pre-installation.

Additionally, Cisco TelePresence Manager must have network access to a computer running Windows Internet Explorer version 6.1.3, Microsoft Exchange Server and Active Directory, (set to level 2) server, Microsoft EWS server, or IBM Domino Server and Domino Directory Server, and Cisco Unified Communications Manager.

You must also have an endpoint license in order to fully initialize CTS-Manager. If you do not have this license, you will not be able to add rooms (endpoints) to CTS-Manager. After installation and initialization, go to the Configure > License window and click the License Files tab to upload the license.

## Initialization Procedure

To initialize CTS-Manager, follow these steps:

1. [Log In and Set Time Zone, page 10-4](#)
2. [Select Configuration Options, page 10-5](#)
3. [Select Calendar Server, page 10-9](#)
4. [Configure LDAP Servers, page 10-10](#)
5. [Configure Unified CM, page 10-14](#)
6. [Configure Calendar Server, page 10-15](#)
7. [Configure Database Backup Schedule, page 10-19](#)

## Log In and Set Time Zone

To log in and set your time zone:

- Step 1** Using Microsoft Explorer, go to the Cisco TelePresence Manager server name or IP address. See the following example.
- `https:// server hostname or IP address`
- Step 2** At the product page that appears, click **Cisco TelePresence Manager**.
- Step 3** At the login page, enter the SysAdmin username and password and click **Log In**.



**Note** SysAdmin username and password are the Administrator ID and password that were created during installation of CTS-Manager.

The Time Zone Setting window appears.

**Figure 10-1** Timezone Setting Window

**Cisco TelePresence Manager**

**Timezone Setting**

To assist Cisco TelePresence Manager in showing date and time properly, specify the location in which the computer is located. Note that time zones of the same offset might or might not observe daylight saving time (DST). Ensure that the appropriate location is selected. To change your location in the future, go to Preferences next time you sign on.

Your Location: America/Los\_Angeles (GMT -8.0)

Selected location observes DST: ☒ Yes

Locale: English [en]

- Step 4** Select your location and locale using the drop-down menus and click **Continue**.  
A window pops up asking you if you want to apply changes.
- Step 5** Click **OK**.

The first-time setup welcome window appears displaying the following information about the CTS-Manager server hardware and software you have installed:

- SKU
- Hostname
- IP Address
- Subnet Mask
- MAC Address
- Hardware Model
- Software Versions
- OS Version

**Step 6** Click **Next**.

The License Agreement window appears.

**Step 7** Review the license agreement and check the check box next to **I accept the terms of the license agreement**.

**Step 8** Click **Next**.

**Step 9** The Server Roles window appears.

---

## Server Roles

The Server Roles window allows you to choose how you want to deploy the CTS-Manager server.

The options are:

- A standalone server

Choose this to set up CTS-Manager as a standalone server to manage up to 500 endpoints.

- A server in a cluster

Choose this to set up CTS-Manager as part of a cluster to manage more than 500 endpoints.



### Warning

**Clustering Support Discontinued** Cisco no longer provides support for the clustering feature originally introduced in release 1.8. For questions, contact Ron Lewis: [ronlewis@cisco.com](mailto:ronlewis@cisco.com).

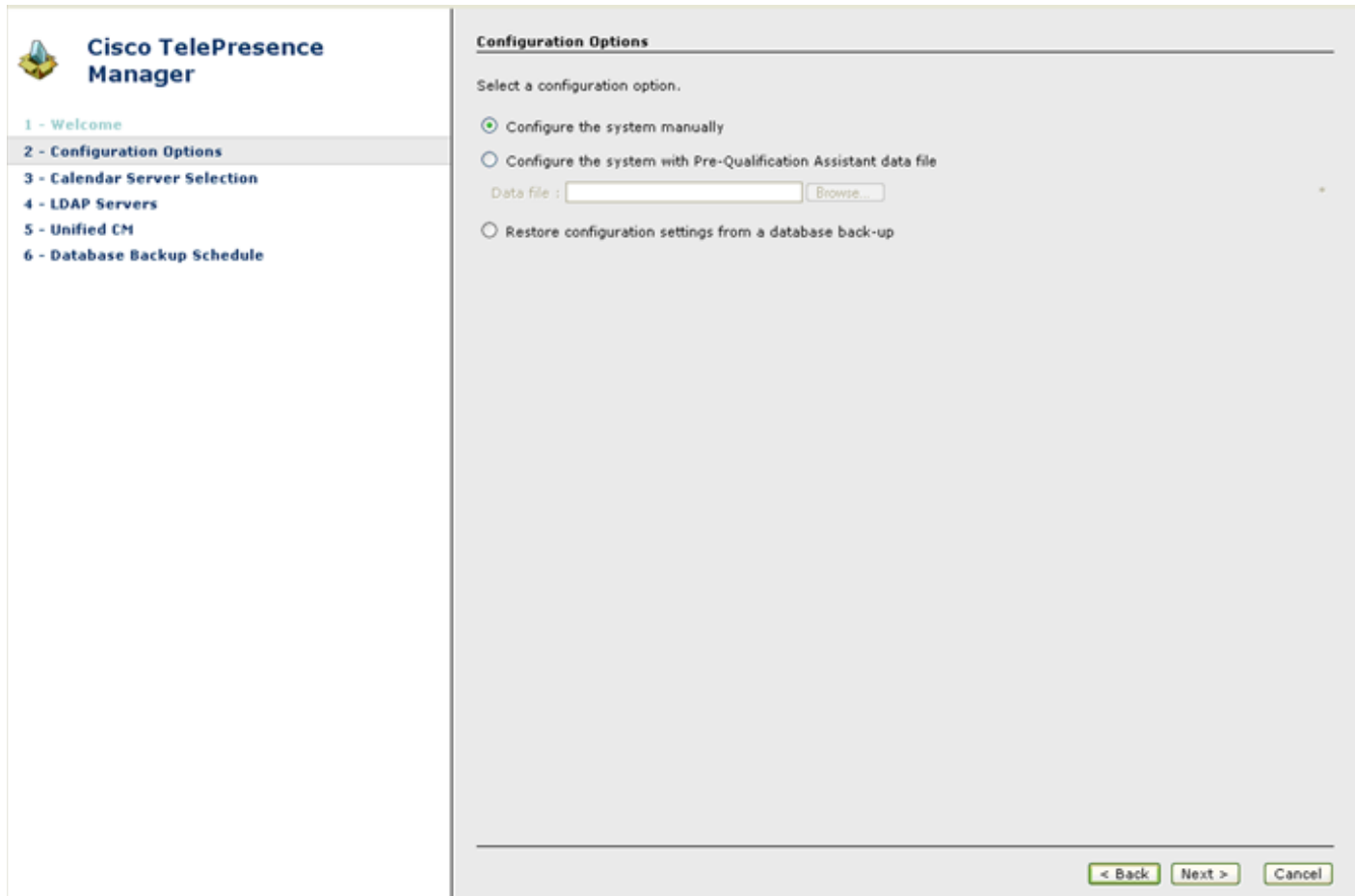
---

Select a server role and click **Next**.

## Select Configuration Options

The Configuration Options window allows you to configure the system manually or to restore the configuration settings from a database backup.

Figure 10-2 Configuration Options Window - Manual Configuration



The Configuration Options window provides three options for configuring CTS-Manager:

- [Configure the System Manually, page 10-6](#)
- [Configure the System with PreQualification Assistant Data File, page 10-7](#)
- [Restore Configuration Settings from a Database Backup, page 10-8](#) (Not available for Commercial Bundle)

### Configure the System Manually

This option allows you to set up your configurations for a first-time setup. You are not able to do a restore or use the PreQualification data files.

You will have to add the server information in all the screens.

If you are setting up Microsoft Exchange as your calendar server for the first time:

- Select **Configure the system manually** and click **Next**.

The Calendar Server window appears.

Go to [Select Calendar Server, page 10-9](#) for more information



## Configure the System with PreQualification Assistant Data File

If you choose to configure CTS-Manager using the PreQualification data, this option allows you to select the data file that you have previously set up. Refer to [Chapter 7, “Installing and Configuring Cisco PreQualification Assistant”](#)

**Figure 10-3** Configuration Options - PreQualification Configuration

The screenshot shows the Cisco TelePresence Manager Configuration Options window. On the left is a sidebar with a navigation menu:

- 1 - Welcome
- 2 - Configuration Options (highlighted)
- 3 - Calendar Server Selection
- 4 - LDAP Servers
- 5 - Unified CM
- 6 - Calendar Server
- 7 - Database Backup Schedule

The main content area is titled "Configuration Options" and contains the following text:

Select a configuration option.

- ☐ Configure the system manually
- ☒ Configure the system with Pre-Qualification Assistant data file
- ☐ Restore configuration settings from a database back-up

Below the radio buttons, there are two input fields:

Data file :

Protective Password:

At the bottom right, there are three buttons: "< Back", "Next >", and "Cancel".

To configure the system using the Pre-Qualification Assistant data file:

- Step 1** Click **Browse**, select the data file, and click **Open**.
- Step 2** Enter the password you created when you exported the file from the PreQualification Assistant.
- Step 3** Click **Next**.

The Calendar Server Selection window appears.

Go to [Select Calendar Server, page 10-9](#).



### Note

If this option is selected, it is necessary to test the LDAP servers connections through the PreQualification Assistant.

## Restore Configuration Settings from a Database Backup

This option allows you to select the data that you have previously backed up. Refer to [Chapter 11, “Additional Installation Configurations for Cisco TelePresence Manager”](#), section, Database - Status, Backup, and Restore for further details on backing up your system database.



### Note

This option is not available with the commercial bundle of CTS-Manager.

To restore configuration settings from a database backup:

- Step 1 Select the **Restore configuration settings from a database backup** option and click **Next**.
- Step 2 The Restore window appears.
- Step 3 Fill in the fields by providing the path of the recovery file and the filename.

Figure 10-4 System Configuration - Restore Window

- Step 4 After filling in the details, click the **Restore Now** button. The backup data is restored to the CTS-Manager server.

After selecting the configuration option and setting up the data, the next step is to set up the calendar server. Go to [Select Calendar Server, page 10-9](#).

## Select Calendar Server

The Calendar Server Selection window allows you to select the calendaring server for your system. The options are:

- Microsoft Exchange
- MS Exchange Web Services (EWS)
- IBM Domino
- Scheduling API
- No Calendaring Service

To select a calendar server:

**Step 1** Select a calendar server from the displayed options.



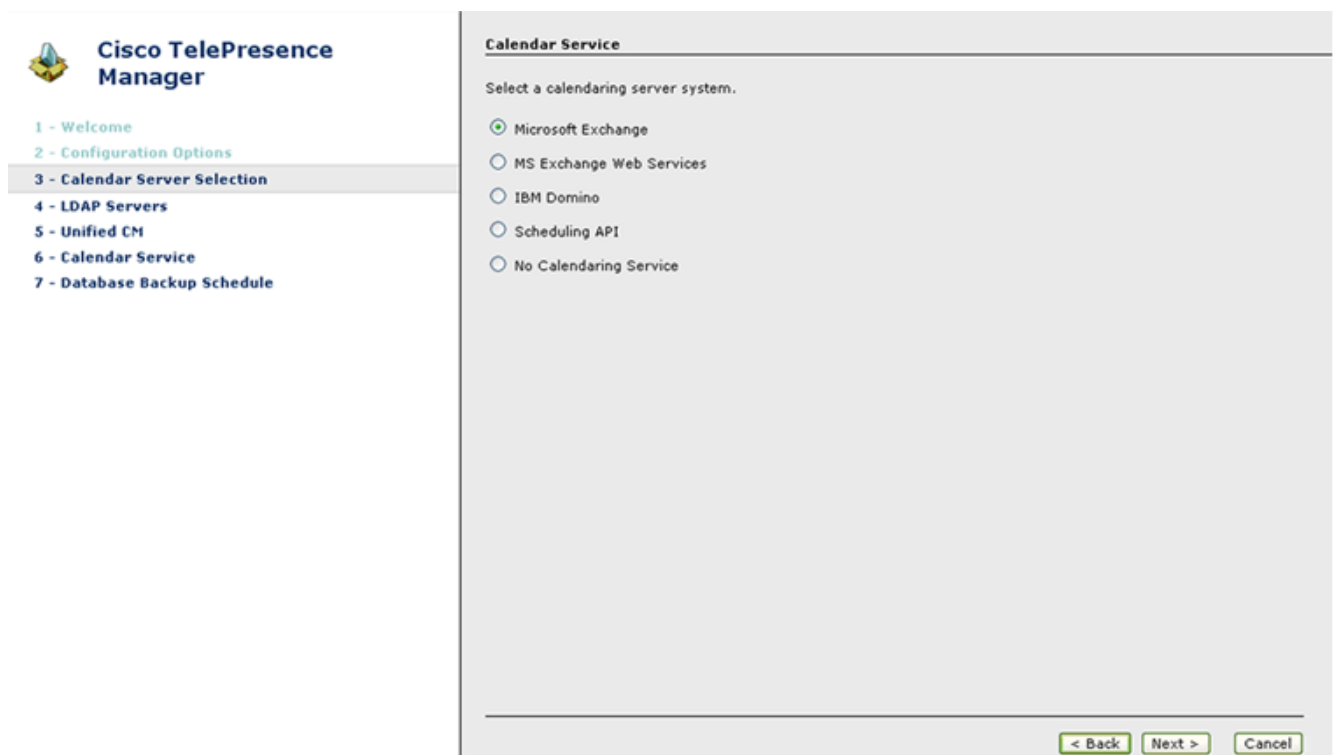
**Note** If you choose Scheduling API, review the license agreement and check the check box next to **I accept the terms of the license agreement**.

**Step 2** Click **Next**.

The LDAP Servers window opens.

Go to [Configure LDAP Servers, page 10-10](#).

**Figure 10-5** Calendar Service Window



## Configure LDAP Servers

Lightweight Directory Access Protocol (LDAP) is a protocol definition for accessing directories. This window provides you with the records of the LDAP servers that have been set up. To add new ones or to edit the one listed, select the record that is listed, then click either the **New** or **Edit** button. For more information about setting up LDAP servers, refer to [Chapter 11, “Additional Installation Configurations for Cisco TelePresence Manager”](#)

If you have selected the “Configure the system with PreQualification Assistant data file” option, you must select the server record and click Edit. The next window that appears gives you the setup information, you must test the connection. You have to do this with all the LDAP servers that you have configured before you can click the Next button.

To configure an LDAP Server:

- 
- Step 1** Select the first listed LDAP server, then click **Edit**. If adding a new LDAP server, click **New**.
- Step 2** When the LDAP Servers popup window appears, make sure the existing information is correct or enter the new LDAP information. For further information, refer to [LDAP Server, page 11-14](#). If necessary, make changes in the fields.
- Click the **Test Connection** button.
- The system tests the connection information. A popup window opens and displays the message “Connection to <....> Server was Verified.” Click **OK**, then click **Next**.
- Step 3** The LDAP Server window re-appears. If you have more LDAP servers to test, repeat steps 1 through 3.
- Step 4** If all the server settings have been tested, click the **Next** button.
- The Unified CM window appears. Go to [Configure Unified CM, page 10-14](#).
- 



### Note

If the system cannot verify the container information, the popup window directs the user to re-enter the information.

---

Figure 10-6 LDAP Server Window for Microsoft Exchange

**Cisco TelePresence Manager**

- 1. Welcome
- 2. Configuration Options
- 3. Calendar Server Selection
- 4. LDAP Servers**
- 5. Unified CM
- 6. Calendar Service
- 7. Database Backup Schedule

**LDAP Server**

Enter the user container Relative Distinguished Names (RDNs) for LDAP users. The RDNs must be validated successfully before you can advance to the next step. Select the object class and its attribute to map to the corresponding object field. Sample data must be visually verified before you can advance to the next step.

Hostname	User Name	Default context
<input type="radio"/> example-ad06	cn=super user, cn=users, DC=ente, DC=com	DC=ente, DC=com

New... Edit... Delete Refresh

Showing 1-1 of 1 10 per page Go

Page 1 of 1

Back Next Cancel

## Exchange LDAP Mappings

The following table describes the settings for the Person fields in both the New and Edit windows.

**Table 10-2 LDAP Person - Objects and Attributes Microsoft Exchange**

Application Object	Application Attribute	LDAP Object Class	LDAP Attribute
<b>Person</b>			
	Title	Person	title
	Location	Person	l
	DeptID	Person	department
	Country	Person	co

**Note** The Object Class mappings need not be changed and are displayed ready only. Only the attribute mappings need to be changed if required.

Figure 10-7 LDAP Servers Window for IBM Domino

**Cisco TelePresence Manager**

1 - Welcome  
2 - Configuration Options  
3 - Calendar Server Selection  
**4 - LDAP Servers**  
5 - Unified CM  
6 - Calendar Service  
7 - Database Backup Schedule

**LDAP Server**

Enter the user container Relative Distinguished Names (RDNs) for LDAP users. The RDNs must be validated successfully before you can advance to the next step. Select the object class and its attribute to map to the corresponding object field. Sample data must be visually verified before you can advance to the next step.

Showing 1-1 of 1 10 per page 00

Hostname	User Name	Default context
<input type="radio"/> example-domino08	cn=super user, cn=users,DC=test,DC=com	DC=test,DC=com

New... Edit Delete Refresh

Page 1 of 1

Back Next Cancel

## Domino LDAP Mappings

These attributes are used by the Domino LDAP server to retrieve the user's e-mail and display name information. For most of the Domino deployments, this information does not have to be changed.



**Caution** The object and attribute mappings for Domino/Directory Server deployments are listed in [Table 10-3](#) and cannot be changed after installing and configuring CTS-Manager.

**Table 10-3** LDAP Person - Objects and Attributes for IBM Domino

Application Object	Application Attribute	LDAP Object Class	LDAP Attribute
<b>Person</b>			
	Country	Person	c
	EmailID	Person	mail
	DeptID	Person	department

Table 10-3 LDAP Person - Objects and Attributes for IBM Domino (continued)

Application Object	Application Attribute	LDAP Object Class	LDAP Attribute
	SchedulerName	Person	cn  <b>Note</b> Do not change this value. If this value is changed incorrectly, meetings will not have the correct information.
	DisplayName	Person	displayname
	Title	Person	title
	Location	Person	location

Figure 10-8 LDAP Servers Window for Scheduling API

**Cisco TelePresence Manager**

- 1 - Welcome
- 2 - Configuration Options
- 3 - Calendar Server Selection
- 4 - LDAP Servers**
- 5 - Unified CM
- 6 - Calendar Service
- 7 - Database Backup Schedule

### LDAP Server

Enter the user container Relative Distinguished Names (RDNs) for LDAP users. The RDNs must be validated successfully before you can advance to the next step. Select the object class and its attribute to map to the corresponding object field. Sample data must be visually verified before you can advance to the next step.

Hostname	User Name	Default context
example_idap	cn=super user, cn=users,DC=evte,DC=com	DC=evte,DC=com

New... Edit Delete Refresh

Showing 1-1 of 1 10 per page Go

< Back Next > Cancel

## Configure Unified CM

This window allows you to add a new Cisco Unified Communications Manager (Unified CM) server or review configured Unified CM server(s) and verify their setup.

To configure Unified CM:

- Step 1** Select the first listed Unified CM server, then click **Edit**. If adding a new Unified CM server, click **New**.
- Step 2** When the Unified CM Service window appears, make sure the existing information is correct or enter new information. For further information, refer to [Unified CM, page 11-54](#). If necessary, make changes in this window.
  - Click the **Test Connection** button. The system tests the connection information. A popup window opens and displays the message “Connection to <....> Server was Verified.” Click **OK**, then click **Next**.
- Step 3** The Unified CM Service window re-appears. If you have more server connections to test, repeat Steps 1 through 3.
- Step 4** If all the server settings have been tested, click the **Next** button.

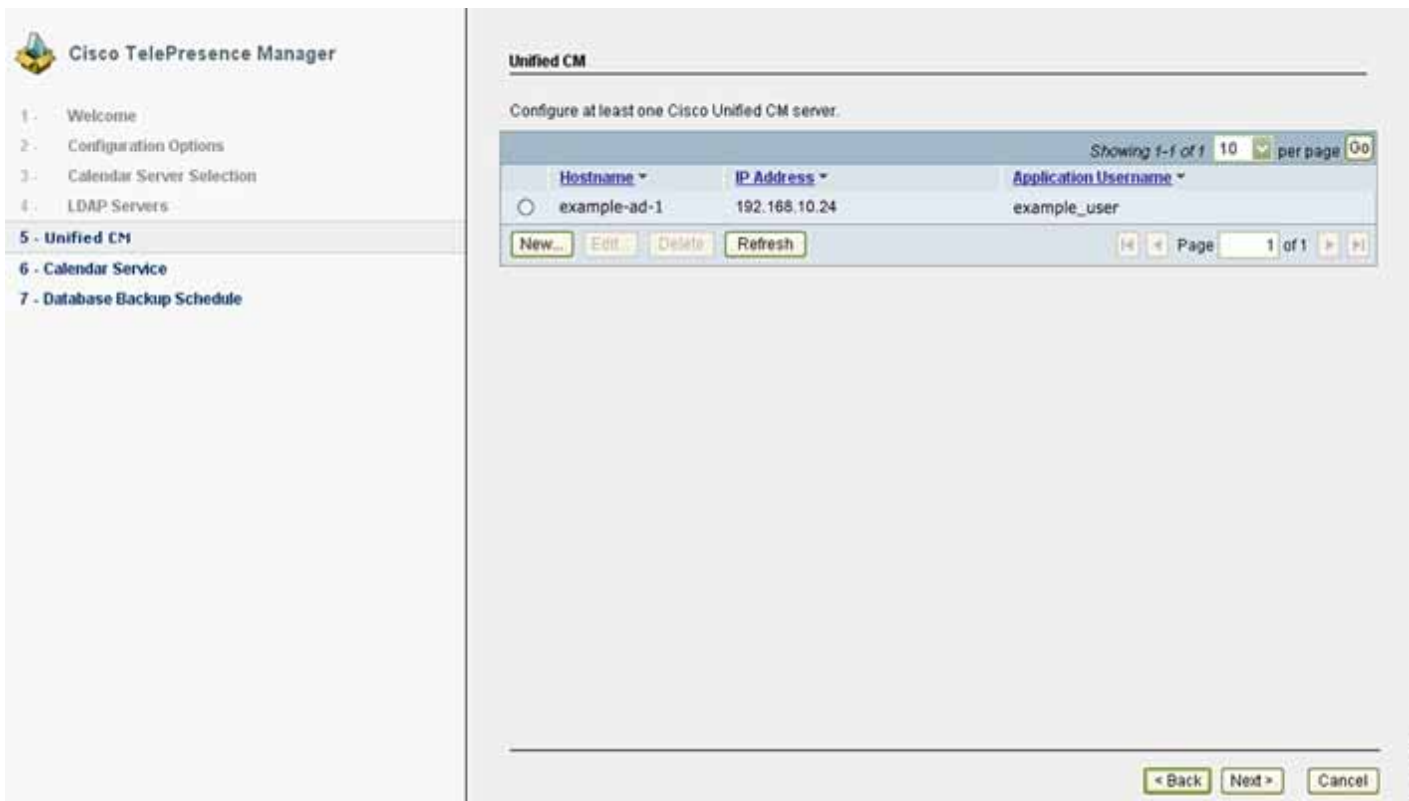


### Note

If the system cannot verify the connection, the popup window directs the user to re-enter the information.

The calendar server window appears. Go to [Configure Calendar Server, page 10-15](#).

**Figure 10-9** Unified CM Window for Microsoft Exchange





## Configure Calendar Server

This window allows you to review the calendar server that was configured, make changes if needed, and verify the configuration. Microsoft Exchange and Domino calendaring server examples are shown below. For further information about calendar server configurations, refer to [Chapter 11, “Additional Installation Configurations for Cisco TelePresence Manager”](#).

To configure the calendar server:

- Step 1** Review the existing calendar server information or enter new calendar server information.
- For information about Microsoft Exchange fields, see [Explanation of Microsoft Exchange Fields, page 10-16](#).
  - For information about IBM Domino fields, see [Explanation of IBM Domino Fields, page 10-17](#).
  - For information about Scheduling API fields, see [Explanation of Scheduling API Fields, page 10-19](#).
- Step 2** After filling in all of the fields, click **Test Connection** to verify this configuration.
- Step 3** When the verification is completed, click the **Next** button.

The Database Backup Schedule window appears. Go to [Configure Database Backup Schedule, page 10-19](#).

**Figure 10-10** Calendar Server Window for Microsoft Exchange

**Cisco TelePresence Manager**

- 1 - Welcome
- 2 - Configuration Mode
- 3 - Configuration Options
- 4 - Calendar Server Selection
- 5 - LDAP Servers
- 6 - Unified CM
- 7 - Calendar Server**
- 8 - Database Backup Schedule

### Microsoft Exchange

Enter configurations for Microsoft Exchange calendaring server.

Host:  \*

Bind Method: ☒ Secure ☐ Normal

Port:  \*

SMTP Domain:  \*

Logon Name:

SMTP LHS:  \*

Password:  \*

Certificate:   \*

- Host: the Microsoft Exchange server host name or IP address.
- Logon Name: user account that has read access to the Exchange server. This account name is used to log on to an Active Directory domain.
- SMTP LHS/Password: Left hand side of the email address of the user account that has read access to the Exchange server. Password necessary for authentication.

\* Required Fields

## Explanation of Microsoft Exchange Fields

- **Host**  
Host is the hostname or IP address of the Microsoft Exchange Server host.
- **Bind Method**  
The bind method indicates the desired level of security.
  - Secure—Secure Socket Layer (SSL) connection requires the Distinguished Encoding Rules (DER) Certificate for the Microsoft Exchange Server. You must complete the Certificate field on this window before you can proceed.
  - Normal—The Cisco TelePresence Manager communicates with the Microsoft Exchange Server in cleartext using HTTP.
- **Port**  
The default value is 80, for secure mode the value is 443.
- **SMTP Domain Name**  
This field requires a sequence of case-insensitive ASCII labels separated by dots (for example, “cisco.com”)—defined for subtrees in the Internet Domain Name System and used in other Internet identifiers, such as hostnames, mailbox names, and URLs.
- **Logon Name**  
The logon username should have read access to the Exchange server and rooms (endpoints). This account name is used to logon to an Active Directory domain.
- **SMTP LHS**  
Left hand side of the email address of the user account that has read access to the Exchange Server. Password is necessary for authentication.
- **Password**  
The user password allows access to the Microsoft Exchange Server.
- **Certificate**  
A certificate is a digital representation of user or device attributes, including a public key, that is signed with an authoritative private key. In a self-signature, the signature can be verified using the public key contained in the certificate.



### Note

Click the **Browse...** button to choose the Microsoft Exchange Server SSL certificate. If you selected Secure bind method, this value is required.

Figure 10-11 Calendar Server Window for IBM Domino

**Cisco TelePresence Manager**

1 - Welcome  
2 - Configuration Mode  
3 - Configuration Options  
4 - Calendar Server Selection  
5 - LDAP Servers  
6 - Unified CM  
7 - Calendar Server  
8 - Database Backup Schedule

**IBM Domino**

Enter configurations for IBM Domino calendaring server.

Host:  \*

Bind Method: ☒ Secure ☐ Normal

Port:  \*

Organization Name:  \*

Username:  \*

Password:  \*

Polling Interval (minutes):

Certificate:

- Host: the IBM Domino server host name or IP address.
- Logon Name: user account that has read access to the Domino server. This account name is used to log on to a Domino LDAP server domain.
- SMTP LHS/Password: Left hand side of the email address of the user account that has read access to the Domino server. Password necessary for authentication.

\* Required Fields

### Explanation of IBM Domino Fields

- **Host**  
Host is the hostname or IP address of the IBM Domino host.
- **Bind Method**  
The bind method indicates the desired level of security.
  - Secure—Secure Socket Layer (SSL) connection requires the Distinguished Encoding Rules (DER) Certificate for the IBM Domino server. You must complete the Certificate field on this window before you can proceed.
  - Normal—The CTS-Manager communicates with the IBM Domino server in cleartext using HTTP.



#### Note

If you selected Secure bind method, this value is required.

- **Port**  
The default value is 80.
- **Organization Name**  
This field requires a sequence of case-insensitive ASCII labels separated by dots (for example, “cisco.com”)—defined for subtrees in the Internet Organization Name System and used in other Internet identifiers, such as hostnames, mailbox names, and URLs.
- **Username**  
The username provides login access to the IBM Domino server.

- **Password**

The user password allows access to the IBM Domino server.

- **Polling Interval (minutes)**

This is the amount of time between intervals that the CTS-Manager will poll for Calendar information. The interval times for polling are from a minimum of 1 to a maximum of 360 minutes.

- **Certificate**

A certificate is a digital representation of user or device attributes, including a public key, that is signed with an authoritative private key. In a self-signature, the signature can be verified using the public key contained in the certificate.



**Note**

Click the **Browse...** button to choose the IBM Domino server SSL certificate. If you selected Secure bind method, this value is required.

**Figure 10-12** Calendar Server Window for Scheduling API

**Cisco TelePresence Manager**

- 1 - Welcome
- 2 - Configuration Options
- 3 - Calendar Server Selection
- 4 - LDAP Servers
- 5 - Unified CM
- 6 - Calendar Service**
- 7 - Database Backup Schedule

### Scheduling API

Enter API Services resource properties. Click Verify before advancing to the next step.

Host:  \*

Bind Method: ☐ Secure ☒ Normal

Port:  \*

Logon Name:

Password:  \*

Certificate:   \*

- Host: the API Services server host name or IP address.
- Username/Password: user account that has read access to the API services server. Password necessary for authentication.

\* Required Fields

< Back Next > Cancel

## Explanation of Scheduling API Fields

- **Host**  
Host is the hostname or IP address scheduling API server.
- **Bind Method**  
The bind method indicates the desired level of security.
  - Secure—Secure Socket Layer (SSL) connection requires the Distinguished Encoding Rules (DER) Certificate for the scheduling API server. You must complete the Certificate field on this window before you can proceed.
  - Normal—The CTS-Manager communicates with the scheduling API server in cleartext using HTTP.
- **Port**  
The default value is 80. You can use 80 or 8080.
- **Logon Name**  
The username provides login access to the calendar server.
- **Password**  
The user password allows access to the calendar server.
- **Certificate**  
A certificate is a digital representation of user or device attributes, including a public key, that is signed with an authoritative private key. In a self-signature, the signature can be verified using the public key contained in the certificate.
- **Verify**  
Validates Logon Name and Password against the LDAP server.



### Note

Click the **Browse...** button to choose the Scheduling API server SSL certificate. If you selected Secure bind method, this value is required.

## Configure Database Backup Schedule

The Database Backup Schedule window allows you to set the database backup schedule. This schedule must be set in order to complete the initialization process.

To configure the database backup schedule:

- Step 1** Fill in the Database Backup Schedule fields.  
For information about these fields, see [Explanation of Database Backup Schedule Fields, page 10-20](#).
- Step 2** If you are setting up a remote backup, click **Verify Remote Host** to verify the login information.  
For additional information about Database Backup, refer to [Database - Status, Backup, and Restore, page 11-48](#) in [Chapter 11, “Additional Installation Configurations for Cisco TelePresence Manager.”](#)



### Note

The default is set to a daily backup schedule with the backup information stored to the local drive. Cisco recommends that you back up your data to a different drive.

**Step 3** Click **Finish**.

The Cisco TelePresence Manager Status Dashboard window appears. Go to [Dashboard for Verification of Installation Status](#), page 10-21.

**Figure 10-13** Database Backup Schedule Window

### Explanation of Database Backup Schedule Fields

The Cisco Unified Communications Manager uses an Informix Database server to store information. This window allows the administrator to set up regular backup operations of the database.



**Note**

Cisco strongly recommends scheduling regular backups of the database.

The Database Backup Schedule window contains the following fields:

- **Schedule**

Click **Change...** to set the backup schedule. The following choices are available:

- **Start Time (UTC)**

Enter the hour and minute, in UTC 24-hour format, for when you want your backup to begin. UTC is the atomic clock version of Universal Time (UT), formerly known as Greenwich Mean Time. Time zones around the world are expressed as positive and negative offsets from UT. For example, Midnight Pacific Standard Time (+8 UT) is 08:00 UT.

- **Frequency**

Choose **Daily** or **Weekly** database backups. If you choose Weekly, select the radio button beside the day of the week on which you want your backup to occur.

- **Number of backup files to keep**

From the drop-down menu, choose the number of backup files to keep before deleting. Choices range from 1 to 14 (two week's worth of daily backups). The default is 14.

- **Backup Type**

Choose Local or Remote to designate the server for backups. If you select Local, the backup files are stored on your local server.

If you choose Remote, you must fill in the following values for the remote server:

- **Remote Storage Host (SFTP)**

The network path to the remote Secure File Transfer Protocol (SFTP) storage host.

- **Port**

Port number designated for the backup process. The default is port 22.

- **User Name**

Username for login to the remote server.

- **User Password**

Password for login to the remote server.

- **Storage Path**

The file path to the location where you want to store the backup data.

## Dashboard for Verification of Installation Status

The Status Dashboard window appears after initialization is complete, allowing you to verify installation and to check the status of the system services. In the future, you can come to this window to see a snapshot of meetings that are scheduled for the day. Click highlighted links in this window for quick access to other windows that provide meeting and room(endpoint)-scheduling functions.

[Figure 10-15](#) describes the dashboard report information. To update the reports, click **Refresh**.

For additional configurations and an introduction to the CTS-Manager administration software, go to [Chapter 11, “Additional Installation Configurations for Cisco TelePresence Manager”](#).

Figure 10-14 Cisco TelePresence Manager Monitor &gt; Status Dashboard Window





Figure 10-15 Status Dashboard Report

Field	Description or Setting
Today's Meetings	<p>Status of current and upcoming meetings:</p> <ul style="list-style-type: none"> <li>• With Error—Displays the number of meetings that have errors.</li> <li>• All Meetings—All meetings scheduled for today.</li> </ul> <p>Click the link associated with each meeting or device's information to go to the Meetings window.</p>
Devices	<p>Status information for the following devices:</p> <ul style="list-style-type: none"> <li>• Bridges and Servers—Clicking the link displays the summary information in the Support &gt; Bridges and Servers window and filters the list to those bridges and servers with an error status.</li> <li>• Application Servers—Clicking the link displays the summary information in the Cluster Management &gt; Application Servers window. (Only appears if CTS-Manager is part of a cluster).</li> </ul> <p>Clustering Support Discontinued</p> <p>Cisco no longer provides support for the clustering feature originally introduced in release 1.8. For questions, contact Ron Lewis: <a href="mailto:ronlewis@cisco.com">ronlewis@cisco.com</a>.</p> <ul style="list-style-type: none"> <li>• Database Servers—Clicking the link displays the summary information in the Cluster Management &gt; Database Servers window. (Only appears if CTS-Manager is part of a cluster).</li> </ul> <p>Clustering Support Discontinued</p> <p>Cisco no longer provides support for the clustering feature originally introduced in release 1.8. For questions, contact Ron Lewis: <a href="mailto:ronlewis@cisco.com">ronlewis@cisco.com</a>.</p> <ul style="list-style-type: none"> <li>• TelePresence Endpoints—Clicking the link displays the status information in the Support &gt; Endpoints window.</li> <li>• VC Endpoints—Clicking the link displays the status information for VC endpoints in the Support &gt; Endpoints window.</li> <li>• Unified CM—Clicking the link displays the information in the Support &gt; Unified CM window.</li> </ul> <p><b>Note</b> An error may occur if the connection to Unified CM was caused by</p>
Indicators	<p>Status Indicators for:</p> <ul style="list-style-type: none"> <li>• Database Backup</li> <li>• Current Database Size</li> <li>• Mailbox is</li> <li>• Endpoint Mailbox Sync</li> </ul>
Time	<p>Status of the following times:</p> <ul style="list-style-type: none"> <li>• System Time—Day, date, and time in coordinated universal time (UTC, formerly known as Greenwich mean time or GMT).</li> <li>• My Time—Local day, date, and time for logged-in user.</li> </ul>

Field	Description or Setting
Services	<p>Status information for the following system services:</p> <ul style="list-style-type: none"><li>• Calendar Service</li><li>• WebEx (if enabled)</li><li>• LDAP Server</li><li>• Endpoint Control</li><li>• Database</li><li>• Multipoint Conference</li><li>• Unified CM</li></ul> <p>Status is either <b>OK</b> or is a highlighted link listing the number of errors. You can click a link to see further system log status information and troubleshoot problems. You can also roll your mouse over a highlighted link to see a brief description of the error.</p>
Uptime	<p>Status information about the elapsed running time since the last restart.</p> <ul style="list-style-type: none"><li>• Services—Services displayed in the Services section.</li><li>• TelePresence Engine—Cisco TelePresence database engine.</li><li>• System Platform—Hardware host for CTS-Manager.</li></ul>



# CHAPTER 11

## Additional Installation Configurations for Cisco TelePresence Manager

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## Post-Install Guidelines for CTS-Manager

The purpose of this chapter is to outline the information you need to configure the system after installation.

The flow of tasks for additional configurations of CTS-Manager are provided in the following table.

**Table 11-1** *Post-Install Guidelines for Configuring CTS-Manager*

Setup Procedure Guidelines after Installing CTS-Manager	Description	Location
Additional Installation Procedures for CTS-Manager	The administrator makes use of the System Configuration window to perform system configuration tasks such as uploading licenses, synchronizing system databases, managing security, and reconfiguring system settings	Current chapter.

**Table 11-1** *Post-Install Guidelines for Configuring CTS-Manager (continued)*

Setup Procedure Guidelines after Installing CTS-Manager	Description	Location
Configuring Cisco TelePresence WebEx OneTouch for CTS-Manager	Describes how to set up Cisco TelePresence WebEx OneTouch in CTS-Manager, which allows WebEx participants to join TelePresence meetings.	<a href="#">Chapter 12, “Configuring Cisco WebEx OneTouch for Cisco TelePresence Manager”</a>
Monitoring and Supporting CTS-Manager	Describes the support features available when you log into CTS-Manager using a Live Desk role.	<a href="#">Chapter 13, “Monitoring and Supporting Cisco TelePresence Manager”</a>

If at any time you encounter problems, go to [Chapter 16, “Troubleshooting Cisco TelePresence Manager”](#) to see how to correct the problem.

## Introduction to the CTS-Manager Administration Software

CTS-Manager administration software is accessed through a web browser. All Cisco TelePresence administration software supports Microsoft Internet Explorer 6.x, 7.x, 8.x (Windows), Firefox 3.0 (Mac and Windows). CTS-Manager Administration software is accessed through the server’s hostname or IP address.

There are three levels of functionality when logging into CTS-Manager

- [Administrator Role, page 11-3](#)
- [SysAdmin Role, page 11-4](#)
- [Live Desk Role, page 11-4](#)

A meeting organizer who is not assigned to one of these roles only sees the details for meetings they have scheduled, and logs in through a special link in the confirmation email for their meetings.

### Administrator Role

When an administrator logs into the CTS-Manager, the following selections and information are available:

- System Status
- Monitor
- Support
- Configure
- Troubleshoot

The administrator performs the same tasks performed by a Live Desk, but has an additional system configuration task available. The administrator has a different login name and password from that of the Live Desk. The administrator’s access privileges allow access to the internal workings of the system where the administrator can modify system settings such as passwords, IP addresses, and security settings. The administrator is also responsible for defining schedules to back up the database and for assigning a Live Desk to a room (endpoint).

In day-to-day operations, the administrator assists the Live Desk person with monitoring system status and, when problems occur, takes action to correct them by analyzing system error messages and debugging log files.

## SysAdmin Role

The SysAdmin has a special login account that allows access to two additional administrative tasks. These tasks are only visible by logging in using the SysAdmin password.

- System Settings
- Software Upgrade

This role is used mainly during installation of CTS-Manager. After installation, the administrator performs most administrative tasks.

## Live Desk Role

When a person designated as Live Desk logs into CTS-Manager, the following selections and information are available:

- System Status
- Monitor
- Support
- Troubleshoot

The Live Desk is the first person contacted when there are questions or problems pertaining to connecting meeting participants. Live Desks can be assigned rooms (endpoints) to monitor in the CTS-Manager application. Assigned Live Desks are easily reached by dialing the Help soft key on the endpoint phone/display device in a Cisco TelePresence-enabled meeting room (endpoint).

The administrator makes use of the Configure section to perform additional tasks such as:

- uploading licenses
- upgrading system software
- synchronizing system databases
- managing security
- reconfiguring system settings

Figure 11-1 shows the system configuration information displayed in the Troubleshoot > System Information window. The system configuration tasks in the Configure section are highlighted on the left.

Figure 11-1 Troubleshoot &gt; System Information Window

**Cisco TelePresence Manager**

admin Preferences Log Out About Help

- Monitor
- Support
- Configure
  - Access Management
  - Application Settings
  - Bridges and Servers
  - Database
  - Endpoints
  - LDAP Server
  - Licenses
  - Live Desks
  - Microsoft Exchange
  - Policies
  - Security
  - Software Upgrade
  - System Settings
  - Unified CM
- Troubleshoot
  - System Information**
  - System Resources
  - System Messages
  - Log Files

**System Status**

**Today's Meetings:**

With Error: 0

In Progress: 0

Scheduled: 0

**Other Errors:** 6

### System Information

SKU	Hostname	IP Address	MAC Address	License MAC Address	Hardware Model	Software Version	OS Version
CTS-MAN 1.8	example-ctm	10.22.148.143	00:21:5e:c9:a6:3c	00215EC9A63C	7845I3	1.8.0.0 (542)	UCOS 4.0.0.0-44

### Product Software Versions

Product Name	Supported	Actual
Microsoft Exchange	[08.00.10685, 08.01.10240, 6.5.6944, 6.5.7226, 6.5.7638, 8.1.240.5, 8.2.176.2]	Unknown
Active Directory	[2003, 2008]	2008
Cisco Unified Communications Manager	[7.1.3 and later]	<a href="#">Actual Version</a>

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# Licensing for CTS-Manager

CTS-Manager 1.7 and later has enforced licensing. Licensed features are enabled only when a valid license exists for the specific feature.

The primary licensed features in CTS-Manager include:

**Table 11-2 CTS-Manager Licensed Features**

Feature	License Type
Metrics Dashboard and Reporting API	Feature-based license
Scheduling API	Feature-based license
Endpoints (required)	Count-based license
CTS Commercial Express	Both feature and device-based licenses



## Note

You are required to install the Endpoints license. Without this license, your configured endpoints will not be recognized by CTS-Manager and you will not be able to schedule meetings.

## Feature-Based Licenses

Optional feature-based licenses include:

**Table 11-1 Feature-Based Licenses**

License	Part Number
Metrics Dashboard and Reporting API	LIC-CTS-MAN-RPT
Scheduling API	LIC-CTS-MAN-API

The Metrics Dashboard license is enforced in the CTS-Manager Admin UI. If the license isn't uploaded to CTS-Manager, you can't enable and configure the usage survey and benefits report on the Configure > Application Settings > Usage Survey window.

For the Scheduling and Reporting APIs, the license is enforced at the API call. Whenever the administrator makes an API call, CTS-Manager returns the response if a valid license exists. If a license does not exist, a "License-not-found" error is returned.

The Scheduling API supports organizations that have other calendaring server types instead of MS Exchange or IBM Domino.

## Count-Based Licenses

Count-based licenses are based on the number of TelePresence and video conferencing (VC) devices (rooms with a TelePresence or VC system). Each TelePresence and VC device subscribes to a license. This count-based license is available in 3 license groups:



**Table 11-2 Count-Based Licenses**

License	Part Number
10 endpoints	LIC-CTS-MAN-10
50 endpoints	LIC-CTS-MAN-50
100 endpoints	LIC-CTS-MAN-100

Room (endpoint) licensing is common to Microsoft Exchange, IBM Domino, and the Scheduling API. The Discover Rooms command in the Configure > Unified CM window checks and enforces the CTS endpoints licensing. If there are more TelePresence endpoints than available licenses, then the endpoints above the designated license count will have no license to subscribe to. In this case, you must obtain more licenses in order for all endpoints to subscribe. The syslogs and system error log tables provide warning notification when license count reaches a specific limit and when it is fully utilized. After loading additional licenses, it is not necessary to do Discover Rooms again.

## Getting Licenses for CTS-Manager

This section describes how the following customers get licenses:

- [New Customers, page 11-7](#)
- [Existing Customers Upgrading to CTS-Manager 1.8, page 11-8](#)

### New Customers

New customers purchasing CTS-Manager 1.8 or later, get licenses by doing the following:

- 
- |               |   |
|---------------|---|
| <b>Step 1</b> | Order CTS-Manager with server, choosing the number of endpoints for licensing plus optional reporting and/or scheduling API, as required. |
| <b>Step 2</b> | Receive CTS-Manager server. Included with the server is a Claim Certificate with a license Product Authorization Key (PAK).               |
| <b>Step 3</b> | Install and initialize CTS-Manager.   |
| <b>Step 4</b> | Obtain the License MAC Address by logging in to CTS-Manager and going to the <b>Troubleshoot &gt; System Information</b> window.          |



**Note**

You can also obtain the License MAC Address by typing the **show status** command in the CTS-Manager command line interface (CLI). For information about how to access the CLI, refer to: [Starting a CLI Session, page 13-42](#).

- 
- |               |   |
|---------------|---|
| <b>Step 5</b> | Register the PAK with the License MAC Address at <a href="http://cisco.com/go/license">http://cisco.com/go/license</a> .  |
| <b>Step 6</b> | License file(s) arrive by email within one hour.  |
| <b>Step 7</b> | After installation of CTS-Manager, SysAdmin installs the license file(s). For more information, see <a href="#">Viewing and Uploading Licenses, page 11-8</a> . |

## Existing Customers Upgrading to CTS-Manager 1.8

Existing customers upgrading from CTS-Manager 1.6 to 1.8 are required to get an upgrade license.



### Note

Customers upgrading from CTS-Manager 1.7 are not required to get an upgrade license unless the License MAC for the CTS-Manager they are upgrading changed due to a hostname or IP address change.

To get an upgrade license, do the following:

- 
- Step 1** Perform upgrade to CTS-Manager 1.8.
  - Step 2** Log in to CTS-Manager.  
A message appears indicating that room (endpoint) licenses need to be installed.
  - Step 3** Click **OK** in the message.  
The Configure > Licenses > License Files window appears.
  - Step 4** Click the **Get an Upgrade License** button and follow the instructions to get an upgrade license.  
For more information, see [Getting an Upgrade License, page 11-12](#).
  - Step 5** License file arrives by email within one hour.
  - Step 6** SysAdmin uploads the license file(s).  
For more information, see [Viewing and Uploading Licenses, page 11-8](#).
- 

## Existing CTS-Manager 1.8 Customers Adding More Endpoints or Licensed Features

- 
- Step 1** Order CTS-Manager endpoints (rooms) or feature licenses. Two options are available for ordering licenses:
    - LIC-CTS-MAN-xxx - paper-based license with normal lead times.
    - L-LIC-CTS-MAN-xxx - eDelivery option where PAK is sent via email notification to eDelivery mailbox. Faster electronic delivery, shorter lead time. Log in to eDelivery to get your license: <https://edelivery.cisco.com/esd/>. For more information about eDelivery, refer to: <http://www.cisco.com/web/partners/tools/edelivery.html>.

## Viewing and Uploading Licenses

The Configure > Licenses window in CTS-Manager allows you to view installed licenses and upload new licenses for different features.

The Licenses window has the following tabs:

- [Summary](#)—View existing licenses
- [License Files](#)—Upload new licenses

## Summary

The Configure > Licenses > Summary window lists both the feature-based and count-based licenses that are currently installed.

Licenses are generated by Cisco and shipped to the customer. There are two types of licenses:

- **Feature-Based Licenses**—Enable or disable a feature.
- **Count-Based Licenses**—Correspond to the number of CTS endpoints (rooms) used for TelePresence meetings, based on one license per endpoint.

Licenses are tied to the MAC address of the CTS-Manager server. These licenses cannot be migrated to a new server. Therefore, when an existing CTS-Manager server is replaced with a new server, new licenses must be requested for the License MAC Address of the new server.

If a backup is restored onto another server, the server is not functional for the licensed feature until new licenses are uploaded. However, it is not necessary to migrate existing licenses from previous software.

The Syslogs and System error log tables provide warning notifications when the license count reaches specific limits and when it is completely used up.

If you are not able to set up TelePresence endpoints, go to the Support > Endpoints window to make sure that each endpoint has a green checkmark in the “Licensed” column.

To check if the uploaded licenses are valid, go to the Configure > Licenses window. The name and the status of each license are displayed. A properly licensed feature will display a status of “LICENSE\_VALID.”

## Licensing Grace Period

A feature is in grace period when it was licensed at some point in the past, but a valid license is not currently available. You should upload a new license during this grace period. A feature remains in grace period for a maximum of 30 days, after which it becomes invalid and the feature’s functionality is disabled. Full functionality is restored after a valid license is uploaded.

**Figure 11-2** *Configure > Licenses > Summary Window*

**Licenses**

Licenses for this CTS-Manager must be generated using this License MAC Address: 00215EC9A63C.

**Summary** License Files

**Feature-Based Licenses**

Name	Status
LIC-CTS-MAN-RPT	LICENSE_VALID

**Count-Based Licenses**

Name	Status	Total	Available
LIC-CTS-MAN-CTS	LICENSE_VALID	10	9

## License Files

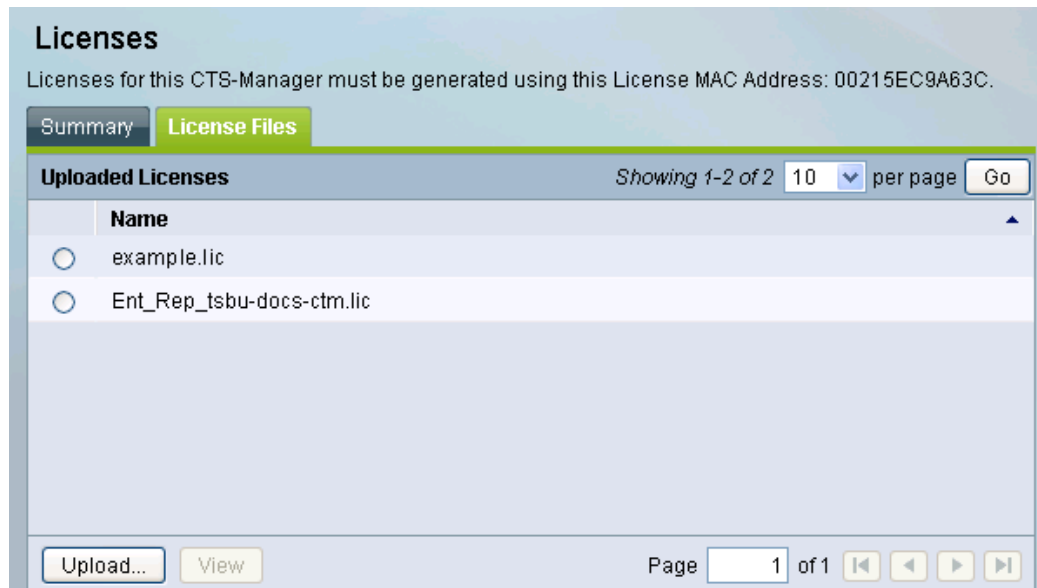
The Configure > Licenses > License Files window lists which licenses are already loaded in the system and allows you to upload new licenses. CTS-Manager allows you to import FlexLM-based license files into the database and enforce licensing based on information stored in that database. Licenses can be imported any time after CTS-Manager is installed.



### Note

Licensed must be generated using the License MAC Address of CTS-Manager, which is displayed at the top of the License Files window.

If you are upgrading to CTS-Manager 1.8 from a previous version, you must get an upgrade license to manage the endpoints you currently have configured in CTS-Manager. For more information, see [Getting an Upgrade License](#).

**Figure 11-3** *Configure > Licenses > License Files Window*

## Uploading Licenses

CTS-Manager licenses must be in text based ASCII format only. When licenses are generated from Cisco Licensing Site and saved from the browser or from the email client, some of the clients save the files as type of unicode text document. This introduces control characters which are not readable in during upload to CTS-Manager. Please ensure that the files are saved in ASCII Text format before attempting to upload in CTS Manager.

To upload a license:

- 
- Step 1** Click **Upload**.
  - Step 2** In the License Upload window, click **Browse**, find the license you want to add and click **Open**.
  - Step 3** Click **Upload**
  - Step 4** Click **Close** to close the License Upload window.
  - Step 5** To verify that your license has been uploaded properly, click the Summary tab.  
Your license should be listed with a status of "LICENSE\_VALID."
- 



### Note

License files sent from Cisco for install are text files. You can change the file name without using special characters or spaces. Do not change the contents of the file, otherwise the license install will fail.

## When You Need New Count-based (Endpoint-based) Licenses

The following examples explain what happens when an administrator registers an 11th endpoint with CTS-Manager which already has been set up with 10 endpoints using a 10-endpoint license group.

1. In a person-to-person meeting, the meeting organizer schedules a meeting between one endpoint using the 10-endpoint license group in CTS-Manager and the new 11th endpoint. The 11th endpoint is not recognized by CTS-Manager and the meeting organizer receives an “action required” email. In addition, the meeting appears in error on the phone/display device of the licensed endpoint, and no schedule appears on the phone/display device of the 11th endpoint.
2. In a multipoint meeting, the meeting organizer schedules a meeting between 3 endpoints using the 10-endpoint license group in CTS-Manager and the 11th endpoint. The 11th endpoint is not recognized by CTS-Manager and the meeting organizer receives a “confirmation” email for the three licensed endpoints. The meeting appears in the schedule of the phone/display device of all three licensed endpoints, but not in the 11th endpoint.

## CTS-Manager License Backup and Restore

License files are bundled as part of backup. The Restore process restores the backed-up license files. CTS-Manager validates licenses filed with the system Host ID during startup. The license file is removed if it does not match the Host ID of the system, and the corresponding feature is not enabled.

## Hardware Replacement and New Licensing

If it becomes necessary to replace CTS-Manager hardware, new licenses are requested for the new hardware as part of the RMA process. The administrator must run a fresh install and upload the new licenses in CTS-Manager.

Alternatively, the administrator can restore a previous backup on the new hardware from a remote location. During this process, CTS-Manager invalidates the licenses restored from the backup and the administrator must upload new licenses.

When you receive your new hardware, do a fresh install and upload the new licenses in the Configure > Licenses > License Files window, as detailed in [Uploading Licenses, page 11-11](#).

All licensed features will be non-functional until licenses are uploaded. During a Server replacement to re-host the licensing file, contact the Cisco licensing team ([licensing@cisco.com](mailto:licensing@cisco.com)) or the Cisco Technical Assistance Center (TAC).

## Getting an Upgrade License

CTS-Manager 1.7 and later requires a endpoint license to manage the endpoints configured. If you are upgrading from a previous version, the Get an Upgrade License button is displayed.

Follow the steps below to get a license for all endpoints managed by CTS-Manager:

---

**Step 1** Click **Get an Upgrade License**.

The Get an Upgrade License window appears displaying the MAC Address and Upgrade Code for your CTS-Manager server.

**Step 2** Go to <http://cisco.com/go/license> and log in using your Cisco.com user account and password.

The Product License Registration page appears.

- Step 3** In the Migration License section at the bottom of the page, click **Register for Upgrade/Migrate License**.  
The Select Product page appears.
- Step 4** From the drop-down menu, select **Cisco TelePresence Manager** and click **Goto Upgrade/Migration License Portal**.  
The Upload Features page appears.
- Step 5** Copy and paste the MAC Address into the first field and the Upgrade Code into the next field and click the Agreement checkbox to accept the terms of the end-user license agreement.
- Step 6** Enter your contact information, making sure your email address is correct, and click **Continue**.
- Step 7** The license file will arrive via email in less than one hour.
- Step 8** Save the license file.



**Note** You can rename the file without special characters or spaces, but don't change the information in it.

- Step 9** In Cisco TelePresence Manager, go to the **Configure > Licenses** window, click the **License Files** tab and upload the license file. For more information, refer to [Uploading Licenses, page 11-11](#).



**Note** If you don't receive the license file after one hour or have problems uploading the license file, contact the Cisco Technical Assistance Center (TAC). If the number of endpoint licenses you receive does not match the total licenses you purchased, email [licensing@cisco.com](mailto:licensing@cisco.com) with information about your license and your proof of purchase, including your Cisco sales order number or purchase order number.

## Security

The Configure > Security window allows you to manage system security certificates and web services security.

CTS-Manager supports these security types:

- **Inter-device**—Secures communication between Cisco TelePresence devices, which include Cisco TelePresence Manager (CTS-Manager), Cisco TelePresence Recording Server (CTRS), and Cisco TelePresence Multipoint Switch (CTMS).
- **Browser**—Secures communication between the CTS-Manager web server and the browser through which you access the CTS-Manager Administrative UI. Browser security eliminates website security certificate warnings, which you receive if your web server is not secure.

You can set up either inter-device security or browser security on CTS-Manager, but not both at the same time.

For information on how to set up inter-device and browser security, see the Cisco TelePresence Security Solutions for Release 1.8, which you can access at this location:

[http://www.cisco.com/en/US/docs/telepresence/security\\_solutions/1\\_8/CTSS.html](http://www.cisco.com/en/US/docs/telepresence/security_solutions/1_8/CTSS.html).

# LDAP Server

CTS-Manager uses Lightweight Directory Access Protocol (LDAP) to retrieve information related to users and conference rooms (endpoints) from Directory Server deployments. Enterprises typically use specialized databases called *directories* to store information related to users, meeting rooms (endpoints), and so on. LDAP is a protocol for accessing directories.



## Note

CTS-Manager only supports English language-based Active Directory installations.

The initial LDAP Server window gives details on the CTS-Manager LDAP system.

Figure 11-4 Configure > LDAP Server

**LDAP Server**

List of Configured LDAP Servers Showing 1-1 of 1 10 per page Go

Service: **OK**

	Hostname	User Name	Default context
<input type="radio"/>	example-ctm (Default)	cn=administrator,cn=users,DC=tsbuctm,DC=com	DC=tsbuctm,DC=com

New... Edit... Delete Refresh Page 1 of 1

From this window, multiple new LDAP servers can be configured or existing ones can be edited and updated.

This window specifies LDAP Directory Server server settings that are used by CTS-Manager to access the directory information. Open the LDAP Server window to see the status of the server. This window also allows new settings or editing the settings and field mappings.

## Settings for LDAP

To add an LDAP server, click New and enter the appropriate information in the LDAP Servers window.

To edit an existing LDAP, click Edit and make the appropriate changes in the Edit LDAP Servers window.



## Note

For Firefox browser users: When clicking the certificate field in either the LDAP Servers or Edit LDAP Servers window, a file upload window opens for you to select the certificate to upload. This is the same window that appears when clicking the Browse button. You cannot type a path in the certificate field using Firefox.



## Multiple LDAP Peer Domains

If you have a LDAP peer domain configured you'll need to specify the additional user containers and context. You can do this with one of the User Container fields.

For example, `cn=users,dc=domain2,dc=com`

When specifying the container and context information for your peer domain, DO NOT check the Append default context box.

- 
- |               |  |
|---------------|--|
| <b>Step 1</b> | To test the connection between this system and the LDAP server, click <b>Test Connection</b> . |
| <b>Step 2</b> | To register new or modified settings, click <b>Apply</b> .                                     |
| <b>Step 3</b> | To restore the original settings, click <b>Reset</b>   |
- 



### Note

LDAP containers configured for use with CTS-Manager should not be specified in such a way where one container is the child of the other. This requirement includes specifying the default context.

[Table 11-3](#) describes the settings for the LDAP Server window.

## Field Mappings

The CTS-Manager server uses application objects and attributes that are internally mapped to the objects and attributes in the LDAP Directory Server. Most of these mappings are predefined and fixed.

However, some of the information required for the Cisco TelePresence system may be stored in different attributes of the LDAP Directory Server, based on the enterprise deployment. The Field Mapping window provides a mechanism to map such objects and attributes used by the CTS-Manager server to the object and attributes defined in the LDAP Directory Server schema.

## Microsoft Exchange Deployments

The attributes are used by the Exchange server to store the user's e-mail and display name information. For most of the Exchange deployments, this information should not be changed. It is very unlikely that these mappings need to be changed. In case there is a requirement to authenticate users using a different attribute, please contact Cisco Support before changing these values.

CTS-Manager supports connection to multiple LDAP domains/servers that belong to a single Active Directory forest. Some of the setups with which CTS-Manager can work are peer-peer LDAP domain setup, and Parent-Child LDAP domain setup.





### Caution

The object and attribute mappings for Exchange/Directory Server deployments are listed in [Table 11-5](#) and cannot be changed after installing and configuring Cisco TelePresence Manager. Cisco TelePresence Manager may not function properly if the Object Class fields are changed.


Figure 11-5 New LDAP Window Mappings


### LDAP Servers


 = Required fields


 Host:

Bind Method: ☐ Secure ☒ Normal


 Port:

 Default Context:

 Username:  ☐ Append default context

 Password:

Certificate:

 User Containers:  ☐ Append default context

☐ Append default context








☐ Append default context

☐ Append default context

☐ Append default context

---

### Person

	Object Class	Attribute	
Country:	<input type="text" value="Person"/>	<input type="text" value="c"/>	
EmailID:	<input type="text" value="Person"/>	<input type="text" value="mail"/>	
DeptID:	<input type="text" value="Person"/>	<input type="text" value="department"/>	
SchedulerName:	<input type="text" value="Person"/>	<input type="text" value="cn"/>	
DisplayName:	<input type="text" value="Person"/>	<input type="text" value="displayname"/>	
Title:	<input type="text" value="Person"/>	<input type="text" value="title"/>	
Location:	<input type="text" value="Person"/>	<input type="text" value="location"/>	
Email Address:	<input type="text"/>	<input type="button" value="View Sample Data"/>	

254425

Table 11-3 lists the fields in the LDAP Server - New window. See Table 11-5 for the Person field information.

CTS-Manager requires the Active Directory domain level to be set to at least level 2. If the domain controller is null due to some configuration issue on the Active Directory server, CTS-Manager will not work.

**Table 11-3**      *New LDAP Server Settings*

Field or Button	Description or Settings
Host	LDAP server host name.
Bind Method	Click the <b>Secure</b> or <b>Normal</b> radio button to select the binding method: <ul style="list-style-type: none"> <li>Secure—Secure SSL connection requires the Distinguished Encoding Rules (DER) Certificate for the LDAP server.</li> <li>Normal—CTS-Manager communicates with the Microsoft Exchange or IBM Domino server in cleartext using HTTP.</li> </ul>
Port	The default port for secure connection is 636. The default port for normal connection in a single LDAP server deployment is 389. In cases where deployments consist of multiple LDAP Directory Servers, this port should be configured with 3268, which is the Global Catalog port. Secure Global Catalog port is 3269.
Default Context	The default context from which the LDAP queries are performed. To change the context string: <ul style="list-style-type: none"> <li>Click the Fetch button and choose the context from the Fetch DNS drop-down list adjacent to this field.</li> </ul>
Username	The username used to authenticate to the LDAP server. This must be in the LDAP fully qualified domain name (FQDN) format. Example: cn=administrator,cn=users,dc=<mydomain>,dc=com <b>Note</b> “cn=CTSTMan User” is another example. Note that the CTS-Manager Active Directory configuration requires using users that have Domain Admin privilege. The user, “CTSTMan User” only needs to be created with the Domain Users privilege.
Password	Password to access the LDAP server.
Certificate	The name of the LDAP certificate. This is only needed if you have chosen the Secure Bind Method. To get the certificate, open a web browser window and go to the hostname URL and download the certificate to your computer, then click Browse to select it and upload it to CTS-Manager.

**Table 11-3**      *New LDAP Server Settings (continued)*

Field or Button	Description or Settings
User containers	<p>The containers from which queries are performed to retrieve user objects. More than one user container or user object can be specified. The Cisco Telepresence server uses the values entered to search through the containers in sequence to retrieve user and meeting room (endpoint) information from the Directory Server. Additionally, these containers are used to retrieve user information for authentication.</p> <ul style="list-style-type: none"> <li>To append the default context, check the Append default context box next to the user container field.</li> </ul> <p><b>Note</b> If you have a LDAP peer domain configured you'll need to specify any user containers and context. For example, "<i>cn=users,dc=domain2,dc=com</i>". When specifying the container and context information for your peer domain, DO NOT check the Append default context box.</p>
Test Connection	This allows you to test the connection configuration between this system and the LDAP server.

## Edit

To edit the LDAP mapping, click the radio button to select the LDAP server that you want to edit. Then click the **Edit** button. The LDAP Edit window appears. [Table 11-4](#) lists the field information. See [Table 11-5](#) for the Person field information.

Figure 11-6 Edit LDAP Window

## LDAP Servers

= Required fields

Host:

Bind Method: ☐ Secure ☒ Normal

Port:

Default Context:

Username:  ☐ Append default context

Password:

Certificate:

User Containers:

<input type="text" value="o=TRQA"/>	<input type="checkbox"/> Append default context
<input type="text" value="o=newORG"/>	<input type="checkbox"/> Append default context
<input type="text"/>	<input type="checkbox"/> Append default context
<input type="text"/>	<input type="checkbox"/> Append default context
<input type="text"/>	<input type="checkbox"/> Append default context

---

**Person**

	Object Class	Attribute	
Title:	<input type="text" value="Person"/>	<input type="text" value="title"/>	
Location:	<input type="text" value="Person"/>	<input type="text" value="location"/>	
DeptID:	<input type="text" value="Person"/>	<input type="text" value="department"/>	
Country:	<input type="text" value="Person"/>	<input type="text" value="co"/>	

Table 11-4 Edit LDAP Server Settings

Field or Button	Description or Settings
Host	LDAP server host name.

**Table 11-4** *Edit LDAP Server Settings (continued)*

Field or Button	Description or Settings
Bind Method	<p>Click the <b>Secure</b> or <b>Normal</b> radio button to select the binding method:</p> <ul style="list-style-type: none"> <li>Secure—Secure SSL connection requires the Distinguished Encoding Rules (DER) Certificate for the LDAP server.</li> <li>Normal—CTS-Manager communicates with the Microsoft Exchange or IBM Domino server in cleartext using HTTP or DIIOP.</li> </ul>
Port	<p>The default port for secure connection is 636.</p> <p>The default port for normal connection in a single LDAP server deployment is 389.</p> <p>In cases where deployments consist of multiple LDAP Directory Servers, this port should be configured with 3268, which is the Global Catalog port.</p> <p>Secure Global Catalog port is 3269.</p>
Default Context	<p>The default context from which the LDAP queries are performed.</p> <p>To change the context string:</p> <ul style="list-style-type: none"> <li>Click the Fetch Distinguished Names button and choose the context from the Select a DN drop-down list adjacent to this field.</li> </ul>
Username	<p>The username used to authenticate to the LDAP server. This must be in the LDAP fully qualified domain name (FQDN) format. Example: cn=administrator,cn=users,dc=&lt;mydomain&gt;,dc=com)</p>
Password	<p>Password to access the LDAP server.</p>
Certificate	<p>The name of the LDAP certificate. This is only needed if you have chosen the Secure Bind Method.</p> <p>To get the certificate, open a web browser window and go to the hostname URL and download the certificate to your computer. Then click Browse to select it and upload it to CTS-Manager.</p>

Table 11-4 Edit LDAP Server Settings (continued)

Field or Button	Description or Settings
User Containers	<p>The containers from which queries are performed to retrieve user objects. More than one user container or user object can be specified. The Cisco Telepresence server uses the values entered to search through the containers in sequence to retrieve user and meeting room (endpoint) information from the Directory Server. Additionally, these containers are used to retrieve user information for authentication.</p> <ul style="list-style-type: none"> <li>To append the default context, check the Append default context box next to the user container field.</li> </ul> <p><b>Note</b> If you have a LDAP peer domain configured you'll need to specify any user containers and context. For example, "<i>cn=users,dc=domain2,dc=com</i>". When specifying the container and context information for your peer domain, DO NOT check the Append default context box.</p>

## Verifying Field Mapping Data

Verify that the data retrieved is as you expected. If data is incorrect, the application will not operate correctly.

Click **View Sample Data** to retrieve objects based on the mappings specified.



