Cisco TelePresence Manager Release 1.2 Administration and Installation Guide

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Administration and
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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 2.0.

Audience and Scope

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

End User License Agreement

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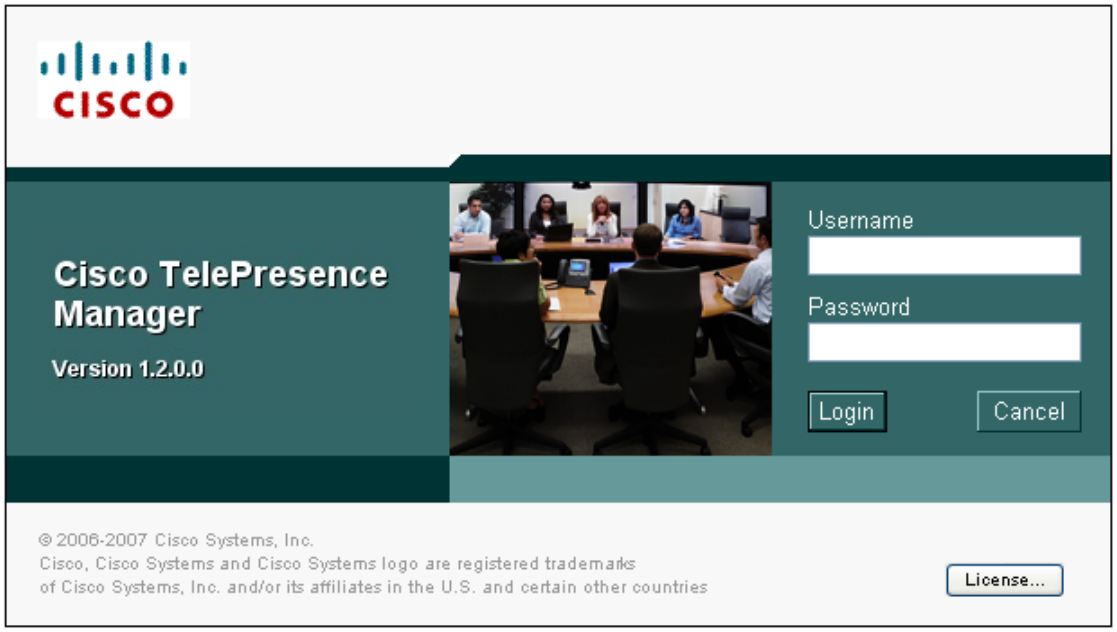
Note It is important that you read and understand the conditions of the end user license agreement. Downloading, installing, and using Cisco and Cisco-supplied software constitute acceptance of the agreement.

You can display the end user license agreement from two places, the login screen and the About box.



Click the **License** button to display the agreement.

CHAPTER 1

Using Cisco TelePresence Manager

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- Administrator's Role, page 1-13
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Overview

The Cisco TelePresence Manager application enhances the Cisco TelePresence meeting experience by combining technology inherent in Cisco Unified IP phones with Microsoft Exchange Server database software to provide an integrated solution that makes scheduling and managing meetings a simple task.

The Cisco TelePresence Manager is a web-based application that requires login using one of three password types—one for a concierge, one for an administrator, and one for a superuser.

The Cisco TelePresence Manager is visible in the following places within the Cisco TelePresence meeting system:

- In the web-based interface provided by the Cisco TelePresence Manager application that is used by the concierge, the administrator, and the superuser.
- On the display screen of the Cisco Unified IP phone provided in a Cisco TelePresence-enabled meeting room. The phone user interface displays a schedule of meetings and provides the easy "one button to push" function used to connect participants for a meeting.

The Cisco TelePresence Manager provides the following functionality and information:

- Coordinates conference scheduling between Cisco TelePresence endpoints and Multipoint Conference Units (MCU).
- Sharing of information between the Cisco TelePresence system servers and IP phone.

- Reports and links that assist a concierge to identify scheduled meetings, conference room names, telephone numbers, and system status and to provide information to an administrator who will troubleshoot problems.
- Ability for an administrator to perform remotely such tasks as monitoring the servers, updating system settings, maintaining the database, and troubleshooting call connection problems.

Concierge's Role

The concierge is the first person contacted when there are questions or problems pertaining to connecting meeting participants. The concierge understands how to perform the following tasks:

- Scheduling meetings
- Using the Cisco Unified IP phone in a Cisco TelePresence-enabled meeting room
- Using the tools supplied by the Cisco TelePresence 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

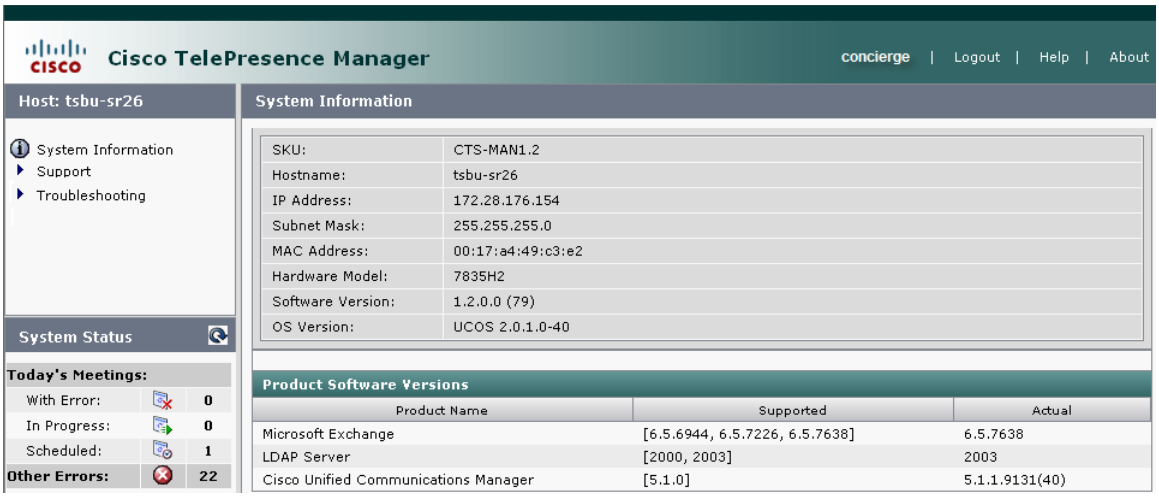
Concierges can be assigned rooms to monitor in the Cisco TelePresence Manager application. Assigned concierges are reached by dialing the Help soft key on the Cisco Unified IP phone in a Cisco TelePresence-enabled meeting room.

When a concierge logs into the Cisco TelePresence Manager, the following selections and information are available:

- System Information
- System Status
- Support
- Troubleshooting

Figure 1-1 shows the window when the concierge logs in.

Figure 1-1 Cisco TelePresence Manager Concierge's Window



Administrator's Role

When an administrator logs into the Cisco TelePresence Manager, the following selections and information are available:

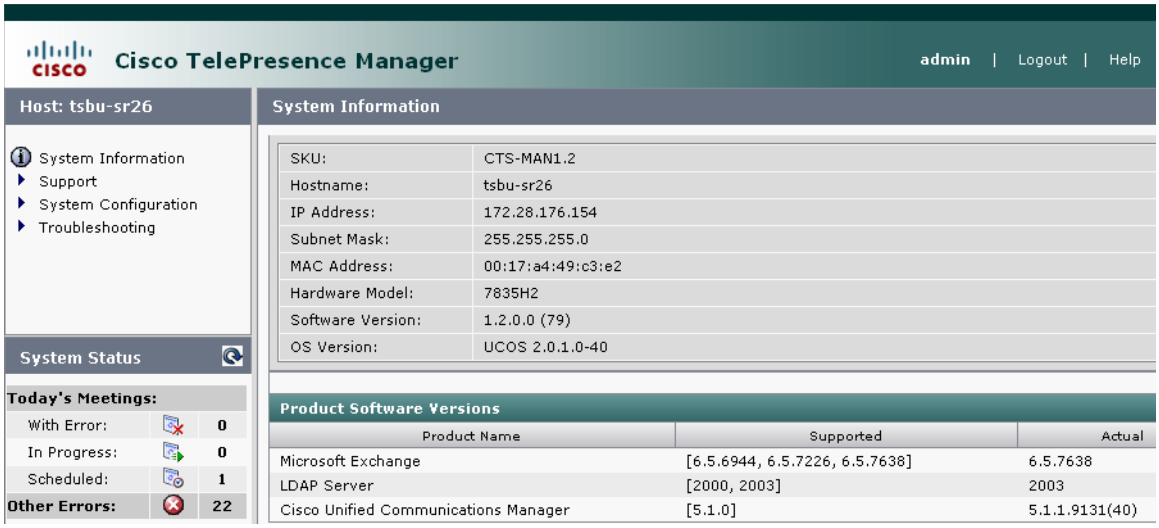
- System Information
- System Status
- Support
- System Configuration
- Troubleshooting

In day-to-day operations, the administrator assists the concierge with monitoring system status and, when problems occur, takes action to correct them by analyzing system error messages and debugging log files.

Additionally, the administrator performs system configuration tasks. The administrator has a different login name and password from those of the concierge. 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 concierge to a meeting room.

Figure 1-2 shows the windows when the administrator logs in.

Figure 1-2 Cisco TelePresence Manager Administrator's Window



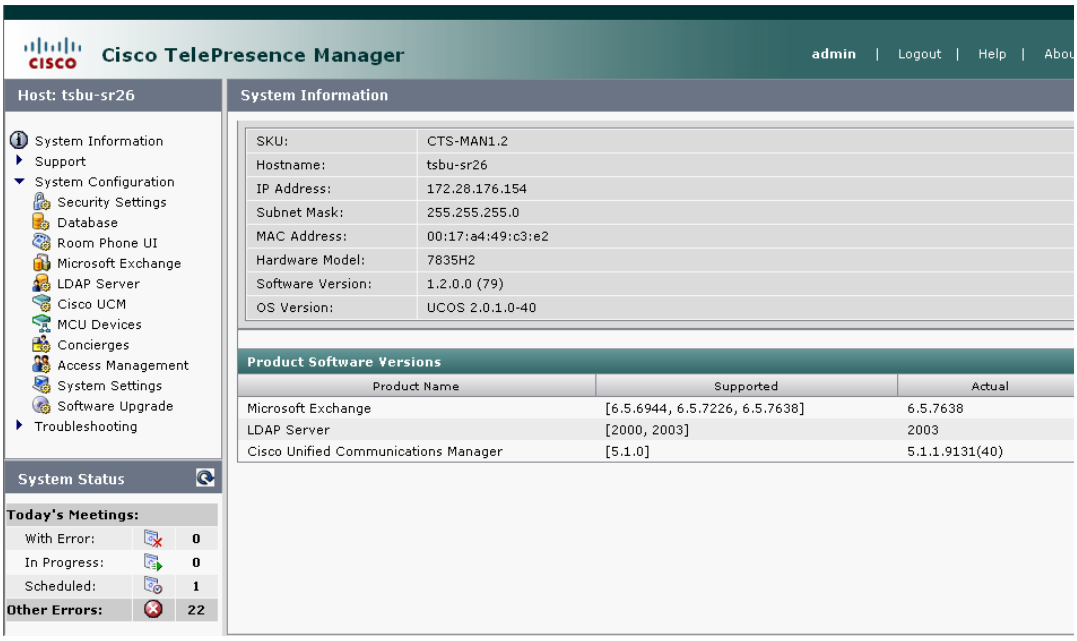
Superuser Role

The system superuser has a special login account that allows access to two additional administrative tasks—changing system settings and upgrading software. These tasks are only visible by logging in using the superuser password.

Figure 1-3 shows the configuration tasks available to an administrator with the superuser password.

Figure 1-3 System Configuration Tasks with the Superuser Password

Changing system settings and upgrading system software require the superuser password.



System Information

Use the System Information window to see a quick summary of information about the 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. The numbers on the Exchange row are basic, SP1, and SP2 versions, respectively, of Microsoft Exchange Server 2003.

System Status

System Status is always in view in the lower left corner of the Cisco TelePresence Manager window. Both the concierge 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 Cisco TelePresence 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 other than those occurring with meetings, such as errors detected in the database.

For fast interpretation, icons indicate meeting status. The numbers associated with each icon indicate the number of meetings that are in the specified state. Pass the mouse over an error icon in the System Status area to see a brief description of the error.

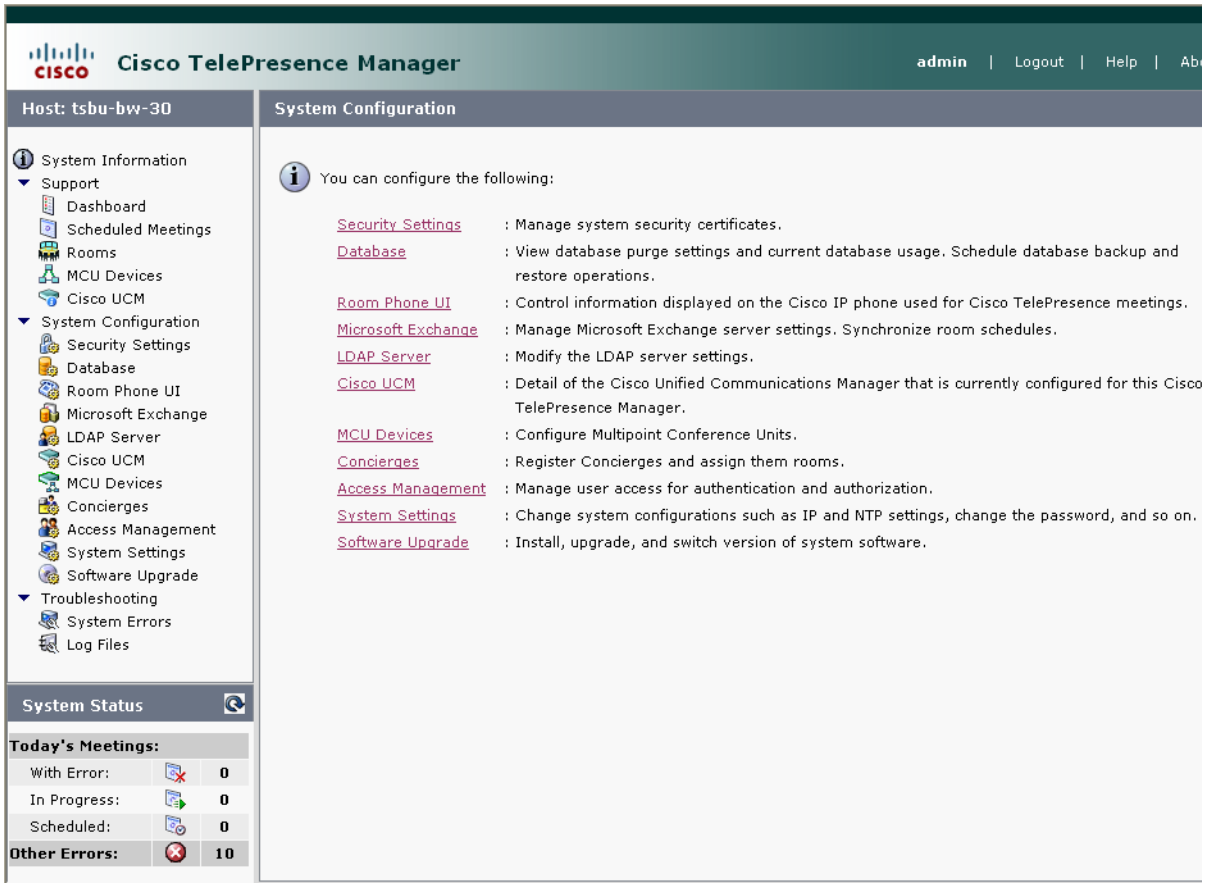
Navigation

You can see the list of selections available from the Cisco TelePresence Manager in two places.

- In a drop-down list displayed in the left-side navigation pane. Click an arrow next to a selection so that it points down and displays a list of tasks.
- In the main window when instead of the arrow you click the highlighted Support, System Configuration, or Troubleshooting feature name.

In both places, you can quickly access a task by clicking its highlighted name (Database, for example).

Figure 1-4 Selecting Tasks



The following sections describe objects, functions, and information displayed in the windows associated with the Cisco TelePresence Manager selections.

Header

A header at the top of all Cisco TelePresence Manager windows shows either “admin” or the login name of the concierge currently logged in and provides three links:

- **Logout**—Click to log out of the system.
- **Help**—Click to display online help for using the Cisco TelePresence Manager.
- **About**—Click to display licensing information.

Content Area

The frame on the right is the content area. The gray bar above the content area shows the navigational path so you can see where you are at any time.

Tabs

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

Filtering Information

Some windows provide fields where you can enter criteria by which to display reports. 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, 100, or 500 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 Cisco TelePresence Manager in a file using standard copy-and-paste functions.

Typing Information in Fields

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

Typing Telephone Numbers

Telephone numbers must be entered in Cisco TelePresence 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 Cisco TelePresence Manager in the exact sequence in which they should be dialed. The following is an example: 915105550100.

Typing Meeting Room Names

The names of meeting rooms must be typed into Cisco TelePresence Manager fields exactly as they are entered in the Microsoft Outlook and Exchange Server databases. If a room is listed as "M-Room 1/3 at Main" in the Microsoft Outlook list of resources, that name must be typed exactly the same way in the Cisco TelePresence Manager; otherwise, the system will not be able to match records, and an error will occur.

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.

CHAPTER 2

Supporting Cisco TelePresence Manager

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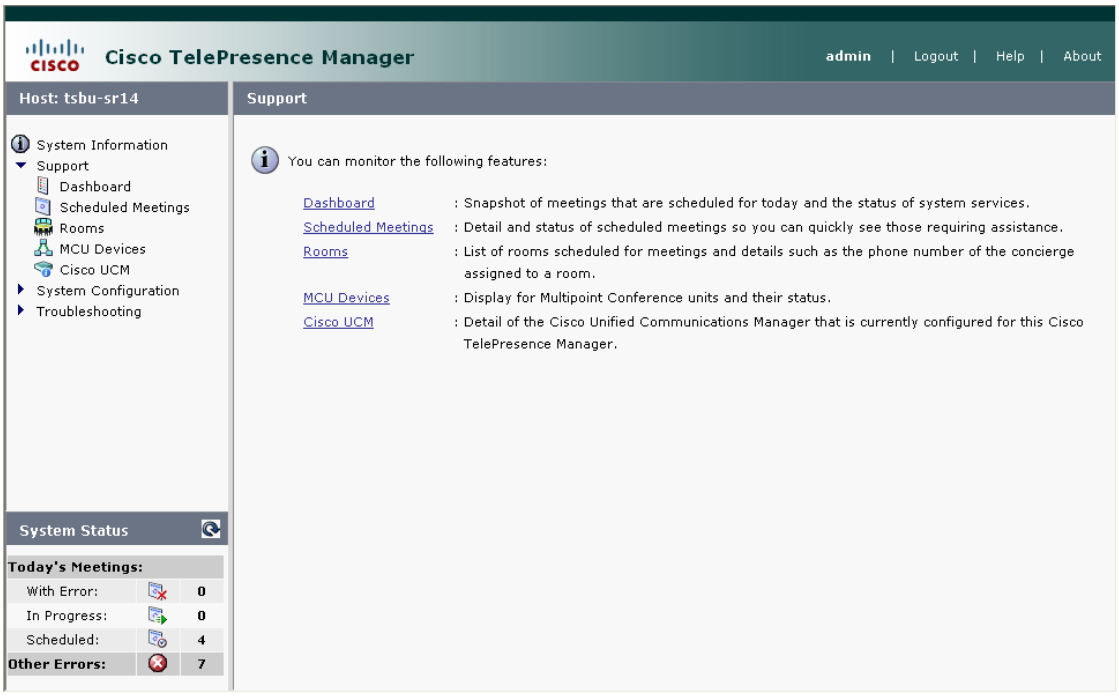
Introduction

System support tasks consist primarily of monitoring and updating meeting schedules and monitoring the status of rooms and system services. Figure 2-1 shows the support tasks.

Figure 2-1 Support Window



Support Tasks

Use Table 2-1 to locate support tasks in this section.

Table 2-1 Support Tasks

Task	Location of Information
Meetings	
Details View and modify details about a scheduled meeting, including starting and ending times, switching policy, privacy preferences, and meeting room phone number.	"Meeting Details" section on page 2-24.
Frequency Find out whether a meeting is scheduled as a single or recurring event.	"Meeting Details" section on page 2-24.
List List meetings by a specific criterion such as room name, person who scheduled the meeting, or time period.	"Scheduled Meetings" section on page 2-23.

Table 2-1 Support Tasks (continued)

Task	Location of Information
Phone numbers Check the number of meetings scheduled today.	System Status or the Dashboard window. See the "System Status" section on page 1-14 and the "Dashboard" section on page 2-22.
Privacy View and modify meeting privacy settings.	"Meeting Details" section on page 2-24.
Problems View details about meetings that are having problems.	System Status window. Click the **Other Errors** icon. In the Dashboard window, click the highlighted link next to the **With Error** report. See the "System Status" section on page 1-14 and the "Dashboard" section on page 2-22.
Rooms	
Concierge Find out who the concierge is for a room.	"Rooms" section on page 2-26.
Problems View details about rooms that are having problems.	In the Dashboard window, click the highlighted link next to the **Rooms** report under Services.
Schedule Update a room's schedule.	"Rooms" section on page 2-26.
Status Create a list of rooms that are in a specific state, or check the states for a particular room.	"Rooms" section on page 2-26.
Services	
MCU Conference Management • Push meeting schedules to all registered MCUs. • Manage meeting migration between MCUs.	"MCU Devices" section on page 2-27

Table 2-1 Support Tasks (continued)

Task	Location of Information
Settings View Cisco Unified Communications Manager settings.	"Dashboard" section on page 2-22
Status Monitor the status of the following Cisco TelePresence services: • Cisco Unified Communications Manager • Microsoft Exchange • LDAP Server • Room Phone UI • Database • Multipoint Connection • Discovery	"Dashboard" section on page 2-22.

