

Software version TC7.3
OCTOBER 2015

ADMINISTRATOR GUIDE

CISCO TELEPRESENCE SYSTEMS
EX60 AND EX90



Thank you for choosing Cisco!

Your Cisco TelePresence System EX90/EX60 has been designed to give you many years of safe, reliable operation.

This part of the EX90/EX60 documentation is aimed at administrators working with the setup of the system.

Our main objective with this Administrator Guide is to address your goals and needs. Please let us know how well we succeeded!

May we recommend that you visit the Cisco web site regularly for updated versions of this guide.

The user documentation can be found on our web site. Go to:

► <http://www.cisco.com/go/telepresence/docs>

How to use this guide

The top menu bar and the entries in the Table of contents are all hyperlinks. You can click on them to go to the topic.

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CHAPTER 1

INTRODUCTION

This document provides you with the information required to administer your product.

Products covered in this guide

- Cisco TelePresence System EX60
- Cisco TelePresence System EX90

User documentation

The user documentation for the Cisco TelePresence EX series includes several guides suitable for various user groups:

- **Installation guides:**
How to install the products
- **Getting started guide:**
Initial configurations required to get the system up and running
- **Administering TC Endpoints on CUCM:**
Tasks to perform to start using the product with the Cisco Unified Communications Manager (CUCM)
- **Administrator guide (this guide):**
Information required to administer your product
- **Quick reference guides:**
How to use the product
- **User guides:**
How to use the product
- **Knowledge base articles**
- **Video conferencing room primer:**
General guidelines for room design and best practice
- **Video conference room acoustics guidelines:**
Things to do to improve the perceived audio quality
- **Software release notes**
- **Regulatory compliance and safety information guide**
- **Legal & license information**

Downloading the user documentation

We recommend you visit the Cisco web site regularly for updated versions of the user documentation. Go to:

► <http://www.cisco.com/go/ex-docs>

Guidance how to find the documents on the Cisco web site are included in the

► [User documentation on the Cisco web site](#) appendix.

Software

You can download the software for your product from the Cisco web site. Go to:

► <http://www.cisco.com/cisco/software/navigator.html>

We recommend reading the Software Release Notes (TC7), go to:

► <http://www.cisco.com/c/en/us/support/collaboration-endpoints/telepresence-system-ex-series/tsd-products-support-series-home.html>

What's new in this version

This section provides an overview of the new and changed system settings and new features in the TC7.3 software version.

Software release notes

For a complete overview of new features and changes, we recommend reading the Software Release Notes (TC7). Go to:

► <http://www.cisco.com/c/en/us/support/collaboration-endpoints/telepresence-system-ex-series/tsd-products-support-series-home.html>

Software download

For software download go to:

► <http://www.cisco.com/cisco/software/navigator.html>

New features and improvements

Local preview of presentation in a call

This allows the user to preview the presentation locally before sharing it with far end. The feature has previously been available for EX systems, and is now available across the portfolio.

TC7.3.0-TC7.3.2: Users are notified when snapshots are taken

Both the on screen display and web interface have warnings when the snapshots feature is enabled. A notification pops up on the on screen display, when a snapshot is taken. On the web interface the administrator is warned that this notice will show up when the feature is enabled.

The system also logs when snapshots are taken, and which IP address the request was initiated from.

It is possible to allow and disallow snapshots remotely, but not to observe the room without the users being notified.

TC7.3.3 and later: Remote Monitoring option key

Due to security reasons, taking snapshots of local and far end video streams from the call control page on the system's web interface now requires an option key to be installed on the endpoint.

The remote monitoring option key can only be added to systems that are upgraded to TC7.3.3 and above. Remote monitoring is enabled once the option key is added, and the system rebooted. Once this feature is enabled, the only way to disable it is to remove the option key.

This feature does not display warning messages or indicators on the local system that someone is monitoring the room. Please provide adequate notice to users of the system that the system administrator may monitor and control the camera and screen.

System configuration changes

New configurations

Cameras Camera [1] Flip

Cameras Preset TriggerAutofocus

H323 Profile [1..1] Encryption KeySize

NetworkServices CDP Mode

Configurations that are removed

H323 Profile [1..1] Encryption MinKeySize

Video AllowWebSnapshots (*TC7.3.3*)

Configurations that are modified

FacilityService Service [1..5] Name

OLD: <S: 0, 255>

NEW: <S: 0, 1024>

FacilityService Service [1..5] Number

OLD: <S: 0, 255>

NEW: <S: 0, 1024>

Video AllowWebSnapshots (*removed in TC7.3.3*)

OLD: <Off/On>, default Off

NEW: <Off/On/LocalDeviceOnly>, default LocalDeviceOnly

EX90 system overview

The system is delivered with:

- EX90 unit
- Touch controller with cable
- Handset with cable
- DVI-D to DVI-I cable (recommended for optimal PC image quality)
- VGA to DVI-I cable
- Stereo audio cable 3.5 mm
- Ethernet cable
- AC adapter and power cable

The camera can be tilted and used as a document camera.



EX90, rear view
(without rear cover)

Detach the rear side cover when connecting cables.

When finished, snap on the rear cover.



A handset can be attached to the Touch controller.

EX60 system overview

The system is delivered with:

- EX60 unit
- Touch controller with cable
- Handset with cable
- DVI-D to DVI-I cable (recommended for optimal PC image quality)
- VGA to DVI-I cable
- Stereo audio cable 3.5 mm
- Ethernet cable
- AC adapter and power cable

The camera can be tilted and used as a document camera.



Detach the rear side cover when connecting cables.

When finished, snap on the rear cover.



A handset can be attached to the Touch controller.

How to use the Touch controller

The principal operating device for your Cisco TelePresence EX90 or EX60 system is a Touch controller.

The basic function of the Touch controller is illustrated below.

The Touch controller and its use are described in full detail in the User Guide for your video system.

Basic operating principles



Tap the touch screen to wake up the system, if needed.



Tap a button to activate its function.



Scroll in lists as shown.



CHAPTER 2

USING THE WEB INTERFACE

The Cisco TelePresence System EX90/EX60 can be configured using the Touch controller or the web interface.

For full access to the system settings, the web interface must be used – the Touch controller provides access to a limited set of parameters only.

The Touch controller and its use are described in the EX90 and EX60 User Guides; the web interface is described in this guide.



Accessing the web interface

The web interface provides full configuration access to your video conference system.

You can connect from a computer and administer the system remotely.

In this chapter you will find information how to use the web interface for system configuration and maintenance.

We recommend that you use the latest release of one of the major web browsers.

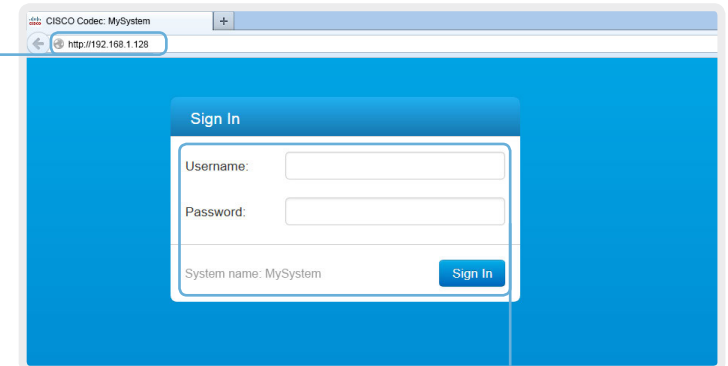
1. Connect to the video system

Open a web browser and enter the IP address of the video system in the address bar.



How to find the IP address

Touch controller: Tap the contact information in the upper left corner of the Touch controller and open the [Settings](#) menu. Then tap [System Information](#).



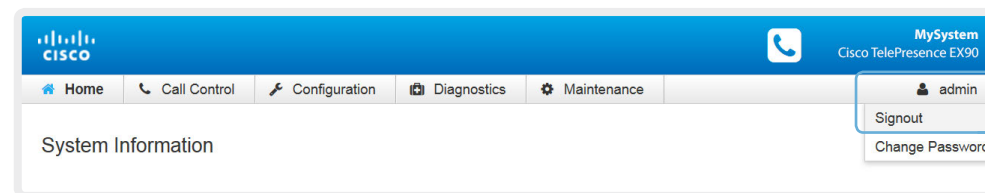
2. Sign in

Enter the user name and password for your video system and click [Sign In](#).



The system is delivered with a default user named *admin* with no password. Leave the [Password](#) field blank when signing in for the first time.

It is mandatory to set a password for the *admin* user, see the next page.



Signing out

Hover the mouse over the user name and choose [Sign out](#) from the drop-down list.

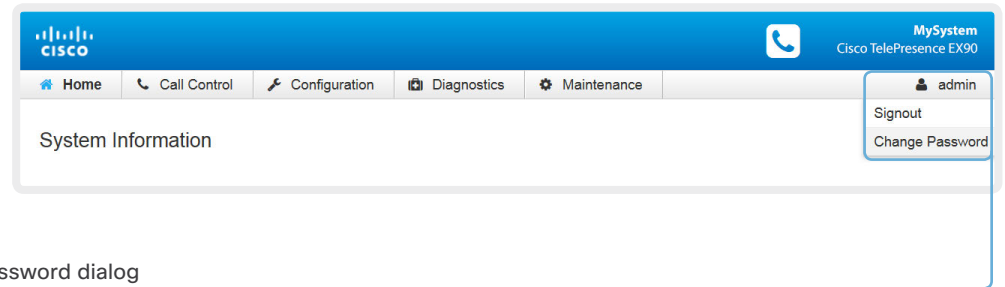
Changing the system password



It is mandatory to set a password for a user with ADMIN rights in order to restrict access to system configuration. This includes the default *admin* user.

A warning, saying that the system password is not set, is shown on screen until you set a password.

You can read more about passwords in the [Setting passwords](#) chapter.



1. Open the Change Password dialog

Hover the mouse over your the name, and choose [Change password](#) in the drop-down list.

Change Password: admin

Current password

New password

Repeat new password

Change password

Cancel

2. Set the new password

Enter your current and new passwords as requested, and click [Change password](#) for the change to take effect.



If the password currently is not set, leave the [Current password](#) field blank.

The interactive menu

The web interface provides access to tasks and configurations. They are available from the main menu, which appears near the top of the page when you have signed in.

When you hover the mouse over an item in the main menu, you can navigate to its related sub-pages.

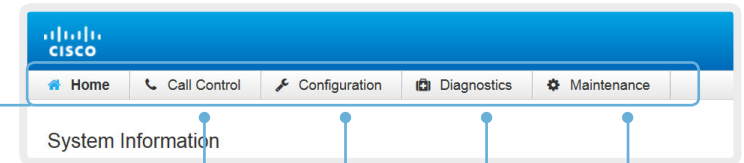
Main menu

Hover the mouse over a main menu item in order to see the titles of the related sub-pages.

Click a sub-page's title to open it. Click the main menu item itself if there are no sub-pages. Only pages that the user has access rights for are shown*.

Click [Home](#) to return to the System Information page.

Sub-pages



Call Control

Configuration
System Configuration
System Status
Local Contacts Management
Personalization
Peripherals
User Administration
Sign In Banner
Startup Scripts
API
Security

Diagnostics
Troubleshooting
Call History
Log Files
User Interface Screenshots

Maintenance
Software Upgrade
Option Keys
Backup and Restore
System Recovery
Restart

* You can read more about user administration, user roles and access rights in the [User administration](#) section.

System information

The video system's Home page shows an overview of the basic set-up and status of the system*.

This includes information like system name and product type, which software version the system runs, its IP address, etc. Also the registration status for the video networks (SIP and H.323) is included, as well as the number/URI to use when making a call to the system.

Navigate to: Home

System Information

General

Product:	Cisco TelePresence EX90
Last boot:	Last Wednesday at 21:43
Serial number:	ABCD12345678
Software version:	TC7.3.0
Installed options:	PremiumResolution
System name:	MySystem
IPv4:	192.168.1.128
IPv6:	2001:DB8:1001:2002:3003:4004:5005:F00F
MAC address:	01:23:45:67:89:AB
Temperature:	58.5°C / 137.3°F

H323

Status:	Registered
Gatekeeper:	192.168.1.1
Number:	123456
ID:	firstname.lastname@company.com

SIP Proxy 1

Status:	Registered
Proxy:	192.168.1.2
URI:	firstname.lastname@company.com

* The system information shown in the illustration serve as an example. Your system may be different.

About snapshots and remote monitoring (TC7.3.3 and later)

Snapshots of local input sources

If the *Remote Monitoring option key* is installed on the video system, snapshots of the video system's input sources are displayed on the Call Control page.

Snapshots are displayed both when the video system is idle, and when in a call.

This feature may be used when administering the video system from a remote location, for example to check the camera view and control the camera.

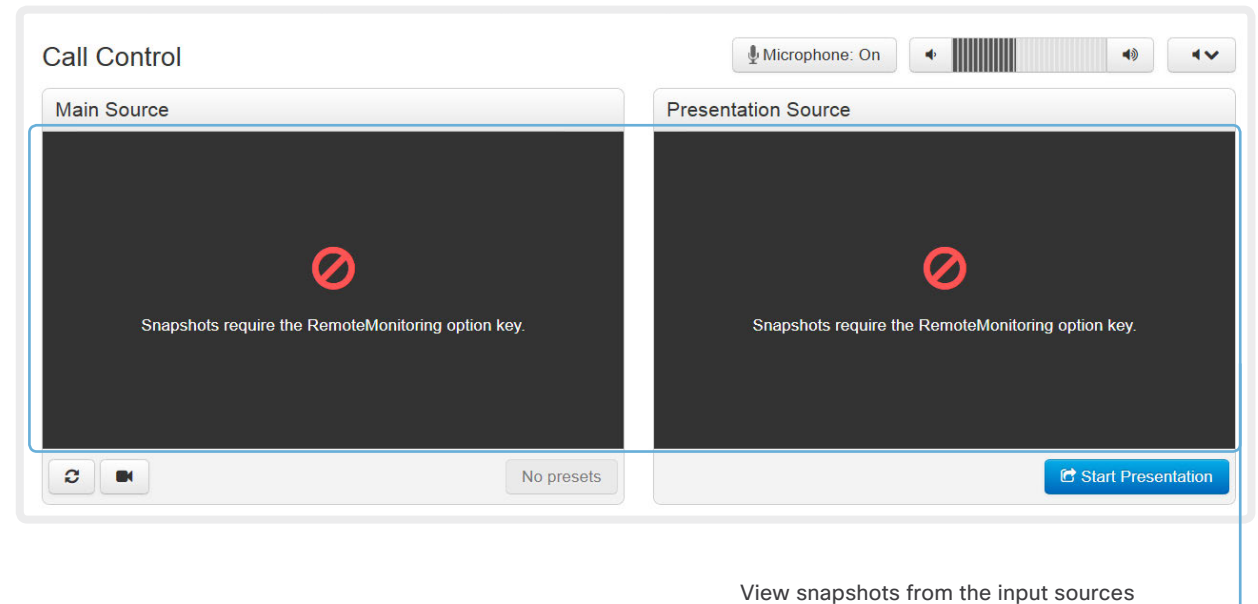
Far end snapshots

If the *Remote Monitoring option key* is installed on the video system, far end snapshots may also be captured. Whether or not the Remote Monitoring option key is installed on the far end video system, does not make any difference.

Far end snapshots are prohibited during encrypted calls.

PLEASE BE AWARE THAT IF YOU ENABLE THE REMOTE MONITORING OPTION YOU MUST MAKE SURE THAT YOU COMPLY WITH LOCAL LAWS AND REGULATIONS WITH REGARD TO PRIVACY AND PROVIDE ADEQUATE NOTICE TO USERS OF THE SYSTEM THAT THE SYSTEM ADMINISTRATOR MAY MONITOR AND CONTROL THE CAMERA AND SCREEN. IT IS YOUR RESPONSIBILITY TO COMPLY WITH PRIVACY REGULATIONS WHEN USING THE SYSTEM AND CISCO DISCLAIMS ALL LIABILITY FOR ANY UNLAWFUL USE OF THIS FEATURE.

Navigate to: Call Control



View snapshots from the input sources

Install the Remote Monitoring option key in order to view snapshots from the selected main source or presentation source in this area.

About snapshots and remote monitoring (TC7.3.0 to TC7.3.2)

Snapshots of local input sources

If the *snapshot feature* is enabled on the video system, snapshots of the video system's input sources are displayed on the Call Control page.

Snapshots are displayed both when the video system is idle, and when in a call.

This feature may be used when administering the video system from a remote location, for example to check the camera view and control the camera.



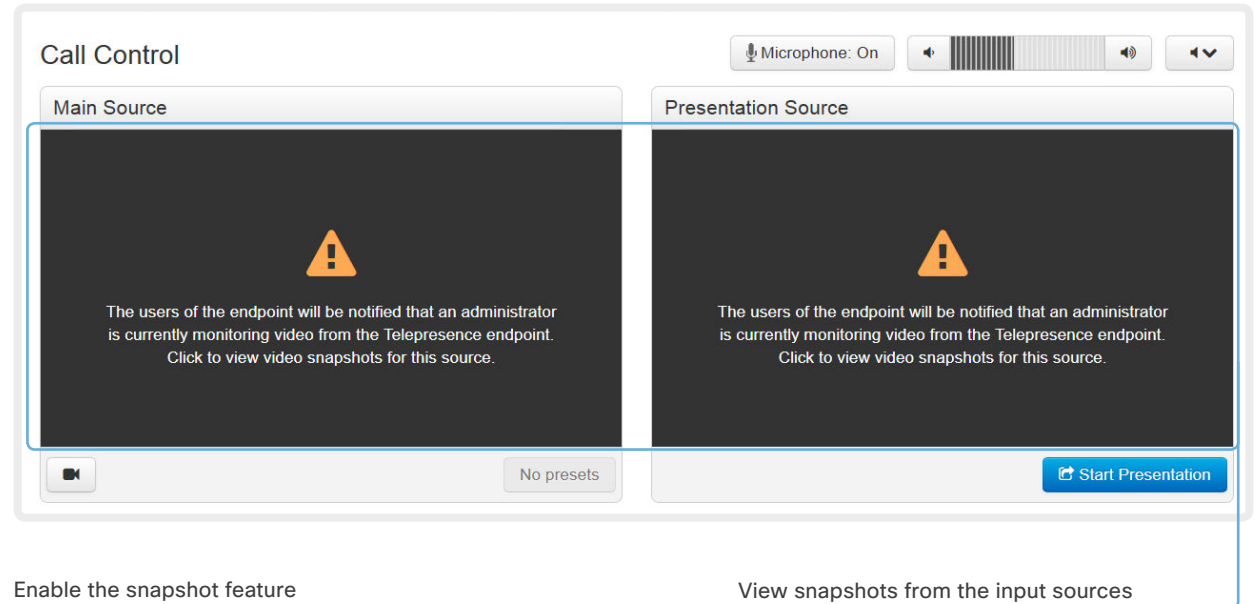
The users of the video system are notified when the snapshot feature is in use. A notification saying that the administrator is visually monitoring the room is displayed on the main display of the video system.

Far end snapshots

If the *snapshot feature* is enabled on the video system, far end snapshots may also be captured. Whether or not the snapshot feature is enabled on the far end video system, does not make any difference.

Far end snapshots are prohibited during encrypted calls.

Navigate to: Call Control



Enable the snapshot feature

By default, the snapshot feature is disabled.

Enable the feature using the web interface.

- Go to the [Configuration](#) tab and select [System Configuration](#)
- Navigate to [Video > AllowWebSnapshots](#) and choose **On**.
- Click [Save](#) for the change to take effect.

View snapshots from the input sources

Click in this area to view snapshots from the selected main source or presentation source.

Snapshots of the main or presentation source are displayed for approximately 10 seconds.

Placing a call

You can use the Call Control page to place a call.



It is the video system (display, microphones and loudspeakers) that is used for the call; it is not the PC running the web interface.

Calling

You can call someone either by choosing a contact name in the *Local*, *Directory* or *Recents* lists, or by typing a complete URI or number in the *Search or Dial* field. Then click [Call](#) in the associated contact card.

Searching the contact lists

Enter one or more characters in the *Search or Dial* field. Matching entries from the *Local*, *Directory* and *Recents* lists will be listed as you type.

Select the correct entry in the list and click [Call](#).

Calling more than one

A point-to-point video call (a call involving two parties only) can be expanded to include one more participant on audio-only.

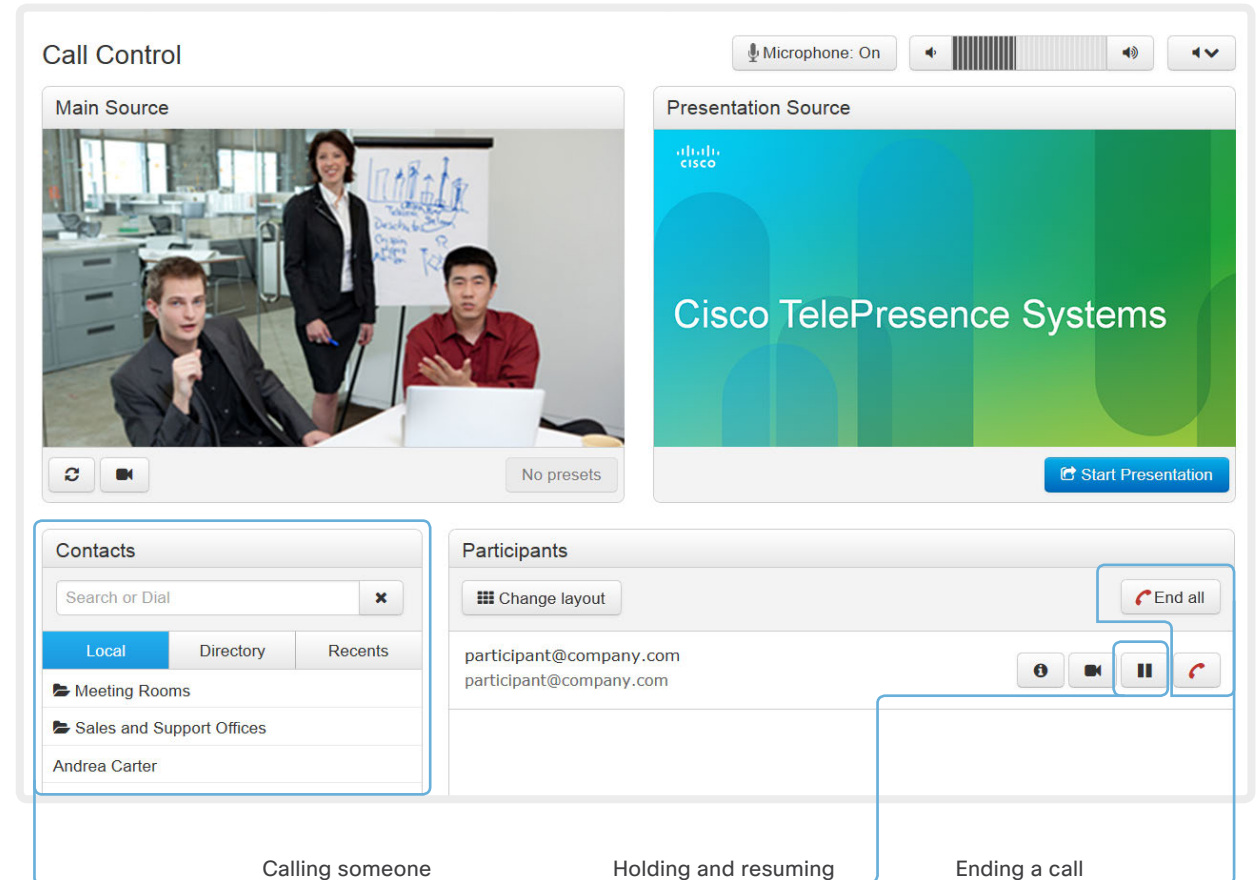
If your system is using the optional built-in MultiSite feature (not available for EX60), up to four participants, yourself included, can join the video call (conference). In addition, one more participant can join on audio-only.

Follow the same procedure to call the next conference participant as you did when calling the first participant.

Calling more than one using a conference bridge (CUCM ad hoc conferencing or MultiWay) is not supported from the web interface, even if it is supported by the video system itself.

Whether or not snapshots of input sources are shown as illustrated, depends on the software version, configuration, and options installed on the video system. Refer to the *About snapshots and remote monitoring* sections (► [TC7.3.3](#) or [newer](#) or ► [TC7.3.0](#) to [TC7.3.2](#)).

Navigate to: Call Control





Calling someone

Click a contact name, either in the *Local*, *Directory* or *Recents* lists. Then click [Call](#) in the contact card.

Alternatively, enter the complete URI or number in the *Search and Dial* field. Then click the [Call](#) button that appears next to the URI or number.


Holding and resuming

Use the  button next to the participant's name to put him on hold.

To resume the call, use the  button that is present when a participant is on hold.

Ending a call

If you want to terminate a call or conference, click [End all](#). Confirm your choice in the dialog that appears.

To disconnect just one participant in a conference, click the  button for that participant.

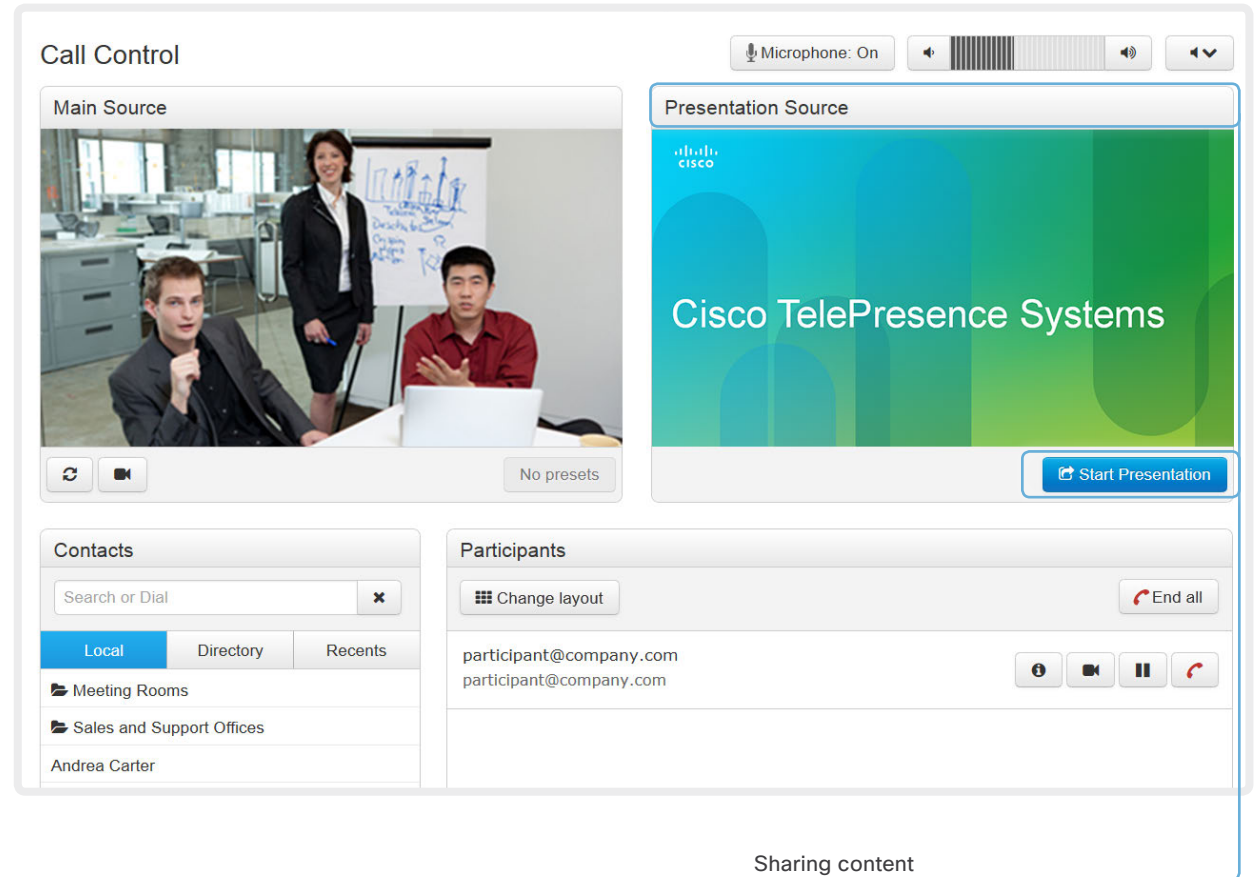
Sharing content

You can connect a presentation source to one of the external inputs of your video system. Most often a PC is used as presentation source, but other options may be available depending on your system setup.