### Caution

Setting the LDAP objects and attributes used by the Exchange server requires experience using Directory Server and Exchange software. **Do not change the *mail* value in the LDAP SchedulerName Attribute field.**

The majority of deployments do not require any changes to these attributes. Incorrectly changing these fields will result in Cisco TelePresence Manager not being able to function.

Consult the Cisco TelePresence Manager support team and the LDAP and Exchange server administrator for your deployment before changing the default mappings in these screens.

Table 11-5 describes the settings for the Person fields in both the New and Edit windows.

**Table 11-5** LDAP Person - Objects and Attributes

Application Object	Application Attribute	LDAP Object Class	LDAP Attribute
<b>Person</b>			
	SchedulerName:	Person	cn <b>Note</b> Do not change this value. If this value is changed incorrectly, meetings will not have the correct information.
	EmailID:	Person	mail
	DisplayName:	Person	displayname
<b>Note</b> The Object Class mappings need not be changed and are displayed ready only. Only the attribute mappings need to be changed if required.			

## IBM Domino Deployments

These attributes are used by the Domino LDAP server to retrieve the user's e-mail and display name information. For most of the Domino deployments, this information should not be changed.

CTS-Manager supports a Domino deployment with a single domain. CTS-Manager can be configured against one Domino server only. In a cluster environment, all resource reservation databases that contain a Cisco TelePresence endpoint's reservations must be replicated to the Domino server that CTS-Manager is configured against. Users in Directory Assistance database configured with external LDAP servers are not supported.

View the data on a new or changed set up and then click the Apply to save the configuration.


**Note**

The object and attribute mappings for Domino/Directory Server deployments are listed in [Table 11-7](#) and cannot be changed after installing and configuring CTS-Manager.


**Note**

Any ports that communicate with CTS-Manager can be verified by using Telnet.

[Table 11-6](#) lists the information for the fields in the IBM LDAP Edit or New window.



**Table 11-6 IBM LDAP Server Settings**

Field or Button	Description or Settings
Host	LDAP server host name.
Bind Method	<p>Click the <b>Secure</b> or <b>Normal</b> radio button to select the binding method:</p> <ul style="list-style-type: none"> <li>Secure—Secure SSL connection requires the Distinguished Encoding Rules (DER) Certificate for the LDAP server.</li> <li>Normal—CTS-Manager communicates with the Microsoft Exchange or IBM Domino server in cleartext using HTTP or DIIOP.</li> </ul>
Port	<p>The default port for secure connection is 636.</p> <p>The default port for normal connection in a single LDAP server deployment is 389.</p> <p>In cases where deployments consist of multiple LDAP Directory Servers, this port should be configured with 3268, which is the Global Catalog port.</p> <p>Secure Global Catalog port is 3269.</p>
Default Context	<p>The default context from which the LDAP queries are performed.</p> <p>To change the context string:</p> <ul style="list-style-type: none"> <li>Click the Fetch Distinguished Names button and choose the context from the Fetch DN's drop-down list adjacent to this field.</li> </ul>
Username	<p>The username used to authenticate to the LDAP server. This must be in the LDAP fully qualified domain name (FQDN) format. Example: cn=administrator,cn=users,dc=&lt;mydomain&gt;,dc=com)</p>
Password	Password to access the LDAP server.
Certificate	<p>The name of the LDAP certificate. This is only needed if you have chosen the Secure Bind Method.</p> <p>To get the certificate, open a web browser window and go to the hostname URL and download the certificate to your computer. Then click Browse to select it and upload it to CTS-Manager.</p>

**Table 11-6 IBM LDAP Server Settings (continued)**

Field or Button	Description or Settings
User Containers	<p>The containers from which queries are performed to retrieve user objects. More than one user container or user object can be specified. The Cisco Telepresence server uses the values entered to search through the containers in sequence to retrieve user and meeting room (endpoint) information from the Directory Server. Additionally, these containers are used to retrieve user information for authentication.</p> <ul style="list-style-type: none"> <li>To append the default context, check the Append default context box next to the user container field.</li> </ul> <p><b>Note</b> If you have a LDAP peer domain configured you'll need to specify any user containers and context. For example, "<i>cn=users,dc=domain2,dc=com</i>". When specifying the container and context information for your peer domain, DO NOT check the Append default context box.</p>
Test Connection	Allows you to test the configuration connection.

[Table 11-7](#) describes the settings for the Person fields in both the New and Edit windows.

**Table 11-7 LDAP Person - Objects and Attributes**

Application Object	Application Attribute	LDAP Object Class	LDAP Attribute
<b>Person</b>			
	SchedulerName	Person	cn <b>Note</b> Do not change this value. If this value is changed incorrectly, meetings will not have the correct information.
	EmailID	Person	mail
	DisplayName	Person	cn
<b>Note</b> The Object Class mappings need not be changed and are displayed ready only. Only the attribute mappings need to be changed if required.			

## Verifying Field Mapping Data

Verify that the data retrieved is as you expected. If data is incorrect, the application will not operate correctly.

Click **View Sample Data** to retrieve objects based on the mappings specified.

**Caution**

The Setting of the LDAP objects and attributes used by the Domino server requires experience using Directory Server and Domino software. Do not change the *mail* and *cn* values in the LDAP SchedulerName Attribute field.

The majority of deployments do not require any changes to these attributes. Incorrectly changing these fields will result in Cisco TelePresence Manager not being able to function.

Consult the Cisco TelePresence Manager support team and the LDAP and Domino server administrator for your deployment before changing the default mappings in these screens.

## Deleting Server

Before performing a delete on a DNS server, it is important to first change existing servers like Unified CM and other bridges or servers to IP from hostname before the DNS server is deleted. If the hostname is not changed first, the Unified CM and bridges or servers will be put in error status.

## Calendar Server

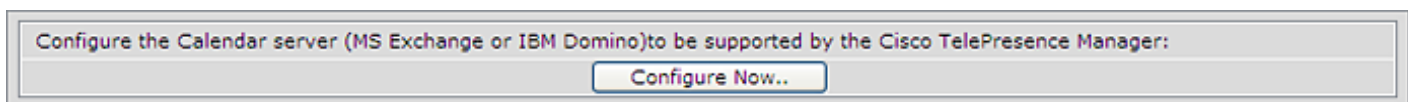
If you did not specify a Calendar server (either Microsoft Exchange or IBM Domino) during the initial installation, the Calendar Server window displays the Calendar Server wizard.

The Calendar Server wizard leads you through a four-step process to register a Calendar server with CTS-Manager.

**Note**

The LDAP server you specified during initial installation determines if you will be able to sync any Cisco TelePresence endpoints with the Calendar server you are registering. The LDAP server you are using must match the Calendar server you are registering.

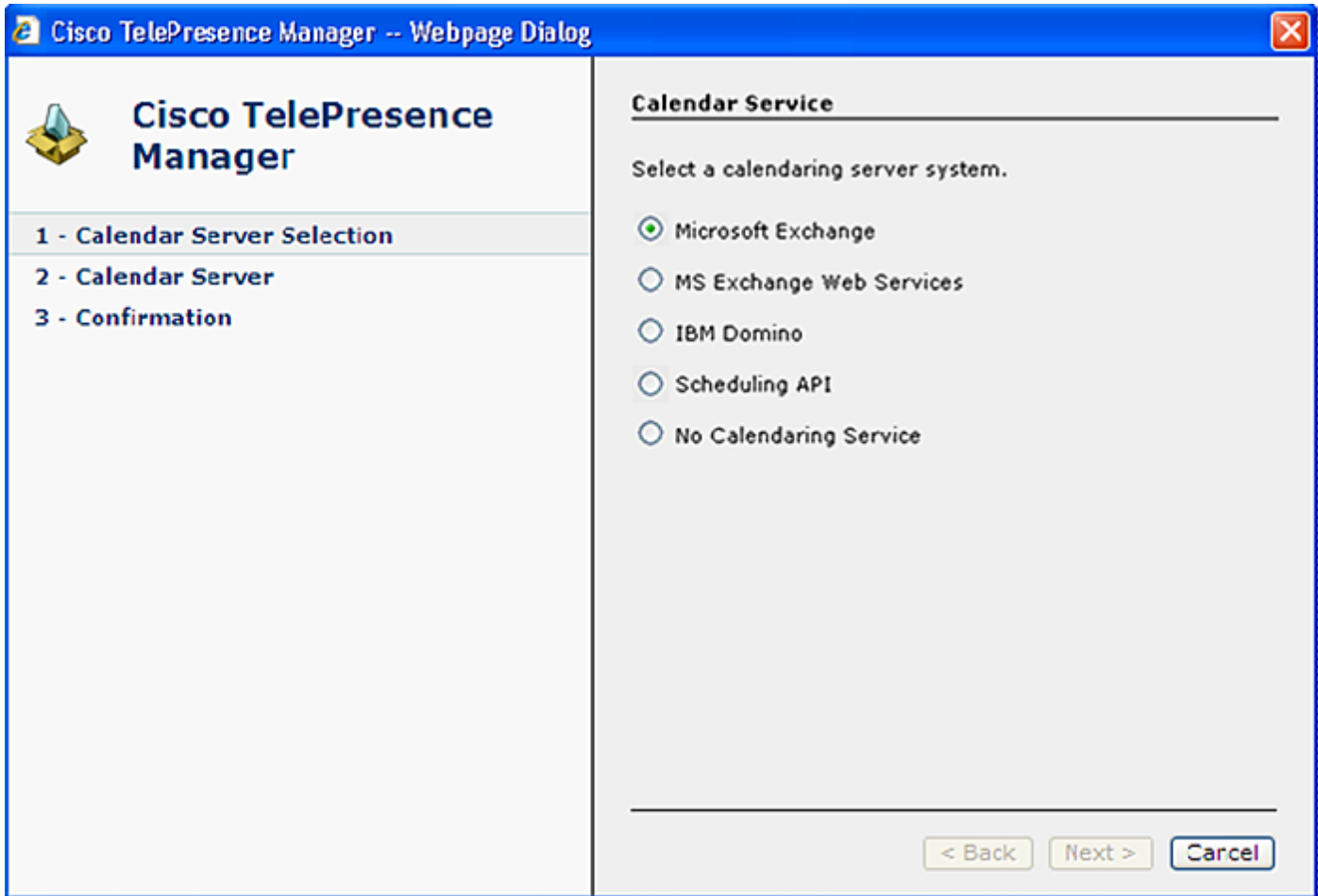
**Figure 11-7**      *Configure Calendar Server*



To configure the calendar server:

- Step 1**      The first step in registering a Calendar server with CTS-Manager is to choose either IBM Domino or Microsoft Exchange.

Figure 11-8 Cisco TelePresence Manager - Calendar Server Selection Screen



The screenshot shows a web-based configuration window titled "Cisco TelePresence Manager -- Webpage Dialog". On the left, there is a sidebar with the Cisco TelePresence Manager logo and a navigation menu with three items: "1 - Calendar Server Selection" (highlighted), "2 - Calendar Server", and "3 - Confirmation". The main content area is titled "Calendar Service" and contains the instruction "Select a calendaring server system." Below this, there are five radio button options: "Microsoft Exchange" (selected), "MS Exchange Web Services", "IBM Domino", "Scheduling API", and "No Calendaring Service". At the bottom right of the main area, there are three buttons: "< Back", "Next >", and "Cancel".

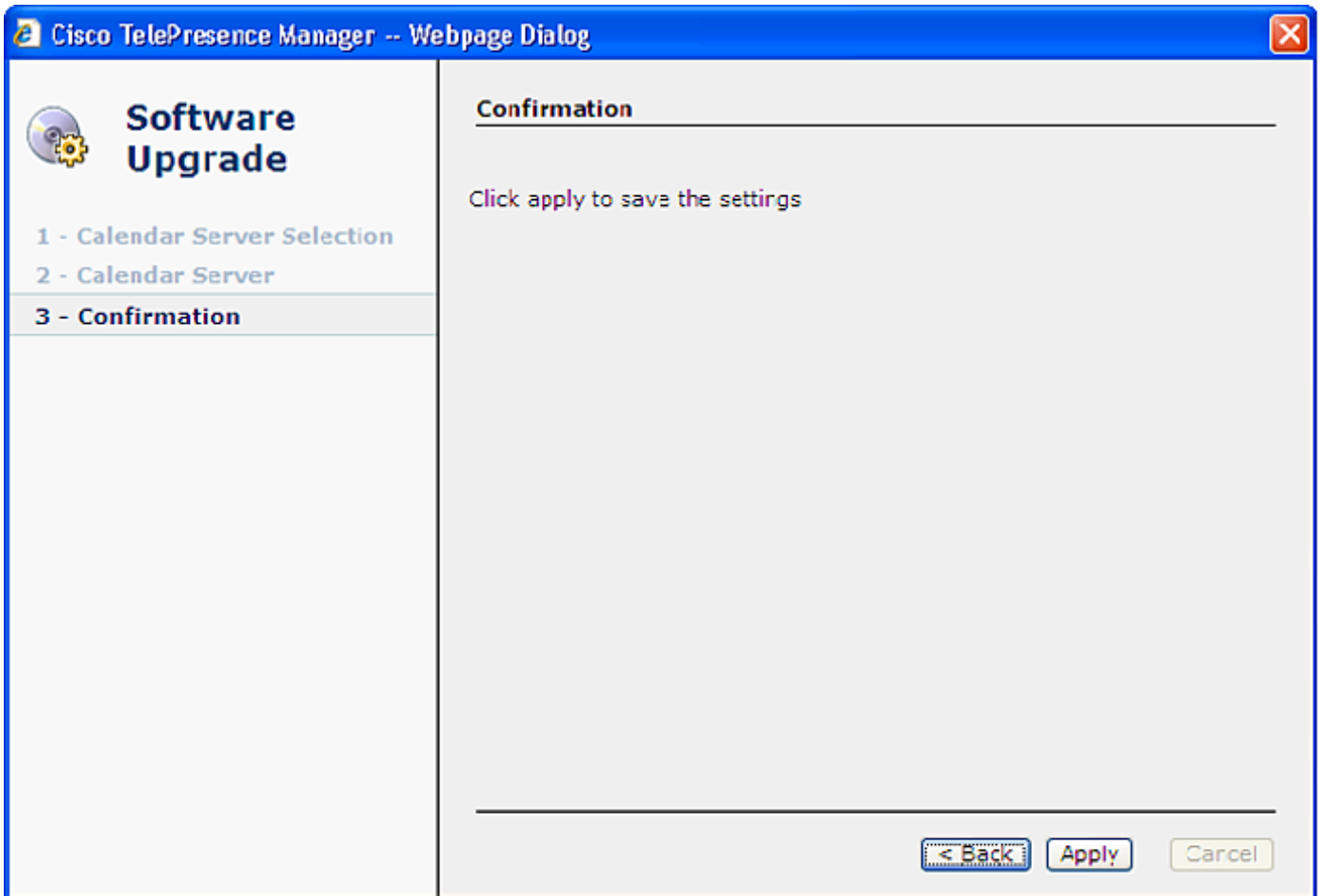
**Step 2** In the next step you need to specify the service logon information. The example below displays the information needed to use the Microsoft Exchange service.

Figure 11-9 Cisco TelePresence Manager - Calendar Server Microsoft Exchange Screen

The screenshot shows a web-based configuration window titled "Cisco TelePresence Manager -- Webpage Dialog". On the left is a sidebar with the Cisco TelePresence Manager logo and a navigation menu with three items: "1 - Calendar Server Selection", "2 - Calendar Server", and "3 - Confirmation". The main area is titled "Microsoft Exchange" and contains the following text: "Enter Microsoft Exchange resource properties. Connection to the Microsoft Exchange server must be tested and verified before you can advance to the next step." Below this text are several input fields: "Host:" (empty), "Bind Method:" (with radio buttons for "Secure" and "Normal", where "Normal" is selected), "Port:" (containing "80"), "Domain Name:" (empty), "Logon Name:" (empty), "SMTP LHS:" (empty), "Password:" (empty), and "Certificate:" (empty) with a "Browse..." button next to it. A "Test Connection" button is located below these fields. At the bottom right are three buttons: "< Back", "Next >", and "Cancel".

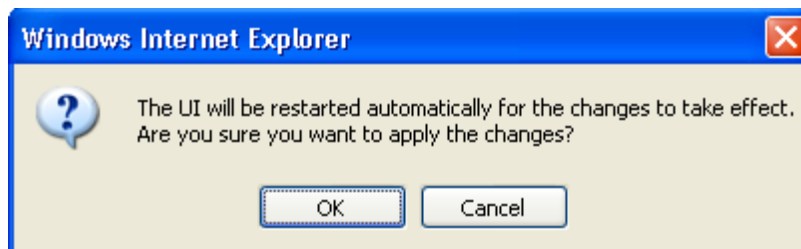
**Step 3** Click **Apply** to save the new Calendar server settings.

Figure 11-10 Cisco TelePresence Manager - Calendar Confirmation Screen

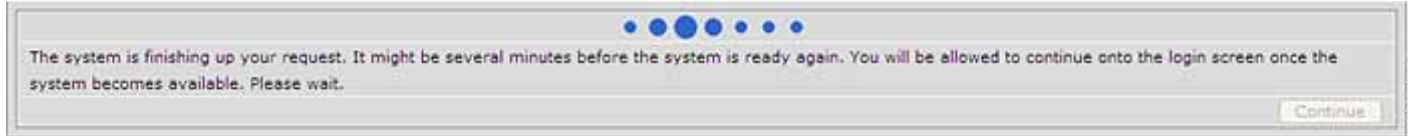


Step 4 Then click **OK** to restart the CTS-Manager server.

Figure 11-11 Apply Changes Screen



Step 5 Once the server has restarted, click **Continue** to go to the CTS-Manager login screen and log in.

**Figure 11-12** System Restart Notification Screen**Caution**

If the calendar service you are registering with does not match the LDAP server you specified during initial installation, the wizard will display all the Cisco TelePresence endpoints that will not sync with the new calendar service. You can proceed with the calendar service you have chosen, but meeting organizers will not be able to use the endpoints to schedule meetings.

## Microsoft Exchange

The Microsoft Exchange window helps you manage the database that stores meeting information.

It is divided into two tabs:

- Synchronization: Displays synchronization information for endpoints.
- Configuration: Displays configuration information for the Exchange server.

To test the connection between CTS-Manager and the Microsoft Exchange server as shown in [Figure 11-13](#):

- 
- |               |  |
|---------------|--|
| <b>Step 1</b> | Click the <b>Configuration</b> tab.                        |
| <b>Step 2</b> | Click <b>Test Connection</b> .                             |
| <b>Step 3</b> | To register new or modified settings, click <b>Apply</b> . |
| <b>Step 4</b> | To restore the original settings, click <b>Reset</b> .     |
- 

**Note**

If the Test Connection fails and a “Connection refused” message is displayed, the IIS server that hosts the WebDAV access is down. To fix this problem, restart the IIS server. In a scenario where there is a load balancer on the front end server, check the status of the IIS server on each server to which CTS-Manager can be load balanced.

Figure 11-13 Configure &gt; Microsoft Exchange Window &gt; Synchronization tab

Microsoft Exchange

Synchronization Configuration

Synchronization Operations Showing 1-4 of 4 10 per page Go

Subscription Status: All Sync Status: All Type: All Endpoint:

Filter

<input type="checkbox"/>	Endpoint Name	Type	Sync Status	Last Synchronization Time	Subscription Status
<input type="checkbox"/>	dn45003	CTS 1000	✓	10/02/2011 05:05 PM	✓
<input type="checkbox"/>	dn70000	CTS 1100	✓	10/02/2011 05:05 PM	✓
<input type="checkbox"/>	ex62304	Cisco TelePresence C60	✓	10/02/2011 05:05 PM	✓
<input type="checkbox"/>	ex62305	Cisco TelePresence EX60	✓	10/02/2011 05:05 PM	✓

Resync Refresh

Page 1 of 1

Table 11-8 describes the information and operations accessible from this window.

## Synchronization Operations

The Synchronization Operations area tells you when information in the Microsoft Exchange server database was last updated with meetings scheduled for a particular endpoint.

You can filter the list by selecting using the Subscription Status drop-down menu, entering a room (endpoint) name (optional) and clicking Filter.

When mismatched information in the databases causes meeting conflicts or there are other problems that prevent a meeting from being launched successfully, this area of the Microsoft Exchange window allows you to synchronize information between Microsoft Exchange and the CTS-Manager database. Synchronization takes time and system resources to accomplish and should be done only when necessary.

To synchronize information between Microsoft Exchange and the CTS-Manager database:

- 
- Step 1** Check the boxes next to the endpoints to select them. To synchronize information for all endpoints, check the box next to **Endpoint Name** in the display header.
- Step 2** Click **Resync** to start the operation.
- Once you've begun the synchronization operation the Service Status field displays a sync progress indicator showing the progress of the synchronization operation by percentage.
- Step 3** Once the synchronization operation completes, click **Refresh** to update the display.
- 

Table 11-8 describes the information displayed in this area.



**Note**

A maximum of 100 endpoints are displayed per page. If you have more than 100 endpoints registered with Cisco TelePresence Manager, you can click the Next button to display the additional rooms (endpoints).

**Table 11-8** *Configure > Microsoft Exchange Window > Synchronization tab fields*

Field	Description or Settings
Endpoint Name	Name of the endpoint (room). Click the arrow in the header of the Endpoint Name column to sort the list in ascending or descending alphabetical order.
Type	Model of endpoint.
Sync Status	Status of the synchronization operation. Click the arrow in the header of the Endpoint Name column to sort the list in ascending or descending alphabetical order.
Last Synchronization Time	Choose the <b>Secure</b> or <b>Normal</b> radio button to select the binding method, as follows: <ul style="list-style-type: none"> <li>Secure—CTS-Manager communicates with the Microsoft Exchange server in secure mode using HTTPS. This method requires enabling Secure Socket Layer (SSL) on the Microsoft Exchange server.</li> <li>Normal—CTS-Manager communicates with the Microsoft Exchange server in cleartext using HTTP.</li> </ul>
Subscription Status	Display-only status information of system service.

CTS-Manager and Microsoft Exchange server automatically renew subscriptions every 40 minutes. If there are any changes for endpoint status in Exchange, CTS-Manager will not be notified of the change until that 40 minute update time. The exception is if CTS-Manager is forced to sync with the Exchange server by either doing a reboot or a restart.

Figure 11-14 *Configure > Microsoft Exchange Window > Configuration tab*

**Microsoft Exchange**

Synchronization Configuration

Service: OK

Mailbox is: 0.01% full - 23694.0 of 3.584E8 KB is used

Host: 10.22.151.187 \*

Bind Method: ☐ Secure ☒ Normal

Port: 80 \*

Domain Name: example.com \*

Username: sysadmin \*

Password: ..... \*

Certificate:  Browse...

\* Required Fields

Test Connection Apply Cancel

Table 11-9 *Configure > Microsoft Exchange > Configuration tab information*


Field	Description or Settings
Service	Display-only status report of system service.
Mailbox is	Meeting information is mailed to users. This display-only field reports the amount of storage space taken up by the e-mails as a percentage of total space available.
Host	Hostname provided for the Microsoft Exchange server account, which can be modified.
Bind Method	Choose the <b>Secure</b> or <b>Normal</b> radio button to select the binding method, as follows: <ul style="list-style-type: none"> <li>Secure—CTS-Manager communicates with the Microsoft Exchange server in secure mode using HTTPS. This method requires enabling Secure Socket Layer (SSL) on the Microsoft Exchange server.</li> <li>Normal—CTS-Manager communicates with the Microsoft Exchange server in cleartext using HTTP.</li> </ul>
Port	Communication port number.
Domain Name	Domain name provided for the Microsoft Exchange server account, which can be changed.
	 <p><b>Note</b> This is the email domain name.</p>

Table 11-9 Configure &gt; Microsoft Exchange &gt; Configuration tab information




Field	Description or Settings
Logon Name	<p>This is the account name used to log on to the Microsoft Exchange server. The value is dependent on the AD/Exchange configuration. For example, it is either <i>ctsappaccount@mycompany.com</i> or <i>ctsappaccount</i>.</p> <p> <b>Caution</b> Logon Name is required for tentative room (endpoint) reservations to work.</p>
SMTP LHS	<p>This is the left hand side (LHS) of the SMTP address for the account specified by the Logon Name. If the full SMTP address is <i>ctsappsmtp@mycompany.com</i> enter <i>ctsappsmtp</i> in this field.</p>
Password	<p>Password used to access the Microsoft Exchange server account, which can be changed.</p>
Certificate	<p>Use the field to provide a trust certificate for new Microsoft Exchange server.</p>
Configure EWS	<p>Use this button to bring up the Exchange Web Services window. Exchange needs to be configured for EWS when upgrading to Exchange 2007.</p> <p> <b>Note</b> EWS Authentication - must use the NTLMv1 authentication for releases 1.6.2 and earlier. The Axis2 Library supports NTLMv2 for releases 1.6.3 and later. NTLMv2 session is supported in 1.7.2 and later.</p> <p> <b>Note</b> For WebDav it was required to disable FBA. For EWS, FBA needs to be enabled.</p>

Figure 11-15 Configure EWS Window

**Cisco TelePresence Manager**

1 - ExchangeWebServices  
2 - Confirmation

### MS Exchange Web Services

Enter configurations for the Microsoft Exchange Web Services.

Host:  \*

Bind Method: ☐ Secure ☒ Normal

Port:  \*

Domain Name:  \*

Username:  \*

Password:  \*

Certificate:  Browse... \*

- Host: the Microsoft Exchange Web Services server host name or IP address.
- Username/Password: Left hand side of the email address of the user account that has read access to the Exchange web services server. Password necessary for authentication.

\* Required Fields

< Back   Next >   Cancel

Table 11-10 Microsoft Exchange Web Services Fields

Field Name	Field Value
Host	The hostname or IP address of the Exchange server.
Bind Method	If you set this to secure you'll need to provide a security certificate.
Port	In Normal bind mode the port setting is 80. In Secure bind mode the port setting default is 443.
Domain Name	Enter the domain for the logon name.

**Table 11-10** *Microsoft Exchange Web Services Fields (continued)*

Field Name	Field Value
Username	Enter the username for the Exchange EWS server.  <b>Note</b> If you are using Windows authentication, the format is: <b>domain\username</b> . If you are using basic authentication, the format is: <b>username@ldapdomainname.com</b>
Password	Enter the password for the CTS-Manager test account or Exchange administrative account, using English characters only.
Certificate	The full pathname to the Exchange security certificate. This is needed only if you are using the Secure Bind Mode.

## IBM Domino

The IBM Domino window helps you manage the database that stores TelePresence meeting information. It is divided into two tabs:

- Synchronization: Displays synchronization information for endpoints.
- Configuration: Displays configuration information for the Exchange server.

To test the connection between this system and the Domino server, as shown in [Figure 11-16](#)

- 
- Step 1** Click **Test Connection**.
- Step 2** To register new or modified settings, click **Apply**.
- Step 3** To restore the original settings, click **Reset**.
- 



### Note

Any ports to communicate with CTS-Manager can be verified by using Telnet.

---

Figure 11-16 Configure &gt; IBM Domino &gt; Synchronization tab

IBM Domino

Synchronization Configuration

Synchronization Operations Showing 1-1 of 1 10 per page Go

Sync Status: All Name: Filter

Sync Status	Name	Last Synchronization Time	Resynchronization Status	Associated Rooms
<input type="checkbox"/>	IBM Domino Databases			
<input type="checkbox"/>	example.nsf	✓ 10/03/2011 11:37 AM	Success	ROOM 40076NTEST/newsite list40071/newsite2 room40072/newsite2

Resync Refresh

Page 1 of 1

(\*) All times are shown in time zone America/Los\_Angeles (UTC -7.0)

Table 11-12 describes the information and operations accessible from this window.

## Synchronization Operations

The Synchronization Operations area tells you when information in the Domino server database was last updated with meetings scheduled for a particular room (endpoint).



### Tip

You can filter the list of endpoints by their synchronization status by using the Subscription Status drop-down menu and clicking Filter.

When mismatched information in the databases causes meeting conflicts or there are other problems that prevent a meeting from being launched successfully, this area of the IBM Domino window allows you to synchronize information between Domino and the CTS-Manager database. Synchronization takes time and system resources to accomplish and should be done only when necessary.

To synchronize information between Domino and the CTS-Manager database:

**Step 1** Click **Resync** to start the operation.

Once you've begun the synchronization operation the Service Status field displays a Sync progress indicator showing the progress of the synchronization operation by percentage.

**Step 2** Once the synchronization operation completes, click **Refresh** to update the display.

Table 11-11 describes the information displayed in this area of the IBM Domino window.

**Table 11-11 IBM Domino Server Synchronization Report**

Field	Description
IBM Domino Databases	Name of the endpoint. Click the arrow in the header of the IBM Domino Database column to sort the list in ascending or descending alphabetical order.
Last Synchronization Time	Time the synchronization operation was started.
Resynchronization Status	Status of the synchronization operation.
Associated Rooms	Name of the Cisco TelePresence endpoints (rooms) associated with the Domino database.  <b>Note</b> The endpoint name displayed is the name of the room (endpoint) in the Domino database. In order for CTS-Manager to successfully sync the endpoint's meeting calendar, the room (endpoint) name must exactly match the endpoint name in the Cisco TelePresence System profile registered in Unified CM.



**Note**


The following parameters should already be known by your Domino administrator. Make sure the Domino Server configuration in CTS-Manager matches the configuration of your Domino Server.

**Figure 11-17 Configure > IBM Domino > Configuration tab**

**Table 11-12 IBM Domino Server > Configuration fields**

Field or Button	Description or Settings
Service	Display-only status report of system service.
Mailbox is	Meeting information is mailed to users. This display-only field reports the amount of storage space taken up by the emails as a percentage of total space available.
Host	Hostname provided for the Domino server account, which can be modified.

**Table 11-12** IBM Domino Server > Configuration fields

Field or Button	Description or Settings
Bind Method	Choose the Secure or Normal radio button to select the binding method, as follows: <ul style="list-style-type: none"> <li>Secure—CTS-Manager communicates with the Domino server in secure mode using HTTP or DIIOP. This method requires enabling Secure Socket Layer (SSL) on the Domino server.</li> <li>Normal—CTS-Manager communicates with the Domino server in cleartext using HTTP or DIIOP.</li> </ul>
Port	Communication port number (HTTP or DIIOP).
Organization Name	Domain name provided for the Domino server account, which can be changed.  <p><b>Note</b> Organization Name is case sensitive.</p>
Username	Enter the account name used to log on to the Domino server. The format is determined by the Email ID fields in the Person object classes and attributes.
Password	Password used to access the Domino server account, which can be changed. <p><b>Note</b> Make sure the Internet password is used in the Password fields in the System Configuration &gt; IBM Domino window and the LDAP Server window.</p>
Polling Interval (minutes)	Specifies the time interval, in minutes from 1 to 360, to poll the Domino server for meeting information.
Certificate	Use the field to provide an IBM Domino trust certificate class file. Use the Domino CLI command, <b>tell diiop show config</b> , to find the class filename. <p><b>Note</b> A certificate is required in secure mode only.</p>

## System Settings

If you are the system administrator and know the SysAdmin password, you can open the System Settings window to see the following choices:

- [IP, page 11-39](#)
- [NTP, page 11-40](#)
- [SNMP, page 11-41](#)
- [Remote Account, page 11-46](#)
- [Password, page 11-47](#)
- [System, page 11-47](#)
- [Cluster, page 11-48](#)

Use the tabs in this window to modify IP settings, configure a Network Time Protocol (NTP) server, enable or disable Simple Network Management Protocol (SNMP), set up a temporary account for access, change the system password, and restart the system.



## IP

The IP Setting window lists information that is provided to CTS-Manager during first-time installation and configuration. Although it is typically not necessary to change IP settings, this window offers a place to modify some of them. [Figure 11-18](#) describes the fields and buttons.

**Figure 11-18** System Settings > IP Tab

**System Settings**

IP NTP SNMP Remote Account Password System

✱ = Required fields

MAC Address: 00:1a:4b:34:96:0e

Hostname: example-ctm

Domain Name: example.com

Primary DNS: 171.70.168.183

Secondary DNS:

Ethernet Card: eth0

DHCP: ☐ Enable ☒ Disable

✱ IP Address: 10.22.147.213

✱ Subnet Mask: 255.255.255.0


✱ Default Gateway: 10.22.147.1

Apply Cancel


- 
- Step 1** To add new information, enter it in the fields provided.
- Step 2** To change information, highlight and delete existing information and enter the new information.
- Step 3** To register new or modified settings, click **Apply**.
- Step 4** To restore the original settings before clicking Apply, click **Cancel**.
- 

[Table 11-13](#) describes the information displayed in this area of the IP Settings window

**Table 11-13** IP Settings

Field or Button	Description or Settings
MAC Address	Display-only MAC address number supplied for this Cisco TelePresence Manager.
Hostname	Display-only hostname configured for this Cisco TelePresence Manager.
	 <b>Note</b> CTS-Manager hostname needs a DNS entry for email links to it to function properly.
Domain Name	Domain name for this Cisco TelePresence Manager.

**Table 11-13** *IP Settings (continued)*

Field or Button	Description or Settings
Primary DNS	Primary DNS server IP address supplied for this Cisco TelePresence Manager.
Secondary DNS	Secondary DNS server IP address supplied for this Cisco TelePresence Manager.
Ethernet Card	Name supplied for the system Ethernet card.
DHCP	<p>Enable and Disable radio buttons determine whether DHCP is enabled or disabled. When the Enable radio button is chosen, information in the IP address fields cannot be modified.</p> <div>  <p><b>Note</b> To modify the IP settings for this Cisco TelePresence Manager, click the <b>Disable</b> radio button.</p> </div>
IP Address	IP address supplied for this Cisco TelePresence Manager.
Subnet Mask	Subnet mask used on the IP address.
Default Gateway	Default gateway IP address supplied for this Cisco TelePresence Manager.

**Deleting Server**

Before performing a delete on a DNS server, it is important to first change existing servers like Unified CM and Conferencing Bridge to IP from hostname before the DNS server is deleted. If the hostname is not changed first, the Unified CM and Conferencing Bridge servers will be put in error status.

## NTP

Click the NTP Setting tab in the System Settings window to list the configured IP address of the Network Time Protocol (NTP) servers.

NTP is used to synchronize the clocks on Cisco IP telephony servers with an external network time server that uses NTP.

**Figure 11-19**     *System Settings > NTP Tab*The screenshot shows the 'System Settings' window with the 'NTP' tab selected. The 'NTP Servers' section contains five input fields for NTP Server 1 through NTP Server 5. The first two fields are populated with the IP addresses '192.168.33.15' and '192.168.33.17'. Below the input fields are 'Apply' and 'Cancel' buttons.

**System Settings**

IP **NTP** SNMP Remote Account Password System

**NTP Servers:**

NTP Server 1: 192.168.33.15

NTP Server 2: 192.168.33.17

NTP Server 3:

NTP Server 4:

NTP Server 5:

Apply Cancel

- 
- Step 1** To add an NTP server to the configuration, enter the IP address in an NTP Server field.
- Step 2** To change an NTP server in the configuration, highlight and delete the IP address in the NTP Server field and enter the new address.
- Step 3** To register new or modified settings, click **Apply**.
- Step 4** To restore the original settings before clicking Apply, click **Cancel**.
- 

## SNMP

SNMP is an industry-standard interface used by network management systems to capture system status and error information, including information provided by Unified CM. CTS-Manager supports the Cisco SNMP service.

In order to configure the SNMP service on CTS-Manager, you must use the CTS-Manager Command Line Interface (CLI).

Figure 11-20 System Settings &gt; SNMP Tab

**System Settings**

IP NTP **SNMP** Remote Account Password System

Engine ID: 0x80001f8803001a4b34960e  
SNMP: false

**System Location**  
**System Contact**

**SNMP Access Configuration**

Version	Username/Community String	Access	Password	Security Level	Authentication Algorithm	Encryption
v3	cmuser	RW	*****	AuthPriv	MD5	DES

**Trap Receiver Configuration**

IP Address	Version	Username	Password	Engine ID	Security Level	Authentication Algorithm	Encryption
No configured trap destinations.							

Table 11-14 describes the fields for SNMP settings.

Table 11-14 SNMP Settings

Field	Description or Settings
– Engine ID	The engine ID for the SNMP agent on this CTS-Manager.  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	The default is disable. To change setting to enable, you must use the CLI <b>Utility</b> command.  When SNMP is enabled, supply a password for the SNMP server in the <b>Configuration</b> area.
<b>SNMP Access Configuration</b>	<b>Use the CLI snmp set command to change these settings</b>
– Username	SNMP server username.
– Current Password	SNMP server password. The password must be 8 characters long. Enter it twice for verification.
<b>Trap Receiver Configuration</b>	<b>Use the CLI snmp set command to change these settings. See examples in following section.</b>
– IP Address/Hostname:Port	IP address or hostname and port number of the trap receiver
– Username	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.

**Note**

When performing a new installation, a default SNMP “admin” user will not be created. The default “admin” user with the default password, “snmppassword” must be changed in the new installation. All customer-created SNMP users and trap destinations are migrated to the new installation.

## Configuring SNMP Traps on CTS-Manager

SNMP provides the ability to send traps, or notifications, to inform the system administrator when one or more conditions have occurred. Traps are network packets that contain information about a component of CTS-Manager. The information is status or error-related.

To configure SNMP traps on CTS-Manager, you must complete all of the following steps:

- Start the SNMP service
- Configure an SNMP user
- Configure an SNMP trap destination
- Enable CTS-Manager to send SNMP trap notifications

### Starting the SNMP Service

To start the SNMP service, you must do the following:

- 
- Step 1** Log in to the CTS-Manager CLI.
- Step 2** Run the **utils service start** command:
- ```
utils service start Cisco SNMP Service
```
- 

### Configuring an SNMP User

To configure an SNMP user on CTS-Manager, you must do the following:

- 
- Step 1** In the CTS-Manager CLI, configure an SNMP user with the command:
- ```
set snmp user add version username access [passphrase] [level]
```
- 

#### Syntax Description

- *version* is the SNMP version, either 3 or 2c (both SNMP v3 and v2c are supported)
- *username* is the SNMP username (SNMP v3) or community string (SNMP v2c)
- *access* defines which SNMP tasks can be accessed; values are r (read), w (write), and rw (read and write)
- *passphrase* (optional) is the SNMP v3 user passphrase
- *level* (optional) is the SNMP v3 level; value is one of the following:
  - *authNoPriv* (default) is authentication with no encryption. The correct authentication key is required to write messages, but no encryption/decryption key is required to read the contents of the message.

- *authPriv* is authentication with encryption. The correct authentication key is required to write messages and the correct encryption/decryption key is required to read the contents of the message.
- *noauthNoPriv* is no authentication with no encryption. Neither an authentication key nor encryption/decryption key is required to write and read messages.



**Note** The *passphrase* and *level* parameters are not required for SNMP v2c.

The following example configures an SNMP v3 user, with the username **testusr**, granting read and write access, and with the passphrase **testpass**:

```
set snmp user add 3 testusr rw testpass
```

## Configuring an SNMP Trap Destination

To configure an SNMP trap destination on CTS-Manager, you must do the following:

- Step 1** In the CTS-Manager CLI, configure an SNMP trap destination with the command:
- ```
set snmp trapdest add version username destination [passphrase] [level] [engineID]
```

### Syntax Description

- *version* is the SNMP version, either 3 or 2c
- *username* is the SNMP username (SNMP v3) or community string (SNMP v2c)
- *destination* is the destination host, in the format n.n.n.n[:port]
- *passphrase* (optional) is the SNMP v3 user passphrase
- *level* (optional) is the SNMP v3 level; value is one of the following:
  - *authNoPriv* (default) is authentication with no encryption. The correct authentication key is required to write messages, but no encryption/decryption key is required to read the contents of the message.
  - *authPriv* is authentication with encryption. The correct authentication key is required to write messages and the correct encryption/decryption key is required to read the contents of the message.
  - *noauthNoPriv* is no authentication with no encryption. Neither an authentication key nor encryption/decryption key is required to write and read messages.
- *engineID* (optional) is the SNMP v3 engine ID to use for the trap

The following example configures an SNMP v3 trap destination with the username **testusr**, at host **64.101.180.49:162**, passphrase **testpass**, and engine ID **0x8000DEECAFE8111BEEFADE**:

```
set snmp trapdest add 3 testusr 64.101.180.49:162 testpass authpriv
0x8000DEECAFE8111BEEFADE
```

- Step 2** Configure the SNMP client device according to the instructions for that device. For instructions on configuring a CTS Release 1.8 endpoint, for example, see the [SNMP Settings](#) sections of the *Cisco TelePresence Administration Guide for CTS Software Release 1.8*.

## Enabling CTS-Manager to Send SNMP Trap Notifications

The final step to configuring an SNMP trap on CTS-Manager is to enable CTS-Manager to send SNMP trap notifications.

To enable CTS-Manager to send SNMP trap notifications, you must do the following:

- Using an SNMP client, set the **clognotificationsenabled** MIB to **True**.

SNMP Trap notifications are now enabled for CTS-Manager.

## Modifying SNMP Trap Settings

You can modify existing SNMP trap destinations and user access.

To modify an SNMP trap destination, do the following:

- 
- Step 1** Delete the existing trap destination with the command:
- ```
set snmp trapdest del
```
- After entering the above command, the CTS-Manager CLI lists all configured SNMP trap destinations and prompts you to specify the trap destination to delete.
- Step 2** Configure the new SNMP trap destination with this command:
- ```
set snmp trapdest add version username destination [passphrase] [engineID] [level]
```
- For details on the syntax, refer to [Syntax Description, page 11-44](#).
- The following example configures an SNMP v3 trap destination with the username **testusr**, at host **192.168.180.122**, passphrase **testpass**, and engine ID **0x8000DEECAFE8111BEEFADE**:
- ```
set snmp trapdest add 3 testusr 192.168.180.122 testpass 0x8000DEECAFE8111BEEFADE
```
- 

To modify SNMP user access to CTS-Manager SNMP traps, do the following:

- 
- Step 1** Delete an existing SNMP user with the command:
- ```
set snmp user del version username
```
- Syntax Description**
- *version* is the SNMP version, either 3 or 2c
  - *username* is the SNMP username (SNMP v3) or community string (SNMP v2c)
- The following example deletes the SNMP v3 user **testusr**:
- ```
set snmp user del 3 testusr
```
- Step 2** Configure the new SNMP user with the command:
- ```
set snmp user add version username access [passphrase] [level]
```
- For details on the syntax, refer to [Syntax Description, page 11-43](#).
- The following example configures an SNMP v3 user, with the username **newusr**, granting read and write access, and with the passphrase **newpass**:
- ```
set snmp user add 3 newusr rw newpass
```

## Remote Account

Use this window to set up limited access for remote users of this CTS-Manager. The remote account is intended for use by Cisco technical support personnel so they can access the system remotely to troubleshoot problems. Secure Shell (SSH) is used to access the system. The remote account is typically enabled for a brief period. Disabling the account will cause whoever is logged onto the system to be logged off. Only one remote account can be set up at a time, but more than one remote account can be active at the same time.

Login to the remote account is done using the account name and a passphrase generated by software in this CTS-Manager. The remote user uses the account name, the passphrase, and a utility available at an internal Cisco web site to generate a login name and password that allow access to this Cisco TelePresence Manager.

**Figure 11-21** *Configure > System Settings > Remote Account Tab*

The screenshot shows the 'System Settings' window with the 'Remote Account' tab selected. The 'Account Name' and 'Duration (days)' fields are required, as indicated by orange asterisks. An 'Add' button is located at the bottom of the form.

To start the remote login account process, perform the following steps:

- Step 1** Enter a name for the remote login account in the **Account Name** field.

This name can be anything you choose, using English characters.

- Step 2** Enter the number of days that the account should be active.

- Step 3** Click **Add**.

This step generates a passphrase.

To complete this process, the account name and passphrase are entered into a utility at the following Cisco Internal web site:

<https://remotesupporttool.cisco.com/logon.php>

For security reasons, if remote users fail to log off, they will be logged off automatically at the time listed in the Expires field.



## Password

Use the System Settings window to change the SysAdmin password for the Cisco TelePresence Manager. You must know the current password. Input the new password the second time for verification. Do not use anything other than English, as International words or characters are not supported in this release.

**Figure 11-22** *Configure > System Settings > Password Tab*

**System Settings**

IP NTP SNMP Remote Account **Password** System

\* = Required fields

SysAdmin Username: admin

\* Current Password:

\* New Password:

\* New Password (again):

Apply Cancel

- 
- Step 1** To display the password fields, click the **Password** tab.
- Step 2** Enter your current password.
- Step 3** Then, to change password, go to the **New Password** field and enter your new password, using only English characters.
- Step 4** In the **New Password (again)** field, repeat your new password to verify it.
- Step 5** To register the new password, click **Apply**.
- Step 6** To restore the original password before clicking Apply, click **Cancel**.



**Note**

Password should contain both upper and lower-case alphabetic and non-alphabetic characters. It should not be similar to the current password or be based on common words found in the dictionary.



**Note**

The password cannot be changed until at least 24 hours after it was created, unless you reinstall CTS-Manager.

## System

For standalone CTS-Manager deployments, this window allows you to restart or shut down CTS-Manager.

**Figure 11-23** System Configuration System Settings

**System Settings**

IP NTP SNMP Remote Account Password **System**

★ = Required fields

Username: admin

★ Password:

Restart Shutdown

- 
- Step 1** To restart the system, enter the password.
- Step 2** Click **Restart** to restart or **Shutdown** to shut down the CTS-Manager.
- 

## Cluster

### Clustering Support Discontinued

Cisco no longer provides support for the clustering feature originally introduced in release 1.8. For questions, contact Ron Lewis: [ronlewis@cisco.com](mailto:ronlewis@cisco.com).

## Database - Status, Backup, and Restore

CTS-Manager uses an Informix database server to store information. The Database window allows the Administrator to view the database status and run backup and restore operations. Open the Database window to see the following choices:

- [Settings](#)
- [Backup](#)
- [Restore](#)

## Settings

The Settings window allows you to manage the size and age of meeting information in the Informix database. To register new settings, click **Apply**. To return to the original settings, click **Reset**.

**Figure 11-24** Database > Settings Tab

**Database**

**Settings** Backup Restore

✱ = Required fields

Service: **OK**

Current Database Size: 0.04% full (5.78 of 14648.44 MB is used)

✱ Automatically Purge Data Older Than (months):  +

(+) The system automatically purges data when database utilization exceeds 75% of the allocated disk space.

**Snapshots of Number of Meetings** Showing 1-7 of 7 10 per page

Date	Past Meetings	Future Meetings
09/27/2011 12:55 AM	4349	442
09/28/2011 12:55 AM	4335	428
09/29/2011 12:55 AM	4318	436
09/30/2011 12:55 AM	4299	785
10/01/2011 12:55 AM	4282	766
10/02/2011 12:55 AM	4261	747
10/03/2011 12:55 AM	4241	728

Page  of 1

(+) All times are shown in time zone America/Los\_Angeles (UTC -7.0)

**Note**

CTS-Manager operates only on those recurring meetings that have a start time within 2 years in the past.

Table 11-15 describes the information and settings that are accessible from the Database window Settings tab.

**Table 11-15** Database Settings

Field	Description or Settings
Service	Display-only status report of the Informix database server.
Current Database Size	Display-only report showing the size of the database as a percentage of the amount of total space available for a Cisco TelePresence Manager account in Directory Server. The number displayed should not exceed 75%.
Automatically Purge Data Older Than (months)	<p>Sets the number of months of storage for the information in the database. Data older than the specified number of months is purged.</p> <p>The purge cutoff date for this setting should be selected by balancing the number of months of data retention against the size of the database required to store the data created during that period. The default setting of 1 month is considered a reasonable midpoint.</p> <p><b>Note</b> Database utilization cannot exceed 75% of the allocated disk space, and takes precedence. If the number of months you have specified exceeds this percentage, older data is purged so as not to exceed 75%.</p>

The view at the bottom of the Database Settings window displays, for example, the status of past meetings for the past month and the future meetings scheduled for the next 12 months. If the list is longer than is what is showing, use the Next or Last button to view more data.

## Backup

Choose the Backup tab to display fields and settings that will assist you in scheduling backups of the database. It is important to keep the backup current in case you need to activate the backup CTS-Manager system.

**Figure 11-25** *Configure > Database > Backup*

**Database**

Settings **Backup** Restore

✱ = Required fields

Schedule (+): Daily @ 17:05 [Change...](#)

Number of Backup Files to Keep: 14

Backup Type: ☒ Local ☐ Remote

Backup Mode: ☒ Sftp ☐ Ftp

Remote Storage Host:

Port: 22

Username:

Password:

Storage Path:

[Back Up Now](#) [Verify Remote Host](#) [Apply](#) [Cancel](#)

**Available Backup Files** Showing 0-0 of 0 10 per page [Go](#)

Time	Status	Type	Hostname	Location
No data to display				

[Refresh](#) Page 0 of 0 [◀](#) [▶](#)

(+) All times are shown in time zone America/Los\_Angeles (UTC -7.0)

## Changing the Backup Schedule

The backup schedule currently set is displayed in the Backup window.

To change the backup schedule:

- Step 1** Click **Change**.
- Step 2** Choose the starting time from the Start Time drop-down list. This sets the backup time in your local time zone.
- Step 3** Choose the frequency of the backups by clicking the **Daily** or **Weekly** radio button.



**Note** If you click **Weekly**, check the box for the day of the week on which the backup should occur.

**Step 4** Click **OK** to register your settings, or **Cancel** to restore the original settings

To register new or modified settings, click **Apply**. To restore the original settings before clicking Apply, click **Cancel**.



**Note** Backup schedules are now displayed in your local time zone.

## Backing Up CTS-Manager Data

Data backups are performed on the Active partition. If you switch partitions after performing a backup you'll need to perform another backup for the new Active partition. As part of data backup, the following system information is backed up:

- Database data
- System SNMP configuration information
- System certificates
- License files

To back up files in the database:

**Step 1** From the drop-down list, choose the number of backup files to keep. If you choose 3, the last three backup files will be kept, but earlier backup files will be purged.



**Note** If you are creating remote backups the number of backup files is not affected. CTS-Manager only keeps track of the number of backups made locally.

**Step 2** Choose the type of backup by clicking the **Local** or **Remote** radio button.

**Step 3** Test your connection to a remote host by clicking **Verify Remote Host**.

**Step 4** Click **Back Up Now** to begin the operation.

## Remote Storage Host Fields

A remote backup uses Secure FTP (SFTP) or FTP to store files remotely. If you choose to backup or restore using FTP, you do not need to supply a port number.



**Note** FTP scripts for Upgrade, Backup and Restore use Expect scripts and perform on a best-effort basis, due to potential variations in the responses sent by the FTP server. Only username/password-based login is supported. Anonymous login is not supported. Secure FTP (SFTP) is the recommended mode of transferring files over the network.



**Note** Backup files stored at remote location are stored in compressed form but are not encrypted. Ensure that the backup files are not publicly accessible by choosing a secure storage location.

You must fill in the following fields to gain access permissions to a remote host:

**Table 11-16 Remote Storage Host Fields**

Field	Description
Remote Storage Host	Pathname of the remote host.
Port	Port to access the remote host. The default is port 22 for SFTP.
Username	Login name for the remote server.
Password	Password to access the remote server.
Storage Path	The full pathname where you want to store the backup files.

## Viewing Backup History

The Database window Backup tab provides a history of database backups, in the Available Backup Files section.

[Table 11-17](#) describes the Backup History and Restore History fields.

**Table 11-17 Backup History and Restore History Fields**

Field	Description
Time	Date and time of backup. Click the arrow in the header of the Time column to sort the list in ascending or descending order.
Status	Status of the backup.
Type	Type of backup, either local or remote.
Hostname	Name of host for the backup files.
Location	Pathname where the files are stored.

## Restore

The Restore tab displays the history of the database restore operations. As part of the data restore, the following data is restored from the CTS-Manager backup file:

- Database data
- System SNMP configuration information
- System Certificates
- License files



**Note** CTS-Manager validates license files with system host ID during startup. If a license file does not match the host ID of the system, it is removed and its corresponding feature is in grace period.

OS parameters such as NTP, DNS are not backed up and thus not restored. It is expected that these parameters are configured by the administrator on the system during installation and later modified using CLI commands.



**Note**

Do not create mixed DNS and non-DNS environments. Identifying Unified CM node as publisher does not support mixed mode.

See [Table 11-17](#) for a description of the fields.

**Figure 11-26** *Configure > Database > Restore Tab*

**Database**

Settings Backup **Restore**

✱ = Required fields

Restore Type: ☒ Local ☐ Network

Restore Mode: ☒ Sftp ☐ Ftp

Remote Storage Host:  \*

Port:  \*

Username:  \*

Password:  \*

Storage Path:  \*

**Restored Backup Files History** Showing 0-0 of 0 10 per page

Time	Status	Type	Hostname	Location
No data to display				

Page 0 of 0

## Restoring Backup Data

When you restore data from a backup file, all changes made to the database since the backup will be lost. These changes must be added by the Exchange Sync Up and Discovery functions of the Cisco TelePresence Manager server. The database Restore function should be run only as a last resort; for example, when the database is corrupted or the disk fails and has to be replaced.

The restore operation will stop the Informix database server, so some CTS-Manager operations might be impacted during the operation. While the restore operation is in progress, all other processes are stopped. The user interface will only display progress of the restore operation. When the restore operation is complete, the Cisco Telepresence Manager is automatically restarted and the login page is displayed. You will have to log in to resume use of the Cisco Telepresence Manager application.



**Note**

You cannot restore the database from previous versions of CTS-Manager.

## To restore data from a backup:

Clicking **Available Backups** displays a window listing all the backups stored locally and remotely. If you want to restore from a backup stored remotely you must first click the Network Restore Type radio button. Then choose either the SFTP or FTP Restore Mode and enter required information to access the remote host. See [Table 11-16](#) for a description of the Remote Storage Host fields.



### Note

The license files are bundled as part of backup. The Restore process restores backed up license files. However, when a CTS-Manager backup is restored onto another server, the server is not functional for the licensed features until new licenses are imported.

- 
- Step 1 Click the **Refresh** button to view the list of backups.
  - Step 2 Click the radio button next to the backup filename that is to be used for the restore operation.
  - Step 3 Click **Restore Now**. This action initiates a full restore of the database from the backup file.
- 

## Unified CM

The Configure > Unified CM window displays the settings that associate CTS-Manager with Cisco Unified CM, choose Configure > Unified CM. You can modify these settings.

This window provides Service Status and the listings of the Unified CM connections.



### Note

Do not create mixed DNS and non-DNS environments. Identifying Unified CM node as publisher does not support mixed mode.



### Note

If you change the settings in the Unified CM, you must select it and click Discover Rooms to register the new settings or wait until the next maintenance cycle has taken place, before the current status will be displayed in CTS-Manager.



Figure 11-27 Configure &gt; Unified CM Window

The screenshot shows the 'Unified CM' configuration window. At the top, it says 'Cisco Unified Communications Manager' and 'Showing 1-1 of 1' with a dropdown set to '10' per page and a 'Go' button. Below this, there's a 'Service:' label with a radio button and the text 'OK'. A table follows with columns: Status, Hostname, IP Address, and Application Username. The table contains one row with a radio button, 'OK', 'example-ccm', '209.165.200.225', and 'exampleappuser'. At the bottom, there are buttons: 'New...', 'Edit...', 'Delete', 'Discover Rooms', and 'Refresh'. To the right of these buttons is a 'Page' indicator showing '1 of 1' and navigation arrows.


Click the radio button to select a Unified CM server. Once a Unified CM is selected, the buttons on the screen become usable. Refer to [Table 11-19](#) for a description of each button's function.

To manually start the process that is periodically performed to discover new endpoints (rooms) added to Cisco Unified CM, click **Discover Rooms**.

**Note**

This process consumes a large amount of system processor time. System operation will be noticeably slower from the time that the Discover Rooms button has been clicked until the process is completed.

Table 11-18 Discover Cisco Unified Communications Manager Settings

Field	Description or Settings
Status	<p>Display-only status report of system services.</p> <p><b>Note</b> You may see a progress indicator in the status field, especially if many Cisco TelePresence meeting rooms (endpoints) are being managed by CTS-Manager. Each time this page is accessed, the status is updated, and the progress indicator will be seen while the system is discovering endpoints.</p> <p> <b>Caution</b> An error status is displayed if the connection to the Unified CM server was lost due to a network outage or if the Unified CM server was down during the CTS-Manager maintenance cycle. You can resolve the error status by clicking <b>Discover Rooms</b>.</p>
New	This opens the Discovery Service window to add a new Cisco Unified Cm connection.
Edit	This opens the Discovery Service window to correct current settings.
Delete	This deletes the current Cisco Unified CM connection.

**Table 11-18** Discover Cisco Unified Communications Manager Settings (continued)

Field	Description or Settings
Discover Rooms	This allows you to manually start the process that is periodically performed to discover new endpoints added to Cisco Unified CM.
Refresh	This refreshes the window, ensuring the information is up to date.

Once you select a record and press **New** or **Edit**, the Unified CM Service window appears as shown in Figure 11-28.

**Figure 11-28** Unified CM Service Window

**New...Unified CM Service**

⚙ = Required fields

⚙ Host:

⚙ Username:

⚙ Password:

Certificate:

+ See Security Settings for the certificate currently in use for this secure connection

To test the connection between Cisco TelePresence Manager and Cisco Unified Communications Manager, click **Test Connection**.

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

Table 11-19 describes fields, buttons, and settings.

**Table 11-19** Discovery Service Cisco Unified CM Settings

Field	Description or Settings
Host	Name of the Cisco Unified CM server host that was selected in the Discover window.
Username	Username for login to the Cisco Unified CM server.
Password	Password to access the Cisco Unified CM server.
Certificate	Use the field to provide a trust certificate for new Cisco Unified CM server.
Test Connection	Tests the connection between CTS-Manager and Cisco Unified CM server.
Save	Save the new settings.
Close	Close the window.

When a room (endpoint) is deleted from the application user profile, it is automatically deleted from CTS-Manager without re-discovery. It is removed from calendar server view, but remains in rooms view.

**Note**

Rooms (endpoints) should be deleted only after an administrator manually does a rediscovery. If the endpoint has a large number of meetings, it is possible that the CTS-Manager performance will be impacted.

# Bridges and Servers

The Bridges and Servers window provides the ability to add, edit, deallocate and delete bridge and server devices. There are seven devices supported by CTS-Manager:

- Cisco TelePresence Multipoint Switch (CTMS)
- Cisco TelePresence Server (TS)
- Cisco Unified Video Conference device (CUVC)
- Cisco Collaboration Manager
- Cisco TelePresence Recording Server (CTRS)
- Cisco Media Experience Engine (MXE)
- WebEx (WebEx) server



## Caution

If a bridge or server device is reinstalled, it must be registered again through Cisco TelePresence Manager. There are no errors generated by a bridge or server device software change. The administrator of the bridge or server device must inform you of the change.



## Note

When Interoperability with Video Conferencing is enabled, multipoint meetings require a CTMS and an MXE in a scheduled state.

Figure 11-29 *Configure > Bridges and Servers*

Bridges and Servers

Status of Bridges and Servers

Showing 1-5 of 5100 per pageGo

Service:OK

	Status	Hostname	Type	Scheduled	Description	IP Address
<input type="radio"/>	✓	<a href="#">209.165.200.225</a>	CUVC	Yes	CUVC	<a href="#">209.165.200.225</a>
<input type="radio"/>	✗	<a href="#">209.165.200.226</a>	CTRS	—		<a href="#">209.165.200.226</a>
<input type="radio"/>	✓	<a href="#">example.webex.com</a>	WebEx	—	—	<a href="#">https://example.webex.com/exmp</a>
<input type="radio"/>	✓	<a href="#">example-ctms-10</a>	CTMS	Yes	CTSM example-3	<a href="#">209.165.202.129</a>
<input type="radio"/>	✓	<a href="#">example-ctms-11</a>	CTMS	Yes	example-ctms11	<a href="#">209.165.202.130</a>

New...Edit...DeleteRefresh

Page1 of 1

Table 11-20 describes the Bridges and Servers fields.

**Table 11-20**     *Bridges and Servers Devices*

Field	Description or Settings
Status	Display-only status report of system services.  <b>Note</b> You may see a progress indicator in the status field, especially if many Cisco TelePresence endpoints are being managed by CTS-Manager. Each time this page is accessed, the status is updated, and the progress indicator will be seen while the system is discovering endpoints. A CUVC always shows a status of OK
Hostname	The configured Hostname of the Conferencing Bridge. Clicking the hostname hyperlink opens a new browser window, with the CTMS login page.
Type	The Conferencing Bridge Type. Clicking the arrow allows you to sort ascending or descending.
Scheduled	Indicates whether the bridge or server is available (scheduled) for meetings. The resources of a scheduled bridge or server can be used when meetings are scheduled. If a bridges or server is non-scheduled, it means it will not be used when a meeting is scheduled. The arrow allows you to sort ascending or descending.
Description	The Description field displays the Conferencing Bridge device description, added when the Conferencing Bridge device was added. CUVC is the default; CTMS is configured in the CTMS program.
IP Address	The IP address of the bridge or server.

## Adding a Bridge or Server

To register a bridge or server with Cisco TelePresence Manager, click **New** to display the New...Bridge or Server dialog box, and choose CTMS from the Type drop-down field.

Details on configuring specific bridges and servers, are available in the following sections:

- [Cisco TelePresence Multipoint Switch \(CTMS\), page 11-62](#)
- [Cisco TelePresence Server \(TS\), page 11-64](#)
- [Cisco Unified Video Conferencing \(CUVC\), page 11-66](#)
- [Cisco TelePresence Recording Server \(CTRS\), page 11-68](#)
- [Cisco Multimedia Experience Engine \(MXE\), page 11-69](#)
- [WebEx, page 11-71](#)
- [Collaboration Manager, page 11-74](#)

## Editing a Bridge or Server

To edit a bridge or server device, click the radio button associated with the device to select that device and click the **Edit** button. The Edit...Bridge or Server window appears. [Table 11-21](#) describes the fields that can be changed.

**Table 11-21**      *Edit Bridge or Server Devices*

Field	Description or Settings
Username	This is the account name used to log into the bridge or server.
Password	This is the account password used to log into the bridge or server.
Scheduled	Select either <b>Yes</b> or <b>No</b> to specify whether the bridge or server is available (scheduled) for meetings.  CTMSs in a scheduled state cannot be used to migrate meetings from other CTMSs. If <b>No</b> is selected, resource allocation is not available. Selecting <b>Yes</b> for Scheduled allows resource allocations. TSs must always be in a Schedule state.
Deallocate (CUVC)	Select the checkbox to specify that the CUVC's resources are removed from all future meetings.
Migrate All Meetings (CTMS)	All meetings scheduled to use a CTMS can be migrated to a non-scheduled CTMS. Set Scheduled to <b>No</b> for both CTMSs, click the checkbox and choose the CTMS to which you want to migrate all meetings from the drop-down list and click <b>Save</b> .
Migrate All Meetings (MXE)	All meetings scheduled to use an MXE can be migrated to a non-scheduled MXE. Set Scheduled to <b>No</b> for both MXEs, click the checkbox and choose the MXE to which you want to migrate all meetings from the drop-down list and click <b>Save</b> .
Distribute All Meetings (TS)	All meetings scheduled to use a TS can be migrated to other scheduling devices. Set Scheduled to <b>No</b> , check the check box and click <b>Save</b> .  <b>Note</b> When distributing all meetings, CTS-Manager will try to schedule these meetings again on the available scheduling devices. Make sure you do this during off-peak hours and when there are enough scheduling resources available. If email notification is turned on, the organizer of each meeting will receive a new confirmation email.

After editing the information for your bridge or server, click **Save**.

## Deleting a Bridge or Server

A bridge or server cannot be deleted if there are any associated scheduled meetings. If the bridge or server is a CUVC, with associated scheduled meetings, you must first deallocate the CUVC before you can delete the device.

To delete a bridge or server device, click the radio button next to the device and click **Delete**.

**Note**

To delete a WebEx site, CTS-Manager must have connectivity to the WebEx site to properly deallocate the meetings associated with it.

## Deallocating a CUVC

Deallocating a CUVC moves the device's resources from all future meetings, setting them to an error state. It does not affect any meetings currently in progress. Deallocation is required before a bridge or server can be deleted.

To deallocate a bridge or server:

- 
- Step 1** Click the radio button next to the CUVC you want to deallocate.
  - Step 2** Click **Edit**.  
The Edit Bridge or Server window opens.
  - Step 3** Click the checkbox for **Deallocate**.
  - Step 4** Click **Save**.
- 

## Migrating All Meetings from a CTMS

Migrating all meetings, moves all meetings scheduled to use the selected CTMS to a non-scheduled CTMS. Click the checkbox and choose another CTMS from the drop-down list.

To migrate all meetings from a CTMS to another CTMS:

- 
- Step 1** Click the radio button next to the CTMS from which you want to migrate all meetings.
  - Step 2** Click **Edit**.  
The Edit Bridge or Server window opens.
  - Step 3** Select **Migrate All Meetings**.
  - Step 4** Select a CTMS to which to migrate.
  - Step 5** Click **Save**.
- 

## Distributing All Meetings from a TS

Distributing all meetings, moves all meetings scheduled to use the selected TS to other available scheduling devices.

**Note**

If there are no other scheduling devices available, this removes TS from all future meetings. Meetings currently in progress will continue to have TS resources.

To distribute all meetings from a TS to another scheduling device:

- 
- Step 1** Click the radio button next to the TS from which you want to migrate all meetings.
  - Step 2** Click **Edit**.  
The Edit Bridge or Server window opens.
  - Step 3** Select **Distribute All Meetings**.
  - Step 4** Click **Save**.
- 

## Resource Allocation with CTMS and TS Devices

For resource allocation with CTMS devices, CTS-Manager chooses an available CTMS based on the time zone that is closest to the majority of the TelePresence endpoints participating in the meeting. If there are multiple available CTMS devices in the same time zone, CTS-Manager randomly chooses a CTMS based on its database record number.

For resource allocation with TS devices, CTS-Manager randomly chooses a TS based on its database record number.

## Refreshing the List of Bridges or Servers

Click the **Refresh** button to refresh the list of bridge or server devices.



### Note

Once Interop has been enabled (see [Application Settings](#)), a CTMS device can only be added to CTS-Manager if it is interop-ready. An interop-ready device is defined as running a certain level of software release.

## Cisco TelePresence Multipoint Switch (CTMS)

CTMS devices provide the functionality for three or more endpoints to participate in a scheduled meeting. Cisco TelePresence Manager provides the scheduling information to the different CTMS devices and each CTMS provides the multipoint switching capabilities for the meeting.

### Adding a CTMS

To add a CTMS device to Cisco TelePresence Manager:

- 
- Step 1** Go to the Configure > Bridges and Servers window.
  - Step 2** Click **New** to display the New Bridge or Server dialog box.
  - Step 3** Choose CTMS from the Type drop-down field.
  - Step 4** Enter the information, click **Save**.



After you add the CTMS, you can edit it later by selecting it and clicking the **Edit** button.

**Figure 11-30** Adding a CTMS Device

**New Bridge or Server**

Type: CTMS

\* Hostname:


\* Username:

\* Password:

Scheduled: ☐ Yes ☒ No

\* = Required fields

**Table 11-22** Adding a CTMS Device

Field	Description or Settings
Type	Select CTMS from this pull-down list menu.
Hostname	The hostname or IP address of the CTMS. This is the LHS of the complete Hostname.
Username	This is the account name used to log into the CTMS.
Password	This is the account password used to log into the CTMS.
Scheduled	<p>Choose either <b>Yes</b> or <b>No</b>, to specify whether the CTMS is available (scheduled) for meetings. The resources of a scheduled CTMS can be used when meetings are scheduled. Specifying a CTMS as Non-Scheduled means the CTMS will not be used when a meeting is scheduled.</p> <p>CTMS devices in a Scheduled state cannot be used to migrate meetings from other CTMS devices.</p> <div>  <p><b>Caution</b> When a CTMS is in a scheduled state, CTS-Manager schedules its resources, even if it is in an error state. When a CTMS is in an error state, scheduled meetings will fail. The only way to disable scheduling of a CTMS is to set Scheduled to <b>No</b>.</p> </div>

**Note**

To downgrade an existing CTMS to a software version earlier than 1.8, you must restart CTS-Manager to establish a fresh connection.