Dashboard

Choose Dashboard to display a concise report of system activity. The dashboard provides a snapshot of meetings that are scheduled for the day and shows 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 room-scheduling functions.

Table 2-2 describes information in the Dashboard report.

Table 2-2 Dashboard Report

Field	Description or Setting
System Time	Day, date, and time in coordinated universal time (UTC).
Local Time	Local day, date, and time.

Table 2-2 Dashboard Report (continued)

Field	Description or Setting
Today's Meetings	Status of current and upcoming meetings: • With Error—Reports the number of meetings that have errors. • All Meetings—All meetings scheduled for today. Click the link associated with each report to go to the Scheduled Meetings window.
Services	Status report of following system services: • Rooms • MultiPoint Conference Unit (MCU) Devices • Cisco Unified Communications Manager **Note** An error status may be reported if the connection to CUCM was caused by a network outage. You can remove the error status by restarting Cisco TelePresence Manager. • Microsoft Exchange • LDAP Server • Room Phone UI • Database • MultiPoint Connection • Discovery Status either will be OK or will be a highlighted link listing the number of errors. Click a link to go a window where you can see further status information and resolve problems. You can also pass your mouse over a highlighted link to see a brief description of the error.

To update the reports, click **Refresh**.

Scheduled Meetings

When a Cisco TelePresence meeting is scheduled using Microsoft Outlook, an e-mail is sent to the meeting scheduler to confirm the meeting and provide a link to meeting details. The Scheduled Meetings window provides another way to view and modify meeting details.

Caution Meetings scheduled more than 12 months in the future are not accepted by Cisco TelePresence Manager. There is no clarification email sent to the meeting organizer, but Microsoft Exchange will accept the meeting and send acceptance emails on behalf of each conference room.

You can also generate a report about specific meeting rooms and/or activity between specific dates by supplying any or all of the following details:

- Type the meeting room name in the Room field.
- Type the login name of the person who scheduled the room in the Scheduler field.
- From the Status drop-down list, choose the All, With Error, In Progress, Scheduled, Completed, or No Show meeting status.
- Use the Calendar icon to choose beginning and ending dates, or type the dates in the Start On and End On fields using the MM/DD/YYYY date format.
- Type the name of the MCU.
- Click **Filter**.

Note If a meeting is modified within a few minutes of the meeting's starting time (such as a time change, or room change), the modification may not appear on the room phone screen, or in the Cisco TelePresence Manager's Scheduled Meetings window. This does not affect any user's ability to schedule a new meeting at the original time (pre-modifed) time.

Table 2-3 describes the Scheduled Meetings information.

Table 2-3 Scheduled Meetings Information

Field	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	Room status: All, With Error, In Progress, Scheduled, Completed, or No Show.
Room	Meeting room name as specified in the Microsoft Exchange database.
Scheduler	Login name of the person who scheduled the meeting. Click the arrow in the header of the Scheduler column to sort the list in ascending or descending alphabetical order.
Subject	Information (such as the meeting subject) provided about the meeting.

Meeting Details

To see meeting details, click the radio button next to a report and click **Details**.

Table 2-4 describes meeting details.

Table 2-4 Meeting Details

Field	Description or Setting
Series	When selected, any changes made to switching policy or privacy preferences affect the whole meeting series.
Single Occurrence	When selected, any changes made to switching policy or privacy preferences affect only the single meeting instance.
Subject	Displays information provided about the meeting. You can hover the mouse over the Subject field to see the full description.

Table 2-4 Meeting Details (continued)

Field	Description or Setting
Scheduler	Login name of the person who scheduled the meeting.
Rooms	Meeting room name, which is also a link to the Cisco TelePresence System Administration application where information can be reviewed and revised. Click the arrow in the Rooms header to sort the list in ascending or descending alphabetical order. ⚠ **Caution** If a room is configured to accept meeting invitations manually through a proxy (a room admin), the room may be displayed as having tentatively accepted a meeting invitation. The proxy must reply to the invitation email to change the room state to accepted. A field is provided for entering the meeting room telephone number. The field accepts characters when there is only one room in a meeting and the telephone number to connect the meeting can be manually dialed.
MultiPoint Conference Unit	Identifies the MCU used to schedule the meeting. **Switching Policy:** The value shown is the current switching policy. You can use the drop-down list to change the switching policy to site or segment switching. If you choose "MCU Default" the switching policy for the meeting is determined by the switching policy set on the MCU. **Migrate Meeting:** You can migrate a scheduled meeting from one MCU to another. Click the Series radio button to migrate the entire meeting series or click the Single Occurrence radio button. Then migrate the meeting to a different MCU.
Privacy Preference	Radio buttons select whether information about an upcoming meeting is displayed on the room's IP phone. • Click the **Display meeting information on room phone** radio button to display meeting information on the phone user interface. • Click the **Do not display** radio button to preserve meeting privacy.
Auto Assist	Cisco TelePresence meetings are scheduled between two meeting rooms. If you have a meeting scheduled with only one or more than two rooms, Cisco TelePresence Manager cannot automate call launch and the Auto Assist button will be displayed. By default, Auto Assist is enabled. When it is enabled, the meeting is considered with error and is not eligible for an auto-assisted meeting call. If Auto Assist is disabled, it indicates a decision to manually dial the phone number for the meeting. The meeting is then in the Scheduled state (rather than with error).

Table 2-4 Meeting Details (continued)

Field	Description or Setting
Status	Meeting status: All, With Error, In Progress, Scheduled, Completed, or No Show.
Instance Type	Describes the meeting as one time only or recurring.

Rooms

Choose Rooms to display information about the Cisco TelePresence meeting rooms. The Rooms Support window is divided into two, tabbed views.

- The **Rooms** view displays the status of a Cisco TelePresence room.

  Table 2-5 describes information in this window.

- The **Detail Status** view displays the different error types for Cisco Unified Communications Manager, each Cisco TelePresence System registered with Cisco TelePresence Manager, and Microsoft Exchange connection errors.

  Table 2-6 describes information in this window.

You can generate a report about specific meeting rooms and meeting status, as follows:

- Choose the call status—All, OK, Error, Needs Help, or In Use—from the **Status** drop-down list.
- Type the number of the meeting room in the **Room** field.
- Click **Filter**.

Table 2-5 Summary

Field	Description or Setting
Status	Room 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.
Room Name	Meeting room name.
Room Phone	Meeting room telephone number.
Help Contact	Concierge who is assigned to the room.
Description	Meeting room 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 Cisco TelePresence System. • Click the address to go to the Cisco TelePresence System Administration login page.
Cisco Unified Communications Manager	IP address of Cisco Unified Communications Manager • Click the address to go to the Cisco Unified Communications Manager Administration login page.

To update a room's IP phone with what is currently scheduled in the Microsoft Exchange database:

- Click **Update Schedule**.

To obtain additional information about any meetings associated with a room:

- Click the radio button associated with a room and click **View Meetings**.

Table 2-6 Status

Field	Description or Setting
Status	Room 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.
Room Name	Meeting room name.
Connectivity	
CUCM/CTS	An "X" indicates a problem with the connection between Cisco Unified Communications Manager and the Cisco TelePresence room.
CUCM/Phone	An "X" indicates a problem with the connection between Cisco Unified Communications Manager and the IP phone in the TelePresence meeting room.
CTS Man/CTS	An "X" indicates a problem with the connection between the Cisco TelePresence Manager and the Cisco TelePresence room.
CTS	
CTS Error	An "X" indicates an error has occurred on the specified CTS.
Cisco UCM	
Profile	An "X" indicates a problem with the Cisco TelePresence System user profile stored in Cisco Unified Communications Manager.
Email ID	An "X" indicates a problem with the Cisco TelePresence System email ID stored in Cisco Unified Communications Manager.
Microsoft Exchange	
Subscription	An "X" indicates a subscription problem between the TelePresence meeting room and Microsoft Exchange. **Note** A subscription error may be indicated by an “X” when there is no error. This can be caused when an invalid email address is assigned in CUCM, that does not match the email address in Microoft Exchange.
Sync	An "X" indicates a synchronization problem between the TelePresence meeting room and Microsoft Exchange.

MCU Devices

Choose MCU Devices to display information about the multipoint conference units associated with Cisco TelePresence Manager.

You can generate a report about specific MCU devices, as follows:

- Choose the status—All, OK, or Error—from the **Status** drop-down list.
- Type the MCU Hostname in the **MCU** field.
- Click **Filter**.

- Select a MCU device and click **Details** to display a detailed report about the MCU device.
- Select a MCU and click Update Schedule to send the latest meetings schedule to the MCU.
- Select a MCU device and click **View Meetings** to display a list of meetings assigned to that device.

Table 2-7 Multipoint Conference Unit

Field	Description or Settings
Status	MCU status: All, OK, or Error. Click the arrow in the header of the Status column to sort the list in ascending or descending alphabetical order.
Hostname	The address of the MCU.
MCU Type	This is always CTMS.
Control state	Control state: Scheduled or Non-scheduled. A MCU is available for meetings if it is in a Scheduled Control state.
Description	The description field displays information about the MCU.

Table 2-8 MCU Details

Field	Description or Settings
Type	This is always CTMS.
MCU Hostname	This is the address of the MCU.
Timezone	Displays the timezone where the MCU is located.
Access Numbers	The MCU dial-in phone number.
Segment Count	The number of resources available on the MCU.
MCU Devices	Scheduled or Non-scheduled. A MCU is available for meetings if it is in a Scheduled Control state.
Migrate All Meetings To	All meetings scheduled to use the MCU can be migrated to a Non-scheduled MCU. Click the checkbox and choose another MCU from the drop-down list.

Cisco Unified Communications Manager

To display settings that associate the Cisco TelePresence Manager with Cisco Unified Communications Manager, choose Cisco UCM in Configuration.

Table 2-9 describes fields and settings.

Table 2-9 Cisco Unified Communications Manager Settings

Field	Description or Settings
Service Status	Display-only status report of system services. **Note** You may see a progress indicator in the status field, especially if many Cisco TelePresence meeting rooms are being managed by Cisco TelePresence Manager. Each time this page is accessed, the status is updated, and the progress indicator will be seen while the system is discovering meeting rooms. **Caution** An error status may be reported if the connection to CUCM was caused by a network outage. You can remove the error status by restarting Cisco TelePresence Manager.
Hostname	Name of the Cisco Unified Communications Manager server host.
IP Address	IP address of Cisco Unified Communications Manager server host.

CHAPTER 3

Configuring Cisco TelePresence Manager

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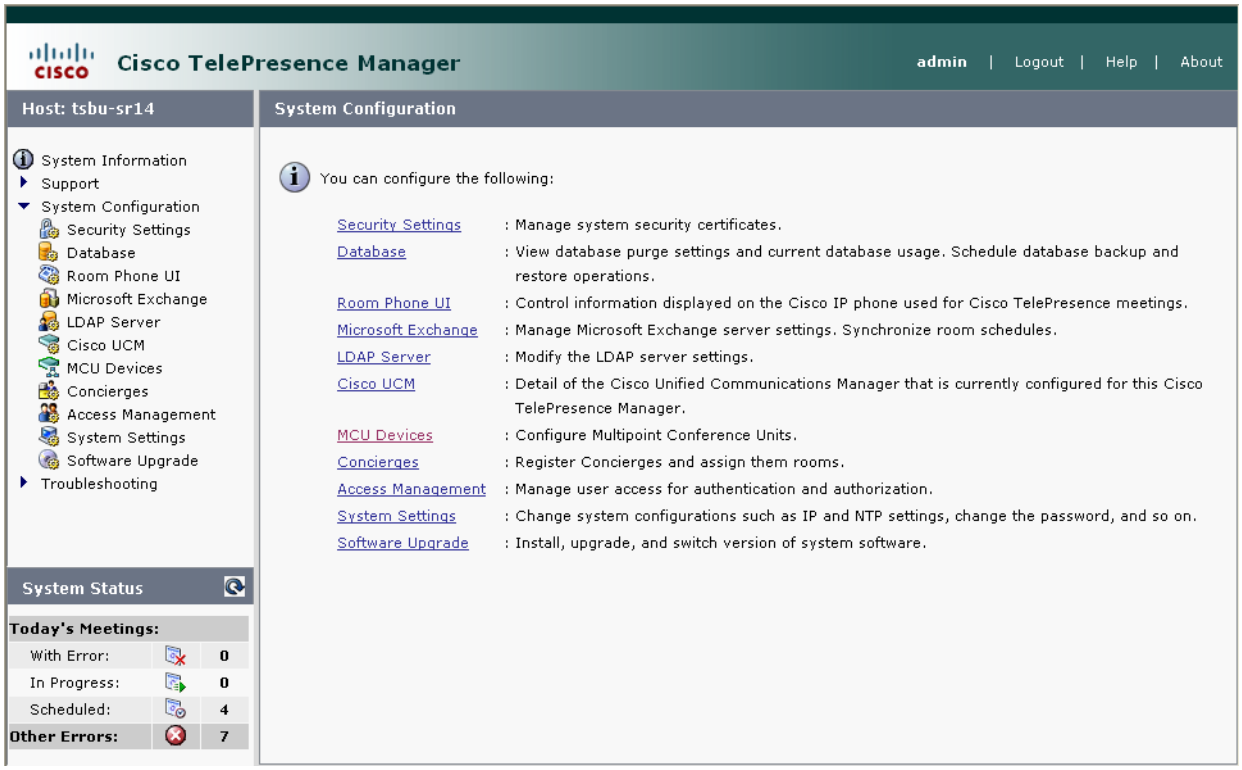
Introduction

The administrator makes use of the System Configuration window to perform such tasks as upgrading system software, synchronizing system databases, managing security, and reconfiguring system settings.

Figure 3-1 shows the system configuration tasks.

Figure 3-1 System Configuration Window



System Configuration Tasks

Use Table 3-1 to locate system configuration tasks in this section.

Table 3-1 System Configuration Tasks

Task	Location of Information
Meeting Room Phone User Interface	
Define how long schedules and alerts are displayed on the phone user interface.	"Room Phone UI" section on page 3-38.
Cisco Unified Communications Manager	
Display and modify settings that associate Cisco TelePresence Manager with Cisco Unified Communications Manager.	"Cisco Unified Communications Manager" section on page 3-43.
Discover new meeting rooms that have been added.	"Cisco Unified Communications Manager" section on page 3-43.
Concierges	
Assign a meeting room to a concierge.	"Concierges" section on page 3-45.
System Settings (superuser only)	
View and modify IP system settings.	"IP Setting" section on page 3-46.

Table 3-1 System Configuration Tasks (continued)

Task	Location of Information
View and modify NTP settings.	"NTP Setting" section on page 3-47.
View and modify SNMP settings.	"SNMP Setting" section on page 3-47.
Set up a system account for remote login.	"Remote Account" section on page 3-49
Change the system password.	"Change Password" section on page 3-49.
Restart the system.	"Restart Host" section on page 3-50.
Security Certificates	
View system security certificates.	"Security Settings" section on page 3-34.
Delete system security certificates.	"Security Settings" section on page 3-34.
Upload new certificates.	"Security Settings" section on page 3-34.
Upgrade Software (superuser only)	
Switch software versions stored in server partitions.	"Switch Version" section on page 3-50.
Install new system software.	"Software Upgrade" section on page 3-51.
Informix Database Maintenance	
Manage the size and age of meeting information.	"Database" section on page 3-35.
Schedule database backups.	"Settings" section on page 3-35.
Back up the database.	"Backup" section on page 3-36.
View backup history.	"Backup" section on page 3-36.
Restore data from backup.	"Restore" section on page 3-37.
View history of restore operations.	"Restore" section on page 3-37.
Microsoft Exchange Server Maintenance	
View server status and amount of mailbox storage allocation used for the Cisco TelePresence Manager user account in Active Directory/Exchange.	"Microsoft Exchange" section on page 3-38.
Modify binding method and server settings.	"Microsoft Exchange" section on page 3-38.
Resynchronize information between Microsoft Exchange and a meeting room, and view history of this operation.	"Re-sync Operations" section on page 3-40.
LDAP Server	
Modify the Lightweight Directory Access Protocol (LDAP) server configuration.	"Settings" section on page 3-41.
Map objects and attributes used by the Cisco TelePresence Manager server to the objects and attributes defined in the LDAP Active Directory schema.	"Field Mapping" section on page 3-42.
Access Management	

Table 3-1 System Configuration Tasks (continued)

Task	Location of Information
View roles for LDAP group mappings.	"Access Management" section on page 3-46.
MCU Conference Management • Register Multipoint Conference Units for conference scheduling. • Push meeting schedules to all registered MCUs.	"MCU Devices" section on page 3-44

Security Settings

The Security Settings window assists with managing system security certificates. The Cisco TelePresence Manager supports the following security certificates:

- Tomcat—Security Keystore to store self-generated Apache Tomcat certificates.
- CTM-trust—Cisco TelePresence Manager Security Keystore to store digital certificates for Microsoft Exchange, Active Directory, and Cisco Unified Communications Manager.

Viewing Security Certificates

You can generate a list of certificates containing a specific category and unit by supplying the following criteria:

- Choose All, Own, or Trust from the Category drop-down list.
- Choose All, CTM-trust, or Tomcat from the Unit menu.
- Click **Filter** to generate the list of certificates that match the search criteria.
- Click the arrow in the header of the Certificate Name column to sort the names in ascending or descending alphabetical order.

To view contents of a security certificate:

- Click the radio button next to the certificate unit name and click **View**.

The contents of the certificate can be copied and pasted in a text file.

Deleting Security Certificates

- To delete a security certificate, click the radio button next to the certificate unit name and click **Delete**.

Uploading Security Certificates

- To display the Certificate Upload window, from which you can copy a security certificate to this Cisco TelePresence Manager, click **Upload**.
  - In the Certificate Upload window, choose the category and unit for the certificate.
  - Click **Browse** to choose a location where a certificate file is located, and add it to the Certificate field.
  - Click **Upload** to copy the file.
  - Click **Close** to close the Certificate Upload window.

Database

The Cisco TelePresence 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.

- Click the **Settings** tab to view and modify database backup settings.

Table 3-2 describes the information and settings that are accessible from the Database window.

Table 3-2 Database Settings

Field	Description or Settings
Service Status	Display-only status report of the Informix database server.
Connection Pool Size	Default pool size and recommended setting.
Current Database Size	Display-only report showing the size of the database as a percentage of the amount of total space available.
Automatically purge data older than (months)	Sets the number of months of storage for the information in the database. Data older than the prescribed number of months is purged by the automatic purge scripts and will no longer be available to the application. 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 24 months is considered a reasonable midpoint. **Note** Database utilization cannot exceed 75% of the allocated disk space, and takes precedence. If the number of months you have specified implicitly exceeds this percentage, older data is purged.

To register the new settings, click **Apply**.

To return to the original settings, click **Reset**.

Backup

Choose the Backup tab to display fields and settings that will assist you in scheduling backups of the database.

Changing the Backup Schedule

The backup schedule currently set is displayed in the Backup window.

To change the backup schedule:

- Click **Change**.
- Choose the starting time from the Start Time drop-down list. This sets the backup time in GMT.
- Choose the frequency of the backups by clicking the **Daily** or **Weekly** radio button.
  - If you click **Weekly**, check the box for the day of the week on which the backup should occur.
- 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, click **Reset**.

Backing Up Database Files

To back up files in the database:

- 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.
- Choose the type of backup by clicking the **Local** or **Remote** radio button.

  A remote backup uses Secure FTP (SFTP) or FTP to store files remotely. You must fill in the following fields:
  - Remote Storage Host pathname.
  - Port number; default is port 22 for SFTP.

Note If you choose to backup or restore using FTP you do not need to supply a port number.

Caution 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.Username for login to the remote server.

  - Password for login to the remote server.
  - Storage pathname where you want the backup file stored.
- Test your connection to a remote host by clicking **Verify Remote Host**.
- Click **Back-up Now** to begin the operation.

Viewing Backup History

This area of the Database window provides a history of database backups.

Table 3-3 describes the Backup History fields.

Table 3-3 Backup History and Restore Fields

Field	Description
Timestamp	Date and time of backup. Click the arrow in the header of the Timestamp 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.

Restoring Backup Data

To restore data from a backup:

- Click the **Refresh** button to view the list of backups.
- Click the radio button next to the backup filename that is to be used for the restore operation.
- Click **Restore**. This action initiates a full restore of the database from the backup file.

Note When you restore 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 Cisco TelePresence 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 login to resume use of the Cisco Telepresence Manager application.

Restore

The Restore screen displays the history of the restore operations attempted on the database. Click the arrow in the header of the Timestamp column to sort the list in ascending or descending order. See Table 3-3 for a description of the fields.

Room Phone UI

The Cisco Unified IP phone installed in a Cisco TelePresence meeting room is equipped with a touch-screen user interface (UI). The Room Phone UI window allows you control over information displayed on this interface. The UI alerts users of an upcoming meeting so they can end theirs on time. It also allows a meeting scheduler to see a list of meetings scheduled for a room.