While in a call you can share content with the other participant(s) in the call (far end).

If you are not in a call, the content is shared locally on your display.

Navigate to: Call Control



Sharing content

Click [Start Presentation](#).

Stop content sharing:

Click the [Stop Presentation](#) button that is present while sharing.

Whether or not snapshots of input sources are shown as illustrated, depends on the software version, configuration, and options installed on the video system. Refer to the *About snapshots and remote monitoring* sections (► [TC7.3.3 or newer](#) or ► [TC7.3.0 to TC7.3.2](#)).

Controlling and monitoring a call

You can control and monitor several call features using the Call Control page.

Navigate to: Call Control

Microphone mute

Click the button to mute the microphone. Then the text changes to *Microphone: Off*.

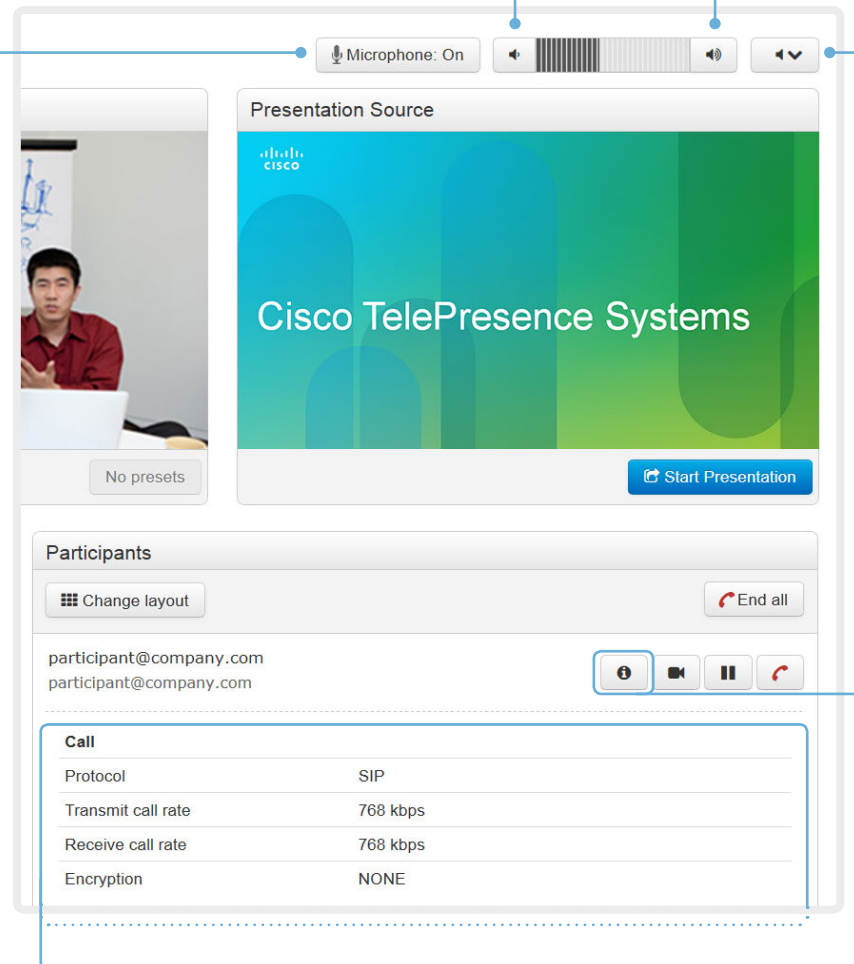
Click again to unmute.

Volume down

Volume up

Audio output selector

Choose between speaker, handset and headset.



Presentation Source

Cisco TelePresence Systems

Participants

Change layout End all

participant@company.com
participant@company.com

Call	
Protocol	SIP
Transmit call rate	768 kbps
Receive call rate	768 kbps
Encryption	NONE

Show/hide call details

Click the information button to show details about the call.

Click the button again to hide the information.

Call details

If necessary, scroll your browser to see all call details.

Whether or not snapshots of input sources are shown as illustrated, depends on the software version, configuration, and options installed on the video system. Refer to the *About snapshots and remote monitoring* sections (► [TC7.3.3 or newer](#) or ► [TC7.3.0 to TC7.3.2](#)).

Controlling your camera

For software version TC7.3.3 and later:

You can control the camera of the video system (zoom) from the Call Control page (only for EX90). Only available camera controls will appear.

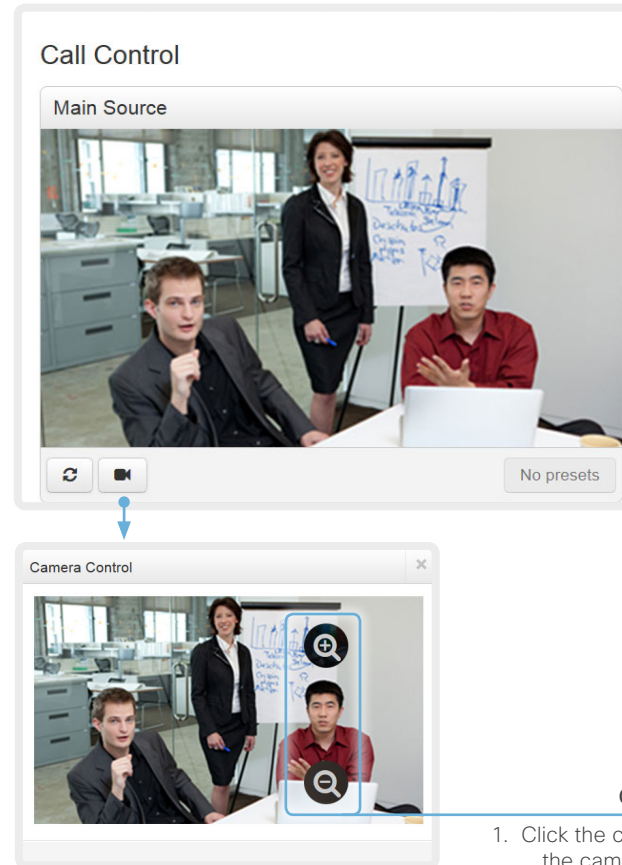
For software version TC7.3.0 to TC7.3.2:

You can control the camera of the video system (zoom) from the Call Control page (only for EX90) provided that the [Video AllowWebSnapshots](#) setting is switched **On**. Only available camera controls will appear.



If snapshots from the camera are shown on the web interface, a notification will be sent to the users of the video system (shown on the main display) that an administrator is monitoring their video.

Navigate to: Call Control



Control the camera

1. Click the camera icon to open the camera control window.
2. Use + and - to zoom in and out.

For software versions TC7.3.0 to TC7.3.2, the cursor must be in the image to show the controls.

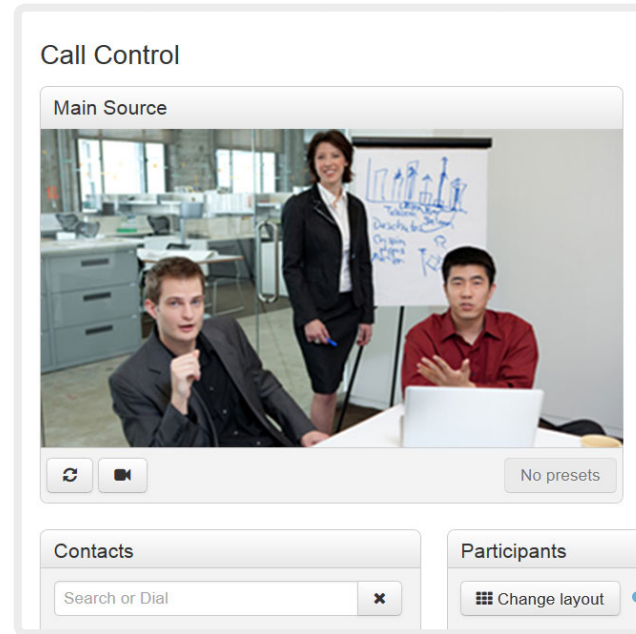
Whether or not snapshots of input sources are shown as illustrated, depends on the software version, configuration, and options installed on the video system. Refer to the *About snapshots and remote monitoring* sections (► [TC7.3.3 or newer](#) or ► [TC7.3.0 to TC7.3.2](#)).

Local layout control

You can choose a local layout using the Call Control page.

The term layout is used to describe the various ways the videos from the conference participants and a presentation can appear on the screen. Different types of meetings may require different layouts.

Navigate to: Call Control

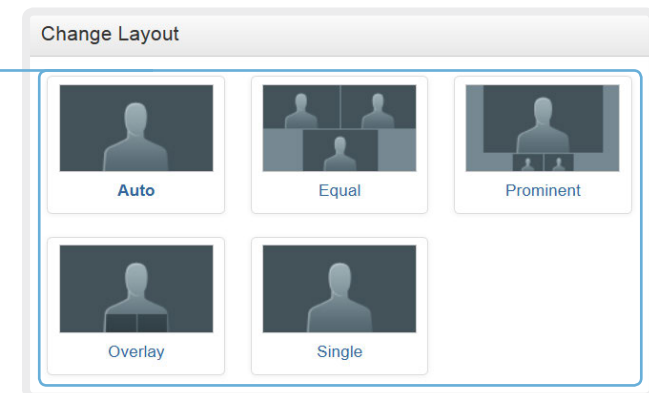


Change the layout

Click [Change layout](#), and choose your preferred layout in the window that opens.

The set of layouts to choose from depends on the system configurations.

You may change the layout while in a call.



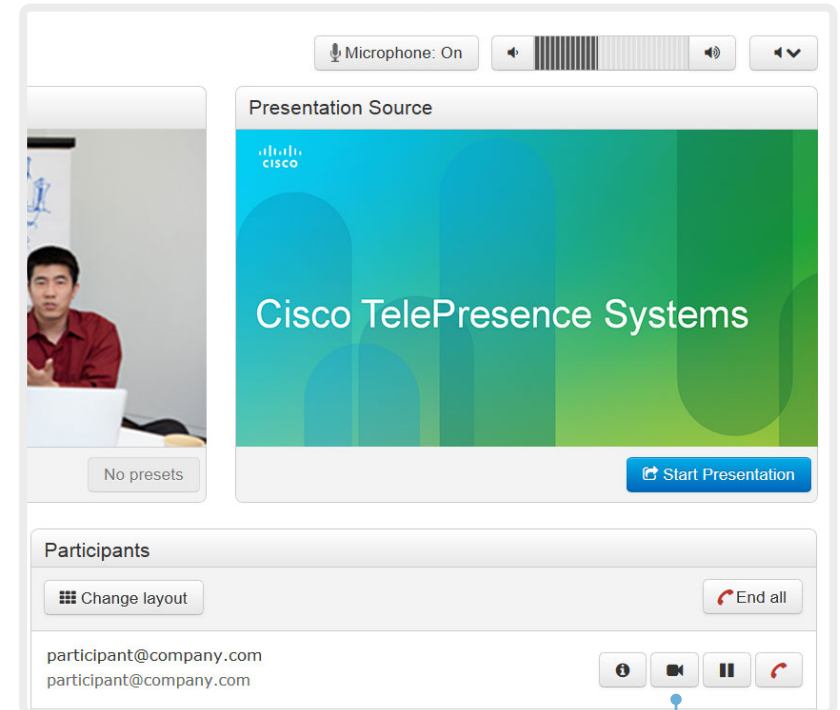
Whether or not snapshots of input sources are shown as illustrated, depends on the software version, configuration, and options installed on the video system. Refer to the *About snapshots and remote monitoring* sections ([▶ TC7.3.3 or newer](#) or [▶ TC7.3.0 to TC7.3.2](#)).

Controlling the far end camera

While in a call, you can control the remote participant's camera (far end) provided that:

- The Remote Monitoring option is installed on your video system (software version TC7.3.3 and later).
- The [Video AllowWebSnapshots](#) setting is switched **On** (software versions TC7.3.0 to TC7.3.2).
- Far end camera control (FECC) is enabled on the far end system. Only the available controls will appear.

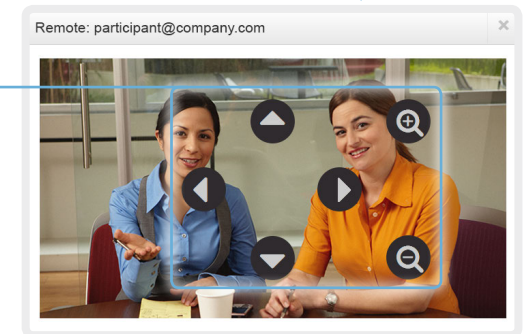
Navigate to: Call Control



Control the remote participant's camera

1. Click the camera icon to open the remote camera control window.
2. Use the left and right arrows to pan the camera; the up and down arrows to tilt it; and + and - to zoom in and out.

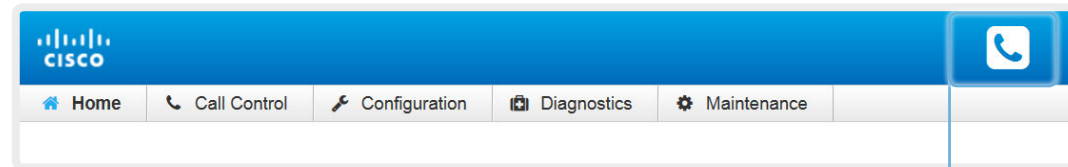
For software versions TC7.3.0 to TC7.3.2, the cursor must be in the image to show the controls.



Whether or not snapshots of input sources are shown as illustrated, depends on the software version, configuration, and options installed on the video system. Refer to the [About snapshots and remote monitoring](#) sections ([▶ TC7.3.3 or newer](#) or [▶ TC7.3.0 to TC7.3.2](#)).

Accessing call information

A call state indicator is available in the top bar in the web interface. It shows whether the system is in a call or not, and how many calls it is engaged in. You may also be notified about incoming calls.

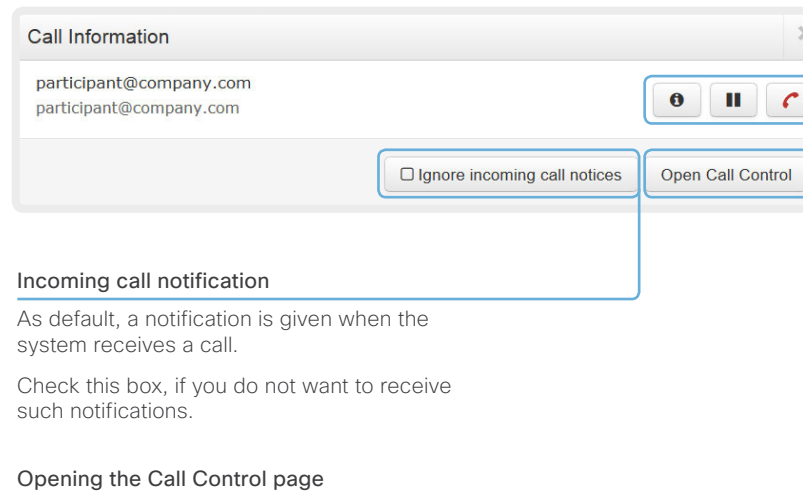


Call state indicator

The call state indicator is available on all pages except the [Call Control](#) page.

The badge indicates the number of active calls. If the system is idle, there is no badge.

Click the indicator to get more details about connected calls.



Incoming call notification

As default, a notification is given when the system receives a call.

Check this box, if you do not want to receive such notifications.

Opening the Call Control page

Click [Open Call Control](#) to go straight to the [Call Control](#) page.

Call control

Use these buttons to:

- Show call details
- Put the call on hold
- Disconnect the call

System configuration

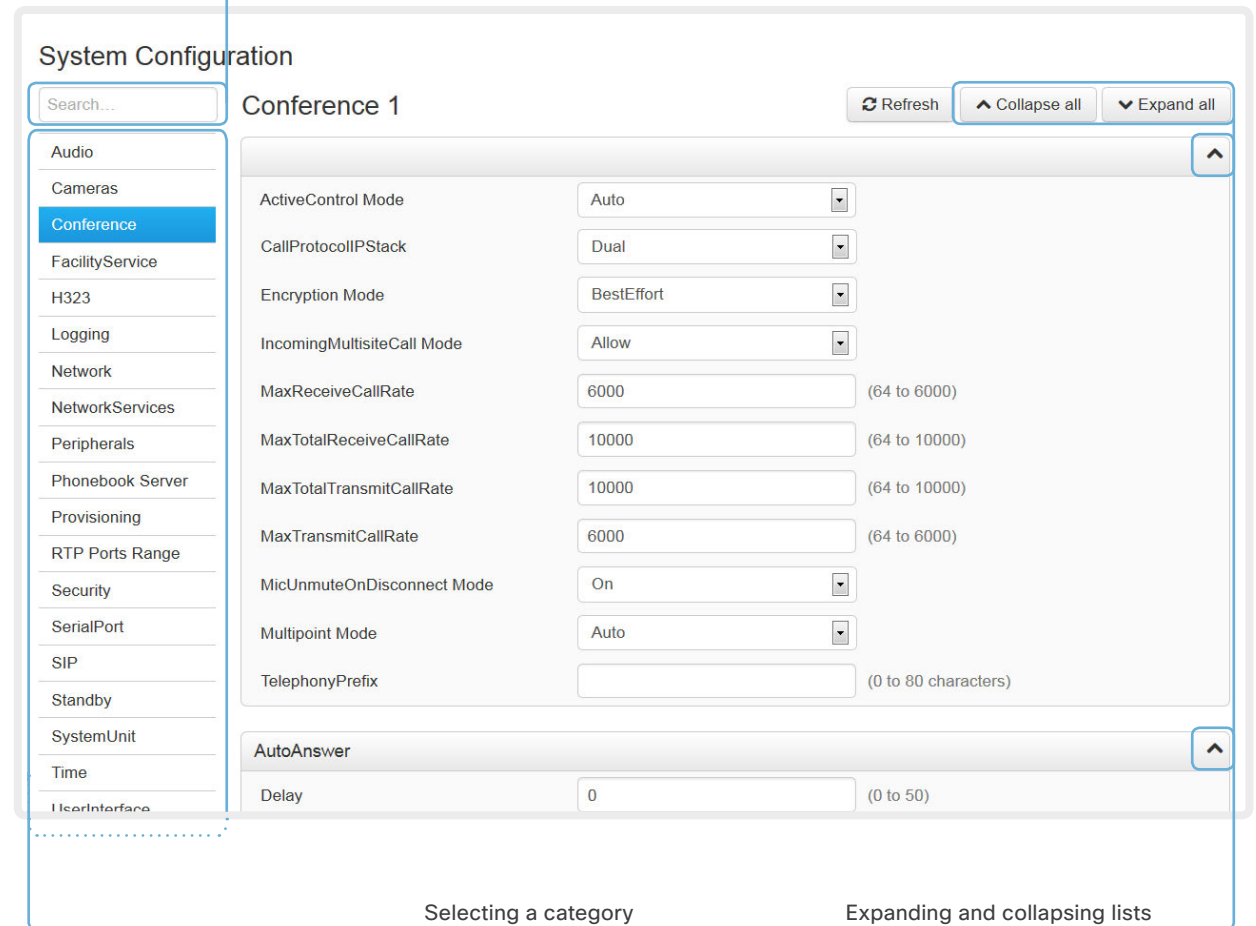
The system settings are grouped in several categories. When you choose a category in the left pane all related settings appear to the right*.

Each system setting is further described in the [System settings](#) chapter.

Navigate to: Configuration > System Configuration

Searching for settings

Enter as many letters as needed in the search field.
All settings (including the value space) containing these letters will be highlighted.



System Configuration

Search...

Conference 1

Refresh Collapse all Expand all

ActiveControl Mode Auto

CallProtocolIPStack Dual

Encryption Mode BestEffort

IncomingMultisiteCall Mode Allow

MaxReceiveCallRate 6000 (64 to 6000)

MaxTotalReceiveCallRate 10000 (64 to 10000)

MaxTotalTransmitCallRate 10000 (64 to 10000)

MaxTransmitCallRate 6000 (64 to 6000)

MicUnmuteOnDisconnect Mode On

Multipoint Mode Auto

TelephonyPrefix (0 to 80 characters)

AutoAnswer

Delay 0 (0 to 50)

Selecting a category

Expanding and collapsing lists

* The configuration shown in the illustration serve as an example.
Your system may be configured differently.

The system settings are structured in categories.
Choose a category in order to display the related settings.

Use these buttons to expand and collapse all or individual lists.

Changing system settings

All system settings can be changed from the System Configuration page*. The value space for a setting is specified either in a drop-down list or by text following the input field.

Different settings may require different user credentials. In order to be sure that an administrator is able to change all system settings, an administrator user must possess all user roles.

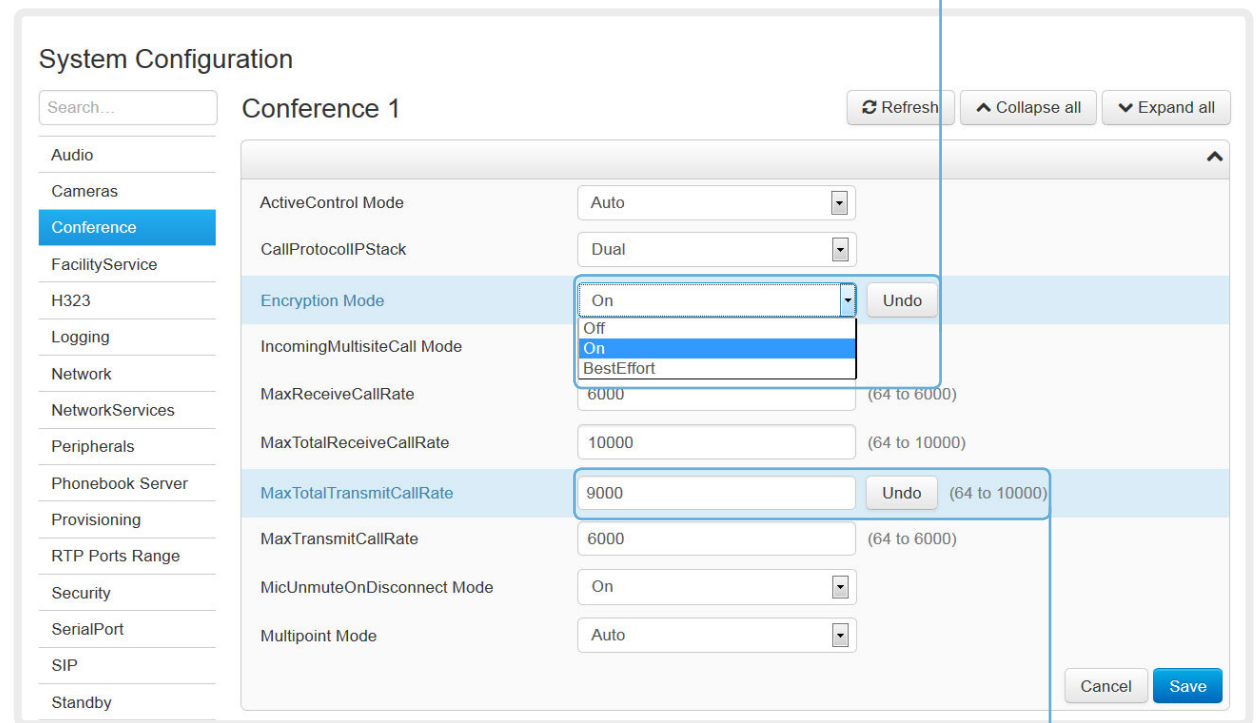
You can read more about user administration and user roles in the ► [User administration](#) chapter.

Navigate to: Configuration > System Configuration

Drop-down list

Click the arrow to open the drop-down list, and choose the preferred value.

Click [Save](#) for the change to take effect.



System Configuration

Search...

Conference 1

Refresh Collapse all Expand all

Audio

Cameras

Conference

FacilityService

H323

Logging

Network

NetworkServices

Peripherals

Phonebook Server

Provisioning

RTP Ports Range

Security

SerialPort

SIP

Standby

ActiveControl Mode Auto

CallProtocolIPStack Dual

Encryption Mode On Off On BestEffort Undo

IncomingMultisiteCall Mode

MaxReceiveCallRate 6000 (64 to 6000)

MaxTotalReceiveCallRate 10000 (64 to 10000)

MaxTotalTransmitCallRate 9000 Undo (64 to 10000)

MaxTransmitCallRate 6000 (64 to 6000)

MicUnmuteOnDisconnect Mode On

Multipoint Mode Auto

Cancel Save

Text input field

Enter new text in the input field.

Click [Save](#) for the change to take effect.

* The configuration shown in the illustration serve as an example. Your system may be configured differently.

System status

The system status is grouped in several categories. When you choose a category in the left column, the related status appears in the window to the right*.

Navigate to: Configuration > System Status

System Status

- Audio
- Camera
- Conference**
- H320 Gateway
- H323
- HttpFeedback
- ICE
- Logging

Conference

DoNotDisturb Inactive

Multipoint Mode Off

SelectedCallProtocol SIP

ActiveSpeaker

Manual Siteld 0

Searching for status entries

Enter as many letters as needed in the search field. All entries (including the value space) containing these letters will be highlighted.

Selecting a category

The system status is structured in categories. Choose a category in order to display the related status information.

Expanding and collapsing lists

Use these buttons to expand and collapse all or individual lists.

* The status shown in the illustration serve as an example. The status of your system may be different.

Managing the favorites list

The entries in the favorites list can be accessed from the Touch controller and the Web interface.