## Cisco TelePresence Server (TS)

TS software 2.2 or later is required for CTS-Manager.

**Note**

CTS-Manager supports secure communication with TelePresence Server on port 443 only and non-secure communication on port 80 only. Refer to your TS documentation on how to set up secure communication.

## Adding a Cisco TelePresence Server

To add a Cisco TelePresence server to Cisco TelePresence Manager:

- 
- Step 1** Go to the Configure > Bridges and Servers window.
  - Step 2** Click **New** to display the New Bridge or Server window.
  - Step 3** Choose **TelePresence Server** from the Type drop-down field.
  - Step 4** Enter the information, click **Save**.
  - Step 5** Click **Refresh** to display the new TS in the Configure > Bridges and Servers window.

The new TS is displayed in the Configure > Bridges and Servers window.

**Note**

A TS may initially be displayed with a status of 'Not registered' (red 'x' icon). After the Username and Password are validated by CTS-Manager, the status changes to 'Registered' (green check mark icon). This process may take up to 3 minutes. If the status is still 'Not registered' after 3 minutes, edit the TS and verify the Username and Password are correct.

- Step 6** To verify the TS you just added configured correctly, select it and click the Edit button. Segment Count should display the total capacity of ports on the TS. After you add the TelePresence Server, you can edit it later by selecting it and clicking the **Edit** button.
-

Figure 11-31 Adding a TelePresence Server

**New Bridge or Server**

Type: TelePresence Server ▼

⚙️ Hostname:

⚙️ Username:

⚙️ Password:

Scheduled: ☐ Yes ☒ No

---

⚙️ Multipoint Call-In Number Start:

⚙️ Multipoint Call-In Number End:

⚙️ = Required fields

Table 11-23 TS Device Information

Field	Description or Settings
Type	Select TelePresence Server from this pull-down list menu.
Hostname	The configured hostname of the TS device. This is the LHS of the complete hostname. <b>Note</b> Make sure the hostname is registered in DNS and can be resolved by CTS-Manager.
Username	This is the account name used to log into the TS. <b>Note</b> A user account must be created on the TS with API privileges with the same username and password. username and password must match.
Password	This is the account password used to log into the TS. <b>Note</b> Make sure you enter the correct password. If you enter the wrong password, an error status will appear after up to 3 minutes.
Scheduled	Select either <b>Yes</b> or <b>No</b> to specify whether the TS is schedulable for meetings. If No is selected, meetings cannot be scheduled using this device.
Multipoint Call-In Number Start	The first number of the numeric ID range allocated to this device, based on your enterprise dialing plan.
Multipoint Call-In Number End	The last number of the numeric ID range allocated to this device, based on your enterprise dialing plan.

## Multipoint Call-In Numbers on the TelePresence Server

Each conference on a TS must have a unique numeric ID. CTS-Manager randomly generates a numeric ID within the start and end number range when it is configured in CTS-Manager. One-Button-to-Push uses this TS call-in number. For more information about TelePresence Number, see [http://www.cisco.com/en/US/docs/telepresence/cts\\_manager/1\\_8/call\\_in\\_number.html](http://www.cisco.com/en/US/docs/telepresence/cts_manager/1_8/call_in_number.html)



### Caution

The specific Multipoint Call-In Number range cannot be used by any other TS. CTS-Manager does not validate the dial plan associated with the number range.

## Cisco Unified Video Conferencing (CUVC)

CTS-Manager's support of CUVC enables video conferencing devices to join a scheduled Cisco TelePresence meeting. A CUVC is notified by and joins a Cisco TelePresence meeting through a CTMS. A CTMS device must be used to enable video conferencing devices to join, even if it is a point-to-point call.

There are two options for registering CUVC devices with CTS-Manager:

- Using a single CUVC device
- Using the CUVC Manager application to manage a pool of ports (participants) from multiple CUVC devices to enable TelePresence Interop meetings that transparently span conference bridges (dynamic cascading)

## Adding a CUVC

To add a CUVC device to Cisco TelePresence Manager:

- Step 1** Go to the Configure > Bridges and Servers window.
- Step 2** Click **New** to display the Registration dialog box.
- Step 3** Choose CUVC from the Type drop-down field.
- Step 4** Enter the information, click **Save**.

After you add the CUVC, you can edit it later by selecting it and clicking the **Edit** button.



### Note

If you do not find CUVC in the Type drop-down menu, go to Configure > Application Settings > Bridges and Servers and make sure Interoperability with Video Conferencing is enabled and either CUVC-CIF or CUVC-720p is selected for Interop Quality.

Figure 11-32 Adding a CUVC Device

**New Bridge or Server**

★ = Required fields

Type: CUVC ▼

Hostname:

Scheduled: ☐ Yes ☒ No

Call-In Number Prefix for CTMS:

Call-In Number Prefix for Video Conference Participants:

Meeting Number Length: 1 ▼

Maximum Participants per Conference:

Minimum Participants per Conference:

Total resources:

Table 11-24 CUVC Device Information

Field	Description or Settings
Type	<p>If only CTMS appears in the drop-down list, Interop has not been enabled. Use the <a href="#">Application Settings</a> window to enable Interoperability with Video Conferencing.</p> <p><b>Note</b> Only one CUVC can be supported by one CTS-Manager.</p>
Hostname	This is the LHS of the complete Host name.
Scheduled	Choose either <b>Yes</b> or <b>No</b> , to specify whether the CUVC is available (scheduled) for meetings. The resources of a scheduled CUVC can be used when meetings are scheduled. Specifying a CUVC as Non-Scheduled means an Interop meeting will not be available when a meeting is scheduled.
Call-In Prefix for CTMS	The call-in number prefix for your CTMS is based on your enterprise dialing plan.
Call-In Number Prefix for Video Conferencing Participants	This call-in number prefix is based on your enterprise dialing plan.
Meeting Number Length	The meeting number can be 1-8 digits in length. The system-generated meeting number is used to create an Interop Call-In Number used by the CTMS to establish the conference call. It is also used to create the Interop Call-In Number sent in an email to meeting participants, as the dial-in phone number. The meeting number length is based on your enterprise dialing plan.
Maximum Participants per Conference	<p>Enter a numeric value for the maximum number of CUVC meeting participants that may dial into the conference call.</p> <p><b>Note</b> The maximum number of participants depends on the maximum number of CUVC HD or SD video ports supported by the CUVC hardware, depending on how it's configured in CTS-Manager. Refer to the CUVC manual when determining the maximum video ports capacity. CTS-Manager supports use of a single CUVC device or pooling of multiple CUVC devices through the CUVC-M application. For more information about configuring this field to use multiple CUVC devices, see <a href="#">Configuring the Maximum Participants per Conference Field for Multiple CUVC Devices</a>, page 11-68</p>

Table 11-24 CUVC Device Information (continued)

Field	Description or Settings
Minimum Participants per Conference	Enter a numeric value for the minimum number of CUVC meeting participants that may dial into the conference call. The minimum value for this field is 2. This value cannot exceed the Maximum Participants per Conference value.
Total Resources	This value should be equal to or greater than the Maximum Participants per Conference.
Type	<p>If only CTMS appears in the drop-down list, Interop has not been enabled. Use the <a href="#">Application Settings</a> window to enable Interoperability with Video Conferencing.</p> <p><b>Note</b> Only one CUVC or Cisco Unified Video Conferencing Manager (CUVC-M) can be supported by one CTS-Manager.</p>

### Configuring the Maximum Participants per Conference Field for Multiple CUVC Devices

To configure the Maximum Participants per Conference field for multiple CUVC Devices:

- 
- Step 1** Log into CUVC-M for the CUVC server you are adding.
- Step 2** Go to the Active Meeting Types window.
- In the Maximum Available Ports column for the appropriate meeting type, the SD port count is displayed.
- Step 3** If Interop Quality in CTS-Manager is set to:
- CUVC-CIF (SD): Find the Maximum Available Ports number of the CIF meeting type in CUVC-M and enter that number in the Maximum Participants per Conference field for the CUVC device in CTS-Manager.
  - CUVC-720p: Find the Maximum Available Ports number of the 720p meeting type in CUVC-M, divide it by 4 and enter it in the Maximum Participants per Conference field for the CUVC device in CTS-Manager.

For CUVC-720p, one additional step is required in CUVC-M: Go to the Meeting Type Detail window for the selected meeting type and make sure TelePresence Support is checked.

For more information about CUVC-M, go to the following URL:

[http://www.cisco.com/en/US/products/ps7088/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps7088/tsd_products_support_series_home.html)

## Cisco TelePresence Recording Server (CTRS)

The Cisco TelePresence Recording Server allows you to record video content such as training, executive messaging, and corporate communications using an existing TelePresence installation.



#### Note

Adding a CTRS is only required with the Commercial Express Bundle.

### Adding a CTRS Device

To add a CTRS to Cisco TelePresence Manager:

- 
- Step 1** Click **New** to display the Registration dialog box.

**Step 2** Choose CTRS from the Type drop-down field.

**Step 3** Enter the information, click **Save**.

After you add the CTRS, you can edit it later by selecting it and clicking the **Edit** button.

**Figure 11-33** Adding a CTRS Device

**New...Bridge or Server**

⚙ = Required fields

Type: CTRS ▼

Hostname:

Username:

Password:

**Table 11-25** Adding a CTRS Device

Field	Description or Settings
Type	Select CTRS from the pull-down list menu.
Hostname	The configured hostname of the CTRS device. This is the LHS of the complete hostname
Username	This is the account name used to log into the CTRS.
Password	This is the account password used to log into the CTRS.

## Cisco Multimedia Experience Engine (MXE)

The Cisco Media Experience Engine is a modular media processing system that provides interoperability between Cisco TelePresence and video conferencing devices, extending the reach of collaboration and communication within organizations. MXE provides 720p interoperability with video conferencing.

### Adding an MXE Device

To add an MXE device to Cisco TelePresence Manager:

**Step 1** Go to the Configure > Bridges and Servers window.

**Step 2** Click **New** to display the New...Bridge or Server dialog box.

**Step 3** From the Type drop-down field, choose MXE.

**Step 4** Enter the information, click **Save**.

After you add the MXE, you can edit it later by selecting it and clicking the **Edit** button.



**Note**

If MXE does not appear in the Type drop-down menu, go to the Configure > Application Settings > Bridges and Servers window and make sure Interoperability with Videoconferencing is enabled and MXE-HD is selected.

**Figure 11-34** Adding an MXE Device

**Table 11-26** MXE Device Information

Field	Description or Settings
Type	Select MXE from the pull-down list menu.
Hostname	The configured hostname of the MXE device. This is the LHS of the complete hostname
Username	This is the account name used to log into the MXE.
Password	This is the account password used to log into the MXE.
Scheduled	Select either <b>Yes</b> or <b>No</b> , to specify whether the MXE is available (scheduled) for meetings.  MXEs in a scheduled state cannot be used to migrate meetings from other MXEs. If Non-scheduled is selected, resource allocation is not available. Selecting Scheduled allows resource allocations.



## WebEx

Meeting organizers can add WebEx participants to their meeting. CTS-Manager is used to configure and manage the Cisco WebEx bridging feature in Cisco TelePresence meetings.

For the complete details on how to configure WebEx in CTS-Manager, refer to:

[Chapter 12, “Configuring Cisco WebEx OneTouch for Cisco TelePresence Manager”](#).

### Multiple WebEx Sites

You can add multiple WebEx sites to support WebEx users with accounts on different WebEx scheduling servers. When multiple WebEx sites are configured in CTS-Manager and WebEx is enabled, WebEx Permitted and Premium users will be able to register themselves to one of the WebEx sites the first time they schedule a WebEx meeting. It is important to communicate with these users which server they should use.

For more information about first-time WebEx meeting scheduling, refer to:

[First-Time Scheduling of TelePresence Meetings with WebEx, page 12-14](#).

### WebEx Proxy Server

To provide an extra level of security, an enterprise might require communication between the enterprise and the Cisco WebEx cloud to go through a proxy server. In such a case, the administrator must configure CTS-Manager to connect to WebEx site through the proxy server.

The following modes of proxy connection are available:

- Connection specifying the proxy server host and port (with no authentication)
- Connection specifying the proxy server host and port using Basic authentication using username and password

**Note**

No other form of proxy authentication (such as Digest, NTLM, certificate based, Kerberos) is supported. A proxy server supporting multiple protocols should have basic authentication as the default authentication mechanism between CTS-Manager and WebEx.

## Adding a WebEx Site

To add a WebEx site to Cisco TelePresence Manager:

- Step 1** Go to the **Configure > Bridges and Servers** window.
  - Step 2** Click **New** to display the **New... Bridges or Servers** dialog box.
  - Step 3** Choose **WebEx** from the **Type** drop-down field.
  - Step 4** Enter the information and click **Test**.
- A message appears indicating the connection to the server is verified.

**Note**

If the message “No trusted certificate found” appears, an expired WebEx certificate may exist in CTS-Manager. Go to **Configure > Security** and verify that the WebEx certificate is valid (by checking its expiration date). If the certificate is expired, manually remove it and then add the new WebEx site again.

**Step 5** Click **Save**.

The New Bridge or Server window closes.

**Step 6** Click the **Refresh** button.

The newly added WebEx site displays a status of “OK.”



**Note**

After you add the WebEx site, you can edit it later by selecting it and clicking the Edit button. Only the authentication credentials can be edited. If the site URL needs to be changed, the original site needs to be deleted and a new site added.



**Note**

If WebEx does not appear in the Type drop-down menu, make sure the WebEx feature is enabled in the Bridges and Servers > Application Settings > Bridges and Servers window.

**Figure 11-35** Adding a WebEx Site

**Table 11-27 WebEx Site Information**

Field	Description or Settings
Type	Select WebEx from the pull-down list menu.
Hostname	<p>A name identifying the WebEx site hostname to the administrator. This typically can be the same name as the hostname used in the site URL.</p> <p><b>Note</b> Multiple WebEx sites can have the same hostname. This is not used to connect to the WebEx site and therefore is not validated during testing of connection.</p>
Site URL	The address used to construct the URL that's used to access this meeting. This is the actual URL that CTS-Manager uses to communicate with WebEx. This is published in the email from CTS-Manager, and is displayed to users on the WebEx page of the CTS phone UI.
WebEx Admin Username	WebEx administrator's username (provided by the WebEx team)
WebEx Admin Access Code	WebEx administrator's access code (provided by the WebEx team)
Certificate	<p>Certificate from the hostname (WebEx scheduling server)</p> <p><b>Note</b> To get the certificate, open a web browser window and go to the hostname URL and download the certificate to your computer. Then click Browse to select it and upload it to CTS-Manager. The certificate is required because communication with the WebEx site must use HTTPS. For detailed instructions on downloading the certificate with different browsers, see <a href="#">First-Time Scheduling of TelePresence Meetings with WebEx</a>, page 12-14.</p>
Connection Type	<p>Choose the type of connection to establish with the WebEx scheduling server: <b>Direct</b> or <b>Via Proxy Server</b>.</p> <p>Selecting the proxy server option allows you to filter IP traffic and increase security.</p>
<b>WebEx Proxy Server Settings</b>	
Host Name	Host name of proxy server
Port	Port number of proxy server
Requires Authentication	Select Yes if the proxy server requires authentication and then enter username and password.
Username	Username for proxy server
Password	Password for proxy server

## Deleting a WebEx Site

When deleting a WebEx site, CTS-Manager must first connect to the WebEx site to deallocate the scheduled WebEx meetings. If CTS-Manager cannot connect to the WebEx site, the site cannot be deleted.

**Caution**

Deleting a WebEx site will remove WebEx from all upcoming scheduled meetings. Meeting organizers will receive a new confirmation email for their TelePresence meetings with WebEx, but the email will not indicate that WebEx has been removed from the meeting. TelePresence meetings with WebEx that are currently in progress will continue to have WebEx.

To delete a WebEx site:

---

**Step 1** Select the WebEx site.

**Step 2** Click **Delete**.

CTS-Manager connects to the WebEx site, deallocates the meetings and then deletes the WebEx site.

---

## Collaboration Manager

To register a Collaboration Manager server with Cisco TelePresence Manager, click **New** to display the New...Bridges or Servers dialog box, and choose Collaboration Manager from the Type drop-down field.

Provide the following information and click **Save**.

After Cisco Collaboration Manager is configured, you access it by doing the following:

---

**Step 1** Go to **Monitor > Meetings**.

**Step 2** Select a meeting.

**Step 3** Click **Open Collaboration Manager**.

---

**Figure 11-36** Adding a Collaboration Manager

**New Bridge or Server**

Type: Collaboration Manager

✱ Hostname:

✱ URL:

✱ = Required fields

Save Close

⚠ Important: To verify Cisco Collaboration Manager is communicating properly with Cisco TelePresence Manager:

1. Go to Monitor>Meetings.
2. Select a meeting.
3. Click Open Collaboration Manager.

**Table 11-28** Adding a Collaboration Manager

Field	Description or Settings
Type	Select Collaboration Manager from this pull-down list menu.
Hostname	The configured Hostname of the Collaboration Manager server. This is the LHS of the complete Hostname
Username	This is the account name used to log into the Collaboration Manager.

## Cluster Management

### Clustering Support Discontinued

Cisco no longer provides support for the clustering feature originally introduced in release 1.8. For questions, contact Ron Lewis: [ronlewis@cisco.com](mailto:ronlewis@cisco.com).

## Access Management

From the Access Management window, it is possible to create groups, such as a Live Desk group and an Admin group. Use this window to view and create roles for these groups. CTS-Manager supports two basic roles—a Live Desk and an Administrator.

The roles have different levels of privilege and access when using CTS-Manager. For instance, members in the group mapped to the Live Desk role have limited privileges that allow them to view the meetings, rooms (endpoints), and system error and log files. Members in the group mapped to the Administrator role have the privileges of the Live Desk role plus additional privileges that allow them to make configuration changes.

### Meeting Extension Premium User

Members of a group assigned to this role can also extend meetings beyond their scheduled end time using a single button on the phone. Specific settings are defined in the Configure > Application Settings > Meeting Options window. Members of the Meeting Extension Premium User can extend meeting times with a One Button To Push option on the phone.

### WebEx Roles

If you have enabled the WebEx feature, there are 3 additional roles:

- Premium WebEx User: always has WebEx with every meeting they schedule
- Permitted WebEx User: can request WebEx for specific meetings they schedule
- Non-Permitted WebEx User: is not permitted to request WebEx.

### Reporting API User

The reporting API user role can be assigned to a group that needs API access to the complete information gathered by the survey and benefits reporting feature.



#### Note

The Reporting API User role requires the Metrics Dashboard and Reporting API license to be uploaded to CTS-Manager. To upload the Metrics Dashboard and Reporting API license, go to the Configure > Licenses window, click the License Files tab and click Upload.

### Assigning Roles to Groups Using Domino Directory Assistance

If your Cisco TelePresence Manager deployment is working with an IBM Domino Server and Domino Directory Assistance, it is possible for the group to contain a user from an external directory. That type of external user cannot be granted the role of CTS-Manager Administrator. Only members of groups local to the IBM Domino Directory may be granted the Administrator role.

You can generate information about specific LDAP Group mappings, as follows:

- Choose the role from the **Role** drop-down list.
- Click **Filter**.



#### Caution

When assigning different Directory Server groups to a role, the Add window may not list the group or groups you want to add. This is a directory server limitation when the number of groups returned by the query exceeds 500. If this occurs, click the Manual radio button in the Add window, specify the Group FQDN you are searching for and assign either the Live Desk or Administrator role.

Figure 11-37 Access Management Window

**Access Management**

**LDAP Lookup Method to Authorize User Roles:**

☒ Include all the subgroups of the selected group  
☐ Look up only the selected group (no subgroups)

---

**Role to LDAP Group Mappings**

Role:

Showing 1-5 of 5  per page

	Role	LDAP FQDN
<input type="radio"/>	Reporting API User	CN= Reporting
<input type="radio"/>	Live Desk	CN= LiveDesk
<input type="radio"/>	Administrator	CN= Administrator
<input type="radio"/>	WebEx Premium User	CN= WebExPremium
<input type="radio"/>	WebEx Permitted User	CN= WebExPermitted

Page  of 1

## LDAP Lookup Method to Authorize User Roles

This setting controls how CTS-Manager roles are assigned to LDAP groups.

Group Level options:

- **Include all the subgroups of the selected group**—All users in the selected group and all users in nested groups are assigned the role.
- **Look up only the selected group (no subgroups)**—Only users in the selected LDAP group are assigned the role. Users in groups within the selected group (nested groups) are ignored.

By default, CTS-Manager is set to include all subgroups of the selected group.



### Note

Cisco recommends organizations with thousands of LDAP groups to use the “Look up only the selected group” setting, otherwise users may experience a long delay when logging in to CTS-Manager.

Make the appropriate group-level selection for your organization, click **Apply** and then click **OK** to confirm your choice.

## Adding an LDAP Group to a Role

To add an LDAP group to a role in CTS-Manager:

---

**Step 1** In the Access Management window, click **Add**.

The LDAP Tree Selector window appears, as shown in [Figure 11-38](#).

**Step 2** Select a role from the Role drop-down menu

**Step 3** For Mode, click the Tree Selection radio button if you want to select an LDAP group from the list of all LDAP groups, or click the Manual radio button if you want to enter a specific group name in the FQDN text field.



**Note**

If you are selecting multiple LDAP groups in different directories, you can click the Selection button at any time to check which groups you currently have selected.

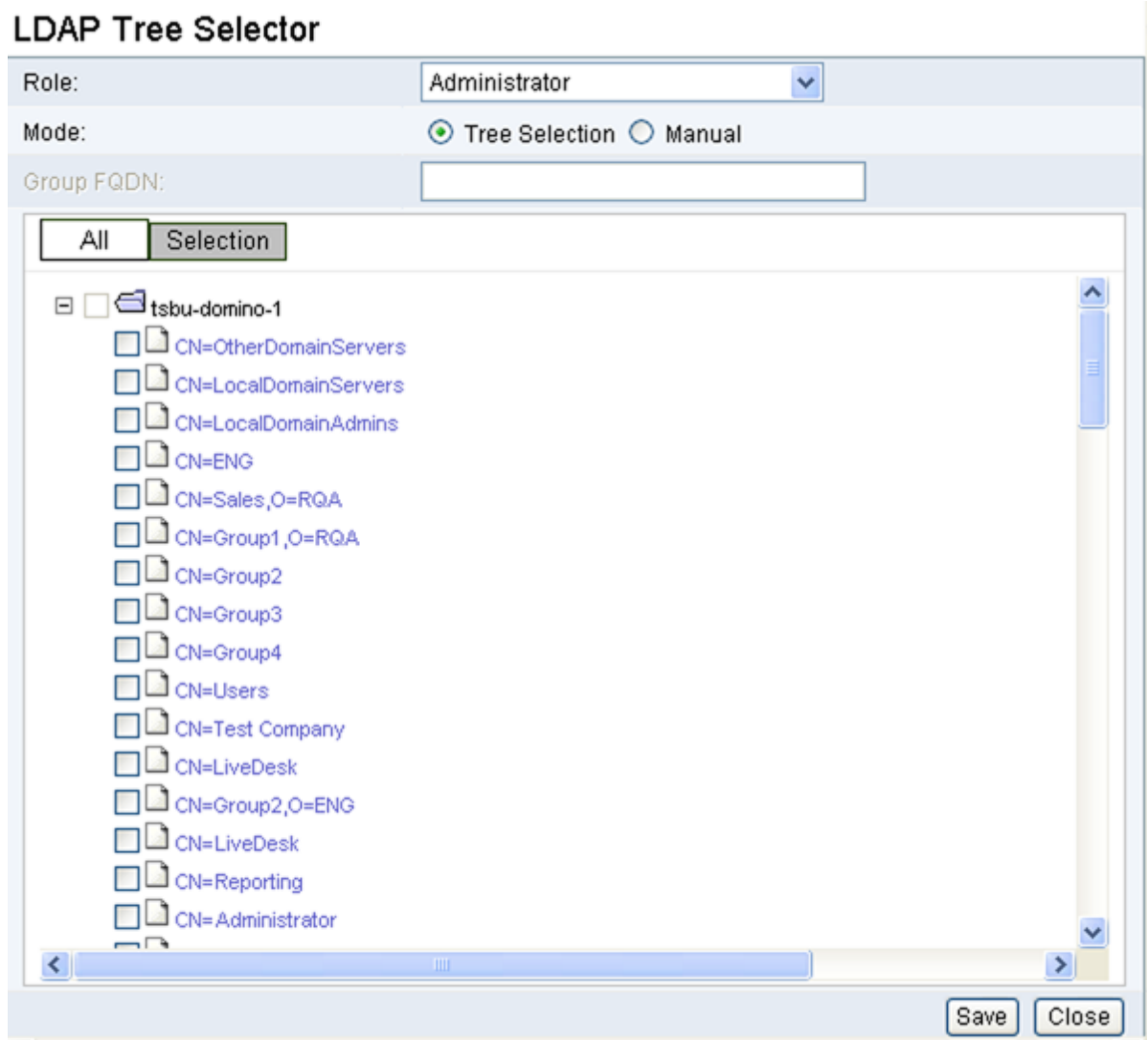
**Step 4** Click **Save**.

The newly added role appears in the Access Management window.

---



Figure 11-38 LDAP Tree Selector



## Alert Management

The Alert Management window allows you to set the threshold that determines when CTS-Manager sends email notifications that its hard disk is approaching or has exceeded the configured threshold or critical level.

The alert is sent to the email address configured in the **Copy Outgoing Email To** field in the Configure > Application Settings > Email window.

In the Disk Threshold Percentage field, enter the percentage of used disk space that will determine when CTS-Manager will send alert emails and click **Apply**.

CTS-Manager sends alert emails under the following circumstances:

- When the disk usage reaches 5% below the configured Disk Threshold Percentage, CTS-Manager sends an email indicating the disk usage is approaching the threshold.

- When the disk usage exceeds the configured Disk Threshold Percentage, CTS-Manager sends an email indicating the disk usage has exceeded the threshold.
- When the disk usage exceeds 90%, CTS-Manager sends an email indicating the disk usage has exceeded the critical level.

CTS-Manager resends the alert every 24 hours until the disk usage issue is resolved.

Included in each email, are the storage and system parameters for the CTS-Manager server.

**Table 11-29 Storage Parameters**

Parameter	Description
Total Disk	Total disk capacity
Total Disk Used	Total disk space used
Total Disk Available	Total disk space available
Total Disk Used	Total percentage of disk space used

**Table 11-30 System Parameters**

Parameter	Description
SKU	CTS-Manager product version
Hostname	Configured hostname of the CTS-Manager server
IP Address	IP address of the CTS-Manager server
Hardware Model	Hardware model of the CTS-Manager server
Software Version	CTS-Manager software version

## Endpoints

A CTS-Manager administrator can register video conferencing (VC) and EX, MX or C-series endpoints to CTS-Manager, enabling easy scheduling of meetings that include participants using these types of endpoints.

EX, MX or C-series endpoints with TC5.0 or later support One-Button-to-Push (OBTP). Endpoints with TC4.x or earlier function as VC endpoints and do not support OBTP.

## Registering EX, MX or C-series Endpoints

For EX, MX or C-series endpoints with TC4.x or earlier software:

- Select **Video Conferencing** as the endpoint type.

For EX, MX or C-series endpoints with TC5.0 or later software:

- Select **EX or C Series** as the endpoint type.

EX, MX or C-series endpoints running TC5 or later that are registered to a Unified CM running version 8.6(1) or later are automatically discovered by CTS-Manager. In this case, it is not necessary to add the endpoints in this window.

**Note**

EX, MX and C-series endpoints do not support the Live Desk feature.

**Figure 11-39** *Configure > Endpoints*

**Endpoints**

Endpoints registered with Cisco Unified CM are discovered automatically and listed on the **Support > Endpoints** page. Showing 1-2 of 2 10 per page Go

Status: All Type: All Name:  Filter

	Status	Name	Type	Segments	Phone	IP Address
<input type="radio"/>	OK	ex62304	Cisco TelePresence C60	1	62304@cm1.example.com	209.165.201.6
<input type="radio"/>	OK	ex62305	Cisco TelePresence EX60	1	62305@cm1.example.com	209.165.201.7

New... Edit... Delete Import... Refresh

Page 1 of 1

**Table 11-31** *Configure > Endpoints Information*

Field	Description
Status	Display-only status report of system services
Name	Name of endpoint
Type	Model of endpoint
Segments	Number of endpoint segments
Phone	Phone number of endpoint
IP Address	IP address of endpoint

To add an endpoint to Cisco TelePresence Manager:

- Step 1** Go to the **Configure > Endpoints** window.
- Step 2** Click **New** to display the New Endpoint dialog box.
- Step 3** Enter the information, click **Save** and **Close**.

To reload the most current list of endpoints, click **Refresh**.



**Note** An endpoint displays as the Type “Other” if the model type does not exist in Unified CM.

**Table 11-32**      *Endpoint Settings*

Field	Description or Settings
Endpoint Type	Video Conferencing or EX or C Series.
Email ID	<p>&lt;Room/Endpoint mailbox ID&gt;@&lt;exchange or domino domain name&gt;.</p> <p>For EX or C Series endpoints, after you enter the email ID, click <b>Validate</b> to ensure the email address is valid.</p>
Name (Video Conferencing endpoint only)	<p>Name of the video conferencing endpoint.</p> <p><b>Note</b> This appears when the email ID is successfully validated.</p>
Location (Video Conferencing endpoint only)	<p>Physical location of the video conferencing endpoint.</p> <p><b>Note</b> This appears when the email ID is successfully validated.</p>
Country (Video Conferencing endpoint only)	<p>Country where the video conferencing endpoints located.</p> <p><b>Note</b> This appears when the email ID is successfully validated.</p>
TIP enabled (Video Conferencing endpoint only)	<p>Select this checkbox if this video conferencing endpoint is compatible with TelePresence Interoperability Protocol (TIP).</p> <p><b>Note</b> TIP-enabled endpoints can use CTMS version 1.8 or TS for resource allocation. With endpoints that are not TIP-enabled, multipoint meetings require a CTMS and an MXE in a scheduled state.</p>
Segments required for the type of video conferencing endpoint (Video Conferencing endpoint only)	<p>Set the number of segments for the video conferencing endpoint. Select <b>1</b>, <b>2</b>, <b>3</b> or enter the number in the Other field.</p>
Phone	<p>Phone number of the endpoint.</p> <p>For EX and C series endpoints only, after you enter the username and password, click <b>Validate</b>. The phone (directory) number for the endpoint will appear.</p>
IP Address	IP address of the endpoint.

**Table 11-32**     *Endpoint Settings*

Field	Description or Settings
Username (EX or C Series only)	Username of the EX or C series endpoint
Password (EX or C Series only)	Password of the EX or C series endpoint

**Figure 11-40**     *Video Conferencing Endpoint*

**New Endpoint**

Endpoint Type: Video Conferencing ▾

✱ Email ID:  Validate

Name: Select Validate to retrieve the information

Location: Select Validate to retrieve the information

Country: Select Validate to retrieve the information

TIP Enabled: ☐

---

✱ Segments required for the type of Video Conferencing Room

☒ 1   ☐ 2   ☐ 3   ☐ Other

---

Phone:

IP Address:

✱ = Required fields

Save Close

Figure 11-41 EX or C-Series Endpoint

## Importing Endpoints

You can import multiple endpoints at one time by creating a comma-separated values (.csv) text file with the endpoints' information and uploading it to CTS-Manager.

To import endpoints:

**Step 1** Create a .csv text file in the following format:

- **For EX or C series endpoints running TC5.0 or later software:**  
<fully qualified email address>, <number of segments>, <ip address>, <E.164 address (phone number)>, obtp, <username>, <password>  
Example:5033@ex1.com, 1, 10.22.146.142, 5033, obtp, admin, jpwd
- **For TIP-enabled video conferencing endpoints:**  
<fully qualified email address>, <number of segments>, <ip address>, <E.164 address (phone number)>, tiponly  
Example:5022@ex1.com, 1, 10.22.146.142, 5022, tiponly
- **For non-TIP-enabled video conferencing endpoints, or EX or C series endpoints running pre-TC5.0 software:**  
<fully qualified email address>, <number of segments>, <ip address>, <E.164 address (phone number)>  
Example:5023@ex1.com, 1, 10.22.146.142, 5023



### Note

The text file must have the .csv extension. Example: endpoint\_import.csv. If the information is formatted incorrectly or includes an email ID that is already in use, the import will not be successful.

- Step 2** Click **Import**.  
The Import window appears.
- Step 3** Click **Browse**.  
The Choose file window appears.
- Step 4** Select the .csv text file and click **Open**.
- Step 5** Click **Upload**.  
A message appears indicating the number of endpoints that will be imported from the file.
- Step 6** To start the import, click **Start**.



**Note** The email addresses in the text file to be imported must exist in LDAP or the calendar server.

## Creating Resource Bundle Endpoints

A resource bundle endpoint is an endpoint that does not have any single endpoint corresponding to it, but contains extra segments for external endpoints to dial in. When a meeting organizer invites a resource bundle endpoint, extra segments are reserved for the external endpoints to dial in. This is useful when the meeting organizer wants to have an Interop meeting with some external endpoints that are outside of the organization



**Note** A resource bundle endpoint consumes only one endpoint license.

To add a resource bundle endpoint to Cisco TelePresence Manager:

- Step 1** Go to the Configure > Endpoints window.
- Step 2** Click **New** to display the New Endpoint dialog box.
- Step 3** For Endpoint Type, select **Video Conferencing**.
- Step 4** In the Email ID field, enter a valid email address to be used exclusively by this resource bundle endpoint.



**Note** CTS-Manager must read/write access to this email address.

- Step 5** In the Segments required for the type of Video Conferencing Room field, select or enter the number of desired segments.
- Step 6** (Optional) Enter Phone and IP address.
- Step 7** Click **Save** and **Close**.  
To reload the most current list of video conferencing endpoints, click **Refresh**.

## Scheduling Meetings with Video Conferencing, EX and C-Series Endpoints

Scheduling TelePresence meetings with video conferencing (VC) or EX/C-series endpoints running TC4.x or earlier software endpoints is just like scheduling meetings with TelePresence endpoints.

A point-to-point meeting between an EX or C-series endpoint and a CTS is supported under the following circumstances:

- CTS is running software release 1.7.4 or later.
- CTS supports TIP and a CTMS has available resources.

A multipoint meeting with one or more EX or C-series endpoints requires a CTMS.

To schedule a meeting with VC, EX or C-series endpoints:

**Step 1** Invite TelePresence endpoints and VC/EX/C series endpoints through Outlook or Lotus Notes, and wait for the confirmation email.

CTS-Manager automatically identifies the meeting as an Interop meeting, calculates and reserves required resources and emails the organizer with the video conference call-in information.

**Step 2** Forward the video conference call-in information to the video conference participants.



**Note**

Meetings which include endpoints running TC5.0 software are TelePresence meetings. Meetings with only video conferencing endpoints or endpoints running TC4.x or earlier software are interop meetings only. Meetings with TC5.0 and TC4.x or video conferencing endpoints are both TelePresence and interop meetings. For more information about how endpoints affect meeting type, see [Table 11-33](#).

**Table 11-33**      *How Endpoints Affect Meeting Type*

Endpoints in Meeting	Meeting Type
TC5.0, CTS endpoints	TelePresence
VC, TC4.x or earlier endpoints only	Interop
TC5.0, CTS endpoints and VC, TC4.x endpoints	TelePresence and Interop



**Caution**

Unscheduled video conferencing, EX or C-series endpoints can join a scheduled meeting.

## VC meetings Scheduled Before Upgrading to CTS-Manager Release 1.7 or 1.8

Any meeting scheduled with a VC endpoint (room) as a participant before upgrading CTS-Manager to release 1.7, will remain a video conferencing interop meeting, with the following differences:

- No VC Interop tab is displayed in the Meeting Details window for the meeting.
- You cannot change the number of video conferencing end points joining the meeting from the Meeting Details window.
- In the Summary tab of the Meeting Details window:
  - A green checkmark appears next to Video Conferencing Interop.
  - If a VC endpoint is added after upgrading to 1.7 or 1.8, a blue icon appears next to the VC endpoint name.



- Interop meetings scheduled in 1.7 or 1.8 have both the VC Room icon and the Video Conferencing Interop checkmark.
- If VC room added in 1.6 is removed in 1.7 or 1.8, the Video Conferencing Interop checkmark remains.

**Note**

The TelePresence phone/display device will display an interop icon for an Interop meeting.

## Live Desks

The Live Desk is the first person contacted when there are questions or problems pertaining to connecting meeting participants in a meeting.

### Live Desk Role

When a person designated as Live Desk logs into CTS-Manager, the following selections and information are available:

- System Status
- Monitor
- Support
- Troubleshooting

The Live Desk understands how to perform the following tasks:

- Scheduling meetings
- Using the Cisco IP phone in a Cisco TelePresence-enabled endpoint
- Using the tools supplied by the CTS-Manager to monitor the system and the schedule of upcoming meetings and to update meeting requests
- Gathering data to supply to the administrator when a problem cannot be easily solved

Live Desk personnel can be assigned endpoints to monitor in the CTS-Manager application. Assigned Live Desks are easily reached by dialing the Live Desks soft key on the Cisco IP phone in a Cisco TelePresence-enabled meeting room.

The Live Desks window has two areas, a list of Live Desks and a list of rooms (endpoints) that need a Live Desk assigned to them. Use the areas in this window to assign a Live Desk to an endpoint.

A phone number is associated with the Live Desk, which is displayed on the Cisco TelePresence endpoint phone/display device when the Live Desk soft key is pressed. Meeting participants can dial the Live Desk and ask for help if problems occur with the Cisco TelePresence system.

Figure 11-42 Configure &gt; Live Desks Window

**Live Desks**

	ID	Phone Number	Description
<input type="radio"/>	jsmith	40075	John Smith
<input checked="" type="radio"/>	kjohnson	40076	Kent Johson

Rooms that have not been assigned :

**List of Rooms** Showing 1-5 of 5 10 per page

<input type="checkbox"/>	Status	Name	Phone	Description	IP Address
<input type="checkbox"/>	OK	conf_rm1@example.com	40071	Conference Rm 1	209.165.201.8
<input type="checkbox"/>	Error	conf_rm2@example.com	40078	Conference Rm 2	209.165.201.9
<input type="checkbox"/>	Error / In Use	conf_rm3@example.com	40072	Conference Rm 3	209.165.201.10
<input type="checkbox"/>	OK	conf_rm4@example.com	5528	Conference Rm 4	209.165.201.11
<input type="checkbox"/>	OK	conf_rm5@example.com	5529	Conference Rm 5	209.165.201.12

Assign selected endpoints to:   Page 1 of 1

## Creating Live Desk Personnel

To add a new person as a Live Desk, from this window, perform the following steps. The limit for the number of assigned Live Desk assignments is 10. The recommended range for the number of Live Desk assignments is 1 - 10.



### Note

CTS-Manager supports 10 Live Desk concurrent login under steady State conditions. As more users login concurrently, the system performance will begin to degrade. Download of logs is recommended to be done with one user at a time. If the system is under maintenance or under high usage, these parameters will change.

- Step 1** Click **New** to display the new Live Desks window.
- Step 2** In the New Live Desks window, enter an identifier for the Live Desk in the ID field
- Step 3** Enter a phone number in the Phone Number field.
- Step 4** You can choose to supply other information identifying the Live Desk person in the Description field.
- Step 5** Click **Save** and then click **OK** in the confirmation window that appears.
- Step 6** To see the new Live Desk you added, you must refresh the page.



### Caution

When putting information in the Live Desk Description Field do not use a Carriage Return or line feed, sometimes referred to as <CR> between words (do not hit return key).

Figure 11-43 Adding a Live Desk Window

All Cisco TelePresence endpoints (rooms) must be assigned to a Live Desk. If you haven't specified a Live Desk for an endpoint, the System installed <Unassigned> Live Desk is the default Live Desk for all endpoints discovered in CTS-Manager.

You can change the default Live Desk to a specific Live Desk by checking the Set as Default checkbox in the Live Desk details window. Any Cisco TelePresence room (endpoint) discovered by CTS-Manager will be assigned to the new default Live Desk. Each time you specify a different Live Desk as the default, all future rooms (endpoints) discovered by CTS-Manager will be assigned to the new default setting.

## Assigning an Endpoint to a Specific Live Desk

Once Live Desks have been registered, the next step is to assign them endpoints (rooms):

- 
- Step 1** Check the box next to a room that has not been assigned.
  - Step 2** Select a Live Desk from the **Assign Selected Rooms** drop-down list, at the bottom of the page.
  - Step 3** Click **Apply**.  
To edit the Live Desk assignment:
  - Step 4** Select the radio button next to the Live Desk ID and click **Edit**.
  - Step 5** In the Edit Live Desks window, you can change the phone number and other information identifying the Live Desk.
  - Step 6** To delete a Live Desk, select the radio button next to the Live Desk ID and click **Delete**.
- 



### Note

Beginning in release 1.7, CTS-Manager supports a default Live Desk that is assigned to TelePresence rooms (endpoints) that have no specific Live Desk assignment. Earlier versions of CTS-Manager allowed more than one Live Desk to have the same phone number. If you are upgrading to version 1.8 from a version (earlier than 1.7) that allows a Live Desk to share a phone number with another Live Desk, CTS-Manager 1.8 changes the phone number of one of the Live Desks during the upgrade and assigns that Live Desk to the TelePresence room (endpoint).

# Policies

The Policies window lists the three available default policies that support scheduling and conference termination in CTS-Manager.

To edit a policy:

- 
- Step 1** Select the radio button next to the policy you want to edit and click **Edit**.
- Step 2** Make changes to the policy and click **Save**.
- 

Figure 11-44 *Configure > Policies Window*

The screenshot shows the 'Policy Management' window. It contains a table titled 'List of Available Policies' with columns for Policy Name, Policy Type, and Policy Description. There are three rows, each with a radio button next to the 'Policy Name' column. The policies are 'Default' (CTMS), 'Default' (CTS), and 'Default' (TS). Below the table is an 'Edit...' button. At the bottom right, there is a pagination control showing 'Page 1 of 1' and navigation buttons.

List of Available Policies			Showing 1-3 of 3	10 per page	Go
	Policy Name	Policy Type	Policy Description		
<input type="radio"/>	Default	CTMS	This is the Default CTMS Policy		
<input type="radio"/>	Default	CTS	This is the Default CTS Policy		
<input type="radio"/>	Default	TS	This is the Default TS Policy		

Edit...

Page 1 of 1

## CTMS Policy

Describes the switching policy for multipoint meetings. The switching mode can be set to either Speaker or Room (endpoint) switching:

- **Speaker:** Individual speakers are displayed on the screen when that meeting participant becomes the active speaker.
- **Room:** All speakers in a particular room are displayed on screen when any participant in that room is the active speaker.

You also use the policy management window to set the number of scheduled meetings pushed to CTMS devices. The default is to push 14 days of meetings, the range is 1 to 30 max.

Figure 11-45 CTMS Policy Window

Edit...Policies	
✱ = Required fields	
Name:	Default
Type:	CTMS
✱ Description:	<input type="text" value="This is the Default CTMS Policy"/>
Switching Mode:	<input type="text" value="Speaker"/>
Number of days pushed to CTMS:	<input type="text" value="14"/>
<input type="button" value="Save"/> <input type="button" value="Close"/>	

## CTS Policy

Determines the number of days of scheduled meetings pushed to each TelePresence endpoint. The default is 14 days. The range is from 1 to 30 max.

Figure 11-46 CTS Policy Window

Edit...Policies	
✱ = Required fields	
Name:	Default
Type:	CTS
✱ Description:	<input type="text" value="This is the Default CTS Policy"/>
Number of days pushed to phone:	<input type="text" value="14"/>
<input type="button" value="Save"/> <input type="button" value="Close"/>	

## TS Policy

Determines the number of days of scheduled meetings pushed to each TelePresence Server. The default is 14 days. The range is from 1 to 30 max. Also you can view, enable or disable the lobby screen message. The lobby screen is the message that appears when an endpoint joins the meeting.



**Note**

The lobby screen message can only be configured on the TS.

Figure 11-47 TS Policy Window

Edit...Policies	
✱ = Required fields	
Name:	Default
Type:	TS
✱ Description:	<input type="text" value="This is the Default TS Policy"/>
Number of days pushed to TS:	<input type="text" value="14"/>
Display Lobby Screen Message:	<input checked="" type="radio"/> Yes <input type="radio"/> No
Lobby Screen Message:	<input type="text" value="You are the first participant in the meeting.Please Wait."/>
<input type="button" value="Save"/> <input type="button" value="Close"/>	

## Application Settings

The Configure > Application Settings window is used to configure a variety of TelePresence meeting settings. It is organized into the following tabs:

- Email
- Bridges and Servers
- Usage Survey
- Meeting Options

## Email

In the Email tab you configure a variety of CTS-Manager email settings, including notification email settings and email prefixes settings.

Figure 11-48 *Configure > Application Settings > Email Window*

**Application Settings**

Email Bridges and Servers Locales Benefits Reporting Usage Survey Meeting Options

**Meeting Notification Email**

Enable Feature: ☒ Yes ☐ No

Enable Organizer Email: ☒ Yes ☐ No

Remove Meeting Link from Email: ☐ Yes ☒ No

Copy Outgoing Email To:

A copy of each email from Cisco TelePresence Manager will be sent to this address.  
Only one email address is allowed.

URL to Be Displayed in Email:

**Remove Email Prefixes from Meeting Subject on Phone**

Enable Feature: ☐ Yes ☒ No

"FW:", "RE:" and "Updated:" will be removed from the meeting subject displayed on the TelePresence Phone.

**Additional Text in Email:**

English (United States)

Apply Cancel

## Meeting Notification Email

**Enable Feature:** The default setting for Meeting Notification Email is “Yes.” If you change this setting to “No” you disable email notifications and Confirmation emails and Action Required emails are not sent to meeting organizers.



### Note

On a new install, email would be set to default, “Yes.” On a software upgrade, the email would be set to default, “Yes.” Optional FTS restores email option from preserved backup file.

**Enable Organizer Email:** This option shuts off or turns on the email to be sent to the meeting organizer.

**Remove Meeting Link from Email:** This removes or adds the meeting link to the email sent out from the CTS-Manager.

**Copy Outgoing Email To:** CTS-Manager will accept any email address as long as it matches the Exchange domain and/or any of the LDAP domains configured on CTS-Manager. Mail notifications will be sent to the Exchange server configured on CTS-Manager and it is up to this server to route the emails as configured. You can also specify an additional email address. All emails generated by Cisco TelePresence Manager will be sent to this address.

**URL to Be Displayed in Email:** Enter the URL you want to appear in the email message header.

A secondary email address specified for IBM Domino installations is included in the BCC field when emails are generated.

A secondary email address specified for Microsoft Exchange installations is included in the CC field when emails are generated.

## Remove Email Prefixes from Meeting Subject on Phone

Select either **Yes** to remove the email prefixes, such as FW, RE or **NO** to keep the prefixes included in the meeting subject. When sorting by subject, this helps narrow down the meeting list.

With this feature enabled, prefixes are automatically removed from the subject line of TelePresence email subject line that is displayed on the TelePresence phone/display device.

For example: "Re: TelePresence Meeting" would change to "TelePresence Meeting"

## Additional Text in Email

This feature allows you to add custom additional text to appear in the email notification header. You can add specific text for each selected locale in CTS-Manager. Text can be up to 4096 characters in length.

## System Alert Notification Emails

In addition to meeting confirmation and action required emails, system alert emails are sent to the address specified in the Copy Outgoing Email To field in certain situations. There are three different emails that contain the following information:

### No-Show Meetings and Meetings without Survey Responses

- Organizers of No-Show Meetings: Meetings that were scheduled but never took place.
- Meetings without Usage Survey Responses: Organizers of meetings for which surveys were not filled out.

### Mailbox Alert

- The CTS-Manager mailbox exceeded its size limit and is no longer able to send emails to meeting organizers.

### Certificate Expiry

- Security certificates that are about to expire.

For more information about System Alert Notifications, see [System Alert Notifications](#).



## Bridges and Servers

In the Bridges and Servers tab, you can configure multipoint conference scheduling, interoperability with video conferencing, TelePresence call-in number, recording, WebEx, and Intercompany settings.

Figure 11-49 *Configure > Application Settings > Bridges and Servers Tab*

**Application Settings**

Email **Bridges and Servers** Locales Benefits Reporting Usage Survey Meeting Options

**Multipoint Conference Scheduling**  
 Primary Scheduling Device: ☒ CTMS ☐ TelePresence Server  
☐ Use TelePresence Server when required (for more information, see Help.)

**Interoperability with Video Conferencing**  
 Enable Feature: ☒ Yes ☐ No

**Interop Devices**  
 When CTMS is Used for Scheduling:

**Telepresence Call-In Number**  
☐ Allow meeting organizers to send a call-in number for unscheduled TelePresence endpoints to join?

**Studio Mode Recording**  
 Enable Feature: ☒ Yes ☐ No

**WebEx**  
 Enable Feature: ☒ Yes ☐ No  
 Default User Type: ☒ Permitted ☐ Non-Permitted

**Intercompany**  
 Enable Feature: ☒ Yes ☐ No  
 Provider: ☒ Another Company Hosts ☐ Our Company Hosts

Apply Cancel

## Multipoint Conference Scheduling

This section appears only if you have both CTMS and TelePresence Server (TS) devices. You can select the device that will be used as the primary scheduling device. This is the device that CTS-Manager attempts to use first when allocating resources for a meeting. Either CTMS or TS can be used, as long as they are configured in CTS-Manager and in a scheduled state. If you have both CTMS and TS devices, you can check the checkbox below the Primary Scheduling Device, so that when the Primary Scheduling Device is out of segments or incompatible with certain features, CTS-Manager will automatically select the other type of scheduling device.

If you have the following features enabled and select TS as the primary scheduling device, you must select “Use CTMS when required.”

- WebEx
- Intercompany

TelePresence Server supports interop with video conferencing without additional interop devices. (add note about meeting extension feature of CTS-Manager is only compatible with CTMS).

**Note**

To use these features with TS as the primary scheduling device, requires a CTMS device and “Use CTMS when required” must be selected.

To add a CTMS or TS to CTS-Manager, go to Configure > Bridges and Servers.

## Interoperability with Video Conferencing

**Enable Feature:** This allows you to enable interoperability with video conferencing. It is disabled by default. This feature cannot be disabled once it has been enabled.

When the setting is greyed out:

- (CTMS only) If it is disabled and grayed out, there is at least one TelePresence endpoint or bridge or server device that is not interop-ready. All TelePresence endpoints and CTMS devices (if selected under Multipoint Conference Scheduling) must support interop before you can enable Interop settings. Make sure all devices discovered by CTS-Manager are running interop-enabled software releases.
- (CTMS only) If it is enabled and grayed out, the CUVC added through the Bridges and Servers window is included in at least one scheduled meeting. In order to disable interop services you must, from the Bridges and Servers window, first deallocate the CUVC and then delete it.

**Note**

When Interoperability with Video Conferencing is enabled, multipoint meetings require a CTMS and an MXE in a scheduled state or a TS.

**Interop Devices:** The interop device that is used is selected based on the device used for scheduling of a meeting. If CTMS is used for scheduling, the device selected for “When CTMS is Used for Scheduling” will be used for Interop. If TelePresence Server is used for scheduling, it will be used as the interop device.

You can use CTMS as your primary scheduling device and TS as the interop device only if there are no MXE or CUVC devices configured in Configure > Bridges and Servers. If they are configured, you must remove them.

For CTMS, you select the device and resolution setting on a global basis by using the “When CTMS is Used for Scheduling” menu. For all future meetings, updates affected CTMSs with the new setting by pushing updated conference schedules.

- Select “CUVC-CIF” for SD Interop support. If this is selected, you have the option to add one CUVC at CIF. Only one CUVC is allowed.
- Select “CUVC-720p” for HD Interop support with CUVC 7.0. If this is selected, the Admin UI provides an option to add one CUVC at 720p. Only one CUVC is allowed.
- Select “MXE-1080p for HD Interop support with MXE. If this is selected, you have the option to add one MXE at 1080p.

For TelePresence Server, no selection is necessary because it is compatible with interop natively.

**Note**


---

To enable HD Interop, all TelePresence endpoints must be running software version 1.6 or later.

---

The device and resolution setting selection is maintained by CTS-Manager and pushed to CTMS for each individual meeting.

Once HD Interop is configured in CTS-Manager, even if SD VC endpoints are joining through CUVC 7.0, CTS-Manager always reserves HD Interop resources.

**Note**


---

When upgrading from 1.6 to 1.8, either CUVC-CIF or CUVC-720p will be selected according to what was selected in 1.6.

---

## TelePresence Call-In Number

The TelePresence Call-In Number feature allows a meeting organizer to permit Cisco TelePresence endpoints that were not in the meeting's original invitation to join the meeting. For more information, see [http://www.cisco.com/en/US/docs/telepresence/cts\\_manager/1\\_8/call\\_in\\_number.html](http://www.cisco.com/en/US/docs/telepresence/cts_manager/1_8/call_in_number.html)

## Studio Mode Recording

The default setting for Studio Mode Recording is “No.” If recording is desired, select the “Yes” setting. This option allows the administrator to enable the studio mode recording support. Once this option is enabled, the user can enable this recording for a meeting from the meeting details view. The studio mode recording is mutually exclusive from Intercompany and Interop operation.

**Note**


---

Interop and Intercompany meetings cannot be made as a studio mode recording meeting.

---

### Enabling recording globally

If recording is enabled for a single meeting and that meeting is changed to a recurring meeting, all occurrences of that meeting will have recording enabled.

To enable recording globally:

- 
- Step 1** In Microsoft Outlook or Notes, schedule a single meeting with one endpoint.
  - Step 2** Log in to the CTMS administration interface as an Administrator.
  - Step 3** Go to **Configure > Application Settings >** and click the **Bridges and Servers** tab.
  - Step 4** Set Studio Mode Recording to **Yes**.
  - Step 5** From Microsoft Outlook or Lotus Notes, select this meeting and modify it as a recurring meeting.
  - Step 6** All meeting instances now have recording enabled.
- 

## WebEx

This allows a meeting organizer or participant to start a simultaneous WebEx and Telepresence meeting with the simple push of a button on the Cisco IP phone.

**Enable Feature:** This allows you to enable WebEx. It is disabled by default.

**Default User Type:** This allows you to specify the default WebEx permissions which meeting organizers have for scheduling TelePresence meetings with WebEx enabled. There are two default options:

- Permitted WebEx User: can request WebEx for specific meetings they schedule
- Non-Permitted WebEx User: is not permitted to request WebEx.



**Tip**

You can assign specific LDAP groups to have different WebEx permissions in the Configure > Access Management window.



**Note**

For WebEx to work, all CTS endpoints and CTMS devices initially installed must have 1.7 or later software. In addition, all CTMSs must have WebEx configured.

For the complete details on how to configure WebEx for the Cisco TelePresence System, including CTS-Manager, refer to the “Cisco WebEx OneTouch Configuration Guide for the Cisco TelePresence System” at the following URL:

[http://www.cisco.com/en/US/docs/telepresence/cts\\_admin/webex\\_solutions/guide/cts\\_webex\\_config.html](http://www.cisco.com/en/US/docs/telepresence/cts_admin/webex_solutions/guide/cts_webex_config.html)



**Note**

A meeting cannot use both Interoperability with Video Conferencing with MXE-HD and WebEx OneTouch. If both are enabled, WebEx takes precedence and Interoperability with Video Conferencing is disabled.

## Intercompany

Intercompany allows you to schedule multipoint meetings between two different organizations. Once you enable the Intercompany feature it cannot be disabled.



**Note**

An Intercompany TelePresence meeting cannot be configured for Interop. If you enable Intercompany, you cannot add video conferencing (VC) endpoints to your meeting. EX and C series endpoints are supported only

The Provider setting allows you to select either “Another Company Hosts” or “Our Company Hosts.” You cannot select both. These options can be changed depending on whether the company is going to host meeting or be hosted. If multiple occurring meetings are set up with the company being host, this company will be the host for all the meetings.

### Another Company Hosts

If you select this feature, this allows another company to set up TelePresence meetings. You must provide the host with the endpoints’ information that will be participating in the TelePresence calls. For example, if it is a room-to-room call it will be a single (1) room. If it is a multi-room call, then, for example, a triple call would be 3.

### Our Company Hosts

If your company is hosting the meeting, the person setting up the meetings needs to reserve the endpoints, and get dial-in and endpoint information from the other company before setting up the TelePresence meeting.



#### Caution

Once this feature is enabled, the only way to disable it is to reinstall CTS-Manager.

## Locales

The Application Settings > Locales window allows you to install locales for Meeting Manager and meeting organizer email notifications.

A Locale is the language used in a specific country/region. When a locale is installed, the following things are available in that locale to the meeting organizer who selects that locale when using CTS-Manager:

- All emails sent to the meeting organizer
- Meeting Manager




#### Warning

The Locales feature is not currently available. It will be available in a future release of Cisco TelePresence Manager.

## Selecting and Publishing Locales for Meeting Manager and Meeting Organizer Email Notifications

To select and publish locales for Meeting Manager organizer email notifications:

- Step 1** From the list of available locales on the left, choose the locale(s) you want to select for use with Meeting Manager and meeting organizer email notifications.  
  
The selected locales appear in the selected column, on the right and also appear in the Locale Settings section at the bottom of the window.
  - Step 2** In the Locale Settings section, select a default locale that meeting organizers will see when they log into Meeting Manager for the first time. Click the Default radio button for the locale you want to be the default.
- 

**Note** The meeting organizer can switch to another of the available locales the first time or any subsequent time they log in Meeting Manager.
- Step 3** (Optional) You can create a customized survey for each selected locale. To customize a survey, click the **Customize** link for the locale(s) you want to customize.
  - Step 4** To save the selected locales, click **Apply**.  
  
This saves the locale settings in CTS-Manager, but the new locales are not available yet to meeting organizers. If you want to customize a usage survey, click the
  - Step 5** To make selected locales available to meeting organizers, click **Publish All Locales**.

**Note**

You have the option of adding additional text in the emails that CTS-Manager sends to meeting organizers for each locale. To add the additional text, click the **Email** tab and enter the text in the Additional Text in Email field(s).

## Benefits Reporting

The Application Settings > Benefits Reporting window allows your company to form financial justifications for your deployment of Cisco TelePresence solutions. This feature allows the administrator to measure TelePresence usage, endpoint utilization, ROI of TelePresence deployment, compute savings from travel elimination, and display meaningful data. The benefits information is displayed in the Monitor > Metrics Dashboard, and Meeting Benefits windows.

Figure 11-50 *Configure > Application Settings > Benefits Reporting*

### Enable Meeting Benefits Report

To enable the meeting benefits report feature:

- Select the **Yes** radio button.

**Note**

“No” is selected by default which means the meeting organizer will not be able to fill out the survey or access the Monitor > Metrics Dashboard, Meeting Benefits or TelePresence and VC Utilization windows.

### Meeting Benefits Report Parameters

The Meeting Benefits Report Parameters are your company’s benchmark numbers to apply to all TelePresence meetings to demonstrate how TelePresence meetings can help save your company money.

To set Meeting Benefits Parameters:

- Enter the parameters appropriate for your company

**Table 11-34 Meeting Benefits Parameters**

Benefit	Description
Work Hours per Day	Number of hours in normal work day
Work Days per Week	Number of days in normal work week
Carbon Emissions per Trip (Tons)	Number of carbon emissions in average business trip
Employee Hourly Cost (\$)	Average hourly cost for each employee
Trips Eliminated per Meeting	Average number of business trips eliminated by a TelePresence meeting
Travel Hours per Trip	Average number of travel hours for each trip
Cost per Trip	Average cost for each trip

## Usage Survey

The Application Settings > Usage Survey window allows you to create and customize a usage survey.

You can create a survey based upon what information your company wants to gather from each meeting. After the meeting organizer receives the confirmation email for the scheduled meeting, they can answer the survey at any time, even after the meeting has ended.

Answers from the first three questions appear in the Metrics Dashboard. To collect the answers from additional questions, use the Reporting API.

**Figure 11-51 Configure > Application Settings > Usage Survey Window**

**Application Settings**

Email Bridges and Servers Locales Benefits Reporting **Usage Survey** Meeting Options

**Enable Meeting Organizer Usage Survey**

☐ Yes ☒ No

**Select a locale to preview or customize survey:**

Locale Settings						
Locale	Default	Questions	Organizers	Last Published Date	Survey Last Customized	
<input checked="" type="radio"/> English (United States)	Yes	3	1	N/A	<a href="#">Customize</a>	

**Preview Survey Questions - English (United States)**

1. What is the purpose of this meeting?

2. What is the primary benefit of using Cisco TelePresence?

3. How many trips eliminated?

## Enable Meeting Organizer Usage Survey

To enable the usage survey feature:

- 
- Step 1** Select the **Yes** radio button.
- Step 2** Click **Apply**.
- 



### Note

“No” is selected by default which means the meeting organizer will not be able to fill out the survey or access the Monitor > Metrics Dashboard, Meeting Benefits or TelePresence Utilization windows.

---

## Select a Locale to Preview or Customize Survey

In the Locale Settings section, you can see information about the usage surveys for each locale, including:

- **Default:** The survey that meeting organizers will see if they use the default locale.
- **Questions:** The number of questions in the survey
- **Organizers:** The number of meeting organizers using the locale
- **Last Published Date:** The last date/time the survey was published
- **Survey Last Customized:** The last date/time the survey was customized.



### Note

If a survey has not yet been customized, a Customize link will appear.

---



### Caution

**The Locales feature is not currently available. It will be available in a future release of Cisco TelePresence Manager.**

---

## Preview Survey Questions

Three survey questions are included by default and their results are displayed on the Metrics Dashboard:

- **Purpose** - For capturing the main purpose of the meeting
- **Benefit** - For capturing the primary benefits of the meeting
- **Trips** - For capturing how many business trips the meeting is eliminating

These questions and their possible responses are shown. These questions can be modified but not deleted.

To add more questions, click the **Customize** button.



### Note

The above features are not available in the Usage Survey tab if the Metrics Dashboard and Reporting API license is not uploaded. To upload the Metrics Dashboard and Reporting API license, go to the **Configure > Licenses** window, click the **License Files** tab and click **Upload**.

---



## Customizing the Survey

To customize the usage survey, click **Customize**.

The survey customization wizard guides you through the steps required to customize the usage survey.

The first three questions are included by default, and you can add up to seven more.

**Figure 11-52** Usage Survey Customization Wizard

**Welcome**

Question 1

Question 2

Question 3

Preview

### Welcome to the Usage Survey Customization Wizard

[Help](#)

Locale: English (United States) (Default)

This wizard guides you through the steps required to customize your survey for this locale.

The first three questions gather data that will be displayed on the Metrics Dashboard. You can modify these questions but not delete them.

You can have up to ten questions. Use the Reporting API to collect the data from the additional questions. See Help for more details.

You can change any questions at any time. If you modify the choices for either of the first two questions, only data collected after the change will be used for the Metrics Dashboard.

How many total questions do you want?  ▼

1: What is the purpose of this meeting?

2: What is the primary benefit of using Cisco TelePresence?

3: How many trips eliminated?

[Next](#) [Cancel](#)

To add more questions to the survey, select the number of total questions that you want, the range is 1 to 10 (including the 3 default ones).

Click **Next** to go to the first default question.

### Survey Questions 1 - 3

Questions 1 - 3 can be modified but not deleted. These responses appear on the Metrics Dashboard, after the meeting organizer fills out the survey for each meeting they schedule.

Survey Questions 1 and 2 are multiple choice questions that require at least two possible choices (answers). You can have up to 10 possible choices. You can change the questions and any of the choices, but the questions must remain multiple choice. You can add a free-form text box answer, where the meeting organizer can type their own answer, by clicking the checkbox for **Include an “Other” option with a free-form text entry**.

**Note**

If you modify the possible answers for either of the first two questions, the previous answers will be visible on the Meeting Details page only if you select a time range before the modification.

Question 3 is a number question that requires one choice (answer). You cannot add any additional choices. You can change the question, but the question must remain a number question.

Results from question 3 are gathered through the reporting API and are not displayed on the Metrics Dashboard. This provides you with the ability to track how many trips are actually eliminated per meeting, which you can use as the basis for setting the Trips Eliminated per Meeting value in the Configure > Application Settings > Usage Survey window.

**Additional Questions**

For additional survey questions, you can define the type of question. The possible question response types are:

- Multiple Choice
- Number
- Text

You can have up to 10 possible choices.

Figure 11-53 Customize Your Question 1

You can customize this question or click Next to go to the next question.

To customize this question, do the following:

- 
- Step 1** In the Question field, change the default question, if you wish.
  - Step 2** Make any necessary changes to the answers and add any new ones if you need to.
  - Step 3** Click **Next**.
  - Step 4** Review and modify, if necessary, the next two default questions and their answers.
- 



**Note**

When customizing the question 2, you cannot modify the Avoid Travel answer because it is used to calculate reporting data in the Meeting Benefits section of the Metrics Dashboard. For more information, see [Meeting Benefits, page 13-18](#).

Figure 11-54 Creating a New Question

To create a new question, do the following:

- Step 1** In the Question field, enter a question.
- Step 2** From the Response Type drop-down menu, select a response type.
- Step 3** (Optional) Click the checkbox for Include an “Other” option if you want to include a text box in the survey for the meeting organizer to enter text as an answer.
- Step 4** Enter the possible responses for the question (up to ten).
- Step 5** Click **Next**.
- Step 6** Create additional new questions by following steps 1 through 5.

## Editing Additional Questions

After you initially create an additional question and click Next to go to the next/previous question or the preview page, you can go back to the question later to make changes the actual question, but the response type of the first 3 questions cannot be changed. To change the response type of an additional survey question, you must delete and recreate it.

## Deleting Additional Questions

You can delete additional survey questions by doing the following:

- 
- Step 1** Go back to the Welcome page of the survey customization wizard (using the back button or opening the wizard again, if you are making changes to an existing survey).
  - Step 2** Click the checkbox next to the additional question you want to delete.
  - Step 3** Click **Next**.
  - Step 4** If the survey is the default locale survey, a confirmation message appears. To delete the selected question, click **OK**.

The question is deleted and the first question of the survey appears.

---

## Preview Your Questions

When you click Next on the last question of your survey, you preview your survey before you finish customizing it. If you find anything you want to change, simply click the Back button until you reach the question you want to change, make the changes and click Next the appropriate number of times to arrive back at the preview page to review your changes. This window appears after you finish customizing all of your questions.

**Figure 11-55** Preview Your Survey Questions

**Preview Your Questions** [Help](#)

**1.** What is the purpose of this meeting?

**2.** What is the primary benefit of using Cisco TelePresence?

**3.** How many trips eliminated?

**4.** Where do you want the offsite meeting to be?

If you want to make changes to any of the questions, click **Back** until you reach the question you want to change and then click **Next** to get back to this window. When you are finished click **Finish**.

### Publishing Your Survey

To make your customized survey available to all meeting organizers, you must publish it.

To publish your survey, click **Publish All Locales**.

### Changing the Default Survey

To change the default survey that meeting organizers will see when they log into Meeting Manager for the first time:

- 
- Step 1** Click the Default radio button for the locale survey you want to be the default.
  - Step 2** Click **Publish All Locales**.
-

## Default Survey Questions

Three survey questions and answers are included by default:

- [Question 1](#)
- [Question 2](#)
- [Question 3](#)

### Question 1

This question captures the main purpose of the meeting.

**Question:**

- What is the purpose of this meeting?

**Answers:**

- Customer/Partner Demo
- Executive Meeting
- Executives and Customers
- Friend & Family
- Internal

### Question 2

This question captures the primary benefits of the meeting.

**Question:**

- What is the primary benefit of using Cisco TelePresence?

**Answers:**

- Avoid Travel
- Accelerate Time to Market
- Address Customer Issues
- Allow Business Continuity/Mitigate Crisis
- Connect Customers to Company Leaders
- Demonstrate Product to Customer
- Increase Employee Productivity

### Question 3

This question captures the number of business trips eliminated by the meeting.

**Question:**

- How many trips eliminated?

**Answer:**

- *User enters a number.*

**Note**

The above features are not available in the Usage Survey tab if the Metrics Dashboard and Reporting API license is not uploaded. To upload the Metrics Dashboard and Reporting API license, go to the **Configure > Licenses** window, click the **License Files** tab and click **Upload**.