Table 3-4 describes the information and settings seen in this window.

Table 3-4 Room Phone User Interface Settings

Field	Description or Setting
Service status	Display-only status report of phone service.
Update Window (days)	Defines how often the meeting schedule is updated. Default is 14 days, but this period can be modified by highlighting and deleting the current value and typing in a new value.
Upcoming Alert Duration (mins)	Defines how long before the end of the in-progress meeting the message alerting meeting participants of an upcoming meeting is displayed. Default is 15 minutes, but this period can be modified by highlighting and deleting the current value and typing in a new value.
Phone Display Duration Prior to Call Launch (mins)	Defines how long the announcement of an upcoming meeting is displayed. Default is 30 minutes, but this period can be modified by highlighting and deleting the current value and typing in a new value.

To register new or modified settings, click **Apply.**

To restore the original settings, click **Reset**.

Microsoft Exchange

The Microsoft Exchange window helps you manage the database that stores meeting information.

Table 3-5 describes the information and operations accessible from this window.

Table 3-5 Microsoft Exchange Server

Field or Button	Description or Settings
Service status	Display-only status report of system service.
Mailbox Usage	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.

Table 3-5 Microsoft Exchange Server (continued)

Field or Button	Description or Settings
Bind Method	Choose the Secure or Normal radio button to select the binding method, as follows: • Secure—The Cisco TelePresence 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. • Normal—The Cisco TelePresence Manager communicates with the Microsoft Exchange server in cleartext using HTTP.
Port	Communication port number.
Domain Name	Domain name provided for the Microsoft Exchange server account, which can be changed.
Username	Username provided for the Microsoft Exchange server account, which can be changed.
Password	Password used to access the Microsoft Exchange server account, which can be changed.
Certificate	Use the field to provide a trust certificate for new Microsoft Exchange server.
Number of Meetings Per Query	The maximum number of meetings that Cisco TelePresence Manager can retrieve from the Exchange server for each query.

To test the connection between this system and the Microsoft Exchange server, click **Test Connection.**

To register new or modified settings, click **Apply.**

To restore the original settings, click **Reset**.

Re-sync Operations

The Re-sync Operations area tells you when information in the Microsoft Exchange server database was last updated with meetings scheduled for a particular room.

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 Cisco TelePresence Manager database. Synchronization takes time and system resources to accomplish and should be done only when necessary.

Table 3-6 describes the information displayed in this area of the Microsoft Exchange window.

Table 3-6 Microsoft Exchange Server Synchronization Report

Field or Button	Description
Room Name	Name of the meeting room. Click the arrow in the header of the Room Name column to sort the list in ascending or descending alphabetical order.
Last Synchronization Time	Time the synchronization operation was started.
Status	Status of the synchronization operation. Click the arrow in the header of the Room Name column to sort the list in ascending or descending alphabetical order.

To synchronize information between Microsoft Exchange and the Cisco TelePresence Manager database:

- Check the boxes next to the rooms to select them. To synchronize information for all meeting rooms, check the box next to Room Name in the display header.
- Click **Re-sync** to start the operation.
- Once the synchronization operation completes, click **Refresh** to update the display.

LDAP Server

The Cisco TelePresence Manager uses Lightweight Directory Access Protocol (LDAP) to retrieve information related to users and conference rooms from Active Directory deployments. Enterprises typically use specialized databases called *directories* to store information related to users, meeting rooms, and so on. LDAP is a protocol for accessing directories.

This window specifies LDAP Active Directory server settings that are used by Cisco TelePresence Manager to access the directory information. Open the LDAP Server window to see the following choices:

- Settings
- Field Mapping

Settings

The Settings window is where you make changes to the LDAP server after first-time installation. Table 3-7 describes the settings for this window.

Table 3-7 LDAP Server Settings

Field or Button	Description or Settings
Service Status	Display-only status of the service.
Host	LDAP server host name.
Bind Method	Click the **Secure** or **Normal** radio button to select the binding method: • Secure—Secure SSL connection requires the Distinguished Encoding Rules (DER) Certificate for the LDAP server. • Normal—The Cisco TelePresence Manager communicates with the Microsoft Exchange server in cleartext using HTTP.
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 Active Directory LDAP servers, this port should be configured with 3268, which is the Global Catalog port.
Default Context	The default context from which the LDAP queries are performed. To change the context string: • Choose the context from the Fetch DNs drop-down list adjacent to this field.
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)
Password	Password to access the LDAP server.
Certificate	LDAP certificate.

Table 3-7 LDAP Server Settings (continued)

Field or Button	Description or Settings
Connection pool size	The number of concurrent connections used by the Cisco TelePresence Manager server to retrieve data from the LDAP server. This is primarily used for optimizing the server's access to the LDAP server.
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 Active Directory. Additionally, these containers are used to retrieve user information for authentication. • To append the default context, check the Append box next to the user container field.

To test the connection between this system and the LDAP server, click **Test Connection.**

To register new or modified settings, click **Apply.**

To restore the original settings, click **Reset**.

Field Mapping

The Cisco TelePresence Manager server uses application objects and attributes that are internally mapped to the objects and attributes in the LDAP Active 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 Active Directory server, based on the enterprise deployment. The Field Mapping window provides a mechanism to map such objects and attributes used by the Cisco TelePresence Manager server to the object and attributes defined in the LDAP Active Directory schema.

The object and attribute mappings listed in Table 3-8 can be changed.

Table 3-8 LDAP Objects and Attributes

Application Object	Application Attribute	LDAP Object	LDAP Attribute
Person			
	EmailID	User	proxyAddresses
	DisplayName	User	displayname
EnterpriseConfRoom			
	EmailID	User	proxyAddresses
	DisplayName	User	displayname

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 does not have to be changed. If this information is stored in other attributes in the LDAP server, use the following steps to change the mapping:

- Click the icon beside the Object Class column to change the LDAP object class for an application object (Person or EnterpriseConfRoom). This action displays the window containing available LDAP object classes.
- Click the radio button corresponding to the LDAP object class you want to select from the popup window. Click **Save**.
- Click the icon beside the Attribute column to change the LDAP attribute for the object. This action displays the window containing available LDAP attributes for the object class.
- Click the radio button corresponding to the LDAP attribute you want to select from the popup window. Click **Save**.
- Click **View Sample Data** to retrieve objects based on the mappings specified.

Note Verify that the data retrieved is as you expected. If data is incorrect, the application will not operate correctly.

Caution Setting the LDAP objects and attributes used by the Exchange server requires experience using Active Directory and Exchange software. Consult the LDAP and Exchange server administrator for your deployment before changing the default mappings in these screens.

Cisco Unified Communications Manager

To display and modify settings that associate the Cisco TelePresence Manager with Cisco Unified Communications Manager, choose Cisco UCM in Configuration.

Table 3-9 describes fields, buttons, and settings.

Table 3-9 Cisco Unified Communications Manager Settings

Field	Description or Settings
Service Status	Display-only status report of system services. **Note** You may see a progress indicator in the status field, especially if many Cisco TelePresence meeting rooms are being managed by Cisco TelePresence Manager. Each time this page is accessed, the status is updated, and the progress indicator will be seen while the system is discovering meeting rooms.
Host	Name of the Cisco Unified Communications Manager server host.
Username	Username for login to the Cisco Unified Communications Manager server.
Password	Password to access the Cisco Unified Communications Manager server.
Certificate	Use the field to provide a trust certificate for new Cisco UCM server.

To test the connection between this system and the Microsoft Exchange server, click **Test Connection**.

To manually start the process that is periodically performed to discover new rooms that have been added to Cisco Unified Communications Manager, 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.

To register new or modified settings, click **Apply.**

To restore the original settings, click **Reset**.

MCU Devices

Use the MCU Devices window to specify the number of days of scheduled meetings to send to the multipoint conference unit and to add MCU Devices to be scheduled through the Cisco TelePresence Manager.

The MCU Devices configuration screen displays several attributes for each MCU device registered with Cisco TelePresence Manager.

Cisco TelePresence Multipoint Switch (CTMS) is a multipoint conference unit (MCU) that communicates with Cisco TelePresence Manager. MCUs provide the functionality for three or more Cisco TelePresence rooms to attend a conference call. Cisco TelePresence Manager provides the scheduling information to each MCU and each CTMS provide the multipoint switching capabilities for the conference.Table 3-10 describes the MCU Device fields.

Table 3-10 MCU Devices

Field	Description or Settings
Hostname	The URL of the MCU. Clicking the hostname hyperlink opens a new browser window, with the CTMS login page.
MCU Type	The MCU Type is always CTMS.
Control state	The Control state is either Scheduled or Non-Scheduled
Description	The Description field
IP Address	The IP address of the MCU.

To register additional MCU devices, click **New.**

Table 3-11 New MCU Details window

Field	Description or Settings
MCU Hostname	This is the address of the MCU.
Username	This is the account name used for authentication.
Password	This is the account password for authentication.

Field	Description or Settings
Control State	Used to specify if the MCU is available for conference scheduling. **Note** MCUs in a Scheduled state cannot be used to migrate meetings from other MCUs.
Type	This is always CTMS.
MCU Switching Policy	You can specify if the switching policy for scheduled meetings is by site or segment. The value you set here represents the "MCU Default" value in the Scheduled Meetings Detail window.

To edit MCU Device registration information, click the radio button next to the device and click **Edit.**

To delete a MCU Device, click the radio button next to the device and click **Delete.**

Note A Multipoint Conference Unit cannot be deleted if there are any associated future scheduled meetings.

Concierges

The Concierges window has two areas, a list of concierges and a list of rooms that need a concierge assigned to them. Use the areas in this window to assign a concierge to a meeting room.

A phone number is associated with the concierge, which is displayed on the Cisco TelePresence meeting room phone user interface when the Concierge soft key is pressed. Meeting participants can dial the concierge and ask for help when problems occur with the Cisco TelePresence system.

To register a concierge for an assignment:

- Click **New** to display the New Concierges window.

  You must enter an identifier for the concierge in the ID field and a phone number in the Phone Number field. You can choose to supply other information identifying the concierge in the Description field.

Once concierges have been registered, assign them meeting rooms as follows:

- Check the box next to a room that has not been assigned.
- Select a concierge from the **Assign Selected Rooms** drop-down list.
- Click **Apply**.

To edit the concierge assignment:

- Select the radio button next to the concierge ID and click **Edit**.
- In the Edit Concierges window, you can change the phone number and other information identifying the concierge.

To delete a concierge, select the radio button next to the concierge ID and click **Delete**.

Access Management

You can assign roles to different Active Directory groups to provide access to Cisco TelePresence Manager. Cisco TelePresence Manager supports two roles—a Concierge role and an Administrator role.

The two roles have different levels of privilege and access when using Cisco TelePresence Manager. Members in the group mapped to the Concierge role have limited privileges that allow them to view the meetings, rooms, and system error and log files. Members in the group mapped to the Admin role have the privileges of the concierge role plus additional privileges that allow them to make configuration changes.

Caution When assigning different Active Directory groups to a role, the Add window may not list the group or groups you want to add. This is an Active Directory 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 Concierge or Admin role.

System Settings

If you are the system administrator and know the superuser password, you can open the System Settings window to see the following choices:

- IP Setting
- NTP Setting
- SNMP Setting
- Remote Account
- Change Password
- Restart Host

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 Setting

The IP Setting window lists information that is provided to the Cisco TelePresence 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. Table 3-12 describes the fields and buttons.

Table 3-12 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.
Domain Name	Domain name for this Cisco TelePresence Manager.

Table 3-12 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	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. • To modify the IP settings for this Cisco TelePresence Manager, click the **Disable** radio button.
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.

To add new information, type it in the fields provided.

To change information, highlight and delete existing information and type in the new information.

To register new or modified settings, click **Apply.**

To restore the original settings, click **Reset**.

NTP Setting

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.

To add an NTP server to the configuration, type the IP address in an NTP Server field.

To change an NTP server in the configuration, highlight and delete the IP address in the NTP Server field and type in the new address.

To register new or modified settings, click **Apply.**

To restore the original settings, click **Reset**.

SNMP Setting

SNMP is an industry-standard interface used by network management systems to capture system status and error information, including information provided by Cisco Unified Communications Manager. Use this window to enable and disable SNMP service and change the default configuration.

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

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

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

To configure SNMP, click the **SNMP Setting** tab in the System Settings window.

Table 3-13 describes the fields and buttons.

Table 3-13 SNMP Settings

Field or Button	Description or Settings
Engine ID	The engine ID for the SNMP agent on this Cisco TelePresence 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	To enable or disable SNMP, click the **Enable** or **Disable** radio button, as appropriate. When SNMP is enabled, supply a password for the SNMP server in the **Configuration** area.
Configuration	
Username	SNMP server username.
Current Password	SNMP server password. The password must be 8 characters long. Enter it twice for verification.
Trap Receiver Configuration	To select whether to use an SNMP trap receiver, click the **Yes** or **No** radio button, as appropriate. When a trap receiver is used, supply login information for the trap receiver in the following fields.
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.
Host	Trap receiver IP address or hostname.
Port	Trap receiver port number.

To register new or modified settings, click **Apply.**

To restore the original settings, click **Reset**.

Technical Notes

Cisco TelePresence Manager uses SNMP v3, which supports only one trap receiver. A string of trap receiver settings is added to the ‘/etc/snmp/snmpd.conf’ file to configure the trap receiver on the Cisco TelePresence Manager server. The string must include the following information, which is collected in the fields described in Table 3-13 or is set by default:

- IP address and port number of the trap receiver

- Trap receiver username
- Trap receiver user password
- Trap sender engine ID
- Authentication method, either MD5 for Message Digest 5 or SHA for Secure Hash Algorithm
- Security model, which by default is authNoPriv
- SNMP version, which by default is version 3
- Included MIBs, which by default is ALL

The following is an example trap receiver entry:

```
trapsess -e 0x80001f880474657374 -v 3 -m ALL -l authNoPriv -u traper -a MD5 -A changeme
171.71.232.113:162
```

These fields can be viewed and configured using **get** and **set** commands on the '/usr/sbin/snmpconfig' script. To test your configuration, run **snmptrapd come** with **net-snmp** on the trap receiver system. You can create the user in '/etc/snmp/snmptrapd.conf' on the trap receiver system before starting **snmptrapd**.

Remote Account

Use this window to set up limited access for remote users of this Cisco TelePresence 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 pass phrase generated by software in this Cisco TelePresence Manager. The remote user uses the account name, the pass phrase, 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.

To start the remote login account process:

- Type a name for the remote login account in the Account Name field.

  This name can be anything you choose.
- Type in the number of days that the account should be active.
- Click **Add**.

  This step generates a pass phrase.

To complete this process, the account name and pass phrase are entered into a utility at the following Cisco Internal website:
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.

Change Password

Use this window to change the password for this Cisco TelePresence Manager. You must know the current password. Supply the new password twice for verification.

- To display the password fields, click **Change Password**.
- To register the new password, click **Apply**.
- To restore to the original password, click **Reset**.

It is not possible to change the username for this Cisco TelePresence Manager.

Restart Host

Use this window to restart the Cisco TelePresence Manager. You must know the system password to access the Restart button.

Software Upgrade

If you are the system administrator and know the superuser password, you can open the Software Upgrade window to monitor and maintain system software. This window reports the version number of the system software. There are also two buttons to assist you in maintaining the system software, as follows:

- Switch Version—The hard drive on the server on which this Cisco TelePresence Manager is installed is partitioned into two areas. Each area can contain a system image. The Switch Version button allows you to switch the location of two stored versions of the system software.
- Software Upgrade—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.
  Secure FTP (SFTP) is the recommended mode for downloading the upgrade software over the network.

Switch Version

You may find it necessary to switch the version of the Cisco TelePresence Manager software.

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

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

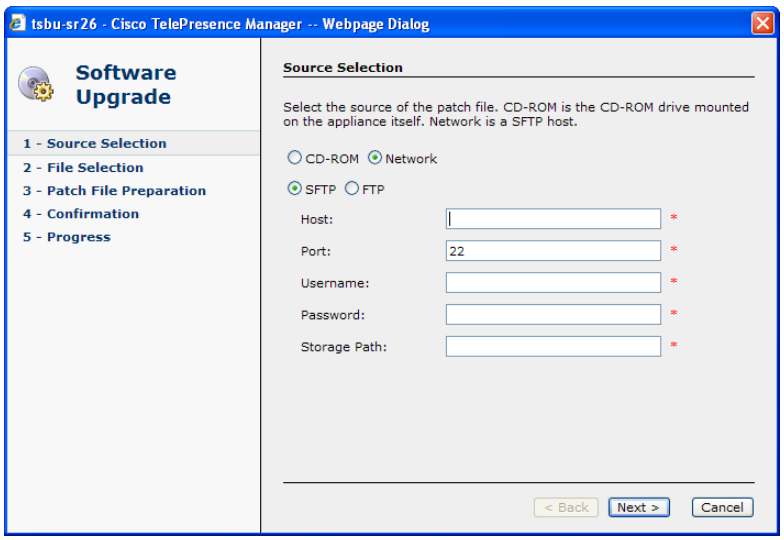
The active partition in the server hard drive contains the active system image. The software versions that are loaded will be displayed in the Active Version and Inactive Version fields.

Software Upgrade

This task upgrades the Cisco TelePresence Manager software by loading a file from either a CD-ROM or an SFTP/FTP host network. Before starting this task, find out the source of the patch file.

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

The Source Selection dialog box appears.



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

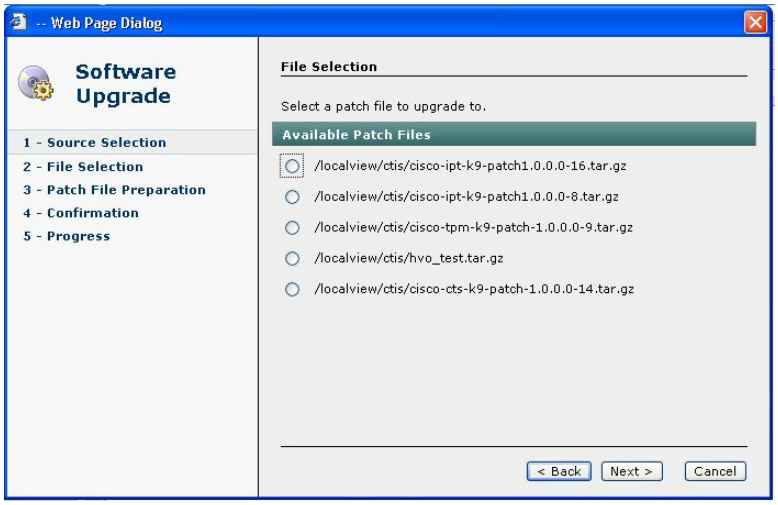
Step 2 Click the **CD-ROM** or **Network** radio button to choose the location of the patch file.

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

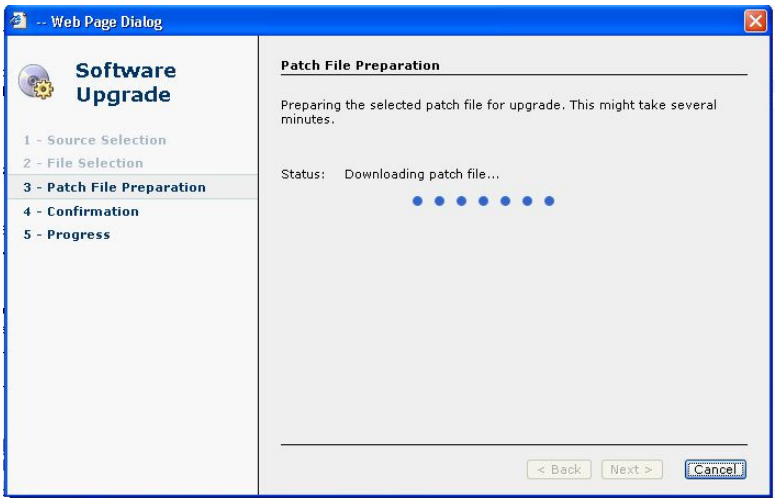
If you chose Network, provide the hostname, login username, password, and the path to the patch file. By default, port 22 is used to access the server; supply the correct port number, if required. Click **Next** to go to the File Selection window.

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

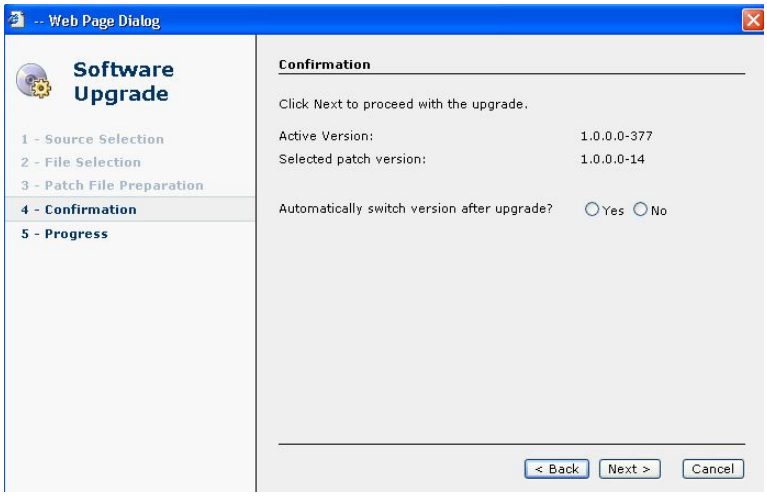
Caution FTP scripts for Upgrade, Backup and Restore use Expect scripts and perform on a best-effort basis, due to potential variations in the responses sent by the FTP server. Only username/password-based login is supported. Anonymous login is not supported. Secure FTP (SFTP) is the recommended mode of transferring files over the network.At the File Selection window, choose the file to load by clicking its radio button. Then click **Next**.