Navigate to: Configuration > Local Contacts Management

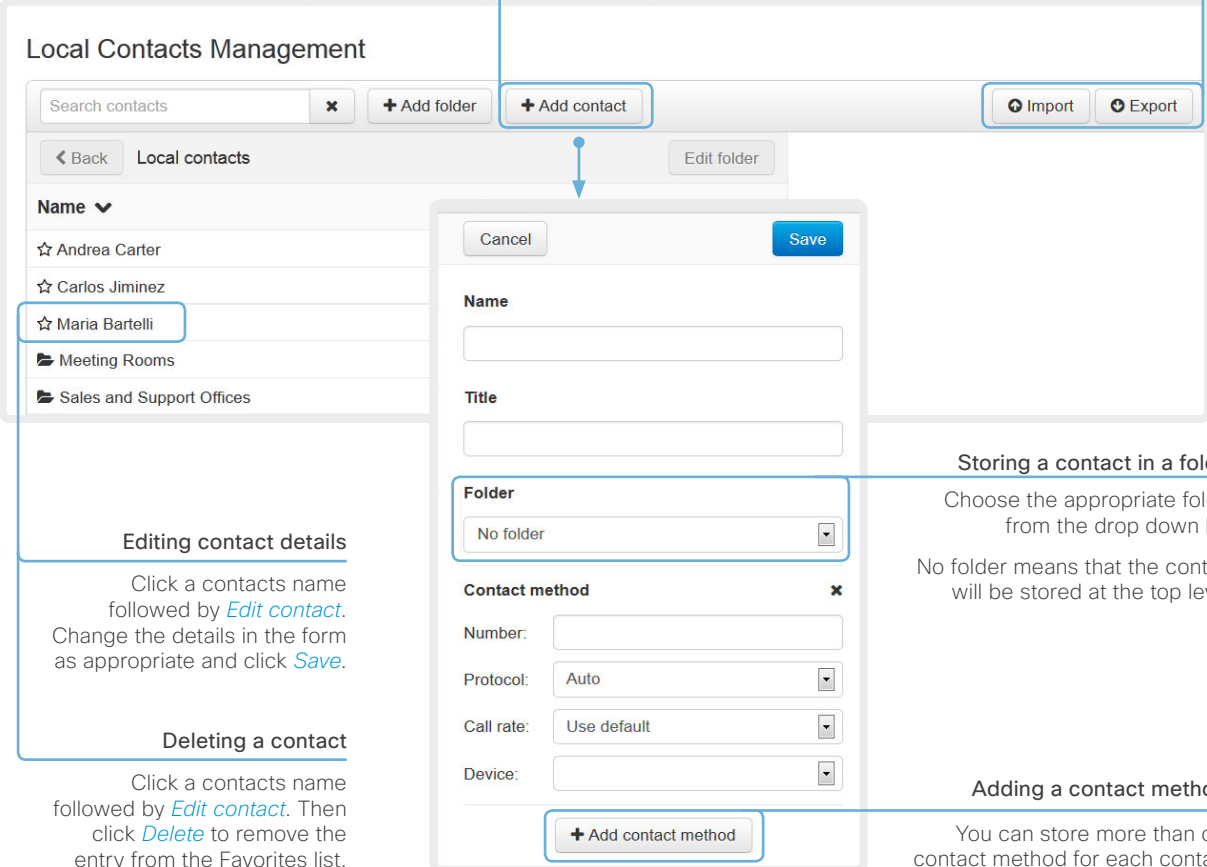
Adding a contact

Click [Add contact](#) and fill in the form that pops up. Then click [Save](#) to store the contact in the Favorites list.

Import/Export contacts from file

Click [Export](#) to save the Local contacts in a file; and click [Import](#) to bring in contacts from a file.

Note that all current contacts will be discarded when importing new contacts from a file.



The screenshot shows the 'Local Contacts Management' web interface. At the top, there is a search bar and buttons for '+ Add folder', '+ Add contact', 'Import', and 'Export'. Below this is a list of contacts under the heading 'Local contacts'. The list includes 'Andrea Carter', 'Carlos Jimenez', 'Maria Bartelli' (highlighted with a blue box), 'Meeting Rooms', and 'Sales and Support Offices'. A modal form is open for adding a new contact. It has fields for 'Name', 'Title', 'Folder' (a dropdown menu currently showing 'No folder'), 'Contact method' (a dropdown menu with a close button), 'Number', 'Protocol' (set to 'Auto'), 'Call rate' (set to 'Use default'), and 'Device'. There are 'Cancel' and 'Save' buttons at the top of the modal. A blue arrow points from the '+ Add contact' button to the modal. A blue box highlights the 'Folder' dropdown in the modal, with a line pointing to the 'Storing a contact in a folder' text block. Another blue box highlights the '+ Add contact method' button at the bottom of the modal, with a line pointing to the 'Adding a contact method*' text block.

Editing contact details

Click a contacts name followed by [Edit contact](#). Change the details in the form as appropriate and click [Save](#).

Deleting a contact

Click a contacts name followed by [Edit contact](#). Then click [Delete](#) to remove the entry from the Favorites list.

Storing a contact in a folder

Choose the appropriate folder from the drop down list. No folder means that the contact will be stored at the top level.

Adding a contact method*

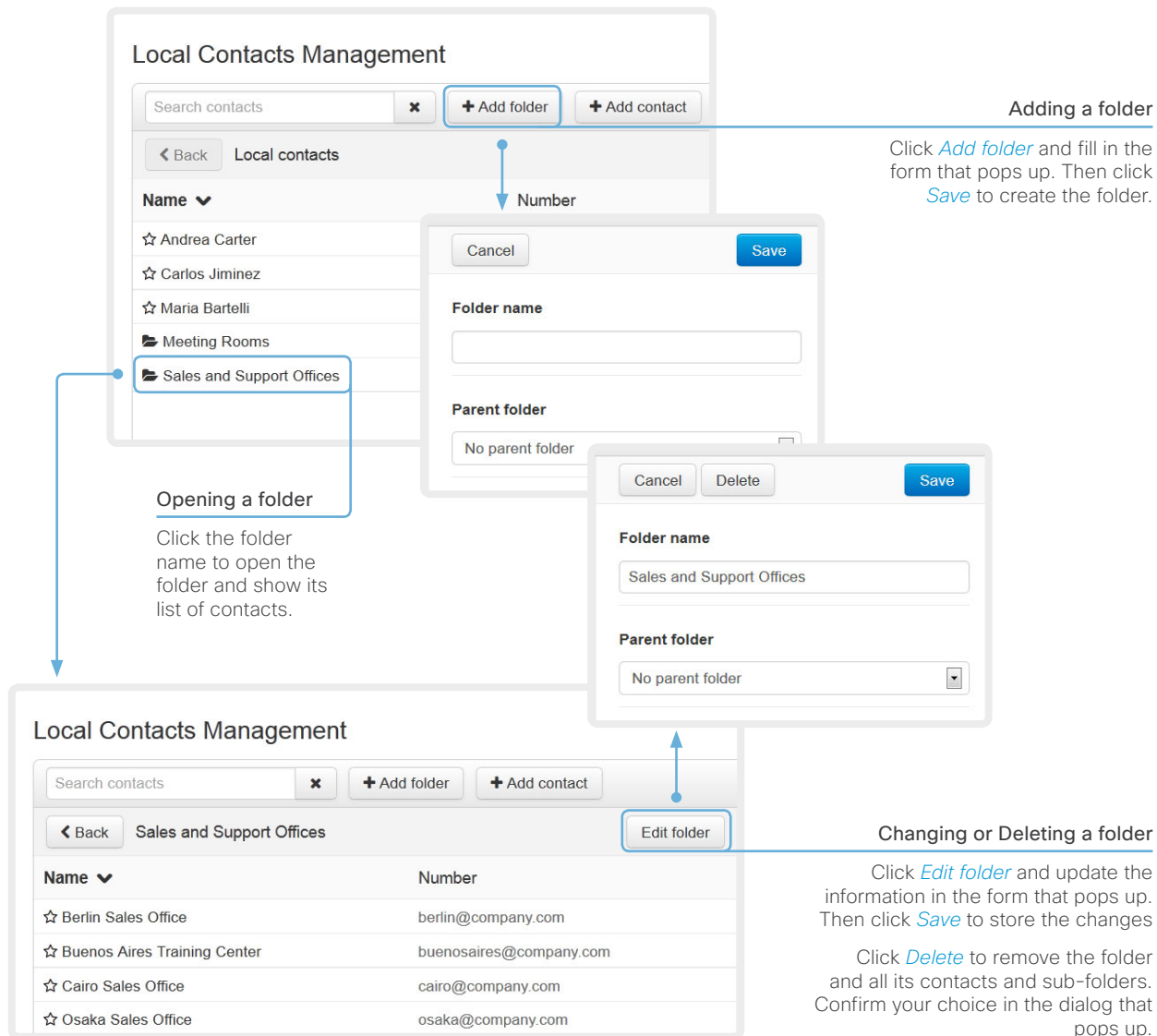
You can store more than one contact method for each contact, e.g. video, telephone and mobile.

* Note that only the first contact method appears in the Favorites list on the Touch controller.

Favorite list folders

The entries in the Favorites list can be organized in folders.

Navigate to: Configuration > Local Contacts Management



Adding a folder

Click [Add folder](#) and fill in the form that pops up. Then click [Save](#) to create the folder.

Opening a folder

Click the folder name to open the folder and show its list of contacts.

Changing or Deleting a folder

Click [Edit folder](#) and update the information in the form that pops up. Then click [Save](#) to store the changes.

Click [Delete](#) to remove the folder and all its contacts and sub-folders. Confirm your choice in the dialog that pops up.

Local Contacts Management

Search contacts [x] + Add folder + Add contact

< Back Local contacts

Name ▼

- ☆ Andrea Carter
- ☆ Carlos Jiminez
- ☆ Maria Bartelli
- Meeting Rooms
- Sales and Support Offices

Folder name

Parent folder

No parent folder

Local Contacts Management

Search contacts [x] + Add folder + Add contact

< Back Sales and Support Offices Edit folder

Name ▼

Name	Number
☆ Berlin Sales Office	berlin@company.com
☆ Buenos Aires Training Center	buenosaires@company.com
☆ Cairo Sales Office	cairo@company.com
☆ Osaka Sales Office	osaka@company.com

Choosing a wallpaper

Your video system has a set of predefined wallpapers. The wallpapers may be used as background on the display.

If you want the company logo or another custom picture as background on the video display, you may upload and use a *custom wallpaper*.

Navigate to: Configuration > Personalization

Activate/deactivate a wallpaper


Available wallpapers are represented by a miniature. If you have uploaded a custom wallpaper, it will appear in the list.

Click the miniature to switch to the corresponding wallpaper. Choose *None* if you do not want a wallpaper.


The chosen option is highlighted.

Personalization


Select active wallpaper




None



Wallpaper01



Wallpaper02



Custom

Upload custom wallpaper

Only BMP, GIF, JPEG and PNG files smaller than 4MB are supported. Custom wallpapers do not apply to touch panels.

No file selected

Browse...

Upload

Upload a custom wallpaper

Click *Browse...* and locate your custom wallpaper image file.

Click *Upload* to save the file on the video system.

Supported file formats: BMP, GIF, JPEG, PNG
Maximum file size: 4 MByte

The custom wallpaper will be automatically activated once uploaded.

Delete the custom wallpaper

Click the delete symbol to remove the custom wallpaper from the video system. Note that this will remove the image file completely; you have to upload it anew if you want to use it again.

You cannot delete a predefined wallpaper.

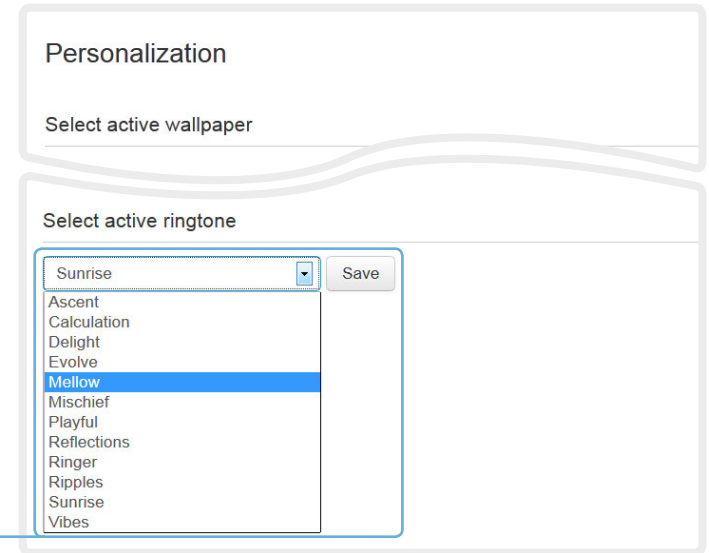
Choosing a ringtone

You can choose from a set of predefined ringtones. The chosen ringtone can be played back from this page.



The ringtone will be played back on the video system itself, and not through the web interface.

Navigate to: Configuration > Personalization



Personalization

Select active wallpaper

Select active ringtone

Sunrise

Ascent

Calculation

Delight

Evolve

Mellow

Mischief

Playful

Reflections

Ringer

Ripples

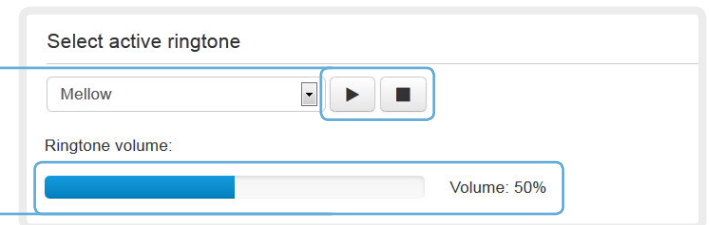
Sunrise

Vibes

Save

Changing ringtone

Choose a ringtone from the drop-down list, and click [Save](#) to make it the active ringtone.



Select active ringtone

Mellow

Ringtone volume:

Volume: 50%

Playing back the ringtone

Click the play button (▶) to play back the ringtone.

Use the stop button (■) to end the playback.

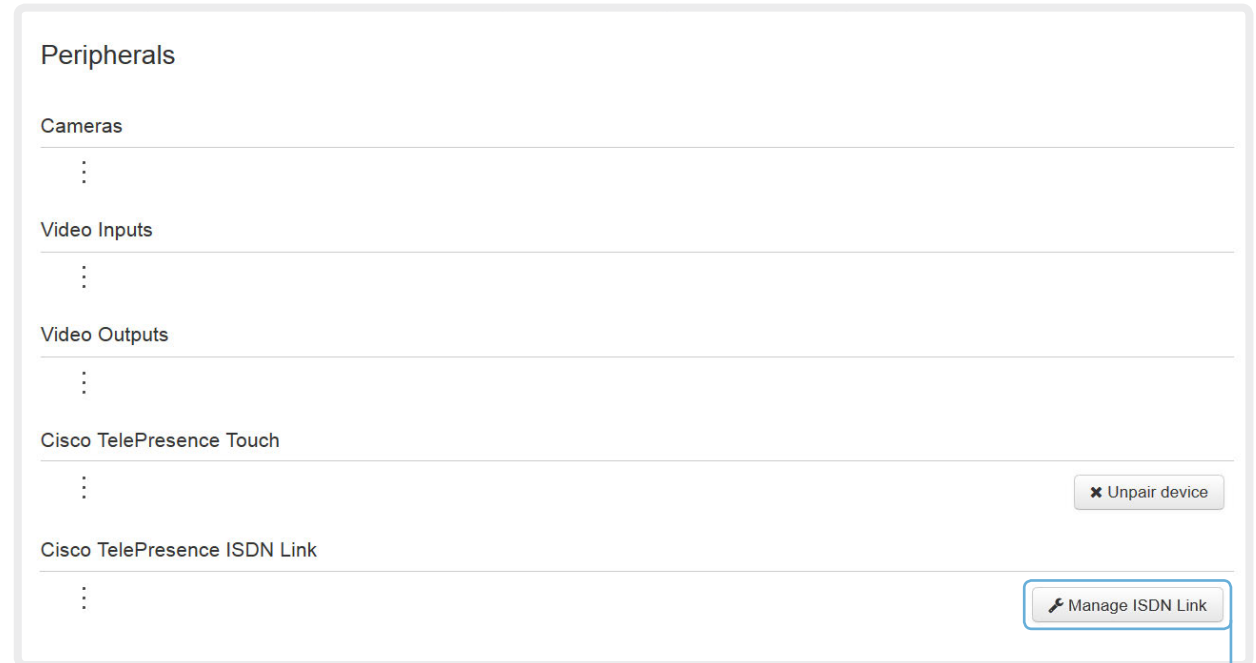
Set the ringtone volume

Use the slide bar to adjust the ringtone volume.

Peripherals overview

This page shows an overview of devices that are connected to the video system, like video inputs and outputs, cameras, microphones, ISDN Links and Touch controllers*.

Navigate to: Configuration > Peripherals



Managing ISDN Link

If an ISDN Link is paired to the video system it can be managed from this page.

How to configure and use the ISDN Link are described in the ISDN Link documentation on <http://www.cisco.com/go/isdnlink-docs>

* The peripherals shown in the illustration serve as examples. Your system may have different peripherals and video input/output configurations.

User administration (page 1 of 4)

You can manage your video conference system's user accounts from this page.

The default user account

The system comes with a default administrator user account with full access rights. The user name is *admin* and no password is set.



It is mandatory to set a password for the *admin* user.

Read more about passwords in the [Setting passwords](#) chapter.

About user roles

A user account must hold one or a combination of several *user roles*.

The following three user roles, with *non-overlapping rights*, exist:

- **ADMIN:** A user holding this role can create new users and change most settings. The user neither can upload audit certificates nor change the security audit settings.
- **USER:** A user holding this role can make calls and search the phone book. The user can modify a few settings, e.g. adjusting the ringtone volume and setting the time and date format.
- **AUDIT:** A user holding this role can change the security audit configurations and upload audit certificates.



An administrator user account with full access rights, like the default *admin* user, must possess all the three roles.

Navigate to: Configuration > User Administration

Default user account

The system comes with *admin* as the default user account. This user has full access rights.

User Administration

User	Roles	Status
admin	Admin, Audit, User	Active
user1	User	Active

Add new user...

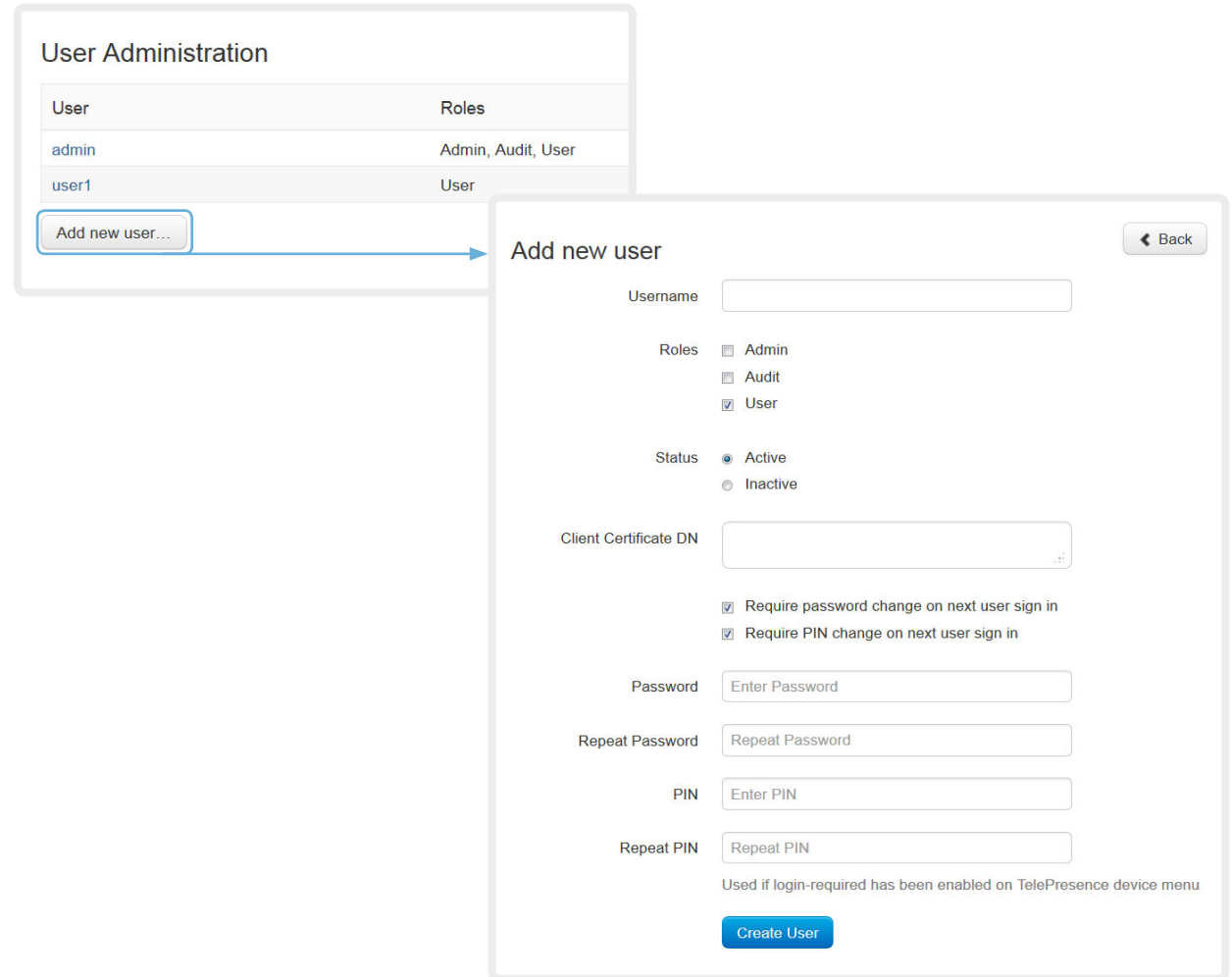
User administration (page 2 of 4)

Creating a new user account

Follow these steps in order to create a new user account:

1. Click [Add new user....](#)
2. Fill in the Username and Password*, and check the appropriate user roles check boxes.
As a default the user has to change the password when signing in for the first time.
Do not fill in the Client Certificate DN (Distinguished Name) field unless you want to use certificate login on HTTPS.
3. Set the Status to **Active** to activate the user.
4. Click [Create User](#) to save the changes.
Use the [Back](#) button to leave without making any changes.

Navigate to: Configuration > User Administration



The screenshot shows the 'User Administration' page with a table of users and an 'Add new user...' button. A blue arrow points from the button to the 'Add new user' dialog box. The dialog box contains the following fields and options:

User	Roles
admin	Admin, Audit, User
user1	User

[Add new user...](#)

Add new user Back

Username

Roles ☐ Admin ☐ Audit ☒ User

Status ☒ Active ☐ Inactive

Client Certificate DN

☒ Require password change on next user sign in
☒ Require PIN change on next user sign in

Password

Repeat Password

PIN

Repeat PIN

Used if login-required has been enabled on TelePresence device menu

[Create User](#)

* The password is used with the web interface and command line interface.

User administration (page 3 of 4)

Changing user privileges

Follow these steps in order to change the user privileges:

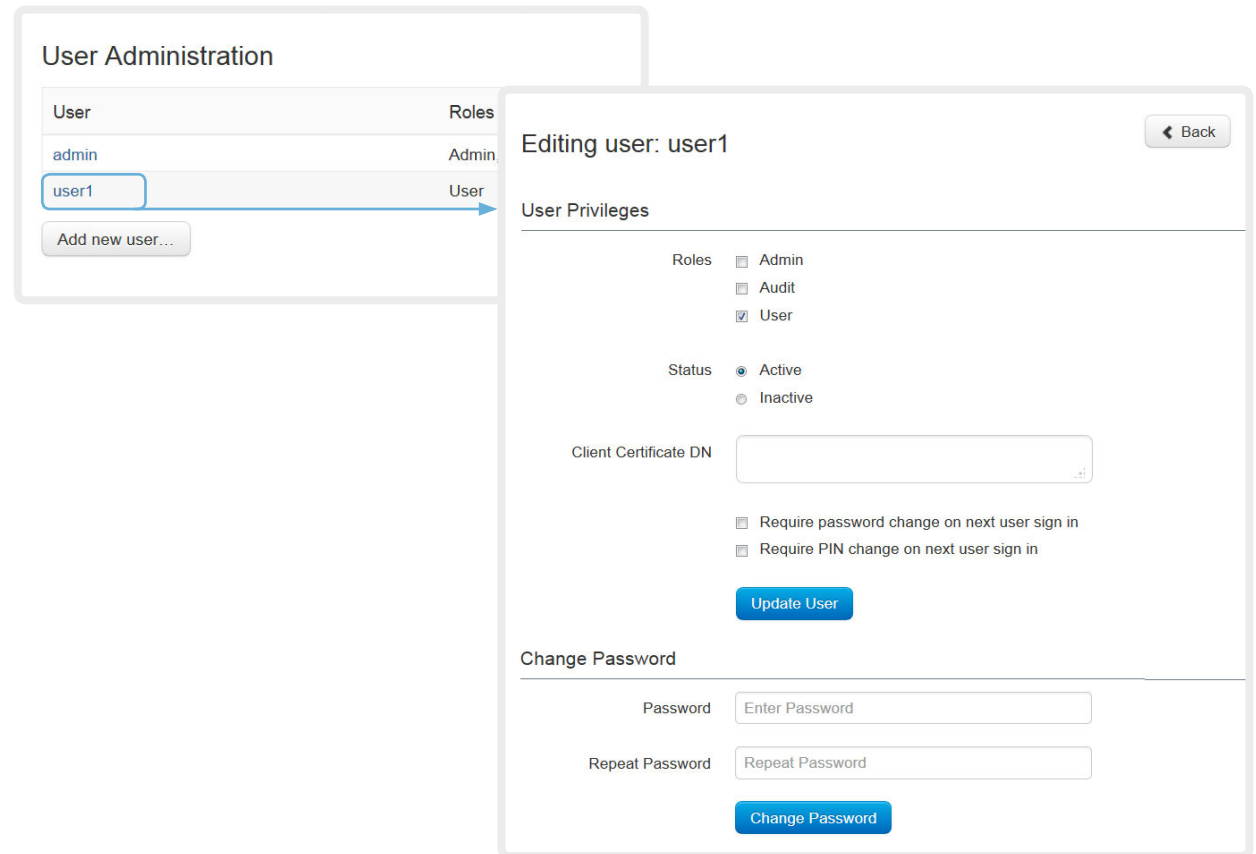
1. Click the name of an existing user to open the Editing user window.
2. Check the appropriate user roles check boxes, decide if the user has to change the password on the next sign in, and fill in the Client Certificate DN field if using certificate login on HTTPS.
3. Click [Update User](#) to save the changes.
Use the [Back](#) button to leave without making any changes.

Changing the password

Follow these steps in order to change the password*:

1. Click the name of an existing user to open the Editing user window.
2. Enter the new password in the appropriate input fields.
3. Click [Change Password](#) to save the change.
Use the [Back](#) button to leave without making any changes.

Navigate to: Configuration > User Administration



User Administration

User	Roles
admin	Admin
user1	User

[Add new user...](#)

Editing user: user1 [Back](#)

User Privileges

Roles ☐ Admin ☐ Audit ☒ User

Status ☒ Active ☐ Inactive

Client Certificate DN

☐ Require password change on next user sign in
☐ Require PIN change on next user sign in

[Update User](#)

Change Password

Password

Repeat Password

[Change Password](#)

* The password is used with the web interface and command line interface.

User administration (page 4 of 4)

Deactivating a user account

Follow these steps in order to deactivate a user account:

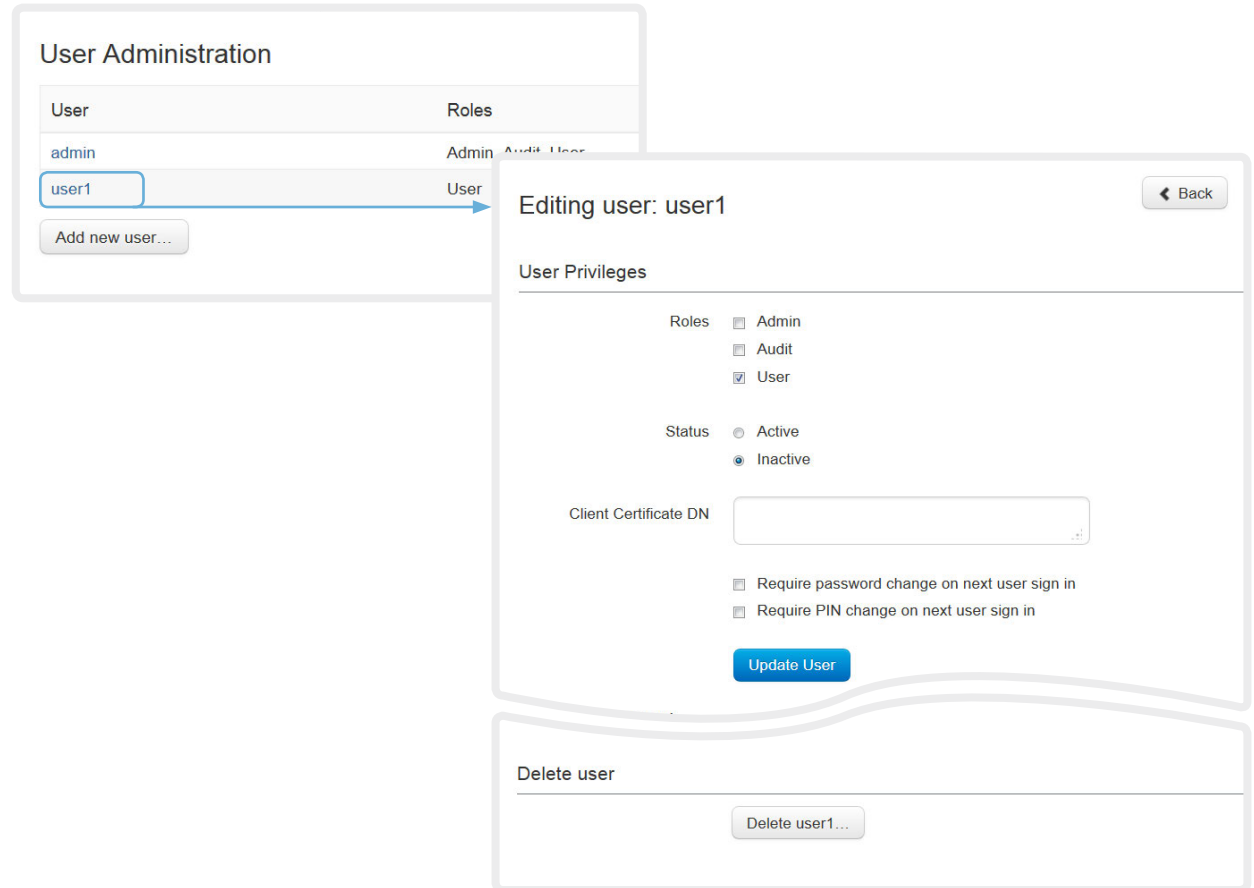
1. Click the name of an existing user to open the Editing user window.
2. Set the Status to **Inactive**.
3. Click [Update User](#) to save the changes.
Use the [Back](#) button to leave without making any changes.