## Meeting Options

The Meeting Options tab on the Application Settings page contains the options to configure tentative room reservations, starting meetings early and the meeting extension settings.

Figure 11-56 illustrates the default settings when the application is first installed.

The settings corresponding to a radio button selection are disabled unless the radio button is selected.

Figure 11-56 *Configure > Application Settings > Meeting Options*

**Application Settings**

Email Bridges and Servers Locales Benefits Reporting Usage Survey **Meeting Options**

**Enable Tentative Room Reservations**

☐ Yes ☒ No

Once this feature is enabled, it cannot be disabled.

**Start Meetings Early**

☐ Do not allow meetings to start before the scheduled time

☒ Allow Meetings to start early, by (minutes): 10

**Extend Multipoint Meetings**

☒ Do not end meetings until they are ended by the participants

☐ End meetings after the scheduled end time by (minutes): 0

☐ Allow all meeting organizers to extend meetings up to (minutes): 30

☐ Always extend ☒ Extend, if resources are available

☐ Allow these meeting organizers to extend meetings

Meeting Extension Premium Users (minutes): 60

As of Tue, 4 Oct 2011 16:32:19 +0000 there were 0 Meeting Extension Premium Users [Details](#)

If resources are available all other meeting organizers can extend by (minutes): 30

Apply Cancel

### Enable Tentative Room Reservations

Enabling this feature allows CTS-Manager to process meetings for tentative room reservations for TelePresence endpoints. Tentative room reservations are enabled on an individual endpoint basis. After enabling tentative room reservations, you must select the individual endpoints you want to accept tentative room reservations by going to the **Support > Endpoints > Capability** window.

This option is supported only with Microsoft Exchange.



**Caution**

For tentative room reservations to work, the Logon Name for Microsoft Exchange must be provided in the Configure > Microsoft Exchange > Configuration tab.

**Note**

Upgrading from CTS-Manager 1.6 to 1.8: If you had tentative room reservations enabled in 1.6, this setting is maintained when upgrading to 1.8, but you must re-enable tentative reservations on each room individually in the Support > Endpoints > Capability window.

A tentative room reservation is a meeting invitation that has been viewed by the room (endpoint) owner or a proxy room (endpoint) owner, but not accepted yet. ‘Room owner’ refers to a person who has a TelePresence system in their office or personal conference room, rather than a TelePresence system located in a regular conference room which has no owner. A proxy room owner is a person who is assigned the proper privileges by the room owner to reserve their endpoint for meetings. A CTS-Manager tentative reservation is identical to an accepted reservation.

### (Microsoft Exchange Only) Cancelling a Meeting that Contains a Tentative or Proxy Room (Endpoint)

After the meeting organizer cancels a meeting, tentative or proxy room owners may have to log in to the room (endpoint) calendar and remove the meeting from the calendar:

- Exchange 2003: Tentative or proxy room owner must log in to room (endpoint) mailbox, and remove the meeting from the calendar.
- Exchange 2007/2010:
  - If the **Autoprocessing** parameter for the room (endpoint) is set to ‘None’, the tentative or proxy room owner must log in to the room (endpoint) mailbox, and remove the meeting from the calendar.
  - If the **Autoprocessing** parameter for the room (endpoint) is set to ‘AutoUpdate’, no action is required by the tentative or proxy room owner, because the meeting is automatically removed when the meeting organizer cancels the meeting.

**Caution**

Once Enable Tentative Room Reservations is turned on, you cannot turn it off without reinstalling CTS-Manager.

This feature is set to “No” by default. The administrator must turn this feature on globally to incorporate all endpoints hosted by CTS-Manager.

**Note**

A meeting participant must read the meeting invitation for it to appear on the phone UI. If a scheduled meeting is updated and the meeting invitation has not been read yet, the phone UI will not be updated. In this case, the room or proxy mode room calendar may show double bookings.

Once all room (endpoint) reservations are confirmed, the meeting appears in the Scheduled Meetings window and the phone UI within five minutes. If email alerts are turned on, confirmation or error emails are generated and sent within approximately 10-15 minutes.

Cisco recommends enabling tentative room reservations for private (office) rooms so if the scheduled meetings aren’t in sync the result is ok.

## Start Meetings Early

This feature allows you to set a policy for starting meetings early.

You have two options:

**Do not allow meetings to start before the scheduled time:** Prohibits all meetings from starting before the scheduled time.

**Allow meetings to start early, by (minutes):** Allows meetings to start before the scheduled start time.



Note

---

This feature is not compatible with TelePresence Server.

---

## Extend Multipoint Meetings

This feature allows you to set a policy for extending multipoint meetings beyond the scheduled end time.

To enable this feature, the following are required:

- At least one CTS that supports this feature
- All CTMS devices must support this feature



Note

---

This feature is not compatible with single-endpoint or point-to-point meetings. It is also not compatible with TelePresence Server.

---

## Prerequisites

The following are required to enable the Extend Meetings feature:

- At least one CTMS version 1.7 or later.
- TelePresence endpoints must be version 1.7 or later.
- CTS-Manager 1.7 or later.
- All TelePresence endpoints must have a Connectivity status of OK.

To check the status of TelePresence endpoints, go to **Support > Endpoints** and click the **Status** tab.

- Default first option **Do not end meetings until they are ended by the participants** should be selected.



Note

---

Before setting this feature, make sure that the CTMS has sufficient capacity to support these extended schedules. If not, then additional CTMS resources must be deployed.

---

Select one of the following meeting options, described below:

- **Do not end meetings until they are ended by the participants** - This option allows all meeting participants to be able to extend in-progress meetings. (This is the default setting).
- **End meetings after the scheduled end time (minutes)** - This option forces each meeting to end after the designated extended time. If you upgraded from the previous version of CTS-Manager, then the setting time appears in this field.
- **Allow all meeting organizers to extend meetings up to (minutes)** - Select either 30 or 60 (30 default) for every meeting.

- **Always Extend** - Automatically extends every meeting.
- **Extend, if resources are available** - Only extends the meeting if the necessary resources are available.
- **Allow these meeting organizers to extend meetings** - This allows the meeting that is in progress to continue after the scheduled end time. The two selections are:
  - **Meeting Extension Premium Users (minutes)** - select either 30 or 60 (60 default).  
The following message appears after clicking the radio button to select this option and clicking **Apply**:  
*As of (date and time) there were X meeting Extension Premium Users [Details](#)*
  - **If resources are available all other meeting organizers can extend by (minutes)** - select either 0, 30 or 60 minutes. If you set this option to 0, only Meeting Extension Premium Users are able to extend meetings.

**Note**

When changing the Extend Multipoint Meetings setting from allowing Meeting Extension Premium users to extend meetings to allowing all meeting organizers to extend meetings if resources are available, some meetings that immediately follow a meeting scheduled by a Meeting Extension Premium user, may be in an error state even if there are enough resources for them to take place. These errors will be corrected during the next CTS-Manager maintenance cycle. To avoid this potential situation, Cisco suggests making this change shortly before the maintenance cycle, so that if it does occur, it will be corrected as soon as possible.

Before enabling this option, you must do the following:

1. In LDAP create a group for the premium users you want to use this feature and the users to that group.
2. Disable meeting notification emails by going to: **Configure > Application Settings > Email**. In the Meeting Notification Email section, next to Enable Feature select **No** and click **Apply**.
3. Go to **Configure > Access Management** and add the LDAP group you created in step 1 to the Meeting Extension Premium User role.
4. Go to **Configure > Application Settings > Meeting Options**. In the Extend Meetings section, make sure the number of users in the Meeting Extension Premium User group is correct in the following section “As of <Current date and time> there were <total number of users in a premium group> Meeting Extension Premium Users Details.”
5. Select **Allow these meeting organizers to extend meetings** and configure its options, as described above.

Click the **Apply** button if you change any of these settings. If any of the settings are changed from the default settings, a confirmation message appears informing you of the number of scheduled meetings that will need to be revalidated. After the revalidation is finished, click **OK** to close the message and save the changes. Click **Cancel** to close the message without saving the changes.

**Caution**

Changing meeting extension settings will require all scheduled meetings to be revalidated by CTS-Manager. The validation process can take from a few minutes to a few hours. You cannot make another change to your meeting extension settings until revalidation is complete. During this time, meeting confirmations may take longer than usual. It is recommended to make changes during off-peak hours.

## Displaying Meeting Extension Information in Meeting Details Window

The Administrator and Live Desk users are able to view the meeting extension information in the Meeting Details window. Meeting organizers are not able to see the settings in the Meeting Details window.

## Important Information About Resource Allocation

Depending on which meeting options you select, the resources are allocated differently:

- Start Meetings Early and Extend Meetings depend entirely on the available schedulable segments. CTMS resources are required and not guaranteed.
- Static meetings and scheduled meetings only utilize available ad hoc segments when the Extend Meetings feature's 3rd and 4th options are selected with "if resources are available".
- If the Extend Meetings feature's 3rd and 4th options are selected, scheduled meetings utilize schedulable segments.
- If the Extend Meetings feature's 3rd and 4th options are selected with "if resources are available, scheduled and static meetings utilize only available ad hoc segments.
- Back-to-back meetings:
  - If "Do not end meetings until they are ended by the participants" is selected and the first meeting uses all schedulable segments and a user starts the second meeting on time or early, the second meeting will start successfully from the phone, but the video will not be available and the following message will be displayed: "Please wait, temporarily at maximum number of callers." The video for the second meeting will start after the first meeting ends and release its resources.
  - If "End meetings after the scheduled end time by (minutes)" is selected and the first meeting uses all schedulable segments and a user starts the second meeting early, the second meeting will start successfully from the phone, but the video will not be available and the following message will be displayed: "Please wait, temporarily at maximum number of callers." The video for the second meeting will start after the first meeting reaches its scheduled end time.
- If "Do not end meetings until they are ended by the participants" is selected and the meeting continues beyond the scheduled end time and the schedulable segments are not enough to continue the meeting, then the meeting takes resources from Ad hoc segments.

# CTS-Manager Redundancy Failover Procedure

The Cisco TelePresence Manager configuration for a redundant system is to have a primary and a backup CTS-Manager system with a mirror configuration.

**Note**

If a redundant system is configured, make sure database backups are performed regularly.

## Cold Standby

In a redundant system, the primary CTS-Manager is active and the backup is powered off.

When a CTS-Manager primary system stops working, meetings scheduled during this down-time will not be pushed to the phone. Meetings can still be scheduled in the Exchange or Domino during the downtime and all meetings “one button to push” on the phone will not be affected. Once the backup CTS-Manager is online, meetings scheduled during the primary down-time will be processed and pushed to the phones.

**Note**

It is recommended to use the same hostname and the same IP address for CTS-Manager replacement server.

### CTS-Manager Failover Procedure

When the primary CTS-Manager fails, perform the following procedure:

- 
- |               |   |
|---------------|---|
| <b>Step 1</b> | To start the failover procedure, power off the primary CTS-Manager system.  |
| <b>Step 2</b> | Power on the backup CTS-Manager system.   |
| <b>Step 3</b> | Go to <b>Configure &gt; Database</b> and click the <b>Restore</b> tab.  |
| <b>Step 4</b> | Restore the last CTS-Manager database to the backup CTS-Manager by clicking <b>Available Backups</b> , selecting an available backup file and clicking <b>Restore Now</b> . |
-

Figure 11-57 *Configure > Database > Restore Window*

**Database**

Settings Backup **Restore**

= Required fields

Restore Type: ☒ Local ☐ Network

Restore Mode: ☒ Sftp ☐ Ftp

Remote Storage Host:  \*

Port:  \*

Username:  \*

Password:  \*

Storage Path:  \*

---

**Restored Backup Files History** Showing 0-0 of 0 10 per page

Time	Status	Type	Hostname	Location
No data to display				

Page 0 of 0

**Step 5** Next, perform a resync with the Microsoft Exchange or IBM Domino database from the backup CTS-Manager.

Figure 11-58 *Configure > Microsoft Exchange > Synchronization Tab*

**Microsoft Exchange**

Synchronization Configuration

**Synchronization Operations** Showing 1-4 of 4 10 per page

Subscription Status:  Sync Status:  Type:  Endpoint

<input type="checkbox"/>	Endpoint Name	Type	Sync Status	Last Synchronization Time	Subscription Status
<input type="checkbox"/>	dn45003	CTS 1000		10/02/2011 05:05 PM	
<input type="checkbox"/>	dn70000	CTS 1100		10/02/2011 05:05 PM	
<input type="checkbox"/>	ex62304	Cisco TelePresence C60		10/02/2011 05:05 PM	
<input type="checkbox"/>	ex62305	Cisco TelePresence EX60		10/02/2011 05:05 PM	

Page 1 of 1

**Step 6** Review the information to make sure it is correct, make any changes needed and click **Resync**.

**Note**

This Resync in Microsoft Exchange must be verified on the Exchange server.

## Warm Standby

### CTMS Warm Standby for Scheduled Meetings

Both the primary and backup CTMS systems are configured independently with different call-in numbers, etc.

Each CTMS is configured in the CTS-Manager. Both primary and backup CTMS are powered on and connected to the network at all times. The meetings will only be scheduled on and serviced by the primary CTMS.

## CTS-Manager Redundancy Failover Procedure

With a redundant CTS-Manager system, make sure to configure two CTMS devices and register the primary with CTS-Manager in “Scheduled” mode and the backup in “Non-Scheduled” mode.



**Note**

Both CTMS are active, but meetings are to be scheduled on the primary “Scheduled” CTMS

When the primary CTS-Manager fails, perform the following procedure:

- Step 1** To start the failover procedure process, power off the primary CTS-Manager.
- Step 2** Power on the backup CTS-Manager.
- Step 3** Go to **Configure > Database** and click the **Restore** tab.
- Step 4** Restore the last CTS-Manager database to the backup CTMS by clicking **Available Backups**, selecting an available backup file and clicking **Restore Now**.



**Note**

During a primary CTMS failure, all multipoint meetings in progress will be disconnected and no new meetings will be allowed to start. Migrating all meetings is only allowed to a non-scheduled CTMS.

**Figure 11-59** *Configure > Database > Restore*

**Database**

Settings Backup **Restore**

= Required fields

Restore Type: ☒ Local ☐ Network

Restore Mode: ☒ Sftp ☐ Ftp

Remote Storage Host:  \*

Port:  \*

Username:  \*

Password:  \*

Storage Path:  \*

## CTMS Redundancy Failover Procedure

- 
- Step 1** When the primary CTMS fails, log into CTS-Manager and migrate all scheduled meeting to the backup “non-scheduled” CTMS.
- Step 2** Change the Scheduled option of the primary CTMS to **No**.
- Step 3** Change the Scheduled option of the backup CTMS to **Yes**.
- 

*Figure 11-60 Configure > Bridges and Servers Edit Window*

**Edit Bridge or Server**

Hostname: example-ctms

✱ Username: admin

✱ Password: [Masked]

Scheduled: ☐ Yes ☒ No

Migrate All Meetings: ☐ example-ctms

Timezone: US/Pacific

Call-In Numbers: 10000

Segment Count: 24

✱ = Required fields

Save Close

All scheduled multipoint meetings are moved to the backup CTS-Manager and “One Button to Push” entries are updated with the new CTMS call-in number and meeting number. The time it takes to update all meeting entries and update all phones will vary depending on the number of meetings and CTS endpoints.





# CHAPTER 12

## Configuring Cisco WebEx OneTouch for Cisco TelePresence Manager

First Published: Nov 2, 2011, OL-22226-01



Note

You must be running CTS-Manager, CTMS, CTS software release 1.7 or later to schedule TelePresence meetings with WebEx.

## Contents

This chapter contains the following sections:

- [Introduction, page 12-1](#)
- [Before Configuring Cisco WebEx in CTS-Manager, page 12-2](#)
- [Setting Up Cisco WebEx Administration Site Account, page 12-3](#)
- [Cisco WebEx First-Time Setup in CTS-Manager, page 12-4](#)
- [Configuring Cisco WebEx Users in CTS-Manager, page 12-11](#)
- [First-Time Scheduling of TelePresence Meetings with WebEx, page 12-14](#)
- [Configuring Other Applications, page 12-19](#)

## Introduction

This chapter explains how to set up Cisco WebEx OneTouch in CTS-Manager, which allows WebEx participants to join TelePresence meetings. Beginning with release 1.8, CTS-Manager provides the following new features:

- Multiple WebEx sites can now be configured to expand the number of WebEx users. For more information, refer to: [Multiple WebEx Sites, page 12-8](#)

## Post-Install Guidelines for CTS-Manager

The purpose of this chapter is to outline the information you need to configure WebEx after installation and initialization.

The flow of tasks for additional configurations of CTS-Manager are provided in the following table.

**Table 12-1** *Post-Install Guidelines for Configuring CTS-Manager*

Setup Procedure Guidelines after Installing CTS-Manager	Description	Location
Configuring Cisco TelePresence WebEx OneTouch for CTS-Manager	Describes how to set up Cisco TelePresence WebEx OneTouch in CTS-Manager, which allows WebEx participants to join TelePresence meetings.	Current chapter
Monitoring and Supporting CTS-Manager	Describes the support features available when you log into CTS-Manager using a Live Desk role.	<a href="#">Chapter 13, “Monitoring and Supporting Cisco TelePresence Manager”</a>

If at any time you encounter problems, go to [Chapter 16, “Troubleshooting Cisco TelePresence Manager”](#) to see how to correct the problem.

## Before Configuring Cisco WebEx in CTS-Manager

Before configuring WebEx in CTS-Manager, you must have the following information:

Information	Description
WebEx hostname	<p>A name identifying the WebEx site hostname to the administrator. This typically can be the same name as the hostname used in the site URL.</p> <p><b>Note</b> Multiple WebEx sites can have the same hostname. This is not used to connect to the WebEx site and therefore is not validated during testing of connection.</p>
WebEx Admin Username	WebEx site administrator’s username (provided by the WebEx team).
WebEx Admin Access Code	WebEx site administrator’s access code (provided by the WebEx team).
WebEx Site URL	URL for WebEx Scheduling Server (provided by the WebEx team).
WebEx Hostname Certificate	Security certificate of WebEx scheduling server. For more information, see <a href="#">First-Time Scheduling of TelePresence Meetings with WebEx, page 12-14</a>
Default WebEx user role setting for new users	<p>You must decide whether you want new users to be Permitted or Non-Permitted users by default.</p> <p>For more information, see <a href="#">First-Time Scheduling of TelePresence Meetings with WebEx, page 12-14</a>.</p>

# Setting Up Cisco WebEx Administration Site Account

You have access to the Cisco WebEx Administration Site interface through your Cisco WebEx administrator using a unique Cisco WebEx administration URL and access code. As a site administrator, you can log in to access current Cisco WebEx user and administration guides for the services and features that have been configured on your Cisco TelePresence system.

## Specifying Cisco TelePresence Integration Options

To integrate Cisco TelePresence to Cisco WebEx on the Cisco WebEx site, follow these steps:

- Step 1** Log in to the Cisco WebEx Site Administration interface.
- Step 2** Choose **Manage Site > Site Settings**. The Site Settings screen appears, as shown in [Figure 12-1](#).

**Figure 12-1** Configuring Cisco WebEx Connection Settings

- Step 3** Click to select **Enable Cisco TelePresence Integration (MC only)**. If not checked, Cisco WebEx will be disabled on this site.
- Step 4** Enter your CTS Manager access code (SiteID and ConferenceID). This combined access code identifies a prefix number which is exclusively assigned to Cisco Telepresence deployments that are integrated with the Cisco WebEx solution. This code allows the CTMS to connect to the Cisco TelePresence gateway to initiate your meeting.
- Step 5** Click to select **List Cisco TelePresence meetings on calendar** so that scheduled meetings appear on the Cisco WebEx calendar.
- Step 6** Click to select **Send invitation email to meeting host**. This allows the meeting information email to be sent to the Cisco WebEx host after the meeting is scheduled.
- Step 7** Click to select **Display toll-free number to attendees**.
- Step 8** Click to select: **Enable Video**. This enables video on the Cisco WebEx meeting user interface. Click both **Cisco TelePresence Video (CIF)** and **Cisco WebEx Multipoint Video**.

- Step 9** In the Cisco WebEx VOIP and Video Connection field, click to select **TCP SSL** (recommended). This selects the connection method between the Cisco WebEx client and the multimedia server (VOIP and video).
- Step 10** Click **Save** to save your settings.
- 

## Cisco WebEx First-Time Setup in CTS-Manager

This section describes how to enable WebEx and select the default WebEx user type, as well as perform the one-time initial registration in CTS-Manager that specifies the Cisco WebEx account information so that you can add Cisco WebEx functionality to Cisco TelePresence meetings.

### Before You Begin

You will need at least one CTMS configured in CTS-Manager before you can configure CTS-Manager for Cisco WebEx. The CTMS communicates with the Cisco WebEx Telephony Gateway to establish the audio portion of a Cisco WebEx meeting. Complete the steps in Chapter 2, “Configuring Cisco WebEx OneTouch on the Cisco TelePresence Multipoint Switch,” in the “Cisco WebEx OneTouch Configuration Guide for the Cisco TelePresence System” at the following URL:

[http://www.cisco.com/en/US/docs/telepresence/cts\\_admin/webex\\_solutions/guide/cts\\_webex\\_ctms.html](http://www.cisco.com/en/US/docs/telepresence/cts_admin/webex_solutions/guide/cts_webex_ctms.html)

Once you have configured the CTMS, proceed with the following tasks:

- [Enabling WebEx and Selecting Default WebEx User Type, page 12-4](#)
- [Configuring a Cisco WebEx Site, page 12-6](#)
- [First-Time Scheduling of TelePresence Meetings with WebEx, page 12-14](#)

## Enabling WebEx and Selecting Default WebEx User Type

To select Permitted and Non-Permitted Cisco WebEx user types, follow these steps in the CTS-Manager administration interface:

- 
- Step 1** Choose **Configure > Application Settings**.
- Step 2** Select the **Bridges and Servers** tab. The Application Settings > Bridges and Servers window appears, as shown in [Figure 12-2](#).

Figure 12-2 Enabling WebEx and Configuring Default User Type

**Application Settings**

Email Bridges and Servers Locomes Benefits Reporting Usage Survey Meeting Options

**Multipoint Conference Scheduling**  
 Primary Scheduling Device: ☒ CTMS ☐ TelePresence Server  
☐ Use TelePresence Server when required (for more information, see Help.)

**Interoperability with Video Conferencing**  
 Enable Feature: ☒ Yes ☐ No

**Interop Devices**  
 When CTMS is Used for Scheduling: CUVC-720p

**Telepresence Call-In Number**  
☐ Allow meeting organizers to send a call-in number for unscheduled TelePresence endpoints to join?

**Studio Mode Recording**  
 Enable Feature: ☒ Yes ☐ No

**WebEx**  
 Enable Feature: ☒ Yes ☐ No  
 Default User Type: ☒ Permitted ☐ Non-Permitted

**Intercompany**  
 Enable Feature: ☒ Yes ☐ No  
 Provider: ☒ Another Company Hosts ☐ Our Company Hosts

Apply Cancel

**Step 3** For WebEx Enable Feature, click the **Yes** radio button.

**Step 4** For Default User Type, click one of the following radio buttons:

- **Permitted** (default)—These users are permitted to request Cisco WebEx for specific meetings using CTS-Manager.
- **Non-Permitted**—These users are not permitted to request Cisco WebEx; no Cisco WebEx meeting options are available to these users.



**Note**

The default user type is the WebEx role assigned to users until the CTS-Manager administrator assigns them to a specific role using the Configure > Access Management window.

- Step 5** In the Interoperability with Video Conferencing Interop Quality field, click the **CIF** radio button.
- Step 6** Click **Apply** and then click **OK** in the confirmation window.
- 

## Configuring a Cisco WebEx Site

To configure a new site for Cisco WebEx, follow these steps:

- 
- Step 1** Log in to the CTS-Manager administration interface.
- Step 2** Choose **Configure > Bridges and Servers**. The Bridges and Servers page appears.
- Step 3** Click **New**. The New Bridge or Server page appears in a new window.
- Step 4** From the Type drop-down menu, select **WebEx**.
- Step 5** In the Hostname field, enter the hostname to uniquely identify the WebEx site being configured. For example: example.webex.com.
- Step 6** In the URL field, enter your unique Cisco WebEx Site URL obtained from the Cisco WebEx administrator. For example: https://example.webex.com/example.
- Step 7** In the Username field, enter your Cisco WebEx Administration account username. For example, wbAdmin. This is the user account that was created by your Cisco WebEx administrator that grants you Cisco WebEx Administration Site privileges.
- Step 8** In the Access Code field, enter your Cisco WebEx Site Administration account access code. For example, 123456.
- Step 9** Enter the rest of the information for the remaining fields. For more information, refer to [Table 12-2 on page 12-7](#).
- Step 10** Click **Save** to save your settings and close the New Bridge or Server page.
- Step 11** Verify your settings by checking that the Service Status reads “OK” on the Bridges and Server page.
- Step 12** Proceed to [Obtaining the Cisco WebEx Site Security Server Certificate](#).
- 

## WebEx Proxy Server

To provide an extra level of security, an enterprise might require communication between the enterprise and the Cisco WebEx cloud to go through a proxy server. In such a case, the administrator must configure CTS-Manager to connect to WebEx site through the proxy server.

The following modes of proxy connection are available:

- Connection specifying the proxy server host and port (with no authentication)
- Connection specifying the proxy server host and port using Basic authentication using username and password

**Note**

No other form of proxy authentication (such as Digest, NTLM, certificate based, Kerberos) is supported. A proxy server supporting multiple protocols should have basic authentication as the default authentication mechanism between CTS-Manager and WebEx.

**Table 12-2**      *New Bridge or Server Window for WebEx Information*

Field	Description or Settings
Type	Select WebEx from the pull-down list menu.  <b>Note</b> If WebEx does not appear in the drop-down list, make sure WebEx is enabled in the Configure > Application Settings > <a href="#">Bridges and Servers</a> window.
Hostname	A name identifying the WebEx site hostname to the administrator. This typically can be the same name as the hostname used in the site URL.  <b>Note</b> Multiple WebEx sites can have the same hostname. This is not used to connect to the WebEx site and therefore is not validated during testing of connection.
URL	The address used to construct the URL that's used to access this meeting. This is the actual URL that CTS-Manager uses to communicate with WebEx. This is published in the email from CTS-Manager, and is displayed to users on the WebEx page of the CTS display device.
WebEx Admin Username	WebEx administrator's username (provided by the WebEx team)
WebEx Admin Access Code	WebEx administrator's access code (provided by the WebEx team)
Certificate	Certificate from the hostname (WebEx scheduling server)  <b>Note</b> To get the certificate, open a web browser window and go to the hostname URL and download the certificate to your computer, then click Browse to select it and upload it to CTS-Manager. For detailed instructions on downloading the certificate with different browsers, see <a href="#">Obtaining the Cisco WebEx Site Security Server Certificate</a> , page 12-8.
Connection Type	Choose the type of connection to establish with the WebEx scheduling server: Direct or Via Proxy Server.  Selecting the proxy server option allows you to filter IP traffic and increase security.
<b>WebEx Proxy Server Settings</b>	
Host Name	Host name of proxy server
Port	Port number of proxy server
Requires Authentication	Yes or No. Select Yes if the Proxy server requires authentication and then enter username and password.
Username	Username for proxy server
Password	Password for proxy server

## Multiple WebEx Sites

You can configure up to five WebEx sites to support more WebEx users for TelePresence meetings. The meeting organizer can, however, select any of the available WebEx sites to register with. The meeting organizer can only register one WebEx account on one of the available sites configured in CTS-Manager.

## Obtaining the Cisco WebEx Site Security Server Certificate

Use the information in this section to obtain and add your Cisco WebEx site security server certificate to CTS-Manager:

- [Obtaining Your Certificate Using Internet Explorer, page 12-8](#)
- [Obtaining Your Certificate Using Firefox, page 12-9](#)
- [Adding Your Certificate to CTS-Manager, page 12-9](#)

### Obtaining Your Certificate Using Internet Explorer

To obtain your Cisco WebEx site security certificate using Internet Explorer (IE), follow these steps:

- 
- Step 1** Open a new browser window.
  - Step 2** Enter the unique Cisco WebEx scheduling server hostname from CTS-Manager Host field in [Step 5 of Configuring a Cisco WebEx Site](#) and press Enter. (For example, <https://qamctp.webex.com/qamctp>)
  - Step 3** IE 7.x or earlier: In the bottom right-hand corner of the browser window, double-click the lock icon.  
IE 8.x or later: Click the Certificate Error in the top of the browser after the URL and click **View certificates**.  
The certificate window appears.
  - Step 4** Click the **Certification Path** tab.
  - Step 5** Select the top-level certificate (CA root, .e.g Verisign).
  - Step 6** Click **View Certificate**.  
The Certificate window appears.
  - Step 7** Click the **Details** tab.
  - Step 8** Click **Copy to File**.  
The Certificate Export Wizard window appears.
  - Step 9** Click **Next**.
  - Step 10** Select the **DER encoded binary** option and click **Next**.
  - Step 11** Click **Browse**.  
The Save As window appears.
  - Step 12** Create a file name for the certificate.
  - Step 13** Navigate to the location where you want to save the certificate and click **Save**.
  - Step 14** Click **Next** and then click **Finish**.  
When the export is complete, the message “The export was successful” appears.



- Step 15** Click **OK** to close the message and **OK** again to close the Certificate window.
- Step 16** Proceed to [Adding Your Certificate to CTS-Manager](#).

## Obtaining Your Certificate Using Firefox

To obtain your Cisco WebEx site security certificate using Firefox, follow these steps:

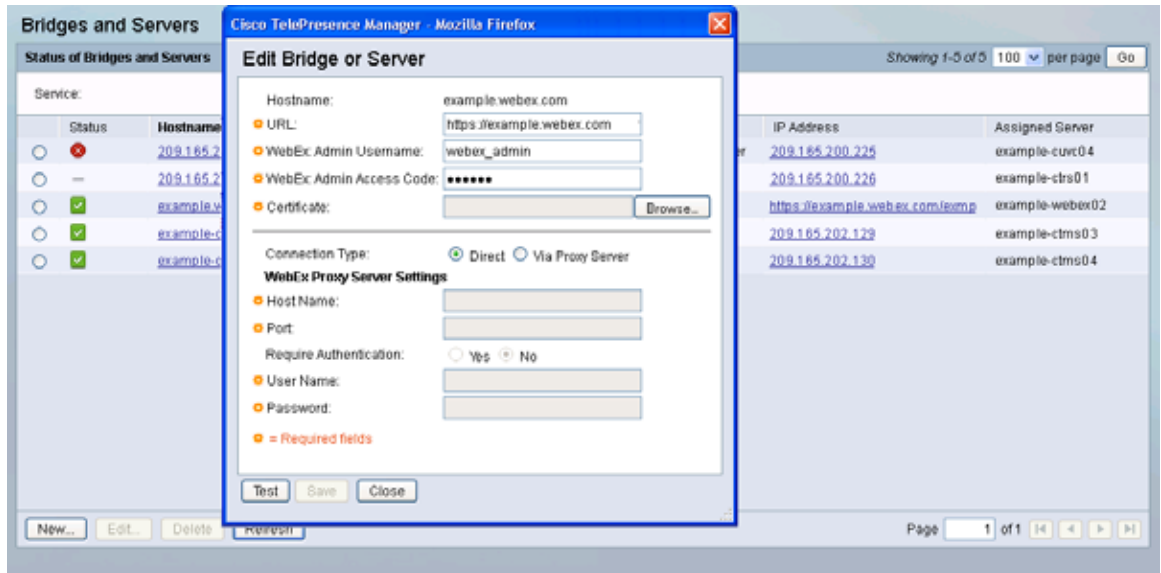
- 
- Step 1** Open a new browser window.
- Step 2** Enter the Cisco WebEx scheduling server hostname from CTS-Manager Host field in [Step 5](#) of [Configuring a Cisco WebEx Site](#) and press Enter. (For example, <https://qamctp.webex.com/qamctp>)
- Step 3** For Firefox 4.x or earlier: In the bottom right-hand corner of the browser window, double-click the lock icon.
- Step 4** For Firefox 5.x or later: In the upper left corner of the browser, before the URL, click the site name (in blue).
- The site info popup window appears showing the security information for the site.
- Step 5** Click the **More Information** button.
- The Page Info window appears with the Security tab selected.
- Step 6** Click **View Certificate**.
- The Certificate Viewer window appears.
- Step 7** Click the **Details** tab.
- Step 8** Select the top level of the Certificate Hierarchy (e.g. Builtin Object Token: Verisign Class 3 Public Primary Certification Authority - G2).
- Step 9** Click **Export**.
- The Save Certificate To File window appears.
- Step 10** (Optional) Modify the file name.
- Step 11** Navigate to the location where you want to save the certificate and click **Save**.
- Step 12** Click **Close** to close the Certificate Viewer window.
- Step 13** Proceed to [Adding Your Certificate to CTS-Manager](#).
- 

## Adding Your Certificate to CTS-Manager

To add your certificate to CTS-Manager, follow these steps in the CTS-Manager administration interface:

- 
- Step 1** Choose **Configure > Bridges and Servers**. The Bridges and Servers page appears.
- Step 2** Select the Cisco WebEx site and click **Edit**. The Edit Bridge or Server window appears showing your Cisco WebEx configuration settings, as shown in [Figure 12-3](#).

Figure 12-3 Edit...Bridge or Server Dialog



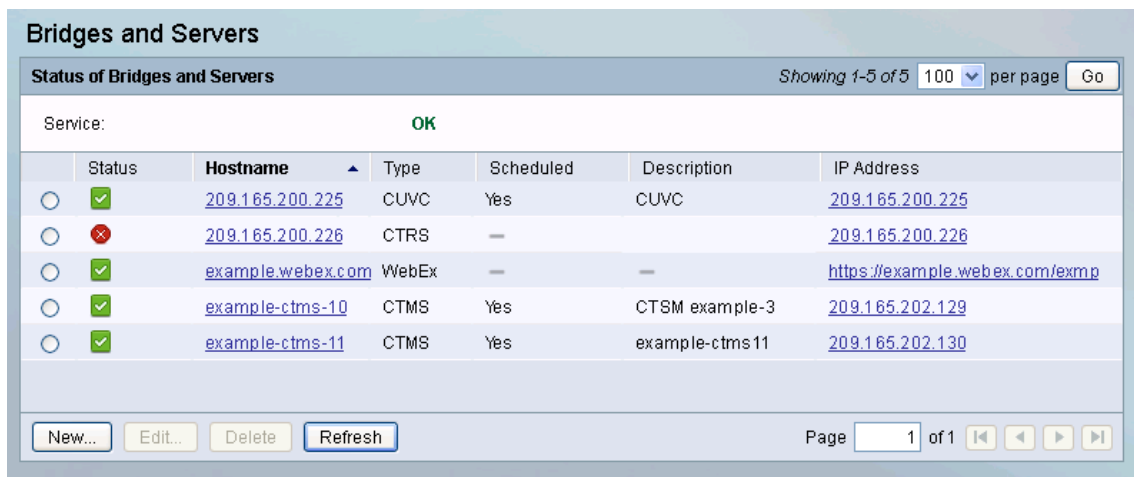
- Step 3 Click **Browse** to find and add the certificate you just obtained in [First-Time Scheduling of TelePresence Meetings with WebEx](#).
- Step 4 Click **Test**. The system checks for the certificate and responds with confirmation or an error message.
- Step 5 Click **OK** to dismiss the message.

**Tip**

If the certificate is not found and an error message appears, make sure that you browsed to the correct certificate in your local directory and try again.

- Step 6 Click **Save** to save your settings and to dismiss the Edit Bridge or Server window.
- Step 7 The Bridges and Servers window should show OK in for Service, as shown in [Figure 12-4](#).

Figure 12-4 Service OK



**Tip**

If you do not see the expected green OK, click your browser's reload or refresh button to update the system and see your changes.

**Step 8** Proceed to [Configuring Cisco WebEx Users in CTS-Manager](#).

## Configuring Cisco WebEx Users in CTS-Manager

This section contains the following information:

- [WebEx User Types, page 12-11](#)
- [Configuring WebEx Users, page 12-12](#)

### WebEx User Types

The meeting organizer can schedule meetings with options defined in Cisco TelePresence Manager based upon one of three possible WebEx user types configured in CTS-Manager:

- **Premium User—Cisco WebEx Always-On.** Use this option if you want to use Cisco WebEx Meeting Center for every Cisco TelePresence meeting. “Always-On” users select the Cisco TelePresence endpoints in the calendaring application and the Cisco WebEx session is automatically set up. A meeting confirmation e-mail is sent from Cisco TelePresence Manager with Cisco WebEx session details that the scheduler can forward to the Cisco WebEx attendees.

**Note**

To prevent over-scheduling of CTMS resources, do not to add all users to the Premium user group, especially if you anticipate that the feature will not be used for most Cisco TelePresence meetings.

- **Permitted User—Enable Cisco WebEx Per Meeting.** This option requires you to enable a Cisco WebEx session with each Cisco TelePresence meeting by doing the following:
  - a. Select Cisco TelePresence endpoints in the Microsoft Outlook or Lotus Notes client.
  - b. Follow the link provided in the Cisco TelePresence Manager confirmation e-mail message.
  - c. Enable the Cisco WebEx meeting option in the Cisco TelePresence Manager Meeting View page.
  - d. Receive a confirmation e-mail message from Cisco TelePresence Manager with the Cisco WebEx session details. The Cisco TelePresence meeting organizer forwards the e-mail to the Cisco WebEx attendees.

When the meeting is scheduled, CTS-Manager pushes the schedule information, along with the Cisco WebEx meeting details, to the CTMS Conference Manager. This information is maintained in the Conference Manager until the meeting starts.

- **Non-Permitted User—Disallow Cisco WebEx.** You can configure CTS-Manager to disallow Cisco WebEx support entirely. Users configured in this mode may not use the Cisco WebEx feature, and may only schedule standard multipoint CTMS meetings.

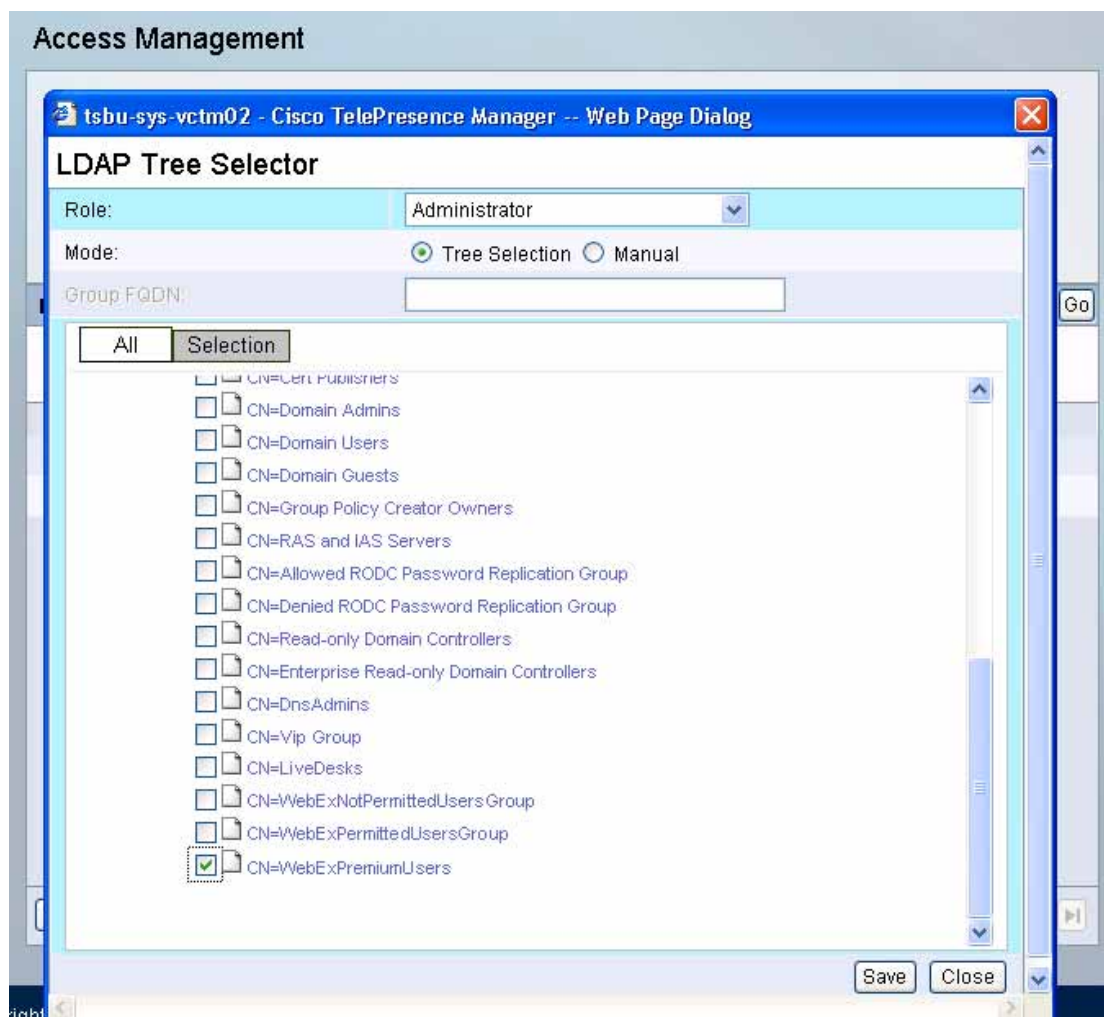
## Configuring WebEx Users

Using the Access Management window in CTS-Manager, you can configure the three different types of WebEx users mentioned in the previous section [WebEx User Types, page 12-11](#). To assign a WebEx role, you must add the user group to the WebEx user role by following these steps in the CTS-Manager administration interface:

To configure WebEx users in CTS-Manager:

- Step 1** Choose **Configure > Access Management** and click **Add**.  
The LDAP Tree Selector window appears.
- Step 2** From the Role drop-down menu, select the WebEx role you want to assign.
- Step 3** Traverse the LDAP tree to find and select the user group by checking the box next to the user group name, as shown in [Figure 12-5](#).

**Figure 12-5** Assigning a User Group to WebEx User Role



- Step 4** Click **Save**.

The user group is added to the selected WebEx user role.

**Step 5** Proceed to [First-Time Scheduling of TelePresence Meetings with WebEx](#).

---

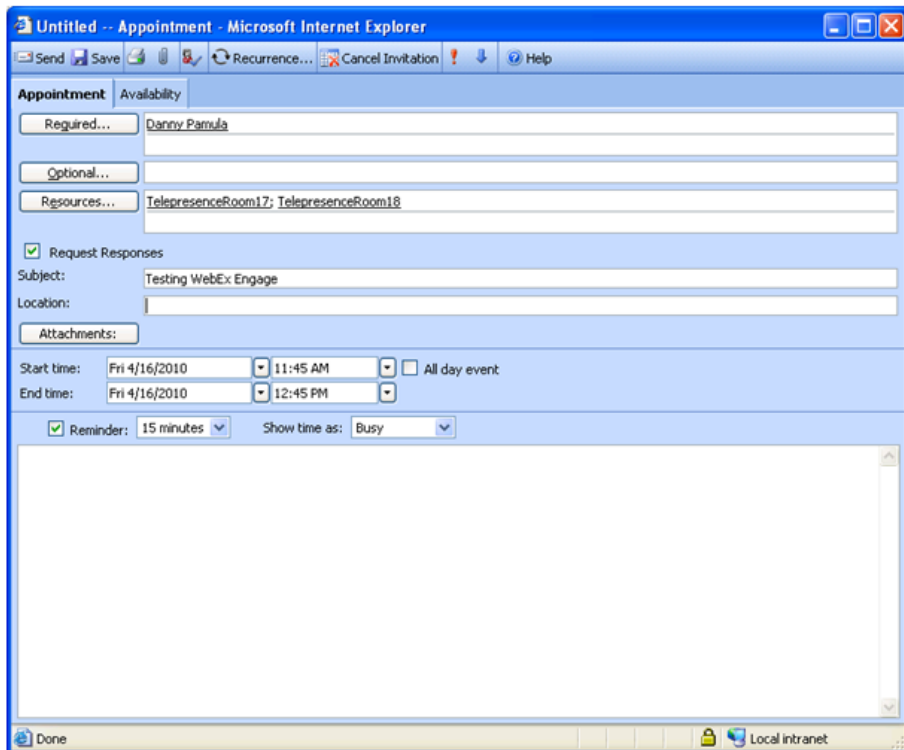
# First-Time Scheduling of TelePresence Meetings with WebEx

The first time a meeting organizer schedules a TelePresence meeting with WebEx, they register with the WebEx site.

To schedule a TelePresence meeting with WebEx:

- Step 1** Schedule the meeting as usual with Microsoft Outlook, Lotus Notes or another supported client and include one or more Cisco TelePresence System (CTS) endpoints. See the [Configuring Microsoft Exchange for Cisco TelePresence Manager, page 3-1](#) for instructions.

**Figure 12-6** Schedule Meeting



- Step 2** Wait for email confirmation from CTS-Manager.



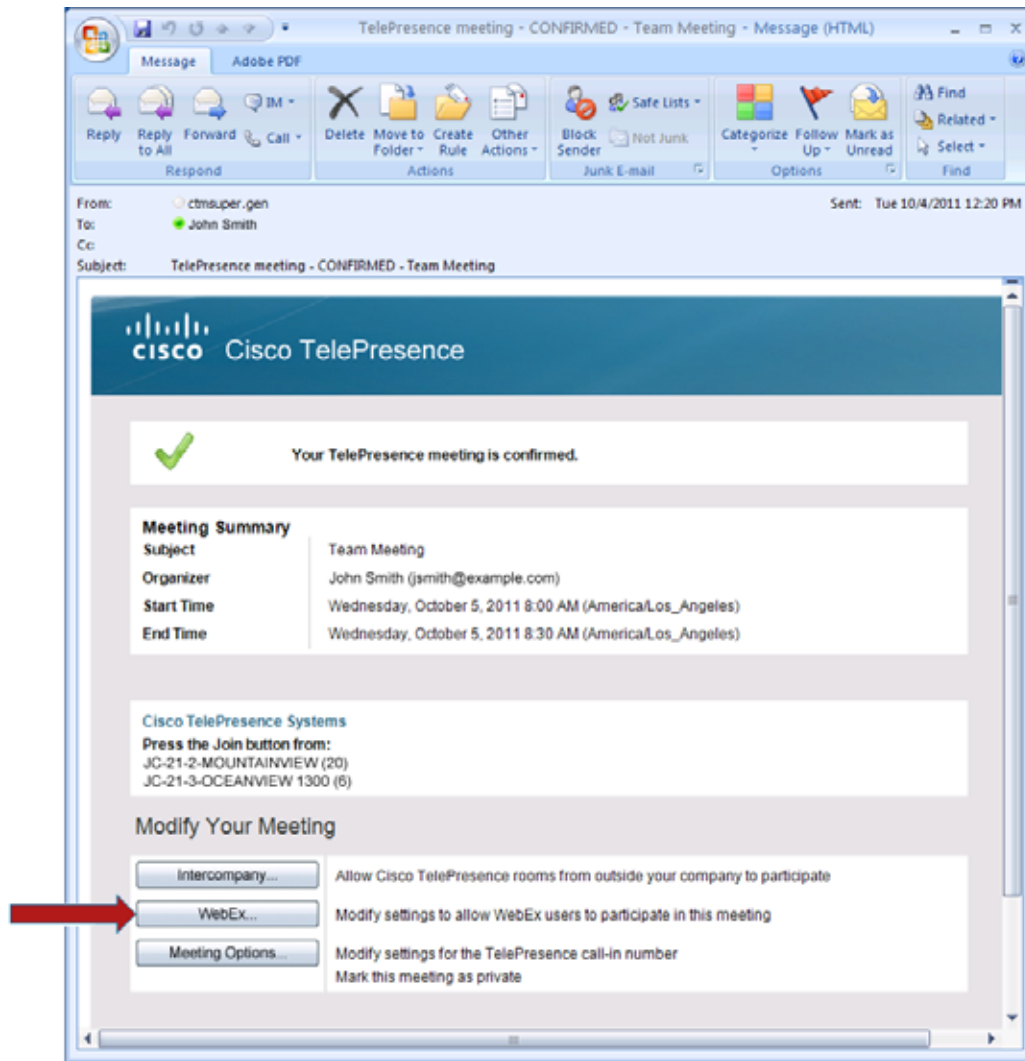
**Note**

For TelePresence meetings with WebEx, you will only receive emails from CTS-Manager. You will not receive any emails directly from WebEx.

- Step 3** To enable WebEx for the meeting, click the **WebEx** button in the email, as shown in [Figure 12-7](#).
- The WebEx button does not appear if the meeting organizer is a WebEx Non-Permitted user.

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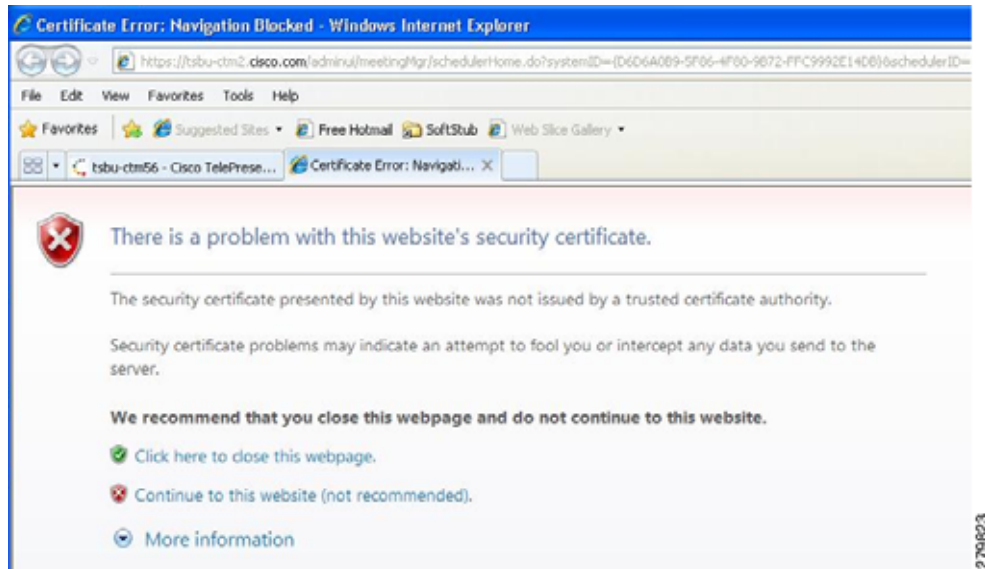
Figure 12-7 Click the WebEx Button in Meeting Email Confirmation



**Step 4** Depending on which browser you use, you may be presented with a security warning message:

- If you are using Internet Explorer Version 8 and a security warning appears, click **Continue** to proceed, as shown in [Figure 12-8](#).

Figure 12-8 Security Warning in Internet Explorer Version 8



- If you are using Firefox and a security warning appears, click **“I understand the risks”** to proceed, as shown in Figure 12-9.

Figure 12-9 Security Warning in Firefox



Step 5 Once you have dismissed any security warnings, the CTS-Manager log in window appears, as show in Figure 12-10.

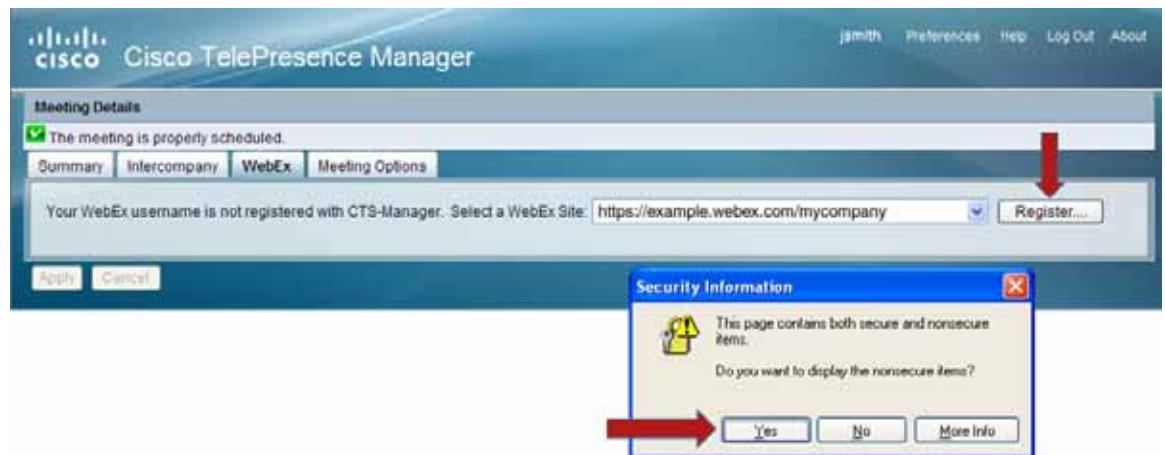


Figure 12-10 CTS Manager Log In



- Step 6** Log in to CTS-Manager using your enterprise email ID and password.  
The meeting details window for your meeting appears, with the WebEx tab selected.
- Step 7** The first time you schedule a meeting with WebEx, you must register your WebEx account with CTS-Manager by doing the following:
- If there are multiple WebEx sites available, select the WebEx site on which you have an account.
  - Click **Register**.

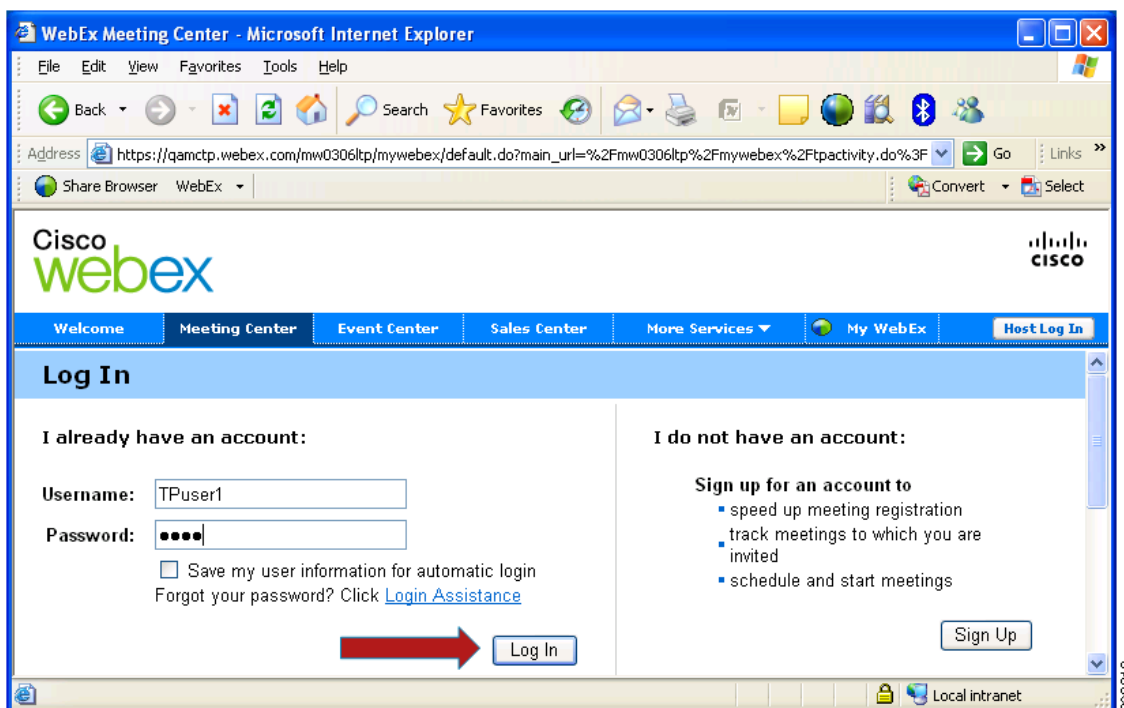
Figure 12-11 Authenticate with Cisco WebEx Internet Explorer Version 7



- If you are using Internet Explorer Version 8, click **Register** and click **No** at the security warning pop-up.
- If you are using Firefox, there is no security warning at this step; simply click **Register**.

This redirects you to the Cisco WebEx site. The Cisco WebEx login page appears, as shown in Figure 12-12.

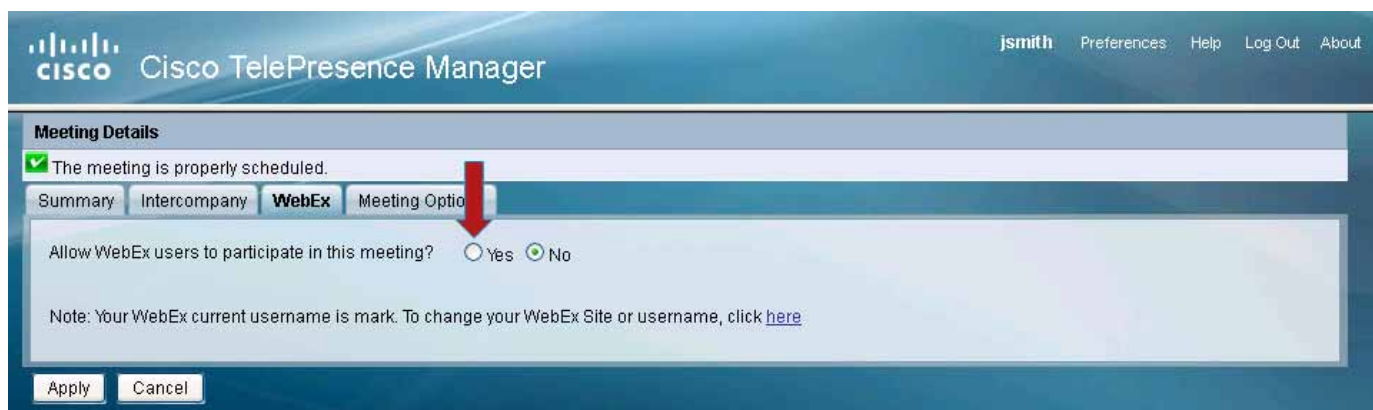
Figure 12-12 Log in to Cisco WebEx



- c. Enter your Cisco WebEx username and password and click **Log In**.

Upon successful authentication, you are directed back to the CTS-Manager meeting details window with the WebEx tab selected, as shown in Figure 12-13.

Figure 12-13 Cisco WebEx Tab in CTS Manager Meeting Details



- Step 8** Select the **Yes** radio button to allow WebEx users to participate in this meeting and click **Apply**.

WebEx OneTouch is now set up for the meeting organizer and enabled for the selected meeting. To schedule future meetings with WebEx, you will not need to log in to the Cisco WebEx site.

## Configuring Other Applications

For the Cisco TelePresence WebEx OneTouch feature to work, other applications, including CTMS, must also be configured. For complete details on how to configure and use this feature, refer to the “Cisco WebEx OneTouch Configuration Guide for the Cisco TelePresence System” at the following URL:

[http://www.cisco.com/en/US/docs/telepresence/cts\\_admin/webex\\_solutions/guide/cts\\_webex\\_config.html](http://www.cisco.com/en/US/docs/telepresence/cts_admin/webex_solutions/guide/cts_webex_config.html)

This document also describes how to manage and monitor scheduled meeting interoperability between Cisco TelePresence System (CTS), Cisco TelePresence MultiPoint Switch (CTMS) multipoint meetings, CTS-Manager, Cisco Unified Communications Manager (Cisco Unified CM), and the Cisco WebEx meeting server.





# CHAPTER 13

## Monitoring and Supporting Cisco TelePresence Manager

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First Published: Nov 2, 2011, OL-22226-01

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# Introduction

CTS-Manager monitoring features allow you to monitor:

- Scheduled meetings
- Status of system services
- Meeting benefits and survey results
- TelePresence and video conferencing endpoint utilization
- Users


**Note**

The meeting benefits, survey results and endpoint utilization monitoring features require the Reporting API and Meeting Benefits license. For more information, see [Licensing for CTS-Manager](#).

## Post-Install Guidelines for CTS-Manager

The purpose of this chapter is to outline the information you will need to reference in order to configure the system after installing the CTS-Manager.

The flow of tasks you need to do for additional configurations for the CTS-Manager are provided in the following table.

**Table 13-1** *Post-Install Guidelines for CTS-Manager*

Setup Procedure Guidelines after Installing CTS-Manager	Description	Location
Monitoring and Supporting CTS-Manager	Describes the support features available when you log into CTS-Manager using a Live Desk role.	Current Chapter.
CTS-Manager Emails and End-User Web UI	The Calendar service (either Microsoft Exchange or IBM Domino) sends and acceptance email to the meeting organizer, with the notice that the endpoints have been reserved and placed on the calendar. CTS-Manager also sends either a confirmation email or an action required email to the meeting organizer when a meeting is scheduled	<a href="#">Chapter 14, “Meeting Manager and CTS-Manager Emails”</a>

If at any time you encounter problems, go to [Chapter 16, “Troubleshooting Cisco TelePresence Manager”](#) to see how to correct the problem.

# Meetings

The Monitor > Meetings window allows you to view information about the scheduled meetings, including:

- Status
- Start Time
- End Time
- Subject
- Organizer
- Endpoint
- Scheduling Device

**Figure 13-1** Meetings window

**Meetings**

Start on: 10/4/2011 End on: 10/4/2011 Status: All

Name: Organizer: Bridge/Server: Filter Type:

**All Meetings** Showing 1-23 of 23 100 per page Go

Status	Start Time	End Time	Subject	Organizer	Endpoint	Scheduling Device
	10/04/2011 12:30 AM	10/04/2011 12:45 AM	Team Meeting	jsmith	Conf Rm 10	example-ctms-8
	10/04/2011 12:45 AM	10/04/2011 01:00 AM	Project Update	jsmith	Conf Rm 10	example-ctms-12
	10/04/2011 12:45 AM	10/04/2011 01:00 AM	Status Meeting	jsmith	Conf Rm 12	example-ctms-11
	10/04/2011 01:00 AM	10/04/2011 01:15 AM	Customer Mtg	jsmith	Conf Rm 13	example-ctms-18
	10/04/2011 01:15 AM	10/04/2011 01:30 AM	Support Mtg	jsmith	Conf Rm 14	example-ctms-12
	10/04/2011 01:45 AM	10/04/2011 02:00 AM	Interview	jsmith	Conf Rm 15	example-ctms-12
	10/04/2011 02:30 AM	10/04/2011 02:45 AM	One-on-One	jsmith	Conf Rm 16	example-ctms-14
	10/04/2011 03:00 AM	10/04/2011 03:15 AM	Review Mtg	jsmith	Conf Rm 17	example-ctms-12

Details... Export... Page 1 of 1

When a meeting is scheduled using Microsoft Outlook or IBM Lotus Notes, an e-mail is generated to confirm the meeting and provide a link to meeting details. The CTS-Manager must be reachable from an Exchange Server for Meeting Notification to work.



## Note

A maximum of 5 concurrent users can filter an endpoint.

The Meetings window provides another way to view and modify meeting details.

In the current version of CTS-Manager, it is possible to search from 1 to 15000 meeting records.



## Warning

When a meeting organizer modifies their meeting in Microsoft Outlook, they must click the Send Update button for the changes to be sent to CTS-Manager.

**Note**

If meetings do not appear automatically in CTS-Manager, you must do a manual sync. Make sure you can ping the CTS-Manager hostname from the Exchange server.

**Note**

If you remove an endpoint (room) from Microsoft Exchange and it is not removed from a meeting in CTS-Manager, schedule at least one meeting for the affected room in Exchange, then resync the endpoint in CTS-Manager by going to **Configure > Microsoft Exchange**, selecting the endpoint and clicking **Resync**.

**Note**

When using the CTS-Manager Reporting API to retrieve information about meetings scheduled with a TelePresence Server, Call Detail Record (CDR) information is not available.

### Call Detail Record Information for Point-to-Point Meetings with C, EX and MX-series Endpoints

Call Detail Record (CDR) information is available for point-to-point meetings scheduled with C, EX and MX-series endpoints in the following ways:

- Meetings that contain C, EX and MX-series endpoint(s) only:
  - CDR date is displayed after the meeting is completed.
  - Meetings that are in progress, display a status of “Scheduled”.
- Meetings that contain one or more C, EX or MX-series endpoints and one or more CTS endpoints:
  - If the meeting is started by a C, EX or MX-series endpoint, the CDR data will be available after the meeting is completed and meetings that are in progress, display a status of “Scheduled”.
  - If the meeting is started by a CTS, the CDR data for meeting Start Time and End Time are available in real time.

The CDR limitations of C, EX and MX-series endpoints are due to the fact that Meeting ID is not provided along with meeting start event.

## Process/Response Times for Scheduled Meetings

Microsoft Exchange or IBM Domino calendar servers typically confirm a meeting request within one minute if all the affected rooms (endpoints) are in auto-accept mode. A room (endpoint) in proxy mode must have a delegate respond to a meeting invite. This can affect the response time for a scheduled meeting. Once all room reservations are confirmed the meeting should appear in the Scheduled Meetings window and the phone's screen within 15 minutes. If email alerts are turned on, confirmation or error emails are generated and sent within 10-15 minutes.

## Modifying Meeting Details from a Calendar Client

- After modifying a meeting from Microsoft Outlook, you must click the Send Update button to send the updated information from Microsoft Exchange to CTS-Manager.
- If a meeting organizer updates the Subject field of a meeting scheduled with Lotus Notes that has already been synced with CTS-Manager, the phone's screen is not updated.
- It is advisable to avoid modifications to a meeting a few minutes before its start time.



- If a meeting is changed within a few minutes of the meeting's start time (such as a time change, or endpoint change), the change may not appear on the endpoint phone's screen for that endpoint, or in the Scheduled Meetings window of CTS-Manager. This does not affect a user's ability to schedule a new meeting at the original (pre-modified) time.
- A notification email is not generated if a meeting is processed as part of a server startup.
- No notification email is generated if a meeting is deleted from Outlook or Lotus Notes.
- Modifications to an in-progress or completed meeting, except for time, are ignored.
- Time modifications to an in-progress/completed meeting will generate a new meeting with the new time. The in-progress/completed meeting will remain unchanged.
- In order for Exchange to alert CTS-Manager to scheduled meeting changes, it is advisable not to make changes to the scheduled meeting from the calendar/mailbox of the TelePresence endpoint. Doing this may cause Exchange to not send an invite to the meeting organizer and, as a result, CTS-Manager will not get the notification to process the meeting accordingly.

**Note**


Tentative room reservations in CTS-Manager are not supported with Domino Calendar server at this time.

## Calendar Scheduling Limitation

CTS-Manager only displays endpoint scheduling information for a 12 month window. If a meeting organizer schedules a recurring meeting with meeting instances that extend outside this window, those meeting instances are added to the CTS-Manager database as the calendar date moves forward. If a meeting organizer schedules a future meeting outside the present 12 month window the meeting is not displayed in CTS-Manager until the meeting falls inside the 12 month window.

## Generating Scheduled Meeting Reports

You can generate a report about specific scheduled meetings or activity between specific dates by supplying any or all of the following details:

- 
- Step 1** Enter the endpoint name in the **Name** field.
  - Step 2** Enter the user name of the meeting organizer in the **Organizer** field.
  - Step 3** From the **Status** drop-down list, choose the All, Needs Help, With Error, In Progress, Scheduled, Completed, No Show, Not TelePresence meeting status.
- 
- 

**Note**

A meeting is in the Needs Help state if the Live Desk soft key on the endpoint phone/display device has been selected.
- 
- Step 4** Use the Calendar icon to choose beginning and ending dates, or enter the dates in the Start On and End On fields using the MM/DD/YYYY date format.
  - Step 5** Enter the name of the bridge or server.
  - Step 6** Click **Filter**.
-

Table 13-2 describes the Scheduled Meetings information.