Step 3 The Patch File Preparation window appears. Watch this window to monitor the progress of the file download. Buttons will be inactive until the patch file is loaded.



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



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

Step 4 Click **Yes** or **No** to make your choice. Then click **Next** to finish the software upgrade task.

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

Step 5 When the log indicates that the files have been switched, click **Finish** to complete this task.

Note If you selected to automatically switch to the new version, a message is displayed letting you know there is no connectivity to the server during the switch.

It takes approximately ten minutes to complete the upgrade. You can then log into the upgraded version of Cisco TelePresence Manager.

CHAPTER 4

Using Meeting Manager

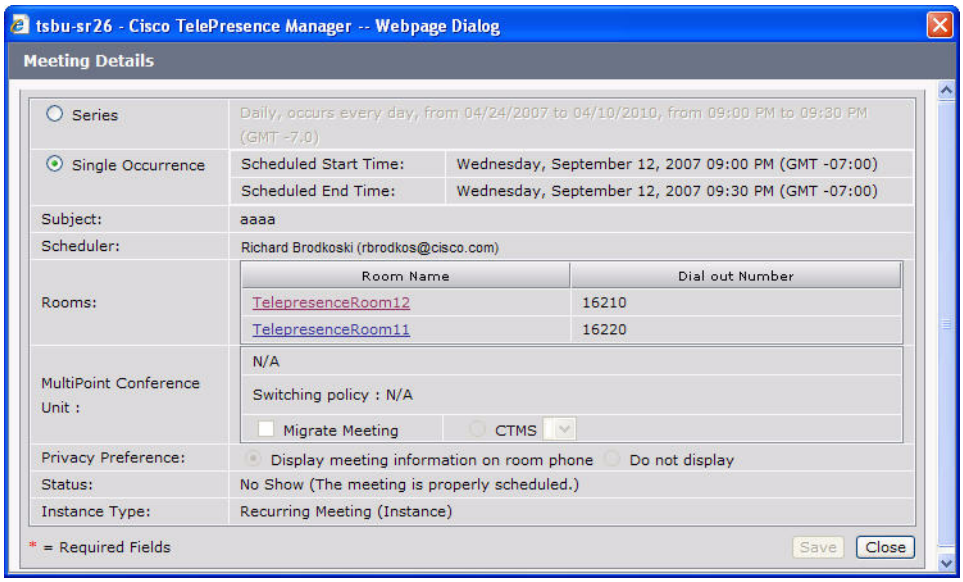
Revised: November 7, 2007, OL-13673-01
First Published: November 27, 2006

Cisco TelePresence meetings are scheduled between two or more conference rooms. Problems occur when it is detected that only one room was scheduled in Microsoft Outlook, or more than two rooms are scheduled when a MCU has not been configured. Cisco TelePresence Manager provides a Meeting Manager window where you can take steps to correct these problems. The link to the Meeting Manager window is embedded in the e-mail notification that is sent to the person who scheduled the meeting.

When the meeting starting time has passed, a single status window is displayed with the following message:

```
The meeting has already begun (its scheduled starting time has passed). No modification
action is allowed.
```

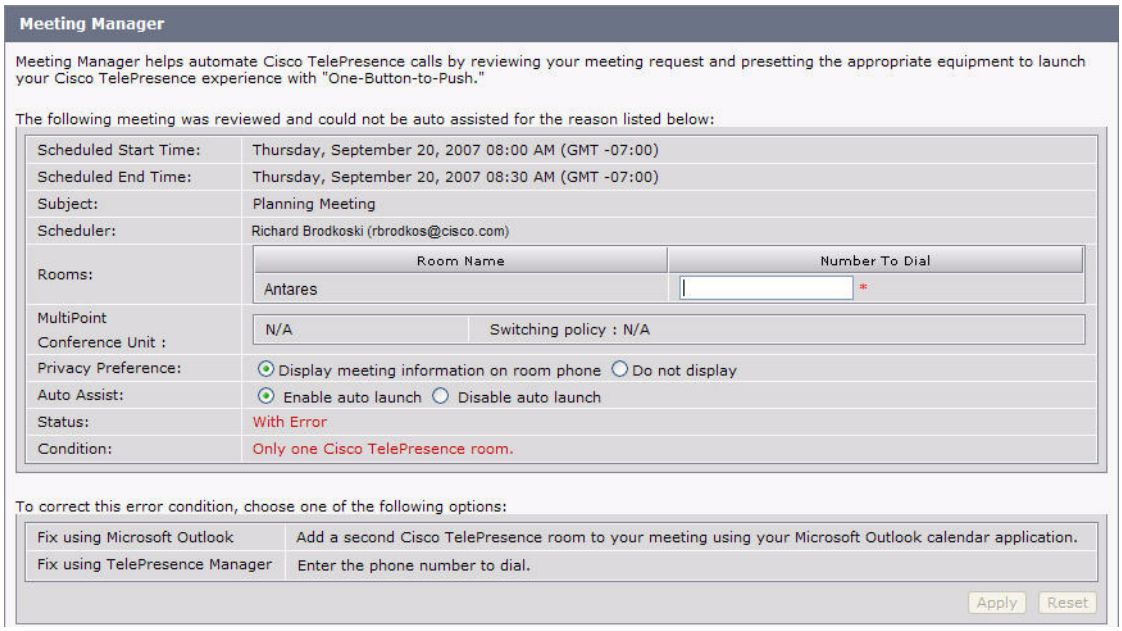
Figure 4-1 Expired Meeting Window



If the scheduled time for the meeting has not passed, the Meeting Manager displays an additional window that aids you in resolving the problem with the meeting.

Note If the meeting start time has passed, the meeting organizer can still display the Resolution window shown in Figure 4-2, but may not enter a number to dial. Dialing out must be performed manually from the Cisco TelePresence room phone.

Figure 4-2 Meeting Manager Problem Resolution Windows



If the meeting was scheduled as a series, first select either the Series radio button to indicate that you want to revise the entire meeting series or the Single Occurrence radio button to revise just one occurrence of the meetings. When you click the Single Occurrence radio button, you must further select which meeting to revise by clicking Select Instance. A popup calendar appears with the scheduled meetings highlighted. Click the date to select the single-occurrence meeting you want to correct.

Table 4-1 and Table 4-2 describe the information and features available from the windows.

Table 4-1 Meeting Manager Status Window

Field	Description or Settings
Subject	Displays information provided about the meeting. You can hover the mouse over the Subject field to see the full description.
Scheduler	Login name of the person who scheduled the meeting.
Rooms	Meeting room name, which is also a link to the Cisco TelePresence System Administration application where information can be reviewed and revised. A field is provided for entering the meeting room telephone number.

Table 4-1 Meeting Manager Status Window

Field	Description or Settings
MultiPoint Conference Unit	This field displays the name of the MCU being used for the meeting. The Switching Policy field allows you to change the switching policy for the specific instance of the meeting. You can change the switching policy to site or segment switching. If you choose 'MCU Default' the switching policy is determined by the current setting on the MCU.
Privacy Preference	Radio buttons indicate whether information about an upcoming meeting will be displayed on the room's IP phone. • Click the **Display meeting information on room phone** radio button to allow the display of information. • Click the **Do not display** radio button to preserve meeting privacy.
Status	Meeting status.
Condition	Cause of the problem.

Table 4-2 Meeting Manager Solution Window

Field	Description or Settings
Fix using Microsoft Outlook	Message instructing you to open Microsoft Outlook and correct the meeting setup by adding or deleting rooms so that only two rooms are scheduled to be connected to each other in a given meeting.
Fix using Cisco TelePresence Manager	Provides a radio button that allows you to use the current meeting settings, as follows: • Enable Auto Launch. Click this button and then enter the phone number to dial in the box provided. • Disable Auto Launch. Click this button to select that no phone number will be associated with the meeting and no call will be made.

To register new or modified settings, click **Apply.**

Note Before clicking the Apply button, check that the appropriate radio button is selected for a meeting scheduled as a series. Changes will be applied either to the entire series or to a selected instance of the meeting.

To restore the original settings, click **Reset**.

CHAPTER 5

Troubleshooting Cisco TelePresence Manager

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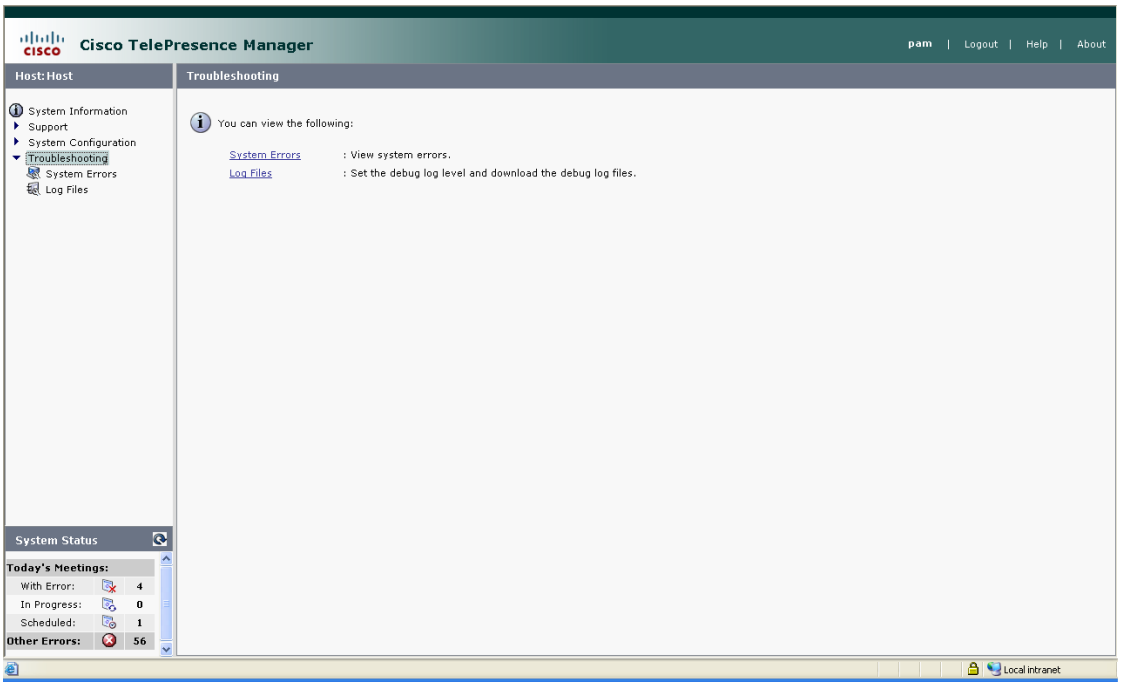
- System Errors, page 5-61
- Log Files, page 5-61
- Cisco TelePresence Manager Meeting and Room Problems, page 5-62
- User Interface Problems, page 5-66
- Cisco TelePresence Manager Database Problems, page 5-66
- LDAP Interface Problems, page 5-67
- Web Browser Error Messages, page 5-67
- System Error Messages, page 5-70

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 messages and system logs so they can be analyzed for prompt resolution. Figure 5-1 shows the tools available to assist you with the troubleshooting tasks.

Figure 5-1 Troubleshooting Window



Troubleshooting Tasks

Table 5-1 Troubleshooting Tasks

Task	Location of Information
System Messages	
Sort errors by date, ID number, and module.	"System Errors" section on page 5-61.
View error messages.	"System Errors" section on page 5-61.
View system messages.	"System Error Messages" section on page 5-70.
System Log Files	
Set the level for logging error messages from the following services: • Discovery Service • Exchange Adapter Service • Room Phone UI Service • Admin UI Service • Multipoint Connection Service • TelePresence Engine Service	"Log Files" section on page 5-61.
Create a list of specific message types.	"Log Files" section on page 5-61.

Table 5-1 Troubleshooting Tasks

Task	Location of Information
Download messages to a file.	"Log Files" section on page 5-61
Web Browser Messages	"Web Browser Error Messages" section on page 5-67
Meeting and Room Problem Solving	"Cisco TelePresence Manager Meeting and Room Problems" section on page 5-62
Phone User Interface Problems	"User Interface Problems" section on page 5-66
Database Problems	"Cisco TelePresence Manager Database Problems" section on page 5-66
LDAP Server Problems	"LDAP Interface Problems" section on page 5-67

System Errors

Choose the System Errors window to see a list of system messages. You can filter the list by starting and ending dates and message type All, Fatal, Severe, Moderate, Warning, and Info, as follows:

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

Table 5-2 lists information provided.

Table 5-2 System Error Report

Field	Description
Timestamp	Date and time the message was logged. You can sort the messages in ascending or descending order by the time stamp.
Type	Message type.
ID	Message identification number. You can sort the reports in ascending or descending order by ID.
Module	Component within Cisco TelePresence Manager that generated the error.
Message	Explanation of problem detected. Move your mouse pointer over a message field to see a complete description.

Log Files

At the Log Files window, you can set the level for logging system errors from the following services that contribute messages:

- Discovery Service
- Exchange Adapter Service

- Room Phone UI Service
- Admin UI Service
- Multipoint Connection Service
- TelePresence Engine Service

You can set the message types from these services to the following levels:

- DEBUG—Detailed errors and information messages.
- ERROR—Errors that are likely to terminate system activity.
- FATAL—Errors that will automatically terminate system activity.

Note 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.

Once you have made your logging level choices for each service:

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

You can generate a list of specific error types.

- From the Service drop-down list, choose one of the following to specify the type of errors to display:
  - All
  - Discovery
  - Exchange Adapter
  - Room Phone UI
  - Admin UI
  - Multipoint Connection Service
  - TelePresence Engine Service
- Click **Filter** to generate the list.

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.

- To update the error log, click the **Refresh** button.

Download All Files

Use the Download All button to collect all log data for Cisco technical support personnel when submitting a case for problem solution. The data is automatically compressed in a file that can be e-mailed.

Cisco TelePresence Manager Meeting and Room Problems

Meeting information is retrieved via Processing room notifications from Microsoft Exchange. A notification is generated when a meeting room is added, modified, or deleted.

Each day, scheduled meetings are synchronized with the meeting database at a user-specified time. Synchronization resolves any problems that might have occurred when Exchange connectivity was not available and notifications were not received. If required, you can also trigger a manual synchronization of the room meeting schedule using the Re-sync Operation in the Microsoft Exchange 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 Rooms window will displays the room status as “In Use” when a call is placed. The Scheduled Meeting window displays meetings as “In Progress” or “Completed” reflecting the actual state of the call.

If the concierge is called, this condition will be reflected in the Room UI view and Scheduled Meeting view as “Needs Help”.

Refer to troubleshooting information in Table 5-3 to solve common problems that prevent Cisco TelePresence meetings from being scheduled correctly.

Table 5-3 Troubleshooting Meeting and Room Problems

Problem or Message	Possible Causes	Recommended Action
A scheduled meeting does not appear on the Cisco TelePresence phone user interface.	The room name configured in Cisco Unified Communications Manager does not match the actual room name (e-mail alias) configured in the Active Directory.	The room name must exactly match the name (e-mail alias) provided in the Active Directory.
	Duplicate room names are configured.	Remove duplicate room names configured in Cisco Unified Communications Manager.
	Cisco TelePresence IP phone associated with participating rooms has not been added to the Cisco TelePresence Manager Application User Profile.	Update the Cisco TelePresence Manager Application User Profile with correct room data.
	The Exchange user account for Cisco TelePresence Manager does not have permission to retrieve calendar data.	Change the Cisco TelePresence Manager user account for Exchange so it has permissions to retrieve (read) room and calendar data.
A proposed meeting was deleted from Microsoft Outlook, but it still appears on the Cisco TelePresence phone user interface.	This problem can occur when: • Outlook Web Access (OWA) is used to schedule meetings because OWA does not receive delete updates. • Cisco TelePresence is not synchronized with the database.	Log into Microsoft Outlook and Calendar and use that application to delete the meeting. Use the Re-Sync Operations under Microsoft Exchange to resynchronize the database and meeting schedule.

Table 5-3 Troubleshooting Meeting and Room Problems (continued)

Problem or Message	Possible Causes	Recommended Action
Detailed view of Meetings reports that the Cisco TelePresence meeting is "Pending for more information from Exchange".	This message appears when one of the two following conditions occurs: • When Cisco TelePresence Manager receives notice of an event, it waits 120 seconds to see if any further event details are forthcoming from Microsoft Exchange and then validates the meeting. • If the room is in manual-accept mode and the meeting scheduler has accepted a meeting only tentatively or has not responded to meeting e-mail notification	Wait a few moments and view Meetings status again to see if the meeting has been validated. Advise the scheduler to respond to meeting e-mail notification.
User who scheduled the meeting receives no e-mail to confirm the meeting arrived.	This problem occurs when a room is not in auto-accept mode.	Make sure reserved rooms are in auto-accept mode. If a room remains in manual-accept mode, the meeting must be confirmed using Microsoft Outlook or OWA.

Table 5-3 Troubleshooting Meeting and Room Problems (continued)

Problem or Message	Possible Causes	Recommended Action
Scheduled Meetings or Rooms do not show the status "In Progress" when a call is placed.	Connectivity between the Cisco TelePresence system and Cisco TelePresence Manager is lost.	Check the Rooms window for status. The SSH username and password should be configured for the Cisco TelePresence system. See the *Cisco Unified Communications Manager Installation Guide for Cisco TelePresence* for more help. Verify that the Calendar service is running on the Cisco TelePresence system.
Room status indicates an error condition.	Place your mouse over the status to see the error described in a tooltip. This problem can occur when: • The phone associated with the Cisco TelePresence meeting room is not included in Cisco TelePresence Manager application user profile. • The phone associated with the Cisco TelePresence meeting room is not registered with the Cisco Unified Communicati ons Manager. • More than one Cisco TelePresence phone could be configured with the same room name.	Cisco TelePresence IP phone associated with participating rooms must be added to the Cisco TelePresence Manager Application User Profile. Update the Cisco TelePresence Manager Application User Profile with correct room data. Check the Rooms window for status. Check the IP connectivity between the equipment and Cisco TelePresence Manager. Missing Secure Shell username and password for the Cisco TelePresence IP phone should be configured in the Cisco Unified Communications Manager configuration. Verify that the Calendar service is running on the Cisco TelePresence system.

User Interface Problems

Once a scheduled Cisco TelePresence meeting has been confirmed by participating rooms in Microsoft Exchange, it should be listed on the IP phone user interface in less than three minutes. Use Table 5-4 to troubleshoot problems between scheduled meetings and the phone user interface.

Table 5-4 Troubleshooting Phone User Interface Problems

Problem or Message	Possible Causes	Recommended Action
The Cisco TelePresence IP phone displays the standard idle screen instead of the meeting list managed by Cisco TelePresence Manager.	This problem can occur when: • There is no connectivity between the Cisco TelePresence IP phone and Cisco TelePresence Manager. • The scheduled meeting is outside the user-specified time window. • The Secure Shell username and password for the Cisco TelePresence IP phone in the Cisco Unified Communicati ons Manager configuration are missing. • Cisco TelePresence Manager has not sent required information to the Cisco TelePresence IP phone. • The network is not properly configured or is down.	Check the dashboard for phone status. See the "Dashboard" section on page 2-22. Only meetings within the user-specified time window are displayed on the phone user interface. The administrator can configure the number of days displayed. See the "Room Phone UI" section on page 3-38. Verify that the Calendar service is running in the Cisco TelePresence system.

Cisco TelePresence Manager Database Problems

Status for database services is displayed on the Dashboard window.

You can verify Cisco TelePresence Manager database status using the following CLI command:

utils service list

The result should indicate the Cisco TelePresence Manager database as running.

You can start the Cisco TelePresence Manager database using the following CLI command:

utils service start Cisco DB

You can stop the Cisco TelePresence Manager database using the following CLI command:

utils service stop Cisco DB

Caution Use this command with extreme caution: The Cisco TelePresence Manager server must be stopped before stopping the Cisco TelePresence Manager database.

LDAP Interface Problems

Status for the LDAP server is displayed in the Dashboard window. If problems are indicated, verify the attribute mappings that were specified during installation of the Cisco TelePresence Manager application. See Settings in the LDAP Server window under System Configuration.

For deployments with multiple Active 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.

Web Browser Error Messages

The only version of Microsoft Internet Explorer supported on Cisco TelePresence Manager is version 6. Use information in the following sections to help you resolve web browser problems.