Deleting a user account

Follow these steps in order to delete a user account:

1. Click the name of an existing user to open the Editing user window.
2. Click [Delete <user name>...](#) and confirm when prompted.

Navigate to: Configuration > User Administration



User Administration

User	Roles
admin	Admin Audit User
user1	User

[Add new user...](#)

Editing user: user1 [Back](#)

User Privileges

Roles ☐ Admin ☐ Audit ☒ User

Status ☐ Active ☒ Inactive

Client Certificate DN

☐ Require password change on next user sign in
☐ Require PIN change on next user sign in

[Update User](#)

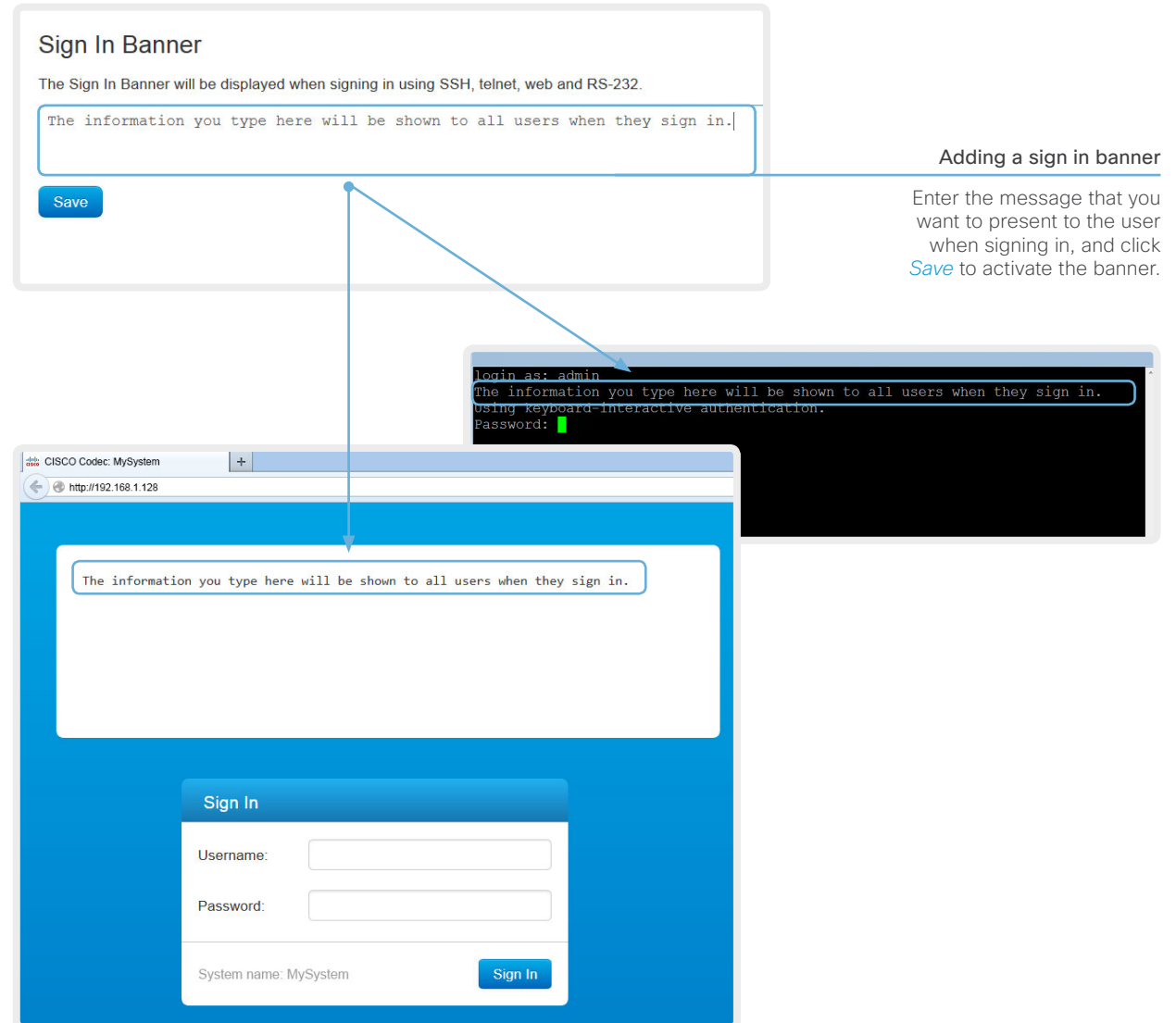
Delete user

[Delete user1...](#)

Adding a sign in banner

If a system administrator wants to provide initial information to all users, he can create a sign in banner. The message will be shown when the user signs in to the web interface and the command line interface.

Navigate to: Configuration > Sign In Banner



Sign In Banner

The Sign In Banner will be displayed when signing in using SSH, telnet, web and RS-232.

The information you type here will be shown to all users when they sign in.

[Save](#)

Adding a sign in banner

Enter the message that you want to present to the user when signing in, and click [Save](#) to activate the banner.

```
login as: admin
The information you type here will be shown to all users when they sign in.
Using keyboard-interactive authentication.
Password: █
```

CISCO Codec: MySystem
http://192.168.1.128

The information you type here will be shown to all users when they sign in.

Sign In

Username:

Password:

System name: MySystem [Sign In](#)

Managing the video system's certificates

Certificate validation may be required when using TLS (Transport Layer Security).

A server or client may require that your video system presents a valid certificate to them before communication can be set up.

The video system's certificates are text files that verify the authenticity of the system. These certificates may be issued by a certificate authority (CA).

The certificates are listed as shown in the illustration to the right*. They can be used for the following services: HTTPS server, SIP, IEEE 802.1X and audit logging.

You can store several certificates on the system, but only one certificate can be used for each service at a time.

If authentication fails, the connection will not be established.

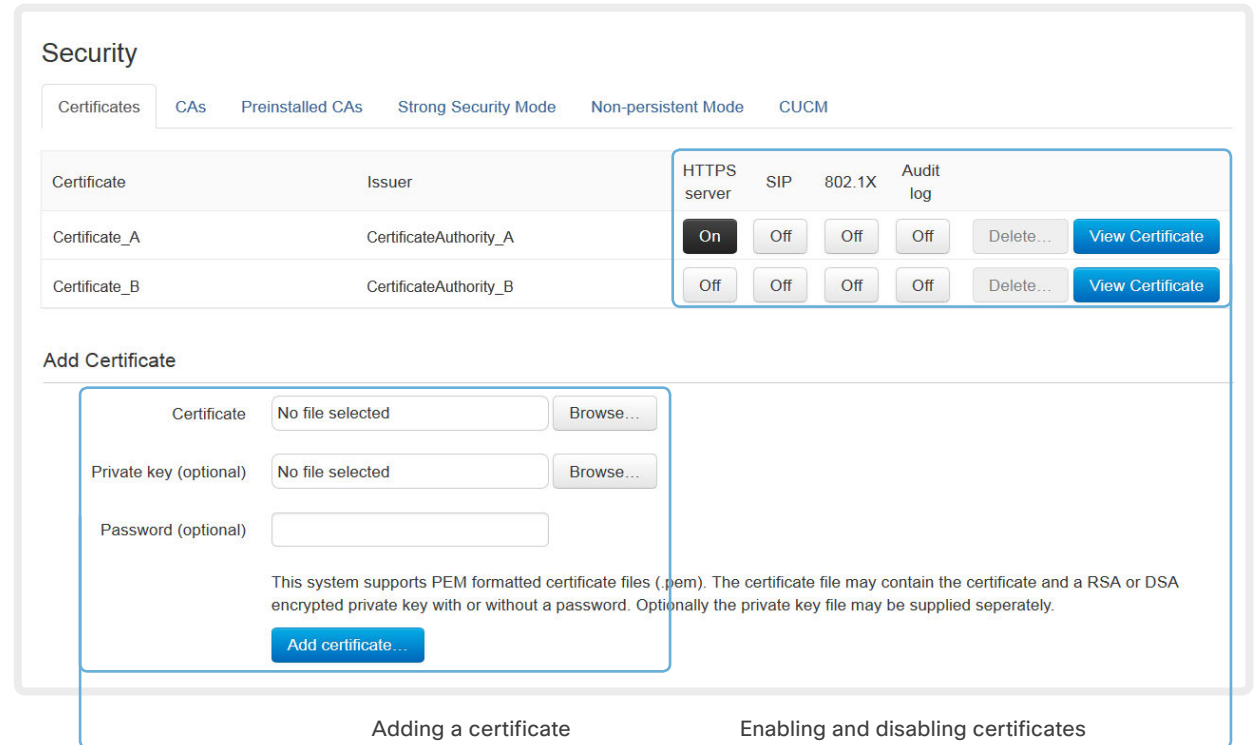


Contact your system administrator to obtain the following file(s):

- Certificate (file format: .PEM)
- Private key, either as a separate file or included in the same file as the certificate (file format: .PEM format)
- Password (required only if the private key is encrypted)

The certificate and the private key will be stored in the same file on the video system.

Navigate to: Configuration > Security: Certificates tab



Security

Certificates CAs Preinstalled CAs Strong Security Mode Non-persistent Mode CUCM

Certificate	Issuer	HTTPS server	SIP	802.1X	Audit log	
Certificate_A	CertificateAuthority_A	On	Off	Off	Off	Delete... View Certificate
Certificate_B	CertificateAuthority_B	Off	Off	Off	Off	Delete... View Certificate

Add Certificate

Certificate No file selected Browse...

Private key (optional) No file selected Browse...

Password (optional)

This system supports PEM formatted certificate files (.pem). The certificate file may contain the certificate and a RSA or DSA encrypted private key with or without a password. Optionally the private key file may be supplied separately.

Add certificate...

Adding a certificate

1. Click [Browse...](#) and find the Certificate and Private key file(s) on your computer.
2. Fill in the [Password](#) if required.
3. Click [Add certificate...](#) to store the certificate on your system.

Enabling and disabling certificates

Use the buttons to switch a certificate on or off for the different services.

You can also view a certificate, and delete a certificate using the corresponding buttons.

* The certificates and certificate issuers shown in the illustration serve as examples. Your system may have other certificate(s).

Managing the list of trusted certificate authorities (page 1 of 2)

Certificate validation may be required when using TLS (Transport Layer Security).

Your video system may be set up to require that a server or client presents its certificate to the video system before communication can be set up.

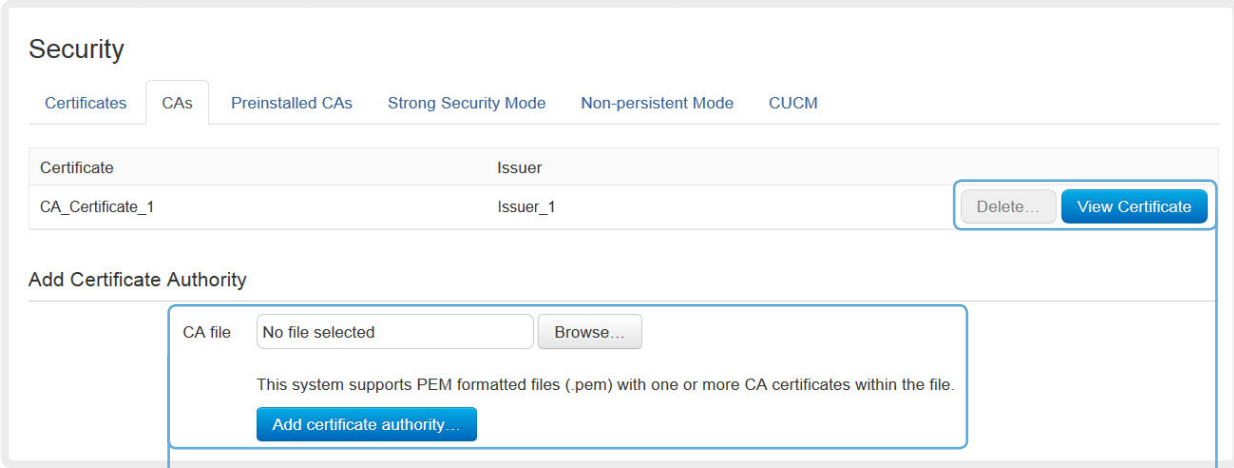
The certificates are text files that verify the authenticity of the server or client. The certificates must be signed by a trusted certificate authority (CA).

To be able to verify the signature of the certificates, a list of trusted CAs must reside on the video system. The certificates of the CAs are listed as shown in the illustration to the right*.

The list must include all CAs needed in order to verify certificates for audit logging, HTTPS, SIP and IEEE 802.1X connections.

If the server cannot be authenticated, the connection will not be established.

Navigate to: Configuration > Security: CAs tab



Security

Certificates CAs Preinstalled CAs Strong Security Mode Non-persistent Mode CUCM

Certificate	Issuer	
CA_Certificate_1	Issuer_1	Delete... View Certificate

Add Certificate Authority

CA file No file selected Browse...

This system supports PEM formatted files (.pem) with one or more CA certificates within the file.

Add certificate authority...



Uploading a list of certificate authorities

The entries in a new file with CA certificates will be appended to the existing list, so that the previously stored certificates will not be deleted.

- Click [Browse...](#) and find the file containing a list of CA certificates (file format: .PEM) on your computer.
- Click the [Add certificate authority...](#) to store the new CA certificate(s) on your system.



Contact your system administrator to obtain the CA certificate list (file format: .PEM).

Viewing and deleting certificates

You can view a certificate, and delete a certificate using the corresponding buttons.

* The certificate and certificate issuers shown in the illustration serve as examples. Your system will have other certificate(s).

Managing the list of trusted certificate authorities (page 2 of 2)



As from software version TC7.2, the signature of an audit server is verified using the same CA list as other servers/clients.

Setting up secure audit logging

Audit logging records all sign in activity and configuration changes on your video system.

Audit logging is disabled by default, but you can enable it using the [Security > Audit > Logging > Mode](#) setting.

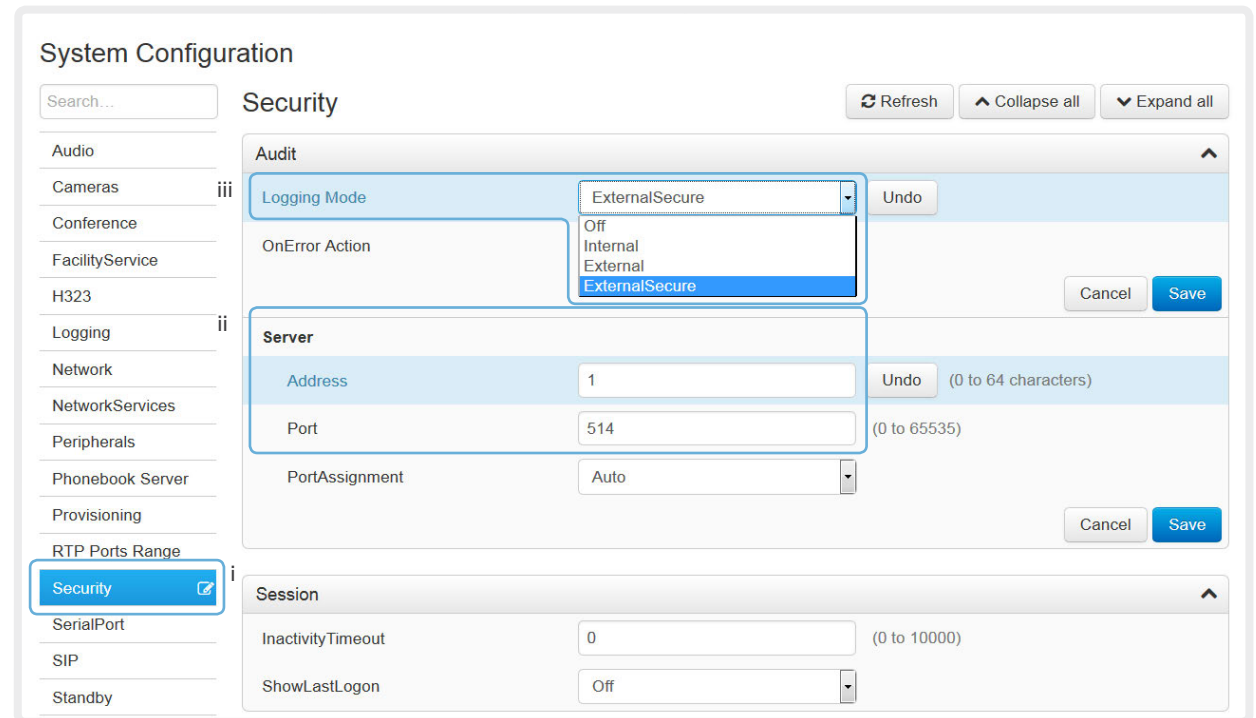
In ExternalSecure audit logging mode the video system sends encrypted audit logs to an external audit server (syslog server), which identity must be verified by a signed certificate.

If the audit server cannot be authenticated, the logs will not be sent.



Always upload the list of trusted certificate authorities before enabling secure audit logging.

Navigate to: Configuration > Security: CAs tab / Configuration > System Configuration



The screenshot shows the 'System Configuration' page with the 'Security' tab selected. The 'Audit' section is expanded, showing the 'Logging Mode' dropdown set to 'ExternalSecure'. The 'Server' section is also expanded, showing the 'Address' field with '1', the 'Port' field with '514', and the 'PortAssignment' dropdown set to 'Auto'. The 'Session' section is also expanded, showing the 'InactivityTimeout' field with '0' and the 'ShowLastLogon' dropdown set to 'Off'. The 'Security' tab is highlighted in the left sidebar.

Enable secure audit logging

- Go to the [System Configuration](#) page and choose the [Security](#) category.
- Enter the [Address](#) of the audit server. If you choose **Manual PortAssignment**, you must also enter a [Port](#) number for the audit server. Click [Save](#) for the changes to take effect.
- Choose **ExternalSecure** from the [Logging Mode](#) drop-down list. Click [Save](#) for the change to take effect.

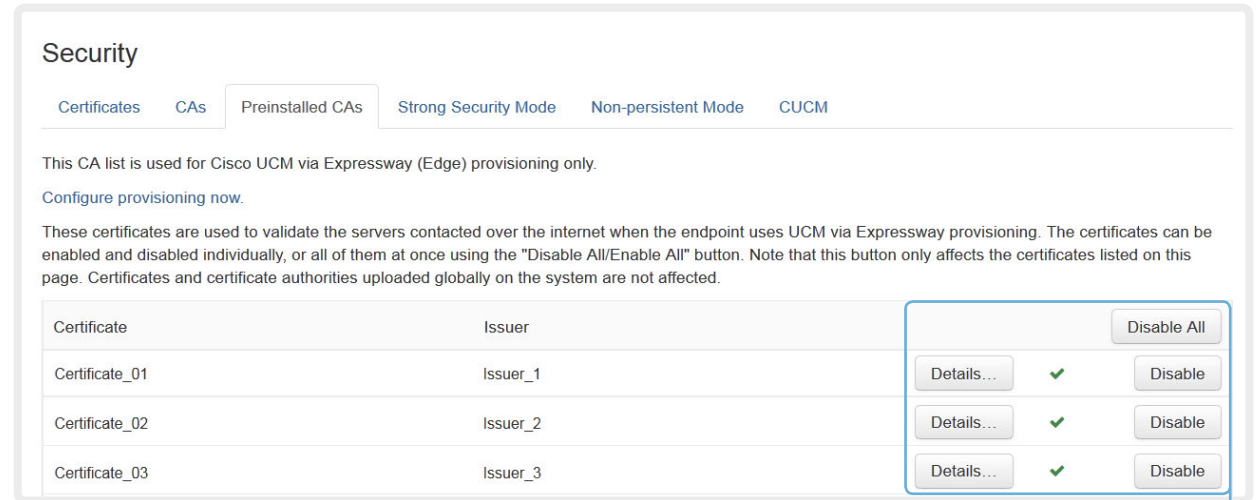
Managing pre-installed certificates for Edge provisioning

The list of pre-installed certificates that is shown on this page in the web interface*, contains certificates that will be used when the video system is provisioned by Cisco Unified Communications Manager (CUCM) via Expressway (Edge). Only Edge infrastructure certificates will be checked against this list.

If the Edge infrastructure certificate validation fails, the video system will not receive the provisioning and not be registered.

Factory resetting the video system will not delete the list of pre-installed certificates.

Navigate to: Configuration > Security: Preinstalled CAs tab



Security

Certificates CAs Preinstalled CAs Strong Security Mode Non-persistent Mode CUCM

This CA list is used for Cisco UCM via Expressway (Edge) provisioning only.

[Configure provisioning now.](#)

These certificates are used to validate the servers contacted over the internet when the endpoint uses UCM via Expressway provisioning. The certificates can be enabled and disabled individually, or all of them at once using the "Disable All/Enable All" button. Note that this button only affects the certificates listed on this page. Certificates and certificate authorities uploaded globally on the system are not affected.

Certificate	Issuer		
Certificate_01	Issuer_1	Details...	Disable
Certificate_02	Issuer_2	Details...	Disable
Certificate_03	Issuer_3	Details...	Disable

Viewing or disabling certificates

You can view a certificate, and disable a certificate using the corresponding buttons.

You can disable all the pre-installed certificates, and use a manually uploaded list of certificates for verification instead. See the [Configuration > Security: CAs](#) page how to upload trusted certificates to the video system manually.

* The certificate and certificate issuers shown in the illustration serve as examples. Your system will have other certificate(s).

Setting strong security mode

Strong security mode should be used only when compliance with DoD JITC regulations is required.



Read the provided information carefully before setting strong security mode.

Strong security mode sets very strict password requirements, and requires all users to change their password on the next sign in.

Navigate to: Configuration > Security: Strong Security Mode tab

Security

Certificates

CAs

Preinstalled CAs

Strong Security Mode

Non-persistent Mode

Strong Security Mode is **not** enabled.

Strong Security Mode is required to adhere to U.S. Department of Defense JITC regulations.

It will introduce the following:

- All users and administrators must change their password and PIN on the next sign in
- New passwords must meet the following criteria:
 - Minimum 15 characters
 - Minimum 2 uppercase alphabetic characters
 - Minimum 2 lowercase alphabetic characters
 - Minimum 2 numerical characters
 - Minimum 2 non-alphanumeric (special) characters
 - No more than 2 consecutive characters may be the same
 - Must be different from the last 10 previous passwords used
 - Not more than 2 characters from the previous password can be in the same position
- Passwords must be changed at least every 60 days
- Passwords cannot be changed more than once per 24 hours
- 3 failed signins will lock the user account until an administrator re-activates the account

Enable Strong Security Mode....

Setting strong security mode

Read carefully about the consequences of strong security mode before you continue.

1. If you want to use strong security mode, click [Enable strong security mode....](#) Confirm your choice in the dialog box that appears.

The system will restart automatically.

2. Change the password when you are prompted. The new password must meet the strict criteria as described.

How to change the system password is described in the [Setting passwords](#) section.

Security

Certificates

CAs

Preinstalled CAs

Strong Security Mode

Non-persistent Mode

Strong Security Mode is enabled.

Disable Strong Security Mode....

Return to normal mode

When in strong security mode, the system can be restored to normal mode by clicking [Disable strong security mode....](#) Confirm your choice in the dialog box that appears.

The system will restart automatically.

Changing the persistency mode

By default, all persistency settings are set to **Persistent**. This means that configurations, call history, internal logs, local phonebook / favorites list and IP connectivity information are stored as normal. A system restart does not delete information.

As a general rule, we recommend NOT to change the default settings for persistency. But in the case where a new user is not supposed to see or trace back to any kind of logged information from the previous session, **Non-persistent** mode must be used.



In order to clear/delete information that was stored before changing to Non-persistent mode, you should consider to factory reset the video system.

There is more information about performing a factory reset in the [Factory resetting](#) appendix.

When in Non-persistent mode, the following information will be lost/cleared each time the system restarts:

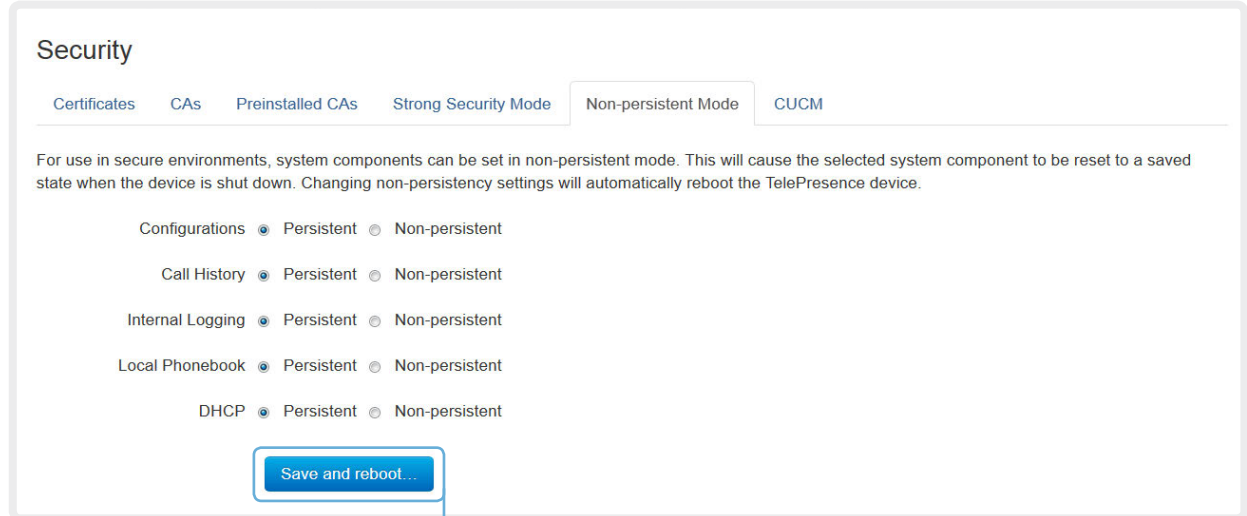
- System Configuration changes that have been made since the last system restart.
- Information about calls that are placed or received since the last system restart (call history).
- Internal log files that have been made since the last system restart.
- Changes that are made to the local contacts / favorites list since the last system restart.
- All IP related information (DHCP) from the last session.