**Table 13-2**      *Scheduled Meetings Information*

Field or Button	Description or Setting
Start Time	The scheduled starting time for a meeting. Click the arrow in the header of the Start Time column to sort the time from earliest to latest or latest to earliest.
End Time	The scheduled ending time for a meeting.
Status	<p>Meeting status: All, With Error, In Progress, Scheduled, Completed, or No Show (displayed when moving your mouse pointer over the displayed icon).</p> <p><b>Note</b> A meeting that has been started, is shown as In Progress. When a TelePresence meeting is ended, the meeting is shown as Completed. A meeting can be started multiple times before its scheduled end time.</p> <p><b>Note</b> Meetings scheduled using a TelePresence Server only display the status of Scheduled. To determine if the meeting is In Progress or Completed, you must access the TelePresence server.</p> <p><b>Note</b> In-progress point-to-point meetings between two EX or C series endpoints show as Scheduled until they are completed. If meeting includes a CTS, it will show as In Progress.</p>
Subject	<p>Information (such as the meeting subject) provided by the meeting organizer about the meeting.</p> <p><b>Note</b> If the meeting organizer did not create a subject for the meeting, “No Subject” is displayed in this window and a dash (-) is displayed on the endpoint phone/display device.</p>
Organizer	Login name of the person who scheduled the meeting. Click the arrow in the header of the Organizer column to sort the list in ascending or descending alphabetical order.
Endpoint	Endpoint (room) name as specified in the Microsoft Exchange or IBM Domino database.
Scheduling Device	Multipoint scheduling device used for meeting (if multipoint meeting).
Details	Click this button to view detailed information about a selected meeting. See <a href="#">Meeting Details, page 13-8</a> for more information.

**Table 13-2**      *Scheduled Meetings Information (continued)*

Field or Button	Description or Setting
Export	<p>Click this button to export your meeting data in tab-separated value (.tsv) format.</p> <p>Information includes:</p> <ul style="list-style-type: none"> <li>• Meeting type (single or recurring)</li> <li>• Status</li> <li>• Endpoint</li> <li>• Organizer</li> <li>• Subject</li> <li>• MCU</li> <li>• Features enabled/disabled: <ul style="list-style-type: none"> <li>– Video Conferencing</li> <li>– Intercompany</li> <li>– Recording</li> <li>– WebEx</li> <li>– Number to Dial</li> </ul> </li> </ul> <p>Meeting Subject on Phone</p>
Open Collaboration Manager	<p>Click this button to open Cisco Prime Collaboration Manager (CM) for a selected meeting. Cisco Prime CM is a web-based user application for managing and troubleshooting end-to-end video collaboration, over a borderless network. It provides a real-time unified view of all Cisco TelePresence sessions that are in progress.</p> <p>The Collaboration Manager button does not appear unless it is configured in CTS-Manager.</p> <p>To configure Collaboration Manager, go to Configure &gt; Bridges and Servers.</p>

**Note**

If a meeting does not appear in the list Scheduled Meetings and it is a recurring meeting, check the starting date of the first occurrence of the meeting. If the meeting was scheduled to begin more than two years in the past, reschedule future occurrences.

## Exporting Scheduled Meeting Data

You can use the **Export Data** button to export your scheduled meeting data to a tab-separated values (.tsv) file. The meeting data exported includes the meetings appearing in the Scheduled Meetings window.

Use the filter to display only the scheduled meetings you want to export. You can export as many as 500 meetings. The exported data file is a tab-delimited text file.

Figure 13-2 Viewing Exported Scheduled Meeting Data

	A	B	C	D	E	F	G	
1	Start Time [Start on: 2/10/2009]	End Time [End on: 02/13/2009]	Instance Type	Status [Matches: All]	Room [Matches: All]	Scheduler [Matches: All]	Subject	MCU [P All]
2	2/10/2009 10:00	2/10/2009 10:30	Recurring Meeting (Instance)	No Show	TelepresenceRoom31    TelepresenceRoom32    TelepresenceRoom33	chen@example.com	3 days no end	
3	2/10/2009 11:00	2/10/2009 11:30	Single	Scheduled	TelepresenceRoom32    TelepresenceRoom31	superuser@example.com	Testing again	
4	2/10/2009 15:00	2/10/2009 15:30	Recurring Meeting (Instance)	Scheduled	TelepresenceRoom32    TelepresenceRoom31	shrivastav@example.com	more than 800 occurrences	
5	2/11/2009 15:00	2/11/2009 15:30	Recurring Meeting (Instance)	Scheduled	TelepresenceRoom31    TelepresenceRoom32	shrivastav@example.com	more than 800 occurrences	
6	2/12/2009 11:30	2/12/2009 12:00	Recurring Meeting (Instance)	Scheduled	TelepresenceRoom31    TelepresenceRoom32	Motwani@example.com	Test 1	
7	2/12/2009 15:00	2/12/2009 15:30	Recurring Meeting (Instance)	Scheduled	TelepresenceRoom32    TelepresenceRoom31	shrivastav@example.com	more than 800 occurrences	
8	2/12/2009 17:00	2/12/2009 17:30	Recurring Meeting (Instance)	With Error	TelepresenceRoom31    TelepresenceRoom33    TelepresenceRoom32	Motwani@example.com	Recording test - 3 rooms recurring	
9	2/12/2009 20:00	2/12/2009 20:10	Recurring Meeting (Instance)	With Error	TelepresenceRoom31    TelepresenceRoom32	Halim@example.com	Test 32 - Recurring weekly no end date with 2 rooms	
10	2/13/2009 10:00	2/13/2009 10:30	Recurring Meeting (Instance)	With Error	TelepresenceRoom31    TelepresenceRoom33    TelepresenceRoom32	chen@example.com	3 days no end	
11	2/13/2009 14:32	2/13/2009 14:49	Recurring Meeting (Instance)	Scheduled	TelepresenceRoom33    TelepresenceRoom32	chen@example.com	daily no end	
12	2/13/2009 15:00	2/13/2009 15:30	Recurring Meeting (Instance)	Scheduled	TelepresenceRoom32    TelepresenceRoom31	shrivastav@example.com	more than 800 occurrences	
13								
14	Report generated at: Tuesday, February 10, 2009 11:01 AM (America/Los_Angeles)							

## Meeting Details

The meeting details window provides detailed information about a specific meeting and allows the administrator to make changes to the meeting's settings and correct possible errors.

To access the meeting details window:

**Step 1** Click the radio button next to the scheduled meeting to select it.

**Step 2** Click **Details**.

The meeting details window appears displaying summary information for the selected meeting.



**Tip**

You can also click the meeting subject to open the meeting details window.

The Meeting Details window is divided into the following tabs:

- [Summary](#)
- [Conference Bridges](#)
- [Intercompany](#)
- [WebEx](#)
- [Usage Survey](#)
- [Meeting Options](#)

## Summary

The Summary tab provides basic information about the meeting.

**Table 13-3 Meeting Details Summary Window**

Field or Section Name	Description
Subject	The person scheduling the meeting enters the information in the Subject field.
Organizer	This field displays the name and email address of the person scheduling the meeting.
Time	Displays the date, time and duration of the meeting.
Endpoints	Lists the endpoints that are participating in the meeting.
Notification Email	If the system is set up for email notification, clicking the Send Email button sends a meeting confirmation email to the meeting organizer.
WebEx	Displays the WebEx information (if used) for the meeting.
Intercompany	Displays the Intercompany information for the meeting.
Video Conferencing Interop	Displays the video conferencing interoperability information for the meeting.
Record Meeting	Displays the video recording information for the meeting (if a single-endpoint meeting).
Hide Meeting Subject	Displays whether the meeting subject will be displayed on the TelePresence phone or not.
Not a TelePresence Meeting	Indicates if the meeting is not a TelePresence meeting.

## Conference Bridges

The bridges and servers tab appears if the meeting is a multipoint meeting (three or more endpoints are scheduled). This window displays how many segments are reserved for the meeting and allows the administrator to change the multipoint meeting switch and the Cisco Media Experience Engine (MXE) assigned to the meeting, if Interoperability with Video Conferencing is enabled.



### Note

If an MXE video conference (VC) endpoint is added to a meeting with one CTS endpoint, it becomes a multipoint meeting, even though there are only two endpoints. 1 CTS and 1 MXE VC endpoint = multipoint meeting pushed to CTMS

**Table 13-4 Bridges and Servers Window**

Field or Section Name	Description
Multipoint Call-In Number	The call-in number for TelePresence endpoints to attend the meeting.
Meeting Number	The unique ID number generated by CTS-Manager to identify the scheduled meeting.
Multipoint Meeting Switch	The Cisco TelePresence Multipoint Switch (CTMS) used for the meeting. You have the option to scheduling device (CTMS or TS). Note: If you change from a CTMS to TS and your meeting has the following features: Studio Mode Recording, WebEx, Intercompany or Extend Multipoint Meetings, those features will be removed, because TS is not compatible with them.
Bridge Call-In Number	The call-in number for video conferencing endpoints to attend the meeting. <b>Note</b> Video conferencing is not permitted when Intercompany is in use or if Studio Mode Recording is enabled.
MXE Associated	The MXE used for the meeting (if applicable). <b>Note</b> If Interoperability with Video Conferencing is enabled, multipoint meetings require a CTMS and an MXE in a scheduled state.

## Intercompany

The Intercompany window provides the ability to schedule TelePresence meetings with other companies.

To enable this feature, click **Yes** and then click **Apply**.

**Table 13-5 Meeting Details Intercompany Window**

Field or Section Name	Description
Does this meeting include TelePresence endpoints from another company?	Select Yes to enable Intercompany TelePresence for the meeting. <b>Note</b> Additional fields appear when Intercompany is enabled.
Which company will host the TelePresence multipoint bridge?	Select Our Company if your company will be hosting. Select Another Company if another company will be hosting. <b>Note</b> Selecting this option will reveal additional fields.
Enter the sum of TelePresence resources required by all other companies participating in this meeting. (This field appears only if Our Company is selected.)	If your company is hosting, you must get the total number of resources required from all other companies participating and enter the number in this field. The sum of the resources needed can be determined by adding the values below for each CTS endpoint participating in the meeting:  CTS-500 = 1 resource CTS-1000 = 1 resource CTS-1100 = 1 resource CTS-1300 = 1 resource CTS-3000 = 3 resources CTS-3200 = 3 resources
Enter the following information provided by the meeting host when Another Company is hosting	

**Table 13-5** Meeting Details Intercompany Window

Field or Section Name	Description
Intercompany Call-In Number	This is the phone number your Cisco TelePresence endpoint phone/display device will call to join the meeting. This number is provided by the meeting Host's CTMS or your Service Provider's CTMS.
Intercompany Meeting Number	This number is generated by the host's CTMS or your service Provider's CTMS
The host needs to know that your endpoints require Telepresence Resources.	If another company is hosting an Intercompany Cisco TelePresence meeting, the number of resources required for your endpoints to participate is listed. Provide this number to the host at the other company.

## WebEx

The WebEx window displays WebEx information for the meeting and provides the ability to enable or disable WebEx for the meeting.



### Note

If the meeting organizer's WebEx username is not registered with CTS-Manager, WebEx cannot be enabled for the meeting.

### Allow WebEx users to participate in this meeting

Selecting **Yes** enables WebEx for this meeting. Selecting **No** disables Webex for this meeting.

### WebEx Call-In Information

This section displays the WebEx information necessary for both the host and participants to join the meeting

**Table 13-6** Meeting Details WebEx Window

Field or Section Name	Description
Call-in Toll Free Number	Toll free number for WebEx participants.
Call-In Toll Number	Toll number for WebEx participants.
WebEx Meeting Host Key	Code for host to regain control of the meeting from an attendee.
WebEx Meeting ID	The unique ID number generated by WebEx to identify the scheduled meeting.
Meeting Password	Password for WebEx participants.
URL	URL for WebEx meeting.

## Usage Survey

The Usage Survey window displays the survey, as set up by the administrator in the Configure > Application Settings > Usage Survey window.

**Note**

This tab is not available if the Metrics Dashboard and Reporting API license has not been uploaded in the Configure > Licenses > License Files window.

## Meeting Options

The meeting options window allows the meeting organizer to adjust other options for their meeting.

**Note**

Meeting options are different for Intercompany Meeting. See the [Intercompany, page 13-10](#) sections, for more information.

**Mark this meeting as private:** Allows you to show or hide the TelePresence meeting subject on the phone of the TelePresence endpoint.

**Provide a call-in number for other participants?:** Allows you to provide a call-in number for TelePresence endpoints that were not originally invited to the meeting to be able dial in to the meeting.

The following two options are available only for a meeting scheduled with one endpoint (room):

**Is TelePresence Needed For This Meeting?:** Allows you to enable or disable TelePresence for the meeting.

**Is this meeting intended for recording a video to be distributed later?:** Allows you to record the meeting for distribution later.

When you are finished making changes in the Meeting Options window, click **Apply** to save your changes.

## Status Dashboard

The Monitor > Status Dashboard window displays a concise list of system activity, including a snapshot of scheduled meetings for the day and the status of system services. This is a good place to monitor meetings and equipment. Click highlighted links in this window for quick access to other windows that provide meeting and endpoint-scheduling functions.


To update the Status Dashboard, click the **Force refresh** icon. 



Figure 13-3 Monitor &gt; Status Dashboard



Table 13-7 Status Dashboard Fields and Descriptions

Field	Description or Setting
Today's Meetings	<p>Status of current and upcoming meetings:</p> <ul style="list-style-type: none"> <li>With Error—Displays the number of meetings that have errors.</li> <li>All Meetings—All meetings scheduled for today.</li> </ul> <p>Click the link associated with each meeting or device's information to go to the Meetings window.</p>

**Table 13-7**      **Status Dashboard Fields and Descriptions (continued)**

Field	Description or Setting
Devices	<p>Status information for the following devices:</p> <ul style="list-style-type: none"> <li>• Bridges and Servers—Clicking the link displays the summary information in the Support &gt; Bridges and Servers window and filters the list to those bridges and servers with an error status.</li> <li>• Application Servers—Clicking the link displays the summary information in the Cluster Management &gt; Application Servers window. (Only appears if CTS-Manager is part of a cluster).</li> </ul> <p>Clustering Support Discontinued.</p> <p>Cisco no longer provides support for the clustering feature originally introduced in release 1.8. For questions, contact Ron Lewis: <a href="mailto:ronlewis@cisco.com">ronlewis@cisco.com</a>.</p> <ul style="list-style-type: none"> <li>• Database Servers—Clicking the link displays the summary information in the Cluster Management &gt; Database Servers window. (Only appears if CTS-Manager is part of a cluster).</li> </ul> <p>Clustering Support Discontinued.</p> <p>Cisco no longer provides support for the clustering feature originally introduced in release 1.8. For questions, contact Ron Lewis: <a href="mailto:ronlewis@cisco.com">ronlewis@cisco.com</a>.</p> <ul style="list-style-type: none"> <li>• TelePresence Endpoints—Clicking the link displays the status information in the Support &gt; Endpoints window.</li> <li>• VC Endpoints—Clicking the link displays the status information for VC endpoints in the Support &gt; Endpoints window.</li> <li>• Unified CM—Clicking the link displays the information in the Support &gt; Unified CM window.</li> </ul>
Indicators	<p>Status Indicators for:</p> <ul style="list-style-type: none"> <li>• Database Backup</li> <li>• Current Database Size</li> <li>• Mailbox is</li> <li>• Endpoint Mailbox Sync</li> </ul>
Time	<p>Status of the following times:</p> <ul style="list-style-type: none"> <li>• System Time—Day, date, and time in coordinated universal time (UTC, formerly known as Greenwich mean time or GMT).</li> <li>• My Time—Local day, date, and time.</li> </ul>

**Table 13-7**      *Status Dashboard Fields and Descriptions (continued)*

Field	Description or Setting
Services	<p>Status information for the following system services:</p> <ul style="list-style-type: none"> <li>• Calendar Service</li> <li>• WebEx (if enabled)</li> <li>• LDAP Server</li> <li>• Endpoint Control</li> <li>• Database</li> <li>• Multipoint Conference</li> <li>• Unified CM</li> </ul> <p>Status is either <b>OK</b> or is a highlighted link listing the number of errors. You can click a link to see further system log status information and troubleshoot problems. You can also roll your mouse over a highlighted link to see a brief description of the error.</p>
Uptime	<p>Status information about the elapsed running time since the last restart.</p> <ul style="list-style-type: none"> <li>• Services—Services displayed in the Services section.</li> <li>• TelePresence Engine—Cisco TelePresence database engine.</li> <li>• System Platform—Hardware host for CTS-Manager.</li> </ul>

## Metrics Dashboard

The Monitor > Metrics Dashboard window displays system-wide information about how TelePresence endpoints are used and the associated benefits of their usage.



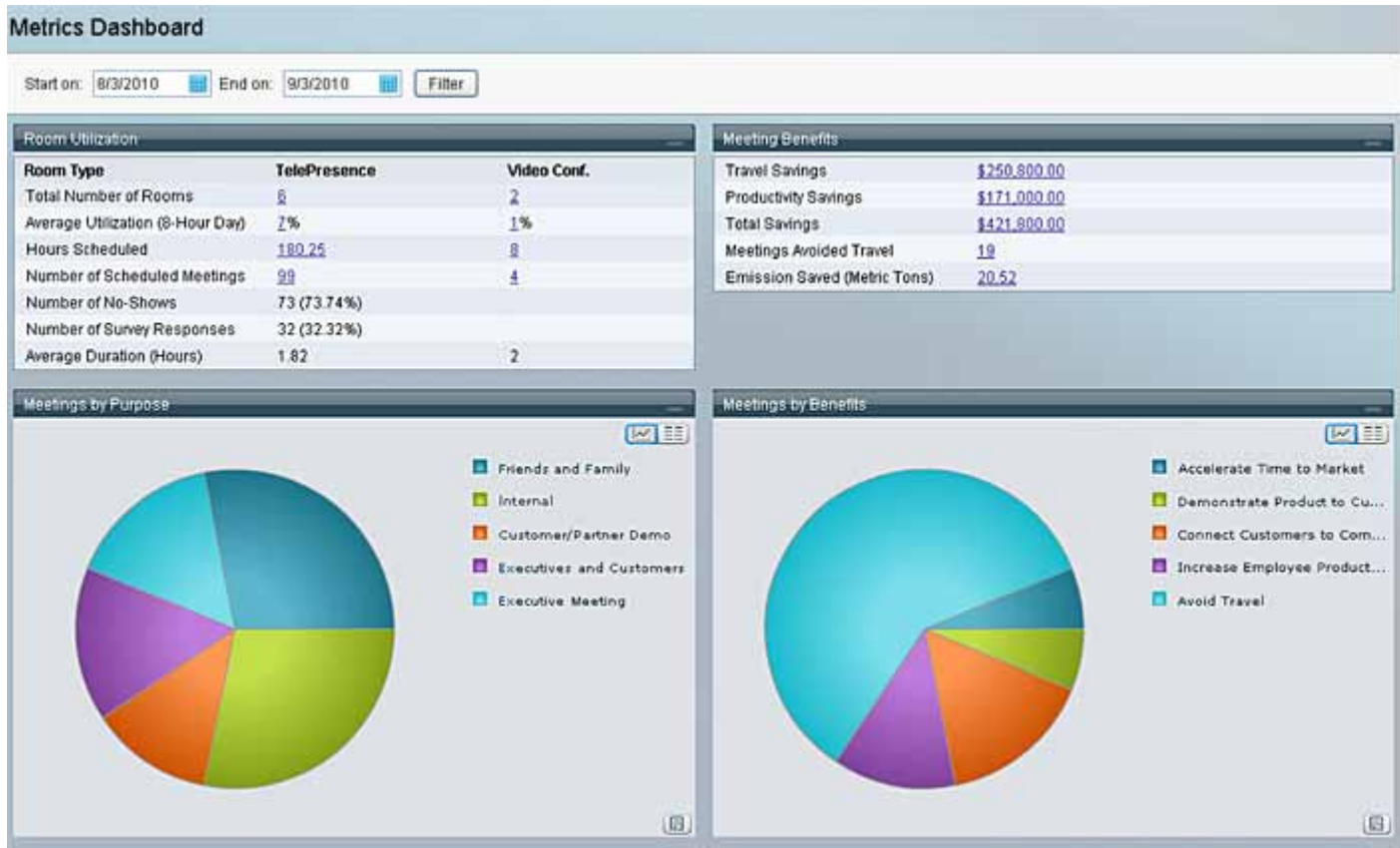
### Caution

Changing parameters in the Meeting Benefit Report Parameters of the Configure > Application Settings Usage Survey window changes the Metric Dashboard data retroactively.

To view information for a specific range of time:

- Select dates for Start on and End on and click **Filter**.

Figure 13-4 Monitor &gt; Metrics Dashboard

**Note**

You can enter a date or click the calendar icon to select a date from the calendar.

Except for the Endpoint Utilization and Meeting Benefits information, the information in this window can be viewed in a graphical format. You can view the information either as a chart or a list (grid).

To view information as a chart, click the **View as Chart** button. This is the default view.



View as Chart

**Note**

When viewing information in a pie chart, roll your mouse over the different colored areas to see the exact percentage for each area and the number of survey respondents that provided that answer. When viewing information in a line chart, roll your mouse over different points on the line to see the exact numbers for specific dates.

To view the information as a list, click the **View as Grid** button.



View as Grid

To open a chart as an image in a new window, click the **Show as Image** button.



Show as Image

The following information is available in the Metrics Dashboard:

- [Endpoint Utilization, page 13-17](#)
- [Meeting Benefits, page 13-18](#)

- [Meetings by Purpose, page 13-19](#)
- [Meetings by Benefits, page 13-19](#)
- [Scheduled Meetings, page 13-19](#)
- [Ad Hoc Meetings, page 13-19](#)
- [Meetings Avoided Travel, page 13-19](#)
- [Travel Savings, page 13-19](#)
- [Emissions Savings, page 13-20](#)
- [Productivity Savings, page 13-20](#)
- [Endpoints Added, page 13-20](#)

**Note**

This window is only displayed if the Metrics Dashboard and Reporting API license has been uploaded in the Configure > Licenses > License Files window and Enable Meeting Organizer Usage Survey and Benefits Report is enabled in the Configure > Application Settings > Usage Survey window.

## Endpoint Utilization

The Endpoint Utilization information helps you understand how TelePresence and video conferencing endpoints are used.

This information is calculated using the Meeting Benefit Report Parameters entered in the Configure > Application Settings > Usage Survey window.

**Table 13-8 Endpoint Utilization Description**

Endpoint Type	TelePresence / Video Conferencing
Total Number of Endpoints	Total number of TelePresence and video conferencing endpoints which are currently configured in CTS-Manager.
Average Utilization	Average percentage of TelePresence and video conferencing endpoints utilization based on the work hours per day and work days per week configured in the Configure > Application Settings > <a href="#">Usage Survey</a> window.
Hours Scheduled	Total number of hours that TelePresence and video conferencing endpoints were scheduled as computed by CTS-Manager based on the number of meetings scheduled.
Number of Scheduled Meetings	Total number of scheduled TelePresence and video conferencing meetings as computed by CTS-Manager based on the number of scheduled meetings the within selected timeframe.
Number of No-Shows	Total number of scheduled meetings that never took place
Number of Survey Responses	Total number and percentage of survey responses for TelePresence meetings
Average Duration (Hours)	Average duration of TelePresence meetings in hours

**Note**

This window is only displayed if the Metrics Dashboard and Reporting API license has been uploaded in the Configure > Licenses > License Files window and Enable Meeting Organizer Usage Survey and Benefits Report is enabled in the Configure > Application Settings > Usage Survey window.

## Meeting Benefits

The Meeting Benefits information helps you understand how TelePresence meetings benefit your organization in terms of cost and productivity savings, as well as reduced environmental impact.

This information is calculated using the Meeting Benefit Report Parameters entered in the Configure > Application Settings > [Usage Survey](#) window.

**Table 13-9 Meeting Benefits Description**

Benefit	Value
Travel Savings	Total amount of money saved by using TelePresence instead of traveling as configured in the cost per trip and trips eliminated per meeting parameters in the Configure > Application Settings > <a href="#">Usage Survey</a> window if the meeting organizer selects Avoid Travel as the response for required Benefit question in the usage survey. The meeting organizer must choose the Avoid Travel answer for the meeting to be counted as saving travel.
Productivity Savings	Total amount of money (in USD) saved through increased productivity when people avoid travel by using TelePresence based on the travel hours per trip, employee hourly cost, number of people who avoid travel per meeting and the number of meetings that avoided travel per the meeting, configured in the Configure > Application Settings > <a href="#">Usage Survey</a> window. The meeting organizer must choose the Avoid Travel answer to the Benefit question for the meeting to be counted as saving travel, increasing productivity and saving emissions.
Total Savings	Total amount of money (in USD) saved by using TelePresence. This is the sum of travel savings and productivity savings.
Meetings Avoided Travel	Total number of meetings that replaced business trips, based on the number of meeting organizers who selected Avoid Travel for the Benefit question.
Emissions Saved (Metric Tons)	Total number of carbon emissions saved by using TelePresence, based on the carbon emissions per trip, the trips eliminated per meeting, as configured in the Configure > Application Settings > <a href="#">Usage Survey</a> window, the number of people who avoided travel per meeting, and the number of meetings which avoided travel. The meeting organizer must choose the Avoid Travel answer to the Benefit question for the meeting to be counted as saving emissions.

## Meetings by Purpose

The Meetings by Purpose information shows the percentage of survey respondents for all meetings that chose each purpose as the purpose for their meeting. This information is gathered from the meeting purpose question in the usage survey for each meeting and is displayed in a pie chart by default. In grid view, the number displayed in each row of the Value column corresponds to the number of survey respondents that provided that answer.

## Meetings by Benefits

The Meetings by Benefits information shows the percentage of survey respondents for all meeting that chose each benefit as the benefit for their meeting. This information is gathered from the meeting benefit question in the usage survey for each meeting and is displayed in a pie chart by default. In grid view, the number displayed in each row of the Value column corresponds to the number of survey respondents that provided that answer.

## Scheduled Meetings

The Scheduled Meetings information shows the number of daily scheduled meetings over time. The information is displayed in a line chart by default. You can view the information for the Past Week, Past Month and Past Quarter by clicking the appropriate link at the top of the chart. In grid view, the number displayed in each row of the Scheduled Meetings column corresponds to the number of scheduled meetings for that date.

## Ad Hoc Meetings

The Ad Hoc Meetings information shows the number of daily ad hoc meetings over time. The information is displayed in a line chart by default. You can view the information for the Past Week, Past Month and Past Quarter by clicking the appropriate link at the top of the chart. In grid view, the number displayed in each row of the Ad Hoc Meetings column corresponds to the number of Ad Hoc meetings for that date.

## Meetings Avoided Travel

The Meetings Avoided Travel information shows the number of meetings over time that replaced business trips. The information is displayed in a line chart by default. You can view the information for the Past Week, Past Month and Past Quarter by clicking the appropriate link at the top of the chart. In grid view, the number displayed in each row of the Meetings Avoided Travel column corresponds to the number of meetings that replaced business trips for that date.

## Travel Savings

The Travel Savings information shows the amount of money (in USD) saved by using TelePresence instead of traveling. The information is displayed in a line chart by default. You can view the information for the Past Week, Past Month and Past Quarter by clicking the appropriate link at the top of the chart. In grid view, the number displayed in each row of the Travel Savings column corresponds to the amount of money (in USD) saved by using TelePresence instead of traveling on that date.

## Emissions Savings

The Emissions Savings information shows the carbon emissions saved (in Metric Tons) by using TelePresence instead of traveling. The information is displayed in a line chart by default. You can view the information for the Past Week, Past Month and Past Quarter by clicking the appropriate link at the top of the chart. In grid view, the number displayed in each row of the Emissions Savings column corresponds to the amount of carbon emissions (in Metric Tons) saved by using TelePresence instead of traveling on that date.

## Productivity Savings

The Productivity Savings information shows the amount of money (in USD) saved through increased productivity by using TelePresence. The information is displayed in a line chart by default. You can view the information for the Past Week, Past Month and Past Quarter by clicking the appropriate link at the top of the chart. In grid view, the number displayed in each row of the Productivity Savings column corresponds to the amount of money (in USD) saved in increased productivity by using TelePresence on that date.

## Endpoints Added

The Endpoints Added information shows the number of endpoints added over time. The information is displayed in a line chart by default. You can view the information for the Past Week, Past Month and Past Quarter by clicking the appropriate link at the top of the chart. In grid view, the number displayed in each row of the Endpoints Added column corresponds to the number of endpoints added on that date.

## TelePresence Utilization

The Monitor > TelePresence Utilization window displays information about how each TelePresence endpoint is currently used. You can export all TelePresence utilization data to a Tab-separated values (.tsv) file, by clicking **Export**.

**Table 13-10** TelePresence Utilization Description

Endpoint Name	Name of TelePresence endpoint.  <b>Note</b> An individual endpoint will appear twice in the following situation: The endpoint is initially discovered by CTS-Manager and is scheduled for meetings. Later, its Unified CM profile is changed and it is rediscovered by CTS-Manager.
Utilization	Percentage of the time during an 8-hour day that the TelePresence endpoint is being used.
Hours Scheduled	Number of hours TelePresence endpoint is currently scheduled
Number of Meetings	Total number of meetings using the TelePresence endpoint

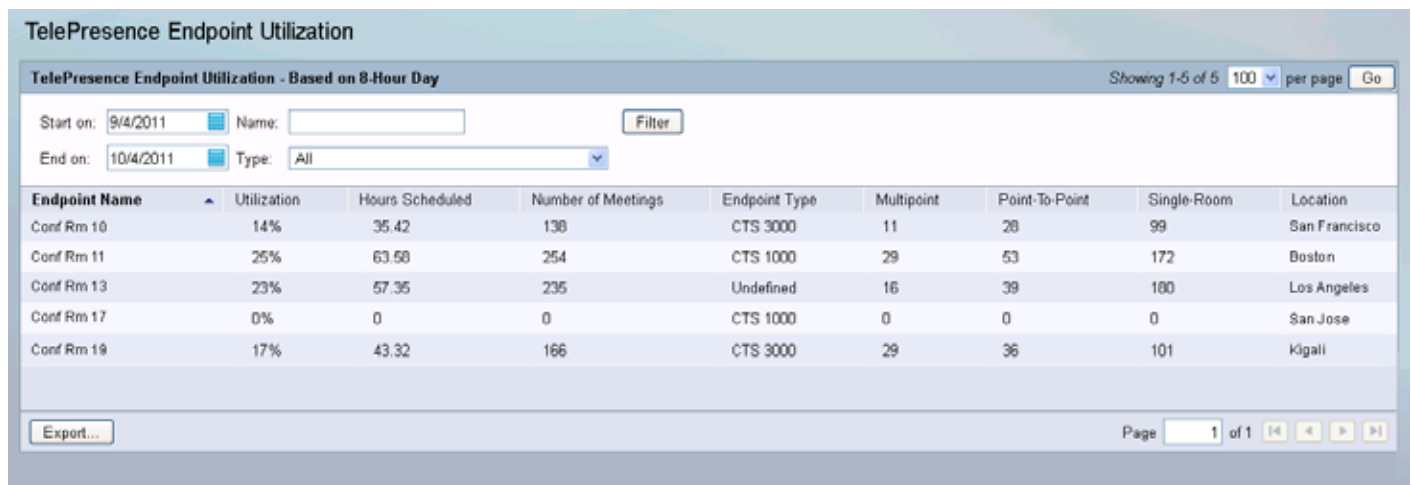


**Table 13-10** *TelePresence Utilization Description (continued)*

Endpoint Type	<p>Type of TelePresence system</p> <p><b>Note</b> CTS submodel type is not displayed. Example: CTS1300-65 is displayed as CTS1300.</p> <p><b>Note</b> When CTS configurations in Unified CM are changed, CTS-Manager rediscovers the devices and creates new endpoint entries. It marks any previous entries not rediscovered as deleted and removes their Telepresence equipment information. Because the TelePresence Utilization report shows historical utilization data for each endpoint, CTS Type information for old endpoints is displayed as 'Undefined'.</p>
Multipoint	If the meeting is a multipoint meeting or not
Point-to-Point	If the meeting is an point-to-point meeting or not
Single-Room	If the meeting is a single-endpoint meeting
Location	Location of TelePresence endpoint
Country	<p>Country where TelePresence endpoint is located</p> <p><b>Note</b> Country information is not available for meetings scheduled with Lotus Notes.</p>

**Note**

This window is only available if the Metrics Dashboard and Reporting API license has been uploaded in the Configure > Licenses > License Files window and Enable Meeting Organizer Usage Survey and Benefits Report is enabled in the Configure > Application Settings > Usage Survey window.

**Figure 13-5** *Monitor > TelePresence Utilization*

# Meeting Benefits

The Monitor > Meeting Benefits window displays information about the benefits for all TelePresence meetings. From this window you can modify the benchmark parameters used to generate this information, based on your company's approved benchmarks, by clicking Modify Parameters. You can also export all meeting benefits data to a Tab-separated values (.tsv) file, by clicking Export.

**Table 13-11 Meeting Benefits Description**

Benefit	Value
Travel Savings	Total amount of money saved by using TelePresence instead of traveling
Productivity Savings	Total amount of money (in USD) saved through increased productivity by using TelePresence.
Total Savings	Total amount of money (in USD) saved by using TelePresence.
Meetings Avoided Travel	Total number of meetings that replaced business trips
Emissions Saved (Metric Tons)	Total number of carbon emissions saved by using TelePresence



## Note

This window will only be displayed if the Metrics Dashboard and Reporting API license has been uploaded in the Configure > Licenses > License Files window and Enable Meeting Organizer Usage Survey and Benefits Report is enabled in the Configure > Application Settings > Usage Survey window.

**Figure 13-6 Monitor > Meeting Benefits**



## VC Utilization

The VC Utilization window displays information about how each video conferencing endpoint is currently used. You can export all video conferencing utilization data to a Tab-separated values (.tsv) file, by clicking **Export**.

**Table 13-12** VC Utilization Description

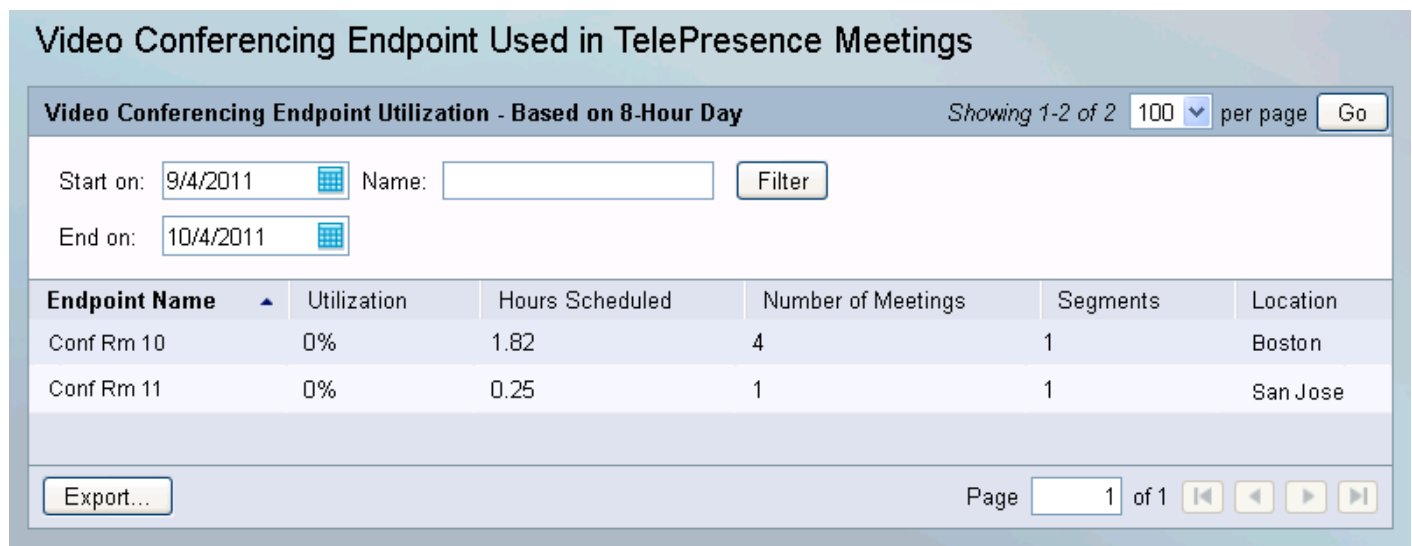
Endpoint Name	Name of video conferencing endpoint
Utilization	Percentage of the time during an 8-hour day that the video conferencing endpoint is being used
Hours Scheduled	Number of hours video conferencing endpoint is currently scheduled
Number of Meetings	Total number of meetings in the video conferencing endpoint
Segments	Number of segments of the video conferencing endpoint
Location	Location of video conferencing endpoint
Country	Country where video conferencing endpoint is located. <b>Note</b> Country information is not available for meetings scheduled with Lotus Notes.



**Note**

This window will only be displayed if Interoperability with Video Conferencing is enabled in the Configure > Application Settings > Bridges and Servers window and there are video conferencing endpoints added to CTS-Manager in the Configure > Endpoints window.

**Figure 13-7** Monitor > VC Utilization



# Users

The Monitor > Users window displays information about Cisco TelePresence Manager users. It is divided into two tabs:

- Current Logins
- Meeting Organizers

## Current Logins

Choose Support > Monitor > Current Logins to view information about who is currently logged into CTS-Manager, what their system role is and their IP address. You can filter this window to display information about the following users:

- All (all system roles)
- Administrator
- Meeting Organizer
- Live Desk
- SysAdmin

To further filter this list, you can enter a specific User ID. Once you've selected your filtering criteria, click **Filter**.



### Note

If a user closes their browser window without logging out of CTS-Manager first, they will remain logged in for 15 minutes until CTS-Manager detects their lack of activity and expires their session. Cisco recommends that users log out explicitly instead of closing their CTS-Manager browser window.

**Table 13-13**     *Current Logins Description*

Field	Description
Login Time(+)	Date and time user logged in.
User ID	User's CTS-Manager User ID.
Role	User's CTS-Manager role.
IP Address	IP address of where the user logged in.
Delegates	Other users to which the meeting organizer has given permission to manage their meetings.

Figure 13-8 Monitor &gt; Users &gt; Current Logins

The screenshot shows the 'Users' section of the Cisco TelePresence Manager interface. It has two tabs: 'Current Logins' (active) and 'Meeting Organizers'. Below the tabs, the title is 'Users Currently Logged onto Cisco TelePresence System Manager'. To the right of the title, it says 'Showing 1-1 of 1' and '100 per page' with a 'Go' button. Below this, there are filters for 'Role' (set to 'All') and 'User ID' (empty), with a 'Filter' button. A table displays the login information for one user: 'admin' with role 'SysAdmin' and IP address '128.107.141.115', logged in at '10/04/2011 01:01 PM'. At the bottom left is an 'Export...' button, and at the bottom right is a pagination control showing 'Page 1 of 1' with navigation arrows.

Login Time (+)	User ID	Role	IP Address	Delegates
10/04/2011 01:01 PM	admin	SysAdmin	128.107.141.115	

## Meeting Organizers

The Monitor > Users > Meeting Organizers window displays the meeting organizers of currently scheduled meetings.

This information can be exported to create lists of organizers, and additional information about them and the number of meetings that they set up.

**Table 13-14 Meeting Organizers Description**

Field	Description
Name	Name of meeting organizer.
Email	Email address of meeting organizer.
Delegates	Other users to which the meeting organizer has given permission to manage their meetings.
Number of Meetings	Number of meetings that meeting organizer has scheduled.
Title	Meeting organizer's job title.
Organization	Organization of meeting organizer.
Location	Location of meeting organizer.
Country	Country of meeting organizer.

**Note**

This window is only displayed if the Metrics Dashboard and Reporting API license has been uploaded in the **Configure > Licenses > License Files** window and **Enable Meeting Organizer Usage Survey and Benefits Report** is enabled in the **Configure > Application Settings > Usage Survey** window.

**Figure 13-9** *Monitor > Users > Meeting Organizers*

**Users**

Current Logins **Meeting Organizers**

Meeting Organizers Showing 1-2 of 2 100 per page Go

Start on: 9/4/2011 [calendar icon] Name: [text box] Organization: [text box] Filter

End on: 10/4/2011 [calendar icon] Country: [text box]

Name	Email	Delegates	Number of Meetings	Title	Organization	Location	Country
John Smith	jsmith@example.com	kjohnson	205	Product Manager	Marketing	San Jose	Costa Rica
Kent Johnson	kjohnson@example.com	jsmith	466	Engineer	Engineering	Milpitas	USA

Export...

Page 1 of 1 [navigation icons]

## Endpoints

The **Support > Endpoints** window displays information about endpoints. This window is divided into three, tabbed views.

- The **Summary** view displays the status of all Cisco TelePresence endpoints registered with Cisco TelePresence Manager, as well as Cisco Unified CM, Microsoft Exchange or IBM Domino. [Table 13-15 on page 13-27](#) describes information in this window.
- The **Capability** view displays the availability of certain Cisco TelePresence features. [Table 13-16](#) describes information in this window.

### Generating Endpoint Reports

You can generate a report about specific meeting endpoints and meeting status, as follows:

- Step 1** Choose the status—All, OK, Error, Needs Help, or In Use—from the **Status** drop-down list.

**Note**

An endpoint is in the Needs Help state if the Live Desk soft key on the endpoint phone/display device has been selected.

- Step 2** Enter the endpoint name in the **Name** field.

**Step 3 Click Filter.****Note**

A maximum of 100 endpoints are displayed per page. If you have more than 100 endpoints registered with Cisco TelePresence Manager you can click the **Next** button to display the additional endpoints.

**Figure 13-10 Support > Endpoints > Summary**

**Endpoints**

**Summary** **Capability**

**Endpoint Status** Showing 1-6 of 6 100 per page Go

Status: All Type: All Name: Filter

	Status	Name	Type	Phone	Live Desk	Time Zone	Description	IP
<input type="radio"/>	✓	Conf Rm 10	CTS 3000	40071	Not Available	America/Los_Angeles	1st floor	
<input type="radio"/>	✗	Conf Rm 11	CTS 1000	40076	40075	America/Los_Angeles	2nd floor	
<input type="radio"/>	✗	Conf Rm 12	CTS 1000	40078	Not Available	America/Los_Angeles	3rd floor	
<input type="radio"/>	✗	Conf Rm 13	CTS 3000	40072	Not Available	America/Los_Angeles	4th floor	
<input type="radio"/>	✓	Conf Rm 14	GenericVCEndPoint1	5528	Not Available			
<input type="radio"/>	✓	Conf Rm 18	GenericVCEndPoint1	5529	Not Available			

Details... Update Schedule View Meetings Export... Page 1 of 1

**Table 13-15 Endpoints Summary**

Field	Description or Setting
Status	Endpoint status: All, OK, Error, Needs Help, or In Use
Name	Name of the endpoint
Type	Type and model of endpoint
Phone	Endpoint phone number
Live Desk	Live Desk who is assigned to the endpoint as the help contact
Time Zone	Displays the Time Zone location of the TelePresence endpoint
Description	Endpoint description. If text is truncated in this field, move your mouse pointer over the text to see the entire description
IP Address	IP address of the endpoint. Click the address to go to the endpoint administration login page
Unified CM	IP address of Cisco Unified CM
Assigned Server	Server managing the endpoint

**Table 13-15**      *Endpoints Summary (continued)*

Field	Description or Setting
Licensed	Green checkmark indicates the endpoint is licensed. Red X indicates it is not licensed
<b>Connectivity with</b>	
Unified CM	Status of connectivity between endpoint and Unified CM. A check indicates connectivity is supported. An “X” indicates a problem with the connection between Unified CM and the Cisco TelePresence endpoint.
CTS Manager	A check indicates connectivity is supported. An “X” indicates a problem with the connection between Cisco TelePresence Manager and the Cisco TelePresence endpoint.
Device Error	A check indicates communication is supported. An “X” indicates a problem with the Cisco TelePresence endpoint.
<b>CUCM</b>	
Email ID	A check indicates the Cisco TelePresence System email ID stored in Unified CM is valid. An “X” indicates a problem with the Cisco TelePresence System email ID stored in Unified CM.
<b>Microsoft Exchange or IBM Domino</b>	
Subscription	A check indicates a subscription between the TelePresence endpoint and Microsoft Exchange is supported. An “X” indicates a subscription problem between the TelePresence endpoint and Microsoft Exchange. A subscription error may be indicated by an “X” when there is no error.
Sync	A check indicates synchronization between the endpoint and Microsoft Exchange is supported. An “X” indicates a synchronization problem between the endpoint and Microsoft Exchange.

## Manually Updating Schedules on the Cisco TelePresence Endpoint Phone or Control Device

To update an endpoint’s IP phone/or control device with what is currently scheduled in the Microsoft Exchange or IBM Domino database, perform the following steps:

- 
- Step 1**      Click the radio button associated with an endpoint.
- Step 2**      Click **Update Schedule**.
-



## Viewing Scheduled Meetings for a Specific Endpoint

To obtain additional information about any meetings associated with an endpoint, perform the following steps:

- Step 1** Click the radio button associated with an endpoint.
- Step 2** Click **View Meetings**.

**Figure 13-11** *Support > Endpoints > Capability*

Status	Name	Version	Projector	Document Camera	Conference Termination
✓	Conf Rm 10	CTS 1.7.4(270) P1 2011-06-29 15:00:43 SrcRev:87497	✓	✓	✓
✗	Conf Rm 11	CTS Main(1578) P1 2011-09-08 18:56:59 SrcRev:90071	✗	✗	✓
✗	Conf Rm 12	CTS 1.7.4(270) P1 2011-06-29 15:00:43 SrcRev:87497	✗	✗	✓
✗	Conf Rm 13	CTS Main(1578) P1 2011-09-08 18:56:59 SrcRev:90071	✓	✗	✓
✓	Conf Rm 14	Not Available	✗	✗	✗
✓	Conf Rm 18	Not Available	✗	✗	✗

**Table 13-16** *Endpoints Capability Information*

Field	Description or Setting
Status	Endpoint status: All, OK, Error, Needs Help, or In Use. Click the arrow in the header of the Status column to sort the list in ascending or descending alphabetical order.
Endpoint Name	Endpoint device name.
Version	Displays the software release version for the endpoint. <b>Note</b> Versions of CTS prior to 1.5 only display “Not Available” in this field. This does not affect any functionality.
Projector	A check specifies the endpoint includes a working projector.
Document Camera	A check specifies a document camera is installed.
Conference Termination	A check specifies the endpoint supports conference termination.
Interop	A check specifies the endpoint supports SD (CIF) Interop calls.
HD Interop	A check specifies the endpoint supports HD (720p) Interop calls.
Satellite Room	A check specifies the endpoint is using a satellite connection.

**Table 13-16**      *Endpoints Capability Information (continued)*

Field	Description or Setting
30 FPS	A check specifies the endpoint supports 30 frames per second data streaming for presentations.
Recording	A check specifies the endpoint supports recording.
Inter-Device Security	A check specifies the endpoint supports HTTPS communications.
WebEx	A check specifies the endpoint supports WebEx.
Tentative Reservation	A check specifies the endpoint supports tentative room reservations. (Microsoft Exchange only)

## Tentative Room Reservation

The Tentative Room Reservation button allows you to enable tentative room reservations for individual TelePresence endpoints.



### Note

This option is supported only with Microsoft Exchange. Tentative Room Reservations must be enabled in the Configure > Application Settings > Meeting Options window.

A tentative room reservation is a meeting invitation that has been viewed by the room (endpoint) owner or a proxy room owner, but not accepted yet. A room owner refers to a person who has a TelePresence system in their office or personal conference room, rather than a TelePresence system located in a regular conference room which has no owner. A proxy room owner is a person who is assigned the proper privileges by the room owner to reserve their room (endpoint) for meetings. A CTS-Manager tentative reservation is identical to an accepted reservation.

To enable tentative room reservations for a TelePresence endpoint:

- Step 1**      Click **Tentative Room Reservation**.  
A popup window displays each endpoint with a check box next to it.
- Step 2**      Check the check box next to the endpoint to select it.



### Note

Endpoints that are already checked currently have tentative reservations enabled.

- Step 3**      Click **Apply**.  
A message appears, asking you to confirm your changes.
- Step 4**      Click **OK**.
- Step 5**      Click **Close**.

To disable tentative room reservations for a TelePresence endpoint, click **Tentative Room Reservation**, uncheck the endpoint you want to disable and follow steps 3 through 5 above.

**Note**

A meeting participant must read the meeting invitation for it to appear on the endpoint phone/control device. If a scheduled meeting is updated and the meeting invitation has not been read yet, the phone/control device will not be updated. In this case, the room (endpoint) or proxy mode room (endpoint) calendar may show double bookings.

Once all endpoint reservations are confirmed, the meeting appears in the Scheduled Meetings window and the phone/control device within five minutes. If email alerts are turned on, confirmation or error emails are generated and sent within approximately 10-15 minutes.

Cisco recommends enabling tentative room reservations for private (office) endpoints.

**Tentative meeting not enabled**

The following describes the behavior of the CTS-Manager when the tentative meeting is not enabled.

If the user creates a meeting with 1 auto-accept room (endpoint) (AAA) and 1 proxy room. The Proxy room accepts the meeting and the meeting is processed as a point-to-point meeting in CTS-Manager. Then the meeting is modified to a different time and the proxy room (endpoint) has not opened the meeting invite or clicked on the tentative or accept buttons. The meeting schedule in CTS-Manager is modified with a new time with both endpoints (rooms) shown and marked as scheduled without error. However, the proxy room calendar does not have the modified meeting time updated. To have the times sync, the proxy room must accept the modified time.

Problems can occur if public endpoints and conference room endpoints are set up with tentative enabled. If the meeting is not accepted, the proxy setting can be out-of-sync and double booking of the endpoint can occur. Thus, the best practice for public or conference endpoints is to not have this feature enabled and force a proxy confirmation acceptance.

**Endpoint Subscription - Synchronization Change**

As shown in the Support > Endpoints > Status window, an endpoint was successfully synchronized sometime in the past. Then the endpoint capability is changed, i.e., recording disabled. If performing a Discovery on this change, the result is the endpoint subscription shows error, but the synchronization is in "OK" state. The synchronization status has historical value as it shows the result of the last synchronization on that endpoint which was successful in this case.

# Bridges and Servers

The Support > Bridges and Servers window displays information about the bridges or servers associated with Cisco TelePresence Manager. The Bridges and Servers window is divided into two tabs:

- [Summary](#)
- [Capability](#)

## Summary

The Summary tab lists the bridges or servers associated with CTS-Manager.

## Generating Bridges or Servers Reports

You can generate a report about specific bridges or servers with the following steps:

- Step 1** Choose the status—All, OK, or Error—from the **Status** drop-down list.
- Step 2** Enter the bridge or server hostname in the **Hostname** field.
- Step 3** Click **Filter**.
- Step 4** Select a bridge or server and click **Details** to display a detailed report about the device.
- Step 5** Select a bridge or server and click **Update Schedule** to send the latest meetings schedule to the device.



### Note

The Update Schedule button is not available when you select a CUVC device, because there is no direct communication between a CUVC and CTS-Manager.

- Step 6** Select a bridge or server and click **View Meetings** to display a list of meetings assigned to that bridge or server.

Figure 13-12 Support > Bridges and Servers > Summary

**Bridges and Servers**

Summary | Capability

Summary of Bridges and Servers Showing 1-3 of 3 100 per page Go

Status: All Hostname:  Filter

	Status	Hostname	IP Address	Type	Scheduled	Interop Quality	Schedule Segments	Description
<input type="radio"/>		<a href="#">example.webex.com</a>	<a href="https://example.webex.com">https://example.webex.com</a>	WebEx	—	—	—	—
<input type="radio"/>		<a href="#">example-ctms</a>	<a href="#">209.165.201.29</a>	CTMS	Yes	—	24	
<input type="radio"/>		<a href="#">example-ctrs</a>	<a href="#">209.165.201.30</a>	CTRS	No	—	0	

Details... Update Schedule View Meetings

Page 1 of 1 ◀ ▶

**Table 13-17**     *Support > Bridges and Servers > Summary Tab*

Field	Description or Settings
Status	Bridge or server status: All, OK, or Error. A CUVC device always shows a status of OK.
Hostname	The address of the bridge or server.
IP Address	The IP Address of the bridge or server.
Type	CTS-Manager supports the following types of bridges or servers: <ul style="list-style-type: none"> <li>• Cisco TelePresence Multipoint Switch (CTMS)</li> <li>• Cisco Unified Video Conferencing (CUVC)</li> <li>• Cisco TelePresence Recording Server (CTRS)</li> <li>• TelePresence Server (TS)</li> <li>• WebEx Site</li> <li>• Collaboration Manager</li> <li>• Cisco Media Experience Engine (MXE)</li> </ul>
Scheduled	If <b>Yes</b> is displayed, a bridge or server is available (schedulable) for meetings.
Interop Quality	Indicates either SD (CIF) or HD (720p or 1080p) resolution.
Schedule Segments	Indicates the number of segments that can be used for scheduling meetings.
Description	Information about the bridge or server.

**Figure 13-13**     *CTMS Details Window*

Bridge or Server Details	
Type:	CTMS
Hostname:	example-ctms-10
Username:	admin
Timezone:	America/Los_Angeles
Call-In Numbers:	9000
Segment Count:	24
Scheduled:	Yes
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

**Table 13-18** CTMS Details Window Information

Field	Description or Settings
Type	The bridge or server type: CTMS.
Hostname	This is the address of the CTMS.
Username	Username used to log into the CTMS.
Timezone	Displays the time zone where the CTMS is located.
Call-In Numbers	The CTMS call-in number.
Segment Count	The number of resources available on the CTMS.
Scheduled	If <b>Yes</b> is displayed, the CTMS is available (schedulable) for meetings.

**Note**

To migrate all meetings from a CTMS, go to **Configure > Bridges and Servers**, select the CTMS from which you want to migrate meetings, click **Edit**, select **Migrate All Meetings**, select a CTMS to migrate to and then click **Save**.

**Figure 13-14** CUVC Details Window

Details...	
Type:	CUVC
Hostname:	209.165.201.1
Call-In Number Prefix for CTMS:	90006
Call-In Number Prefix for Video Conference Participants:	90006
Meeting Number Length:	3
Maximum Participants per Conference:	20
Minimum Participants per Conference:	2
Total resources:	20
Scheduled:	Yes
<input type="button" value="Close"/>	

**Table 13-19** CUVC Details Window Information

Field	Description or Settings
Type	The bridge or server type:CUVC <b>Note</b> Only one CUVC can be supported by a single CTS-Manager
Hostname	This is the LHS of the complete hostname.
Call-In Number Prefix for CTMS	The call-in number prefix for your CUVC is based on your enterprise dialing plan.
Call-In Number Prefix for Video Conferencing Participants	This call-in number prefix is based on your enterprise dialing plan.
Meeting Number Length	The meeting number can be 1-8 digits in length. The system-generated meeting number is used to create an Interop Call-In Number used by the CUVC to establish the conference call. It is also used to create the Interop Call-In Number sent in an email to meeting participants as the dial-in phone number. The meeting number length is based on your enterprise dialing plan.
Maximum Participants per Conference	Enter a numeric value for the maximum number of CUVC meeting participants that may dial into the conference call.
Minimum Participants per Conference	The minimum value for this field is 2. This value cannot exceed the Maximum Participants per Conference value.
Total resources	This value should be greater than the Maximum Participants per Conference.
Scheduled	If <b>Yes</b> is displayed, the CUVC is available (schedulable) for meetings.  If <b>No</b> is displayed Interop meetings using CUVC will not be schedulable.

**Figure 13-15** CTRS Details Window for CTRS

Bridge or Server Details	
Type:	CTRS
Hostname:	209.165.201.30
Username:	admin
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

**Table 13-20** CTRS Details Window Information

Field	Description or Settings
Type	The bridge or server type:CTRS
Hostname	The configured hostname of the CTRS device. This is the LHS of the complete hostname
Username	This is the account name used to log into the CTRS.

**Figure 13-16** TelePresence Server Details Window

Bridge or Server Details	
Type:	TelePresence Server
Hostname:	example-ts-03
Username:	admin
Scheduled:	Yes
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

**Table 13-21** TelePresence Server Details Window Information

Field	Description or Settings
Type	The bridge or server type: TelePresence Server
Hostname	Hostname of the TelePresence Server
Username	SysAdmin username of the TelePresence Server
Scheduled	If <b>Yes</b> is displayed, the TelePresence Server is available (schedulable) for meetings.

**Figure 13-17** MXE Details Window

Bridge or Server Details	
Type:	MXE
Hostname:	10.22.147.6
Username:	admin
Timezone:	EST
Call-In Numbers:	433
Segment Count:	30
Scheduled:	Yes
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	



**Table 13-22** *MXE Details Window Information*

Field	Description or Settings
Type	The bridge or server type: MXE
Hostname	The configured hostname of the MXE device.
Username	SysAdmin username of the MXE.
Timezone	Displays the time zone where the MXE is located.
Call-In Numbers	MXE call-in phone number(s).
Segment Count	Number of resources available on the MXE. Each VC endpoint requires two resources. If WebEx is included in the meeting, an additional resource is required.
Scheduled	If <b>Yes</b> is displayed, the MXE is available (schedulable) for meetings.

**Note**

If MXE does not appear in the Type drop-down menu, go to the **Configure > Application Settings > Bridges and Servers** window and make sure Interoperability with Video Conferencing is enabled and MXE-HD is selected

**Figure 13-18** *WebEx Details Window*
**Figure 13-19** *WebEx Details Window*

**Table 13-23** *WebEx Details Window Information*

Field	Description or Settings
Type	The bridge or server type: WebEx <b>Note</b> If WebEx does not appear in the drop-down list, make sure WebEx is enabled in the Configure > Application Settings > <a href="#">Bridges and Servers</a> window.
Hostname	A name identifying the WebEx site hostname to the administrator. This typically can be the same name as the hostname used in the site URL. <b>Note</b> Multiple WebEx sites can have the same hostname. This is not used to connect to the WebEx site and therefore is not validated during testing of connection.
URL	The address used to construct the URL that's used to access this meeting. This is the actual URL that CTS-Manager uses to communicate with WebEx. This is published in the email from CTS-Manager, and is displayed to users on the WebEx page of the CTS phone UI/display device.
WebEx Admin Username	WebEx administrator's username (provided by the WebEx team)
Connection Type	CTS-Manager connection to the WebEx site. Can be direct or via a proxy server.

**Figure 13-20** *Collaboration Manager Details Window*

Bridge or Server Details	
Type:	Collaboration Manager Server
Hostname:	209.165.201.6
URL:	https://209.165.201.6/emsam
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

**Table 13-24** *Collaboration Manager Details Window*

Field	Description or Settings
Type	Always Collaboration Manager
Hostname	The configured hostname of the collaboration manager server.
URL	The configured URL of the collaboration manager server.

## Capability

The Capability tab identifies the Cisco TelePresence features available for each bridge or server device.

Figure 13-21 Support > Bridges and Servers > Capability

Status	Hostname	Type	Version	Conference Termination	HD Interop	WebEx	Inter-Device Security	TC5-Compatible	TelePresence Call-in Number
Error	<a href="#">209.165.201.30</a>	CTMS	1.0.0.0(946)	✓	✓	✓	✗	✓	✗
—	209.165.201.29	Collaboration Manager	—	—	—	—	—	—	—
✓	<a href="#">209.165.201.21</a>	CUVC	—	✗	✗	✗	✗	✗	✗
✓	<a href="#">example-1s04</a>	TelePresence Server	2.2(1.20)	✗	✓	✗	✗	✓	✗

Table 13-25 Support > Bridges and Servers > Capability Information

Field	Description or Settings
Status	Bridge or Server status: All, OK, or Error. <b>Error:</b> <ul style="list-style-type: none"> <li>Can indicate username and password mismatch between CTS-Manager and CTMS.</li> <li>Network connectivity issue between CTS-Manager and CTMS.</li> </ul> <b>Note</b> A CUVC always shows a status of OK.
Hostname	The configured hostname for the bridge or server device. Clicking the hostname hyperlink opens a new browser window, with the CTMS login page.
Type	The bridge or server type.
Version	Displays the software version running on the device. The version is not displayed for the CUVC device type.
Switching	A check indicates the device supports either speaker or room switching.
Conference Termination	A check indicates the device supports conference termination. Refer to <a href="#">Policies, page 11-90 in Chapter 11, “Additional Installation Configurations for Cisco TelePresence Manager”</a>

**Table 13-25**     *Support > Bridges and Servers > Capability Information (continued)*

Field	Description or Settings
HD Interop	<p>A check indicates the device supports HD (720p) video quality.</p> <p>A check also indicates that the video quality of a scheduled meetings using this bridge or server are 720p quality. It doesn't, however, indicate the actual capability that this bridge or server can support.</p> <p>CUVC always shows "No" for HD Interop since CTS-Manager does not detect the true capability of CUVC.</p> <p><b>Note</b> To enable HD Interop, all endpoints must be running software version 1.6 or later.</p>
WebEx	A check indicates the device supports WebEx.
Inter-Device Security	A check indicates that connectivity between CTS-Manager and CTMS is secured via HTTPS.
TC5-Compatible	A check indicates the device supports endpoints running TC5.0 or later software.
TelePresence Call-In Number	A check indicates the device supports the TelePresence Call-In Number feature.

# Unified CM

To display settings that associate the Cisco TelePresence Manager with Cisco Unified CM, choose **Support > Unified CM**.

**Figure 13-22** *Support > Unified CM*

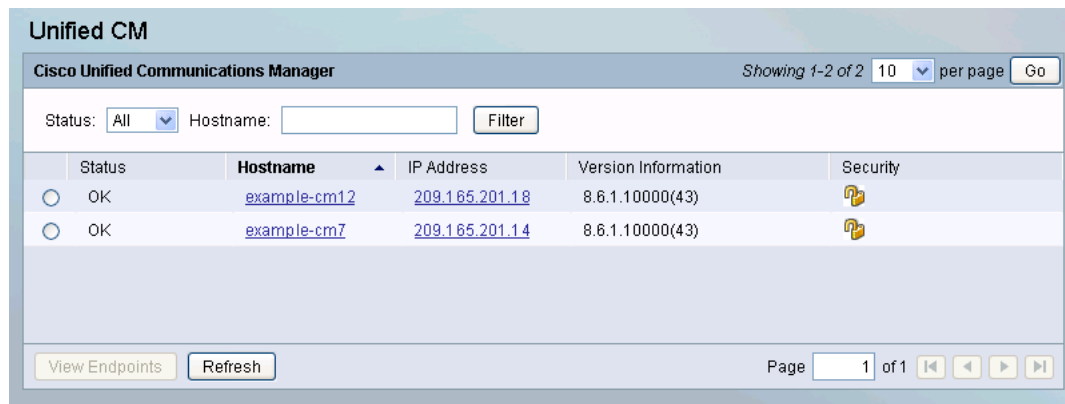



Table 13-26 describes fields and settings for the Cisco Unified CM.

**Table 13-26** *Unified CM Settings*

Field	Description or Settings
Status	<p>Display-only status report of system services.</p> <p>You may see a progress indicator in the status field, especially if many Cisco TelePresence endpoints are being managed by CTS-Manager. Each time this page is accessed, the status is updated, and the progress indicator will be seen while the system is discovering endpoints.</p> <div>  <p><b>Caution</b> An error status is displayed if the connection to the Unified CM server was lost due to a network outage or if the Unified CM server was down during the CTS-Manager maintenance cycle. You can resolve the error status by going to the <b>Configure &gt; Unified CM</b> window and clicking <b>Discover Rooms</b>.</p> </div>
Hostname	Name of the Cisco Unified CM server host.
IP Address	IP address of Cisco Unified CM server host.
Version Information	Version of Cisco Unified CM server host.
Security	Security setting of Cisco Unified CM server host.

# Command Line Interface

## Starting a CLI Session

The SysAdmin can access the CTS-Manager CLI remotely or locally:

- From a web client workstation, such as the workstation that you use for CTS-Manager administration, you can use SSH to connect securely to CTS-Manager.
- Using the monitor and keyboard that you used during installation, you can access the CTS-Manager CLI directly or by using a terminal server that is connected to the serial port. Use this method if a problem exists with the IP address.

### Before You Begin

Ensure you have the following information that gets defined during installation:

- A primary IP address and hostname
- The SysAdmin ID
- The SysAdmin password



#### Note

SysAdmin ID and password are the Administrator ID and password that are created during installation of CTS-Manager.

You will need this information to log in to the Cisco IPT Platform.

Perform the following steps to start a CLI session:

**Step 1** Do one of the following actions depending on your method of access:

- From a remote system, use SSH to connect securely to the Cisco IPT Platform. In your SSH client, enter  
`ssh sysadminname@hostname`  
 where **sysadminname** specifies the Administrator ID created during installation and **hostname** specifies the hostname that was defined during installation.

For example, **ssh admin@ipt-1**.

- From a direct connection, you receive this prompt automatically:

`ipt-1 login:`

where **ipt-1** represents the host name of the system.

Enter the SysAdmin ID.

In either case, the system prompts you for a password.

**Step 2** Enter your password.

The CLI prompt displays. The prompt represents the SysAdmin ID; for example: `admin:`

For all commands for the CTS-Manager, refer to the Cisco TelePresence Manager help or the CLI Book set at:

[http://www.cisco.com/en/US/products/ps7074/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps7074/tsd_products_support_series_home.html)



# CHAPTER 14

## Meeting Manager and CTS-Manager Emails

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# Introduction

Cisco TelePresence meetings are scheduled between one or more endpoints. The calendar server sends an acceptance email to the meeting organizer, with the notice that the endpoints have been reserved and placed on the calendar. CTS-Manager sends either a Confirmation email or an Error email in which action is required from the meeting organizer.

The confirmation email provides additional information about the scheduled Cisco TelePresence meeting, including a link to the CTS-Manager Meeting Details window. In order to access the Meeting Details window the meeting organizer logs into CTS-Manager using their Windows logon account (account name and password). For more information about confirmation emails refer to the various meeting sections below. For more information about the CTS-Manager Meeting Details window, refer to the [Meeting Manager](#) section.

The Action Required email specifies the error that caused the email to be generated, and a link to the Meeting Details window. For more information, refer to the [Meeting Manager](#) section.

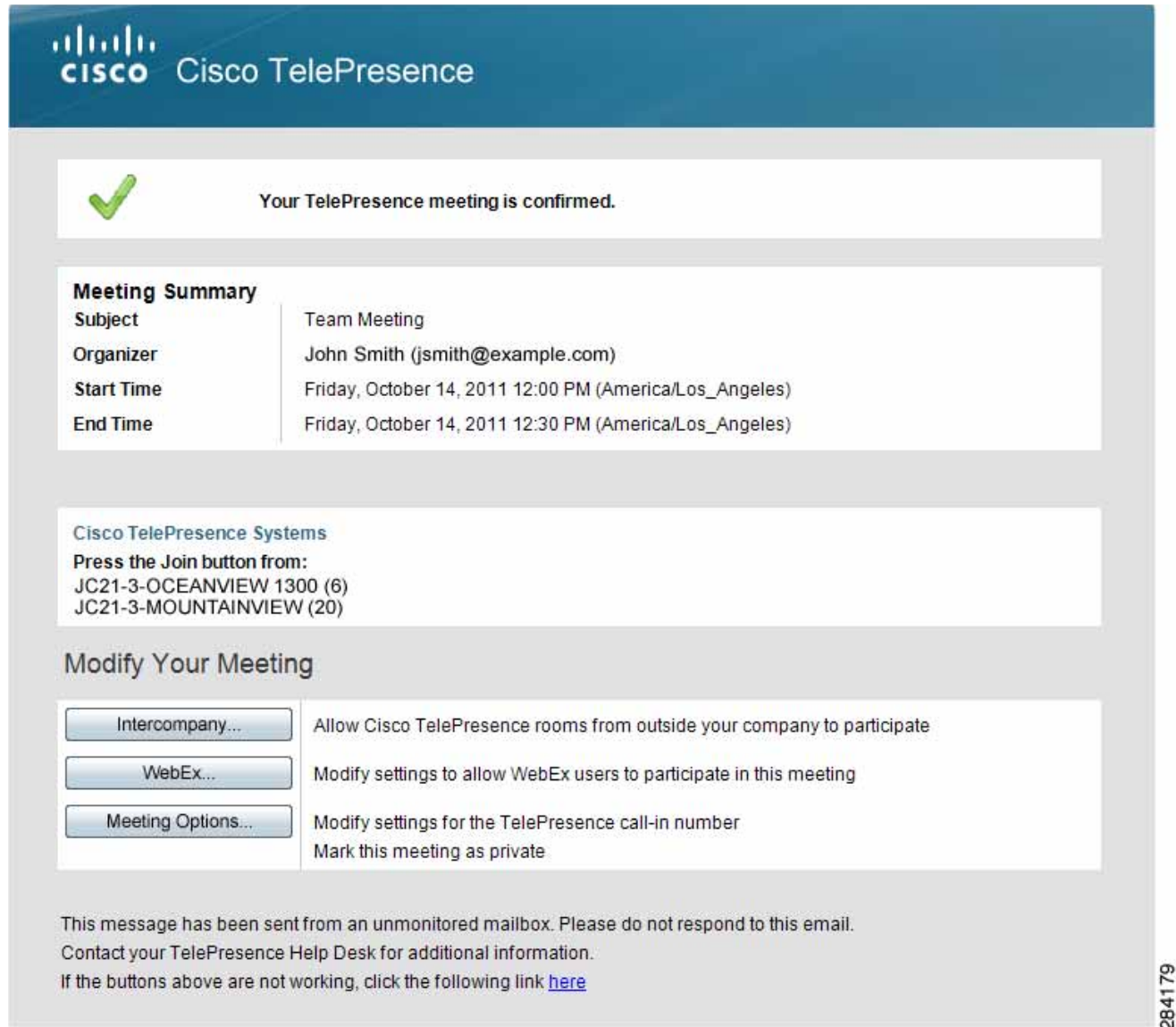
## User Authentication

In order to log in to CTS-Manager, the user needs to provide their Exchange or Domino email ID for authentication. For Exchange servers using multiple LDAP forests, the user account can reside in a remote forest. This will be associated with a disabled user account in the local forest using the Windows attribute “Associate External Account to Mailbox.” Only an associated user account can authenticate with CTS-Manager. User accounts which have read access to the mailbox but are not associated will not be able to authenticate with CTS-Manager.