- JavaScript Error Message, page 5-67
- Safe ActiveX Checking Message, page 5-69

JavaScript Error Message

Error Message `JavaScript is not enabled on this browser. Log-in is not allowed.`

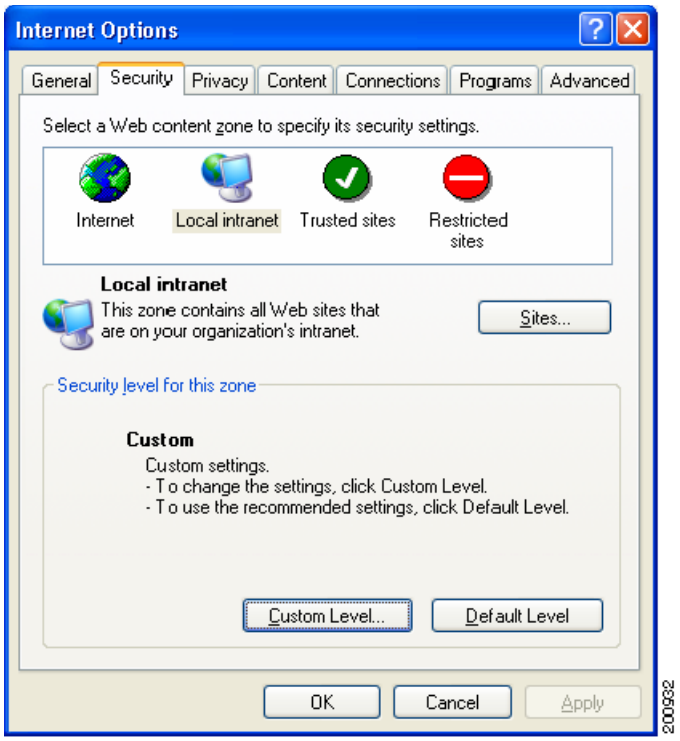
Explanation Cisco TelePresence Manager must have JavaScript enabled in the web browser in order to work. Without it, the login screen will appear and users can enter a username and password, but the Login button is disabled.

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 (which is the only version of Microsoft IE that is supported on Cisco TelePresence Manager):

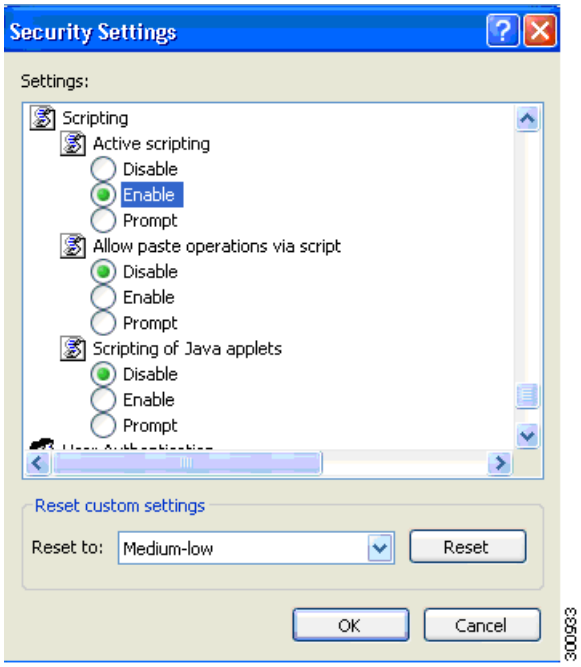
Step 1 Click the Custom Level button. See Figure 5-2.

Figure 5-2 Custom Level Button



Step 2 Scroll down to the Active scripting section and click **Enable**. See Figure 5-3.

Figure 5-3 Enable Button



Step 3 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 The Cisco TelePresence Manager user interface 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, Cisco TelePresence 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 the Cisco TelePresence Manager user interface works correctly.

To enable safe ActiveX control, perform the following steps on Microsoft IE Version 6:

Step 1 Click **Tools**. Select **Internet Options** from the choices.

Step 2 Click the **Security** tab.

Step 3 Select the zone in which the Cisco TelePresence Manager server resides. This zone is usually the Local intranet.

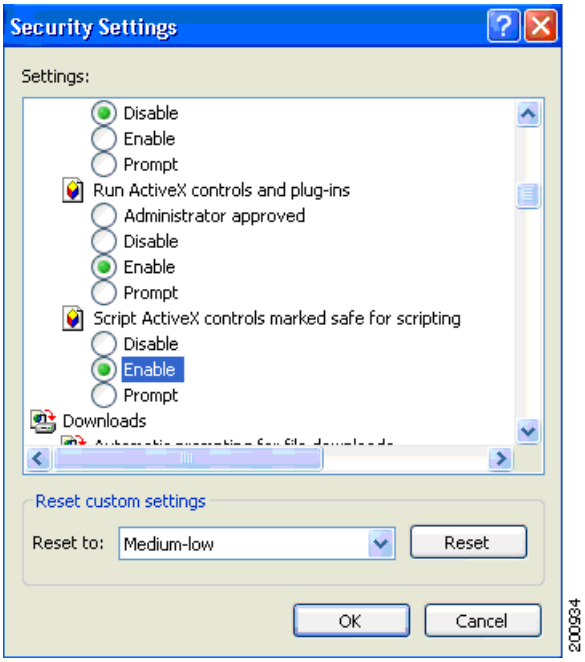
Step 4 Click the **Custom Level** button.

Step 5 Scroll down to the ActiveX controls and plug-ins section.

Step 6 Enable the following items:

- Run ActiveX controls and plug-ins
- Script ActiveX controls marked safe for scripting

Figure 5-4 Active X Selection



Step 7 Click OK to apply the changes.

System Error Messages

Table 5-5 lists messages that are displayed by the Cisco TelePresence Manager software, along with possible causes and solutions for correcting the problem that caused the message.

Note When reading the following messages, consider that "$1" or "$2" are placeholder tokens. When the message actually appears in the application, the tokens will be replaced by text or a value.

Table 5-5 Cisco TelePresence Manager Messages

Code	Message	Explanation	Recommended Action
1000	Internal server error: $1.	A generic message for all untyped errors. The detailed message would contain the actual error.	Contact your Cisco technical support representative for further assistance.
1001	Failed to parse config file '$1'. Error: $2.	The server fails to parse the 'config/ctis.xml' configuration file. The application should fail to start up.	Check syntax of 'ctis.xml'. This file should be changed only by qualified technicians. If possible, restore the original content and restart the Tomcat server. Contact your Cisco technical support representative for further assistance.
1004	Version $1 is not supported for component: $2.	The software does not support the version extracted from the given component.	Deploy the software using only supported versions of Exchange and LDAP.
1005	The operation is unsupported on OS '$1'.	The current operation is not supported on the given platform.	Users should not see this error because the software is deployed on the Linux operating system. Contact your Cisco technical support representative for further assistance.
1006	Could not create scheduler home URL. Error: '$1'.	The software is unable to form an URL that points to the scheduler correction page.	Contact your Cisco technical support representative for further assistance.
1007	Failed to restart host. Error: '$1'.	The software fails to restart the system as requested. A more detailed message is displayed.	Contact your Cisco technical support representative for further assistance.
1008	The functionality '$1' is not yet implemented.	The given functionality has not been implemented yet.	Upgrade Cisco TelePresence Manager.
1009	Error in initialization: '$1'.	Database maintenance manager fails to initialize because of missing scripts for either backup, purge or cron job.	The installation process has failed. Contact your Cisco technical support representative for further assistance.

Table 5-5 Cisco TelePresence Manager Messages (continued)

Code	Message	Explanation	Recommended Action
1010	One or more arguments are null.	Exchange component is failing to test connection because one of the required parameters (host, superuser account name, password, or bind method) is null.	Check information provided on the Exchange configuration screen.
1011	Unable to dispatch API call.	Cisco TelePresence Manager is unable to communicate with the Cisco TelePresence Manager engine.	Check for any errors in the log file and contact your Cisco technical support representative for further assistance.
1012	Unable to dispatch API call.	CTM component is unable to communicate with the CTM Engine.	Check for any errors in the logfile. Contact support.
1200	Invalid meeting. Error: Field '$1' ($2) is invalid.	A field in the given meeting has an invalid value.	Contact your Cisco technical support representative for further assistance.
1201	Invalid single meeting. Error: '$1' ($2) is invalid.	The given meeting is not a single meeting as expected.	Contact your Cisco technical support representative for further assistance.
1202	Invalid master meeting. Error: '$1' ($2) is invalid.	The given meeting is not a master meeting as expected.	Contact your Cisco technical support representative for further assistance.
1203	Invalid exception meeting. Error: '$1' ($2) is invalid.	The given meeting is not an exception meeting as expected.	Contact your Cisco technical support representative for further assistance.
1204	Too many Cisco TelePresence rooms.	Used by the Exchange component in its e-mail notification to inform schedulers that a meeting has more than two Cisco TelePresence rooms scheduled.	Remove extra Cisco TelePresence rooms from the meeting.
1205	Missing required number of TelePresence rooms.	Used by Exchange component in its e-mail notification to inform schedulers that a meeting has less than two Cisco TelePresence rooms scheduled.	Add another Cisco TelePresence room to the meeting, or provide a phone number to dial using the URL in the confirmation e-mail.
1208	Recurring meeting instance: '$1'.	An error occurred during calculation of the instances for a recurring meeting.	Contact your Cisco technical support representative for further assistance.
1209	Missing Conference ID and Bridge Number for the Multipoint meeting.	Used by Exchange component in its e-mail notification to inform schedulers that a Multipoint meeting is missing a conference id or bridge phone number.	Verify MCUs are configured properly and at least one is available for Multipoint meeting allocation.

Table 5-5 Cisco TelePresence Manager Messages (continued)

Code	Message	Explanation	Recommended Action
1210	Missing required number of Cisco TelePresence rooms for a Multipoint meeting	Used by Exchange component in its e-mail notification to inform schedulers that a meeting has less number of rooms than what is required for a Multipoint meeting.	Contact your Cisco technical support representative for further assistance.
1211	Selected Cisco TelePresence rooms are incompatible for a multi-room conference.	Used by Exchange component in its e-mail notification to inform schedulers that a meeting is scheduled with room(s) that cannot support a Multipoint conference.	Check the version of Cisco TelePresence equipment of each room and verify it is a version that supports Multipoint meetings. Upgrade if necessary. Contact your Cisco technical support representative for further assistance.
1212	Insufficient resources to set up a multi-room conference.	Used by Exchange component in its email notification to inform schedulers that there is no available MCU for a multipoint meeting.	Verify that MCU is configured properly, and at least one is available for multipoint meeting allocation. Add a new MCU if necessary, or reschedule the meeting to a different time. Contact your Cisco technical support representative for further assistance.
1213	Resources not setup to support multiroom conference.	Used by Exchange component in its email notification to inform schedulers that there is no MCU configured for a multipoint meeting.	Verify that MCU is configured properly, and at least one is available for multipoint meeting allocation. Add a new MCU if necessary. Contact your Cisco technical support representative for further assistance.
1214	Scheduler does not have enough privileges to setup this TelePresence meeting. Contact help desk.	Used by Exchange component in its email notification to inform schedulers that they don't have enough privilege for scheduling a multipoint meeting.	Verify the scheduler has been assigned with the required user privilege. Add the scheduler to the user group that has the required privilege if necessary. Contact your Cisco technical support representative for further assistance.
1215	Resource allocation error. $1	There is not enough resource available to migrate all meetings from one MCU to another MCU.	Verify that the target MCU has the proper configuration and that it is available.

Table 5-5 Cisco TelePresence Manager Messages (continued)

Code	Message	Explanation	Recommended Action
1216	Meeting migration error. $1	An error occurred when attempting to migrate meetings from one MCU to another MCU.	Check the error message in the logfile. Contact your Cisco technical support representative for further assistance.
1400	Fail to $1 concierge. Error: $2.	Cisco TelePresence Manager has failed to perform the given operation for a concierge. A detailed error message is displayed.	Most likely real cause would be DB operation error. DB might be down. Contact your Cisco technical support representative for further assistance.
1401	This device has $1 future meetings scheduled. Please migrate the meetings to another device first and try again.	Selected MCU has some future meetings scheduled and therefore it can't be deleted.	Migrate the meetings from the MCU (to be deleted) to another MCU and try the deletion again.
1402	A device with hostname $1 already exists. Please use a different hostname and try again.	A device with the same hostname and/or IP address already exists, therefore it doesn't allow the addition of the new device.	Check the hostname configuration for any conflict. Correct it and try the addition again.
1403	Duplicate entry. $1 already exists.Please use a different name and try again.	A configuration entry with the same value already exists, therefore it doesn't allow the addition of the new entry.	Check the entry value uniqueness to make sure it does not have any conflict with any existing configuration. Correct it and try the addition again.
1601	Invalid username and/or password and/or certificate. Error: '$1'.	Invalid username, password, or certificate.	Check username, password, and certificate and try again.
1602	Unsupported authentication type '$1'.	The authentication specified during configuration (as an example, for LDAP against Active Directory) is not supported.	Contact your Cisco technical support representative for further assistance.
1603	Error during encryption: '$1'.	An error occurred while encrypting a string. A detailed error message is displayed.	Contact your Cisco technical support representative for further assistance.
1604	Error during decryption: '$1'.	An error occurred while unencrypting a string. A detailed error message is displayed.	Contact your Cisco technical support representative for further assistance.
1605	Insufficient credential '$1'. Requires credential '$2'.	User does not have the necessary privileges to access a URL.	Obtain correct credential and try again.
1606	Access permitted to email ID '$1' only.	Only the scheduler is permitted to access the URL given in the e-mail notification. Any other user trying to log in will be rejected with this error.	Use scheduler’s credential to log in.

Table 5-5 Cisco TelePresence Manager Messages (continued)

Code	Message	Explanation	Recommended Action
1607	New password is too simple. New password should contain both mixed-case alphabetic and non-alphabetic characters. It should not base on common words found in dictionary.	The new superuser password is easy to guess.	Make up a stronger password and try again.
1608	Password was change successfully, but could not be saved for future upgrade.	Could not save the new password to 'platformConfig.xml' because of some internal error.	Contact your Cisco technical support representative for further assistance.
1609	Could not change password: current password does not match.	You must enter the old password correctly before you are allowed to change to the new password.	Enter the old password correctly.
1700	Unknown configuration component '$1'.	Configuration for the specified component does not exist.	Ensure that the first-time configuration is done and all the values are properly specified.
1701	No parameter '$1' found under configuration component '$2'.	Specific configuration parameter for a component does not exist in a stored configuration.	Ensure that the first-time configuration is done and all the values are properly specified.
1702	Failed to set parameter '$1' to value '$2'. Error: '$3'.	Cisco TelePresence Manager is unable to save the given parameter because of the reason specified in the message. This error is likely to be caused by the database.	Check database component status using CLI commands. Restart the database, if necessary. Restart Tomcat after the database is running.
1703	Failed to update schedule to rooms '$1'. Error: '$2'.	Cisco TelePresence Manager has failed to submit a schedule update request to the given rooms.	Check room equipment and try again.
1901	Failed to authenticate the TB device:	Username and password do not match for the Cisco Telepresence equipment.	Try solving this problem by performing the following tasks in the order listed: 1. Configure username and password in Cisco Unified Communications Manager for the specified Cisco Telepresence equipment. 2. Run Cisco Unified Communications Manager Discovery so the software can become synchronized with the configured username and password.

Table 5-5 Cisco TelePresence Manager Messages (continued)

Code	Message	Explanation	Recommended Action
1902	Failed to send message to the TB device:	Software could not deliver an updated calendar to Cisco Telepresence equipment because connectivity was lost.	Verify that the Cisco Telepresence equipment is registered with Cisco Unified Communications Ma nager. If Cisco Telepresence equipment is not registered correctly, contact Cisco technical support.
1903	No Communication link on TB:	Web service on Cisco Telepresence equipment is not running.	Use information in the "Troubleshooting Cisco TelePresence Manager" chapter to ensure that the web service is running.
1904	Failed to update the SSH username/password from DB into cache.	Software failed to retrieve the SSH username password from the database.	Use information in the "Troubleshooting Cisco TelePresence Manager" chapter to verify database connectivity
2000	Data Access Error: $1.	This message reflects a general error in data access operations.	Look at the specific error message. Based on the message, verify that the database is running, then verify using the Test Connection button that the Active Directory is running. Troubleshoot the specific message.
2001	Metaschema Parsing Error: $1.	An error occurred while parsing the metaschema file.	Ensure that the installation and first-time configuration completed successfully.
2002	Error loading Metaschema file: $1.	The metaschema file is not loaded.	Ensure that the installation and first-time configuration completed successfully. Ensure that the disk is not corrupted.
2003	Datastore '$1' not found in Metaschema file.	Datastore values are not properly configured in the metaschema file.	Ensure that the installation and first-time configuration completed successfully.
2004	Error updating override metaschema file.	Unable to write the values specified in the Field Mapping tab to the metaschema file.	Ensure that the installation and first-time configuration completed successfully. Ensure that the values specified in the Field Mappings tab are valid.
2005	Data Access Initialization Error: $1.	An error occurred during the time that data access plug-ins were initialized.	Evaluate the specific message and troubleshoot the database, LDAP connectivity, and first-time setup.
2006	Error in object creation: $1.	An error occurred when software attempted to create an object in the database.	Evaluate the object to be created and troubleshoot based on specific message.

Table 5-5 Cisco TelePresence Manager Messages (continued)

Code	Message	Explanation	Recommended Action
2007	Error during object write: $1.	An error occurred when software attempted to update an object in the database.	Evaluate the object to be updated and troubleshoot based on specific message.
2008	Error during object delete: $1.	An error occurred when software attempted to delete an object in the database.	Evaluate the object to be deleted and troubleshoot based on specific message.
2009	Error during object get: $1.	An error occurred when software attempted to retrieve an object from the database.	Evaluate the object to be retrieved and troubleshoot based on specific message.
2010	Specified object '$1' not found in '$2' data store.	The specified object does not exist in the data store.	Evaluate object to be retrieved and troubleshoot based on specific message.
2011	Invalid Parameter Specified: '$1'.	The specified parameter is not valid.	Contact your Cisco technical support representative for further assistance.
2012	Error in Data Purge.	An error occurred during data purge.	Evaluate the message and contact your Cisco technical support representative for further assistance.
2013	Error in Data Backup.	An error occurred during data backup.	Evaluate the message and contact your Cisco technical support representative for further assistance.
2014	Error in Data Restore.	An error occurred during data restore.	Evaluate the message and contact your Cisco technical support representative for further assistance.
2015	Error in DB Maintenance Operations.	An error occurred during database maintenance operation (backup, restore, or purge).	This is an error that is not handled by previous error explanations. Evaluate the specific message and contact your Cisco technical support representative for further assistance.
2016	Error returned by spawned process: $1.	An error has been returned by a script spawned by the server Java process.	Evaluate the specific message. Contact your Cisco technical support representative for further assistance if required.
2017	Error acquiring connection: $1.	An error occurred obtaining a connection from the connection pool.	Check the connection type (database or LDAP) and verify connectivity. If problem persists, may require server restart. Contact your Cisco technical support representative for further assistance.

Table 5-5 Cisco TelePresence Manager Messages (continued)

Code	Message	Explanation	Recommended Action
2018	Error closing connection: $1.	Error in closing a connection from connection pool.	This problem may not be severe, but it needs to be monitored. Check the connection type (database or LDAP) and verify connectivity. If the problem persists, you may need to restart the server. Contact your Cisco technical support representative for further assistance.
2019	Error closing statement: $1.	Error closing a JDBC SQL statement object.	This problem may not be severe, but it needs to be monitored. Check that the database is running.
2020	Error instantiating class: $1.	Error using pluggable methods during data access operations.	Ensure that the installation and first-time setup completed properly. This problem may be resolved by a server restart, but contact your Cisco technical support representative before doing this.
2021	Error instantiating method '$1' for class: '$2'.	Error using pluggable methods during data access operations.	Ensure that the installation and first-time setup completed properly. This problem may be resolved by a server restart, but contact your Cisco technical support representative before doing this.
2022	Error retrieving field '$1' for class: '$2'.	Error using pluggable methods during data access operations.	Ensure that the installation and first-time setup completed properly. This problem may be resolved by a server restart, but contact support before doing this.
2023	Error setting value for field '$1' for class: '$2'.	Error using pluggable methods during data access operations.	Ensure that the installation and first-time setup completed properly. This problem may be resolved by a server restart, but contact support before doing this.
2024	Specified object '$1' is already deleted.	An object marked for deletion is already deleted.	This is a warning to be monitored. Contact your Cisco technical support representative for further assistance.
2025	Object handler not found for specified object: '$1'.	The object handler for data access operations is not found.	This is a fatal error. Contact your Cisco technical support representative for further assistance.
2026	Object key not found for specified object: '$1'.	Primary key is not found for the object.	This is a severe error, but need not be fatal. Contact your Cisco technical support representative for further assistance.

Table 5-5 Cisco TelePresence Manager Messages (continued)

Code	Message	Explanation	Recommended Action
2027	Attribute '$1' was not retrieved.	The requested attribute is not found in the object, either because application does not retrieve all the attributes for the object or it does not use the correct attribute name.	This is a severe error, but need not be fatal. Contact your Cisco technical support representative for further assistance.
2302	The parameter '$1' with value '$2' is not valid.	Specified value for a parameter is not valid.	Evaluate the parameter. If it is a configurable parameter, ensure that the proper value is specified.
2400	Failed to connect to call manager:	Failure retrieving information from Cisco Unified Call Manager.	Cisco AXL WebService should be in a running state.
2401	Failed to authenticate into call manager:	No digital certificate found in trust store.	Upload updated digital certificate for Cisco Unified Communications Ma nager.
2402	Failed to locate attached phone to TelePresence device:	No phone configured on a shared line with the Cisco TelePresence IP phone.	Configure a shared line with the IP phone.
2403	Failed to locate room information attached to TelePresence equipment:	Missing meeting room information.	Configure room information.
2404	Failed to send AXL Message to call manager:	Failure sending information request to Cisco Unified Communications Ma nager because of one of the following reasons: • An incorrect digital certificate was uploaded. • Incorrect credentials were specified in Cisco Unified Communications Manager Application user.	Try the following solutions: • Fix the certificate. • Correct the Cisco Unified Communications Manager AppUser credentials.
2405	Failed to retrieve publisher and/or subscriber nodes:	Failure discovering Cisco Unified Communications Ma nager Node information from the database because of one of the following reasons: • Incompatible Cisco Unified Communications Manager version. • Specified node is not a Cisco Unified Communications Manager publisher.	Try the following solutions: • Use a compatible Cisco Unified Communications Manager version. • Use the correct Publisher node hostname.