Checking the persistency status

The radio buttons that are active when you open the [Security](#) page and go to the [Non-persistent Mode](#) tab, shows the current persistency status of the video system.

You can also see the status by checking [Security > Persistency](#) on the [Configuration > System Status](#) page.

Navigate to: Configuration > Security: Non-persistent Mode tab



Changing the persistency settings

1. Set the persistency settings for the five categories as desired.
2. Click [Save and reboot...](#)

The system will restart. After the restart, behavior according to the new persistency settings will start.

Note that logs, configurations etc. that was stored before you switch to Non-persistent mode, will not be cleared or deleted.

Deleting trust lists (CUCM only)

The information on this page is only relevant for video systems that are registered to a Cisco Unified Communications Manager (CUCM).

The web interface can be used to delete existing trust lists (CTL and ITL) that are stored on the video system. Normally, you will not delete the old CTL and ITL files, but there are a few cases when you will need to delete them.

The trust lists' fingerprints and an overview of the certificates in the lists are displayed on the web page. This information can be useful for troubleshooting.

For more information about CUCM and trust lists, read the *Administering TC Endpoints on CUCM* guide available on the Cisco web site.

Navigate to: Configuration > Security: CUCM tab

Security

Certificates
CAs
Preinstalled CAs
Strong Security Mode
Non-persistent Mode
CUCM

Certificate	Issuer	HTTPS server	SIP	802.1X	Audit log		
Certificate_A	CertificateAuthority_A	On	Off	Off	Off	Delete...	View Certificate
Certificate_B	CertificateAuthority_B	Off	Off	Off	Off	Delete...	View Certificate

Add Certificate

Certificate
No file selected
Browse...

Private key (optional)
No file selected
Browse...

Troubleshooting

The troubleshooting page lists the status for some common sources of errors. The list may be different for different products and installations*.

Note that critical issues and errors are clearly marked in red color; warnings are yellow.

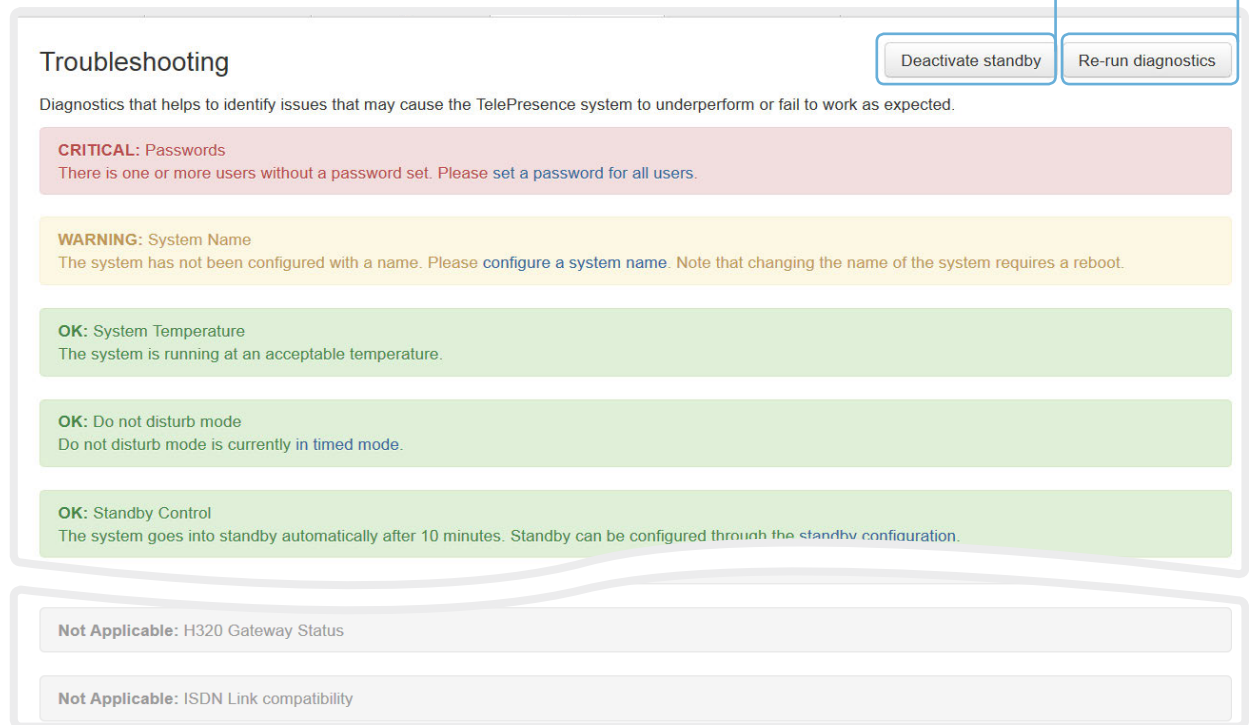
Navigate to: Diagnostics > Troubleshooting

Run diagnostics

Click [Re-run diagnostics](#) to make sure the information in the list is up-to-date.

Leave standby mode

This button is only visible when the system is in standby mode. If in standby mode, click [Deactivate standby](#) to wake up the system.



Troubleshooting

Diagnostics that helps to identify issues that may cause the TelePresence system to underperform or fail to work as expected.

CRITICAL: Passwords
There is one or more users without a password set. Please [set a password](#) for all users.

WARNING: System Name
The system has not been configured with a name. Please [configure a system name](#). Note that changing the name of the system requires a reboot.

OK: System Temperature
The system is running at an acceptable temperature.

OK: Do not disturb mode
Do not disturb mode is currently [in timed mode](#).

OK: Standby Control
The system goes into standby automatically after 10 minutes. Standby can be configured through the [standby configuration](#).

Not Applicable: H320 Gateway Status

Not Applicable: ISDN Link compatibility

* The messages shown in the illustration serve as examples. Your system may show other information.

Downloading log files

The log files* are Cisco specific debug files which may be requested by the Cisco support organization if you need technical support.

The *current log files* are time stamped event log files.

All current log files are archived in a time stamped *historical log file* each time the system restarts. If the maximum number of historical log files is reached, the oldest one will be overwritten.

Navigate to: Diagnostics > Log Files

Downloading all log files

Click [Download logs archive](#) and follow the instructions.

An anonymized call history is included in the log files by default.

Use the drop down list if you want to exclude the call history from the log files, or if want to include the full call history (non-anonymous caller/callee).

Open/save one log file

Click the file name to open the log file in the web browser; right click to save the file on the computer.

Log Files

Download log archive

A full archive of the logs on the device is useful for diagnosing problems.

This archive includes all current and historical logs, in addition to current system configuration, system status and diagnostics information. Anonymized call history is included.

Download logs archive... ▾

No call history

Full call history

Current Logs

File Name ▾	Size	Last Modified
arm0-system.log	11 KB	2014-03-31 21:36
arm1-system.log		2014-03-31 21:36

Historical logs

File Name ▾	Size	Last Modified
log.0.tar.gz	22 KB	2014-02-24 16:28
log.1.tar.gz	31 KB	2014-02-24 16:36
log.2.tar.gz	34 KB	2014-02-24 22:31

[Refresh the list of log files](#)

* The log files shown in the illustration serve as examples. Your system may have other files.

Starting extended logging

Extended logging mode may be switched on to help diagnose network issues and problems during call setup. While in this mode more information is stored in the log files.

Note that extended logging uses more of your video system's resources, and may cause your video system to under-perform. You should only use extended logging mode when troubleshooting an issue.

Navigate to: Diagnostics > Log Files

Log Files

Download log archive

A full archive of the logs on the device is useful for diagnosing problems.

This archive includes all current and historical logs, in addition to current system configuration, system status and diagnostics information. Anonymized call history is included.

Download logs archive... ▾

Extended logging

To help diagnose network issues and problems during call setup, the system can enter a timed extended logging mode. This mode is resource intensive, and populates the existing logs with more detailed information.

The extended logging mode can optionally include a full or partial capture of all network traffic.

Start extended logging... ▾

Include a limited packet capture

Include a full packet capture

Start extended logging

Click [Start extended logging](#).

Extended logging lasts for 10 minutes. You can stop the extended logging before it times out by clicking the [Stop extended logging](#) button that appears when extended logging is on.

As default, the network traffic is not captured. Use the drop down menu if you want to include a full or partial capture of the network traffic.



Capturing user interface screenshots

You can capture screenshots both of a Touch controller that is connected to the video system, and of the on-screen display (menus, indicators and messages on the main display).

Navigate to: Diagnostics > User Interface Screenshots

User Interface Screenshots

On this page you can take screenshots of the Touch Panel connected to the TelePresence device and the on screen display (OSD). The screenshots can be useful for creating user manuals, reporting bugs to Cisco, etc. Note that capturing a screenshot may take a while, depending on image resolution and network bandwidth.

Screenshot ID	Type	
Web_2014-12-15T14:12:36.426Z	OSD	
Web_2014-12-15T14:12:40.691Z	Touchpanel	

Take screenshot of OSD

Take screenshot of Touch Panel

Remove all

Capture a screenshot


Click [Take screenshot of Touch Panel](#) to capture a screenshot of the Touch controller, or click [Take screenshot of OSD](#) to capture a screenshot of the on-screen display.

The screenshot will display in the area below the buttons. Note that it can take up to 30 seconds before the screenshot is ready.

All captured snapshots are included in the list above the buttons. Click the screenshot ID to display the image.

Deleting screenshots

If you want to delete all screenshots, click [Remove all](#).

To delete just one screenshot, click the  button for that screenshot.

Upgrading the system software

This video conference system is using TC software. The version described in this document is TC7.3.



Contact your system administrator if you have questions about the software version.

Software release notes

For a complete overview of the news and changes, we recommend reading the Software Release Notes (TC7).

Go to: ► <http://www.cisco.com/c/en/us/support/collaboration-endpoints/telepresence-system-ex-series/tsd-products-support-series-home.html>

New software

For software download, go to the Cisco Download Software web page:

► <http://www.cisco.com/cisco/software/navigator.html>.

Then navigate to your product.

The format of the file name is "s52000tc7_3_0.pkg" (each software version has a unique file name).

Release key

You need a valid release key to be able to use the video system. As from version TC6.1, any TC release key will do. For older releases the release key is specific for each main release (e.g. TC4, TC5, TC6).

Normally, you do not need to install the release key yourself. The release key is preserved when you upgrade from an earlier software version, and the release key is pre-installed on new systems. As from TC7.0, it is no longer possible to enter a release key from the web interface.

Navigate to: Maintenance > Software Upgrade

Software Upgrade

Release key requirements

Successful downgrade to TC6.3 or lower will require a valid release key to be entered after booting to the older version.

Current version

TC7.2.0

Install new software

Selected version

Please select a file

Install new software

Download the appropriate software package from the Cisco Software Download web page (see link to the left) and store it on your local computer. This is a .pkg file.

- Click [Browse...](#) and find the downloaded .pkg file that contains the new software.
- Click [Install software](#) to start the installation process.

The complete installation may take up to 30 minutes. You can follow the progress on the web page. The system restarts automatically after the installation.



You must sign in anew in order to continue working with the web interface after the restart.

Adding option keys

Your video system may or may not have one or more software options installed. In order to activate the optional functionality the corresponding *option key* must be present on the video system.

Option keys are not deleted when performing a software upgrade or factory reset, so they need to be added only once.



Each video system has unique option keys, for example: 1R000-1-AA7A4A09

Contact your Cisco representative to obtain information about available option keys, and how to get the required key(s).

Navigate to: Maintenance > Option Keys

Option Keys

Contact your TelePresence representative to obtain information about available option keys. You need to provide the serial number to get option keys.

Serial number

Installed options

PremiumResolution

Add an option key

- i. Enter an *Option Key* in the appropriate text input field.
- ii. Click [Add option key](#).

If you want to add more than one option key, repeat these steps for all keys.

Backup and restore

All the system settings, which are available on the System configuration page, can be listed on-screen or stored as a text file.

The text file can be loaded back onto the system, thereby restoring the configuration.

Navigate to: Maintenance > Backup and Restore

Backing up or showing the current configuration

Click [Preview backup](#) to display the current settings on-screen.

Click [Take backup](#) to store the configuration as a text file.

Backup and Restore

Take backup of configuration

This will create a backup file of the configurations on the TelePresence system. The backup file can be used to restore the TelePresence system to a previous state.

[Take backup](#)
[Preview backup](#)

Restore configuration from backup

Restore the TelePresence system from a backup file. Some configurations may require a reboot to take effect.

No file selected

[Browse...](#)
[Restore](#)

Restoring an earlier configuration

Click [Browse...](#) and find the file with the configuration you want to restore.

Click [Restore](#) to reconfigure the system as defined in the file.

Reverting to the previously used software version

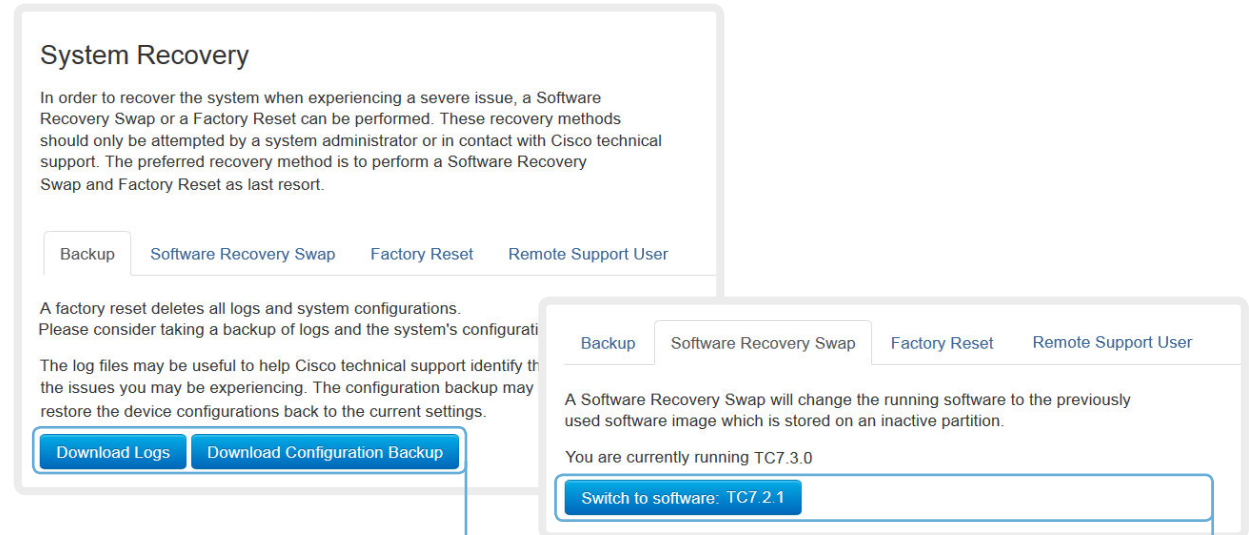
If there is a severe problem with the video system, switching to the previously used software version may help solving the problem.

If the system has not been factory reset since the last software upgrade, the previously used software image still resides on the system; you do not have to download the software again.

Reverting to the previously used software version should only be done by a system administrator or in contact with Cisco technical support.

We strongly recommend that you backup your system's log files and configuration before you swap to the other software image.

Navigate to: Maintenance > System Recovery: Backup tab and Software Recovery Swap tab



1. Backing up log files and system configuration

We recommend that you backup your system's log files and configuration before you swap to the other software image.

Click [Download Logs](#) and [Download Configuration Backup](#) and follow the instructions to save the files on your computer.

2. Reverting to the previously used software version

1. Revert to the previously used software version by clicking [Switch to software TCx.y.z...](#), where x.y.z indicates the software version.
2. Click [Yes](#) to confirm your choice, or [Cancel](#) if you have changed your mind.

Wait while the system resets. The system will restart automatically when finished.

Factory reset

If there is a severe problem with the video system, the last resort may be to reset it to its default factory settings. Always consider reverting to the previously used software image before performing a factory reset. In many situations this will recover the system*.

A factory reset should only be performed by a system administrator or in contact with Cisco technical support.

When factory resetting the video system the following happens:

- The call logs will be deleted.
- Passwords will be reset to default.
- All system parameters will be reset to default values.
- All files that have been uploaded to the system will be deleted. This includes, but is not limited to, custom wallpapers, certificates and favorites list.
- The previous (inactive) software image will be deleted.
- Option keys and release keys will **not** be affected.

The system restarts automatically after the reset. It is using the same software image as before.

We strongly recommend that you backup your system's log files and configuration before you perform a factory reset.



It is *not* possible to undo a factory reset.

There is more information about performing a factory reset in the ► [Factory resetting](#) appendix.

* Read about software swapping in the ► [Reverting to the previously used software version](#) section.

Navigate to: Maintenance > System Recovery: Backup tab and Factory Reset tab

System Recovery

In order to recover the system when experiencing a severe issue, a Software Recovery Swap or a Factory Reset can be performed. These recovery methods should only be attempted by a system administrator or in contact with Cisco technical support. The preferred recovery method is to perform a Software Recovery Swap and Factory Reset as last resort.

Backup

Software Recovery Swap

Factory Reset

Remote Support User

A factory reset deletes all logs and system configurations. Please consider taking a backup of logs and the system's configuration before performing a factory reset.

The log files may be useful to help Cisco technical support identify the issues you may be experiencing. The configuration backup may restore the device configurations back to the current settings.

Download Logs

Download Configuration Backup

Backup

Software Recovery Swap

Factory Reset

Remote Support User

This will reset the TelePresence device to factory default settings, followed by an automatic reboot of the TelePresence device.

- The call logs will be deleted.
- All system parameters will be reset to default values.
- All files that have been uploaded to the TelePresence device will be deleted. This includes, but are not limited to, custom backgrounds, ring tones, certificates, and the local phonebook.
- Release keys and option keys will not be affected.
- Any alternate software image will be deleted.

Warning: A factory reset cannot be undone.

Perform a factory reset...

1. Backing up log files and system configuration

We strongly recommend that you backup your system's log files and configuration before you perform a factory reset; otherwise these data will be lost.

Click [Download Logs](#) and [Download Configuration Backup](#) and follow the instructions to save the files on your computer.

2. Performing a factory reset

Read the provided information carefully before you click [Perform a factory reset...](#)

Click [Yes](#) to confirm your choice, or [Cancel](#) if you have changed your mind.

Wait while the system resets. The system will restart automatically when finished.

Remote support user

In cases where you need to diagnose problems on the video system you can create a remote support user.

The remote support user will be granted read access to the system and will have access to a limited set of commands that can aid troubleshooting.

You will need assistance from Cisco Technical Assistance Center (TAC) to acquire the password for the remote support user.



The remote support user should only be enabled for troubleshooting reasons when instructed by Cisco TAC.

Navigate to: Maintenance > System Recovery: Remote Support User tab

System Recovery

In order to recover the system when experiencing a severe issue, a Software Recovery Swap or a Factory Reset can be performed. These recovery methods should only be attempted by a system administrator or in contact with Cisco technical support. The preferred recovery method is to perform a Software Recovery Swap and Factory Reset as last resort.

[Backup](#) [Software Recovery Swap](#) [Factory Reset](#) [Remote Support User](#)

In order to diagnose problems on the TelePresence device, you might require extended privileges. This is obtained by creating a remote support user below, and then giving the supplied token to Cisco Support. The token will allow them to create a privileged support user on this device. This user will be valid for 7 days.

The system does not have an active remote support user.

[Create user](#) [Delete user](#)

Expiry:

2014-04-14 08:28:31 UTC

Token:

```
FhUsRByooPauNo02HgtXEeBzFCuR/KGRJ2FMJYH+26/X9
wIXeEXPJkS10Ewaf1AbLQLvqMyjWntDrubcKD94UiJA9t
c5Qy4Iq2dFB74FF8iJaVs2M0sPhHkb2jHZuk5zz4c3Nvs
m5eoJHGAsTXZIKyrqzZYGTA8fbvzuapq9mBbiUq8Y4Rda
6uLbSjVjhIDDz9a9obSgiqLR5NUBXhIITig16h4P4mc6j
KnS1WIsH5cdzTmS6fx2q16uguX+EXLKG/gPvIBtJC1109
RYfgNF1S5FX/uVrNFYGFxsv12u6AFYIORmd8vz3qigPcJ
3ev8Edequ80r176CwxGLMZKLoig==
```

The system has an active remote support user.

[Create user](#) [Delete user](#)

Create remote support user

1. Open a case with Cisco TAC.
2. Click [Create user](#).
3. Copy the text in the [Token](#) field and send to Cisco TAC.
4. Cisco TAC will generate a *password*.

The remote support user is valid for seven days, or until it is deleted.

Delete remote support user

Click [Delete user](#).

Restarting the system

The system can be shut down or restarted remotely using the web interface.

Navigate to: Maintenance > Restart

Restarting the system

Click [Restart TelePresence device...](#) to restart the system.



It will take a few minutes before the system is ready for use.

Restart

- Restarting the TelePresence device will make it unavailable for several minutes.
- Shutting down the TelePresence device will require physical presence to turn it on again.

[Restart TelePresence device...](#)
[Shutdown TelePresence device...](#)

Shutting down the system

Click [Shutdown TelePresence device...](#) to shut down the system.



The system cannot be turned on again remotely; you must press its power button physically to turn it on.

CHAPTER 3

SYSTEM SETTINGS

The Cisco TelePresence System EX90/EX60 can be configured using the Touch controller or the web interface.

For full access to the system settings, the web interface must be used – the Touch controller provides access to a limited set of parameters only.



Overview of the system settings

In the following pages you will find a complete list of the system settings which are configured from the [System Configuration](#) page on the web interface. The examples show either the default value or an example of a value.

Open a web browser and enter the IP address of the video system; then sign in.



To find the IP address (IPv4 or IPv6), open the [Settings](#)* menu on the Touch controller and tap [System Information](#).

* The [Settings](#) menu can be accessed from the drop down window that appears when you tap the contact information in the upper, left corner of the Touch controller.

Audio settings	59	Conference [1..1] MaxTotalReceiveCallRate	67
Audio DefaultVolume.....	60	Conference [1..1] MaxTotalTransmitCallRate	67
Audio DefaultVolumeHandset	60	Conference [1..1] MaxTransmitCallRate	66
Audio DefaultVolumeHeadset	60	Conference [1..1] MicUnmuteOnDisconnect Mode	65
Audio InternalSpeaker Mode.....	59	Conference [1..1] Multipoint Mode	68
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Cameras Camera [1] Brightness Level	62	FacilityService Service [1..5] Type	70
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Cameras Camera [1] Flip	63	H323 NAT Address	71
Cameras Camera [1] Focus Mode.....	63	H323 NAT Mode	71
Cameras Camera [1] Gamma Level	63	H323 Profile [1..1] Authentication LoginName.....	71
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Conference [1..1] AutoAnswer Mute.....	64	Logging settings	74
Conference [1..1] CallProtocolIPStack.....	64	Logging Mode.....	74
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Conference [1..1] DefaultCall Rate.....	66	Network [1..1] DHCP RequestTFTPServerAddress	76
Conference [1..1] DoNotDisturb DefaultTimeout.....	65	Network [1..1] DNS Domain Name.....	76
Conference [1..1] DoNotDisturb Mode	65	Network [1..1] DNS Server [1..3] Address.....	76
Conference [1..1] Encryption Mode	66	Network [1..1] IEEE8021X AnonymousIdentity.....	79
Conference [1..1] FarEndControl Mode	65	Network [1..1] IEEE8021X Eap Md5	79
Conference [1..1] FarEndControl SignalCapability.....	65	Network [1..1] IEEE8021X Eap Peap	80
Conference [1..1] IncomingMultisiteCall Mode	69		
Conference [1..1] MaxReceiveCallRate	66		

Network [1..1] IEEE8021X Eap Tls	80	NetworkServices MultiWay Address	83	Security Audit Server Address	92
Network [1..1] IEEE8021X Eap Tls	80	NetworkServices MultiWay Protocol	83	Security Audit Server Port	92
Network [1..1] IEEE8021X Identity	79	NetworkServices NTP Address	84	Security Audit Server PortAssignment	92
Network [1..1] IEEE8021X Mode	78	NetworkServices NTP Mode	84	Security Session InactivityTimeout	93
Network [1..1] IEEE8021X Password	79	NetworkServices SIP Mode	82	Security Session ShowLastLogon	93
Network [1..1] IEEE8021X TlsVerify	79	NetworkServices SNMP CommunityName	85	SerialPort settings	94
Network [1..1] IEEE8021X UseClientCertificate	79	NetworkServices SNMP Host [1..3] Address	84	SerialPort BaudRate	94
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Audio settings

Audio PreferredOutputConnector

Select the preferred connector for the audio output. When the handset is in use the audio goes to the handset, and when hung up the audio goes to the preferred output connector.

Requires user role: ADMIN

Value space: <None/HDMI/Internal/BlueTooth/Handset/Headset>

None: The default audio output is the internal speaker.

HDMI: The audio output goes to the HDMI audio channel.

Internal: The audio output goes to the internal loudspeaker. Requires the Audio InternalSpeaker Mode setting to be enabled.

BlueTooth: The audio output goes to the Bluetooth device.

Handset: The audio output goes to the handset only.

Headset: The audio output goes to the headset.

Example: Audio PreferredOutputConnector: Internal

Audio InternalSpeaker Mode

Set the internal loudspeaker mode.

Requires user role: ADMIN

Value space: <Off/On>

Off: The internal speakers are disabled.

On: The internal speakers are enabled.

Example: Audio InternalSpeaker Mode: On

Audio Microphones Mute Enabled

Determine whether audio-mute is allowed or not. The default value is True.

Requires user role: ADMIN

Value space: <True/InCallOnly>

True: Muting of audio is always available.

InCallOnly: Muting of audio is only available when the device is in a call. When Idle it is not possible to mute the microphone. This is useful when an external telephone service/audio system is connected via the codec and is to be available when the codec is not in a call. When set to InCallOnly this will prevent the audio-system from being muted by mistake.

Example: Audio Microphones Mute Enabled: True

Audio SoundsAndAlerts KeyTones Mode

The system can be configured to make a keyboard click sound effect (key tone) when typing text or numbers on the Touch controller.

Requires user role: USER

Value space: <Off/On>

Off: No key tones will be played when you type.

On: You will hear key tones when you type.

Example: Audio SoundsAndAlerts KeyTones Mode: Off

Audio SoundsAndAlerts RingTone

This setting defines which ringtone to use for incoming calls. You need to enter the exact name of the ringtone. You can find the available ringtones the following ways.

Web interface: On the Configuration > Personalization page.

Touch controller: On the Ringtone & Sound panel of the Settings menu. This panel is either in the open part of the Settings menu, or included in the password protected Administrator menu. The UserInterface UserPreference setting defines which panels will be in the password protected area.

Requires user role: USER

Value space: <S: 1, 100>

Format: String with a maximum of 100 characters.

Example: Audio SoundsAndAlerts RingTone: "Sunrise"

Audio SoundsAndAlerts RingVolume

Sets the ring volume for an incoming call.

Requires user role: USER

Value space: <0..100>

Range: The value goes in steps of 5 from 0 to 100 (from -34.5 dB to 15 dB). Volume 0 = Off.

Example: Audio SoundsAndAlerts RingVolume: 50

Audio DefaultVolume

Set the default speaker volume. The volume returns to this value when you switch on or restart the video system. Use the Touch controller to change the volume while the video system is running.

Requires user role: USER

Value space: <0..100>

Range: The value must be between 0 and 100. The values from 1 to 100 correspond to the range from -34.5 dB to 15 dB (0.5 dB steps). The value 0 means that the audio is switched off.

Example: Audio DefaultVolume: 50

Audio DefaultVolumeHandset

Set the default volume for the handset. The volume returns to this value when you switch on or restart the video system. Use the Touch controller to change the volume while the video system is running.