## Point-to-Point Meeting

The Point-to-Point meeting confirmation email is described in [Table 14-1](#).



**Figure 14-1** Point-to-Point Meeting Confirmation Email**Table 14-1** Point-to-Point Meeting Confirmation Email

Email Section	Description
Confirmation Statement (below the email banner)	Your TelePresence meeting is confirmed.
Meeting Summary	This section displays information about the scheduled meeting, including subject, organizer, start time, end time and rooms (endpoints).

**Table 14-1** *Point-to-Point Meeting Confirmation Email*

Email Section	Description
Modify Your Meeting	<p>This section displays buttons that allow the meeting organizer to set various options that are available depending on how CTS-Manager is configured. These options include:</p> <p>Intercompany: clicking this button allows the organizer to go to the Intercompany window to enable Intercompany to allow TelePresence endpoints from outside your company to participate in the TelePresence meeting.</p> <p>Usage Survey: clicking this button allows the organizer to go to the Usage Survey window to complete the survey for this meeting.</p> <p>WebEx: clicking this button allows the organizer to go to the Meeting Options window to set WebEx so it can be used for this meeting.</p> <p><b>Note</b> Firefox users may receive an error message when clicking the WebEx button. Click OK in the error message to continue on to the WebEx window.</p> <p>Meeting Options: clicking this button allows the organizer to go to the Meeting Options window to set the various options for this meeting.</p>
Email footer	The URL displayed at the bottom of the email is the same link to the Meeting Details window which is also accessible through the buttons in the Modify Your Meeting section.

## Multipoint Meeting

The Multipoint meeting confirmation email is described in [Table 14-2](#).

Figure 14-2 Multipoint Meeting Confirmation Email

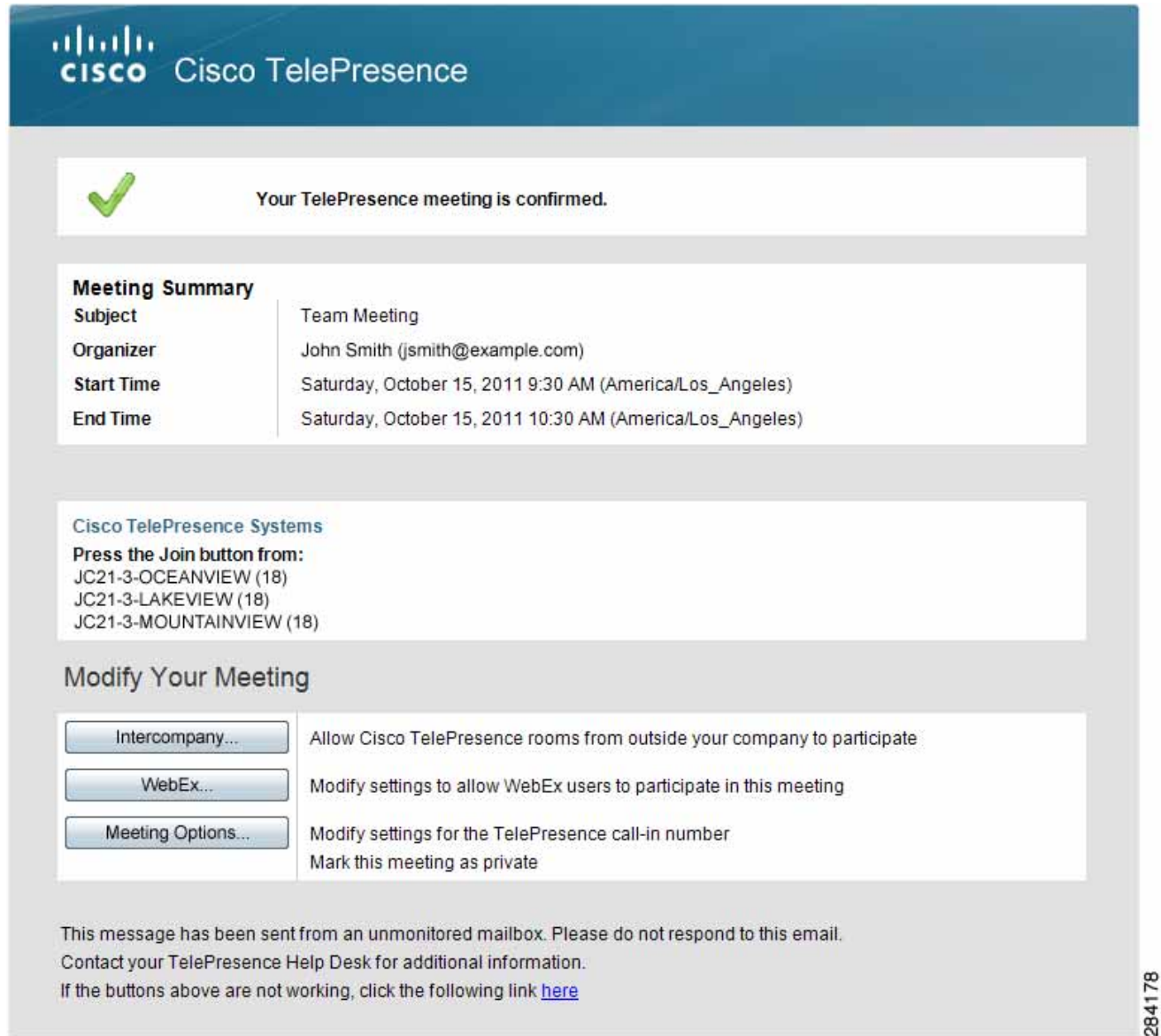


Table 14-2 Multipoint Meeting Confirmation Email

Email Section	Description
Confirmation Statement (below the email banner)	Your TelePresence meeting is confirmed.


**Table 14-2**      *Multipoint Meeting Confirmation Email (continued)*


Email Section	Description
Meeting Summary	This section displays information about the scheduled meeting, including subject, organizer, start time, end time and rooms (endpoints).
Modify Your Meeting	<p>This section displays buttons that allow the meeting organizer to set various options that are available depending on how CTS-Manager is configured. These options include:</p> <p>Intercompany: clicking this button allows the organizer to go to the Intercompany window to enable Intercompany to allow TelePresence endpoints from outside your company to participate in the TelePresence meeting.</p> <p>Usage Survey: clicking this button allows the organizer to go to the Usage Survey window to complete the survey for this meeting.</p> <p>WebEx: clicking this button allows the organizer to go to the Meeting Options window to set WebEx so it can be used for this meeting.</p> <p><b>Note</b>      Firefox users may receive an error message when clicking the WebEx button. Click OK in the error message to continue on to the WebEx window.</p> <p>Meeting Options: clicking this button allows the organizer to go to the Meeting Options window to set the various options for this meeting.</p>

## Video Conferencing Meeting


The Video Conferencing meeting confirmation email is described in [Table 14-3](#).

Figure 14-3 Video Conferencing Meeting Confirmation Email


**Cisco TelePresence**


**Your TelePresence meeting is confirmed.**

**Meeting Summary**

<b>Subject</b>	meeting
<b>Organizer</b>	John Smith (jsmith@example.com)
<b>Start Time</b>	Tuesday, June 7, 2011 9:30 PM (America/Los_Angeles)
<b>End Time</b>	Tuesday, June 7, 2011 9:40 PM (America/Los_Angeles)
<b>Rooms</b>	JC21-3-OCEANVIEW 1300 (6)  JC21-3-DESERTVIEW T1 (2) JC21-2-MOUNTAINVIEW (20)

Provide the following information to your other participants

**Video Conferencing Devices**

<b>Call-In Number</b>	87786
JC21-3-DESERTVIEW T1 (2)	

**Modify Your Meeting**

Usage Survey...	Complete the survey for this meeting
WebEx...	Modify settings to allow WebEx users to participate
Meeting Options...	Meeting options include: <ul style="list-style-type: none"> <li><b>Call-in Number</b> -- Add a TelePresence call-in number</li> <li><b>Non-TelePresence</b> -- Indicate TelePresence isn't needed for this meeting</li> <li><b>Recording Studio</b> -- Record videos for later distribution</li> <li><b>Mark this meeting as private</b> -- For private meetings / hide the subject on the phone's calendar</li> </ul>

This message has been sent from an unmonitored mailbox. Please do not respond to this email.  
Contact your TelePresence Help Desk for additional information.  
If the buttons above are not working, click the following link [here](#)

284180


**Table 14-3**      *Video Conferencing Meeting Confirmation Email*


Email Section	Description
Confirmation Statement (below the email banner)	Your TelePresence meeting has been confirmed.
Meeting Summary	This section displays information about the scheduled meeting, including subject, organizer, start time, end time and rooms (endpoints).
Provide the following information to your other participants	This section displays the call-in phone number that the meeting organizer should send to the participants attending via a video conferencing endpoint.
Modify Your Meeting	<p>This section displays buttons that allow the meeting organizer to set various options that are available depending on how CTS-Manager is configured. These options include:</p> <p>Usage Survey: clicking this button allows the organizer to go to the Usage Survey window to complete the survey for this meeting.</p> <p>WebEx: clicking this button allows the organizer to go to the Meeting Options window to set WebEx so it can be used for this meeting.</p> <p><b>Note</b>    Firefox users may receive an error message when clicking the WebEx button. Click OK in the error message to continue on to the WebEx window.</p> <p>Meeting Options: clicking this button allows the organizer to go to the Meeting Options window to set the various options for this meeting.</p>

## TelePresence Call-In and WebEx Meeting

A TelePresence Call-In Number and WebEx meeting confirmation email is described in [Table 14-3](#).

Figure 14-4 TelePresence Call-In and WebEx Meeting Confirmation Email


**Cisco TelePresence**


**Your TelePresence meeting is confirmed.**

**Meeting Summary**

Subject	meeting
Organizer	John Smith (jsmith@example.com)
Start Time	Tuesday, June 1, 2010 11:00 PM (GMT -8.0 STANDARD / GMT -7.0 DAYLIGHT)
End Time	Tuesday, June 1, 2010 11:30 PM (GMT -8.0 STANDARD / GMT -7.0 DAYLIGHT)

**Provide the following information to your other participants**

**Cisco TelePresence Systems**  
**Press the Join button from:**  
JC21-3-OCEANVIEW 1300 (6)  
JC21-3-MOUNTAINVIEW (20)

**Join from TelePresence devices not listed above:**  
*TelePresence devices include CTS 3000, 1000, 500, EX, C (Profile) Series.*

Call-In Number	77500
Meeting Number	1100149088

**WebEx**

URL	https://example.com/qamctp/j.php?ED=157427532&UID=0&PW=7535085f541f5a4f&RT=MIM0
Call-In Toll-Free Number	1-555-555-0289
Call-In Toll Number	1-555-555-0090
Meeting ID	649087790
Meeting Password	12345

**Modify Your Meeting**

Usage Survey...
Complete the survey for this meeting

Meeting Options...
Meeting options include:

- Hide Subject -- For private meetings / hide the subject on the phone's calendar

This message has been sent from an unmonitored mailbox. Please do not respond to this email.  
Contact your TelePresence Help Desk for additional information.  
If the buttons above are not working, click the following link [here](#)



**Table 14-4** *TelePresence Call-In and WebEx Meeting Confirmation Email*

Email Section	Description
Confirmation Statement (below the email banner)	Your TelePresence meeting has been confirmed.
Meeting Summary	This section displays information about the scheduled meeting, including subject, organizer, start time, end time and (rooms) endpoints.
Provide the following information to your other participants	<p>This section displays the information that the meeting organizer should send to the participants attending via:</p> <ul style="list-style-type: none"> <li>• a video conferencing endpoint</li> <li>• a TelePresence endpoint that was not originally included in the meeting invitation</li> <li>• WebEx</li> </ul>
Modify Your Meeting	<p>This section displays buttons that allow the meeting organizer to set various options that are available depending on how CTS-Manager is configured. These options include:</p> <p>Usage Survey: clicking this button allows the organizer to go to the Usage Survey window to complete the survey for this meeting.</p> <p>Meeting Options: clicking this button allows the organizer to go to the Meeting Options window to set the various options for this meeting.</p>

## Action Required Email

Action Required emails may be sent to the Meeting Organizer to alert them of the following error conditions. The Action Required email is described in [Table 14-5](#).

- **501205 - Missing Required Endpoints:** A second Cisco TelePresence endpoint, or other participant has not been defined for the meeting.  
This is the only type of error a Meeting Organizer can correct without administrative assistance. You can see an example of this email in [Figure 14-5](#). You or the Meeting Organizer can correct this error using the Meeting Details window, but the recommended way to resolve the error is to use the calendar client used to create the meeting.



### Note


This type of Action Required error can also be caused by an endpoint not being deleted properly from a calendar server, for example Microsoft Exchange. This can occur if the Meeting Organizer schedules a meeting that includes an endpoint in delegate mode. If the Meeting Organizer schedules the meeting and then deletes it before the endpoint delegate accepts the invitation, this Action Required email is sent to the Meeting Organizer.

- **501211 - Room (Endpoint) Not Compatible:** One or more Cisco TelePresence rooms (endpoints) are running software that is incompatible with the Cisco TelePresence Multipoint Switch.
- **501212 - Resource Not Available:** Not enough Multipoint Switch resources are available to support the multipoint meeting.
- **501213 - MCU Not Configured:** A Multipoint Switch has not been configured for the network.
- **501217 - CUVC Resource Not Available:** Insufficient Video Conferencing resources to setup multipoint meeting.



- **29105 - Inactive WebEx Account:** Inactive WebEx user account. Whether the account is reactivated or a new one is created, the meeting organizer must reauthenticate with WebEx.

Figure 14-5 Action Required Email



**The following error was discovered:**  
A second TelePresence device, or other participant, has not been defined for this meeting. (Error: 501205 )

If you intended this meeting for another purpose, please click one of the buttons under **Modify Your Meeting**.

Meeting Details	
Subject	Team Meeting
Organizer	John Smith (jsmith@example.com)
Start Time	Friday, October 14, 2011 1:00 PM (America/Los_Angeles)
End Time	Friday, October 14, 2011 2:00 PM (America/Los_Angeles)

**Cisco TelePresence Systems**  
Press the Join button from:  
JC21-3-VALLEYVIEW (18)

### Modify Your Meeting

WebEx...	Modify settings to allow WebEx users to participate
Intercompany...	Allow Cisco TelePresence rooms from outside your company to participate
Meeting Options...	Meeting options include: <ul style="list-style-type: none"> <li>• <b>Call-in Number</b> -- Add a TelePresence call-in number</li> <li>• <b>Non-TelePresence</b> -- Indicate TelePresence isn't needed for this meeting</li> <li>• <b>Recording Studio</b> -- Record videos for later distribution</li> <li>• <b>Mark this meeting as private</b> -- For private meetings / hide the subject on the phone's calendar</li> </ul>

This message has been sent from an unmonitored mailbox. Please do not respond to this email.  
Contact your TelePresence Help Desk for additional information.  
If the buttons above are not working, click the following link [here](#)

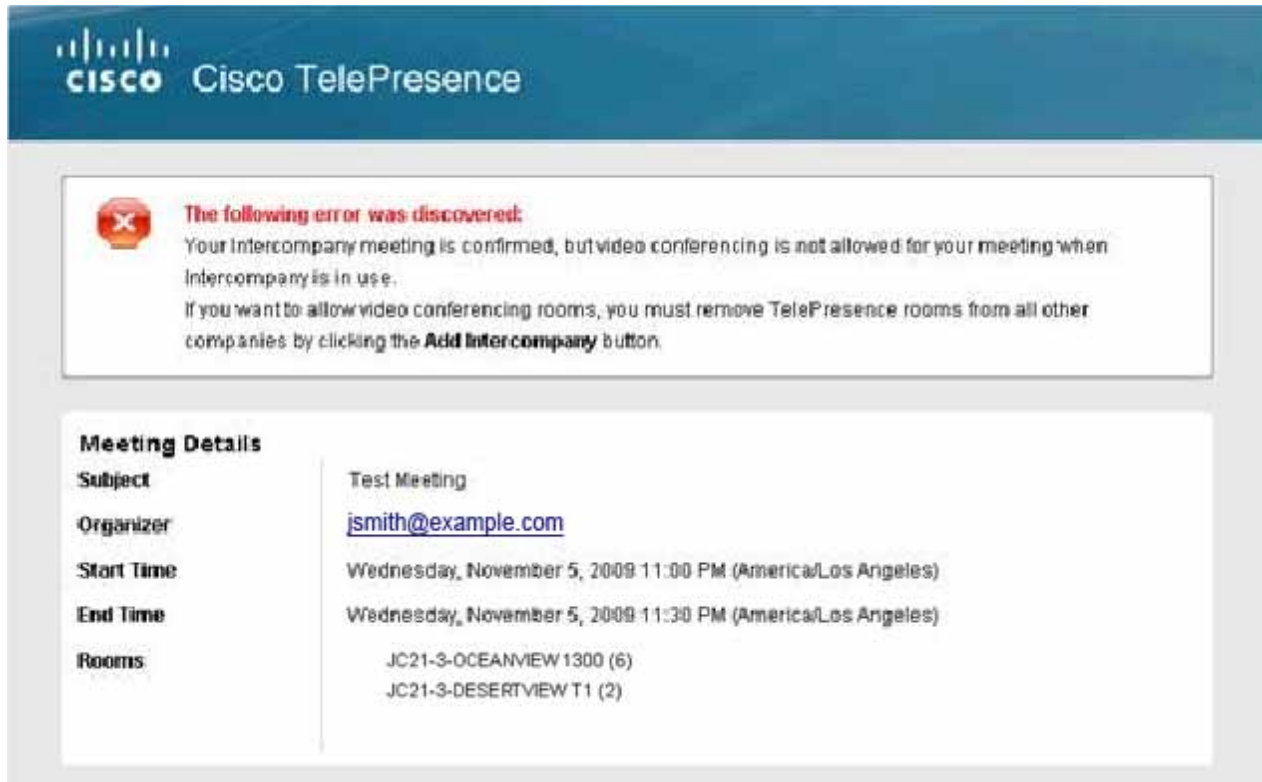
284176

**Table 14-5**      *Action Required Email*

Email Section	Description
Confirmation Statement (below the email banner)	This section describes the error to be corrected before the meeting can be confirmed, and contains the link to the Meeting Details window. The error can usually be corrected using the Meeting Details window.
Meeting Details	This section displays information about the scheduled meeting, including subject, organizer, start time, end time and endpoints.
Modify Your Meeting	<p>This section displays buttons that allow the meeting organizer to set various options that are available depending on how CTS-Manager is configured. These options include:</p> <p>Intercompany: clicking this button allows the organizer to go to the Intercompany window to enable Intercompany to allow TelePresence endpoints from outside your company to participate in the TelePresence meeting.</p> <p>Usage Survey: clicking this button allows the organizer to go to the Usage Survey window to complete the survey for this meeting.</p> <p>WebEx: clicking this button allows the organizer to go to the Meeting Options window to set WebEx so it can be used for this meeting.</p> <p><b>Note</b>    Firefox users may receive an error message when clicking the WebEx button. Click OK in the error message to continue on to the WebEx window.</p> <p>Meeting Options: clicking this button allows the organizer to go to the Meeting Options window to set the various options for this meeting.</p>
Occurrences with Errors	<p>If this is a recurring meeting, all the instances that have an error are displayed in a list. Only some instances of a recurring meeting may be in error if the meeting organizer, using the Calendar client has edited some of the instances. Clicking the date/timestamp link takes you to the Meeting Details window for that meeting instance.</p> <p>Only the first 50 meeting instances with errors are listed in the email, but all instances with errors are listed in the Meeting Details window.</p> <p><b>Note</b>    The upcoming instance of a recurring meeting may not be one of the occurrences causing the error. When you log into Cisco TelePresence Manager from the upcoming meeting link, or any of the occurrences causing the link you will see all the occurrences of the meeting listed in the left-hand column. Click any occurrence with an icon showing a red X to resolve the error.</p>
Email footer	The link displayed at the bottom of the email is the same link to the Meeting Manager window as the link in the Confirmation Statement above.

## Video Conferencing Error Email

The error email is sent to the meeting organizer when the endpoint is not reserved for a meeting. Follow the instructions in the email header to schedule endpoints for a meeting.

**Figure 14-6** Video Conference Meeting Error Email

## System Alert Notification Emails

In addition to the emails sent to the meeting organizer, system alert emails are sent to the SysAdmin each day after the maintenance cycle providing information about:

- No-Show Meetings and Meetings without Survey Responses
- Mailbox Alert
- Certificate expiry

For more information about these emails, see [System Alert Notifications](#).

## Meeting Manager

The meeting manager window provides detailed information about a specific meeting and allows the meeting organizer to make changes to the meeting's settings. The meeting organizer accesses the Meeting Manager by clicking on one of the "Modify Your Meeting" buttons in the confirmation email for their meeting and then logs in to the Meeting Manager.

It is divided into the following tabbed sections:

- [Summary](#)
- [Intercompany](#)
- [WebEx](#)
- [Usage Survey](#)

- [Meeting Options](#)

**Note**

After changing the settings in any of the tabbed sections of the Meeting Manager window, you must click **Apply** to save your changes.

In addition, the meeting organizer can specify other users to manage their meetings. For more information, refer to the [Allowing Other Users to Manage Your Meetings](#) section.

## Summary

The Summary tab provides you the following fields:

**Table 14-6**      *Meeting Details Summary Window*

Field or Section Name	Description
Subject	The person scheduling the meeting enters the information in the Subject field.
Organizer	This field displays the name and email address of the person scheduling the meeting.
Time	Displays the date, time and duration of the meeting.
Endpoints	Lists the endpoints that are participating in the meeting.
WebEx	Displays the WebEx information (if used) for the meeting.
Intercompany	Displays a green checkmark if WebEx is used in the meeting.
Video Conferencing Interop	Displays the video conferencing interoperability information for the meeting.
Record Meeting	Displays the video recording information for the meeting.
Hide Meeting Subject	Displays whether the meeting subject will be displayed on the TelePresence phone or not.
Not a TelePresence Meeting	Indicates if the meeting is not a TelePresence meeting.

**Note**

If you have included only one Cisco TelePresence endpoint in a scheduled meeting, you enter a phone number to dial, by clicking the Meeting Options tab and entering the number in the Number to Dial field. If you mistakenly included only one Cisco TelePresence endpoint, use your calendar software (Microsoft Outlook or Lotus Notes) to add additional endpoints.

When you are finished making changes in the Summary window, click **Apply** to save your changes.

## Intercompany

The Intercompany window allows you to enable the ability to schedule TelePresence meetings with other companies.

To enable this feature, click **Yes** and then click **Apply**.

**Table 14-7** *Meeting Details Intercompany Window*

Field or Section Name	Description
Does this meeting include TelePresence endpoints from another company?	Select Yes to enable Intercompany TelePresence for the meeting. Additional fields appear when Intercompany is enabled.
Which company will host the TelePresence multipoint bridge?	Select Our Company if your company will be hosting. Select Another Company if another company will be hosting. Selecting this option will reveal additional fields.
<b>Enter information provided by the meeting host (when Another Company is hosting)</b>	
Multipoint Call-In Number	This is the phone number your Cisco TelePresence endpoint phone will call to join the meeting. This number is provided by the meeting Host's CTMS or your Service Provider's CTMS.
Meeting Number	This number is generated by the Host's CTMS or your Service Provider's CTMS
The host needs to know that your endpoints require Telepresence Resources	If your company is hosting an Intercompany Cisco TelePresence meeting, the number of resources required to include all the participating companies is listed. The sum of the resources needed can be determined by adding the values below for each CTS endpoint participating in the meeting: CTS-500 = 1 resource CTS-1000 = 1 resource CTS-1100 = 1 resource CTS-1300 = 1 resource CTS-3000 = 3 resources CTS-3200 = 3 resources

If you want to remove what has been configured before you save it and set new values, click **Cancel**.

When you are finished making changes in the Intercompany window, click **Apply** to save your changes.

## Intercompany Host Meeting Options

If your company is considered the Intercompany Cisco TelePresence meeting host you need to configure your side of the meeting as the host. You'll need to obtain the Call-in Number and the Meeting Number from your CTS-Manager Administrator.

Enter the information and click **Apply** to set the values.

**Table 14-8 Intercompany Host Meeting Options**

Field Name	Description
Does this meeting include TelePresence rooms from another company?	Select Yes to allow TelePresence endpoints from another company to participate in this meeting. If you select Yes, three additional configuration options appear.
<b>Enter information provided by the meeting host</b>	
Which company will host the multipoint bridge?	Select the company that will host the TelePresence multipoint bridge.
Multipoint Call-in Number	The multipoint call-in number for the meeting.
Intercompany Meeting Number	The intercompany meeting number for the meeting.
Apply	Saves all settings.
Cancel	This removes what has been configured and reverts back to the last saved settings.

## Intercompany Participant Meeting Options

If another company is considered the Intercompany Cisco TelePresence meeting host you need to configure your side of the meeting as a participant. You'll need to obtain the Call-In Number and the Meeting Number from your CTS-Manager Administrator or from the Host meeting organizer

Enter the information and click **Apply** to set the values.

**Table 14-9 Intercompany Participant Meeting Options**

Field Name	Description
Multipoint Call-In Number	This is the phone number your Cisco TelePresence endpoint phone will call to join the meeting. This number is provided by the meeting Host's CTMS or your Service Provider's CTMS.
Intercompany Meeting	The Meeting Number is generated by the Host's CTMS or your Service Provider's CTMS.
The sum of Cisco TelePresence resources required by all other companies.	If your company is hosting an Intercompany Cisco TelePresence meeting, the number of resources required to include all the participating companies is listed. The sum of the resources needed can be determined by adding the values below for each TelePresence endpoints participating in the meeting: CTS-500 = 1 resource CTS-1000 = 1 resource CTS-1100 = 1 resource CTS-1300 = 1 resource CTS-3000 = 3 resources CTS-3200 = 3 resources

## WebEx

The WebEx window allows the meeting organizer to enable WebEx for their meeting and provides them with the WebEx information for both the host and participants to join the meeting. The first time they schedule a TelePresence meeting with WebEx, they must register their WebEx ID user account with CTS-Manager. For more information, see [First-time WebEx Setup](#).


**Note**

This window is not available if the meeting organizer is not permitted to use WebEx.

### Allow WebEx users to participate in this meeting

Selecting **Yes** and clicking **Apply** enables WebEx for the meeting. Selecting **No** and clicking **Apply** disables WebEx for the meeting.

### WebEx Call-In Information

This section displays the WebEx information necessary for both the host and participants to join the meeting.

**Table 14-10** Meeting Manager > WebEx Window

Field or Section Name	Description
Call-in Toll Free Number	Toll-free number for WebEx participants.
Call-In Toll Number	Toll number for WebEx participants.
WebEx Meeting Host Key	Code for host to regain control of the meeting from an attendee.
WebEx Meeting ID	The unique ID number generated by WebEx to identify the scheduled meeting.
Meeting Password	Password for WebEx participants.
URL	URL for WebEx meeting.

### First-time WebEx Setup

If this is your first time setting up WebEx for a TelePresence meeting, you must register your WebEx ID user account with CTS-Manager. This makes using WebEx with future TelePresence meetings as easy as possible.


**Note**

If you use the WebEx Productivity Tool plug-in for Microsoft Outlook to schedule your meeting, you do not need to go through this first-time setup.

To set up WebEx:

**Step 1** If there is more than one WebEx site available, select the WebEx site to which you have been assigned.


**Note**

If you are not sure which site to select, contact your help desk for assistance.

**Step 2** Click **Register**.  
The WebEx login window appears.



**Note**

If a Security warning message appears: In Internet Explorer 6, click **Yes**. In Internet Explorer 8, click **No**

**Step 3**

Enter your WebEx Username and Password and click **Log In**.

Once you log in, you are redirected back to the Meeting Manager window for your meeting.

**Note**

If a security warning message appears, click **No**.

**Step 4**

Click the WebEx tab, select the **YES** radio button, then click **Apply**.

WebEx is enabled and the following WebEx details appear:

- Call-in Toll-Free Number
- Call-in Toll Number
- WebEx Meeting Host Key
- WebEx Meeting ID
- Meeting Password
- URL

After a few minutes, you will receive an updated confirmation email with the WebEx information listed in the “Provide the following information to your other participants” section.

**Note**

For TelePresence meetings with WebEx, you will only receive emails from CTS-Manager. You will not receive any emails directly from WebEx.

**Step 5**

Copy the WebEx information from the confirmation email.

**Step 6**

In your email program, create a new email addressed to your WebEx participants.

**Step 7**

Paste the WebEx information into the email and send it.

WebEx participants join the meeting by clicking the URL you sent in the email or copying and pasting it into their browser.

TelePresence participants join the meeting by pressing the button on their TelePresence phone.

When you are finished making changes in the WebEx window, click **Apply** to save your changes.

**Note**

The process of authenticating with WebEx maps your enterprise user account to your WebEx account. If your WebEx account changes after you log into WebEx the first time, you will use the Re-authenticate button to log into WebEx the next time with your new username and password and, after successful login, the mapping will be updated to your new WebEx account. Any WebEx account created for your company can be used to authenticate with WebEx, as long as the you know the correct username and password. If your WebEx account is reactivated, or a new one is created, you must reauthenticate with WebEx to be able to schedule WebEx-enabled TelePresence meetings.

## Changing Your WebEx Site or Username

If you want to change your WebEx site or username, do the following:

- 
- Step 1** Contact your WebEx administrator to get your new WebEx site and username/password information.
- Step 2** Open the confirmation email for an upcoming Cisco TelePresence meeting you scheduled. If you have no upcoming meetings, schedule one now.
- Step 3** Click the **WebEx** button in the email.
- Step 4** Log in to Cisco TelePresence Manager using your enterprise user ID and password.  
The Meeting Manager window appears with the WebEx tab selected.
- Step 5** Next to “To change your WebEx Site or username” click the **here** link.



**Note** If there is only one site available, you can only change your WebEx username

---

- Step 6** If changing your WebEx site, select the new WebEx site.
- Step 7** Click **Update WebEx Credential**.  
The WebEx login window appears.



**Note** If a Security warning message appears: In Internet Explorer 6, click **Yes**. In Internet Explorer 8, click **No**

---

- Step 8** Enter your WebEx username and password for the new WebEx site, provided by your WebEx administrator.
- Step 9** Click **Log In**.  
Once you log in, you are redirected back to the Meeting Manager window for your meeting.



**Note** One or more WebEx sites may be available, but you can only use one for scheduling WebEx-enabled TelePresence meetings. If you are not sure which one to use, contact your help desk.

---

## Reactivating Your WebEx Account

If your WebEx account is inactive, you will not be able to schedule WebEx-enabled TelePresence meetings.

To reactivate your account:

- 
- Step 1** Contact your WebEx administrator to have your account reactivated.
- Step 2** Open the confirmation email for an upcoming Cisco TelePresence meeting you scheduled. If you have no upcoming meetings, schedule one now.
- Step 3** Click the WebEx button in the email.
- Step 4** Log in to Cisco TelePresence Manager using your enterprise user ID and password.
- Step 5** Select the WebEx site on which you have your account.
- Step 6** Click the **Register** button and log in to WebEx using your reactivated account username and password.

After successful login, you are redirected to Cisco TelePresence Manager where you can enable WebEx for your TelePresence meeting.

---

## WebEx Roles

The CTS-Manager administrator is responsible for assigning WebEx roles to users. Until the administrator assigns a role to a meeting organizer, their role is determined by the WebEx default user type configured in the Configure > Application Settings > Bridges and Servers window.

There are three types of WebEx users:

- [WebEx Permitted User](#)
- [WebEx Premium User](#)
- [WebEx Non-Permitted User](#)

### WebEx Permitted User

If you are a WebEx Permitted user, you can request WebEx on a meeting-by-meeting basis.

Using Microsoft Outlook, you can use the WebEx Productivity Tools plug-in to add WebEx to your meeting.

Alternatively, you can enable WebEx for your meeting by doing the following:

---

**Step 1** Click the WebEx tab, select the **YES** radio button, then click **Apply**.

WebEx is enabled and the following WebEx details appear:

- Call-in Toll-Free Number
- Call-in Toll Number
- WebEx Meeting Host Key
- WebEx Meeting ID
- Meeting Password
- URL

After a few minutes, you will receive an updated confirmation email with the WebEx information listed in the “Provide the following information to your other participants” section.

**Step 2** Copy the WebEx information from the confirmation email.

**Step 3** In your email program, create a new email addressed to your WebEx participants.

**Step 4** Paste the WebEx information into the email and send it.

WebEx participants join the meeting by clicking the URL you sent in the email or copying and pasting it into their browser.

TelePresence participants join the meeting by pressing the button on their TelePresence phone.

When you are finished making changes in the WebEx window, click **Apply** to save your changes.

### WebEx Premium User

If the meeting organizer is a WebEx Premium user, every meeting they schedule includes WebEx.

All they have to do is provide the WebEx information to their meeting participants:

- 
- Step 1** Copy the WebEx information from the confirmation email.
- Step 2** In your email program, create a new email addressed to your WebEx participants.
- Step 3** Paste the WebEx information into the email and send it.
- WebEx participants join the meeting by clicking the URL you sent in the email or copying and pasting it into their browser.
- TelePresence participants join the meeting by pressing the button on their TelePresence phone.

**Note**


---

All existing meetings scheduled by the user before they become a WebEx Premium User will remain unchanged. All meetings scheduled thereafter will have WebEx enabled. WebEx can be enabled for an existing meeting only by adding or deleting endpoints or changing the time of the meeting.

---

**WebEx Non-Permitted User**

If the meeting organizer is a WebEx Non-Permitted user, they are not permitted to use WebEx with any of their meetings.

In this case, the WebEx button in the confirmation email and the WebEx tab in the Meeting Manager window are not available.

## Usage Survey

The Usage Survey window allows you to view and fill out the survey.

To fill out the survey:

- 
- Step 1** Select or enter an answer for each of the questions.
- Step 2** Click **Apply**.
- 

## Meeting Options

The meeting options window allows you to adjust other options for your meeting.

**Note**


---

Meeting options are different for an intercompany meeting. See the [Intercompany Host Meeting Options](#) and [Intercompany Participant Meeting Options](#) sections, for more information.

---

**Mark this meeting as private:** Allows you to show or hide the TelePresence meeting subject on the phone in the TelePresence endpoint.

**Provide a call-in number for other participants?:** Allows you to provide a call-in number for TelePresence endpoints that were not originally invited to the meeting to be able dial in to the meeting.

The following options are available only for a meeting scheduled with one endpoint:

**Number to Dial:** Enter a call-in number. The entire number must be 15 digits or less, and begin with a country prefix. You must enter only numbers. Other characters including dashes are not permitted.

**Is this meeting intended for recording a video to be distributed later?:** Allows you to record the meeting for distribution later.

**Is TelePresence required for this meeting?:** Allows you to disable TelePresence for the meeting. When TelePresence is disabled, Action Required emails will not be sent if any additional settings are changed.

When you are finished making changes in the Meeting Options window, click **Apply** to save your changes.

## Allowing Other Users to Manage Your Meetings

The meeting organizer can select up to five other users who can also manage the meeting organizer's meetings. The user(s) will receive the email notifications and have the ability to access Meeting Manager to view meeting details, change meeting options, as well as change preferences.



### Note

First-time WebEx authentication must be done by the meeting organizer.

In the emails and in the meeting details, delegates will see the meeting information based on the organizer's time zone and locale preferences, not the delegates' own.

All feature options that are available to the meeting organizer are also available to the delegates for the organizer's meetings.

To allow other users to manage your meetings:

- Step 1** In the Meeting Manager window, click **Preferences**.  
The Preferences window opens.

**Figure 14-7** Preferences

- Step 2** In the Allow Others to Manage My Meetings field, enter the user ID of each user to whom you want to delegate management of your meetings. User IDs must be separated by a comma and must be valid LDAP user IDs.  
example: jsmith, kjohnson, bjones

- Step 3** (Optional) After you enter at least one delegate, if you don't want to receive email notifications for meetings that you schedule, uncheck **Send me email notifications**.
- Step 4** (Optional) If you want to save the user IDs that you are entering and keep this window open while you find other user IDs to enter, click **Apply**.
- Step 5** When you are finished, click **OK** to save changes and close the Preferences window.

## System Alert Notification

Each day after the CTS-Manager maintenance cycle, the SysAdmin receives a system alert notification email if there are any meetings that were scheduled but never took place (no-show meetings), and meetings for which the survey was not completed by the meeting organizer.

This email displays the following information:

**Table 14-11** *Organizers of No-Show Meetings*

Field Name	Description
Organizer Name	The meeting organizer who scheduled the meeting.
Meeting Count	The number of scheduled meetings that never took place.
Total Hours	The total number of hours associated with the meetings that never took place.

**Table 14-12** *Meetings without Usage Survey Responses*

Field Name	Description
Organizer Name	The meeting organizer who scheduled the meeting.
Meeting Count	The number of scheduled meetings for which the Usage Survey has not been completed.



### Note

The Meetings without Usage Survey Responses information will not be available if the Metrics Dashboard and Reporting API license is not uploaded. To upload the Metrics Dashboard and Reporting API license, go to the **Configure > Licenses** window, click the **License Files** tab and click **Upload**.



# CHAPTER 15

## Supported MIBs for Cisco TelePresence Manager

First Published: Nov 2, 2011, OL-22226-01

### Contents

- [Introduction, page 15-1](#)
- [MIB Support, page 15-1](#)

### Introduction

The following section provides the list of MIBs that are supported in the Cisco TelePresence Manager.

### MIB Support

The following MIBs are supported by CTS-Manager. MIBs only partially supported list their capability files.

**Table 15-1**      *CTS-Manager Supported MIBs*

MIB	Support	Capability Location
CISCO-CDP-MIB	Partially	<a href="ftp://ftpeng.cisco.com/pub/mibs/v2/CISCO-CDP-CAPABILITY.my">ftp://ftpeng.cisco.com/pub/mibs/v2/CISCO-CDP-CAPABILITY.my</a>
CISCO-SYSLOG-MIB	Partially	<a href="ftp://ftpeng.cisco.com/pub/mibs/v2/CISCO-SYSLOG-CAPABILITY.my">ftp://ftpeng.cisco.com/pub/mibs/v2/CISCO-SYSLOG-CAPABILITY.my</a>
IF-MIB	Partially	<a href="ftp://ftpeng.cisco.com/pub/mibs/v2/CISCO-IF-CAPABILITY.my">ftp://ftpeng.cisco.com/pub/mibs/v2/CISCO-IF-CAPABILITY.my</a>
IP-MIB(v2)	Partially	<a href="ftp://ftpeng.cisco.com/pub/mibs/v2/CISCO-IP-CAPABILITY.my">ftp://ftpeng.cisco.com/pub/mibs/v2/CISCO-IP-CAPABILITY.my</a>
RFC1213-MIB	Fully	

**Table 15-1** CTS-Manager Supported MIBs

MIB	Support	Capability Location
SNMPv2-MIB	Fully	
TCP-MIB	Partially	<a href="ftp://ftpeng.cisco.com/pub/mibs/v2/CISCO-TCP-STD-CAPABILITY.my">ftp://ftpeng.cisco.com/pub/mibs/v2/CISCO-TCP-STD-CAPABILITY.my</a>
UDP-MIB	Fully	
SNMP-FRAMEWORK-MIB	Fully	
SNMP-MPD-MIB	Fully	
SNMP-VACM-MIB (SNMP-VIEW-BASED-ACM-MIB)	Fully	
SNMP-NOTIFICATION-MIB	Fully	
SNMP-TARGET-MIB	Fully	
SNMP-USER-BASED-SM-MIB	Fully	
HOST-RESOURCE-MIB	Fully	

**Table 15-2** CTS-Manager Supported H/W MIBs

MIB	Support	Capability Location
IBM PLATFORM		
IBM-SYSTEM-AGENT-MIB		
IBM-SYSTEM-ASSETID-MIB		
IBM-SYSTEM-HEALTH-MIB		
IBM-SYSTEM-LMSENSOR-MIB		
IBM-SYSTEM-MEMORY-MIB		
IBM-SYSTEM-MIB		
IBM-SYSTEM-NETWORK-MIB		
IBM-SYSTEM-POWER-MIB		
IBM-SYSTEM-PROCESSOR-MIB		
IBM-SYSTEM-RAID-MIB		
IBM-SYSTEM-TRAP-MIB		
HP PLATFORM		
CPQIDA-MIB		1.3.6.1.4.1.232.3
CPQHOST-MIB		1.3.6.1.4.1.232.11
CPOSTDEO-MIB		1.3.6.1.4.1.232.1
CPQTHRSH-MIB		1.3.6.1.4.1.232.10



**Table 15-2**      *CTS-Manager Supported H/W MIBs*

MIB	Support	Capability Location
CPQSTSYS-MIB		1.3.6.1.4.1.232.8
CPQSINFO-MIB		1.3.6.1.4.1.232.2
CPQHLTH-MIB		1.3.6.1.4.1.232.6
CPQIDE-MIB		1.3.6.1.4.1.232.14





# CHAPTER 16

## Troubleshooting Cisco TelePresence Manager

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# Introduction

Troubleshooting meeting connections and network problems is one of the more important responsibilities of the Cisco TelePresence system administrator. When a problem is detected, you must collect system errors and logs files so they can be analyzed for prompt resolution. [Figure 16-1](#) shows the links available to assist you with these troubleshooting tasks.

**Figure 16-1**      *Troubleshooting Window*

## Troubleshoot

Click a link below to troubleshoot Cisco TelePresence Manager issues.

- [System Information](#) : View host name, IP address, MAC address, and software and hardware information.
- [System Resources](#) : View graphical display of CPU load, traffic, memory, and disk usage data.
- [System Messages](#) : View system messages.
- [Log Files](#) : Configure logging levels, and download log files.

# System Information

The System Information window displays a quick summary of information about your Cisco TelePresence System. The window is divided into two areas:

- System Information lists model numbers, hostname, addresses, and hardware and software version information.
- Product Software Versions lists software currently configured in the system. It includes product names and version numbers.

**Figure 16-2**      *Troubleshoot > System Information*

## System Information

### System Information

SKU	Hostname	IP Address	MAC Address	License MAC Address	Hardware Model	Software Version	OS Version
CTS-MAN 1.8	example-ctm-3	209.165.200.233	00:1a:4b:34:96:0e	001A4B34960E	7835H2	1.8.0.0 (545)	UCOS 4.0.0.0-44

### Product Software Versions

Product Name	Supported	Actual
Domino LDAP Server	[Release 7.0, Release 8.0]	Release 8.0.2
Cisco Unified Communications Manager	[7.1.3 and later]	<a href="#">Actual Version</a>
Domino Server	[7.0, 8.0]	8.0.2

# System Resources

**Table 16-1**      **System Information**

SKU	CTS-Manager 1.8.x
Hostname	The name of the CTS-Manager server (e.g. example-ctm19).
IP Address	The IP address of the CTS-Manager server.
MAC Address	The MAC address of the CTS-Manager server (e.g. 00:18:fe:73:58:14).
License MAC Address	The MAC address of the CTS-Manager server that is used to get licenses.
Hardware Model	The hardware model of the CTS-Manager server (e.g. 7845H2).
Software Version	The version of CTS-Manager software running on the server (e.g. 1.8.0.0).
OS Version	The software version of the Cisco Unified Communications OS running on the CTS-Manager server (e.g. Cisco Unified CM OS 3.0.0.0-44).
Product Software Versions	Supported versions for Microsoft Exchange or Domino, Active Directory or Domino LDAP Server and Domino Server, and Cisco Unified CM.

This System Resources window displays eight graphs which provide system information.

**Figure 16-3**      **System Resource Information Chart 1 - 4**

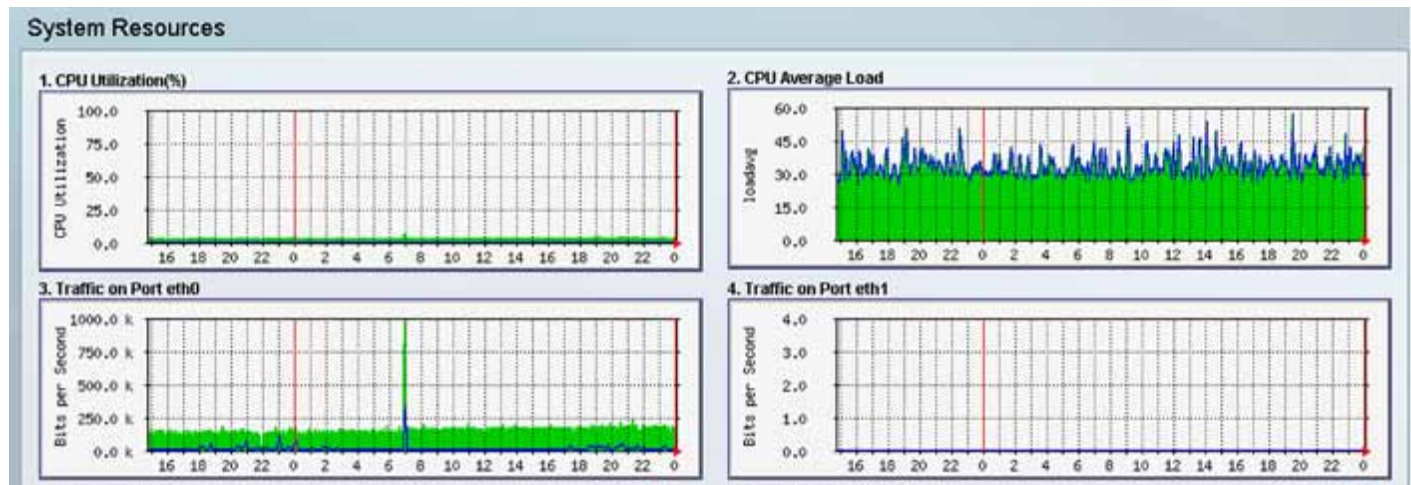
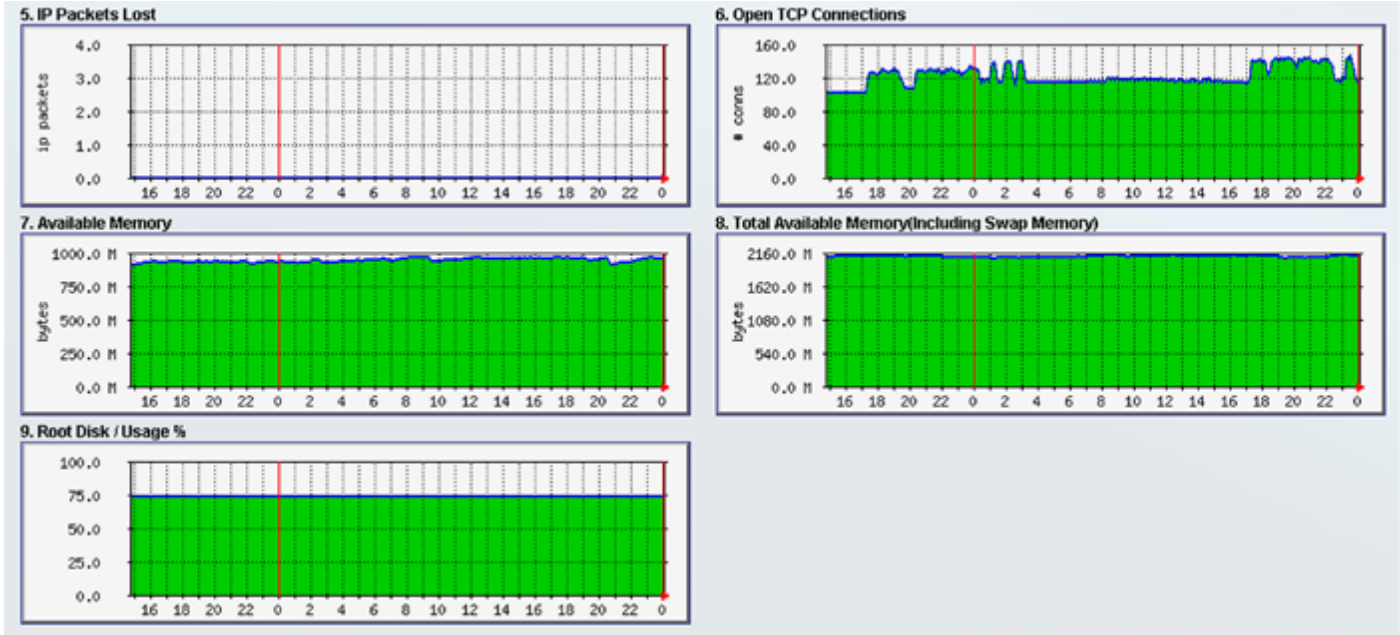


Figure 16-4 System Resource Information Chart 5 - 9



# System Messages

The System Messages window displays system messages provided by the CTS-Manager.

**Figure 16-5** Troubleshooting System Resources Window

The screenshot shows the 'System Messages' window. At the top, it says 'List of Generated System Messages' and 'Showing 1-5 of 5' with a 'Go' button. Below this are filters for 'Start on:' (10/4/2011), 'End on:' (10/5/2011), and 'Severity:' (All), with a 'Filter' button. The main area is a table with the following data:

	Time	Severity	Summary	Recommendation
<input type="radio"/>	10/05/2011 05:00 AM	warning	The certificate expiry warning	Refer to admin guide to upload new certificate for impacted component
<input type="radio"/>	10/05/2011 12:55 AM	info	Discovery complete for the specified unified CM profile	No further action
<input type="radio"/>	10/04/2011 03:28 PM	error	WebEx server registration failed.	Check webex server details and credentials. Check webex server certificate validity support team
<input type="radio"/>	10/04/2011 05:00 AM	warning	The certificate expiry warning	Refer to admin guide to upload new certificate for impacted component
<input type="radio"/>	10/04/2011 12:55 AM	info	Discovery complete for the specified unified CM profile	No further action

At the bottom left is a 'Details...' button, and at the bottom right is a 'Page 1 of 1' indicator with navigation arrows.

Click the radio button and then click the **Details** button to view the details of the alert.

**Table 16-2** System Messages Fields and Descriptions

Field	Description
Time (+)	Date and time the message was logged. You can sort the messages in ascending or descending order by the time stamp.
Severity	Message severity level. (All, Emergency, Alert, Critical, Error, Warning, Notice, Info, Debug),.
Summary	Explanation of problem detected. Move your mouse pointer over a message field to see a complete description.
Recommendation	Recommended action to correct the problem.

To view details about a specific message:

**Step 1** Select the message by clicking its radio button.

**Step 2** Click **Details**.

The Details window for the selected message opens, providing additional information about the message.



**Tip**

Each message has a unique ID number. To find out more information about each message, including its possible cause and any solutions, refer to [Appendix A, “Cisco TelePresence Manager System Messages.”](#)

# Log Files

In the Log Files window, you can download log files, set levels for logging system errors and archive logs:

- [Log Files](#)
- [Log Levels](#)
- [Archive](#)

## Log Files

In the Log Files tab of the Log Files window you can download logs for the following services:

- Discovery
- Calendar
- Room Phone UI
- Admin UI
- Multipoint Conference
- TelePresence Engine Components
- WebEx
- Recording

### Generating a List of Specific Log Types

**Step 1** From the Service drop-down list, choose one of the following to specify the type of errors to display:



**Note** To display the errors for all services, select **All**. This is the default selection.

**Step 2** Click **Filter** to generate the list.



**Note** Log files are named with a .log extension. The log filename provides a link to the contents of the error log file. This window also shows the date the file was last modified and the size of the log file. The lists can be sorted by filename and time last modified.

### Downloading Log Files

You can download log files individually or all together in a single compressed file:

- To download individual log files, click the name of the log file you want to download. You are prompted to either open or save the file.
- To download all log files, click **Download Logs**. All logs are compressed into a file that can be emailed, which makes it convenient to provide to Cisco technical support if you encounter a problem using CTS-Manager.



Figure 16-6 Troubleshoot &gt; Log Files &gt; Log Files

Log Files

Log Files Log Levels Archive

Showing 1-58 of 58 10 per page Go

Service: All Filter

Filename	Service	Last Modified (+)	Size (KB)
<a href="#">webex/logs/webex_AUDIT.log.2011-10-05.1</a>	WebEx	10/05/2011 07:12 AM	5120
<a href="#">webex/logs/webex_AUDIT.log</a>	WebEx	10/05/2011 03:28 PM	969
<a href="#">webex/logs/webex.log.2011-10-05.3</a>	WebEx	10/05/2011 12:37 PM	5120
<a href="#">webex/logs/webex.log.2011-10-05.2</a>	WebEx	10/05/2011 05:12 AM	5120
<a href="#">webex/logs/webex.log.2011-10-05.1</a>	WebEx	10/04/2011 10:08 PM	5120
<a href="#">webex/logs/webex.log.2011-10-04.4</a>	WebEx	10/04/2011 02:48 PM	5120
<a href="#">webex/logs/webex.log.2011-10-04.3</a>	WebEx	10/04/2011 07:26 AM	5120
<a href="#">webex/logs/webex.log.2011-10-04.2</a>	WebEx	10/04/2011 12:59 AM	5121

Download Logs...

Page 1 of 1

## Log Levels

In the Log Levels tab of the Log Files window you can set levels for the following logs:

### Services

- Unified CM
- Microsoft Exchange or IBM Domino
- Endpoint Phone UI
- Admin UI
- Multipoint Conference
- WebEx

### TelePresence Engine

- Service Providers
- Data Access
- Interface

You can set the messages from these services to the following levels:

- DEBUG—Detailed/verbose information on internal system activity.
- ERROR—Errors that need to be addressed by user or if needed, brought to system support team notice.

The default logging level is typically set to ERROR. There may be times when Cisco technical personnel will instruct you to modify the logging level for one or more of the services, to help them diagnose a problem. Be sure to reset the logging level immediately after the problem has been resolved, or else disk space may become filled with messages and negatively impact system performance.



If you set the debug level to **DEBUG** in a pre-1.8 version of CTS-Manager and then upgrade to CTS-Manager 1.8 or later, the debug level is set back to the default setting of **ERROR**.

Once you have made your logging level choices for each service:

- Click **Apply** to save new settings or click **Reset** to restore the original settings before you save your new settings.

Figure 16-7 Troubleshoot > Log File > Log Levels

The screenshot shows the 'Log Files' window with the 'Log Levels' tab selected. Under the 'Services' section, the following services are listed with their log levels set to 'ERROR': Unified CM, Microsoft Exchange, Endpoint Phone UI, Admin UI, Multipoint Conference, and WebEx. Under the 'TelePresence Engine' section, the following components are listed with their log levels set to 'ERROR': Service Providers, Data Access, and Interface. At the bottom of the window, there are 'Apply' and 'Cancel' buttons.

# Archive

In the Archive tab of the Log Files window you can configure where you want to archive logs.



Log files stored at remote location are stored in compressed form but are not encrypted. If you choose the Remote Storage option, ensure that the logs are not publicly accessible by choosing a secure storage location

Table 16-3 describes the archive configuration options.

Table 16-3 CTS-Manager Log Files Archive Settings

Field or Button	Description or Settings
Archive Logs to	Local Server: Log files are stored on this CTS-Manager Remote Storage: Log files are stored on a remote server.
Storage Type	When Remote Storage is selected, choose FTP or SFTP.
Host	Archive log remote storage location
Port	Port to access the remote host. The default is port 22 for SFTP.
Username	Login name for the remote server.

**Table 16-3** CTS-Manager Log Files Archive Settings (continued)

Field or Button	Description or Settings
Password	Password to access the remote server.
Storage Path	The full pathname where you want to remotely store the log files.
Download Logs for	Date of the archive logs to download. Enter a date (mm/dd/yyyy) or click the calendar icon and click a date.
Download	To download the archive logs for the selected date, click <b>Download</b> .

**Downloading Archive Log Files**

You can download archive log files all together in a single compressed file by doing the following:

- 
- Step 1** In the Download Logs for field, enter a date or select one by clicking the calendar.
- Step 2** Click Download.
- You are prompted to either open or save the file.
- 

To test your connection to a remote host, click **Verify Remote Host**.

To save new or modified settings, click **Apply**.

To restore the original settings, click **Cancel**.

**Figure 16-8** Troubleshoot > Log Files > Archive

**Log Files**

Log Files Log Levels **Archive**

✱ = Required fields

Archive Logs to: ☒ Local Server ☐ Remote Storage

Storage Type: ☒ SFTP ☐ FTP

✱ Host:

✱ Port:

✱ Username:

✱ Password:

✱ Storage Path:

---

Download Logs for:

200209

## Scheduled Meeting and Endpoint Issues

Meeting information is retrieved via processing room (endpoint) notifications from a Microsoft Exchange or an IBM Domino Calendar server. A notification is generated when a meeting is added, modified, or deleted.

The Cisco TelePresence Manager database is periodically synchronized with the Calendar server to retrieve and maintain room (endpoint) schedules. Synchronization resolves any problems that might have occurred when Exchange or Domino connectivity was not available and notifications were not received. If required, you can also trigger a manual synchronization of the room (endpoint) meeting schedule using the Resync operation in the Microsoft Exchange or IBM Domino window.

Meeting information is stored in the database, and the Room Phone UI service is notified when it is time to send the meeting schedule to the phone user interface.

The Support > Endpoints window displays the endpoint status as “In Use” when a call is placed. The Configure > Meetings window displays meetings as “In Progress” or “Completed” reflecting the actual state of the call.

If the Live Desk is called, this condition will be reflected in the Room UI view as “Needs Help”.

Refer to troubleshooting information in [Table 16-4](#) to solve common problems that prevent Cisco TelePresence meetings from being scheduled correctly.

**Table 16-4**      *Scheduled Meeting and Endpoint Issues*

Problem or Message	Possible Causes	Recommended Action
Detailed view of Meetings reports that the Cisco TelePresence meeting is “Pending for more information from Exchange”.	<p>This message appears when one of the two following conditions occurs:</p> <ul style="list-style-type: none"> <li>When Cisco TelePresence Manager receives notice of an event, it waits 30 seconds to see if any further event details are forthcoming from Microsoft Exchange and then validates the meeting.</li> <li>If the room (endpoint) is in manual-accept mode and its delegate has accepted a meeting only tentatively or has not responded to meeting e-mail notification</li> </ul>	<ul style="list-style-type: none"> <li>Wait a few moments and view Meetings status again to see if the meeting has been validated.</li> <li>Advise the room (endpoint) delegate to respond to meeting e-mail notification.</li> </ul>
The meeting organizer receives no e-mail to confirm the meeting is scheduled.	This problem occurs when a room (endpoint) is not in auto-accept mode.	<p>Make sure reserved rooms (endpoints) are in auto-accept mode.</p> <p>If a room (endpoint) is in manual-accept mode, the meeting invitation must be accepted by its delegate using Microsoft Outlook or Lotus Notes.</p>

Table 16-4 Scheduled Meeting and Endpoint Issues (continued)

Problem or Message	Possible Causes	Recommended Action
Scheduled Meetings do not show the status “In Progress”, or endpoints do not show “In Use” when a call is placed.	Connectivity between the Cisco TelePresence system and CTS-Manager is lost.	<p>Check the Support &gt; Endpoints window for status.</p> <p>The SSH username and password should be configured for the Cisco TelePresence system. See the <i>Unified CM Installation Guide for Cisco TelePresence</i> for more help.</p> <p>Verify that the Calendar service is running on the Cisco TelePresence system.</p>
Endpoint status indicates an error condition.	<p>Place your mouse over the status to see the error described in a tooltip. This problem can occur when:</p> <ul style="list-style-type: none"> <li>The phone associated with the Cisco TelePresence endpoint is not included in Cisco TelePresence Manager application user profile.</li> <li>The phone associated with the Cisco TelePresence endpoint is not registered with the Unified CM.</li> <li>More than one Cisco TelePresence phone could be configured with the same endpoint name.</li> </ul>	<p>Cisco TelePresence IP phone associated with participating endpoints must be added to the CTS-Manager Application User Profile.</p> <p>Update the CTS-Manager Application User Profile with correct endpoint data.</p> <p>Check the Support &gt; Endpoints window for status.</p> <p>Check the IP connectivity between the equipment and CTS-Manager.</p> <p>Missing Secure Shell username and password for the Cisco TelePresence IP phone should be configured in the Unified CM configuration.</p>
A recurring meeting is not listed in the Scheduled Meetings window	The first occurrence of the meeting is scheduled more than one year in the past.	Reschedule the meeting so that the start date for the recurring meeting is less than one year in the past.
Two instances of the same meeting (either a single meeting or an instance of a recurring meeting) are listed in the Scheduled Meetings window.	The date or time of the meeting was modified after the start time of the meeting, but before the meeting was initiated or the before the meeting end time has occurred.	This is expected behavior. The meeting instance with the new start date or start time is treated as a new meeting.

Table 16-4 Scheduled Meeting and Endpoint Issues (continued)

Problem or Message	Possible Causes	Recommended Action
<p>A recurring point-to-point meeting listed in the Scheduled Meetings window displays an Error status.</p> <p>OR</p> <p>A recurring multipoint meeting is listed in the Scheduled Meetings window as a point-to-point meeting (only two endpoints are scheduled).</p>	<p>The endpoints included in the meeting are in manual-accept mode (delegates must accept meeting invitations).</p> <p>If the recurring meeting is a point-to-point meeting (R1 &amp; R2) and a room (endpoint) delegate has declined one instance (R1), all meeting instances show only one endpoint scheduled.</p> <p>If the recurring meeting is a multi-point meeting (R1, R2, &amp; R3) and a room (endpoint) delegate has declined one instance (R1), all meeting instances show only two endpoints scheduled (R2 &amp; R3).</p>	<ul style="list-style-type: none"> <li>• In Microsoft Exchange, select the check box for the endpoint(s) missing from the scheduled meeting and Resync.</li> <li>• In IBM Domino, click Resync to resync the database.</li> </ul>
Endpoint Status reports a Subscription or Synchronization error with Microsoft Exchange	A discovery operation attempted to sync to a newly added room (endpoint) calendar before even one meeting was added to the calendar.	<p>A room (endpoint) calendar must contain at least one scheduled meeting in order for Cisco TelePresence Manager to successfully subscribe and sync.</p> <p>To remove the error status:</p> <ol style="list-style-type: none"> <li>1. Schedule at least one meeting on the room (endpoint) calendar.</li> <li>2. From the Configure &gt; Microsoft Exchange window, select the endpoint showing the subscription error and click <b>Resync</b>.</li> </ol>
Recurring or single meeting with only one endpoint (room) is displayed with an error status after meeting start time has passed.	<p>If a meeting organizer deletes a meeting that was</p> <ol style="list-style-type: none"> <li>1. not launched,</li> <li>2. after the meeting start time</li> </ol> <p>all but one of the endpoints are removed from the scheduled meeting and the meeting is set to an Error status.</p> <p>If the meeting was a recurring meeting and the meeting series was deleted after the first instance of the meeting was</p> <ol style="list-style-type: none"> <li>1. not launched,</li> <li>2. after the 1st meeting instance start time</li> </ol> <p>all but one of the endpoints (rooms) are removed from the scheduled meeting and the meeting is set to an Error status.</p>	This is expected behavior. All rooms (endpoints) calendars are available for scheduled meetings.

Table 16-4 Scheduled Meeting and Endpoint Issues (continued)

Problem or Message	Possible Causes	Recommended Action
Meeting Confirmation email refers to upcoming meeting instance, not to meeting instance whose details were updated.	The <b>Send Email</b> button in the Meeting Details window is available to any user (Live Desk or Administrator) logging into Cisco TelePresence Manager. If you make changes to a future instance of a recurring meeting and click <b>Send Email</b> , the confirmation email sent to the Meeting Organizer refers to the upcoming meeting and not to the future instance that was changed.	The Meeting Organizer must click the link in the Confirmation email to open the Meeting Details window and select the future meeting instance to see the changes made.
Meeting instances in a recurring meeting are not listed in the Action Required emails.	Action Required emails list only the first 50 instances of a recurring meeting.	To view additional instances of a recurring meeting, the Meeting Organizer must click the link in the Action Required email and display the Meeting Details window.
A scheduled meeting is not listed in the Scheduled Meetings window. (For IBM Domino deployment.)	<p>The date of a scheduled meeting must fall between two days prior to the current date and two calendar years in the future ( -2 days — +12 months), in order for Cisco TelePresence Manager to sync the meeting between the Domino database and the Cisco TelePresence Manager database.</p> <p><b>Note</b> If a meeting is scheduled while Cisco TelePresence Manager is down, and more than two days pass before CTS-Manager is restarted, the meeting will not be synchronized and must be rescheduled.</p>	<p>Verify the endpoints (rooms) are registered properly in the Configure &gt; IBM Domino window. The endpoint name appearing in the Associated Rooms column must exactly match the room (endpoint) names added to the profile in Unified CM.</p> <p><b>Note</b> In Cisco Unified CM the Product Specific Configuration Layout window refers to “Room Name (from Exchange)”. This is the endpoint name that must match the room name in the Domino server database in order for CTS-Manager to successfully sync.</p>
A deleted meeting still appears in CTS-Manager. (For IBM Domino deployment.)	<p>The CTS-Manager database is set to delete scheduled meetings according to the (Polling Interval * 3). The Polling Interval is set in the IBM Domino window.</p> <p>If the scheduled meeting does not fall within two days prior to the current date and two calendar years in the future ( -2 days — +12 months), the meeting is not deleted from the CTS-Manager database.</p>	Please wait the prescribed amount of time to ensure the meeting is deleted.