Table 5-5 Cisco TelePresence Manager Messages (continued)

Code	Message	Explanation	Recommended Action
2406	Failed to authenticate and register with CTI Manager:	Invalid credentials or hostname were applied because of one of the following reasons: • Incorrect Cisco Unified Communications Manager AppUser credentials. • Incorrect publisher node hostname is specified.	Try the following solutions: • Use the correct AppUser credentials. • Use the correct Publisher node hostname.
2407	Failed to create CTI Adapter to Call manager:	There was a failure when authenticating and connecting to CTI Manager.	Try the following solutions: • Verify the Cisco Unified Communications Manager AppUser credentials. • Verify that CTI Manager service is activated on the publisher node.
2409	Failed to create or update Cisco TelePresence equipment information:	Failure creating Cisco TelePresence phone in the database.	Ensure that DN is configured.
2411	CTI Manager on CCM is down, no events will be received:	Failure creating provider instance.	CTI Manager is not running
2415	Failed to connect to RIS Manager.	Failure retrieving IP address from Cisco Unified Communications Ma nager.	SOAP Webservice for RIS should be running. Check that Cisco Unified Communications Ma nager AppUser has correct privileges.
2417	Failed to update connectivity of a terminal.	Failure retrieving information from CTI Manager.	CTI Manager is not running.
2418	Failed to get list of addresses from CTI Provider.	Cisco Unified Communications Ma nager CTI Provider is in error state.	Contact your Cisco technical support representative for Cisco Unified Communications Ma nager issues.
2419	Failed to retrieve IP Address for requested device.	Cisco Unified Communications Ma nager RIS webservice is not running.	Active SOAP webservice.
2420	Failed to discovery TelePresence equipment.	One of the Cisco Unified Communications Ma nager interfaces is down.	Contact your Cisco technical support representative for Cisco Unified Communications Ma nager issues.
2422	Directory number is not configured.	Directory number is not configured.	Configure Directory number.
2423	Incompatible CCM Configured. Please verify the supported CCM version inside Supported versions table.	Incompatible Cisco Unified Communications Ma nager version.	Use or install correct Cisco Unified Communications Ma nager version.

Table 5-5 Cisco TelePresence Manager Messages (continued)

Code	Message	Explanation	Recommended Action
2424	Failure inside scheduled maintenance operation	In trying to run scheduled maintenance for database or Cisco TelePresence equipment, the discovery, Exchange database synchronization, or a push of the calendar schedule failed.	Contact your Cisco technical support representative to launch a detailed investigation.
2425	Failed to discover time zone information from CCM.	Time zone information is not configured or not available in Cisco Unified Communications Ma nager.	Contact your Cisco technical support representative for Cisco Unified Communications Ma nager issues.
2426	Failed to discover telepresence capability information from endpoints.	Failure in discovering capability information from Telepresence equipment endpoints. It is most likely due to an older version of the Telepresence equipment not having the support for capability information.	Check the version of Telepresence equipment, and upgrade to a later version if necessary.
2427	More than one IP Phone configured on shared DN with telepresence equipment.	There is more than one IP phones that share the same DN as the specified Telepresence equipment endpoint.	Remove extra IP Phones or assign them with new DN, such that the Telepresence equipment endpoint only has one IP phone sharing its DN.
2428	CTI Control is disabled for the IP Phone.	The specified Cisco IP Phone configured for the Telepresence equipment endpoint is not set with CTI control enabled.	Verify the IP phone configuration in Cisco Unified Communications Ma nager, and configure it to allow CTI control.
2500	Failed to send message/event	The ActiveMQ message system is failing.	Contact your Cisco technical support representative to launch a detailed investigation.
2601	Error getting detail for meeting ID '$1'.	Cisco TelePresence Manager has failed to extract meeting detail because either the scheduler ID or the meeting serial ID is null.	Check the URL that is provided in the email notification. The URL cannot be altered in any way.
2603	Error loading certificate named: '$1'.	Cisco TelePresence Manager has failed to load the given certificate into the system.	Take corrective action according to the message details and try again.
2604	Error deleting certificate unit '$1' of category '$2'. Error: '$3'.	Cisco TelePresence Manager has failed to delete the given certificate.	Take corrective action according to the message details and try again.
2605	Error $1 DHCP setting. CLI error code: $2.	Cisco TelePresence Manager has failed to enable or disable a DHCP setting. Detail error message is given.	Take corrective action according to the message details and try again.
2606	Error setting IP address and/or subnet mask. CLI error code: $1.	Cisco TelePresence Manager has failed to set new IP settings.	Take corrective action according to the message details and try again.

Table 5-5 Cisco TelePresence Manager Messages (continued)

Code	Message	Explanation	Recommended Action
2607	Error setting default gateway. CLI error code: $1.	Cisco TelePresence Manager has failed to change default gateway setting.	Take corrective action according to the message details and try again.
2608	Error setting SNMP data. Command executed: '$1'. Error: '$2'.	Cisco TelePresence Manager has failed to execute SNMP setting script to set new SNMP setting.	Take corrective action according to the message details and try again.
2609	Failed to '$1' SNMP service. Error: '$2'.	Cisco TelePresence Manager has failed to use ControlCenter to perform the given action on SNMP daemon.	Try to use CLI to activate and deactivate SNMP service. Contact your Cisco technical support representative for further assistance.
2610	Software upgrade already in progress.	User attempted to start another software upgrade while there was one going on. There can be only one upgrade at any time.	Wait until the current upgrade completes and try again.
2611	Failed to upgrade software. Error: '$1'.	Cisco TelePresence Manager failed to upgrade software because of reason provided in the error message.	Take corrective action according to the message details and try again.
2612	System is restarting. Try again later.	The system is being restarted. Users are not allowed to log in while the system is being restarted.	Wait a few minutes and try to log in again.
2614	System is being maintained. Try again later.	This error is shown on the log-in page when either a database restore or system restart is in progress. Users will not be able to log in.	Wait a few minutes and try to log in again.
2615	Cannot delete own role mapping: '$1'.	User whose role is administrator is trying to delete his own role mapping on the Access Management screen.	Users cannot delete their own role mapping. The superuser can delete anything and must perform this task.
2616	FQDN '$1' is not a group FQDN.	User entered an invalid user fully qualified domain name (FQDN) in the role-to-LDAP mapping dialog box during Access Management configuration.	Check the entered FQDN and try again.
2617	Failed to create remote account '$1'. Error: '$2'.	CTM fails to create the requested remote account. Detail error message is given.	Take corrective action according to the detail message and try again.
2618	Cannot view more than one meeting in the same session. Log out of session on meeting '$1' first.	Viewing more than one meeting in the same UI session is not allowed.	Log out of the session on the other meeting first and try again.
2619	Server is being restarted. Try again later.	An attempt to view the UI while server is being restarted.	Wait a few minutes and try to log in again.

Table 5-5 Cisco TelePresence Manager Messages (continued)

Code	Message	Explanation	Recommended Action
2620	Email ID '$1' specified in URL is different than ID '$2' found in database. Contact Administrator.	The URL that is used to view a meeting contains a different user ID than the meeting scheduler. This request will be blocked with this error shown in the UI.	Make sure the user uses the exact same URL that is provided in the CTS-MAN generated email. After verifying the URL, if it still fails, contact support. In CTS-MAN 1.1, this could occur when switching between versions.
2621	Missing required URL parameter '$1'. Contact Administrator.	The URL that is used to view a meeting is missing a required parameter to retrieve the meeting information.	Make sure the user uses the exact same URL that is provided in the CTS-MAN generated email. After verifying the URL, if it still fails, contact support.
2700	Failed to display requested certificate:	Invalid certificate.	Reload a new certificate and try again.
3001	Unable to start adapter '$1'. Error: '$2'.	Cisco TelePresence Manager has failed to start one of its client adapters. The adapter name and details are provided in the message.	This is a fatal error. Contact your Cisco technical support representative for further assistance.
3100	Unexpected Error: $1.	The Cisco TelePresence Manager Exchange Adapter has encountered an internal error.	Contact your Cisco technical support representative to launch a detailed investigation. This error may be caused by a cancelled meeting not being removed from the conference room calendar. This is only caused when the room calendar is controlled by a proxy, and the proxy has not manually deleted the meeting from the Outlook calendar.
3101	Missing Config Param Error: $1.	A required configuration parameter is missing.	Specify the required parameter and retry the operation.
3102	Exchange Connection Error: $1.	Connection to Exchange could not be established.	Make sure the specified connections are correct and an Exchange host is reachable.
3103	Param Format Error: $1. Given value:($2).	The specified Exchange Adapter parameter format is incorrect.	Correct the parameter based on the message and retry the operation.
3104	UDP Port Bind Error: $1.	TCP error.	Restart Cisco TelePresence Manager.

Table 5-5 Cisco TelePresence Manager Messages (continued)

Code	Message	Explanation	Recommended Action
3105	Room Subscription Error: Room:($1). Message:($2)	Room account does not exist in AD/Exchange; Cisco TelePresence Manager account does not have proper permission to read the room calendar; connection to Exchange might be down; the room account on Exchange was modified.	Set up room account in AD/Exchange; give Cisco TelePresence Manager account read access to the room's calendar; wait for Cisco TelePresence Manager to regain its connection to Exchange or else restart Cisco TelePresence Manager.
3106	Room Unsubscription Error: Room:($1). Message:($2)	Connection to Exchange might be down. The room account on Exchange might have been modified.	Wait for Cisco TelePresence Manager to regain connection to Exchange or else restart Cisco TelePresence Manager.
3107	Room Search Error: Room:($1). Message:($2)	Connection to Exchange might be down. The room account on Exchange might have been modified.	Wait for Cisco TelePresence Manager to regain connection to Exchange or else restart Cisco TelePresence Manager.
3108	Room Poll Error: Room:($1). Message:($2)	Connection to Exchange might be down. The room account on Exchange might have been modified.	Wait for Cisco TelePresence Manager to regain connection to Exchange or else restart Cisco TelePresence Manager.
3109	Room Renewal Error: Room:($1). Message:($2)	Connection to Exchange might be down. The room account on Exchange might have been modified.	Wait for Cisco TelePresence Manager to regain connection to Exchange or else restart Cisco TelePresence Manager.
3110	Email Send Error: Message:($1).	Cisco TelePresence Manager could not send e-mail. The mailbox might be full or the connection to Exchange might be down.	Clean up the mailbox.
3111	Lock Error: Cannot acquire lock on element:($1).	An error occurred while resolving deadlocks in server application threads.	This is a severe error, but need not be fatal. Contact your Cisco technical support representative for further assistance.
3112	Mailbox Error: Error during mailbox size computation:($1).	Cisco TelePresence Manager is unable to read the mailbox allocation.	Specify a specific mailbox allocation for the Cisco TelePresence Manager account in the Active Directory.
3113	Mailbox Quota Error: Cleanup account on Exchange. Quota:($1) Current size:($2).	Superuser mailbox has filled up to the quota.	Clean up superuser account on Exchange.
3114	Invalid Domain Name	The specified domain name is invalid. Users would see this error during Test Connection of Exchange settings.	Correct the domain name and try Test Connection again.

Table 5-5 Cisco TelePresence Manager Messages (continued)

Code	Message	Explanation	Recommended Action
3115	Invalid User Name. User name cannot contain space(s).	Invalid User Name. Exchange user name cannot contain space(s).	Correct the user name.
3601	Room display segments information is missing.	Room does not have any display segment information.	This is a severe error, but it should never happen. Contact your Cisco technical support representative for further assistance.
3800	MCU is not reachable:	CTM is unable to communicate with the MCU.	Check for any connectivity issue and check the MCU status.
3801	Failed to authenticate with MCU:	MCU is unable to find CTM hostname/IP address or unable to authenticate the CTM, therefore it will not process any request from this CTM.	Verify that the MCU is configured properly with the correct CTM settings.
3802	An error occurred at MCU:	MCU has reported an error. The error detail is given in the message.	Take corrective action according to the detail message and try again.
3803	MCU failed to authenticate:	CTM is unable to authenticate the MCU, therefore it will not process any request from this MCU.	Verify that the authentication information that are entered in CTM and MCU match.
3804	HostName or IP Address not found for MCU:	MCU is unknown to CTM, therefore it will not process any request from this MCU.	Verify that this MCU is configured properly in CTM.

CHAPTER 6

Installing Cisco TelePresence Manager

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Introduction

This document explains how to install the Cisco TelePresence Manager software in your network. You will then be able to schedule Cisco TelePresence system meetings through existing Microsoft Outlook messaging software, receive reminders, and connect to a remote meeting site 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 talk with your network. The purpose of this guide is to walk you through each step using the Cisco TelePresence Manager installation DVD and the accompanying wizard help windows.

The tasks for installing the Cisco TelePresence Manager software are described in the following sections:

- Overview, page 6-85
- Important Considerations, page 6-86
- Installing Cisco TelePresence Manager from DVD, page 6-86
- Completing the Initialization Prerequisites Worksheet, page 6-93
- Initializing Cisco TelePresence Manager After Installation, page 6-96
- Help With Problems, page 6-111

Overview

Setting up Cisco TelePresence Manager for the first time consists of three procedures, covered in this guide:

- Installing Cisco TelePresence Manager from DVD, page 6-86

  The first procedure consists of installing the Cisco TelePresence Manager program files from DVD. The installation requires information about your network and the rules for finding and exchanging information. You can complete the Installation Wizard Worksheet found in Table 6-1 as a convenient way to organize the required information in advance.

- Completing the Initialization Prerequisites Worksheet, page 6-93

  Following installation, you must verify that Cisco Unified Communications Manager and other resources are configured properly for Cisco TelePresence Manager. This section describes adding parameters to Cisco Unified Communications Manager and researching information from the current installation of Cisco Unified Communications Manager that will be used to initialize the Cisco TelePresence Manager installation.

- Initializing Cisco TelePresence Manager After Installation, page 6-96

  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 information, and Cisco Unified Communications Manager for conference room availability and telephone support. You can complete the Initialization Worksheet found in Table 6-4 as a convenient way to organize the required information.

Once you have configured Cisco TelePresence Manager to communicate with these resources, you can then populate it with the conference rooms, phone numbers, and other information resources used for telepresence conferencing, as explained in the *Cisco TelePresence Manager Administrator's Guide,* and the *Cisco TelePresence and Cisco Unified Communication Manager Installation and Configuration Guide*.

Important Considerations

Before you proceed with the installation of Cisco TelePresence Manager, review the following requirements and recommendations:

- Your Cisco TelePresence system should be fully installed and configured before installing Cisco TelePresence Manager.
- Cisco Unified Communications Manager should already be installed and configured.
- Microsoft Exchange must be version 2003 SP1 or 2003 SP2.
- MCS-7835-H2-CTS1 or MCS-7835-I2-CTS1 may be used as your Cisco Media Convergence Server.
- When you install Cisco TelePresence Manager, the Model 7835 Cisco Media Convergence Server hard drive is formatted, and any existing data on the drive is overwritten.
- This release of Cisco TelePresence Manager is designed to work with Microsoft Internet Explorer version 6.0 or later. Cisco cannot guarantee correct system behavior using unsupported browsers.
- Cisco recommends that you configure the system using static IP addressing so it will be easy to manage.
- Carefully read the instructions that follow before you proceed with the installation.

Caution You must be sure to remove the DVD from the DVD drive once you have completed the installation/upgrade. Leaving the DVD in the drive may prevent Cisco TelePresence Manager from restarting properly after rebooting the server.

Installing Cisco TelePresence Manager from DVD

This section contains the following topics pertaining to installation:

- Required Information and Equipment, page 6-87
- Installation Tips, page 6-87
- Installation Procedure, page 6-89
- Installation Field Values Defined, page 6-90

Required Information and Equipment

To install the Cisco TelePresence Manager system files, you need the following equipment and information:

- The Model 7835 Cisco Media Convergence Server that came with Cisco TelePresence Manager, installed and connected to a Domain Name System (DNS) server and your network.
- A management console able to access the Model 7835 Cisco Media Convergence Server.
- The DVD included in your Cisco TelePresence Manager documentation and installation packet. Use the Installation Wizard included on this disk.
- The information, listed in Table 6-1, "Installation Wizard Worksheet", that includes your system-specific values and parameters.

Installation Tips

For the most time-efficient installation, read and follow these installation tips:

- Use the "Installation Wizard Worksheet" (Table 6-1) to research and record your configuration choices *before you start*. Write down the necessary values in the right column, and refer to the worksheet during the installation.
- You cannot change the DNS Enable/Disable and Admin ID fields after installation without reinstalling the software, so be sure to enter the values that you want for these fields.
- For more information and clarification of the information required during installation, see Table 6-2, "Installation Field Definitions."

Table 6-1 Installation Wizard Worksheet

Window Name	Task Description	Options and Descriptions	Your System Information or Action
Installation Wizard	Use the listed window conventions to navigate and enter required values into the wizard windows.	**Proceed:** Begin wizard. **Skip:** Go to the next field. **Cancel:** the Installation Cancelled window appears.	Choose an action: Proceed Skip Cancel
Installation Cancelled	Remove the media from the drive and click OK to halt the system.	**OK**: Stop the installation. **Cancel:** Exit this window.	Choose an action: OK Cancel
Autonegotiation Configuration	Choose automatic negotiation of Ethernet network interface card (NIC) speed and duplex mode, or manual entry.	**Yes:** Enable autonegotiation. **No:** Enter required information in the **NIC Speed and Duplex Configuration** window.	Choose an action: Yes No

Table 6-1 Installation Wizard Worksheet (continued)

Window Name	Task Description	Options and Descriptions	Your System Information or Action

NIC Speed and Duplex Configuration	Manually set NIC speed and duplex mode. This window will appear only if **No** is selected for autonegotiation.	**OK/Back/Help**
		Default is 100 mbps and full duplex.
			`Select NIC speed:`
			`( ) 10 Mbps`
			`( ) 100 Mbps`
			`( ) 1000 Mbps`
			`Select NIC Duplex:`
			`( ) Full`
			`( ) Half`

	Tip Choose the highest possible NIC speed and full duplex for best performance.		
DHCP Configuration	Select to enable Dynamic Host Configuration Protocol (DHCP) or manual entry of static IP addresses.	**Yes:** Enable DHCP. **No:** Complete Static Network Configuration window. **Back/Help**	Choose an action: Yes No

Static Network Configuration	Enter static IP addresses and hostname. This window will display only if **No** is selected for DHCP configuration.	**OK/Back/Help**
		GW = gateway
			`hostname:`
			`IP Address:`
			`IP Mask:`
			`GW Address:`

DNS Client Configuration	Enable DNS Server.	**Yes:** Complete DNS Server Configuration window. **No:** Do not enable DNS.	Choose an action: Yes No
	Caution You cannot change the DNS settings after installation without reinstalling Cisco TelePresence Manager.		

DNS Server Configuration	Enter DNS server information.
	See Table 6-2 for important information about these values.
		OK/Back/Help	`Primary DNS:`
			`Secondary DNS*:`
			`* optional`
			`Domain:`

Administrator Login Configuration	Enter the administrator login username for Cisco TelePresence Manager.	**OK/Back/Help**	`Admin ID:`
	Caution You cannot change the admin login name after installation without reinstalling Cisco TelePresence Manager. However, the admin *password* can be changed at the Cisco TelePresence Manager web interface.		
	Choose an administrator login password for Cisco TelePresence Manager.		`Password:` `Confirm:`

Certificate Signing Request Configuration	Enter identification information to create a self-signed certificate for use on the Cisco TelePresence Manager server.	**OK/Back/Help**	`Organization:`
			`Unit:`
			`Location:`
			`State:`
			`Country:`

Table 6-1 Installation Wizard Worksheet (continued)

Window Name	Task Description	Options and Descriptions	Your System Information or Action

Network Time Protocol (NTP) Client Configuration	Enter one or more NTP server IP addresses.	**OK/Back/Help**	`NTP Server 1:`
			`NTP Server 2*:`
			`NTP Server 3*:`
			`NTP Server 4*:`
			`NTP Server 5*:`
			`* optional`

Database Access Security Configuration	Enter the access password for the Cisco TelePresence Manager database server.	**OK/Back/Help**	`Security password:` `Confirm:`
Configuration Confirmation	Verify that you are ready to install the Cisco TelePresence Manager image.	**OK:** Finish installation. **Back:** Change the configuration.	Choose an action: OK Back Cancel

Installation Procedure

When you have completed the Table 6-1 worksheet, follow these steps to install Cisco TelePresence Manager.

Step 1 Insert the Cisco TelePresence Manager installation DVD .

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 Cisco TelePresence Manager software.

Caution You must be sure to remove the DVD from the DVD drive once you have completed the installation/upgrade. Leaving the DVD in the drive may prevent Cisco TelePresence Manager from restarting properly after rebooting the server.

Step 2 The installer checks for a prior installation of Cisco TelePresence Manager software. Choose **Yes** to continue, or **No** to abort the installation.

Step 3 If you choose **Yes** to continue the installation, the Installation Wizard opens in the next window. Read and become familiar with the wizard conventions.

Step 4 Click **Proceed**.

Step 5 Fill in each window with the information you entered in Table 6-1, "Installation Wizard Worksheet".