Requires user role: USER

Value space: <0..100>

Range: The value must be between 0 and 100. The values from 1 to 100 correspond to the range from -34.5 dB to 15 dB (0.5 dB steps). The value 0 means that the audio is switched off.

Example: Audio DefaultVolumeHandset: 50

Audio DefaultVolumeHeadset

Set the default volume for the headset. The volume returns to this value when you switch on or restart the video system. Use the Touch controller to change the volume while the video system is running.

Requires user role: USER

Value space: <0..100>

Range: The value must be between 0 and 100. The values from 1 to 100 correspond to the range from -34.5 dB to 15 dB (0.5 dB steps). The value 0 means that the audio is switched off.

Example: Audio DefaultVolumeHeadset: 50

Audio VolumeHandset

Set the volume on the handset. This setting is obsoleted by the Audio DefaultHandsetVolume setting.

Requires user role: USER

Value space: <0..100>

Range: The value goes in steps of 5 from 0 to 100 (from -34.5 dB to 15 dB). Value 0 = Off.

Example: Audio VolumeHandset: 70

Audio VolumeHeadset

Set the volume on the headset. This setting is obsoleted by the Audio DefaultHeadsetVolume setting.

Requires user role: USER

Value space: <0..100>

Range: The value goes in steps of 5 from 0 to 100 (from -34.5 dB to 15 dB). Value 0 = Off.

Example: Audio VolumeHeadset: 70

Audio Volume

Set the speaker volume. This setting is obsoleted by the Audio DefaultVolume setting.

Requires user role: USER

Value space: <0..100>

Range: The value must be between 0 and 100. The values from 1 to 100 correspond to the range from -34.5 dB to 15 dB (0.5 dB steps). The value 0 means that the audio is switched off.

Example: Audio Volume: 50

Cameras settings

Cameras PowerLine Frequency

The video system's camera is able to compensate for any flicker noise from the electrical power supply (power line frequency anti-flickering).

EX90: Supports autodetection of line frequency. Select the Auto option (default), or set this camera configuration based on your power line frequency.

EX60: Set this camera configuration based on your power line frequency. The default value is 50Hz, so you should change this setting if your power line frequency is 60 Hz. Autodetection of line frequency is not supported.

Requires user role: ADMIN

Value space: EX60: <50Hz/60Hz> EX90: <Auto/50Hz/60Hz>

Auto: Allow the camera to detect the power frequency automatically.

50Hz: Use this value when the power line frequency is 50 Hz.

60Hz: Use this value when the power line frequency is 60 Hz.

Example: Cameras PowerLine Frequency: 50Hz

Cameras Preset TriggerAutofocus

The current position (pan and tilt), zoom and focus are stored with a preset. Use this setting to determine if the camera should refocus or use the focus value that is stored with the preset.

Requires user role: ADMIN

Value space: <Auto/Off/On>

Auto: Whether the camera refocuses or not when selecting a preset, depends on the camera type.

Off: The focus value that is stored with the preset will be used. The camera will not refocus when selecting a preset.

On: The camera will refocus when selecting a preset. The focus value that is stored with the preset may be overridden.

Example: Cameras Preset TriggerAutofocus: Auto

Cameras Camera [1] Backlight

This configuration turns backlight compensation on or off. Backlight compensation is useful when there is much light behind the persons in the room. Without compensation the persons will easily appear very dark to the far end.

Requires user role: ADMIN

Value space: <Off/On>

Off: Turn off the camera backlight compensation.

On: Turn on the camera backlight compensation.

Example: Cameras Camera 1 Backlight: Off

Cameras Camera [1] Brightness Mode

Set the camera brightness mode.

Requires user role: ADMIN

Value space: <Auto/Manual>

Auto: The camera brightness is automatically set by the system.

Manual: Enable manual control of the camera brightness. The brightness level is set using the Cameras Camera Brightness Level setting.

Example: Cameras Camera 1 Brightness Mode: Auto

Cameras Camera [1] Brightness Level

Set the brightness level. Requires the Camera Brightness Mode to be set to Manual.

Requires user role: ADMIN

Value space: <1..31>

Range: Select a value between 1 and 31.

Example: Cameras Camera 1 Brightness Level: 20

Cameras Camera [1] Flip

The camera may be tilted downward to enable you to share the image of items placed on your physical desktop with remote participants in a call. The image from the camera must be flipped vertically to avoid that either you or the remote participant will see the shared item upside down.

This setting determines whether to automatically flip the image vertically or not when you tilt the camera downward.

Requires user role: USER

Value space: <Auto/Off>

Auto: Automatically flip the image vertically when you tilt the camera downward. Return to normal view mode when you move the camera up again.

Off: Display the image in normal view mode for all camera positions.

Example: Cameras Camera 1 Flip: Auto

Cameras Camera [1] Focus Mode

Set the camera focus mode.

Requires user role: ADMIN

Value space: <Auto/Manual/ContinuousAuto>

Auto: The camera will auto focus once a call is connected, and for EX90 also after zooming the camera. The system will use auto focus only for a few seconds to set the right focus; then auto focus is turned off to prevent continuous focus adjustments of the camera.

Manual: Turn the autofocus off and adjust the camera focus manually.

ContinuousAuto: The camera focus is updated throughout the call, without being turned off.

Example: Cameras Camera 1 Focus Mode: Auto

Cameras Camera [1] Gamma Mode

This setting enables gamma corrections. Gamma describes the nonlinear relationship between image pixels and monitor brightness.

Requires user role: ADMIN

Value space: <Auto/Manual>

Auto: Auto is the default and the recommended setting.

Manual: In manual mode the gamma value is changed with the gamma level setting, ref: Cameras Camera [1..n] Gamma Level.

Example: Cameras Camera 1 Gamma Mode: Auto

Cameras Camera [1] Gamma Level

By setting the Gamma Level you can select which gamma correction table to use. This setting may be useful in difficult lighting conditions, where changes to the brightness setting does not provide satisfactory results. Requires the Gamma Mode to be set to Manual.

Requires user role: ADMIN

Value space: <0..7>

Range: Select a value between 0 and 7.

Example: Cameras Camera 1 Gamma Level: 0

Cameras Camera [1] Whitebalance Mode

Set the camera white balance mode.

Requires user role: ADMIN

Value space: <Auto/Manual>

Auto: The camera will continuously adjust the white balance depending on the camera view.

Manual: Enables manual control of the camera white balance. The white balance level is set using the Cameras Camera Whitebalance Level setting.

Example: Cameras Camera 1 Whitebalance Mode: Auto

Cameras Camera [1] Whitebalance Level

Set the white balance level. Requires the Camera Whitebalance Mode to be set to manual.

Requires user role: ADMIN

Value space: <1..16>

Range: Select a value between 1 and 16.

Example: Cameras Camera 1 Whitebalance Level: 1

Conference settings

Conference [1..1] ActiveControl Mode

Active control is a feature that allows conference participants to administer a conference on Cisco TelePresence Server using the video system's interfaces (not available from the TRC5 remote control and on-screen display). Each user can see the participant list, change video layout, disconnect participants, etc. from the interface. The active control feature is enabled by default, provided that it is supported by the infrastructure (Cisco Unified Communications Manager (CUCM) version 9.1.2 or newer, Cisco TelePresence Video Communication Server (VCS) version X8.1 or newer). Change this setting if you want to disable the active control features.

Requires user role: ADMIN

Value space: <Auto/Off>

Auto: Active control is enabled when supported by the infrastructure.

Off: Active control is disabled.

Example: Conference ActiveControl Mode: Auto

Conference [1..1] CallProtocolIPStack

Select if the system should enable IPv4, IPv6, or dual IP stack on the call protocol (SIP, H323).

Requires user role: ADMIN

Value space: <Dual/IPv4/IPv6>

Dual: Enables both IPv4 and IPv6 for the call protocol.

IPv4: When set to IPv4, the call protocol will use IPv4.

IPv6: When set to IPv6, the call protocol will use IPv6.

Example: Conference 1 CallProtocolIPStack: Dual

Conference [1..1] TelephonyPrefix

Enter the prefix to be used for telephony calls.

Requires user role: ADMIN

Value space: <S: 0, 80>

Format: String with a maximum of 80 characters.

Example: Conference 1 TelephonyPrefix: "520"

Conference [1..1] AutoAnswer Mode

Set the auto answer mode. Use the Conference AutoAnswer Delay setting if you want the system to wait a number of seconds before answering the call, and use the Conference AutoAnswer Mute setting if you want your microphone to be muted when the call is answered.

Requires user role: ADMIN

Value space: <Off/On>

Off: You must answer incoming calls manually by tapping Answer on the Touch controller.

On: The system automatically answers incoming calls, except if you are already in a call. You must always answer or decline incoming calls manually when you are already engaged in a call.

Example: Conference 1 AutoAnswer Mode: Off

Conference [1..1] AutoAnswer Mute

Determine if the microphone shall be muted when an incoming call is automatically answered. Requires that AutoAnswer Mode is switched on.

Requires user role: ADMIN

Value space: <Off/On>

Off: The incoming call will not be muted.

On: The incoming call will be muted when automatically answered.

Example: Conference 1 AutoAnswer Mute: Off

Conference [1..1] AutoAnswer Delay

Define how long (in seconds) an incoming call has to wait before it is answered automatically by the system. Requires that AutoAnswer Mode is switched on.

Requires user role: ADMIN

Value space: <0..50>

Range: Select a value between 0 and 50 seconds.

Example: Conference 1 AutoAnswer Delay: 0

Conference [1..1] MicUnmuteOnDisconnect Mode

Determine if the microphones shall be unmuted automatically when all calls are disconnected. In a meeting room or other shared resources this may be done to prepare the system for the next user.

Requires user role: ADMIN

Value space: <Off/On>

Off: If muted during a call, let the microphones remain muted after the call is disconnected.

On: Unmute the microphones after the call is disconnected.

Example: Conference 1 MicUnmuteOnDisconnect Mode: On

Conference [1..1] DoNotDisturb Mode

Determine whether to allow incoming calls.

Requires user role: USER

Value space: <Off/On/Timed>

Off: The incoming calls will come through as normal.

On: All incoming calls will be rejected and they will be registered as missed calls. The calling side will receive a busy signal. A message telling that Do Not Disturb is switched on will display on the Touch controller or main display. NOTE: This setting is not recommended as all calls will be rejected until the setting is manually turned off. The recommended option is Timed.

Timed: When set to timed (default), the system will revert back and allow incoming calls after the specified timeout, defined by the setting: Conference DoNotDisturb DefaultTimeout.

Example: Conference 1 DoNotDisturb Mode: Timed

Conference [1..1] DoNotDisturb DefaultTimeout

This setting determines the default duration of a Do Not Disturb session, i.e. the period when incoming calls are rejected and registered as missed calls. The session can be terminated earlier by using the user interface (Touch controller) or the Conference DoNotDisturb Mode setting. The default value is 60 minutes.

Requires user role: ADMIN

Value space: <0..1440>

Range: Select the number of minutes (between 0 and 1440, i.e. 24 hours) before the Do Not Disturb session times out automatically.

Example: Conference 1 DoNotDisturb DefaultTimeOut: 60

Conference [1..1] FarEndControl Mode

Lets you decide if the remote side (far end) should be allowed to select your video sources and control your local camera (pan, tilt, zoom).

Requires user role: ADMIN

Value space: <Off/On>

Off: The far end is not allowed to select your video sources or to control your local camera (pan, tilt, zoom).

On: Allows the far end to be able to select your video sources and control your local camera (pan, tilt, zoom). You will still be able to control your camera and select your video sources as normal.

Example: Conference 1 FarEndControl Mode: On

Conference [1..1] FarEndControl SignalCapability

Set the far end control (H.224) signal capability mode.

Requires user role: ADMIN

Value space: <Off/On>

Off: Disable the far end control signal capability.

On: Enable the far end control signal capability.

Example: Conference 1 FarEndControl SignalCapability: On

Conference [1..1] Encryption Mode

Define the conference encryption mode. A padlock with the text "Encryption On" or "Encryption Off" displays on screen for a few seconds when the conference starts.

NOTE: If the TC-NC software (no crypto) is installed on the video system, the encryption mode is always Off.

Requires user role: ADMIN

Value space: <Off/On/BestEffort>

Off: The system will not use encryption.

On: The system will only allow calls that are encrypted.

BestEffort: The system will use encryption whenever possible.

> *In Point to point calls:* If the far end system supports encryption (AES-128), the call will be encrypted. If not, the call will proceed without encryption.

> *In MultiSite calls:* In order to have encrypted MultiSite conferences, all sites must support encryption. If not, the conference will be unencrypted.

Example: Conference 1 Encryption Mode: BestEffort

Conference [1..1] DefaultCall Protocol

Set the Default Call Protocol to be used when placing calls from the system.

Requires user role: ADMIN

Value space: <Auto/H323/Sip/H320>

Auto: Enables auto-selection of the call protocol based on which protocols are available. If multiple protocols are available, the order of priority is: 1) SIP; 2) H323; 3) H320. If the system cannot register, or the call protocol is not enabled, the auto-selection chooses H323.

H323: All calls are set up as H.323 calls.

Sip: All calls are set up as SIP calls.

H320: All calls are set up as H.320 calls (only applicable if connected to a Cisco TelePresence ISDN Link gateway).

Example: Conference 1 DefaultCall Protocol: Auto

Conference [1..1] DefaultCall Rate

Set the Default Call Rate to be used when placing calls from the system.

Requires user role: ADMIN

Value space: <64..6000>

Range: Select a value between 64 and 6000 kbps.

Example: Conference 1 DefaultCall Rate: 1920

Conference [1..1] MaxTransmitCallRate

Specify the maximum transmit bit rate to be used when placing or receiving calls. Note that this is the maximum bit rate for each individual call; use the Conference MaxTotalTransmitCallRate setting to set the aggregated maximum for all simultaneous active calls.

Requires user role: ADMIN

Value space: <64..6000>

Range: Select a value between 64 and 6000 kbps.

Example: Conference 1 MaxTransmitCallRate: 6000

Conference [1..1] MaxReceiveCallRate

Specify the maximum receive bit rate to be used when placing or receiving calls. Note that this is the maximum bit rate for each individual call; use the Conference MaxTotalReceiveCallRate setting to set the aggregated maximum for all simultaneous active calls.

Requires user role: ADMIN

Value space: <64..6000>

Range: Select a value between 64 and 6000 kbps.

Example: Conference 1 MaxReceiveCallRate: 6000

Conference [1..1] MaxTotalTransmitCallRate

This configuration applies when using a video system's built-in MultiSite feature (optional) to host a multipoint video conference.

Specify the maximum overall transmit bit rate allowed. The bit rate will be divided fairly among all active calls at any time. This means that the individual calls will be up-speeded or down-speeded as appropriate when someone leaves or enters a multipoint conference, or when a call is put on hold (suspended) or resumed.

The maximum transmit bit rate for each individual call is defined in the Conference MaxTransmitCallRate setting.

Requires user role: ADMIN

Value space: <64..10000>

Range: Select a value between 64 and 10000.

Example: Conference 1 MaxTotalTransmitCallRate: 10000

Conference [1..1] MaxTotalReceiveCallRate

This configuration applies when using a video system's built-in MultiSite feature (optional) to host a multipoint video conference.

Specify the maximum overall receive bit rate allowed. The bit rate will be divided fairly among all active calls at any time. This means that the individual calls will be up-speeded or down-speeded as appropriate when someone leaves or enters a multipoint conference, or when a call is put on hold (suspended) or resumed.

The maximum receive bit rate for each individual call is defined in the Conference MaxReceiveCallRate setting.

Requires user role: ADMIN

Value space: <64..10000>

Range: Select a value between 64 and 10000.

Example: Conference 1 MaxTotalReceiveCallRate: 10000

Conference [1..1] VideoBandwidth Mode

Set the conference video bandwidth mode.

Requires user role: ADMIN

Value space: <Dynamic/Static>

Dynamic: The available transmit bandwidth for the video channels are distributed among the currently active channels. If there is no presentation, the main video channels will use the bandwidth of the presentation channel.

Static: The available transmit bandwidth is assigned to each video channel, even if it is not active.

Example: Conference 1 VideoBandwidth Mode: Dynamic

Conference [1..1] VideoBandwidth MainChannel Weight

The available transmit video bandwidth is distributed on the main channel and presentation channel according to "MainChannel Weight" and "PresentationChannel Weight". If the main channel weight is 2 and the presentation channel weight is 1, then the main channel will use twice as much bandwidth as the presentation channel.

Requires user role: ADMIN

Value space: <1..10>

Range: 1 to 10.

Example: Conference 1 VideoBandwidth MainChannel Weight: 5

Conference [1..1] VideoBandwidth PresentationChannel Weight

The available transmit video bandwidth is distributed on the main channel and presentation channel according to "MainChannel Weight" and "PresentationChannel Weight". If the main channel weight is 2 and the presentation channel weight is 1, then the main channel will use twice as much bandwidth as the presentation channel.

Requires user role: ADMIN

Value space: <1..10>

Range: 1 to 10.

Example: Conference 1 VideoBandwidth PresentationChannel Weight: 5

Conference [1..1] Presentation RelayQuality

NOTE: Applies only to EX90.

This configuration applies to video systems that are using the built-in MultiSite feature (optional) to host a multipoint video conference. When a remote user shares a presentation, the video system (codec) will transcode the presentation and send it to the other participants in the multipoint conference. The RelayQuality setting specifies whether to give priority to high frame rate or to high resolution for the presentation source.

Requires user role: ADMIN

Value space: <Motion/Sharpness>

Motion: Gives the highest possible frame rate. Used when there is a need for higher frame rates, typically when there is a lot of motion in the picture.

Sharpness: Gives the highest possible resolution. Used when you want the highest quality of detailed images and graphics.

Example: Conference 1 Presentation RelayQuality: Sharpness

Conference [1..1] Presentation OnPlacedOnHold

Define whether or not to continue sharing a presentation after the remote site has put you on hold.

Requires user role: ADMIN

Value space: <Stop/NoAction>

Stop: The video system stops the presentation sharing when the remote site puts you on hold. The presentation will not continue when the call is resumed.

NoAction: The video system will not stop the presentation sharing when put on hold. The presentation will not be shared while you are on hold, but it will continue automatically when the call is resumed.

Example: Conference 1 Presentation OnPlacedOnHold: Stop

Conference [1..1] Multipoint Mode

Define how the video system handles multiparty video conferences.

If registered to a Cisco TelePresence Video Communication Server (VCS), the video system can either use its own built-in MultiSite feature (available only for EX90), or it can rely on the MultiWay network solution. MultiWay requires that the video network includes a multipoint control unit (MCU).

If registered to a Cisco Unified Communications Manager (CUCM) version 8.6.2 or newer, the video system can use either the CUCM conference bridge, or the video system's own built-in MultiSite feature. Which one to use is set-up by CUCM.

Both MultiWay and the CUCM conference bridge allows you to set up conferences with many participants. The built-in MultiSite allows up to four participants (yourself included) plus one additional audio call.

Note that the built-in MultiSite is optional and may not be available on all EX90 units. MultiSite is not available for EX60.

Requires user role: ADMIN

Value space: <Auto/Off/MultiSite/MultiWay/CUCMMediaResourceGroupList>

Auto: The multipoint method available will be chosen automatically; if none are available the Multipoint Mode will automatically be set to Off. If both MultiWay and MultiSite are available, the MultiWay service takes priority over the built-in MultiSite.

Off: Multiparty conferences are not allowed.

MultiSite: Multiparty conferences are set up using the built-in MultiSite feature. If MultiSite is chosen when the MultiSite feature is not available, the Multipoint Mode will automatically be set to Off.

MultiWay: Multiparty conferences are set up using the MultiWay service. If MultiWay is chosen when the MultiWay service is not available, the Multipoint Mode will automatically be set to Off. This may occur when the NetworkServices MultiWay Address setting is empty or not properly set.

CUCMMediaResourceGroupList: Multiparty conferences (ad hoc conferences) are hosted by the CUCM configured conference bridge. This setting is provisioned by CUCM in a CUCM environment and should never be set manually by the user.

Example: Conference 1 Multipoint Mode: Auto

Conference [1..1] IncomingMultisiteCall Mode

Select whether or not to allow incoming calls when already in a call/conference.

Requires user role: ADMIN

Value space: <Allow/Deny>

Allow: You will be notified when someone calls you while you are already in a call. You can accept the incoming call or not. The ongoing call may be put on hold while answering the incoming call; or you may merge the calls (requires MultiSite or MultiWay support).

Deny: An incoming call will be rejected if you are already in a call. You will not be notified about the incoming call. However, the call will appear as a missed call in the call history list.

Example: Conference 1 IncomingMultisiteCall Mode: Allow

FacilityService settings

FacilityService Service [1..5] Type

Up to five different facility services can be supported simultaneously. With this setting you can select what kind of services they are. A facility service is not available unless both the FacilityService Service Name and the FacilityService Service Number settings are properly set. Only FacilityService Service 1 with Type Helpdesk is available on the Touch controller; the other options are available for system integrators using the API (Application Programming Interface) command set.

Requires user role: ADMIN

Value space: <Other/Concierge/Helpdesk/Emergency/Security/Catering/Transportation>

Other: Select this option for services not covered by the other options.

Concierge: Select this option for concierge services.

Helpdesk: Select this option for helpdesk services.

Emergency: Select this option for emergency services.

Security: Select this option for security services.

Catering: Select this option for catering services.

Transportation: Select this option for transportation services.

Example: FacilityService Service 1 Type: Helpdesk

FacilityService Service [1..5] Name

Enter the name of the facility service. Up to five different facility services are supported. A facility service is not available unless both the FacilityService Service Name and the FacilityService Service Number settings are properly set. Only FacilityService Service 1 is available on the Touch controller. The name will show on the facility service call button, which appears when you tap the question mark icon in the top bar. The other services are available for system integrators using the API (Application Programming Interface) command set.

Requires user role: ADMIN

Value space: <S: 0, 1024>

Format: String with a maximum of 1024 characters.

Example: FacilityService Service 1 Name: ""

FacilityService Service [1..5] Number

Enter the number (URI or phone number) of the facility service. Up to five different facility services are supported. A facility service is not available unless both the FacilityService Service Name and the FacilityService Service Number settings are properly set. Only FacilityService Service 1 is available on the Touch controller; the other options are available for system integrators using the API (Application Programming Interface) command set.

Requires user role: ADMIN

Value space: <S: 0, 1024>

Format: String with a maximum of 1024 characters.

Example: FacilityService Service 1 Number: ""

FacilityService Service [1..5] CallType

Set the call type for each facility service. Up to five different facility services are supported. A facility service is not available unless both the FacilityService Service Name and the FacilityService Service Number settings are properly set. Only FacilityService Service 1 is available on the Touch controller; the other options are available for system integrators using the API (Application Programming Interface) command set.

Requires user role: ADMIN

Value space: <Video/Audio>

Video: Select this option for video calls.

Audio: Select this option for audio calls.

Example: FacilityService Service 1 CallType: Video

H323 settings

H323 NAT Mode

The firewall traversal technology creates a secure path through the firewall barrier, and enables proper exchange of audio/video data when connected to an external video conferencing system (when the IP traffic goes through a NAT router). NOTE: NAT does not work in conjunction with gatekeepers.

Requires user role: ADMIN

Value space: <Auto/Off/On>

Auto: The system will determine if the H323 NAT Address or the real IP address should be used in signaling. This makes it possible to place calls to endpoints on the LAN as well as endpoints on the WAN. If the H323 NAT Address is wrong or not set, the real IP address will be used.

Off: The system will signal the real IP address.

On: The system will signal the configured H323 NAT Address instead of its real IP address in Q.931 and H.245. The NAT Server Address will be shown in the startup-menu as: "My IP Address: 10.0.2.1". If the H323 NAT Address is wrong or not set, H.323 calls cannot be set up.

Example: H323 NAT Mode: Off

H323 NAT Address

Enter the external/global IP address to the router with NAT support. Packets sent to the router will then be routed to the system. Note that NAT cannot be used when registered to a gatekeeper.

In the router, the following ports must be routed to the system's IP address:

- * Port 1720
- * Port 5555-6555
- * Port 2326-2487

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: A valid IPv4 address or IPv6 address.

Example: H323 NAT Address: ""

H323 Profile [1..1] Authentication Mode

Set the authentication mode for the H.323 profile.

Requires user role: ADMIN

Value space: <Off/On>

Off: If the H.323 Gatekeeper Authentication Mode is set to Off the system will not try to authenticate itself to a H.323 Gatekeeper, but will still try a normal registration.

On: If the H.323 Gatekeeper Authentication Mode is set to On and a H.323 Gatekeeper indicates that it requires authentication, the system will try to authenticate itself to the gatekeeper. Requires the Authentication LoginName and Authentication Password to be defined on both the codec and the Gatekeeper.

Example: H323 Profile 1 Authentication Mode: Off

H323 Profile [1..1] Authentication LoginName

The system sends the Authentication Login Name and the Authentication Password to a H.323 Gatekeeper for authentication. The authentication is a one way authentication from the codec to the H.323 Gatekeeper, i.e. the system is authenticated to the gatekeeper. If the H.323 Gatekeeper indicates that no authentication is required, the system will still try to register. Requires the H.323 Gatekeeper Authentication Mode to be enabled.

Requires user role: ADMIN

Value space: <S: 0, 50>

Format: String with a maximum of 50 characters.

Example: H323 Profile 1 Authentication LoginName: ""

H323 Profile [1..1] Authentication Password

The system sends the Authentication Login Name and the Authentication Password to a H.323 Gatekeeper for authentication. The authentication is a one way authentication from the codec to the H.323 Gatekeeper, i.e. the system is authenticated to the gatekeeper. If the H.323 Gatekeeper indicates that no authentication is required, the system will still try to register. Requires the H.323 Gatekeeper Authentication Mode to be enabled.

Requires user role: ADMIN

Value space: <S: 0, 50>

Format: String with a maximum of 50 characters.

Example: H323 Profile 1 Authentication Password: ""

H323 Profile [1..1] CallSetup Mode

The H.323 Call Setup Mode defines whether to use a Gatekeeper or Direct calling when establishing H323 calls.

NOTE: Direct H.323 calls can be made even though the H.323 Call Setup Mode is set to Gatekeeper.

Requires user role: ADMIN

Value space: <Direct/Gatekeeper>

Direct: An IP address must be used when dialing in order to make the H323 call.

Gatekeeper: The system will use a Gatekeeper to make a H.323 call. When selecting this option the H323 Profile Gatekeeper Address and H323 Profile Gatekeeper Discovery settings must also be configured.

Example: H323 Profile 1 CallSetup Mode: Gatekeeper

H323 Profile [1..1] Encryption KeySize

Define the minimum or maximum key size for the Diffie-Hellman key exchange method, which is used when establishing the Advanced Encryption Standard (AES) encryption key.

Requires user role: ADMIN

Value space: <Min1024bit/Max1024bit/Min2048bit>

Min1024bit: The minimum size is 1024 bit.

Max1024bit: The maximum size is 1024 bit.

Min2048bit: The minimum size is 2048 bit.

Example: H323 Profile 1 Encryption MinKeySize: Max1024bit

H323 Profile [1..1] Gatekeeper Discovery

Determine how the system shall register to a H.323 Gatekeeper.

Requires user role: ADMIN

Value space: <Manual/Auto>

Manual: The system will use a specific Gatekeeper identified by the Gatekeeper's IP address.

Auto: The system will automatically try to register to any available Gatekeeper. If a Gatekeeper responds to the request sent from the codec within 30 seconds this specific Gatekeeper will be used. This requires that the Gatekeeper is in auto discovery mode as well. If no Gatekeeper responds, the system will not use a Gatekeeper for making H.323 calls and hence an IP address must be specified manually.