Table 16-4 Scheduled Meeting and Endpoint Issues (continued)

Problem or Message	Possible Causes	Recommended Action
Scheduled meetings show an error. OR New meetings are not appearing in the Scheduled Meetings window.	After the Microsoft Exchange server is down, CTS-Manager does not regain a connection.	Resync the endpoints with scheduled meeting errors or missing meetings. After the endpoint resync, Exchange may still display an error status.  This can be fixed by either: <ul style="list-style-type: none"> <li>waiting for CTS-Manager to renew subscription to the affected endpoints (occurs every 55 minutes)</li> </ul> OR <ul style="list-style-type: none"> <li>restarting the CTS-Manager server.</li> </ul>
New meetings are not processed by CTS-Manager after a software upgrade.	The Domino or Exchange server was down during the upgrade and the initialization process did not complete properly.	<ul style="list-style-type: none"> <li>Initiate Discovery manually to initialize the processes.</li> </ul> OR <ul style="list-style-type: none"> <li>Restart CTS-Manager</li> </ul>
An Action Required email does not list the error for all instances of a recurring meeting (Domino Calendar Server issue).	If a recurring meeting is created with two endpoints, and is then modified by removing one endpoint for all meeting instances, the Action Required email does not list out all the meeting instances.	This is expected behavior. The meeting organizer should modify the meeting series using Lotus Notes and add a second Cisco TelePresence endpoint.
A deleted meeting still appears in the Scheduled Meetings window.	The meeting was deleted from the Exchange endpoint calendar, but the meeting is not deleted in CTS-Manager. This can happen if room (endpoint) reservations are managed using Outlook Auto Accept.	Delete the meeting from the room (endpoint) calendar.  Refer to Microsoft Knowledge Base article 280854 for more information.
An endpoint shows a sync error with a calendar server.	<ol style="list-style-type: none"> <li>A new endpoint with no scheduled meetings is included in a multipoint recurring meeting.</li> <li>Meeting goes into error state, because of reduced bridge or server resources.</li> <li>The meeting series is deleted through Outlook.</li> <li>The new endpoint now has a 'one room' meeting error.</li> <li>Exchange returns '0' meetings for the new endpoint during daily maintenance, but the CTS-Manager database still contains a meeting for the endpoint.</li> </ol>	Perform one of the following procedures to correct the endpoint sync error: <ul style="list-style-type: none"> <li>Create a meeting using this room (point-to-point, multipoint, single or recurring). The next daily maintenance corrects the sync error.</li> <li>Perform a manual sync for the endpoint.</li> </ul>



Table 16-4 Scheduled Meeting and Endpoint Issues (continued)

Problem or Message	Possible Causes	Recommended Action
Scheduled meeting is in error state for a new endpoint.	A new endpoint is included in two separate meetings and one of the meetings is deleted.  <b>Note</b> In this scenario a Clarification email may be sent to the meeting organizer for a 'missing rooms' issue. The email should not have been sent.	Resync the endpoint with Exchange.
Meeting does not show up in CTS-Manager Web UI nor is it pushed to the phone UI.	Endpoint (room) mailbox attending the meeting has been switched between auto-accept mode and manual accept mode.	Re-accept the meeting manually again. It is recommended not to switch endpoint (room) mailbox acceptance mode.
No clarification email sent when a meeting is modified to include only one endpoint.	If the meeting organizer is using OWA and deletes one of two endpoints for a scheduled meeting, no clarification email is sent.	Refer to Microsoft Knowledge Base article 916160 for more information.
Only one instance of a yearly recurring meeting is seen in CTS-Manager.	The meeting organizer did not specify an end date.	Update meeting to include an end date.
Two different meetings appear as scheduled for the same time slot.	One of the meeting's scheduled had its "Show time as" attribute set to "free".	Do not set the "Show time as" attribute to "free". Reschedule the meeting.
Both past and present scheduled meetings are updated when enabling interoperability.	When enabling interoperability for a scheduled meeting and the meeting organizer chooses "all future occurrences", all past and present meeting instances have interop enabled.	This is standard functionality.
Deleted scheduled meetings still appear in CTS-Manager.	If all meetings for an endpoint are deleted, CTS-Manager is not updated to reflect the meeting deletions in Exchange.	Create a new scheduled meeting for the endpoint to resync CTS-Manager and Exchange.
Meetings scheduled past a one year duration only show the first year of scheduled meetings.	CTS-Manager only displays the first 365 days of any scheduled meeting.	Meetings scheduled prior to CTS-Manager 1.4 will continue to display meeting dates past a 365 day window. Meetings scheduled using CTS-Manager 1.4 only display meeting dates for the first 365 days.
CTS-Manager shows extra meeting instances for some recurring meetings.	An additional endpoint, in proxy mode is added to an existing recurring meeting by the Meeting Organizer, who then makes additional changes to the series. The room delegate then accepts the invite to the meeting using an out-of-date meeting invitation.	Make sure the endpoint (room) delegate uses the latest meeting invitation when accepting the invitation.
A meeting organizer may receive two emails from CTS-Manager for a non-recurring multipoint meeting.		Use AAA for acceptance.

**Table 16-4** *Scheduled Meeting and Endpoint Issues (continued)*

Problem or Message	Possible Causes	Recommended Action
A meeting state is displayed as complete even if some participants remain active.	Meetings scheduled between endpoints supporting secure mode (earlier than 1.5) and 1.5 endpoints, that have been modified to be an intercompany meeting may not end the call properly for 1.5 endpoints.	Manually end the call from each version 1.5 endpoint.
After changing the hostname or IP address of Cisco Unified Communications Manager (Unified CM) with same configuration in CTS-Manager, the custom meeting data is lost.	<ol style="list-style-type: none"> <li>1. Cisco Unified CM's IP address is changed so that the IP address in CTS-Manager needs to be changed.</li> <li>2. Cisco Unified CM is restored on a different server and now CTS-Manager is configured with new Cisco Unified CM IP address.</li> </ol> <p>In such cases, even though there is no change in the CTS endpoints, CTS-Manager deletes all endpoints and meetings, adds new endpoints, and syncs again with the Exchange/Domino. This causes all custom data to be lost.</p>	Change Cisco Unified CM to use the previous configuration; restore using the CTS-Manager backup so that all the custom changes to the meetings are restored.
If a recurring meeting is started at a local time which is shifted by the daylight savings time change (for example in the U.S., between March 14, 2:00 to 2:59 AM), future recurring meeting instances could be shown in a wrong local time.	Meeting is scheduled during the date and time that daylight savings time begins.	Modify the time of all future instances after daylight savings time has begun to the correct time.
After system upgrade to CTS-Manager 1.8 and after the maintenance cycle, most of the multipoint meetings are displaying the following error: "WARNING: The system is waiting for more information on this meeting from the calendar server. Try to view the meeting again after a few minutes."	<p>This normally occurs if the meeting processing/resource allocation takes longer than 2 minutes, blocking other threads that are trying to acquire the lock on the same meeting.</p> <p>This can occur when there are many long recurring meetings (more than 300 occurrences) with many endpoints (70 or more).</p>	Modify the meeting time and/or recurring pattern, so the meeting gets revalidated.

## Endpoint Phone/Display Device User Interface Issues

Once a scheduled Cisco TelePresence meeting has been confirmed by participating endpoints (rooms) in Microsoft Exchange or IBM Domino, it should be listed on the endpoint phone/display device user interface in less than three minutes. Use [Table 16-5](#) to troubleshoot problems between scheduled meetings and the phone user interface.

**Table 16-5** *IP Phone User Interface Issues*

Problem or Message	Possible Causes	Recommended Action
<p>The Cisco TelePresence IP phone displays the standard idle screen instead of the meeting list managed by CTS-Manager.</p> <p>A scheduled meeting does not appear on the Cisco TelePresence phone user interface.</p>	<p>This problem can occur when:</p> <ul style="list-style-type: none"> <li>• There is no connectivity between the Cisco TelePresence IP phone and Cisco TelePresence Manager.</li> <li>• The scheduled meeting is outside the user-specified time window.</li> <li>• The Secure Shell username and password for the Cisco TelePresence IP phone in the Unified CM configuration are missing.</li> <li>• CTS-Manager has not sent required information to the Cisco TelePresence IP phone.</li> <li>• The network is not properly configured or is down.</li> <li>• The room name configured in Unified CM does not match the actual endpoint (room) name (e-mail alias) configured in the Directory Server.</li> <li>• Duplicate room names are configured.</li> <li>• Cisco TelePresence IP phone associated with participating rooms has not been added to the CTS-Manager Application User Profile.</li> <li>• The Exchange or Domino user account for CTS-Manager does not have permission to retrieve calendar data.</li> </ul>	<ul style="list-style-type: none"> <li>• Check the dashboard for phone status.</li> <li>• Only meetings within the user-specified time window are displayed on the phone user interface. The administrator can configure the number of days displayed.</li> <li>• Verify that the Calendar service is running in the Cisco TelePresence system.</li> <li>• The endpoint (room) name must exactly match the name (e-mail alias) provided in the Directory Server.</li> <li>• Remove duplicate endpoint (room) names configured in Unified CM.</li> <li>• Update the CTS-Manager Application User Profile with correct endpoint (room) data.</li> <li>• Change the CTS-Manager user account for Exchange or Domino so it has permissions to retrieve (read) endpoint (room) and calendar data.</li> </ul>
<p>A proposed meeting was deleted from Microsoft Outlook, but it still appears on the Cisco TelePresence phone user interface.</p>	<p>This problem can occur when:</p> <ul style="list-style-type: none"> <li>• Outlook Web Access (OWA) is used to schedule meetings because OWA does not receive delete updates.</li> <li>• CTS-Manager is not synchronized with the Exchange database.</li> </ul>	<ul style="list-style-type: none"> <li>• Log into Microsoft Outlook and use that application to delete the meeting.</li> <li>• Use the Re-Sync Operations under Microsoft Exchange to resynchronize the database and meeting schedule.</li> </ul>

## Cisco TelePresence Manager Database Issues

Status for database services is displayed on the Dashboard window.

You can verify the CTS-Manager database status using the following CLI command:

**utils service list**

The result should indicate the CTS-Manager database as running.

You can start the CTS-Manager database using the following CLI command:

**utils service start Cisco DB**

You can stop the CTS-Manager database using the following CLI command:

**utils service stop Cisco DB**



**Caution**

Use this command with extreme caution: The CTS-Manager server must be stopped before stopping the CTS-Manager database.

Table 16-6      CTS-Manager Database Issues

Problem or Message	Possible Causes	Recommended Action
Remote access user names cannot be created with a number.	<p>CLI returns the following error:</p> <pre>admin:utils remote_account create rootuser1 Executed comand unsuccessfully Invalide account name</pre> <p>The Admin UI returns the following error:</p> <pre>"Cisco TelePresence Manager has detected error conditions while processing your request. Code 2617 ID: REMOTE_ACCT_CREATE_ERROR Module: AUI Message: Failed to create remote account 'rootuser1'. Error: 'Invalid account name'.</pre>	Do not create user names that include a number as part of the name.

# Bridges and Servers Issues

CTS-Manager supports five types of bridges and servers. [Table 16-7](#) documents any issues or anomalies between CTS-Manager and specific bridges or servers.

**Table 16-7** *Bridges and Servers Issues*

Problem or Message	Possible Causes	Recommended Action
A CUVC status is always “OK”.	CUVC status is not monitored by CTS-Manager.	When registering a CUVC with CTS-Manager you must manually confirm all configuration settings.
The value entered in the Max/Min Participants per Conference fields are not validated by CTS-Manager when you click the Save button.		You must manually determine and enter the correct value in these fields.
CTS-Manager shows scheduled meeting failed due to insufficient resources.	Each room (endpoint) participating in a multipoint or interop call that is capable of 30fps requires 1 additional segment	Allocate enough resources in CTMS to provide for multipoint or interop calls with 30fps endpoints.


## Cisco Unified Communications Manager (Unified CM) Issues

**Table 16-8** *Cisco Unified CM Issues*

Problem or Message	Possible Causes	Recommended Action
The following message appears in the Support > Cisco Unified CM window “Cisco Unified CM version 6.1.1 is not supported.”	CTS-Manager is running in secure mode. If Web Services Security is set to ‘Secure’ on the Configure > Security window you must be running Cisco Unified CM 6.1.2 or higher to support security.	Set Web Services Security to ‘Unsecure’ or upgrade Cisco Unified CM to 6.1.2 or higher and run Discovery from the Configure > Discovery Service window.
Connection failed between secure CTS-Manager and secure CUCM (8.0.3).  Troubleshoot > System Messages window displays the following error: “Provider is null”  The Discovery log (accessible from the Troubleshoot > Log Files window) displays the following error:-  ERROR cti.CTIAdapter (initJtapi:661) - Failed to create CTI Adapter :Unable to create provider -- Socket Closed com.cisco.jtapi.PlatformExceptionImpl: Unable to create provider -- Socket Closed at com.cisco		Log into the Cisco Unified CM Administration application for the CUCM and restart the “Cisco CTIManager” service.


# Calendar Server and LDAP Interface Issues

Status for the Calendar Server (Microsoft Exchange or IBM Domino), and the LDAP server is displayed in the Dashboard window. If problems are indicated, verify the attribute mappings specified during installation CTS-Manager. See Settings in the LDAP Server window under System Configuration.



Caution

The object and attribute mappings for Exchange/Directory Server and Domino/Directory Server deployments are listed in [Table 16-10](#) and [Table 16-11](#) and **should not** be changed after installing and configuring Cisco TelePresence Manager.



Caution

The Object Class field and Attribute fields should not be changed. Cisco TelePresence Manager might not function properly if these fields are changed.

For deployments with multiple Directory Server deployments, LDAP uses port 3268 (the Global Catalog port) by default. For a single server deployment, port 389 is generally used, but you can reconfigure this port at the LDAP Server window under System Configuration.

## LDAP Server Issues

Table 16-9      LDAP Server Issues

Problem or Message	Recommended Action
Endpoint (room) is not synchronized between Microsoft Exchange and Cisco TelePresence Manager.	<ul style="list-style-type: none"> <li>LDAP user container DN must be configured correctly for all domains.</li> <li>LDAP field mapping should be set to default settings.</li> </ul>

## Microsoft Exchange Calendar Server Issues

**Table 16-10**      *Microsoft Exchange Calendar Server Issues*

Problem or Message	Possible Causes	Recommended Action
<p>Extra endpoint has been added to a specific instance of a recurring meeting.</p> <p><b>Note</b>    This issue occurs with Exchange 2007.</p>	<ol style="list-style-type: none"> <li>1. A meeting organizer schedules a recurring meeting with two or more endpoints (E1, E2 and E3).</li> <li>2. Meeting organizer deletes E1 from one instance of recurring meeting (M1).</li> <li>3. Meeting organizer adds a fourth endpoint to master series (E4).</li> <li>4. E1 has been re-added to M1.</li> </ol>	<ol style="list-style-type: none"> <li>1. Open the E1 room calendar and delete the scheduled meeting instance.</li> <li>2. In Cisco TelePresence Manager, go to the Configure &gt; Microsoft Exchange window, select the check box next to the room and click the Resync button.</li> </ol> <p><b>Note</b>    Refer to Microsoft Knowledge Base article 949294 for more information.</p>
<p>Endpoint Status reports a Subscription status error or a sync error with Microsoft Exchange</p>	<p>A Discovery operation attempted to sync to a newly added room (endpoint) calendar before even one meeting was added to the calendar.</p>	<p>A room (endpoint) calendar must contain at least one scheduled meeting in order for Cisco TelePresence Manager to successfully subscribe and sync.</p> <p>To remove the error status:</p> <ol style="list-style-type: none"> <li>1. Schedule at least one meeting on the room (endpoint) calendar.</li> <li>2. From the Configure &gt; Microsoft Exchange window, select the endpoint showing the subscription error and click <b>Resync</b>.</li> <li>3. From the Support &gt; Endpoints Summary tab, select the endpoint showing the Exchange subscription or sync error (on the Status tab), and click <b>Update Schedule</b>.</li> </ol>

**Table 16-10** *Microsoft Exchange Calendar Server Issues (continued)*

Problem or Message	Possible Causes	Recommended Action
Endpoint is not synchronized between Microsoft Exchange and Cisco TelePresence Manager.		<ul style="list-style-type: none"> <li>• Cisco TelePresence Manager must have Full Access or Read Permission to the room's (endpoint's) mailbox.</li> <li>• The room (endpoint) mailbox must be created with English as the default language.</li> <li>• The room (endpoint) user must log into the room mailbox at least once.</li> <li>• The room (endpoint) email ID must be uniquely assigned to only one user (endpoint user).</li> <li>• Room's (endpoint's) email ID must be configured correctly in Cisco Unified CM and Exchange.</li> <li>• The Cisco TelePresence System MAC address must be added to the User Profile in Unified CM.</li> <li>• Each Cisco TelePresence System may have only one corresponding IP Phone, that shares the same DN with the Cisco TelePresence System and whose MAC address has been defined in the Cisco Unified CM User Profile.</li> <li>• The Cisco TelePresence Manager's clock must be in sync with the Exchange system clock.</li> <li>• UDP port 3621 cannot be blocked by a firewall between Exchange Cisco TelePresence Manager.</li> <li>• Forms Based Authentication must not be enabled for WebDAV for the Exchange website in the Exchange server that is registered with Cisco TelePresence Manager.</li> <li>• Verify the room (endpoint) is configured for Auto-accept, or the Room Delegate has accepted the meeting invitation.</li> <li>• At least one meeting must be scheduled on a room (endpoint) calendar before syncing with CTS-Manager, or CTS-Manager will return a sync error condition for the endpoint</li> </ul>



**Table 16-10**      *Microsoft Exchange Calendar Server Issues (continued)*

Problem or Message	Possible Causes	Recommended Action
In the Microsoft Exchange window, clicking <b>Test Connection</b> returns an error.		<ul style="list-style-type: none"> <li>• Verify Exchange 2007 has a Client Access role.</li> <li>• For IIS Manager on the Exchange server, make sure <b>SSL is required</b> is not checked for the default web site when you are not using secure mode.</li> <li>• In Exchange Management Console, make sure <b>Exchange (Default Website)</b> is not configured with FBA.</li> </ul> <p><b>Note</b> FBA must be disabled for Cisco TelePresence manager to sync meeting information with Exchange. If a new room (endpoint) mailbox is added to a new Exchange server that has FBA enabled, you can either disable FBA on the second Exchange server, or use the initial Exchange server as the front-end server and point Cisco TelePresence Manager to that server.</p>
In the Scheduled Meetings window the Meeting Subject is deleted.  <b>Note</b> This issue occurs with Exchange 2007.	By default, the Exchange mailbox calendar attributes <b>AllBookInPolicy</b> , <b>DeleteSubject</b> , and <b>AddOrganizerToSubject</b> are set to true. These attribute flags set to true delete the meeting subject and replace it with the organizer's username.	In order to display the original subject of the meeting, set <b>DeleteSubject</b> and <b>AddOrganizerToSubject</b> in the room (endpoint) calendar mailbox setting to false.
Single meeting email confirmation may show incorrect local time zone for meeting start time.	Outlook desktop does not set the meeting time zone for a single occurrence meeting.	Refer to Microsoft Knowledge Base article 925376 for more information.
Meeting shows with error "waiting for more info from Exchange".  <b>Note</b> This issue occurs with Exchange 2007.	This can be caused if OWA is used to schedule the meeting, and the meeting organizer is logged into OWA as one of the endpoints included in the meeting.	Do not use OWA to schedule a meeting if you are logging in as one of the endpoints included in the scheduled meeting.

**Table 16-10** Microsoft Exchange Calendar Server Issues (continued)

Problem or Message	Possible Causes	Recommended Action
CTS-Manager cannot connect to MS Exchange.	The Windows logon name used to log into the MS Exchange server is different from the SMTP LHS.	In the Configure > Microsoft Exchange window specify both the logon name and the SMTP LHS if they are different.  <b>Note</b> After upgrading CTS-Manager make sure both the logon name and the SMTP LHS are specified.
The most recent changes to an individual instance of a recurring meeting are sometimes not displayed on the endpoint phone/display device.	When using Exchange 2007 and WebDAV, the .Exchange Server sent different timezones that triggered the recurring meeting to be processed again.	Microsoft recommends using Exchange 2007 with EWS.  <b>Note</b> WebDAV is not recommended for Exchange 2010.

## IBM Domino Calendar Server Issues

**Table 16-11** IBM Domino Calendar Server Issues

Problem or Message	Possible Causes	Recommended Action
Failed to authenticate. Check authentication parameters. Username: short form of email address. Password: Internet password	This problem can occur when the incorrect password is specified for the Domino server, or the LDAP server configured with Domino.	Make sure the Internet password is used in the Password fields in the System Configuration> IBM Domino window and the LDAP Server window.
Endpoint is not synchronized between Domino server and Cisco TelePresence Manager.		<ul style="list-style-type: none"> <li>The room (endpoint) user must log into the room mailbox at least once.</li> <li>The room (endpoint) email ID must be uniquely assigned to only one user (room user).</li> <li>Room's (endpoint's) email ID must be configured correctly in Cisco Unified CM and Domino.</li> <li>The Cisco TelePresence System MAC address must be added to the User Profile in Cisco Unified CM.</li> <li>Each Cisco TelePresence System may have only one corresponding IP Phone, that shares the same DN with the Cisco TelePresence System and whose MAC address has been defined in the Cisco Unified CM User Profile.</li> <li>The Cisco TelePresence Manager's clock must be in sync with the Domino system clock.</li> </ul>

Table 16-11 IBM Domino Calendar Server Issues (continued)

Problem or Message	Possible Causes	Recommended Action
Clicking <b>Test Connection</b> returns an error.		<p>The following services should be added to the list of server tasks to load automatically when the IBM Domino servers is started:</p> <ul style="list-style-type: none"> <li>• RNRMGR</li> <li>• DIIOP</li> <li>• HTTP</li> <li>• LDAP</li> <li>• Router</li> <li>• Calconn</li> </ul> <p>In addition to the above services:</p> <ul style="list-style-type: none"> <li>• the Resource Reservations Database must be local to the Domino server</li> <li>• The Resource Reservation Database must be using the Resrc7.ntf or Resrc8.ntf template.</li> <li>• The appropriate Security Settings should be applied to the Domino server.</li> <li>• Verify the Host, Port, Organization Name, Username, and Password are correct.</li> <li>• Verify the server is reachable from the Cisco TelePresence Manager host by performing a telnet to the Domino port.</li> </ul>
Meeting Organizer unable to log into Cisco TelePresence Manager using the link in the Action Required email.	<ul style="list-style-type: none"> <li>• Meeting Organizer is not using the internet password.</li> <li>• Meeting Organizer is not entering their login name correctly.</li> </ul>	<ul style="list-style-type: none"> <li>• Verify the Meeting Organizer's password is set as the Domino internet password.</li> <li>• On the Cisco TelePresence Manager login page, the Meeting Organizer must enter their Username in the standard Lotus Notes format &lt;username&gt;/&lt;organization name&gt; (The organization name must match the value in the Organization Name field on the Configure &gt; IBM Domino window).</li> </ul>

# Scheduling API Issues

**Table 16-12**      *Scheduling API Issues*

Problem or Message	Possible Causes	Recommended Action
Internet Explorer (IE) 8: When using IE 8 with CTS-Manager deployed with Scheduling API, the web UI and logs display no information.	Settings in IE 8 that only allow non-secure data to flow through and block the display of secured data.	Select <b>Tools &gt; Internet Options</b> . Select the <b>Advanced</b> tab and click <b>Reset</b> .

## Web Browser Error Messages

The only version of Microsoft Internet Explorer supported on CTS-Manager is version 6. Use information in the following sections to help you resolve web browser problems.

- [JavaScript Error Message, page 16-26](#)
- [Safe ActiveX Checking Message, page 16-27](#)

## JavaScript Error Message

**Error Message** JavaScript is not enabled on this browser. Log-in is not allowed.

**Explanation** CTS-Manager must have JavaScript enabled in the web browser in order to work. Without it, the login screen will appear and users can enter a username and password, but the Login button is disabled.

**Recommended Action** Users must enable JavaScript in their web browser to log into the Cisco TelePresence Manager user interface.

To enable JavaScript, perform the following steps on Microsoft Internet Explorer:

- 
- Step 1** Click **Tools**. Select **Internet Options** from the choices.
  - Step 2** Click the **Security** tab.
  - Step 3** Select the zone in which the CTS-Manager server resides. This zone is usually the Local intranet.
  - Step 4** Click the Custom Level button.
  - Step 5** Scroll down to the Active scripting section and click **Enable**.
  - Step 6** Click **OK** to apply the changes.
-

## Safe ActiveX Checking Message

**Error Message** WARNING: Your security settings do not allow the use of safe ActiveX controls installed on your computer. Most features will not work properly.

**Explanation** CTS-Manager uses XMLHttpRequest technology. In Microsoft IE Version 6, this technology is implemented as a safe ActiveX control, and it is bundled with IE by default. However, if ActiveX controls have been disabled in the browser, CTS-Manager will not work correctly. For example, the status pane will not display any meeting counts.

**Recommended Action** Enable safe ActiveX control in the web browser so CTS-Manager works correctly.

To enable safe ActiveX control, perform the following steps on Microsoft IE Version 6:

- 
- |               |   |
|---------------|---|
| <b>Step 1</b> | Click <b>Tools</b> . Select <b>Internet Options</b> from the choices.   |
| <b>Step 2</b> | Click the <b>Security</b> tab.  |
| <b>Step 3</b> | Select the zone in which the CTS-Manager server resides. This zone is usually the Local intranet.   |
| <b>Step 4</b> | Click the <b>Custom Level</b> button.   |
| <b>Step 5</b> | Scroll down to the ActiveX controls and plug-ins section.   |
| <b>Step 6</b> | Enable the following items: <ul style="list-style-type: none"><li>• Run ActiveX controls and plug-ins</li><li>• Script ActiveX controls marked safe for scripting</li></ul> |
| <b>Step 7</b> | Click <b>OK</b> to apply the changes.   |
- 

## System Alert Notifications

Each day after the CTS-Manager maintenance cycle, the following emails are sent to the email address specified in the Copy Outgoing Email To field in the Configure > Application Settings > Email window, if the appropriate conditions exist:

- No-Show Meetings and Meetings without Survey Responses
- Mailbox Alert
- Certificate Expiry

## The No-Show Meetings and Meetings without Usage Survey Responses

This email is sent if there are any meetings that were scheduled but never took place (no-show meetings), and/or meetings for which the survey was not completed by the meeting organizer.

The following information is provided:

**Table 16-13 Organizers of No-Show Meetings**

Field Name	Description
Organizer Name	The meeting organizer who scheduled the meeting.
Meeting Count	The number of scheduled meetings that never took place.
Total Hours	The total number of hours associated with the meetings that never took place.

**Table 16-14 Meetings without Usage Survey Responses**

Field Name	Description
Organizer Name	The meeting organizer who scheduled the meeting.
Meeting Count	The number of scheduled meetings for which the Usage Survey has not been completed.



**Note**

The Meetings without Usage Survey Responses information will not be available if the Metrics Dashboard and Reporting API license is not uploaded. To upload the Metrics Dashboard and Reporting API license, go to the **Configure > Licenses** window, click the **License Files** tab and click **Upload**.

## Mailbox Alert

This email is sent if the CTS-Manager mailbox has exceeded its size limit and is no longer able to send emails to meeting organizers. In this situation, it is important to delete all emails no longer required. Cisco recommends setting policies to automatically purge emails when the mailbox reaches 75% of its allocated threshold.



**Note**

Refer to the documentation for your calendaring and messaging software for more information.

The following information is provided:

**Table 16-15 Mailbox Quota Information**

Field Name	Description
Mailbox Quota	The total available mailbox space.
Current Mailbox Size	The current mailbox size.

## Certificate Expiry

This email is sent if one or more security certificates are about to expire. In this situation, it is important to replace the expiring certificate(s) as soon as possible, so CTS-Manager will continue to function properly.

The following information is provided:

**Table 16-16**     *Certificate Expiry Information*

Field Name	Description
Certificate Name	Name of expiring certificate
Certificate Unit	Unit of expiring certificate
Certificate Type	Type of expiring certificate
Certificate Expiration	Date certificate will expire







# APPENDIX A

## Cisco TelePresence Manager System Messages

First Published: Nov 2, 2011, OL-22226-01

### Contents

- [System Message Overview, page A-1](#)
- [System Messages By ID Number, page A-4](#)

### System Message Overview

The CTS-Manager system messages appear in the Troubleshoot > System Messages window, which is shown in [Figure A-1](#).

**Figure A-1** System Messages Window

System Messages				
Showing 1-10 of 270 10 per page Go				
Start on:	8/4/2010	End on:	8/23/2010	Severity: All Filter
	Time	Severity	Summary	Recommendation
<input type="radio"/>	08/04/2010 10:41 AM	info	Discovery complete for the specified unified CM profile	No further action
<input type="radio"/>	08/05/2010 10:41 AM	info	Discovery complete for the specified unified CM profile	No further action
<input type="radio"/>	08/06/2010 10:41 AM	info	Discovery complete for the specified unified CM profile	No further action
<input type="radio"/>	08/07/2010 10:40 AM	info	Discovery complete for the specified unified CM profile	No further action
<input type="radio"/>	08/08/2010 10:40 AM	info	Discovery complete for the specified unified CM profile	No further action
<input type="radio"/>	08/09/2010 10:41 AM	info	Discovery complete for the specified unified CM profile	No further action
<input type="radio"/>	08/10/2010 10:41 AM	info	Discovery complete for the specified unified CM profile	No further action
<input type="radio"/>	08/11/2010 10:41 AM	info	Discovery complete for the specified unified CM profile	No further action
<input type="radio"/>	08/12/2010 10:41 AM	info	Discovery complete for the specified unified CM profile	No further action
<input type="radio"/>	08/13/2010 10:41 AM	info	Discovery complete for the specified unified CM profile	No further action
Details... Page 1 of 27				
(+ ) All times are shown in time zone America/Los_Angeles (GMT -7.0)				

254557

The messages in this appendix are organized by the unique ID number assigned to each message. To view the ID number for a message, you must click the radio button associated with the message, then click **Details....** The ID number appears in the Details window, which is shown in [Figure A-2](#).

**Figure A-2** System Messages Details Window

Details	
ID:	502432
Severity:	info
Module:	DiscoveryMgr
SubModule:	AXL Adapter
Number of Occurrences:	1
Most Recent Occurrence:	08/13/2010 10:41 AM
Summary:	Discovery complete for the specified unified CM profile
Recommendation:	No further action
Message:	Discovery completed for Unified CM 'tsbu-lb-cucm3'.
Additional Information:	
<input type="button" value=" &lt; Previous "/> <input type="button" value=" Next &gt; "/> <input type="button" value=" Close "/>	

Each ID number corresponds to a software module that generates the system message. [Table A-1](#) maps the ID number ranges to their respective software modules.

**Table A-1** ID Number Range and Software Module Mapping

ID Number Range	Software Module
501000-501099	General server
501200-501399	Schedule management module API
501400-501599	Resource management module API
501600-501699	Security management module API
501700-501799	Administrative management module API
501900-501999	Calendar generator module
502000-502099	Data access
502100-502199	LDAP
502300-502399	API layer
502400-502499	Discovery manager
502500-502599	Event subsystem
502600-502699	UI module
502700-502799	Certificate management module
502800-502899	Configuration management module
502900-502999	Licensing module
503000-503099	Groupware adapter module
503100-503299	Exchange adapter module
503500-503599	Email management module
503600-503799	Resource schedule management module

**Table A-1** ID Number Range and Software Module Mapping (continued)

ID Number Range	Software Module
503800-503999	MCU module
504000-504099	Domino adapter module
504100-504199	Reporting module
504200-504299	WebEx module
505000-505199	External scheduling API module

Each system message has a severity level assigned to it. From the most to the least severe, the severity levels are as follows:

- Alert
- Critical
- Error
- Warning
- Notice
- Info(rmational)

Some system messages in this appendix include “\$1,” “\$2,” “\$3,” and so on. These strings are variables. When these variables appear in the System Messages window, they are replaced by a text or numerical string that provides specific information about the condition that caused the message to display.

# System Messages By ID Number

This section presents each CTS-Manager system message by ID number.

## 501000

**Summary**

Internal application error

**Message**

The system has encountered an unexpected condition (\$1)

**Module**

General server

**Severity**

Error

**Explanation**

The system encountered the specified error.

**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

## 501001

**Summary**

The system configuration file can not be processed

**Message**

Unable to parse system configuration file '\$1' because \$2

**Module**

General server

**Severity**

Error

**Explanation**

The server failed to parse the config/ctis.xml configuration file, and as a result, the web application could not start up.

**Recommendation**

The administrator should check the syntax of the ctis.xml file. This file should be changed by a qualified technician only. If possible, revert to its original content and restart the Tomcat server. If more assistance is needed, the administrator can contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501004****Summary**

Unsupported software version

**Message**

Software version '\$1' of third party component '\$2' is not supported

**Module**

General server

**Severity**

Warning

**Explanation**

CTS-Manager does not support the software version extracted from the given component.

**Recommendation**

The administrator can upgrade the third-party component to a supported software version.

**501007****Summary**

Unable to restart host

**Message**

Unable to restart host because \$1

**Module**

General server

**Severity**

Alert

**Explanation**

CTS-Manager could not restart the host as requested.

**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501008****Summary**

Functionality not implemented

**Message**

The functionality '\$1' is not yet implemented

**Module**

General server

**Severity**

Warning

**Explanation**

The specified functionality has not yet been implemented.

**Recommendation**

The administrator can determine if the functionality is implemented in the latest version of CTS-Manager software and if it is, upgrade the software to that version.

**501009****Summary**

Unable to initialize system

**Message**

Unable to initialize system because \$1

**Module**

General server

**Severity**

Error

**Explanation**

The database maintenance manager could not initialize because a script for a backup, purge, or cron job is missing.

**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501010****Summary**

Unexpected null parameter passed to an operation

**Message**

Operation '\$1' encounters unexpected null parameter '\$2'

**Module**

General server

**Severity**

Error

**Explanation**

A Microsoft Exchange component could not test a connection because one of the required parameters (host, super user account name/password, bind method) is null.

**Recommendation**

The administrator can check the information provided on the Microsoft Exchange configuration window in the CTS-Manager Administration UI.

**501011****Summary**

Software execution error

**Message**

Unable to dispatch API '\$1' because \$2

**Module**

General server

**Severity**

Error

**Explanation**

A CTS-Manager component is unable to communicate with the CTS-Manager engine.

**Recommendation**

The administrator can check for errors in the log file. If needed, contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501012****Summary**

Unable to shutdown host

**Message**

Unable to shutdown host because \$1

**Module**

General server

**Severity**

Error

**Explanation**

The server cannot be shut down because of the specified reason.

**Recommendation**

The administrator can verify the following:

- That their user account has the required privilege level to shut down the server.
- Associated error messages in the log file.

For further assistance, contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501013****Summary**

Can not resolve IP address for a host

**Message**

Unable to determine IP address of host '\$1'

**Module**

General server

**Severity**

Error

**Explanation**

The hostname might be incorrect.

**Recommendation**

The administrator can verify the following to ensure that they are correct:

- The server hostname.
- The DNS configuration.



**501014****Summary**

Web application stopped

**Message**

Service '\$1' is shutting down

**Module**

General server

**Severity**

Informational

**Explanation**

The specified service is shutting down.

**Recommendation**

No action is required.

**501015****Summary**

Web application started

**Message**

Service '\$1' is started and ready to process requests

**Module**

General server

**Severity**

Informational

**Explanation**

The specified service was started.

**Recommendation**

No action is required.

**501016****Summary**

Application run time error

**Message**

Object class '\$1' does not have property '\$2'

**Module**

General server

**Severity**

Error

**Explanation**

An internal programming error has occurred.

**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501017****Summary**

Application run time error

**Message**

Unable to acquire '\$1' lock on element '\$2'. Current lock is '\$3'

**Module**

General server

**Severity**

Error

**Explanation**

The system has detected concurrent activity on the indicated database element. This activity is causing the locking mechanism to function unexpectedly.

**Recommendation**

Although the CTS-Manager server might still function normally after this message is received, we recommend that the administrator collect the log files, then contacts the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501200****Summary**

An error occurs when processing meeting data

**Message**

Invalid meeting (subject '\$1') because field '\$2' has invalid value '\$3'

**Module**

Schedule management module API

**Severity**

Error

**Explanation**

A field for the specified meeting has an invalid value. This error could indicate an internal problem with CTS-Manager.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501201****Summary**

An error occurs when processing meeting data

**Message**

Invalid single meeting (subject '\$1') because field '\$2' has invalid value '\$3'

**Module**

Schedule management module API

**Severity**

Error

**Explanation**

The specified meeting is not a single meeting as expected. This error could indicate an internal problem with CTS-Manager.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501202****Summary**

An error occurs when processing meeting data

**Message**

Invalid recurring meeting (subject '\$1') because field '\$2' has invalid value '\$3'

**Module**

Schedule management module API

**Severity**

Error

**Explanation**

The specified meeting is not a master meeting as expected. This error could indicate an internal problem with CTS-Manager.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501205****Summary**

Meeting is not valid for One-Button-To-Push

**Message**

A second TelePresence endpoint, or other participant, has not been defined for this meeting

**Module**

Schedule management module API

**Severity**

Warning

**Explanation**

The Microsoft Exchange component sent an automated email informing a meeting organizer that their meeting has only one TelePresence endpoint scheduled.

**Recommendation**

The meeting organizer can add another TelePresence endpoint to the meeting, or provide a dial number. To take these actions, they can click the appropriate option in the automated email.

**501211****Summary**

TelePresence equipment is running incompatible software

**Message**

One or more TelePresence endpoints are running incompatible software. \$1

**Module**

Schedule management module API

**Severity**

Error

**Explanation**

The Microsoft Exchange component sent an automated email informing a meeting organizer that their meeting is scheduled with endpoint(s) that cannot support a multipoint conference.

**Recommendation**

The administrator can check the software version running on the TelePresence equipment in each endpoint, and verify that all software versions support multipoint meetings. If they find software that does not support multipoint meetings, they should upgrade the software.

**501212****Summary**

Insufficient multipoint switch resources

**Message**

Insufficient multipoint switch resources to support this multipoint meeting

**Module**

Schedule management module API

**Severity**

Error

**Explanation**

The Microsoft Exchange component sent an automated email informing a meeting organizer that there is no available conference bridge for their multipoint meeting.

**Recommendation**

The meeting organizer can verify that the conference bridge is configured properly, and at least one bridge is available for the multipoint meeting. They should also add a new conference bridge, if necessary, or reschedule the meeting to a different time.

**501213****Summary**

Conference bridge is not configured

**Message**

A conference bridge has not been configured for your network

**Module**

Schedule management module API

**Severity**

Error

**Explanation**

The Microsoft Exchange component sent an automated email informing a meeting organizer that a conference bridge was not configured for a multipoint meeting.

**Recommendation**

The meeting organizer can verify that the conference bridge is configured properly, and at least one bridge is available for multipoint meetings. They should add a new conference bridge, if necessary.

**501214****Summary**

Organizer does not have sufficient privileges to schedule meeting

**Message**

Organizer does not have sufficient privileges to schedule '\$1' meetings

**Module**

Schedule management module API

**Severity**

Error

**Explanation**

The Microsoft Exchange component sent an automated email informing a meeting organizer that they do not have the privilege level required to schedule a multipoint meeting.

**Recommendation**

The administrator can verify that the meeting organizer was assigned the required privilege level. If necessary, they should add the meeting organizer to the user group that has the required privilege level.

**501215****Summary**

Target MCU in migration does not have enough resources

**Message**

Unable to allocate resources for meeting (subject '\$1'). Unavailable dates '\$2'

**Module**

Schedule management module API

**Severity**

Error

**Explanation**

Not enough resources are available to migrate all meetings from one conference bridge to another.

**Recommendation**

The administrator can verify that the target conference bridge is properly configured and available.

**501216****Summary**

Unable to migrate meetings

**Message**

Unable to migrate meeting(s) because \$1

**Module**

Schedule management module API

**Severity**

Error

**Explanation**

An error occurred when migrating meetings from one conference bridge to another.

**Recommendation**

The administrator can check for the associated error message in the log file, then contact the Cisco Technical Assistance Center (TAC) at

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

**501217****Summary**

Insufficient video conferencing resources

**Message**

Unable to add video conferencing endpoint to meeting because of insufficient resources. Please contact help desk

**Module**

Schedule management module API

**Severity**

Error

**Explanation**

Not enough video conferencing resources are available to add a video conferencing endpoint to the meeting.

**Recommendation**

The meeting organizer can reduce the number of video conferencing participants, or increase the number of video conferencing resources on the video conferencing bridge.

**501221****Summary**

Some meetings update failed

**Message**

Bulk execution was not successful

**Module**

Schedule management module API

**Severity**

Error

**Explanation**

Some meetings could not be updated. This issue could be caused by a CTS-Manager server error.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.



**501222****Summary**

Time zone map loading failure

**Message**

Unable to load/parse time zone map file '\$1' because \$2

**Module**

Schedule management module API

**Severity**

Critical

**Explanation**

The timezonemap.xml file resides in the /usr/local/ctis/config directory. This file associates a user calendaring time zone (from either Microsoft Exchange or Lotus Domino) with a system time zone. During system installation or upgrade, a problem occurred with this file.

**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501223****Summary**

Unknown time zone

**Message**

Unknown time zone target '\$1'

**Module**

Schedule management module API

**Severity**

Error

**Explanation**

The timezonemap.xml file associates a user calendaring time zone (from either Microsoft Exchange or Lotus Domino) with a system time zone. In this case, the system time zone in the timezonemap.xml file is incorrect. However, this error should not impede a user from scheduling their meeting.

**Recommendation**

The administrator can optionally pursue this issue by collecting the log files, then contacting the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

## 501225

**Summary**

Unresolved time zone mapping

**Message**

Unable to find a matching time zone target time zone definition ID '\$1', descriptor '\$2', definition '\$3'

**Module**

Schedule management module API

**Severity**

Error

**Explanation**

The timezonemap.xml file associates a user calendaring time zone (from either Microsoft Exchange or Lotus Domino) with a system time zone. CTS-Manager could not recognize the user time zone passed from the calendaring application. However, this error should not impede a user from scheduling their meeting.

**Recommendation**

The administrator can optionally pursue this issue by collecting the log files, then contacting the Cisco Technical Assistance Center (TAC) at

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

## 501227

**Summary**

Duplicate endpoint entries configured in Cisco UCM

**Message**

Duplicate endpoint entries found in Cisco Unified Call Manager

**Module**

Schedule management module API

**Severity**

Error

**Explanation**

Two Cisco TelePresence System (CTS) devices have the same email address configured in Cisco Unified CM.

**Recommendation**

The administrator can locate the duplicate email addresses in the Cisco Unified CM configuration, and change one of addresses, thereby making it unique.

**501228****Summary**

Invalid License. Upload valid license

**Message**

Invalid License

**Module**

Schedule management module API

**Severity**

Error

**Explanation**

The Scheduling API license currently uploaded in CTS-Manager is invalid.

**Recommendation**

The administrator should upload a valid Scheduling API license to CTS-Manager using the Configure > Licenses window.

**501230****Summary**

LDAP group was added from access management

**Message**

LDAP group [\$1] was added to [\$2] role from access management tab

**Module**

Schedule management module API

**Severity**

Informational

**Explanation**

The mapping between a role and an LDAP group was created in the Configure > Access Management window.

**Recommendation**

No action is required.

**501231****Summary**

LDAP group was deleted from access management tab

**Message**

LDAP group [\$1] was deleted from [\$2] role from access management tab

**Module**

Schedule management module API

**Severity**

Informational

**Explanation**

The mapping between a role and an LDAP group was deleted in the Configure > Access Management window.

**Recommendation**

No action is required.

**501400****Summary**

Failed to perform the given concierge operation

**Message**

Unable to '\$1' concierge because \$2

**Module**

Resource management module API

**Severity**

Error

**Explanation**

CTS-Manager did not allow the Live Desk properties to be edited or an endpoint to be assigned to a Live Desk user.

**Recommendation**

The administrator should restart the CTS-Manager service. If this condition persists, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501401****Summary**

Failed to delete MCU

**Message**

This device has '\$1' future meetings scheduled. Migrate the meetings to another device first

**Module**

Resource management module API

**Severity**

Error

**Explanation**

A selected conference bridge has the specified number of meetings scheduled, and therefore, cannot be deleted.

**Recommendation**

The administrator can move the meetings from the conference bridge that they intend to delete to another conference bridge, then retry the deletion.

**501402****Summary**

Duplicate host name or IP address for a TelePresence device

**Message**

Another device with host name or IP address '\$1' already exists

**Module**

Resource management module API

**Severity**

Error

**Explanation**

A TelePresence device with the specified hostname or IP address already exists. This condition prevents the addition of a new TelePresence device with the specified hostname or IP address.

**Recommendation**

The administrator can verify the hostname or IP address of the new TelePresence device. If a conflict exists, they can use a different hostname or IP address, then retry adding the new device.

**501403****Summary**

Duplicate configuration entry

**Message**

Duplicate entry. '\$1' already exists

**Module**

Resource management module API

**Severity**

Error

**Explanation**

The specified configuration entry already exists. This condition prevents the new entry from being added.

**Recommendation**

The administrator can verify the new entry. If a conflict exists, they can create a unique value, then retry the entry.

**501405****Summary**

Failed to enable Interoperability feature

**Message**

Cannot enable Interoperability support because \$1

**Module**

Resource management module API

**Severity**

Error

**Explanation**

A meeting participant tried to enable the interoperability feature, but the attempt failed. A likely cause is that the Cisco TelePresence Engine server process is not running.

**Recommendation**

The administrator can verify the status of and try to restart the server process using CLI commands. If further assistance is needed, they can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501406****Summary**

Failed to disable Interoperability feature

**Message**

Cannot disable Interoperability support because \$1

**Module**

Resource management module API

**Severity**

Error

**Explanation**

A meeting participant attempted to disable the interoperability feature, but the attempt failed. A likely cause is that the Cisco TelePresence Engine server process is not running.

**Recommendation**

The administrator can verify the status of and try to restart the server process using CLI commands. If further assistance is needed, they can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501408****Summary**

Failed to enable Interoperability feature

**Message**

Cannot enable Interoperability support because managed Cisco TelePresence Multipoint Switch is not Interoperability capable

**Module**

Resource management module API

**Severity**

Error

**Explanation**

The managed CTMS does not support video conferencing interoperability.

**Recommendation**

The administrator can upgrade the CTMS software to a version that supports interoperability with video conferencing.

**501409****Summary**

Failed to enable Interoperability feature

**Message**

Cannot enable Interoperability support because managed CTS and CTMS are not Interoperability capable

**Module**

Resource management module API

**Severity**

Error

**Explanation**

The managed CTS does not support video conferencing interoperability.

**Recommendation**

The administrator can upgrade the CTS software to a version that supports interoperability with video conferencing.

**501410****Summary**

Failed to disable Interoperability feature

**Message**

Cannot disable Interoperability support when there exists a video conferencing MCU

**Module**

Resource management module API

**Severity**

Error

**Explanation**

If a video conferencing conference bridge is configured in the system, CTS-Manager does not allow the the video conferencing interoperability feature to be disabled.

**Recommendation**

The administrator can delete the video conferencing conference bridge, then try to disable this feature.



**501412****Summary**

Groupware subscription failure

**Message**

Endpoint '\$1' does not support Interoperability. Groupware subscription will be denied.

**Module**

Resource management module API

**Severity**

Error

**Explanation**

The video conferencing interoperability feature is enabled, but the managed CTS might be running an older software version that does not support this feature. This condition prevents the groupware subscription from being configured.

**Recommendation**

The administrator can upgrade the CTS to a software version that supports interoperability with video conferencing.

**501414****Summary**

Groupware subscription failure

**Message**

More than one endpoint '\$1' exists in managed state. Groupware subscription will be denied.

**Module**

Resource management module API

**Severity**

Critical

**Explanation**

Two endpoints have the same email ID, and as a result, CTS-Manager will not subscribe meeting events to these endpoints.

**Recommendation**

The administrator should rename one of the duplicate email IDs.

**501415****Summary**

Groupware subscription failure

**Message**

Endpoint '\$1' not found in the system. Groupware subscription will be denied.

**Module**

Resource management module API

**Severity**

Error

**Explanation**

The system could not find the endpoint (room) in the Unified CM application profile because it was not configured or was misspelled.

**Recommendation**

The administrator can check the endpoint (room) configuration in the Unified CM application profile.

**501416****Summary**

Groupware subscription failure

**Message**

No telepresence device found for endpoint '\$1'.

**Module**

Resource management module API

**Severity**

Error

**Explanation**

This message can appear if the TelePresence device does not have a valid license.

**Recommendation**

Go to Support > Endpoints. If the Licensed column displays a green check mark, the endpoint has a valid license. If the endpoint does not have a valid license, see the [“Licensing for CTS-Manager” section on page 11-6](#) for complete information on obtaining and uploading licenses into CTS-Manager.

**501417****Summary**

Groupware subscription failure

**Message**

Endpoint '\$1' does not support studio mode recording. Groupware subscription will be denied.

**Module**

Resource management module API

**Severity**

Error

**Explanation**

The studio mode recording feature is enabled, but the managed CTS might be running an older software version that does not support this feature. This condition prevents the groupware subscription from being configured.

**Recommendation**

The administrator can upgrade the CTS to a software version that supports studio mode recording.

**501418****Summary**

Groupware subscription failure

**Message**

Endpoint '\$1' does not support HD Interoperability. Groupware subscription will be denied

**Module**

Resource management module API

**Severity**

Error

**Explanation**

The HD interoperability feature is enabled, but the managed CTS might be running an older software version that does not support this feature. This condition prevents the groupware subscription from being configured.

**Recommendation**

The administrator can upgrade the CTS to a software version that supports HD interoperability with video conferencing.

**501419****Summary**

Groupware subscription failure

**Message**

Endpoint '\$1' does not support WebEx. Groupware subscription will be denied

**Module**

Resource management module API

**Severity**

Error

**Explanation**

The Cisco WebEx feature is enabled, but the managed CTS might be running an older software version that does not support this feature. This condition prevents the groupware subscription from being configured.

**Recommendation**

The administrator can upgrade the CTS to a software version that supports Cisco WebEx.

**501430****Summary**

Email address not recognized

**Message**

The email address in the entry ['\$1'] is invalid in the LDAP server or the calendar server

**Module**

Resource management module API

**Severity**

Error

**Explanation**

The email address provided for a video conferencing (VC) endpoint import is not present in the LDAP or calendar database.

**Recommendation**

The administrator can take the following action:

- Verify that the email address in the entry is correct.
- Verify that the associated user is in the LDAP and calendar databases.
- Reimport the device.

**501431****Summary**

Unknown error when importing Video Conferencing endpoints

**Message**

Encountered an unknown error when importing the entry ['\$1']

**Module**

Resource management module API

**Severity**

Error

**Explanation**

When trying to import a video conferencing (VC) endpoint into CTS-Manager, an unknown error occurred.

**Recommendation**

The administrator can check the video conference endpoint file to ensure the information included therein is correct, then try to reimport the file.

**501432****Summary**

An earlier entry with the same email exists

**Message**

A duplicate email was encountered when parsing the entry ['\$1']

**Module**

Resource management module API

**Severity**

Error

**Explanation**

A duplicate email address was detected in the video conferencing (VC) endpoint import, and as a result, the entry could not be processed.

**Recommendation**

The administrator should rename one of the duplicate email addresses.

**501433****Summary**

Email conflicts with an existing TelePresence endpoint.

**Message**

An existing TelePresence endpoint has the same email as the entry ['\$1'].

**Module**

Resource management module API.

**Severity**

Error

**Explanation**

When importing a video conferencing (VC) endpoint, CTS-Manager detected an existing endpoint with the same email address.

**Recommendation**

The administrator should use a unique email address for the VC endpoint.

**501434****Summary**

Attempting to change Video Conferencing endpoint segment

**Message**

Changing segment is not allowed: the Video Conferencing endpoint already exists, and has a different segment from the entry ['\$1']

**Module**

Resource management module API

**Severity**

Error

**Explanation**

When importing a video conferencing (VC) endpoints, CTS-Manager detected that the specified email address already exists. Instead of specifying a new email address, the administrator retained the same email address and changed the segment count.

**Recommendation**

The administrator must specify a new email address.

501435

**Summary**

Invalid video conferencing endpoint data

**Message**

Encountered an error when parsing the entry ['\$1']. Please make sure the email, segment, IP, and phone number are all valid

**Module**

Resource management module API

**Severity**

Error

**Explanation**

When importing a video conferencing (VC) endpoint, CTS-Manager detected that the text file format was incorrect. The file must include a comma as a delimiter and the columns must be organized in the following order:

- Email
- Segment count
- IP address
- Phone number

**Recommendation**

The administrator should check the file to ensure that it adheres to the following format:

- Uses a comma as the delimiter.
- From left to right, the columns appear in the following order:
  - Email
  - Segment count
  - IP address
  - Phone number

**501436****Summary**

Interop quality selection not supported by the endpoints and conference bridges

**Message**

Cannot enable \$1 because one or more endpoints or CTMS devices are not compatible with \$2

**Module**

Resource management module API

**Severity**

Error

**Explanation**

After enabling the interoperability with video conferencing feature, an interoperability quality option that was not supported by all TelePresence devices was selected.

**Recommendation**

The administrator should check the Bridge and Servers tab, which is available in the Configure > Application Settings window, to identify the supported quality options.

**501601****Summary**

Unable to authenticate user

**Message**

Unable to authenticate user. Check authentication parameters

**Module**

Security management module API

**Severity**

Error

**Explanation**

A user tried to log into the CTS-Manager Administration UI but could not because CTS-Manager could not authenticate them.

**Recommendation**

The user should check their username and password, then retry their login.



**501602****Summary**

Unsupported authentication type

**Message**

Authentication type '\$1' is not supported

**Module**

Security management module API

**Severity**

Error

**Explanation**

The indicated authentication type that was specified during configuration, for example, for LDAP to be authenticated against the directory server, is not supported.

**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501603****Summary**

Unable to encrypt data

**Message**

Unable to encrypt data because \$1

**Module**

Security management module API

**Severity**

Error

**Explanation**

A problem occurred while encrypting a string.

**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501604****Summary**

Unable to decrypt data

**Message**

Unable to decrypt data. Possible causes: incorrect password or corrupted file. Correct the required information and try again

**Module**

Security management module API

**Severity**

Error

**Explanation**

A problem occurred while decrypting a string.

**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501605****Summary**

Insufficient credential for authentication

**Message**

Insufficient credential '\$1'. Requires credential '\$2'

**Module**

Security management module API

**Severity**

Error

**Explanation**

A user tried to perform an unauthorized operation.

**Recommendation**

If appropriate, the user can work with the administrator to obtain the needed privilege level.

**501606****Summary**

Incorrect credential for authentication

**Message**

Access permitted to email ID '\$1' only

**Module**

Security management module API

**Severity**

Error

**Explanation**

The meeting organizer only can access the URL provided in the automated emails sent by CTS-Manager. All other users who try to access the URL will be denied.

**Recommendation**

The meeting organizer only can access the provided URL.

**501607****Summary**

Password is not secure

**Message**

New password is too simple. Password should contain both mixed-case alphabetic and non-alphabetic characters. It should not be similar to the current password. It should not base on common words found in dictionary

**Module**

Security management module API

**Severity**

Error

**Explanation**

A CTS-Manager Administration UI user attempts to change the password for a SysAdmin account, and the new password does not meet the guidelines.

**Recommendation**

The user must specify a password that meets the following guidelines:

- Contain both mixed-case alphabetic and non-alphabetic characters.
- Not be similar to the current password.
- Not be based on common words found in the dictionary.

**501608****Summary**

Could not save the new password

**Message**

Password was change successfully, but could not be saved for future upgrade

**Module**

Security management module API

**Severity**

Error

**Explanation**

An internal error occurred and as a result, a new password could not be saved to platformConfig.xml.

**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501609****Summary**

Failed to change password

**Message**

Unable to change password because current password does not match

**Module**

Security management module API

**Severity**

Error

**Explanation**

While changing their password, a CTS-Manager Administration UI user entered their current password incorrectly, and as a result, the new password could not be processed.

**Recommendation**

The user should reenter their current password.

**501610****Summary**

The certificate expiry warning

**Message**

'\$1'. Certificate name '\$2'. Unit '\$3'. Type '\$4'. Expiration: '\$5'

**Module**

Security management module API

**Severity**

Warning

**Explanation**

A security certificate for the specified component will expire soon.

**Recommendation**

The administrator should upload a new certificate for the specified component. For more information on uploading a security certificate in CTS-Manager, see the [“Security” section on page 11-13](#).

**501611****Summary**

Unable to find user in LDAP directory

**Message**

Unable to find user '\$1' in LDAP directory

**Module**

Security management module API

**Severity**

Error

**Explanation**

This message can appear under the following conditions:

- A user tried to log into the CTS-Manager Administration UI but CTS-Manager could not find this user in the LDAP directory.
- In the Edit... LDAP Servers window, an administrator entered an email address in the Email Address field, then clicked **View Sample Data** but CTS-Manager could not find this user in the LDAP directory.

**Recommendation**

The user should verify their login credentials. If the problem persists, the user can contact the administrator to verify their credentials.

**501612**

**Summary**

Unable to authenticate user

**Message**

Invalid username or password. Please try again

**Module**

Security management module API

**Severity**

Error

**Explanation**

The CTS-Manager system administrator account credentials, which are managed by Microsoft Exchange, are invalid.

**Recommendation**

The administrator should verify their account credentials, then reenter the correct username and password.

501613

**Summary**

Unable to authenticate user

**Message**

Invalid username or password. Please try again

**Module**

Security management module API

**Severity**

Error

**Explanation**

The CTS-Manager system administrator account credentials, which are managed by IBM Domino, are invalid.

**Recommendation**

The administrator should verify their account credentials, then reenter the correct username and password.

501614

**Summary**

Unable to calculate check sum

**Message**

Unable to calculate check sum for file '\$1' because \$2

**Module**

Security management module API

**Severity**

Error

**Explanation**

The checksum could not be calculated for the specified file.

**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

501615

**Summary**

Insufficient privilege

**Message**

Not enough privilege to perform the operation

**Module**

Security management module API

**Severity**

Error

**Explanation**

A user tried to access the CTS-Manager Reporting API but one of the following conditions existed:

- The user did not have the appropriate permission to access the Reporting API.
- A license required to access the Reporting API functionality has not been uploaded to CTS-Manager, or the license is invalid.

**Recommendation**

The administrator should take this action:

- If the user does not have the appropriate permission:
  - Work with the LDAP administrator to ensure that a user group for the Reporting API client user accounts exists on the LDAP server and that within this group, one or more user accounts for the Reporting API client exists.
  - In the Configure > Access Management window, ensure that the “Reporting API User” role is mapped to the LDAP user group that contains the Reporting API client user accounts.
  - Ensure that the user has the correct user account information.
- Ensure that the Reporting API license is uploaded in CTS-Manager and that the license is valid.

501616

**Summary**

mismatch admin user credential between joining node and primary node

**Message**

Joining node must have same admin user credential as the primary node

**Module**

Security management module API

**Severity**

Error

**Explanation**

The administrator tried to log into the joining node with the same account credentials as the primary node but was denied access because the joining node has different account credentials.

**Recommendation**

The administrator can modify the administrator account credentials for the joining node so that they match those for the primary node.

**501617****Summary**

Insufficient credential for authentication

**Message**

Invalid username or password. Please try again

**Module**

Security management module API

**Severity**

Error

**Explanation**

A user tried to log into the CTS-Manager Administration UI without providing a username, a password, or both.

**Recommendation**

If needed, the user should obtain the proper login credentials from the administrator, then retry their login. When logging in, the user must provide both username and password.

**501618****Summary**

Unable to login user due to max limit reached

**Message**

System is currently busy. Please try again later or contact your help desk



**Module**

Security management module API

**Severity**

Error

**Explanation**

A user tried to log into CTS-Manager but was denied access because a maximum number of users was already logged in.

**Recommendation**

The user should retry their login later or if the condition persists, contact the Live Desk.

501700

**Summary**

Incorrect configuration data

**Message**

Missing or unknown configuration component '\$1'

**Module**

Administrative management module API

**Severity**

Error

**Explanation**

The configuration of the specified component is missing or does not exist.

**Recommendation**

The administrator can verify that the initial configuration setup has been performed and all values are properly specified.

501701

**Summary**

Incorrect configuration data

**Message**

Configuration component '\$2' is missing parameter '\$1'

**Module**

Administrative management module API

**Severity**

Error

**Explanation**

The specified component is missing the specified parameter.

**Recommendation**

The administrator can verify that the initial configuration setup has been performed and all values are properly specified.

**501702****Summary**

Unable to set configuration data

**Message**

Unable to set configuration parameter '\$1' to value '\$2' because \$3

**Module**

Administrative management module API

**Severity**

Error

**Explanation**

CTS-Manager could not save the value of the specified parameter.

**Recommendation**

The administrator can check the DB component status using the **utils service list** command, and restart the service manager if needed.

**501703****Summary**

Unable to update schedule for endpoints

**Message**

Unable to update schedule for endpoints '\$1' because \$2

**Module**

Administrative management module API

**Severity**

Error

**Explanation**

CTS-Manager could not submit a schedule update request to the specified endpoints.

**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501704****Summary**

Application data store run time error

**Message**

Unable to validate distinguished name

**Module**

Administrative management module API

**Severity**

Error

**Explanation**

CTS-Manager could not validate a distinguished name (DN) in the LDAP directory.

**Recommendation**

The administrator can check the DN configuration to make sure it is set up properly. If the problem persists, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501705****Summary**

Unable to find user in the directory

**Message**

Unable to find user in the directory. Email address '\$1' is invalid. Check the email parameter. Only one email address is allowed

**Module**

Administrative management module API

**Severity**

Error

**Explanation**

The directory was searched but the indicated email address was not found. As a result, the user could not be authenticated.

**Recommendation**

The administrator should verify that the email address is correct.

**501901****Summary**

Unable to authenticate the CTS device

**Message**

Unable to authenticate the CTS device

**Module**

Calendar generator module

**Severity**

Error

**Explanation**

The username and password specified for the CTS device do not match the login credentials.

**Recommendation**

The administrator can verify the configuration of the CTS device in the Cisco UCM application profile.

**501902****Summary**

Failed to push meeting calendar to CTS

**Message**

Unable to push calendar to the device '\$1'

**Module**

Calendar generator module

**Severity**

Critical

**Explanation**

Calendar updates could not be propagated to the indicated CTS device.

**Recommendation**

The administrator should verify that the CTS device is registered with Cisco Unified CM. If the device is not registered, the administrator should contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**501903****Summary**

Communication to CTS failure

**Message**

No communication link to CTS '\$1'

**Module**

Calendar generator module

**Severity**

Critical

**Explanation**

The indicated CTS device is not running, or the device has lost network connectivity.

**Recommendation**

The administrator should take the following action:

- Ensure that the CTS device is up and running.
- Ensure that the CTS device is reachable via the network.

**501904****Summary**

Application data store run time error

**Message**

Unable to update the SSH username/password from DB into cache because \$1

**Module**

Calendar generator module

**Severity**

Critical

**Explanation**

The SSH username and password could not be retrieved from the DB, and as a result, they could not be updated.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502000****Summary**

Application data store run time error

**Message**

Data access error: \$1

**Module**

Data access

**Severity**

Error

**Explanation**

The indicated data access error occurred.

#### Recommendation

The administrator can verify that the database is up and running. If more assistance is needed, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

### 502001

#### Summary

Application data store run time error

#### Message

Unable to parse meta schema file because \$1

#### Module

Data access

#### Severity

Error

#### Explanation

An error occurred while parsing the metaschema file.

#### Recommendation

The administrator can verify that the installation and initial configuration has completed successfully. If more assistance is needed, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

### 502002

#### Summary

Application data store run time

#### Message

Unable to load metaschema file '\$1' because \$2

#### Module

Data access

#### Severity

Error

#### Explanation

The metaschema file could not be loaded.

#### Recommendation

The administrator can take the following action:

- Verify that the installation and initial configuration was successfully completed.
- Verify that the disk is not corrupted.

If more assistance is needed, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502003****Summary**

Application data store run time error

**Message**

Data store '\$1' is not found in metaschema file

**Module**

Data access

**Severity**

Error

**Explanation**

The metaschema file might include an incorrect datastore value, which prevents the system from locating the datastore.

**Recommendation**

The administrator can verify that the installation and initial configuration was successfully completed. If more assistance is needed, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502004****Summary**

Application data store run time error

**Message**

Unable to update metaschema file '\$1' because \$2

**Module**

Data access

**Severity**

Error

**Explanation**

The metaschema file might include an incorrect datastore value, which prevents the file from being updated and saved.

**Recommendation**

The administrator can take the following action:

- Verify that the installation and initial configuration has completed successfully.
- Verify that the values specified in the Field Mappings window are valid.

If more assistance is needed, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502005****Summary**

Application data store run time error

**Message**

Data access initialization error: \$1

**Module**

Data access

**Severity**

Error

**Explanation**

An error occurred during the initialization of the data access plug-ins.

**Recommendation**

The administrator can troubleshoot these areas:

- Database
- LDAP connectivity
- Initial setup

If more assistance is needed, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502006****Summary**

Application data store run time error

**Message**

Unable to create database object because \$1

**Module**

Data access

**Severity**

Error

**Explanation**

An error occurred while creating an object in the database.



**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502007****Summary**

Application data store run time error

**Message**

Unable to write to database because \$1

**Module**

Data access

**Severity**

Error

**Explanation**

An error occurred while updating an object in the database.

**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502008****Summary**

Application data store run time error

**Message**

Unable to delete from database because \$1

**Module**

Data access

**Severity**

Error

**Explanation**

An error occurred while deleting an object from the database.

**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502009****Summary**

Application data store run time error

**Message**

Unable to get object because \$1

**Module**

Data access

**Severity**

Error

**Explanation**

An error occurred while retrieving an object from the database.

**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502010****Summary**

Application data store run time error

**Message**

Specified object '\$1' not found in '\$2' data store

**Module**

Data access

**Severity**

Error

**Explanation**

The specified object does not exist in the directory server.

**Recommendation**

The administrator can take the following action:

- Check the LDAP user container.
- Verify the LDAP content using an LDAP browser.

**502011****Summary**

Application data store run time error

**Message**

Invalid parameter specified '\$1'

**Module**

Data access

**Severity**

Error

**Explanation**

The specified parameter is not valid.

**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502012****Summary**

Error in purging database data during maintenance

**Message**

Unable to purge data because \$1

**Module**

Data access

**Severity**

Error

**Explanation**

An error occurred while data was purged from the database during a regularly scheduled maintenance session.

**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502013****Summary**

Data backup failure

**Message**

Unable to backup data because \$1

**Module**

Data access

**Severity**

Critical

**Explanation**

The indicated error occurred during a data backup.

**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502014****Summary**

Data restore failure

**Message**

Unable to restore data because \$1

**Module**

Data access

**Severity**

Critical

**Explanation**

An error occurred while data was being restored.

**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502015****Summary**

Unable to perform DB maintenance operations

**Message**

Unable to perform DB maintenance operations because \$1

**Module**

Data access

**Severity**

Error

**Explanation**

An error occurred during a database backup, purge, or restore.

**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502016****Summary**

DB maintenance operation failure

**Message**

Maintenance process returns code '\$1'

**Module**

Data access

**Severity**

Error

**Explanation**

An error occurred during a database backup, purge, or restore.

**Recommendation**

The administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502017****Summary**

Application data store run time error

**Message**

Unable to acquire connection to component '\$1'

**Module**

Data access

**Severity**

Error

**Explanation**

An error occurred when getting a connection from the connection pool.

**Recommendation**

The administrator can take this action:

- Check the connection type (DB/LDAP).
- Verify the connectivity to the component.
- Restart the server.

If this condition persists, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502018****Summary**

Application data store run time error

**Message**

Unable to close connection to component '\$1'

**Module**

Data access

**Severity**

Error

**Explanation**

An error occurred when closing a connection from the connection pool.

**Recommendation**

The administrator can take this action:

- Check the connection type (DB/LDAP).
- Verify the connectivity to the component.

- Restart the server.

If this condition persists, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502019****Summary**

Application data store run time error

**Message**

Unable to close JDBC statement because \$1

**Module**

Data access

**Severity**

Error

**Explanation**

An error occurred when closing a Java Database Connectivity (JDBC) Structured Query Language (SQL) statement object.

**Recommendation**

The administrator can check to make sure that the database is running.

**502020****Summary**

Application data store runtime error

**Message**

Unable to instantiate class '\$1'

**Module**

Data access

**Severity**

Error

**Explanation**

An error occurred when using pluggable methods during data access operations.

**Recommendation**

The administrator should verify that the installation and initial setup was properly completed. If this condition persists, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502021****Summary**

Application data store run time error

**Message**

Unable to instantiate method '\$1' of class '\$2'

**Module**

Data access

**Severity**

Error

**Explanation**

An error occurred when using pluggable methods during data access operations.

**Recommendation**

The administrator should verify that the installation and initial setup was properly completed. If this condition persists, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502022****Summary**

Application data store run time error

**Message**

Unable to retrieve field '\$1' of class '\$2'

**Module**

Data access

**Severity**

Error

**Explanation**

An error occurred when using pluggable methods during data access operations.

**Recommendation**

The administrator should verify that the installation and initial setup was properly completed. If this condition persists, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.



**502023****Summary**

Application data store run time error

**Message**

Unable to set value for field '\$1' of class '\$2'

**Module**

Data access

**Severity**

Error

**Explanation**

An error occurred when using pluggable methods during data access operations.