Note For more information and clarification of the installation fields, see Table 6-2, "Installation Field Definitions".

Step 6 When you are satisfied that your information is correct, click **OK** in the 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 will appear (see the "Help With Problems" section on page 6-111). If the installation process completes successfully, the message "The Installation of the Cisco TelePresence Manager Has Completed Successfully" appears.

Note If you have problems completing the installation, see the "Help With Problems" section on page 6-111.

Installation Field Values Defined

Table 6-2 explains in detail the field definitions of the Cisco TelePresence Manager installation process in detail.

Table 6-2 Installation Field Definitions

Installation Fields	Description and Usage
Installation Wizard	
Proceed:	The installation wizard requests necessary configuration information before installing Cisco TelePresence Manager files.
Skip:	Skip this wizard and install Cisco TelePresence 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.
Autonegotiation Configuration	
NIC Speed	The speed of the server network interface card (NIC), in megabits per second. • The possible speeds are 10, 100, and 1000 mbps. Default is 100 mbps. **Note** Cisco recommends a NIC speed of at least 100 mbps for best performance.
Duplex Configuration	The duplex setting of the server NIC. • The possible settings are Half and Full. Default is Full. **Note** Cisco recommends full duplex for best performance.
DHCP Configuration	
Host Name	A hostname is an alias that is assigned to an IP address to help identify it. • Enter a hostname that is unique to your network. • The hostname can consist of up to 64 characters and can contain alphanumeric characters and hyphens.
IP Address	The IP address uniquely identifies a server on your network. • Enter the IP address in the form *ddd.ddd.ddd.ddd*, where *ddd* can have a value from 0 to 255 (except 0.0.0.0).

Table 6-2 Installation Field Definitions (continued)

Installation Fields	Description and Usage
IP Mask	The IP subnet mask of this machine. The subnet mask together with the IP address defines the network address and the host address. • Enter the IP mask in the form *ddd.ddd.ddd.ddd,* where *ddd* can have a value from 0 to 255 (except 0.0.0.0). Valid example: 255.255.240.0. Invalid example: 255.255.240.240.
GW Address	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. • Enter the IP address of the gateway in the format *ddd.ddd.ddd.ddd,* where *ddd* can have a value from 0 to 255 (except 0.0.0.0). **Note** 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.
DNS Client Configuration	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. • If you do not have a DNS server, choose **No**. When DNS is disabled, you should enter only IP addresses (not hostnames) for all network devices in your Cisco TelePresence Manager network. **Note** If you have a DNS server, Cisco recommends choosing **Yes** to enable DNS. Disabling DNS limits the system's ability to resolve some domain names. ⚠ **Caution** You cannot change the DNS settings after the installation is complete. To change DNS settings, you must reinstall Cisco TelePresence Manager.
Primary DNS	Cisco TelePresence Manager contacts this DNS server first when attempting to resolve hostnames. This field is mandatory if DNS is set to **yes**.
Secondary DNS (optional)	When a primary DNS server fails, Cisco TelePresence Manager will attempt to connect to the secondary DNS server. • Enter the IP address in dotted decimal format as *ddd.ddd.ddd.ddd,* where *ddd* can have a value from 0 to 255 (except 0.0.0.0).
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.

Table 6-2 Installation Field Definitions (continued)

Installation Fields	Description and Usage
Administrative Login Configuration	
Admin ID	The username for the Cisco TelePresence Manager Administrator. • Ensure that the name is unique. It must start with a lowercase alphanumeric character and can contain alphanumeric characters (uppercase and lowercase), hyphens, and underscores. **Caution** The admin ID cannot be changed after installation without reinstalling Cisco TelePresence Manager. Record it for safekeeping.
Password / Confirm	A password that allows the administrator to log into Cisco TelePresence Manager. • The password must be at least six characters long. It must start with a lowercase alphanumeric character and can contain alphanumeric characters (upper and lower case), hyphens, and underscores. This field can be changed at Cisco TelePresence Manager web interface. Record it for safekeeping. **Caution** If this password is lost, you must reinstall Cisco TelePresence Manager to regain access.
Certificate Signing Request Configuration	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. • These values create a CSR for the server where the certificate will be installed.
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 hostname or IP address of one or more NTP server.
NTP Servers 2–5	• NTP Server 1 value is mandatory; NTP Servers 2–5 are optional. **Tip** Cisco strongly recommends that you enter the NTP server by which Cisco Call Manager synchronizes its clock as the primary NTP server. If these servers are out of synchronization, Cisco TelePresence Manager will not operate properly.
Database Access Security Configuration	Cisco TelePresence Manager uses the security password to communicate with its database.
Security Password / Confirm	• The password must be at least six characters long; it must start with a lowercase alphanumeric character and can contain alphanumeric characters (uppercase and lowercase), hyphens, and underscores.

Completing the Initialization Prerequisites Worksheet

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

When you run the Initialization wizard, network connections are tested. A test connection may fail if you install Cisco TelePresence Manager in a sub-net that does not have access to your DNS server.

If you see the test connection failure message you may need to specify IP addresses for your Cisco Unified Communications Manager server(s), as well as other network devices. You can change any server name values in Cisco Unified Communications Manager using the following procedure:

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 Change any hostnames to IP addresses.

Note Be sure you specify an IP address, rather than a hostname in Cisco TelePresence Manager's System Configuration -> Cisco UCM Host field.

Use the worksheet in Table 6-3 to verify that your network is configured correctly for Cisco TelePresence Manager and to record any information needed for initialization.

For more information about these prerequisites, refer to *Cisco TelePresence and Cisco Unified Communication Manager Installation and Configuration Guide*, OL-11326-01.

Table 6-3 Preinitialization Worksheet

Microsoft Exchange and Active Directory Requirements		
1.	( )	A certificate request from the Microsoft Exchange Server 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. *Location of Microsoft Exchange certificate copy:*
2.	( )	Cisco TelePresence Manager must have a username or mailbox account in Microsoft Exchange Active Directory. The mailbox storage limits are set correctly from the Active Directory server. Uncheck the "Use mailbox store defaults" box and enter the appropriate storage quota.
3.	( )	Each Cisco TelePresence System room must have a username or mailbox account in Microsoft Exchange Active Directory. Verify that each Active Directory account corresponds to the values specified in Cisco Unified Communications Manager.
4.	( )	Cisco TelePresence Manager is granted adequate permissions for each Cisco TelePresence System room. In Active Directory, for every Cisco TelePresence System e-mail account, grant FullMailBox permissions to the Cisco TelePresence Manager mailbox user. You can also log into Microsoft Outlook Calendar as the room user, and in File properties use the permissions tab to grant read permission to the Cisco TelePresence Manager user.

Table 6-3 Preinitialization Worksheet (continued)

5.	( )	A copy of the certificate for Active Directory exists. To request a certificate for Active Directory, you can follow these steps: **1.** By default, the certificate file is named _.crt. 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. **4.** Choose Download CA Certificate, using Distinguished Encoding Rules and the encoding method. Make a copy of the certificate and place it in a folder that is accessible to the computer that has browser access to the Cisco TelePresence Manager server. *Location of Active Directory certificate copy:*
Cisco Unified Communications Manager Requirements		
1.	( )	Each enterprise Cisco TelePresence system unit is fully installed and configured. A shared line with a common directory number is configured for each Cisco TelePresence unit and its associated room IP phone. For more information, refer to the *Cisco TelePresence System Administrator's Guide*.
2.	( )	A user group has been created in Cisco Call Manager for, and the following roles are assigned to the user group: • Standard AXL[1] API[2] access • Standard CTI[3] enabled • Standard serviceability • Standard Unified CM administrative users
3.	( )	An application user is added to the Cisco Call Manager user group just created. All Cisco TelePresence devices are assigned to this user. Examples of devices are the Cisco TelePresence system codec boxes and the Cisco IP phones associated with the codec boxes. *Application user name:* *Password:*

Table 6-3 Preinitialization Worksheet (continued)

4.	( )	Cisco CTIManager and CiscoAXL Web Service are activated (at the Cisco Call Manager Serviceability page).
5.	( )	A Cisco Unified Communications Manager certificate is available from Internet Explorer, with the file extension .der. This certificate was generated when you first installed Cisco Unified Communications Manager. Make a copy of the certificate and place it in a folder that is accessible to the computer that has browser access to the Cisco TelePresence Manager server. *Location of Cisco Unified CallManager certificate copy:*
6.	( )	Each Cisco TelePresence room e-mail account name is provided in the Product Specific Configuration Layout section of the Cisco Call Manager Phone Configuration window. The room e-mail account name has a value that matches the corresponding value (equivalent to the user ID) for the room in Active Directory. See the section "Configuring a Cisco TelePresence Device" in the *Cisco TelePresence and Cisco Unified Communication Manager Installation and Configuration Guide.*
7.	( )	A CAPF[4] user profile exists for the Cisco TelePresence Manager application user.

1. AXL: Another XML Library
2. API: Application programming interface
3. CTI: Computer Telephony Integration
4. CAPF: Certification Authority Proxy Function

Initializing Cisco TelePresence Manager After Installation

This section contains the following topics pertaining to initialization:

- Required Information and Equipment, page 6-97
- Initialization Tips, page 6-97
- Initialization Worksheet, page 6-97
- Initialization Procedure, page 6-101

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 Call Manager 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 listed in Table 6-3, "Preinitialization Worksheet" and Table 6-4, "Initialization Worksheet."

Additionally, Cisco TelePresence Manager must have network access to a computer running Windows Explorer version 6.0 (or later), the Microsoft Exchange Server, the Active Directory server, and Cisco Unified Communications Manager.

Initialization Tips

For the most time-efficient initialization, read and follow these initialization tips:

- Use your completed "Preinitialization Worksheet" (Table 6-3) as a handy reference during initialization.
- Use the Initialization Worksheet (Table 6-4) to research and record your configuration choices before you start. Write down the necessary values, and refer to the worksheet during the initialization process.
- Before proceeding to each succeeding window, you must verify the information entered and the choices made. The wizard does not allow you to skip a window and complete it later in the process. If you are not sure, enter a "best guess" entry (in the correct format) and return to the page later to verify or change it.

Tip The system administrator can access and change the information after initialization from the Configuration tab of the Cisco TelePresence Manager web interface.

Initialization Worksheet

In the following worksheet, enter the required information in the right column for easy reference during the initialization procedure.

Table 6-4 Initialization Worksheet

Window Name	Task	Options or Setting Description	Your System Information or Action
Welcome	Displays required information and Cisco TelePresence Manager server settings.	**Next:** Begin wizard. **Cancel**: Cancel dialog box appears.	Choose an action: Next Cancel
Cancel dialog box	Cancel initialization. **Note** Initialization windows continue to appear at next login until you complete them.	**Yes**: Return to the browser Cisco TelePresence Manager login window. Next time you log in, you must complete the initialization. (Previously validated information is saved.) **No**: Close the alert window.	Cancel dialog box: You must perform initial setup before Cisco TelePresence Manager can function. Are you sure you want to cancel? Yes No

Table 6-4 Initialization Worksheet (continued)

Window Name	Task	Options or Setting Description	Your System Information or Action
LDAP Access Settings	Enter host and user account information allowing Cisco TelePresence Manager to access your LDAP server.	**Test Connection**: Verification dialog box appears (see right). **Back**: Go back one window. **Next**: (Button is grayed out until window information has been filled out and verified.) **Cancel**	Verification dialog box: (only one will appear): Setting tested successfully. Continue or Field is not a valid value. Correct invalid value. OK
Host Name	Enter the hostname or IP address on which the LDAP server is running.	The hostname consists of up to 64 characters and can contain alphanumeric characters and hyphens.	Host:
Bind Method	Choose **Secure** or **Normal** radio button to select the type of security.	**Secure**: Secure Socket Layer (SSL) connection requires a valid Distinguished Encoding Rules (DER) certificate. **Normal:** No certificate necessary.	Bind Method: ( ) Secure ( ) Normal
Port	Choose the port number for your LDAP server.	**Normal** LDAP port default for a single server is 389. **Secure** LDAP port default is 636. **Normal** LDAP port default for multiple servers is 3268.	Port:
Default Context	Enter the Distinguished Name (DN) for the default context in your configuration.	**Fetch DNs**: Find and choose your default DN. Example: dc=dev, dc=com	Default Context:
Username	Enter the username for the account that has access to the LDAP server.	Example: cn=administrator, cn=users	User Name:
Append Default Context	Check this box to append the default context to the end of the specified user container string.	**Checked**: Default context appended to username. **Unchecked**: username not appended.	( ) Append default context
Password	Enter the password for the account that has access to the LDAP server.	The password must contain at least six characters. It must start with a lowercase alphanumeric character.	User Password:
Certificate	If SSL is your binding method, choose the SSL certificate for this server.	**Browse...** Choose **SSL certificate**. If you selected **Secure** bind method, this is required.	Certificate:

Table 6-4 Initialization Worksheet (continued)

Window Name	Task	Options or Setting Description	Your System Information or Action
LDAP User Auth Setting	Enter the Relative Distinguished Name (RDN) for the container under which LDAP users exist.	**Verify Container DN**: Verification dialog box appears. **Back/Cancel**	Choose an action: Verify Container DN Back Cancel
User Containers	Enter the name of the LDAP container in which Cisco TelePresence Manager can find the list of users.	Example: cn=users	Default DN: displays from the last screen User Container:
Append Default Context	To meet fully qualified domain name (FQDN) requirements, check this box, or append the username yourself.	**Checked**: Default context appended to user container. **Unchecked**: User container not appended.	( ) Append default context
Field Mappings	Enter the object class and its attribute to map to the corresponding referenced object and attribute field.	**View Sample Data**: Verify the field mappings you've entered. **Back/Cancel**	Dialog box: Does the data look OK to you? OK Cancel
Person	For most deployments, the defaults (shown in italics) do not need to be changed. If this information is mapped to other values in the LDAP server, click the folder icon beside each entry space and choose the correct value.	• **Object Class**—A virtual container consists of a collection of attributes that defines a database entry. • **Attributes**—Predefined segments of information, either required or optional, that together make up an object class.	**Person Object Class** E-mailID: User DisplayName: User **Attribute** E-mailID: proxyAddresses DisplayName: displayname
Enterprise Conf Room			**Enterprise Conf Room Object Class** E-mailID: User DisplayName: User **Attribute** E-mailID: proxyAddresses DisplayName: displayname

Table 6-4 Initialization Worksheet (continued)

Window Name	Task	Options or Setting Description	Your System Information or Action
Cisco CallManager	Enter Cisco Unified Communicatio ns Manager resource properties.	**Host: T**he Cisco Unified Communications M anager appliance box hostname or IP address. **Username** and **Password:** the application username and password that were configured in Cisco Unified Communications M anager to allow access to the Cisco TelePresence System. **Test Connection:** Verification dialog box appears. **Browse:** Navigate to the location of the certificate file, choose it, and click **Upload**. **Back/Cancel**	Host: Username: Password: Certificate:
Microsoft Exchange Server	Enter Microsoft Exchange Server resource properties.	**Host:** The Microsoft Exchange Server hostname or IP address. **Username** and **Password: T**he user account that has read access to the Exchange server. **Browse...** Choose **SSL certificate**. If you selected **Secure** bind method, this is required. **Test Connection**: Verification dialog box appears. **Back/Cancel**	Host: Bind Method: ( ) Secure ( ) Normal Port: Domain Name: Username: Password: Certificate:
Database Backup Schedule	Set the database backup schedule and settings.	**Finish**: Initialization is complete. Cisco TelePresence Manager web interface login window appears. (Button is grayed out until window information has been filled out and verified.) **Back/Cancel**	Choose an action: Finish (when screen is complete) Back Cancel

Table 6-4 Initialization Worksheet (continued)

Window Name	Task	Options or Setting Description	Your System Information or Action
Schedule	Schedule daily or weekly backups of the database.	**Change...**: Schedule backups dialog box appears.	Select to schedule backups Change...
Schedule Backups dialog box	Schedule the frequency and time of database backup.	OK: Save schedule. Cancel: Return to Database Backup Schedule window without saving.	Start Time (UTC):____ : ____ Frequency: ( ) Daily ( ) Weekly: ( ) Mon ( ) Tues ( ) Wed ( ) Thu ( ) Fri ( ) Sat ( ) Sun
Number of backup files to keep	Specify number of backup files to keep.	Drop-down menu: 1...14.	Number of backup files to keep:
Backup Type	Specify where the backup information is stored.	**Local**: Save backup to local server. **Remote**: Enter remote user variables to back up database to a remote server.	( ) Local ( ) Remote
		Verify Remote Host: Grayed out unless remote backup is selected. Verification dialog box appears. **Note** The storage path must exist before you enter this information in the initialization window.	Remote Storage Host (SFTP): Port: User Name: User Password: `Storage Path:`

Initialization Procedure

When you have completed the Table 6-4 worksheet, follow these steps to initialize the installed Cisco TelePresence Manager software:

Step 1 At the console running Microsoft Explorer, type the Cisco TelePresence Manager server name or the IP address. See the following example.

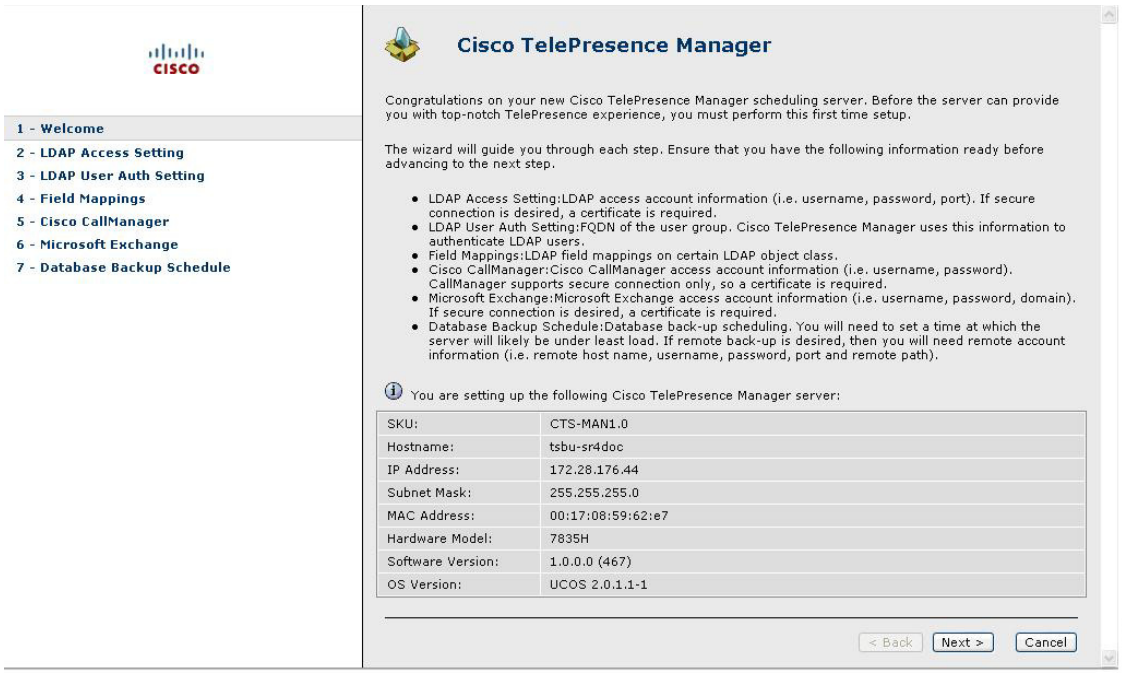
```
https://7835 server hostname or IP address
```

Step 2 At the product page that appears, click on **Cisco TelePresence Manager**.

Step 3 At the login page, enter the username and password that were created during installation.

The Cisco TelePresence Manager initial window appears with several fields already populated from the installation process. See Figure 6-1.

Figure 6-1 Initial Window



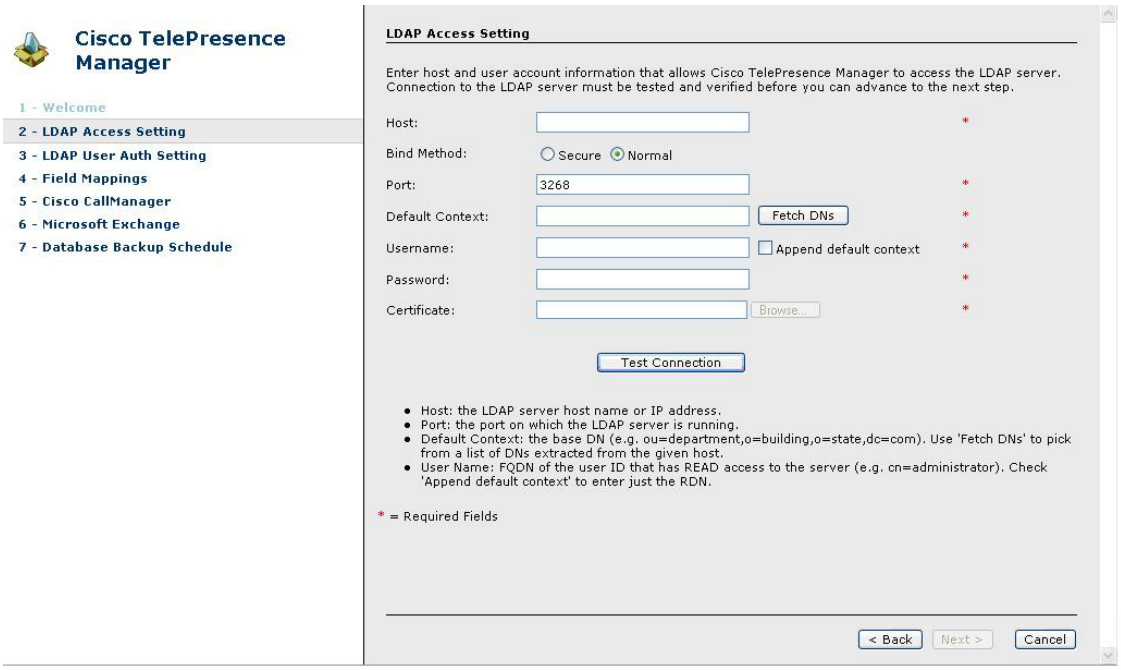
Step 4 Click **Next**.