Example: H323 Profile 1 Gatekeeper Discovery: Manual

H323 Profile [1..1] Gatekeeper Address

Enter the IP address of the Gatekeeper. Requires the H.323 Call Setup Mode to be set to Gatekeeper and the Gatekeeper Discovery to be set to Manual.

Requires user role: ADMIN

Value space: <S: 0, 255>

Format: A valid IPv4 address, IPv6 address or DNS name.

Example: H323 Profile 1 Gatekeeper Address: "192.0.2.0"

H323 Profile [1..1] H323Alias E164

The H.323 Alias E.164 defines the address of the system, according to the numbering plan implemented in the H.323 Gatekeeper. The E.164 alias is equivalent to a telephone number, sometimes combined with access codes.

Requires user role: ADMIN

Value space: <S: 0, 30>

Format: Compact string with a maximum of 30 characters. Valid characters are 0-9, * and #.

Example: H323 Profile 1 H323Alias E164: "90550092"

H323 Profile [1..1] H323Alias ID

Lets you specify the H.323 Alias ID which is used to address the system on a H.323 Gatekeeper and will be displayed in the call lists. Example: "firstname.lastname@company.com", "My H.323 Alias ID"

Requires user role: ADMIN

Value space: <S: 0, 49>

Format: String with a maximum of 49 characters.

Example: H323 Profile 1 H323Alias ID: "firstname.lastname@company.com"

H323 Profile [1..1] PortAllocation

The H.323 Port Allocation setting affects the H.245 port numbers used for H.323 call signaling.

Requires user role: ADMIN

Value space: <Dynamic/Static>

Dynamic: The system will allocate which ports to use when opening a TCP connection.

The reason for doing this is to avoid using the same ports for subsequent calls, as some firewalls consider this as a sign of attack. When Dynamic is selected, the H.323 ports used are from 11000 to 20999. Once 20999 is reached they restart again at 11000. The ports are automatically selected by the system within the given range. Firewall administrators should not try to deduce which ports are used when, as the allocation schema within the mentioned range may change without any further notice.

Static: When set to Static the ports are given within a static predefined range [5555-6555].

Example: H323 Profile 1 PortAllocation: Dynamic

Logging settings

Logging Mode

Not applicable in this version.

Network settings

Network [1..1] IPStack

Select if the system should use IPv4, IPv6, or dual IP stack, on the network interface. NOTE: After changing this setting you may have to wait up to 30 seconds before it takes effect.

Requires user role: ADMIN

Value space: <Dual/IPv4/IPv6>

Dual: When set to Dual, the network interface can operate on both IP versions at the same time, and can have both an IPv4 and an IPv6 address at the same time.

IPv4: When set to IPv4, the system will use IPv4 on the network interface.

IPv6: When set to IPv6, the system will use IPv6 on the network interface.

Example: Network 1 IPStack: Dual

Network [1..1] IPv4 Assignment

Define how the system will obtain its IPv4 address, subnet mask and gateway address. This setting only applies to systems on IPv4 networks.

Requires user role: ADMIN

Value space: <Static/DHCP>

Static: The addresses must be configured manually using the Network IPv4 Address, Network IPv4 Gateway and Network IPv4 SubnetMask settings (static addresses).

DHCP: The system addresses are automatically assigned by the DHCP server.

Example: Network 1 IPv4 Assignment: DHCP

Network [1..1] IPv4 Address

Enter the static IPv4 network address for the system. This setting is only applicable when Network Assignment is set to Static.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: A valid IPv4 address.

Example: Network 1 IPv4 Address: "192.0.2.2"

Network [1..1] IPv4 Gateway

Define the IPv4 network gateway. This setting is only applicable when the Network Assignment is set to Static.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: A valid IPv4 address.

Example: Network 1 IPv4 Gateway: "192.0.2.1"

Network [1..1] IPv4 SubnetMask

Define the IPv4 network subnet mask. This setting is only applicable when the Network Assignment is set to Static.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: The valid IPv4 address format.

Example: Network 1 IPv4 SubnetMask: "255.255.255.0"

Network [1..1] IPv6 Assignment

Define how the system will obtain its IPv6 address and the default gateway address. This setting only applies to systems on IPv6 networks.

Requires user role: ADMIN

Value space: <Static/DHCPv6/Autoconf>

Static: The codec and gateway IP addresses must be configured manually using the Network IPv6 Address and Network IPv6 Gateway settings. The options, for example NTP and DNS server addresses, must either be set manually or obtained from a DHCPv6 server. The Network IPv6 DHCPOptions setting determines which method to use.

DHCPv6: All IPv6 addresses, including options, will be obtained from a DHCPv6 server. See RFC 3315 for a detailed description. The Network IPv6 DHCPOptions setting will be ignored.

Autoconf: Enable IPv6 stateless autoconfiguration of the IPv6 network interface. See RFC 4862 for a detailed description. The options, for example NTP and DNS server addresses, must either be set manually or obtained from a DHCPv6 server. The Network IPv6 DHCPOptions setting determines which method to use.

Example: Network 1 IPv6 Assignment: Autoconf

Network [1..1] IPv6 Address

Enter the static IPv6 network address for the system. This setting is only applicable when the Network IPv6 Assignment is set to Static.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: A valid IPv6 address.

Example: Network 1 IPv6 Address: "2001:0DB8:0000:0000:0000:0000:0002"

Network [1..1] IPv6 Gateway

Define the IPv6 network gateway address. This setting is only applicable when the Network IPv6 Assignment is set to Static.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: A valid IPv6 address.

Example: Network 1 IPv6 Gateway: "2001:0DB8:0000:0000:0000:0000:0001"

Network [1..1] IPv6 DHCPOptions

Retrieve a set of DHCP options, for example NTP and DNS server addresses, from a DHCPv6 server.

Requires user role: ADMIN

Value space: <Off/On>

Off: Disable the retrieval of DHCP options from a DHCPv6 server.

On: Enable the retrieval of a selected set of DHCP options from a DHCPv6 server.

Example: Network 1 IPv6 DHCPOptions: On

Network [1..1] DHCP RequestTFTPServerAddress

This setting is used only for video systems that are registered to a Cisco Unified Communications Manager (CUCM).

The setting determines whether the endpoint should ask the DHCP server for DHCP option 150, so that it can discover the address of the TFTP server (provisioning server) automatically.

If this setting is Off or the DHCP server does not support option 150, the TFTP server address must be set manually using the Provisioning ExternalManager Address setting.

If the Network VLAN Voice Mode setting is Auto and the Cisco Discovery Protocol (CDP) assigns an ID to the voice VLAN, then a request for option 150 will always be sent. That is, the Network DHCP RequestTFTPServerAddress setting will be ignored.

Requires user role: ADMIN

Value space: <Off/On>

Off: The video system will not send a request for DHCP option 150 and the address of the TFTP server must be set manually. See the note above for any exception to this rule.

On: The video system will send a request for option 150 to the DHCP server so that it can automatically discover the address of the TFTP server.

Example: Network 1 DHCP RequestTFTPServerAddress: On

Network [1..1] DNS Domain Name

DNS Domain Name is the default domain name suffix which is added to unqualified names.

Example: If the DNS Domain Name is "company.com" and the name to lookup is "MyVideoSystem", this will result in the DNS lookup "MyVideoSystem.company.com".

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: String with a maximum of 64 characters.

Example: Network 1 DNS Domain Name: ""

Network [1..1] DNS Server [1..3] Address

Define the network addresses for DNS servers. Up to 3 addresses may be specified. If the network addresses are unknown, contact your administrator or Internet Service Provider.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: A valid IPv4 address or IPv6 address.

Example: Network 1 DNS Server 1 Address: ""

Network [1..1] QoS Mode

The QoS (Quality of Service) is a method which handles the priority of audio, video and data in the network. The QoS settings must be supported by the infrastructure. Diffserv (Differentiated Services) is a computer networking architecture that specifies a simple, scalable and coarse-grained mechanism for classifying, managing network traffic and providing QoS priorities on modern IP networks.

Requires user role: ADMIN

Value space: <Off/Diffserv>

Off: No QoS method is used.

Diffserv: When you set the QoS Mode to Diffserv, the Network QoS Diffserv Audio, Network QoS Diffserv Video, Network QoS Diffserv Data, Network QoS Diffserv Signalling, Network QoS Diffserv ICMPv6 and Network QoS Diffserv NTP settings are used to prioritize packets.

Example: Network 1 QoS Mode: Diffserv

Network [1..1] QoS Diffserv Audio

This setting will only take effect if Network QoS Mode is set to Diffserv.

Define which priority Audio packets should have in the IP network.

The priority for the packets ranges from 0 to 63 – the higher the number, the higher the priority. The recommended class for Audio is CS4, which equals the decimal value 32. If in doubt, contact your network administrator.

The priority set here might be overridden when packets are leaving the network controlled by the local network administrator.

Requires user role: ADMIN

Value space: <0..63>

Range: Select a value between 0 to 63 – the higher the number, the higher the priority. The default value is 0 (best effort).

Example: Network 1 QoS Diffserv Audio: 0

Network [1..1] QoS Diffserv Video

This setting will only take effect if Network QoS Mode is set to Diffserv.

Define which priority Video packets should have in the IP network. The packets on the presentation channel (shared content) are also in the Video packet category. The priority for the packets ranges from 0 to 63 – the higher the number, the higher the priority. The recommended class for Video is CS4, which equals the decimal value 32. If in doubt, contact your network administrator.

The priority set here might be overridden when packets are leaving the network controlled by the local network administrator.

Requires user role: ADMIN

Value space: <0..63>

Range: Select a value between 0 to 63 – the higher the number, the higher the priority. The default value is 0 (best effort).

Example: Network 1 QoS Diffserv Video: 0

Network [1..1] QoS Diffserv Data

This setting will only take effect if Network QoS Mode is set to Diffserv.

Define which priority Data packets should have in the IP network.

The priority for the packets ranges from 0 to 63 – the higher the number, the higher the priority. The recommended value for Data is 0, which means best effort. If in doubt, contact your network administrator.

The priority set here might be overridden when packets are leaving the network controlled by the local network administrator.

Requires user role: ADMIN

Value space: <0..63>

Range: Select a value between 0 to 63 – the higher the number, the higher the priority. The default value is 0 (best effort).

Example: Network 1 QoS Diffserv Data: 0

Network [1..1] QoS Diffserv Signalling

This setting will only take effect if Network QoS Mode is set to Diffserv.

Define which priority Signalling packets that are deemed critical (time-sensitive) for the real-time operation should have in the IP network.

The priority for the packets ranges from 0 to 63 – the higher the number, the higher the priority. The recommended class for Signalling is CS3, which equals the decimal value 24. If in doubt, contact your network administrator.

The priority set here might be overridden when packets are leaving the network controlled by the local network administrator.

Requires user role: ADMIN

Value space: <0..63>

Range: Select a value between 0 to 63 – the higher the number, the higher the priority. The default value is 0 (best effort).

Example: Network 1 QoS Diffserv Signalling: 0

Network [1..1] QoS Diffserv ICMPv6

This setting will only take effect if Network QoS Mode is set to Diffserv.

Define which priority ICMPv6 packets should have in the IP network.

The priority for the packets ranges from 0 to 63 – the higher the number, the higher the priority. The recommended value for ICMPv6 is 0, which means best effort. If in doubt, contact your network administrator.

The priority set here might be overridden when packets are leaving the network controlled by the local network administrator.

Requires user role: ADMIN

Value space: <0..63>

Range: Select a value between 0 to 63 – the higher the number, the higher the priority. The default value is 0 (best effort).

Example: Network 1 QoS Diffserv ICMPv6: 0

Network [1..1] QoS Diffserv NTP

This setting will only take effect if Network QoS Mode is set to Diffserv.

Define which priority NTP packets should have in the IP network.

The priority for the packets ranges from 0 to 63 – the higher the number, the higher the priority. The recommended value for NTP is 0, which means best effort. If in doubt, contact your network administrator.

The priority set here might be overridden when packets are leaving the network controlled by the local network administrator.

Requires user role: ADMIN

Value space: <0..63>

Range: Select a value between 0 to 63 – the higher the number, the higher the priority. The default value is 0 (best effort).

Example: Network 1 QoS Diffserv NTP: 0

Network [1..1] IEEE8021X Mode

The system can be connected to an IEEE 802.1X LAN network, with a port-based network access control that is used to provide authenticated network access for Ethernet networks.

Requires user role: ADMIN

Value space: <Off/On>

Off: The 802.1X authentication is disabled (default).

On: The 802.1X authentication is enabled.

Example: Network 1 IEEE8021X Mode: Off

Network [1..1] IEEE8021X TlsVerify

Verification of the server-side certificate of an IEEE802.1x connection against the certificates in the local CA-list when TLS is used. The CA-list must be uploaded to the video system. This can be done from the web interface.

This setting takes effect only when Network [1..1] IEEE8021X Eap Tls is enabled (On).

Requires user role: ADMIN

Value space: <Off/On>

Off: When set to Off, TLS connections are allowed without verifying the server-side X.509 certificate against the local CA-list. This should typically be selected if no CA-list has been uploaded to the codec.

On: When set to On, the server-side X.509 certificate will be validated against the local CA-list for all TLS connections. Only servers with a valid certificate will be allowed.

Example: Network 1 IEEE8021X TlsVerify: Off

Network [1..1] IEEE8021X UseClientCertificate

Authentication using a private key/certificate pair during an IEEE802.1x connection. The authentication X.509 certificate must be uploaded to the video system. This can be done from the web interface.

Requires user role: ADMIN

Value space: <Off/On>

Off: When set to Off client-side authentication is not used (only server-side).

On: When set to On the client (video system) will perform a mutual authentication TLS handshake with the server.

Example: Network 1 IEEE8021X UseClientCertificate: Off

Network [1..1] IEEE8021X Identity

The 802.1X Identity is the user name needed for 802.1X authentication.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: String with a maximum of 64 characters.

Example: Network 1 IEEE8021X Identity: ""

Network [1..1] IEEE8021X Password

The 802.1X Password is the password needed for 802.1X authentication.

Requires user role: ADMIN

Value space: <S: 0, 32>

Format: String with a maximum of 32 characters.

Example: Network 1 IEEE8021X Password: ""

Network [1..1] IEEE8021X AnonymousIdentity

The 802.1X Anonymous ID string is to be used as unencrypted identity with EAP (Extensible Authentication Protocol) types that support different tunneled identity, like EAP-PEAP and EAP-TTLS. If set, the anonymous ID will be used for the initial (unencrypted) EAP Identity Request.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: String with a maximum of 64 characters.

Example: Network 1 IEEE8021X AnonymousIdentity: ""

Network [1..1] IEEE8021X Eap Md5

Set the Md5 (Message-Digest Algorithm 5) mode. This is a Challenge Handshake Authentication Protocol that relies on a shared secret. Md5 is a Weak security.

Requires user role: ADMIN

Value space: <Off/On>

Off: The EAP-MD5 protocol is disabled.

On: The EAP-MD5 protocol is enabled (default).

Example: Network 1 IEEE8021X Eap Md5: On

Network [1..1] IEEE8021X Eap Ttls

Set the TTLS (Tunneled Transport Layer Security) mode. Authenticates LAN clients without the need for client certificates. Developed by Funk Software and Certicom. Usually supported by Agere Systems, Proxim and Avaya.

Requires user role: ADMIN

Value space: <Off/On>

Off: The EAP-TTLS protocol is disabled.

On: The EAP-TTLS protocol is enabled (default).

Example: Network 1 IEEE8021X Eap Ttls: On

Network [1..1] IEEE8021X Eap Tls

Enable or disable the use of EAP-TLS (Transport Layer Security) for IEEE802.1x connections. The EAP-TLS protocol, defined in RFC 5216, is considered one of the most secure EAP standards. LAN clients are authenticated using client certificates.

Requires user role: ADMIN

Value space: <Off/On>

Off: The EAP-TLS protocol is disabled.

On: The EAP-TLS protocol is enabled (default).

Example: Network 1 IEEE8021X Eap Tls: On

Network [1..1] IEEE8021X Eap Peap

Set the Peap (Protected Extensible Authentication Protocol) mode. Authenticates LAN clients without the need for client certificates. Developed by Microsoft, Cisco and RSA Security.

Requires user role: ADMIN

Value space: <Off/On>

Off: The EAP-PEAP protocol is disabled.

On: The EAP-PEAP protocol is enabled (default).

Example: Network 1 IEEE8021X Eap Peap: On

Network [1..1] MTU

Set the Ethernet MTU (Maximum Transmission Unit).

Requires user role: ADMIN

Value space: <576..1500>

Range: Select a value between 576 and 1500 bytes.

Example: Network 1 MTU: 1500

Network [1..1] Speed

Set the Ethernet link speed.

Requires user role: ADMIN

Value space: <Auto/10half/10full/100half/100full/1000full>

Auto: Autonegotiate link speed.

10half: Force link to 10 Mbps half-duplex.

10full: Force link to 10 Mbps full-duplex.

100half: Force link to 100 Mbps half-duplex.

100full: Force link to 100 Mbps full-duplex.

1000full: Force link to 1 Gbps full-duplex.

Example: Network 1 Speed: Auto

Network [1..1] TrafficControl Mode

Set the network traffic control mode to decide how to control the video packets transmission speed.

Requires user role: ADMIN

Value space: <Off/On>

Off: Transmit video packets at link speed.

On: Transmit video packets at maximum 20 Mbps. Can be used to smooth out bursts in the outgoing network traffic.

Example: Network 1 TrafficControl: On

Network [1..1] RemoteAccess Allow

Define which IP addresses (IPv4/IPv6) are allowed for remote access to the codec from SSH/Telnet/HTTP/HTTPS. Multiple IP addresses are separated by a white space.

A network mask (IP range) is specified by <ip address>/N, where N is 1-32 for IPv4, and N is 1-128 for IPv6. The /N is a common indication of a network mask where the first N bits are set. Thus 192.168.0.0/24 would match any address starting with 192.168.0, since these are the first 24 bits in the address.

Requires user role: ADMIN

Value space: <S: 0, 255>

Format: String with a maximum of 255 characters.

Example: Network 1 RemoteAccess Allow: "10.11.2.3 192.168.0.0/24 2001:0db8:0000:0000:000:ff00:0042:8329 2001:db8:abcd:0012::0/64"

Network [1..1] VLAN Voice Mode

Set the VLAN voice mode. The VLAN Voice Mode will be set to Auto automatically if you have Cisco UCM (Cisco Unified Communications Manager) as provisioning infrastructure. Note that Auto mode will NOT work if the NetworkServices CDP Mode setting is Off.

Requires user role: ADMIN

Value space: <Auto/Manual/Off>

Auto: The Cisco Discovery Protocol (CDP), if available, assigns an id to the voice VLAN. If CDP is not available, VLAN is not enabled.

Manual: The VLAN ID is set manually using the Network VLAN Voice VlanId setting. If CDP is available, the manually set value will be overruled by the value assigned by CDP.

Off: VLAN is not enabled.

Example: Network 1 VLAN Voice Mode: Auto

Network [1..1] VLAN Voice VlanId

Set the VLAN voice ID. This setting will only take effect if VLAN Voice Mode is set to Manual.

Requires user role: ADMIN

Value space: <1..4094>

Range: Select a value between 1 and 4094.

Example: Network 1 VLAN Voice VlanId: 1

NetworkServices settings

NetworkServices CDP Mode

Enable or disable the CDP (Cisco Discovery Protocol) daemon. Enabling CDP will make the endpoint report certain statistics and device identifiers to a CDP-enabled switch. If CDP is disabled, the Network VLAN Voice Mode: Auto setting will not work.

Requires user role: ADMIN

Value space: <Off/On>

Off: The CDP daemon is disabled.

On: The CDP daemon is enabled.

Example: NetworkServices CDP Mode: On

NetworkServices H323 Mode

Determine whether the system should be able to place and receive H.323 calls or not.

Requires user role: ADMIN

Value space: <Off/On>

Off: Disable the possibility to place and receive H.323 calls.

On: Enable the possibility to place and receive H.323 calls (default).

Example: NetworkServices H323 Mode: On

NetworkServices HTTP Mode

Set the HTTP mode to enable/disable access to the system through a web browser. The web interface is used for system management, call management such as call transfer, diagnostics and software uploads.

Requires user role: ADMIN

Value space: <Off/On>

Off: The HTTP protocol is disabled.

On: The HTTP protocol is enabled.

Example: NetworkServices HTTP Mode: On

NetworkServices SIP Mode

Determine whether the system should be able to place and receive SIP calls or not.

Requires user role: ADMIN

Value space: <Off/On>

Off: Disable the possibility to place and receive SIP calls.

On: Enable the possibility to place and receive SIP calls (default).

Example: NetworkServices SIP Mode: On

NetworkServices Telnet Mode

Telnet is a network protocol used on the Internet or Local Area Network (LAN) connections.

Requires user role: ADMIN

Value space: <Off/On>

Off: The Telnet protocol is disabled. This is the factory setting.

On: The Telnet protocol is enabled.

Example: NetworkServices Telnet Mode: Off

NetworkServices WelcomeText

Choose which information the user should see when logging on to the codec through Telnet/SSH.

Requires user role: ADMIN

Value space: <Off/On>

Off: The welcome text is: Login successful

On: The welcome text is: Welcome to <system name>; Software version; Software release date; Login successful.

Example: NetworkServices WelcomeText: On

NetworkServices XMLAPI Mode

Not applicable in this version.

NetworkServices MultiWay Address

The MultiWay address must be equal to the Conference Factory Alias, as configured on the Video Communication Server. The MultiWay™ conferencing enables video endpoint users to introduce a 3rd party into an existing call.

MultiWay™ can be used in the following situations:

- 1) When you want to add someone else in to your existing call.
- 2) When you are called by a 3rd party while already in a call and you want to include that person in the call.

Requirements: Video Communication Server (VCS) version X5 (or later) and Codian MCU version 3.1 (or later). Video systems invited to join the MultiWay™ conference must support the H.323 routeToMC facility message if in an H.323 call, or SIP REFER message if in a SIP call.

Requires user role: ADMIN

Value space: <S: 0, 255>

Format: String with a maximum of 255 characters (a valid dial URI).

Example: NetworkServices MultiWay Address: "h323:multiway@company.com"

NetworkServices MultiWay Protocol

Determine the protocol to be used for MultiWay calls.

Requires user role: ADMIN

Value space: <Auto/H323/Sip>

Auto: The system will select the protocol for MultiWay calls.

H323: The H323 protocol will be used for MultiWay calls.

Sip: The SIP protocol will be used for MultiWay calls.

Example: NetworkServices MultiWay Protocol: Auto

NetworkServices HTTPS Mode

HTTPS is a web protocol that encrypts and decrypts user page requests as well as the pages that are returned by the web server.

Requires user role: ADMIN

Value space: <Off/On>

Off: The HTTPS protocol is disabled.

On: The HTTPS protocol is enabled.

Example: NetworkServices HTTPS Mode: On

NetworkServices HTTPS VerifyServerCertificate

When the video system connects to an external HTTPS server (like a phone book server or an external manager), this server will present a certificate to the video system to identify itself.

Requires user role: ADMIN

Value space: <Off/On>

Off: Do not verify server certificates.

On: Requires the system to verify that the server certificate is signed by a trusted Certificate Authority (CA). This requires that a list of trusted CAs are uploaded to the system in advance.

Example: NetworkServices HTTPS VerifyServerCertificate: Off

NetworkServices HTTPS VerifyClientCertificate

When the video system connects to a HTTPS client (like a web browser), the client can be asked to present a certificate to the video system to identify itself.

Requires user role: ADMIN

Value space: <Off/On>

Off: Do not verify client certificates.

On: Requires the client to present a certificate that is signed by a trusted Certificate Authority (CA). This requires that a list of trusted CAs are uploaded to the system in advance.

Example: NetworkServices HTTPS VerifyClientCertificate: Off

NetworkServices HTTPS OCSP Mode

Define the support for OCSP (Online Certificate Status Protocol) responder services. The OCSP feature allows users to enable OCSP instead of certificate revocation lists (CRLs) to check the certificate status.

For any outgoing HTTPS connection, the OCSP responder is queried of the status. If the corresponding certificate has been revoked, then the HTTPS connection will not be used.

Requires user role: ADMIN

Value space: <Off/On>

Off: Disable OCSP support.

On: Enable OCSP support.

Example: NetworkServices HTTPS OCSP Mode: Off

NetworkServices HTTPS OCSP URL

Specify the URL of the OCSP responder (server) that will be used to check the certificate status.

Requires user role: ADMIN

Value space: <S: 0, 255>

Format: String with a maximum of 255 characters.

Example: NetworkServices HTTPS OCSP URL: "http://ocspserver.company.com:81"

NetworkServices Medianet Metadata

Switch On or Off the capability to tag media flows with metadata related to the Cisco Medianet deployment.

Requires user role: ADMIN

Value space: <Off/On>

Off: Media flows will not be tagged with such metadata.

On: Media flows will be tagged with such metadata.

Example: NetworkServices Medianet Metadata: Off

NetworkServices NTP Mode

The Network Time Protocol (NTP) is used to synchronize the system's time and date to a reference time server. The time server will be queried regularly for time updates.

Requires user role: ADMIN

Value space: <Auto/Manual/Off>

Auto: The system will use an NTP server for time reference. As default, the server address will be obtained from the network's DHCP server. If a DHCP server is not used, or if the DHCP server does not provide an NTP server address, the NTP server address that is specified in the NetworkServices NTP Address setting will be used.

Manual: The system will use the NTP server that is specified in the NetworkServices NTP Address setting for time reference.

Off: The system will not use an NTP server. The Network Services NTP Address setting will be ignored.

Example: NetworkServices NTP Mode: Auto

NetworkServices NTP Address

The address of the NTP server that will be used when NetworkServices NTP Mode is set to Manual, and when NetworkServices NTP Mode is set to Auto and no address is supplied by a DHCP server.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: A valid IPv4 address, IPv6 address or DNS name.

Example: NetworkServices NTP Address: "0.tandberg.pool.ntp.org"

NetworkServices SNMP Mode

SNMP (Simple Network Management Protocol) is used in network management systems to monitor network-attached devices (routers, servers, switches, projectors, etc) for conditions that warrant administrative attention. SNMP exposes management data in the form of variables on the managed systems, which describe the system configuration. These variables can then be queried (set to ReadOnly) and sometimes set (set to ReadWrite) by managing applications.

Requires user role: ADMIN

Value space: <Off/ReadOnly/ReadWrite>

Off: Disable the SNMP network service.

ReadOnly: Enable the SNMP network service for queries only.

ReadWrite: Enable the SNMP network service for both queries and commands.

Example: NetworkServices SNMP Mode: ReadOnly

NetworkServices SNMP Host [1..3] Address

Enter the address of up to three SNMP Managers.

The system's SNMP Agent (in the codec) responds to requests from SNMP Managers (a PC program etc.), for example about system location and system contact. SNMP traps are not supported.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: A valid IPv4 address, IPv6 address or DNS name.

Example: NetworkServices SNMP Host 1 Address: ""

NetworkServices SNMP CommunityName

Enter the name of the Network Services SNMP Community. SNMP Community names are used to authenticate SNMP requests. SNMP requests must have a password (case sensitive) in order to receive a response from the SNMP Agent in the codec. The default password is "public". If you have the Cisco TelePresence Management Suite (TMS) you must make sure the same SNMP Community is configured there too. NOTE: The SNMP Community password is case sensitive.

Requires user role: ADMIN

Value space: <S: 0, 50>

Format: String with a maximum of 50 characters.

Example: NetworkServices SNMP CommunityName: "public"

NetworkServices SNMP SystemContact

Enter the name of the Network Services SNMP System Contact.

Requires user role: ADMIN

Value space: <S: 0, 50>

Format: String with a maximum of 50 characters.

Example: NetworkServices SNMP SystemContact: ""

NetworkServices SNMP SystemLocation

Enter the name of the Network Services SNMP System Location.

Requires user role: ADMIN

Value space: <S: 0, 50>

Format: String with a maximum of 50 characters.