**Recommendation**

The administrator should verify that the installation and initial setup was properly completed. If this condition persists, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502024****Summary**

Application data store run time error

**Message**

Object '\$1' is already deleted

**Module**

Data access

**Severity**

Error

**Explanation**

An object to be deleted was already deleted.

**Recommendation**

If this condition persists, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502025****Summary**

Application data store run time error

**Message**

Object handler not found for object '\$1'

**Module**

Data access

**Severity**

Error

**Explanation**

The object handler for data access operations is not found.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502027****Summary**

Application data store run time error

**Message**

Object attribute '\$1' was not retrieved

**Module**

Data access

**Severity**

Error

**Explanation**

The requested attribute was not found in the object because the application did not retrieve all the attributes for the object or the correct attribute name was not used.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502028****Summary**

Database is in maintenance cycle

**Message**

Database under maintenance: restore is in progress

**Module**

Data access

**Severity**

Notice

**Explanation**

A database operation was requested but not executed because the database is currently being restored.

**Recommendation**

The administrator can resubmit the request after the restoration of the database is completed.

**502029****Summary**

Application data store run time error

**Message**

Unknown predefined query named '\$1'

**Module**

Data access

**Severity**

Error

**Explanation**

The indicated query was requested but could not be executed because the predefined query name was unknown.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502100****Summary**

LDAP connection failure

**Message**

Unable to connect to LDAP Server '\$1'

**Module**

LDAP

**Severity**

Alert

**Explanation**

CTS-Manager could not communicate with the indicated LDAP server.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502101****Summary**

LDAP operation failure

**Message**

Unable to retrieve object '\$1'

**Module**

LDAP

**Severity**

Critical

**Explanation**

CTS-Manager was not able to obtain the directory entry indicated in the system message.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502102****Summary**

LDAP authentication failure

**Message**

Unable to authenticate to LDAP Server

**Module**

LDAP

**Severity**

Alert

**Explanation**

CTS-Manager could not authenticate the indicated LDAP server.

**Recommendation**

The administrator should verify that the LDAP parameters are properly configured.

**502301****Summary**

Application run time operation failure

**Message**

Unknown resource object interface '\$1'

**Module**

API layer

**Severity**

Critical

**Explanation**

The specified object is no longer accessible.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502302****Summary**

Application run time operation failure

**Message**

The parameter '\$1' has invalid value '\$2'

**Module**

API layer

**Severity**

Error

**Explanation**

The indicated parameter has the indicated invalid value.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502400****Summary**

Unable to connect to Unified CM

**Message**

Unable to connect to Unified CM '\$1' because \$2'

**Module**

Discovery manager

**Severity**

Alert

**Explanation**

CTS-Manager could not connect with Unified CM for the indicated reason, and as a result, information from Unified CM could not be retrieved.

**Recommendation**

The CTS-Manager administrator should work with the network administrator to check the network connectivity with Unified CM.

**502401****Summary**

Authentication to Unified CM failure

**Message**

Unable to authenticate into Unified CM '\$1' because \$2

**Module**

Discovery manager'

**Severity**

Alert

**Explanation**

A digital certificate for Unified CM was not found in the CTS-Manager Security Keystore.

**Recommendation**

The administrator should upload a digital certificate for Unified CM.

**502402****Summary**

Unable to locate phone attached to CTS device

**Message**

Unable to locate phone attached to CTS device '\$1'

**Module**

Discovery manager

**Severity**

Error

**Explanation**

An IP phone is not configured for the shared line with the indicated CTS device.

**Recommendation**

The administrator should configure the shared line with an IP phone.

**502403****Summary**

Unable to locate endpoint information attached to TelePresence equipment

**Message**

Unable to locate endpoint information attached to TelePresence equipment '\$1'

**Module**

Discovery manager

**Severity**

Error

**Explanation**

Endpoint information for the indicated CTS device is missing.

**Recommendation**

The administrator should verify that the endpoint (room) information exists in Unified CM.

**502404****Summary**

Unified CM communication failure

**Message**

Unable to send AXL message to Unified CM '\$1' because \$2'

**Module**

Discovery manager

**Severity**

Alert

**Explanation**

CTS-Manager could not send an Administrative XML (AXL) request to Unified CM.

**Recommendation**

The administrator should take the following action:

- Work with the network administrator to verify connectivity between CTS-Manager and Unified CM.
- Ensure that the correct digital certificate for Unified CM is uploaded.
- Ensure that the credentials specified for the Unified CM Application user are correct.



## 502405

**Summary**

Unified CM data retrieving failure

**Message**

Unable to retrieve publisher and/or secondary servers from Unified CM '\$1' because \$2'

**Module**

Discovery manager

**Severity**

Critical

**Explanation**

The Unified CM node information could not be retrieved from the database.

**Recommendation**

The administrator should take this action:

- Check the [Software Compatibility Information for the Cisco TelePresence System](#) to ensure that the CTS-Manager and Unified CM software are compatible.
- Ensure that the specified node is a Unified CM Publisher node.

## 502406

**Summary**

Unable to authenticate and connect with Unified CM

**Message**

Unable to authenticate and connect with Unified CM '\$1' because \$2

**Module**

Discovery manager

**Severity**

Error

**Explanation**

The Unified CM server could not be authenticated because of invalid credentials and/or hostname were specified.

**Recommendation**

The administrator should verify the Unified CM App User credentials and Publisher node configuration.

**502407****Summary**

Communication to Unified CM failure

**Message**

Unable to create CTI adapter to Unified CM '\$1' because \$2

**Module**

Discovery manager

**Severity**

Critical

**Explanation**

The Unified CM server could not be authenticated because of an issue with Cisco CTIManager.

**Recommendation**

The administrator should take this action:

- Verify the Unified CM App User credentials.
- Verify that the Cisco CTIManager service is activated on the Unified CM Publisher node.

**502409****Summary**

CTS data store operation failure

**Message**

Unable to create or update TelePresence equipment '\$1' because \$2'

**Module**

Discovery manager

**Severity**

Critical

**Explanation**

The configuration for the specified CTS device could not be created in the database.

**Recommendation**

The administrator should ensure that the directory number (DN) for the specified CTS device is configured.

**502411****Summary**

CTI manager on Unified CM is down

**Message**

CTI manager on node '\$1' is down message received for the Unified CM '\$2'

**Module**

Discovery manager

**Severity**

Critical

**Explanation**

The Cisco CTIManager provider instance could not be created.

**Recommendation**

The administrator should restart the Cisco CTIManager on Unified CM.

**502415****Summary**

Unified CM communication failure

**Message**

Unable to connect to RIS manager on Unified CM '\$1'

**Module**

Discovery manager

**Severity**

Alert

**Explanation**

A connection could not be made with the Real-Time Information Service (RIS) manager on the Unified CM server.

**Recommendation**

The administrator should check the Unified CM status to ensure that the RIS manager is functioning.

**502418****Summary**

Cisco UCM CTI provider in error state

**Message**

Unable to get list of addresses from CTI provider '\$1'

**Module**

Discovery manager

**Severity**

Error

**Explanation**

The Unified CM CTI provider is in an error state.

**Recommendation**

The administrator should collect the Unified CM log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502419****Summary**

Failed to get CTS IP addresses

**Message**

Unable to retrieve IP addresses for devices from Unified CM '\$1' because \$2'

**Module**

Discovery manager

**Severity**

Error

**Explanation**

The Unified CM Real-Time Information Service (RIS) web service is not running.

**Recommendation**

The administrator should activate the Simple Object Access Protocol (SOAP) web service.

**502420****Summary**

Failed to communicate with Cisco UCM

**Message**

Unable to discover TelePresence equipment from Unified CM '\$1'

**Module**

Discovery manager

**Severity**

Error

**Explanation**

One of the Unified CM interfaces is down.

**Recommendation**

The administrator should collect the Unified CM log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502422****Summary**

CTS configuration mismatching

**Message**

Directory number is not configured for device '\$1'

**Module**

Discovery manager

**Severity**

Critical

**Explanation**

The directory number (DN) for the specified CTS device is not configured.

**Recommendation**

The administrator should configure the DN for the specified CTS device.

## 502423

**Summary**

Unified CM version not supported

**Message**

Unified CM version '\$1' is not supported for Unified CM '\$2'

**Module**

Discovery manager

**Severity**

Critical

**Explanation**

The Unified CM software version is not compatible with the CTS-Manager software version.

**Recommendation**

The administrator should refer to the [Software Compatibility Information for the Cisco TelePresence System](#) to determine the Unified CM and CTS-Manager software versions that are compatible and upgrade the software accordingly.

## 502424

**Summary**

Scheduled maintenance operation failure

**Message**

Scheduled maintenance operation '\$1' encountered an unexpected condition'

**Module**

Discovery manager

**Severity**

Critical

**Explanation**

The system was unable to execute one of these operations:

- A scheduled maintenance for the database
- The discovery of a CTS device
- A Microsoft Exchange synchronization
- The pushing of calendar schedules

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502425****Summary**

Unified CM data retrieving failure

**Message**

Unable to discover time zone information from Unified CM '\$1'

**Module**

Discovery manager

**Severity**

Error

**Explanation**

Time zone information was not configured or is not available in Unified CM.

**Recommendation**

If not already configured, the administrator should set up the time zone attributes in Unified CM. If this action does not resolve the issue, the administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at

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

**502426****Summary**

Unable to discover TelePresence capability information from end-points

**Message**

Unable to discover TelePresence capability information from end-points'

**Module**

Discovery manager

**Severity**

Error

**Explanation**

The system was unable to discover capability information from a CTS endpoint. The most likely cause of this issue is an older version of the CTS device, which does not support capability information.

**Recommendation**

The administrator should check the version of the CTS device and if needed, upgrade the device to a version that supports capability information.

**502427****Summary**

CTS misconfigured in Unified CM

**Message**

More than one IP Phone configured on shared DN with TelePresence equipment '\$1'

**Module**

Discovery manager

**Severity**

Error

**Explanation**

In the Unified CM configuration, more than one IP phone is configured to share the same directory number (DN) as the specified CTS endpoint.

**Recommendation**

The administrator should check the CTS configuration in Unified CM and take one of these actions:

- Remove the extraneous IP phone(s) that share the same DN.
- Assign a new DN for each of the extraneous IP phone(s) so that the CTS endpoint has only one IP phone sharing the DN.

**502428****Summary**

CTI control disabled

**Message**

CTI control is disabled on the IP phone '\$1'

**Module**

Discovery manager

**Severity**

Critical

**Explanation**

The specified Cisco IP Phone, which is configured for the CTS endpoint, has the CTI control set to disabled.

**Recommendation**

The administrator should check the configuration of the IP phone in the Unified CM Administration user interface and make sure CTI control is enabled.



**502429****Summary**

Failed to update Unified CM time zone in data store

**Message**

Unable to update time zone '\$1' because \$2'

**Module**

Discovery manager

**Severity**

Error

**Explanation**

An internal server error occurred.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502430****Summary**

Insufficient CTS capability

**Message**

CTS device '\$1' does not Interop with SD/HD VC end points. Check capability for details'

**Module**

Discovery manager

**Severity**

Error

**Explanation**

The indicated CTS does not support video conferencing interoperability.

**Recommendation**

The administrator should upgrade the CTS to a version that supports interoperability with video conferencing.

## 502432

**Summary**

Discovery complete for the specified unified CM profile

**Message**

Discovery completed for Unified CM '\$1'

**Module**

Discovery manager

**Severity**

Informational

**Explanation**

The specified Unified CM profile was discovered.

**Recommendation**

No action is required.

## 502434

**Summary**

Endpoint discovery operation error

**Message**

Unable to parse AXL Throttling fault string - '\$1'

**Module**

Discovery manager

**Severity**

Error

**Explanation**

CTS-Manager received an Administrative XML (AXL) fault from Unified CM but was unable to extract information because of a malformed fault string or formatting error.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502435****Summary**

Duplicate email address found for endpoints in Unified CM profile.

**Message**

Duplicate email address found for endpoint '\$1'.

**Module**

Discovery manager

**Severity**

Error

**Explanation**

A duplicate email address for an indicated endpoint was found in a Unified CM profile.

**Recommendation**

The administrator should remove the duplicate email address(es) for the endpoint (room) in the Unified CM profile.

**502436****Summary**

Duplicate email address of a endpoint in Unified CM profile cleared.

**Message**

Endpoint duplicate email address cleared for endpoint '\$1'.

**Module**

Discovery manager

**Severity**

Informational

**Explanation**

A duplicate email address for the indicated endpoint (room) was removed from the Unified CM profile.

**Recommendation**

No action is required.

## 502437

**Summary**

There are no endpoint licenses available

**Message**

There are no endpoint licenses available

**Module**

Discovery manager

**Severity**

Critical

**Explanation**

A valid endpoint license has not been uploaded to CTS-Manager via the Configure > Licenses window. Without this license, configured endpoints will not be recognized by CTS-Manager and meeting organizers will not be able to schedule meetings.

**Recommendation**

The administrator should acquire and upload a valid endpoint license. For information on performing these tasks, see [“Licensing for CTS-Manager” section on page 11-6](#).

## 502438

**Summary**

Endpoints licenses are in grace period

**Message**

Enpoints licenses are in grace period.'

**Module**

Discovery manager

**Severity**

Informational

**Explanation**

The endpoint licenses are in a grace period. Before the licenses expire, which would cause the associated CTS endpoints to become nonfunctional, new licenses must be acquired.

**Recommendation**

The administrator should acquire and upload valid endpoint licenses. For information on performing these tasks, see [“Licensing for CTS-Manager” section on page 11-6](#).

**502439****Summary**

There are not enough endpoint licenses available.

**Message**

There are not enough endpoint licenses available.'

**Module**

Discovery manager

**Severity**

Critical

**Explanation**

The number of endpoint licenses uploaded to CTS-Manager is not sufficient to cover the available endpoints. As a result, some endpoints are nonfunctional.

**Recommendation**

The administrator should acquire and upload endpoint licenses for the unlicensed endpoints. For information on performing these tasks, see [“Licensing for CTS-Manager” section on page 11-6](#).

**502440****Summary**

Device ID of an endpoint gets updated by another Device ID. Possible endpoint email address duplication in Unified CM profile

**Message**

Device ID '\$1' is replaced by Device ID \$2'

**Module**

Discovery manager

**Severity**

Warning

**Explanation**

The device ID of an endpoint was updated by another device ID. The likely cause are duplications in the email addresses of the rooms (endpoints) in the Unified CM profile.

**Recommendation**

The administrator should check the Unified CM profile to determine if there are duplications in the email addresses of the endpoints. If duplicates exist, the administrator should remove them.

## 502500

**Summary**

Event system operation failure

**Message**

Unable to dispatch message/event because \$1

**Module**

Event subsystem

**Severity**

Alert

**Explanation**

The ActiveMQ message system is unable to dispatch a message or event.

**Recommendation**

The administrator should check the state of the event service using the **utils service list** CLI command, then take the following action:

- If the event service is not running, the administrator should start it using the **utils service start** CLI command.
- If the event service is running, we recommend stopping it using the **utils service stop** CLI command then restarting it using **utils service start** CLI command.
- If the issue persists after taking the recommended action, the administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

## 502601

**Summary**

Admin UI unable to retrieve meeting

**Message**

Your meeting ID '\$1' has been removed from the system. Please contact your help desk for assistance.'

**Module**

UI module

**Severity**

Error

**Explanation**

CTS-Manager was unable to extract details for the indicated meeting because the meeting organizer ID or the meeting serial ID is null.

**Recommendation**

The meeting organizer should check the URL provided in their email notification. The URL cannot be altered.

**502602****Summary**

Admin UI unable to get certificate configuration file

**Message**

Unable to get certificate configuration file '\$1'

**Module**

UI module

**Severity**

Error

**Explanation**

The cert-conf.xml file is not in the expected location. A problem could have occurred during installation.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502603****Summary**

Admin UI certificate operation failure

**Message**

Unable to load certificate because '\$1'

**Module**

UI module

**Severity**

Error

**Explanation**

CTS-Manager was unable to load the indicated certificate into the system.

**Recommendation**

The administrator should note the details provided by the "\$1" variable in "Message," and retry the certificate upload to CTS-Manager.

## 502604

**Summary**

Admin UI certificate operation failure

**Message**

Unable to delete certificate unit '\$1' of category '\$2' because \$3'

**Module**

UI module

**Severity**

Error

**Explanation**

CTS-Manager was unable to delete the indicated certificate because of the indicated issue.

**Recommendation**

The administrator should note the details provided by the “\$3” variable in “Message,” and retry the certificate upload to CTS-Manager.

## 502605

**Summary**

Admin UI network operation failure

**Message**

Unable to \$1 DHCP setting (CLI code '\$2')

**Module**

UI module

**Severity**

Error

**Explanation**

CTS-Manager was unable to enable or disable the DHCP setting.

**Recommendation**

The administrator should note the details provided by the “\$2” variable in “Message,” and retry the configuration of the DHCP attribute.



**502606****Summary**

Admin UI network operation failure

**Message**

Unable to set IP address and/or subnet mask (CLI code '\$1')

**Module**

UI module

**Severity**

Error

**Explanation**

CTS-Manager was unable to save the configuration of a new IP address and/or subnet mask.

**Recommendation**

The administrator should note the details provided by the “\$1” variable in “Message,” and retry the configuration of the IP address attributes.

**502607****Summary**

Admin UI network operation failure

**Message**

Unable to set default gateway (CLI code '\$1')

**Module**

UI module

**Severity**

Error

**Explanation**

CTS-Manager was unable to change default gateway setting.

**Recommendation**

The administrator should note the details provided by the “\$1” variable in “Message,” and retry the configuration of the default gateway attribute.

## 502608

**Summary**

Admin UI SNMP operation failure

**Message**

Unable to set SNMP data command executed '\$1' because \$2'

**Module**

UI module

**Severity**

Error

**Explanation**

CTS-Manager was unable to execute the SNMP setting script to set new values for SNMP attributes.

**Recommendation**

The administrator should note the details provided by the “\$2” variable in “Message,” and retry the execution of the SNMP setting script.

## 502609

**Summary**

Admin UI SNMP operation failure

**Message**

Unable to '\$1' SNMP service because \$2'

**Module**

UI module

**Severity**

Error

**Explanation**

CTS-Manager was unable to perform the indicated action because the SNMP service was deactivated.

**Recommendation**

The administrator should use the CTS-Manager CLI to restart the SNMP service. (To verify the status of the SNMP service, the administrator should enter the **utils service list** command. If the SNMP service is not running, the administrator can enter the **utils service restart service-name** command, where *service-name* is the name of the SNMP service, which the administrator can get from the output of the **utils service list** command.)

**502610****Summary**

Software upgrade already in progress

**Message**

Software upgrade already in progress

**Module**

UI module

**Severity**

Warning

**Explanation**

A software upgrade is attempted while another upgrade is in progress. Only one upgrade can take place at a time.

**Recommendation**

The administrator who is attempting the upgrade should wait until the in-progress upgrade is completed, then retry their upgrade.

**502611****Summary**

Software upgrade failure from Admin UI

**Message**

Unable to upgrade software because \$1

**Module**

UI module

**Severity**

Error

**Explanation**

CTS-Manager was unable to upgrade the software because of the indicated reason.

**Recommendation**

The administrator should note the details provided by the “\$1” variable in “Message,” and retry the upgrade.

## 502612

**Summary**

System is restarting

**Message**

System is restarting. Try again later.

**Module**

UI module

**Severity**

Warning

**Explanation**

The system is being restarted. Users are not allowed to log into the CTS-Manager Administration UI during the startup process.

**Recommendation**

The CTS-Manager Administration UI users must wait until the startup process is complete.

## 502613

**Summary**

Admin UI operation error

**Message**

Webapp home directory '\$1' does not exist

**Module**

UI module

**Severity**

Error

**Explanation**

The indicated webapp home directory does not exist. It was probably not created during installation.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502614****Summary**

System is being maintained

**Message**

System is being maintained. Try again later

**Module**

UI module

**Severity**

Warning

**Explanation**

Either a database restore or system restart is in progress. During these processes, users are not allowed to log into the CTS-Manager Administration UI, and this system message is displayed on the CTS-Manager Administration login window.

**Recommendation**

The CTS-Manager Administration UI users must wait until the system maintenance process is complete.

**502615****Summary**

Users cannot delete his own role mapping

**Message**

Cannot delete own role mapping '\$1'

**Module**

UI module

**Severity**

Notice

**Explanation**

A CTS-Manager user whose role is Administrator is trying to delete the Administrator role mapping in the Configure > Access Management window. CTS-Manager users cannot delete their own role mappings. Only super users can perform this task.

**Recommendation**

An administrator with the super user privilege should delete the Administrator role mapping in the Configure > Access Management window.

**502616****Summary**

Invalid user FQDN

**Message**

FQDN '\$1' is not a group FQDN

**Module**

UI module

**Severity**

Error

**Explanation**

An invalid user LDAP fully qualified domain name (FQDN) was specified during CTS-Manager access management configuration.

**Recommendation**

The CTS-Manager administrator should work with the LDAP administrator to verify the user LDAP FQDN, then retry the configuration in the Configure > Access Management window.

**502617****Summary**

Admin UI unable to create remote account

**Message**

Unable to create remote account '\$1' because \$2. Account name must contain only lower case alphabetic characters. Upper case, digit, and special characters are not allowed.

**Module**

UI module

**Severity**

Error

**Explanation**

CTS-Manager was unable to create the indicated remote account because of the indicated reason.

**Recommendation**

The administrator should note the details provided by the “\$2” variable in “Message,” and try to create the remote account again.

**502618****Summary**

Admin UI meeting viewing operation failure

**Message**

Cannot view more than one meeting in the same session. Log out of session on meeting '\$1' first.

**Module**

UI module

**Severity**

Error

**Explanation**

Viewing more than one meeting in the same CTS-Manger Administration UI session is not allowed.

**Recommendation**

The meeting organizer should log out of the CTS-Manger Administration UI session for the first meeting, then log back into the UI to view information for the second meeting.

**502619****Summary**

System is being restarted

**Message**

System is being restarted. Try again later.

**Module**

UI module

**Severity**

Warning

**Explanation**

A system restart is in progress. During this process, users are not allowed to log into the CTS-Manager Administration UI.

**Recommendation**

The CTS-Manager Administration UI users must wait a few minutes until the system restart process is complete.

**502620****Summary**

Admin UI meeting viewing operation failure

**Message**

Email ID '\$1' specified in URL is different than ID '\$2' found in database

**Module**

UI module

**Severity**

Error

**Explanation**

The email notification received by a meeting organizer includes a URL that has a different user ID than their own. When using the URL to view information about their meeting, the meeting organizer receives this message. In CTS-Manager software release 1.1, this condition could occur when switching between versions.

**Recommendation**

The meeting organizer should check the URL provided in the email notification to ensure that the user ID is their own. If the user ID is incorrect, they should contact the Live Desk.

**502621****Summary**

Admin UI meeting viewing operation failure

**Message**

Missing required URL parameter '\$1' in email link

**Module**

UI module

**Severity**

Error

**Explanation**

The email notification received by a meeting organizer includes a URL that is missing a required parameter. When using the URL to view information about their meeting, the meeting organizer receives this message.

**Recommendation**

The meeting organizer should ensure that they are using the URL provided in the email notification for that particular meeting, then try to view the meeting information again. If they get the same message, they should contact the Live Desk.



**502622****Summary**

Admin UI network operation failure

**Message**

Unable to set primary DNS (CLI code '\$1')

**Module**

UI module

**Severity**

Error

**Explanation**

The system was unable to set the requested primary Domain Name Service (DNS) for the platform, and the CLI displayed an error message.

**Recommendation**

The administrator should verify the primary DNS, then retry the configuration.

**502623****Summary**

Admin UI network operation failure

**Message**

Unable to set secondary DNS (CLI code '\$1')

**Module**

UI module

**Severity**

Error

**Explanation**

The system was unable to set the requested secondary Domain Name Service (DNS) for the platform, and the CLI displayed an error message.

**Recommendation**

The administrator should verify the secondary DNS, then retry the configuration.

**502624****Summary**

Admin UI configuration operation failure

**Message**

Group FQDNs '\$1' already belong to access role '\$1'

**Module**

UI module

**Severity**

Error

**Explanation**

The indicated group LDAP fully qualified domain name (FQDN) is already mapped to another role.

**Recommendation**

The administrator should determine to which role the indicated group FQDN should be mapped, and take the appropriate action in the Configure > Access Management window.

**502626****Summary**

Admin UI network operation failure

**Message**

Unable to set domain (CLI code '\$1')

**Module**

UI module

**Severity**

Error

**Explanation**

The system was unable to set the domain name specified in the IP Settings window.

**Recommendation**

The administrator should verify that the domain name is correct, then retry the configuration.

**502627****Summary**

Admin UI network operation failure

**Message**

Unable to delete the primary DNS (CLI code \$1)

**Module**

UI module

**Severity**

Error

**Explanation**

The system was unable to delete the DNS name, and the CLI displayed an error message.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502628****Summary**

Admin UI network operation failure

**Message**

Unable to delete the secondary DNS (CLI code '\$1')

**Module**

UI module

**Severity**

Error

**Explanation**

The system was unable to delete the DNS name, and the CLI displayed an error message.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502629****Summary**

Admin UI certificate operation failure

**Message**

Invalid certificate file name '\$1'. Valid certificate file extensions are .cer and .der.

**Module**

UI module

**Severity**

Error

**Explanation**

The filename of the certificate being uploaded is invalid. The file extensions .cer and .der are supported.

**Recommendation**

The administrator should check the filename extension to ensure that it is a supported extension. If it is not, change the extension, then retry the upload.

**502630****Summary**

Admin UI meeting viewing operation failure

**Message**

Meeting query matches more than a maximum of \$1 instances. Change search criteria and try again.

**Module**

UI module

**Severity**

Error

**Explanation**

While in the Monitor > Meetings window, an administrator or Live Desk administrator searched for meetings that matched specified criteria, and the search results exceeded the maximum number of meetings that can be viewed in this window.

**Recommendation**

The administrator or Live Desk administrator should change the search criteria to narrow down the number of meetings.

**502632****Summary**

Admin UI configuration operation failure

**Message**

Cannot enable Interoperability because some devices do not support Interoperability. Click on the links to view the errored devices.

**Module**

UI module

**Severity**

Error

**Explanation**

At least one CTS or CTMS device does not support interoperability. Enabling interoperability with video conferencing requires that all CTS and CTMS devices support the feature.

**Recommendation**

The administrator should click the links to determine which devices have errors, then upgrade those devices with a later software version that supports interoperability with video conferencing.

**502633****Summary**

Failed to update the meeting

**Message**

Unable to update meeting because ID '\$1' was not found

**Module**

UI module

**Severity**

Error

**Explanation**

The indicated meeting does not exist in the CTS-Manager database. The meeting was possibly deleted after the meeting organizer accessed information about it in the CTS-Manager Administration UI.

**Recommendation**

The meeting organizer should refresh the browser in which the meeting information is being viewed. If the information still appears after the refresh, the meeting organizer should contact the Live Desk.

**502644****Summary**

Unable to make intercompany configuration for a meeting.

**Message**

Unable to enable Intercompany because one or more occurrences have video conferencing enabled.

**Module**

UI module

**Severity**

Error

**Explanation**

A recurring meeting was set up wherein the interoperability with video conferencing feature is enabled for one or more meetings in the series. The meeting organizer subsequently tried to enable the intercompany feature for a meeting wherein interoperability is already enabled, and this message appears.

Both interoperability and intercompany features are not supported in the same TelePresence meeting.

**Recommendation**

The meeting organizer can disable the interoperability feature, then enable the intercompany feature.

**502650****Summary**

An endpoint with the given email address already exists.

**Message**

A endpoint with the email address '\$1' already exists.

**Module**

UI module

**Severity**

Error

**Explanation**

When configuring the email address for an endpoint, a previously specified email address is entered, which CTS-Manager does not allow.

**Recommendation**

The administrator should enter a unique email address for the endpoint.

**502651****Summary**

There are no endpoint licenses available.

**Message**

There are no endpoint licenses available.

**Module**

UI module

**Severity**

Error

**Explanation**

Endpoint-based license files have not been uploaded to CTS-Manager.

**Recommendation**

The administrator should acquire and upload valid endpoint license(s). For information on performing these tasks, see [“Licensing for CTS-Manager” section on page 11-6](#).

**502652****Summary**

Admin UI certificate operation failure

**Message**

Invalid certificate file name '\$1'. Valid certificate file extensions is .class.

**Module**

UI module

**Severity**

Error

**Explanation**

The filename of the IBM Domino certificate being uploaded is invalid. CTS-Manager supports the .class file extension only.

**Recommendation**

The administrator must upload an IBM Domino certificate with the .class file extension.

**502653****Summary**

An endpoint with the given directory number already exists.

**Message**

An endpoint with the directory number '\$1' already exists.

**Module**

UI module

**Severity**

Error

**Explanation**

An endpoint with the indicated directory number (DN) already exists.

**Recommendation**

The administrator should specify a different DN for the endpoint.

**502654****Summary**

An endpoint with the given IP address already exists.

**Message**

An endpoint with the IP address '\$1' already exists.

**Module**

UI module

**Severity**

Error

**Explanation**

An endpoint with the indicated IP address already exists.

**Recommendation**

The administrator should specify a different IP address for the endpoint.

**502655****Summary**

Meeting organizer updated delegate information

**Message**

User updated delegate information, Delegates changed to = '\$1'.



**Module**

UI module

**Severity**

Info

**Explanation**

Meeting organizer added users to manage their meetings using the 'Allow other users to manage my meetings' field in the Meeting Manager > Preferences window.

**Recommendation**

No further action

502700

**Summary**

Failed to display certificate

**Message**

Failed to display requested certificate

**Module**

Certificate management module

**Severity**

Error

**Explanation**

From the Configure > Security window, an administrator tried to view the content of a certificate but was unsuccessful because CTS-Manager detected that the certificate has been corrupted.

**Recommendation**

The administrator should upload a new copy of the certificate.

502803

**Summary**

Unable to delete configuration policy

**Message**

Unable to delete configuration policy because \$1

**Module**

Configuration management module

**Severity**

Error

**Explanation**

The configuration policy could not be deleted for the indicated reason.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502808****Summary**

Duplicate name specified for a policy

**Message**

Configuration policy with name '\$1' already exists

**Module**

Configuration management module

**Severity**

Error

**Explanation**

A configuration policy with the indicated name already exists, which CTS-Manager does not allow.

**Recommendation**

The administrator should specify a different name for the configuration policy.

**502900****Summary**

Invalid date format error

**Message**

Incorrect date format

**Module**

Licensing module

**Severity**

Error

**Explanation**

The feature-based license has an expiration date.

**Recommendation**

The administrator must acquire a permanent license for the feature, then upload the license file to CTS-Manager. To acquire a permanent license, the administrator can contact the Global Licensing Operations (GLO) team at [licensing@cisco.com](mailto:licensing@cisco.com). (When using this contact method, response times may vary depending on business hours and peak volume times.) For information on uploading the permanent license, see the “[License Files](#)” section on page 11-10.

**502901****Summary**

Invalid total count quantity error

**Message**

'\$1' is not a valid total count for feature '\$2'

**Module**

Licensing module

**Severity**

Error

**Explanation**

A license for a feature-based feature is generated with a count value of more than 1.

**Recommendation**

To resolve this issue, the administrator can contact the Global Licensing Operations (GLO) team at [licensing@cisco.com](mailto:licensing@cisco.com). (When using this contact method, response times may vary depending on business hours and peak volume times.)

**502902****Summary**

File upload copying error

**Message**

Failed to make local copy of uploaded file

**Module**

Licensing module

**Severity**

Error

**Explanation**

An error occurred while CTS-Manager was uploading and copying a license file.

**Recommendation**

The administrator should retry uploading the license file to CTS-Manager. If the problem persists, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502903****Summary**

Query failed error

**Message**

Query failed

**Module**

Licensing module

**Severity**

Error

**Explanation**

A database error occurred during a licensing operation.

**Recommendation**

The administrator should retry the licensing operation. If the problem persists, the administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502904****Summary**

Object update error

**Message**

Update to database object failed

**Module**

Licensing module

**Severity**

Error

**Explanation**

A database error occurred while updating an object.

**Recommendation**

The administrator should retry the update. If the problem persists, the administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502905****Summary**

Feature ownership error

**Message**

Feature '\$1' does not belong to '\$2'

**Module**

Licensing module

**Severity**

Error

**Explanation**

An error occurred while CTS-Manager was retrieving feature details from the license file.

**Recommendation**

The administrator should retry the operation. If the problem persists, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502906****Summary**

Vendor has no features error

**Message**

Vendor '\$1' has no features available to it in the license file '\$2'

**Module**

Licensing module

**Severity**

Error

**Explanation**

An error occurred while CTS-Manager was retrieving feature details from the license file.

**Recommendation**

The administrator should retry the operation. If the problem persists, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502907****Summary**

Null feature specifier error

**Message**

Feature Specifier is null

**Module**

Licensing module

**Severity**

Error

**Explanation**

An error occurred while CTS-Manager was retrieving feature details from the license file.

**Recommendation**

The administrator should retry the operation. If the problem persists, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502908****Summary**

Count not specified error

**Message**

No count is specified for feature '\$1'

**Module**

Licensing module

**Severity**

Error

**Explanation**

The license file does not include count information.

**Recommendation**

The administrator should retry the operation. If the problem persists, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502909****Summary**

Invalid vendor error

**Message**

Correct vendor keys were not specified

**Module**

Licensing module

**Severity**

Error

**Explanation**

The vendor information in the license file is invalid.

**Recommendation**

The administrator should retry the operation. If the problem persists, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**502910****Summary**

The license file specified is invalid.

**Message**

Invalid license specified : '\$1'

**Module**

Licensing module

**Severity**

Error

**Explanation**

The license file content is corrupted or incorrect.

**Recommendation**

The administrator should verify that the license file is intended for the CTS-Manager server. If the problem persists, the administrator can request a new license by contacting the Global Licensing Operations (GLO) team at [licensing@cisco.com](mailto:licensing@cisco.com). (When using this contact method, response times may vary depending on business hours and peak volume times.) For information on uploading the new license, see the [“License Files”](#) section on page 11-10.

**502911****Summary**

The license file specified is duplicate

**Message**

Duplicate license specified : '\$1'

**Module**

Licensing module

**Severity**

Error

**Explanation**

A license file with the same features already resides in CTS-Manager.

**Recommendation**

The administrator should verify that the license file that they are trying to upload is the correct one, then retry the upload if appropriate.

**502912****Summary**

Invalid License. Upload valid license

**Message**

Some license features invalid in License: \$1

**Module**

Licensing module

**Severity**

Error

**Explanation**

One or more feature line items in the license file is invalid.

**Recommendation**

The administrator should verify that the license file is intended for the CTS-Manager server. If the problem persists, the administrator can request a new license by contacting the Global Licensing Operations (GLO) team at [licensing@cisco.com](mailto:licensing@cisco.com). (When using this contact method, response times may vary depending on business hours and peak volume times.) For information on uploading the new license, see the [“License Files” section on page 11-10](#).



## 503001

**Summary**

Groupware adapter can not be started

**Message**

Unable to start adapter '\$1' because \$2

**Module**

Groupware adapter module

**Severity**

Alert

**Explanation**

CTS-Manager was unable to start the indicated client adapter for the indicated reason.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

## 503002

**Summary**

Groupware adapter sync operation failed

**Message**

Unable to sync '\$1'.

**Module**

Groupware adapter module

**Severity**

Error

**Explanation**

Information for the indicated Microsoft Exchange endpoint (room) could not be synchronized with endpoint information in the CTS-Manager database.

**Recommendation**

The administrator can manually synchronize the Microsoft Exchange room in the Microsoft Exchange window of the CTS-Manager Administration UI.

**Note**

Synchronization takes time and system resources to accomplish and should be done only when necessary.

**503003****Summary**

Groupware adapter failed to process meeting

**Message**

Unable to process meeting '\$1'

**Module**

Groupware adapter module

**Severity**

Error

**Explanation**

The meeting organizer scheduled a meeting in their calendaring application, but CTS-Manager was unable to process the meeting.

**Recommendation**

The meeting organizer can try to update the meeting in their calendaring application, which gives CTS-Manager another opportunity to process the meeting.

**503004****Summary**

Groupware adapter failed to update endpoint.

**Message**

Unable to update endpoint '\$1'.

**Module**

Groupware adapter module

**Severity**

Error

**Explanation**

CTS-Manager was unable to update information for the indicated endpoint. This message could indicate a CTS-Manager internal error.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**503005****Summary**

Endpoint event processing failure

**Message**

Unable to process '\$1' event for endpoint '\$2'

**Module**

Groupware adapter module

**Severity**

Error

**Explanation**

CTS-Manager was unable to process a specific endpoint event. This message could indicate a CTS-Manager internal error.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**503100****Summary**

Groupware adapter failed to process meeting

**Message**

Unexpected error condition while processing your request because \$1

**Module**

Exchange adapter module

**Severity**

Error

**Explanation**

The CTS-Manager Exchange adapter encountered an internal error.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**503101****Summary**

Missing configuration parameter in groupware adapter configuration

**Message**

Missing configuration parameter '\$1' in groupware adapter configuration

**Module**

Exchange adapter module

**Severity**

Error

**Explanation**

The indicated configuration parameter, which is required, is missing.

**Recommendation**

The administrator must specify the required parameter, then retry the operation.

**503102****Summary**

Microsoft Exchange server connection failure

**Message**

Unable to establish connection with Microsoft Exchange server because \$1

**Module**

Exchange adapter module

**Severity**

Critical

**Explanation**

A connection between the CTS-Manager server and the Microsoft Exchange server could not be established.

**Recommendation**

The administrator should check the settings for Microsoft Exchange parameters in the Microsoft Exchange window of the CTS-Manager Administration UI.

**503103****Summary**

Configuration parameter has invalid format value

**Message**

Configuration parameter '\$1' has invalid format value '\$2'

**Module**

Exchange adapter module

**Severity**

Error

**Explanation**

The indicated configuration parameter format is incorrect.

**Recommendation**

The administrator should note the details provided by the “\$2” variable in “Message,” and reenter the parameter value based on the indicated format.

**503105****Summary**

Endpoint subscription failure.

**Message**

Unable to subscribe endpoint(s) '\$1'.

**Module**

Exchange adapter module

**Severity**

Critical

**Explanation**

Possible reasons for this messages are as follows:

- An account for the indicated endpoint might not exist in the active directory or Microsoft Exchange.
- The CTS-Manager account might not have the needed permission to read the endpoint (room) calendar.
- The connection to the Microsoft Exchange server might be down.
- The Microsoft Exchange account for the indicated endpoint could have been modified.

**Recommendation**

The administrator can take this action:

- Set up a endpoint (room) account in the active directory and/or Microsoft Exchange server.
- Ensure that the CTS-Manager account has read access for the endpoint's (room's)calendar.
- Wait for CTS-Manager to regain its connection to the Microsoft Exchange server, or restart CTS-Manager.

**503106****Summary**

Groupware adapter endpoint processing failure

**Message**

Unable to un-subscribe endpoint '\$1' because \$2.

**Module**

Exchange adapter module

**Severity**

Error

**Explanation**

The indicated endpoint could not be unsubscribed for one of the following reasons:

- The connection to the Microsoft Exchange server might be down.
- The Microsoft Exchange account for the indicated endpoint could have been modified.

**Recommendation**

The administrator can wait for CTS-Manager to regain its connection to the Microsoft Exchange server if the server was down.

**503107****Summary**

Groupware Adapter not able to read/search endpoint (room) mailbox

**Message**

Unable to search for endpoint '\$1' because \$2.

**Module**

Exchange adapter module

**Severity**

Error

**Explanation**

CTS-Manager could not search for the indicated endpoint for one of the following reasons:

- The connection to the Microsoft Exchange server might be down.
- The Microsoft Exchange account for the indicated endpoint could have been modified.

**Recommendation**

The administrator can check the security settings for the endpoint and if the Microsoft Exchange server was down, wait for CTS-Manager to regain its connection to the server.

**503109****Summary**

Groupware adapter endpoint processing failure

**Message**

Unable to renew subscription for endpoint '\$1' because \$2.

**Module**

Exchange adapter module

**Severity**

Error

**Explanation**

CTS-Manager could not renew the subscription for the indicated endpoint for one of the following reasons:

- The connection to the Microsoft Exchange server might be down.
- The Microsoft Exchange account for the indicated endpoint (room) could have been modified.

**Recommendation**

The administrator can check the security settings for the endpoint and if the Microsoft Exchange server was down, wait for CTS-Manager to regain its connection to the server.

**503112****Summary**

Mailbox process error

**Message**

Unable to calculate mailbox size because \$1

**Module**

Exchange adapter module

**Severity**

Error

**Explanation**

The mailbox quota for the CTS-Manager account could not be read.

**Recommendation**

The administrator can take this action:

- Specify a mailbox quota for the CTS-Manager account.
- Check the Microsoft Exchange domain to ensure that it is valid and correctly populated.

503113

**Summary**

Mailbox exceeds quota limit

**Message**

Mailbox size '\$2' is exceeding quota '\$1'. Cleanup the account to free some space.

**Module**

Exchange adapter module

**Severity**

Error

**Explanation**

The current size of the mailbox for the CTS-Manager account exceeds the indicated quota.

**Recommendation**

The administrator should remove unneeded data from the mailbox to free up space.

503114

**Summary**

Invalid domain name on calendar server

**Message**

Invalid domain name '\$1'

**Module**

Exchange adapter module

**Severity**

Error

**Explanation**

The indicated domain name is invalid. If this error occurs, it would typically occur during the test connection of the Microsoft Exchange settings in the CTS-Manager Administration UI.



**Recommendation**

The administrator should verify the domain in which the Exchange server exists, and enter the correct domain name in the Microsoft Exchange window of the CTS-Manager Administration UI.

**503115****Summary**

Invalid SMTP LHS name

**Message**

Invalid SMTP LHS name: name cannot contain space(s)

**Module**

Exchange adapter module

**Severity**

Error

**Explanation**

A Microsoft Exchange username is invalid. A likely cause is that the username includes space(s).

**Recommendation**

The administrator should work with the Exchange administrator to correct the invalid username.

**503116****Summary**

Exchange server connection succeeded

**Message**

Exchange server connection succeeded

**Module**

Exchange adapter module

**Severity**

Informational

**Explanation**

The connection between the CTS-Manager server and the Exchange server was successful.

**Recommendation**

No action is required.

**503117****Summary**

Duplicate endpoints with same device name

**Message**

Duplicate endpoints found with device name '\$1'

**Module**

Exchange adapter module

**Severity**

Error

**Explanation**

Duplicate endpoints (rooms) were configured for the indicated CTS device.

**Recommendation**

The administrator should check the endpoint (room) configuration in the Unified CM application user profile.

**503501****Summary**

Problem in sending out email notification

**Message**

Email cannot be sent for meeting in validation state '\$1'

**Module**

Email management module

**Severity**

Error

**Explanation**

An internal error occurred, and as a result, the system could not send an email notification to validate meeting details with an organizer.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

## 503503

**Summary**

Invalid meeting organizer

**Message**

Invalid meeting organizer (subject '\$1') because field '\$2' has invalid value '\$3'

**Module**

Email management module

**Severity**

Error

**Explanation**

The email address for the indicated meeting organizer is invalid.

**Recommendation**

The administrator should check the email address for the meeting organizer to ensure that it is correct. If it is not, the administrator can work with the appropriate administrator to correct the address in the directory. If the problem persists, the administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at

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

## 503504

**Summary**

Dropped email request

**Message**

Discarded email request '\$1' after '\$2' attempts

**Module**

Email management module

**Severity**

Error

**Explanation**

CTS-Manager attempted the indicated number of times to send an email notification for a meeting, but all attempts failed.

**Recommendation**

The administrator should take these actions:

- Check the email server configuration to ensure the specified values are correct.
- In the Meeting Details window, click **Send Email** to send the notification email manually.

**503505****Summary**

Email request has been shut off

**Message**

Too many email requests submitted for ID '\$1'

**Module**

Email management module

**Severity**

Error

**Explanation**

An excessive number of email requests were submitted for the same meeting. In this type of situation, CTS-Manager shuts off the email request to counter a possible Denial-of-Service (DoS) attack.

**Recommendation**

The administrator should wait for the defensive code to finish processing. If the problem persists, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**503602****Summary**

Requested time slot is beyond allowable range

**Message**

Requested time slot ('\$1' minutes) is beyond allowable range of '\$2' minutes

**Module**

Resource schedule management module

**Severity**

Error

**Explanation**

A meeting was scheduled with a duration of 0 minutes or more than 24 hours, both of which are outside of the allowable range.

**Recommendation**

The meeting organizer should schedule a meeting within the allowable duration range of 1 minute to 24 hours.

**503603****Summary**

Requested time range is outside scheduling window

**Message**

Requested time range ('\$1' to '\$2') is outside scheduling window ('\$3' to '\$4')

**Module**

Resource schedule management module

**Severity**

Error

**Explanation**

A meeting organizer tried to schedule a meeting more than 1 year in advance, which is outside of the allowable scheduling window.

**Recommendation**

The meeting organizer should schedule a meeting within the allowable scheduling window of 1 year.

**503604****Summary**

Not enough resources for a given time slot

**Message**

Time slot ('\$1' to '\$2') only has '\$3' available resources so cannot reserve '\$4' more

**Module**

Resource schedule management module

**Severity**

Error

**Explanation**

Not enough conference bridges were available during the indicated timeslot, so no more reservations can be made during the timeslot.

**Recommendation**

The administrator can add more conference bridges.

**503607****Summary**

Resource provisioning data store error

**Message**

Failed to record resource provision into database for meeting serialIds in '\$1'

**Module**

Resource schedule management module

**Severity**

Error

**Explanation**

CTS-Manager is unable to save a meeting reservation in the database because of an internal issue.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**503608****Summary**

Cleared resource provisioning data store error

**Message**

Cleared error in recording resource provision into database for meeting serialIds in '\$1'

**Module**

Resource schedule management module

**Severity**

Notice

**Explanation**

CTS-Manager cleared the error for a multipoint meeting with a resource issue.

**Recommendation**

No action is required.

**503609****Summary**

Meeting re-validation started

**Message**

Meeting re-validation started

**Module**

Resource schedule management module

**Severity**

Informational

**Explanation**

CTS-Manager started its revalidation of a meeting that was modified, for example, a meeting that was extended by 30 minutes.

**Recommendation**

No action is required.

**503610****Summary**

Meeting re-validation completed

**Message**

Meeting re-validation completed

**Module**

Resource schedule management module

**Severity**

Informational

**Explanation**

CTS-Manager completed its revalidation of a meeting that was modified, for example, a meeting that was extended by 30 minutes.

**Recommendation**

No action is required.

**503800****Summary**

MCU is not reachable

**Message**

MCU '\$1' is not reachable

**Module**

MCU module

**Severity**

Critical

**Explanation**

CTS-Manager was unable to communicate with the conference bridge or server.

**Recommendation**

The administrator should check for any connectivity issues with the bridge and check the conference bridge status.

**503801****Summary**

MCU authentication failure

**Message**

Unable to authenticate with MCU '\$1'

**Module**

MCU module

**Severity**

Critical

**Explanation**

The indicated conference bridge or server could not be authenticated.

**Recommendation**

The administrator should verify that the authentication information configured in the CTS-Manager Administration UI and the bridge or server match.



**503802****Summary**

Operation failure in MCU

**Message**

MCU '\$1' has encountered an unexpected condition

**Module**

MCU module

**Severity**

Critical

**Explanation**

The indicated conference bridge or server has encountered an unexpected error.

**Recommendation**

The administrator should check the bridge or server status in the CTS-Manager Administration UI.

**503804****Summary**

MCU Hostname not found

**Message**

Hostname or IP address not found for MCU '\$1'

**Module**

MCU module

**Severity**

Critical

**Explanation**

The indicated conference bridge or server is unknown to CTS-Manager, and as a result, CTS-Manager will not process any of its requests.

**Recommendation**

The administrator should verify that the bridge or server is properly configured in the CTS-Manager Administration UI.

## 503805

**Summary**

Cisco TelePresence Multipoint Switch does not support Interoperability

**Message**

Cisco TelePresence Multipoint Switch '\$1' does not support Interoperability

**Module**

MCU module

**Severity**

Error

**Explanation**

The indicated CTMS does not support the interoperability with video conferencing feature.

**Recommendation**

The administrator should upgrade the CTMS to a version that supports the interoperability feature.

## 503806

**Summary**

Pushing meeting calendar to MCU failure

**Message**

Meeting '\$1' was not pushed to MCU '\$2' because it has error(s)

**Module**

MCU module

**Severity**

Error

**Explanation**

Information for the indicated meeting could not be pushed to the indicated conference bridge or server.

**Recommendation**

The administrator should check the Meeting Details window in the CTS-Manager Administration UI for an error condition, and take the appropriate action.

**504000****Summary**

Problem in communicating with IBM Domino server

**Message**

IBM Domino connection error: \$1

**Module**

Domino adapter module

**Severity**

Alert

**Explanation**

A connection between the CTS-Manager server and the IBM Domino server could not be established.

**Recommendation**

The administrator should verify IP connectivity to the Domino server and ensure that the DIIOP server task is running.

**504001****Summary**

Problem in communicating with IBM Domino server

**Message**

Connection was established, but the system could not open the IBM Domino resource database '\$1'

**Module**

Domino adapter module

**Severity**

Error

**Explanation**

The indicated IBM Domino resource database could not be accessed.

**Recommendation**

The administrator should collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**504002****Summary**

IBM Domino organization name is invalid

**Message**

IBM Domino organization name '\$1' is invalid

**Module**

Domino adapter module

**Severity**

Error

**Explanation**

The indicated IBM Domino organization name is invalid.

**Recommendation**

The administrator should verify that the actual and configured Domino organization names match.

**504100****Summary**

Date range is too long in data query

**Message**

Date range is too long. It must be less than '\$1' months

**Module**

Reporting module

**Severity**

Error

**Explanation**

When requesting meeting information using the CTS-Manager Reporting API, the dates specified exceeded the maximum range of 6 months.

**Recommendation**

The Reporting API developer should specify dates within the supported range of 6 months, and resubmit the query.

**504101****Summary**

Too many data query attempts for the same session

**Message**

Too many data query attempts for the same session

**Module**

Reporting module

**Severity**

Error

**Explanation**

A request for meeting information using the CTS-Manager Reporting API was denied because the Reporting API client made two consecutive calls to the Reporting API web service within a short time interval. A minimum interval of 5 minutes between two consecutive calls is established to prevent spikes in the CPU usage of CTS-Manager.

**Recommendation**

The Reporting API developer should wait 10 to 15 minutes, then resubmit the query.

**504200****Summary**

WebEx connectivity error

**Message**

Can not connect to WebEx Server '\$1'

**Module**

WebEx module

**Severity**

Error

**Explanation**

The CTS-Manager server could not establish a connection with the WebEx site.

**Recommendation**

The administrator should take the following action:

- Verify that the specified URL, username, access code, and certificate are valid.
- Verify the HTTPS connectivity between CTS-Manager and the WebEx scheduling server.

## 504201

**Summary**

WebEx registration error

**Message**

Failed to register with WebEx Server

**Module**

WebEx module

**Severity**

Error

**Explanation**

CTS-Manager could not locate the Cisco WebEx account information, for example, the Cisco WebEx hostname URL. After this information is set up, it is pushed from CTS-Manager to the CTMS so that the audio portion of the Cisco WebEx meeting could be enabled.

**Recommendation**

The administrator should take the following action:

- Verify that the specified URL, username, access code, and certificate are valid.
- Verify the HTTPS connectivity between CTS-Manager and the WebEx scheduling server.

## 504202

**Summary**

WebEx reserve error

**Message**

An error occurred during WebEx Reserve with WebEx Server '\$1'

**Module**

WebEx module

**Severity**

Error

**Explanation**

CTS-Manager made an API call to the WebEx site, and the call failed. Possible causes for the failure include network issues or changes in the connection details.

**Recommendation**

The administrator should take the following action:

- Verify that the specified URL, username, access code, and certificate are valid.
- Verify the HTTPS connectivity between CTS-Manager and the WebEx scheduling server.

**504203****Summary**

WebEx schedule failure

**Message**

An error occurred during WebEx Schedule with WebEx Server '\$1'

**Module**

WebEx module

**Severity**

Error

**Explanation**

CTS-Manager made an API call to the WebEx site, and the call failed. Possible causes for the failure include network issues or changes in the connection details.

**Recommendation**

The administrator should take the following action:

- Verify that the specified URL, username, access code, and certificate are valid.
- Verify the HTTPS connectivity between CTS-Manager and the WebEx scheduling server.

**504204****Summary**

WebEx sync hosts error

**Message**

An error occurred during sync up of users with WebEx Server '\$1'

**Module**

WebEx module

**Severity**

Error

**Explanation**

CTS-Manager made an API call to the WebEx site, and the call failed. Possible causes for the failure include network issues or changes in the connection details.

**Recommendation**

The administrator should take the following action:

- Verify that the specified URL, username, access code, and certificate are valid.
- Verify the HTTPS connectivity between CTS-Manager and the WebEx scheduling server.

## 504205

**Summary**

WebEx expire error

**Message**

An error occurred during WebEx Expire with WebEx Server '\$1'

**Module**

WebEx module

**Severity**

Error

**Explanation**

CTS-Manager made an API call to the WebEx site, and the call failed. Possible causes for the failure include network issues or changes in the connection details.

**Recommendation**

The administrator should take the following action:

- Verify that the specified URL, username, access code, and certificate are valid.
- Verify the HTTPS connectivity between CTS-Manager and the WebEx scheduling server.

## 504206

**Summary**

Scheduler not registered with WebEx

**Message**

Meeting scheduler '\$1' is not registered with WebEx Server '\$2'

**Module**

WebEx module

**Severity**

Error

**Explanation**

The indicated meeting organizer does not have a Cisco WebEx account.

**Recommendation**

The administrator should inform the meeting organizer that they need to set up a Cisco WebEx account.



## 504207

**Summary**

WebEx site delete error

**Message**

WebEx Server cannot be deleted'

**Module**

WebEx module

**Severity**

Error

**Explanation**

When trying to delete the WebEx site configured in CTS-Manager, a problem occurred. A possible cause is that the WebEx site's resources were not removed, or deallocated, from all future meetings, thereby preventing CTS-Manager from deleting the server.

**Recommendation**

The administrator should verify that the WebEx site was deallocated. If it was not, the administrator should refer to the [“Deallocating a CUVC” section on page 11-61](#) for information on deallocating a server, then retry deleting the server. If the condition persists, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

## 504208

**Summary**

WebEx deallocate error

**Message**

WebEx Deallocate failed to complete successfully'

**Module**

WebEx module

**Severity**

Error

**Explanation**

CTS-Manager was unable to remove the WebEx site's resources from all future meetings.

**Recommendation**

The administrator should retry the deallocation operation. If the condition persists, the administrator can collect the log files, then contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**505000****Summary**

Operation successful

**Message**

Operation successful

**Module**

External scheduling API module

**Severity**

Informational

**Explanation**

The CTS-Manager Scheduling API successfully handled the requested operation.

**Recommendation**

No action is required.

**505001****Summary**

Endpoint is not managed

**Message**

Endpoint (\$1) is not managed by CTS-Manager

**Module**

External scheduling API module

**Severity**

Critical

**Explanation**

While scheduling a meeting, a meeting organizer requested an endpoint that is not managed by CTS-Manager.

**Recommendation**

The Scheduling API developer should consider adding the endpoint to the list of endpoints that are managed by CTS-Manager.

## 505002

**Summary**

Function not yet implemented

**Message**

(\$1) is not yet implemented

**Module**

External scheduling API module

**Severity**

Error

**Explanation**

Assuming that an iCalendar object must consist of a single VEVENT component, this message can display under the following conditions:

- The VEVENT component is missing.
- The VEVENT is present but invalid.
- CTS-Manager has not implemented the VEVENT.

**Recommendation**

The Scheduling API developer should contact the Cisco Technical Assistance Center (TAC) at <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

**Note**

To receive Cisco technical support for the Scheduling API, your organization must purchase Cisco Developer Network (CDN) support services. If your organization has not yet purchased these services, you can find information on CDN support at <http://developer.cisco.com>.

## 505003

**Summary**

Invalid scheduling API request

**Message**

Request data (\$1) is invalid. Message: (\$2)

**Module**

External scheduling API module

**Severity**

Error

**Explanation**

When scheduling a single meeting, this message can display under the following conditions:

- The iCalendar string is null.
- There are no meetings in the input array of TMeeting objects, or the array, which includes at least one meeting, is null.
- The iCalendar string could not be parsed; a valid iCalendar string must be passed in.
- The endpoint (room) attendee email address could not be parsed; the valid managed endpoint (room) email address must be passed in.
- DTSTART or DTEND is specified in a non-DATE-TIME format. The format of these properties must be of value type DATE-TIME.

When scheduling a recurring meeting, this message can display under the following conditions:

- Neither RRULE nor RDATE properties are specified in the iCalendar string.
- The frequency specified in RRULE has an invalid value; specify a valid integer value for frequency.
- The date(s) are specified in non-DATE-TIME format. The format must be of value type DATE-TIME.

When cancelling one instance of a recurring meeting, this message can display under the following condition:

- The RECURRENCE-ID is specified in a non-DATE-TIME format. The format must be of value type DATE-TIME.

**Recommendation**

The Scheduling API developer should note the specifics of the message, and take the appropriate action. If the action entails checking property values, the Scheduling API developer should work with the appropriate person on their team to ensure that the property values are correct and in the format required by the Scheduling API. For complete information on the Scheduling API, see the *Cisco TelePresence Manager Scheduling API Developer's Guide*, which you can access on the Cisco Developer Network (CDN) at <http://developer.cisco.com>.

505004

**Summary**

Scheduling API request not support

**Message**

Request (\$1) is not supported

**Module**

External scheduling API module

**Severity**

Error

**Explanation**

The CTS-Manager Scheduling API does not support the scheduling of recurring instances. Therefore, this message displays if the METHOD is set to REQUEST and RECURRENCE-ID is specified in the iCalendar string.

**Recommendation**

The Scheduling API developer should work with the appropriate person on their team to withdraw this request. For complete information on the Scheduling API, see the *Cisco TelePresence Manager Scheduling API Developer's Guide*, which you can access on the Cisco Developer Network (CDN) at <http://developer.cisco.com>.

**505005****Summary**

Invalid iCal component from scheduling API

**Message**

(\$1) is not supported. Message: (\$2) is required

**Module**

External scheduling API module

**Severity**

Error

**Explanation**

When scheduling a single meeting, this message can display under the following conditions:

- Assuming that one VEVENT must be passed in the iCalendar string, one of the following conditions exists:
  - The VEVENT component is missing.
  - The iCalendar string includes more than one VEVENT component.
- Assuming that one VTIMEZONE must be passed in the iCalendar string, this string includes more than one VTIMEZONE component.

**Recommendation**

The Scheduling API developer should note the specifics of the message, and work with the appropriate person on their team to verify the components. For complete information on the Scheduling API, see the *Cisco TelePresence Manager Scheduling API Developer's Guide*, which you can access on the Cisco Developer Network (CDN) at <http://developer.cisco.com>.

**505006****Summary**

Invalid iCal data from scheduling API

**Message**

(\$1) with value (\$2) is not allowed. Message: (\$3)

**Module**

External scheduling API module

**Severity**

Error

**Explanation**

When scheduling a single meeting, this message can display under the following conditions:

- DTSTART or DTEND is specified in a non-UTC format. These properties must be specified in a UTC format.
- DTSTART or DTEND has a nonzero seconds value. These properties must have a seconds value of 00.
- STATUS is not set to CONFIRMED. When the iCalendar string is passed in the scheduleTMeeting API request, the value for the STATUS property must be CONFIRMED.
- METHOD is not set to REQUEST. When the iCalendar string is passed in the scheduleTMeeting API request, the value for the METHOD property must be REQUEST.
- VERSION property value is not set to 2.0. When the iCalendar string is passed in the API request, the value for the VERSION property must be 2.0.

When scheduling recurring meetings, this message can display under the following conditions:

- Assuming that the iCalendar string must include only one RRULE property and one RDATE property, one of the following conditions exist:
  - More than one RRULE property is specified.
  - More than one RDATE property is specified.
- The date(s) is specified in a non-UTC format. This property must be specified in a UTC format.

When cancelling a single meeting, recurring meetings, and a single instance of a recurring meeting, this message can display under the following conditions:

- STATUS is not set to CANCELLED. When the iCalendar string is passed in the scheduleTMeeting API request, the value for the STATUS property must be CANCELLED.
- METHOD is not set to CANCEL. When the iCalendar string is passed in the scheduleTMeeting API request, the value for the METHOD property must be CANCEL.

When cancelling a single instance of a recurring meeting, this message can display under the following conditions:

- RECURRENCE-ID is specified in a non-UTC format. This property must be specified in a UTC format.

**Recommendation**

The Scheduling API developer should note the specifics of the message, and check the corresponding property value. For complete information on these property values, see the *Cisco TelePresence Manager Scheduling API Developer's Guide*, which you can access on the Cisco Developer Network (CDN) at <http://developer.cisco.com>.

505007

**Summary**

Invalid iCal data from scheduling API

**Message**

Property (\$1) with valid value is required. Current value: (\$2)

**Module**

External scheduling API module

**Severity**

Error

**Explanation**

When scheduling a single meeting, this message can display under the following conditions:

- The UID, ORGANIZER, or SUMMARY property is missing.
- The DTSTART or DTEND property is missing or has an empty value. The iCalendar string must include one DTSTART property with a valid value and one DTEND property with a valid value.
- The STATUS property value is missing or is not set to CONFIRMED.
- The METHOD property is missing or has an empty value. This property must be set to REQUEST.
- The VERSION property is missing or has empty value. This property must be set to 2.0.

When scheduling a recurring meeting, this message can display under the following condition:

- The VTIMEZONE property is missing. The iCalendar string must include one VTIMEZONE property.

When cancelling a single instance of a recurring meeting, this message can display under the following condition:

- The RECURRENCE-ID property has empty value. The iCalendar string must include one RECURRENCE-ID property with a valid value

**Recommendation**

The Scheduling API developer should note the specifics of the message, and check the corresponding property value. For complete information on these property values, see the *Cisco TelePresence Manager Scheduling API Developer's Guide*, which you can access on the Cisco Developer Network (CDN) at <http://developer.cisco.com>.

**505008****Summary**

Invalid iCal data value type

**Message**

Property (\$1) must be of value type (\$2)

**Module**

External scheduling API module

**Severity**

Error

**Explanation**

The indicated property must be of the indicated value type.

**Recommendation**

The Scheduling API developer must specify the correct value type for the property.

505009

**Summary**

Number of meetings in a request exceeds the limit

**Message**

Maximum meetings allowed per request are (\$1). Current value: (\$2).

**Module**

External scheduling API module

**Severity**

Error

**Explanation**

The CTS-Manager Scheduling API supports a maximum of 25 meetings in one request, and the maximum number of meetings in one request was exceeded.

**Recommendation**

The Scheduling API developer should reduce the number of meetings in the request to a maximum of 25.





## APPENDIX B

# Replacing a Cisco TelePresence System Codec

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## Overview

This appendix describes the process for replacing a Cisco TelePresence System (CTS) primary codec. Before you install the codec, make sure you have the following:

- MAC address of replacement codec unit
- Computer attached to the network
- The Assembly, Use & Care, and Field-Replaceable Unit Guide for your CTS model



### Note

It is recommended to make this change as a planned activity during maintenance.



### Caution

Complete all steps before powering on any secondary codecs. This prevents the secondary codecs from being affected by any software and peripheral upgrades to the primary codec.

## Replacing a Cisco TelePresence System Codec

To replace a Cisco TelePresence System codec, do the following:

- Step 1** Replace the primary codec unit according to the procedures in the Field-Replaceable Unit Guide for your CTS model.
- Step 2** Open a browser on a computer connected to the network.
- Step 3** Log in to Cisco Unified CM Administration and set up the new codec.  
For more information, refer to the [Cisco Unified Communications Manager Administration Guide](#).
- Step 4** Add the Room (endpoint) Email ID of the previous codec to the new codec.
- Step 5** Make sure the new codec's status is registered.
- Step 6** Delete the MAC address of the previous codec from the Cisco Unified CM application user profile that is used in CTS-Manager.

- Step 7** Add the new codec to the application user profile and click **Save**.
- Step 8** Power on the CTS system by turning the power switches to the On position on the PDUs and (if present) auxiliary control unit. Do not power on any secondary codecs.
- Step 9** In the browser on the computer, go to the IP address of the primary codec unit.
- Step 10** Enter the required information at the login screen.  
The Cisco TelePresence Administrator window appears.
- Step 11** Verify the status of the Cisco Unified Communications Manager (seen in the lower left portion of the window) is Enabled/Up.
- Step 12** Select **Hardware Setup** to verify the cameras, displays, speakers, and microphones are working properly.
- Step 13** Perform the Auto Adjust camera setup procedure. This sets the white balance to the correct levels.
- Step 14** Log in to CTS-Manager as SysAdmin or Administrator.
- Step 15** Go to **Configure > Application Settings**.
- Step 16** Disable the Meeting Notification Email by selecting **No** for Enable Feature and clicking **Apply**.
- Step 17** Go to **Configure > Unified CM**.
- Step 18** Select the Unified CM that has the new codec.
- Step 19** Click **Discover Rooms**.  
The new codec with the existing endpoint name is added and the previous codec is removed from CTS-Manager.
- Step 20** Power on any secondary codecs of the CTS system.



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**Note** Make sure the old phone and codec are turned off.

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## APPENDIX C

# Reconfiguring CTS-Manager and CTMS Addressing

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## Overview

This appendix describes the process for reconfiguring addressing for CTS-Manager and CTMS. It contains the following sections:

- [Changing IP Address and Hostname of CTS-Manager, page C-1](#)
- [Changing IP Address of CTMS, page C-2](#)

## Before You Begin

Make sure you have the following before you begin:

- SysAdmin username and password for CTS-Manager
- Administrator username and password for CTMS
- Laptop computer attached to the network

## Changing IP Address and Hostname of CTS-Manager

To change the IP address and hostname of CTS-Manager, do the following:

- 
- |               |   |
|---------------|---|
| <b>Step 1</b> | Get the new IP address, which should be in the data VLAN, and new hostname, which should be with the new IP address in DNS.     |
| <b>Step 2</b> | Log in to the CTS-Manager web UI and go to <b>Configure &gt; System Settings &gt; IP</b>  |
| <b>Step 3</b> | In the IP Address field, replace the existing IP address with the new IP address and click <b>Apply</b> . CTS-Manager restarts. |
| <b>Step 4</b> | After CTS-Manager has restarted, SSH to CTS-Manager using the new IP address and log in as the SysAdmin.                        |
| <b>Step 5</b> | Run the <b>Set Network Hostname &lt;new hostname&gt;</b> command.   |

- Step 6** When CTS-Manager asks you to restart the system, select **Yes**.  
CTS-Manager restarts.
- Step 7** Log in to the CTMS web UI and go to **Configure > CTS Manager**
- Step 8** In the Host field, change the IP address or hostname to the new IP address or hostname of CTS-Manager and click **Apply**.



**Note** In the Host field, you can use either hostname or IP address, but not both.

After restart, all CTS-Manager services will start and function normally with new IP and hostname.

## Changing IP Address of CTMS

To change the IP address of CTMS, do the following:

- Step 1** Get the new IP address, which should be from the voice VLAN, and hostname, which should be with the new IP address in DNS.
- Step 2** Log in to the CTMS console as the admin and run following commands:
- set network gateway** *<gateway IP>*
  - network IP eth0** *<new IP address> <mask IP>*
- CTMS restarts.
- Step 3** Verify the new IP has been changed, by doing the following:
- From the console, run the **show network eth0** command and verify the new IP address is displayed.
  - SSH to the CTMS, run the **cat/etc/hosts** command and verify the new IP address is displayed.
  - Log in to the CTMS web UI, go to **Troubleshoot > System Information** and verify the new IP address is displayed.
  - Log in to the CTS-Manager web UI, go to **Configure > Bridges and Servers**, and verify the new IP address is displayed.



**Note** The meeting organizer will not receive any new emails from CTS-Manager for future meetings after the IP address is changed.

- Step 4** Log in to the Unified CM Administration web UI, go to **Device > Trunk** and change the IP address for Destination Address to the new IP address.



**Note** Make this change wherever the CTMS IP address is used.