The LDAP Access Setting window opens. See Figure 6-2.

Step 5 Fill in the required information, referring as necessary to your completed "Preinitialization Worksheet" and "Initialization Worksheet".

An explanation of the fields for this window follows Figure 6-2.

Figure 6-2 LDAP Access Setting Window



Explanation of LDAP Access Setting Fields

Lightweight Directory Access Protocol (LDAP) is a protocol definition for accessing directories. The LDAP Access Settings window specifies LDAP Active Directory server settings that are used by Cisco TelePresence Manager to access the directory information. This window contains the following fields:

- Host

  The hostname is an alias that is assigned to an IP address for identification.

  - Enter a hostname that is unique to your network.
  - The hostname consists of up to 64 characters and can contain alphanumeric characters and hyphens.

- Bind Method

  The bind method is the type of security required.

  - Secure—Secure Socket Layer (SSL) connection requires the Distinguished Encoding Rules (DER) Certificate for the LDAP server. You must complete the Certificate field on this window before you can proceed.
  - Normal—The Cisco TelePresence Manager communicates with the LDAP server in cleartext using HTTP. In normal mode, you do not need to complete the Certificate field.

- Port
  - The default port for secure SSL connection is 636.
  - The default port for normal SSL connection for multiple servers is 3268.
  - The default port for normal connection for a single server is 389.

- Default Context

Default Context is the context from which the LDAP queries are performed. To change the default context, choose it in the Fetch DNs drop-down list adjacent to this field.

- Username

  The username provides identification of the user to the LDAP server.

  - The format must be in the LDAP fully qualified domain name (FQDN) format.
  - Examples: cn=administrator, ch=users, dc=<*mydomain*>, dc=com

- Append default context

  Check this box to avoid typing in the LDAP Access username manually, keeping the requirements of the LDAP FQDN format. If this box is not checked, you must append the information in the Default Context field.

- Password

  The user password allows access to the LDAP server.

  The password must contain at least six characters and should be unique. It can contain lowercase, alphanumeric characters, hyphens, and underscores. It must start with a lowercase alphanumeric character.

- Certificate

  The certificate is a digital representation of user or device attributes, including a public key, that is signed with an authoritative private key. You entered this information in Table 6-3, "Microsoft Exchange and Active Directory Requirements" section on page 6-94, Item 5.

Step 6 Click **Test Connection**.

Step 7 The system tests the connection information. A popup window opens and displays "Connection .... Verified."

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

Step 8 Click **OK**.

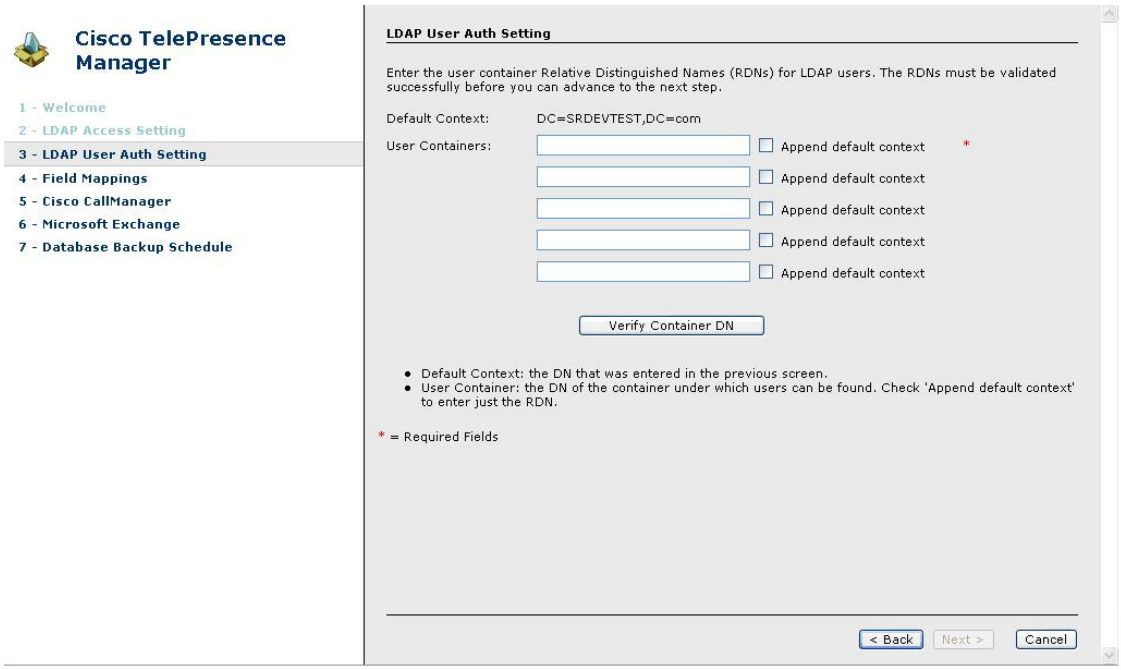
Step 9 Click the command button **Next,** located at the bottom of the window.

The LDAP User Auth Setting window opens. See Figure 6-3.

Step 10 Fill in the required information, referring as necessary to your completed "Preinitialization Worksheet" and "Initialization Worksheet".

An explanation of the fields for this window follows Figure 6-3.

Figure 6-3 LDAP User Authorization Settings Window



Explanation of LDAP User Auth Setting Fields

The LDAP User Auth Setting window contains the following fields:

- User Containers

  The FQDN format name of the LDAP container in which Cisco TelePresence Manager can find the list of users.

- Append default context

  Check this box to meet the requirements of the LDAP FQDN format, or type in the Default Context after the User Container name yourself.

Step 11 When all information has been entered, click **Verify Container DN**.

Step 12 The system tests the container information. A popup window opens and displays "User container <...> validated successfully."

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

Step 13 Click **OK**.

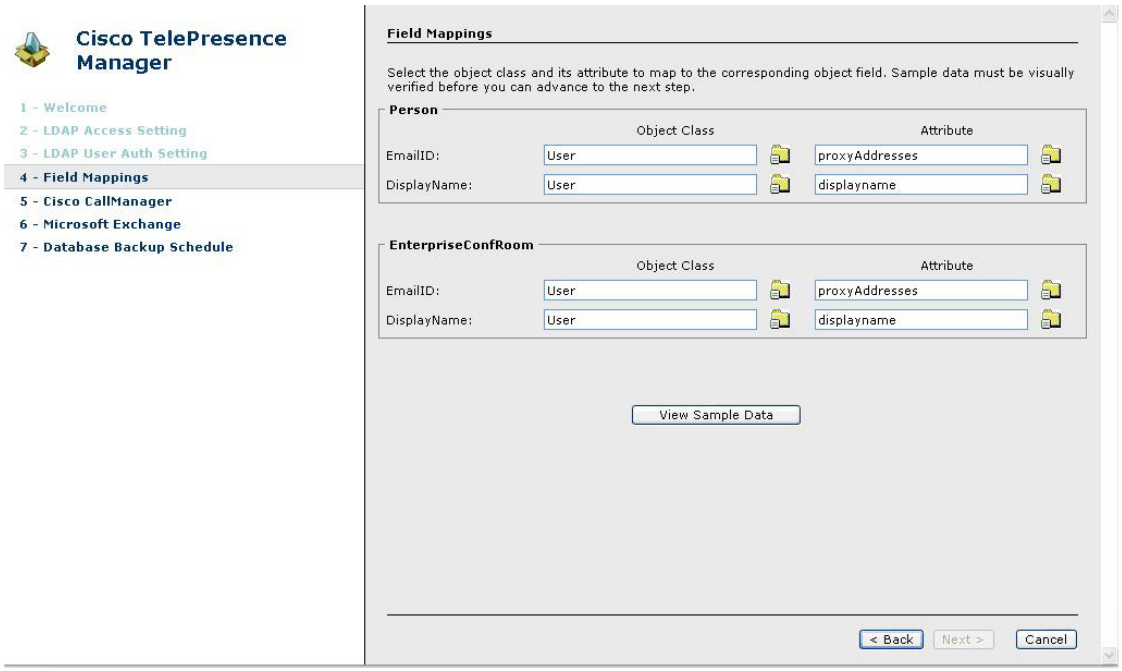
Step 14 Click the command button **Next,** located at the bottom of the window.

The Field Mapping window opens. See Figure 6-4.

The fields should be populated with information you have already entered. Change any information that is incorrect and add any other required information, referring as necessary to your completed "Initialization Worksheet".

An explanation of the fields for this window follows Figure 6-4.

Figure 6-4 Field Mappings Window



Explanation of Field Mappings Fields

In Field Mappings, the Cisco TelePresence Manager server uses application objects and attributes that are internally mapped to the objects and attributes in the LDAP Active Directory server. Most of these mappings are predefined and fixed. However, some of the information required for the Cisco TelePresence System might be stored in different attributes of the LDAP Active Directory server based on the enterprise deployment. The Field Mapping window provides a mechanism to map such objects and attributes used by the Cisco TelePresence Manager server to the object and attributes defined in the LDAP Active Directory schema.

Tip For most deployments, the defaults do not need to be changed. If this information is mapped to other values in the LDAP server, click the folder icon beside each entry space and choose the correct value. The objects and attributes listed in Table 6-5 are potentially changeable.

Table 6-5 Field Mappings Fields

Application Object	Application Attribute	LDAP Object	LDAP Attribute
Person			
	EmailID	User	ProxyAddress
	DisplayName	User	DisplayName
EnterpriseConfRoom			
	EmailID	User	ProxyAddress
	DisplayName	User	DisplayName

Note For more information about Field Mapping, see the Cisco TelePresence Manager web interface Help files.

Step 15 When all information has been entered, click **View Sample Data**.

A popup window opens and displays the data that has been entered. Review the information and verify that it is correct and complete.

Step 16 Click **Close.**

A popup window opens and displays the message "Does the data look correct to you?."

Step 17 Click **OK**.

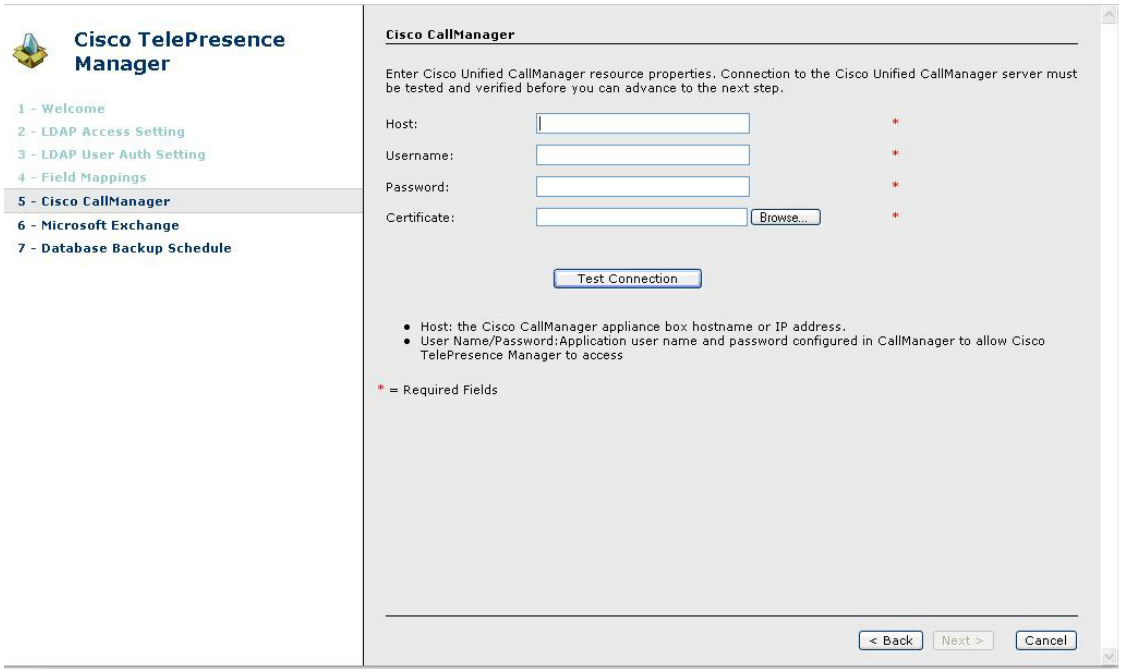
Step 18 Click the command button **Next,** located at the bottom of the window.

Step 19 The **Cisco CallManager** window opens. See Figure 6-5.

Step 20 Fill in the required information, referring as necessary to your completed "Preinitialization Worksheet" and "Initialization Worksheet".

An explanation of the fields for this window follows Figure 6-5.

Figure 6-5 Cisco Unified Communications Manager Window



Explanation of Cisco Unified Communications Manager Fields

- Host

  Host is the hostname or IP address of the Cisco Unified Communications Manager server host.

- Username

Username is the username for the application user for the Cisco Unified Communications Manager server. You entered this information in Table 6-3, "Cisco Unified Communications Manager Requirements" section on page 6-95, item 5.

- Password

  The password allows the user to access the Cisco Unified Communications Manager.

- Certificate

  The certificate is a digital representation of user or device attributes, including a public key, that is signed with an authoritative private key.

Step 21 Click **Test Connection**.

The system tests the connection information. A popup window opens and displays "Connection to <....> Server was Verified."

Note If the system cannot verify the connection, the popup window directs the user to reenter the information.

Step 22 Click **OK**.

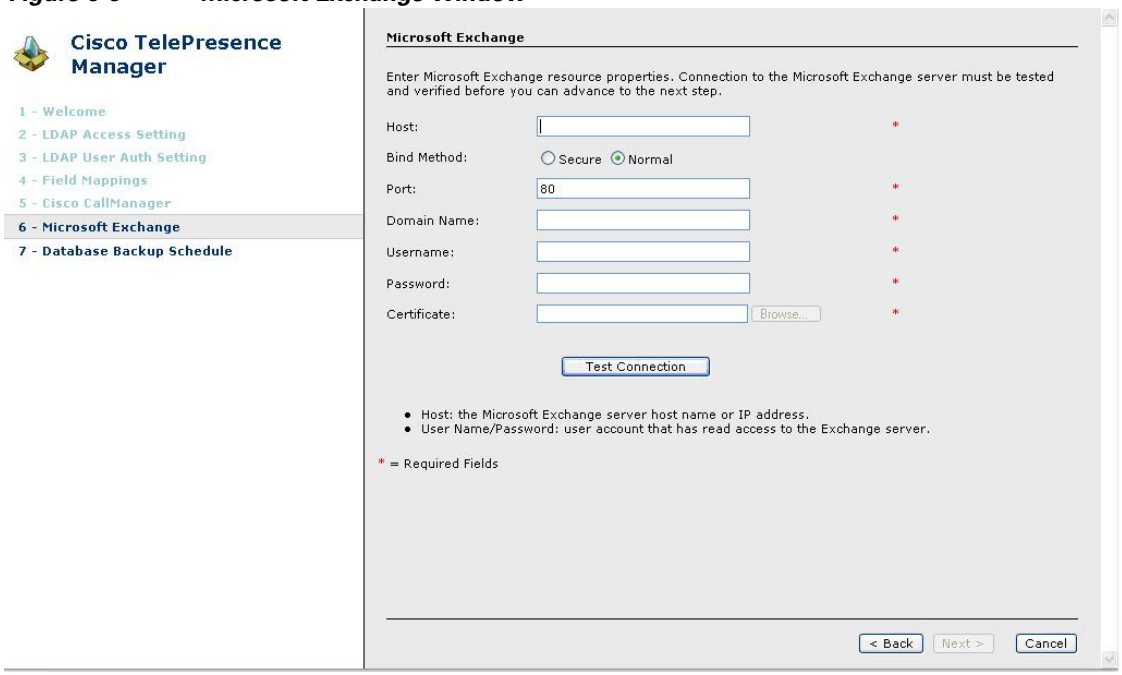
Step 23 Click **Next,** located at the bottom of the window.

The **Microsoft Exchange** window opens. See Figure 6-6.

Step 24 Fill in the required information, referring as necessary to your completed "Preinitialization Worksheet" and "Initialization Worksheet".

An explanation of the fields for this window follows Figure 6-6.

Figure 6-6 Microsoft Exchange Window



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.

- 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.

- Username

  The username provides login access to the Microsoft Exchange Server. You entered this information in Table 6-3, “Microsoft Exchange and Active Directory Requirements” section on page 6-94, Item 2.

- 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. You entered this information in Table 6-3, “Microsoft Exchange and Active Directory Requirements” section on page 6-94, Item 1.

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

Step 25 Click **Test Connection**.

The system tests the connection information. A popup window opens and displays the message “Connection to <....> Server was Verified.”

Note If the system cannot verify the connection, the popup window directs the user to reenter the information.

Step 26 Click **OK**.

Step 27 Click **Next,** located at the bottom of the window.

The Database Backup Schedule window opens. See Figure 6-7.

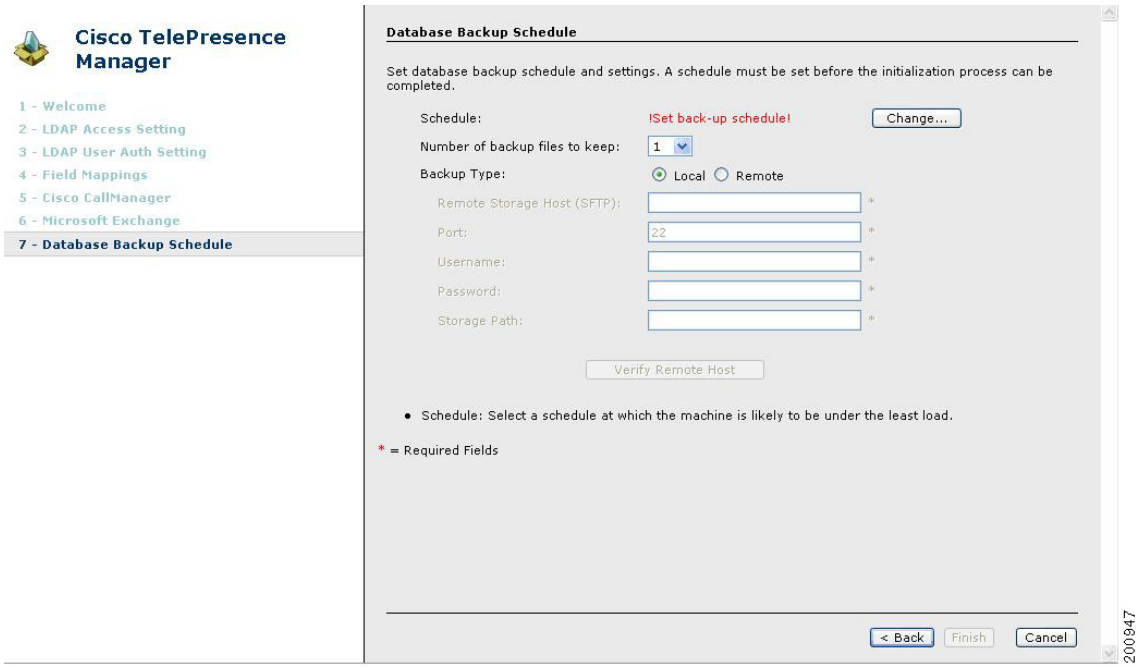
Note The default is set to a daily backup schedule with the backup information stored to the local drive. Cisco recommends that you back up your data to a different drive.

Step 28 To customize the frequency and location of the backup, click **Change**.

Step 29 Fill in the required information, referring as necessary to your completed "Preinitialization Worksheet" and "Initialization Worksheet".

An explanation of the fields for this window follows Figure 6-7.

Figure 6-7 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 (default) to 14 (two week's worth of daily backups).

- Backup Type

  Choose Local or Remote to designate the server for backups. 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 of 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.

Step 30 When you have finished entering the backup schedule information, click **Verify Remote Host**.

A popup window opens and displays the message "Remote host setting verified."

Step 31 Click **OK**.

Step 32 Click **Finish,** located at the bottom of the window.

The Cisco TelePresence Manager admin window appears at http://*server hostname or IP address*.

Refer to the *Cisco TelePresence Manager Administrator's Guide* for information about managing and administering Cisco TelePresence Manager.

Note If you have problems completing the initialization, see the next section, "Help With Problems" section on page 6-111.

Help With Problems

- If you forget the admin login name you entered during the installation process, you must go through installation again and reenter the values.
- During installation, if you enter information that the installer cannot use, the software will pause and ask you for the correct information and try to continue the installation. Make certain that you have all required and correct information in front of you before starting installation.
- If you forget your admin password, you must contact Cisco technical support for assistance.

- To change your choice to enable or disable DNS (Domain Name System), you must reinstall the software.

Most other changes to the Cisco TelePresence Manager can be made from the web interface by a Cisco TelePresence Manager administrator. See the *Cisco TelePresence Manager Administrator's Guide* for more information.

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