Example: NetworkServices SNMP SystemLocation: ""

NetworkServices SSH Mode

SSH (or Secure Shell) protocol can provide secure encrypted communication between the codec and your local computer.

Requires user role: ADMIN

Value space: <Off/On>

Off: The SSH protocol is disabled.

On: The SSH protocol is enabled.

Example: NetworkServices SSH Mode: On

NetworkServices SSH AllowPublicKey

Secure Shell (SSH) public key authentication can be used to access the codec.

Requires user role: ADMIN

Value space: <Off/On>

Off: The SSH public key is not allowed.

On: The SSH public key is allowed.

Example: NetworkServices SSH AllowPublicKey: On

NetworkServices CTMS Mode

This setting determines whether or not to allow multiparty conferences controlled by a Cisco TelePresence Multipoint Switch (CTMS).

Video systems are able to initiate or join non-encrypted multiparty conferences controlled by CTMS version 1.8 or later. Encrypted conferences are supported as from software versions CTMS 1.9.1. Encryption is addressed in the NetworkServices CTMS Encryption setting.

Requires user role: ADMIN

Value space: <Off/On>

Off: Multiparty conferencing via CTMS is prohibited.

On: Multiparty conferencing via CTMS is allowed.

Example: NetworkServices CTMS Mode: On

NetworkServices CTMS Encryption

This setting indicates whether or not the video system supports encryption when participating in a multiparty meeting controlled by a Cisco TelePresence Multipoint Switch (CTMS).

CTMS allows three security settings for meetings: non-secure (not encrypted), best effort (encrypted if all participants support encryption, otherwise not encrypted) and secure (always encrypted).

Requires user role: ADMIN

Value space: <Off/BestEffort>

Off: The video system does not allow encryption and therefore cannot participate in a secure CTMS meeting (encrypted). When participating in a best effort CTMS meeting, the meeting will be downgraded to non-secure (not encrypted).

BestEffort: The video system can negotiate encryption parameters with CTMS and participate in a secure CTMS meeting (encrypted). Do not use this value if the CTMS version is older than 1.9.1.

Example: NetworkServices CTMS Encryption: Off

NetworkServices UPnP Mode

Not applicable for this product.

NetworkServices UPnP Timeout

Not applicable for this product.

Peripherals settings

Peripherals Profile TouchPanels

Set the number of touch panels that are expected to be connected to the video system. This information is used by the video system's diagnostics service. If the number of connected touch panels does not match this setting, the diagnostics service will report it as an inconsistency. Note that only one Cisco Touch controller is supported in this version.

Requires user role: ADMIN

Value space: <NotSet/Minimum1/0/1/2/3/4/5>

NotSet: No touch panel check is performed.

Minimum1: At least one touch panel should be connected to the video system.

0-5: This number of Touch controllers should be connected to the video system.

Example: Peripherals Profile TouchPanels: NotSet

Phonebook settings

Phonebook Server [1..1] ID

Enter a name for the external phone book.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: String with a maximum of 64 characters.

Example: Phonebook Server 1 ID: ""

Phonebook Server [1..1] Type

Select the phonebook server type.

Requires user role: ADMIN

Value space: <VCS/TMS/Callway/CUCM>

VCS: Select VCS if the phonebook is located on the Cisco TelePresence Video Communication Server.

TMS: Select TMS if the phonebook is located on the Cisco TelePresence Management Suite server.

Callway: Select Callway if the phonebook is to be provided by the WebEx TelePresence subscription service (formerly called CallWay). Contact your WebEx TelePresence provider for more information.

CUCM: Select CUCM if the phonebook is located on the Cisco Unified Communications Manager.

Example: Phonebook Server 1 Type: TMS

Phonebook Server [1..1] URL

Enter the address (URL) to the external phone book server.

Requires user role: ADMIN

Value space: <S: 0, 255>

Format: String with a maximum of 255 characters.

Example: Phonebook Server 1 URL: "http://tms.company.com/tms/public/external/phonebook/phonebookservice.asmx"

Provisioning settings

Provisioning Connectivity

This setting controls how the device discovers whether it should request an internal or external configuration from the provisioning server.

Requires user role: ADMIN

Value space: <Internal/External/Auto>

Internal: Request internal configuration.

External: Request external configuration.

Auto: Automatically discover using NAPTR queries whether internal or external configurations should be requested. If the NAPTR responses have the "e" flag, external configurations will be requested. Otherwise internal configurations will be requested.

Example: Provisioning Connectivity: Auto

Provisioning Mode

It is possible to configure a video system using a provisioning system (external manager). This allows video conferencing network administrators to manage many video systems simultaneously. With this setting you choose which type of provisioning system to use. Provisioning can also be switched off. Contact your provisioning system provider/representative for more information.

Requires user role: ADMIN

Value space: <Off/TMS/VCS/CallWay/CUCM/Auto/Edge>

Off: The video system will not be configured by a provisioning system.

Auto: The provisioning server will automatically be selected by the video system.

TMS: The video system will be configured using TMS (Cisco TelePresence Management System).

VCS: The video system will be configured using VCS (Cisco TelePresence Video Communication Server).

Callway: The video system will be configured using the WebEx TelePresence subscription service (formerly named Callway).

CUCM: The video system will be configured using CUCM (Cisco Unified Communications Manager).

Edge: The system will connect to CUCM via the Collaboration Edge infrastructure.

Example: Provisioning Mode: Auto

Provisioning LoginName

This is the user name part of the credentials used to authenticate the video system with the provisioning server. This setting must be used when required by the provisioning server. If Provisioning Mode is Callway (WebEx TelePresence), enter the video number.

Requires user role: ADMIN

Value space: <S: 0, 80>

Format: String with a maximum of 80 characters.

Example: Provisioning LoginName: ""

Provisioning Password

This is the password part of the credentials used to authenticate the video system with the provisioning server. This setting must be used when required by the provisioning server. If Provisioning Mode is Callway (WebEx TelePresence), enter the activation code.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: String with a maximum of 64 characters.

Example: Provisioning Password: ""

Provisioning HttpMethod

Select the HTTP method to be used for the provisioning.

Requires user role: ADMIN

Value space: <GET/POST>

GET: Select GET when the provisioning server supports GET.

POST: Select POST when the provisioning server supports POST.

Example: Provisioning HttpMethod: POST

Provisioning ExternalManager Address

Enter the IP Address or DNS name of the external manager / provisioning system.

If an External Manager Address (and Path) is configured, the system will send a message to this address when starting up. When receiving this message the external manager / provisioning system can return configurations/commands to the unit as a result.

When using CUCM or TMS provisioning, the DHCP server can be set up to provide the external manager address automatically (DHCP Option 242 for TMS, and DHCP Option 150 for CUCM). An address set in the Provisioning ExternalManager Address setting will override the address provided by DHCP.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: A valid IPv4 address, IPv6 address or DNS name.

Example: Provisioning ExternalManager Address: ""

Provisioning ExternalManager AlternateAddress

Only applicable when the endpoint is provisioned by Cisco Unified Communication Manager (CUCM) and an alternate CUCM is available for redundancy. Enter the address of the alternate CUCM. If the main CUCM is not available, the endpoint will be provisioned by the alternate CUCM. When the main CUCM is available again, the endpoint will be provisioned by this CUCM.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: A valid IPv4 address, IPv6 address or DNS name.

Example: Provisioning ExternalManager AlternateAddress: ""

Provisioning ExternalManager Protocol

Determine whether to use secure management or not.

Requires user role: ADMIN

Value space: <HTTP/HTTPS>

HTTP: Set to HTTP to disable secure management. Requires HTTP to be enabled in the NetworkServices HTTP Mode setting.

HTTPS: Set to HTTPS to enable secure management. Requires HTTPS to be enabled in the NetworkServices HTTPS Mode setting.

Example: Provisioning ExternalManager Protocol: HTTP

Provisioning ExternalManager Path

Set the Path to the external manager / provisioning system. This setting is required when several management services reside on the same server, i.e. share the same External Manager address.

Requires user role: ADMIN

Value space: <S: 0, 255>

Format: String with a maximum of 255 characters.

Example: Provisioning ExternalManager Path: "tms/public/external/management/SystemManagementService.asmx"

Provisioning ExternalManager Domain

Enter the SIP domain for the VCS provisioning server.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: String with a maximum of 64 characters.

Example: Provisioning ExternalManager Domain: "any.domain.com"

RTP settings

RTP Ports Range Start

Specify the first port in the range of RTP ports.

As default, the system is using the UDP ports in the range 2326 to 2487 for RTP and RTCP media data. Each media channel is using two adjacent ports for RTP and RTCP. The default number of ports required in the UDP port range is based on the number of simultaneous calls that the endpoint is capable of.

NOTE: Restart the system for any change to this setting to take effect.

Requires user role: ADMIN

Value space: <1024..65438>

Range: Select a value between 1024 and 65438.

Example: RTP Ports Range Start: 2326

RTP Ports Range Stop

Specify the last RTP port in the range.

As default, the system is using the UDP ports in the range 2326 to 2487 for RTP and RTCP media data. Each media channel is using two adjacent ports for RTP and RTCP. The default number of ports required in the UDP port range is based on the number of simultaneous calls that the endpoint is capable of.

NOTE: Restart the system for any change to this setting to take effect.

Requires user role: ADMIN

Value space: <1120..65535>

Range: Select a value between 1120 and 65535.

Example: RTP Ports Range Stop: 2486

Security settings

Security Audit Logging Mode

Determine where to record or transmit the audit logs. The audit logs are sent to a syslog server. When using the External/ExternalSecure modes and setting the port assignment to manual in the Security Audit Server PortAssignment setting, you must also enter the address and port number for the audit server in the Security Audit Server Address and Security Audit Server Port settings.

Requires user role: AUDIT

Value space: <Off/Internal/External/ExternalSecure>

Off: No audit logging is performed.

Internal: The system records the audit logs to internal logs, and rotates logs when they are full.

External: The system sends the audit logs to an external syslog server. The syslog server must support UDP.

ExternalSecure: The system sends encrypted audit logs to an external syslog server that is verified by a certificate in the Audit CA list. The Audit CA list file must be uploaded to the codec using the web interface. The common_name parameter of a certificate in the CA list must match the IP address of the syslog server, and the secure TCP server must be set up to listen for secure (TLS) TCP Syslog messages.

Example: Security Audit Logging Mode: Off

Security Audit OnError Action

Determine what happens when the connection to the syslog server is lost. This setting is only relevant when Security Audit Logging Mode is set to ExternalSecure.

Requires user role: AUDIT

Value space: <Halt/Ignore>

Halt: If a halt condition is detected the system codec is rebooted and only the auditor is allowed to operate the unit until the halt condition has passed. When the halt condition has passed the audit logs are re-spooled to the syslog server. Halt conditions are: A network breach (no physical link), no syslog server running (or incorrect address or port to the syslog server), TLS authentication failed (if in use), local backup (re-spooling) log full.

Ignore: The system will continue its normal operation, and rotate internal logs when full. When the connection is restored it will again send its audit logs to the syslog server.

Example: Security Audit OnError Action: Ignore

Security Audit Server Address

The audit logs are sent to a syslog server. Enter the IP address of the syslog server. Only valid IPv4 or IPv6 address formats are accepted. Host names are not supported. This setting is only relevant when Security Audit Logging Mode is set to External or ExternalSecure.

Requires user role: AUDIT

Value space: <S: 0, 64>

Format: A valid IPv4 address or IPv6 address

Example: Security Audit Server Address: "

Security Audit Server Port

The audit logs are sent to a syslog server. Enter the port of the syslog server that the system shall send its audit logs to. This setting is only relevant when Security Audit PortAssignment is set to Manual.

Requires user role: AUDIT

Value space: <0..65535>

Range: Select a value between 0 to 65535.

Example: Security Audit Server Port: 514

Security Audit Server PortAssignment

The audit logs are sent to a syslog server. You can define how the port number of the external syslog server will be assigned. This setting is only relevant when Security Audit Logging Mode is set to External or ExternalSecure. To see which port number is used you can check the Security Audit Server Port status. Navigate to Configuration > System status on the web interface or; if on a command line interface, run the command xStatus Security Audit Server Port.

Requires user role: AUDIT

Value space: <Auto/Manual>

Auto: Will use UDP port number 514 when the Security Audit Logging Mode is set to External. Will use TCP port number 6514 when the Security Audit Logging Mode is set to ExternalSecure.

Manual: Will use the port value defined in the Security Audit Server Port setting.

Example: Security Audit Server PortAssignment: Auto

Security Session ShowLastLogon

When logging in to the system using SSH or Telnet you will see the UserId, time and date of the last session that did a successful login.

Requires user role: ADMIN

Value space: <Off/On>

On: Show information about the last session.

Off: Do not show information about the last session.

Example: Security Session ShowLastLogon: Off

Security Session InactivityTimeout

Determine how long the system will accept inactivity from the user before he is automatically logged out.

Requires user role: ADMIN

Value space: <0..10000>

Range: Select a value between 1 and 10000 seconds; or select 0 when inactivity should not enforce automatic logout.

Example: Security Session InactivityTimeout: 0

SerialPort settings

SerialPort Mode

Enable/disable the serial port. You will need a console cable made for the purpose. A description is found on Cisco Support Forum. Make a search for "Making a Console Cable and Consoling In".

Requires user role: ADMIN

Value space: <Off/On>

Off: Disable the serial port.

On: Enable the serial port.

Example: SerialPort Mode: On

SerialPort BaudRate

Specify the baud rate (data transmission rate, bits per second) for the serial port. The default value is 38400.

Other connection parameters for the serial port are: Data bits: 8; Parity: None; Stop bits: 1; Flow control: None.

Requires user role: ADMIN

Value space: <9600/19200/38400/57600/115200>

Range: Select a baud rate from the baud rates listed (bps).

Example: SerialPort BaudRate: 38400

SerialPort LoginRequired

Determine if login shall be required when connecting to the serial port.

Requires user role: ADMIN

Value space: <Off/On>

Off: The user can access the codec via the serial port without any login.

On: Login is required when connecting to the codec via the serial port.

Example: SerialPort LoginRequired: On

SIP settings

SIP ANAT

ANAT (Alternative Network Address Types) enables media negotiation for multiple addresses and address types, as specified in RFC 4091.

Requires user role: ADMIN

Value space: <Off/On>

Off: Disable ANAT.

On: Enable ANAT.

Example: SIP ANAT: Off

SIP AuthenticateTransferror

Not applicable in this version.

SIP ListenPort

Turn on or off the listening for incoming connections on the SIP TCP/UDP ports. If turned off, the endpoint will only be reachable through the SIP registrar (CUCM or VCS). It is recommended to leave this setting at its default value.

Requires user role: ADMIN

Value space: <Off/On>

Off: Listening for incoming connections on the SIP TCP/UDP ports is turned off.

On: Listening for incoming connections on the SIP TCP/UDP ports is turned on.

Example: SIP ListenPort: On

SIP PreferredIPMedia

Define the preferred IP version for sending and receiving media (audio, video, data). Only applicable when both Network IPStack and Conference CallProtocolIPStack are set to Dual, and the network does not have a mechanism for choosing the preferred IP version.

Requires user role: ADMIN

Value space: <IPv4/IPv6>

IPv4: The preferred IP version for media is IPv4.

IPv6: The preferred IP version for media is IPv6.

Example: SIP PreferredIPMedia: IPv4

SIP PreferredIPSignaling

Define the preferred IP version for signaling (audio, video, data). Only applicable when both Network IPStack and Conference CallProtocolIPStack are set to Dual, and the network does not have a mechanism for choosing the preferred IP version. It also determines the priority of the A/AAAA lookups in DNS, so that the preferred IP version is used for registration.

Requires user role: ADMIN

Value space: <IPv4/IPv6>

IPv4: The preferred IP version for signaling is IPv4.

IPv6: The preferred IP version for signaling is IPv6.

Example: SIP PreferredIPSignaling: IPv4

SIP OCSP Mode

Not applicable in this version.

SIP OCSP DefaultResponder

Not applicable in this version.

SIP Profile [1..1] Ice Mode

ICE (Interactive Connectivity Establishment, RFC 5245) is a NAT traversal solution that the endpoints can use to discover the optimized media path. Thus the shortest route for audio and video is always secured between the endpoints. NOTE: ICE is not supported when registered to CUCM (Cisco Unified Communication Manager).

Requires user role: ADMIN

Value space: <Auto/Off/On>

Auto: When set to Auto, ICE will be enabled if a turn server is provided, otherwise ICE will be disabled.

Off: Set to Off to disable ICE.

On: Set to On to enable ICE.

Example: SIP Profile 1 Ice Mode: Auto

SIP Profile [1..1] Ice DefaultCandidate

This is the default IP address that the endpoint will receive media on until ICE has reached a conclusion about which media route to use (up to the first 5 seconds of a call).

Requires user role: ADMIN

Value space: <Host/Rflx/Relay>

Host: The endpoint will receive media on its own IP address.

Rflx: The endpoint will receive media on its public IP address as seen by the TURN server.

Relay: The endpoint will receive media on the IP address and port allocated on the TURN server, and is used as a fallback until ICE has concluded.

Example: SIP Profile 1 Ice DefaultCandidate: Host

SIP Profile [1..1] Turn DiscoverMode

Set the discover mode to enable/disable the application to search for available Turn servers in DNS. Before making calls, the system will test if port allocation is possible.

Requires user role: ADMIN

Value space: <Off/On>

Off: Set to Off to disable discovery mode.

On: When set to On, the system will search for available Turn servers in DNS, and before making calls the system will test if port allocation is possible.

Example: SIP Profile Turn DiscoverMode: On

SIP Profile [1..1] Turn BandwidthProbe

Not applicable in this version.

SIP Profile [1..1] Turn DropRflx

DropRflx will make the endpoint force media through the Turn relay, unless the remote endpoint is on the same network.

Requires user role: ADMIN

Value space: <Off/On>

Off: Disable DropRflx.

On: The system will force media through the Turn relay when the remote endpoint is on another network.

Example: SIP Profile Turn DropRflx: Off

SIP Profile [1..1] Turn Server

This is the address of the TURN (Traversal Using Relay NAT) server that the endpoints will use. It is used as a media relay fallback and it is also used to discover the endpoint's own public IP address.

Requires user role: ADMIN

Value space: <S: 0, 255>

Format: The preferred format is DNS SRV record (e.g. _turn._udp.<domain>), or it can be a valid IPv4 or IPv6 address.

Example: SIP Profile 1 Turn Server: "_ turn. _ udp.example.com"

SIP Profile [1..1] Turn UserName

The user name needed for accessing the TURN server.

Requires user role: ADMIN

Value space: <S: 0, 128>

Format: String with a maximum of 128 characters.

Example: SIP Profile 1 Turn UserName: ""

SIP Profile [1..1] Turn Password

The password needed for accessing the TURN server.

Requires user role: ADMIN

Value space: <S: 0, 128>

Format: String with a maximum of 128 characters.

Example: SIP Profile 1 Turn Password: ""

SIP Profile [1..1] URI

The SIP URI (Uniform Resource Identifier) is the address that is used to identify the video system. The URI is registered and used by the SIP services to route inbound calls to the system. The SIP URI syntax is defined in RFC 3261.

Requires user role: ADMIN

Value space: <S: 0, 255>

Format: String with maximum 255 characters and compliant with the SIP URI syntax.

Example: SIP Profile 1 URI: "sip:firstname.lastname@company.com"

SIP Profile [1..1] DisplayName

When configured the incoming call will report the DisplayName instead of the SIP URI.

Requires user role: ADMIN

Value space: <S: 0, 255>

Format: String with a maximum of 255 characters.

Example: SIP Profile 1 DisplayName: ""

SIP Profile [1..1] Authentication [1..1] LoginName

This is the user name part of the credentials used to authenticate towards the SIP proxy.

Requires user role: ADMIN

Value space: <S: 0, 128>

Format: String with a maximum of 128 characters.

Example: SIP Profile 1 Authentication 1 LoginName: ""

SIP Profile [1..1] Authentication [1..1] Password

This is the password part of the credentials used to authenticate towards the SIP proxy.

Requires user role: ADMIN

Value space: <S: 0, 128>

Format: String with a maximum of 128 characters.

Example: SIP Profile 1 Authentication 1 Password: ""

SIP Profile [1..1] DefaultTransport

Select the transport protocol to be used over the LAN.

Requires user role: ADMIN

Value space: <TCP/UDP/Tls/Auto>

TCP: The system will always use TCP as the default transport method.

UDP: The system will always use UDP as the default transport method.

Tls: The system will always use TLS as the default transport method. For TLS connections a SIP CA-list can be uploaded to the video system. If no such CA-list is available on the system then anonymous Diffie Hellman will be used.

Auto: The system will try to connect using transport protocols in the following order: TLS, TCP, UDP.

Example: SIP Profile 1 DefaultTransport: Auto

SIP Profile [1..1] TlsVerify

For TLS connections a SIP CA-list can be uploaded to the video system. This can be done from the web interface.

Requires user role: ADMIN

Value space: <Off/On>

Off: Set to Off to allow TLS connections without verifying them. The TLS connections are allowed to be set up without verifying the x.509 certificate received from the server against the local CA-list. This should typically be selected if no SIP CA-list has been uploaded.

On: Set to On to verify TLS connections. Only TLS connections to servers, whose x.509 certificate is validated against the CA-list, will be allowed.

Example: SIP Profile 1 TlsVerify: Off

SIP Profile [1..1] Outbound

Turn on or off the client initiated connections mechanism for firewall traversal, connection reuse and redundancy. The current version supports RFC 5626.

Requires user role: ADMIN

Value space: <Off/On>

Off: Connect to the single proxy configured first in Proxy Address list.

On: Set up multiple outbound connections to servers in the Proxy Address list. A random proxy is selected from the list for each SIP outbound request.

Example: SIP Profile 1 Outbound: Off

SIP Profile [1..1] Proxy [1..4] Address

The Proxy Address is the manually configured address for the outbound proxy. The default port is 5060 for TCP and UDP but another one can be provided.

If SIP Profile Outbound is enabled, multiple proxies can be addressed.

Requires user role: ADMIN

Value space: <S: 0, 255>

Format: If SIP Profile Outbound is enabled, use a fully qualified domain name. If SIP Profile Outbound is disabled, you can also use a valid IPv4 address or IPv6 address.

Example: SIP Profile 1 Proxy 1 Address: ""

SIP Profile [1..1] Proxy [1..4] Discovery

Select if the SIP Proxy address is to be obtained manually or by using Dynamic Host Configuration Protocol (DHCP).

Requires user role: ADMIN

Value space: <Auto/Manual>

Auto: When Auto is selected, the SIP Proxy address is obtained using Dynamic Host Configuration Protocol (DHCP).

Manual: When Manual is selected, the manually configured SIP Proxy address will be used.

Example: SIP Profile 1 Proxy 1 Discovery: Manual

SIP Profile [1..1] Type

Enables SIP extensions and special behavior for a vendor or provider.

NOTE: The SIP types Alcatel, Avaya, Microsoft, and Nortel are no longer supported from software version TC6.3.

Requires user role: ADMIN

Value space: <Standard/Cisco>

Standard: Use this when registering to standard SIP Proxy (tested with Cisco TelePresence VCS and Broadsoft)

Cisco: Use this when registering to Cisco Unified Communication Manager.

Example: SIP Profile 1 Type: Standard

SIP Profile [1..1] Mailbox

When registered to a Cisco Unified Communications Manager (CUCM) you may be offered the option of having a private voice mailbox. Enter the number (address) of the mailbox in this setting, or leave the string empty if you do not have a voice mailbox.

Requires user role: ADMIN

Value space: <S: 0, 255>>

Format: String with a maximum of 255 characters.

Example: SIP Profile 1 Mailbox: "12345678"

SIP Profile [1..1] Line

When registered to a Cisco Unified Communications Manager (CUCM) the endpoint may be part of a shared line. This means that several devices share the same directory number. The different devices sharing the same number receive status from the other appearances on the line as defined in RFC 4235.

Note that shared lines are set up by CUCM, not by the endpoint. Therefore do not change this setting manually; CUCM pushes this information to the endpoint when required.

Requires user role: ADMIN

Value space: <Private/Shared>

Shared: The system is part of a shared line and is therefore sharing its directory number with other devices.

Private: This system is not part of a shared line (default).

Example: SIP Profile 1 Line: Private

Standby settings

Standby Control

Determine whether the system should go into standby mode or not.

Requires user role: ADMIN

Value space: <Off/On>

Off: The system will not enter standby mode.

On: Enter standby mode when the Standby Delay has timed out. Requires the Standby Delay to be set to an appropriate value.

Example: Standby Control: On

Standby Delay

Define how long (in minutes) the system shall be in idle mode before it goes into standby mode. Requires the Standby Control to be enabled.

Requires user role: ADMIN

Value space: <1..480>

Range: Select a value between 1 and 480 minutes.

Example: Standby Delay: 10

SystemUnit settings

SystemUnit Name

Define the system name. The system name will be sent as the hostname in a DHCP request and when the codec is acting as an SNMP Agent. Define the system name. The system name will be sent as the hostname in a DHCP request and when the codec is acting as an SNMP Agent.

Requires user role: ADMIN

Value space: <S: 0, 50>

Format: String with a maximum of 50 characters.

Example: SystemUnit Name: "Meeting Room"

SystemUnit MenuLanguage

Select the language to be used on the Touch controller.

Requires user role: USER

Value space: <English/ChineseSimplified/ChineseTraditional/Catalan/Czech/Danish/Dutch/Finnish/French/German/Hungarian/Italian/Japanese/Korean/Norwegian/Polish/PortugueseBrazilian/Russian/Spanish/Swedish/Turkish/Arabic/Hebrew>

Example: SystemUnit MenuLanguage: English

SystemUnit CallLogging Mode

Set the call logging mode for calls that are received or placed by the system. The call logs may then be viewed via the web interface.

Requires user role: ADMIN

Value space: <Off/On>

Off: Disable logging.

On: Enable logging.

Example: SystemUnit CallLogging Mode: On

SystemUnit ContactInfo Type

Choose which type of contact information to show in the status field in the upper left corner of the Touch controller.

Requires user role: ADMIN

Value space: <Auto/None/IPv4/IPv6/H323Id/E164Alias/H320Number/SipUri/SystemName/DisplayName>

Auto: Show the address which another system can dial to reach this system. The address depends on the default call protocol and system registration.

None: Do not show any contact information in the status field.

IPv4: Show the IPv4 address as contact information.

IPv6: Show the IPv6 address as contact information.

H323Id: Show the H.323 ID as contact information (see the H323 Profile [1..1] H323Alias ID setting).

E164Alias: Show the H.323 E164 Alias as contact information (see the H323 Profile [1..1] H323Alias E164 setting).

H320Number: Show the H.320 number as contact information (only applicable if connected to a Cisco TelePresence ISDN Link gateway).

SipUri: Show the SIP URI as contact information (see the SIP Profile [1..1] URI setting).

SystemName: Show the system name as contact information (see the SystemUnit Name setting).

DisplayName: Show the display name as contact information (see the SIP Profile [1..1] DisplayName setting).

Example: SystemUnit ContactInfo Type: Auto

SystemUnit IrSensor

Not applicable in this version.

Time settings

Time TimeFormat

Set the time format.

Requires user role: USER

Value space: <24H/12H>

24H: Set the time format to 24 hours.

12H: Set the time format to 12 hours (AM/PM).

Example: Time TimeFormat: 24H

Time DateFormat

Set the date format.

Requires user role: USER

Value space: <DD_MM_YY/MM_DD_YY/YY_MM_DD>

DD_MM_YY: The date January 30th 2010 will be displayed: 30.01.10

MM_DD_YY: The date January 30th 2010 will be displayed: 01.30.10

YY_MM_DD: The date January 30th 2010 will be displayed: 10.01.30

Example: Time DateFormat: DD_MM_YY

Time Zone

This has been replaced with the Time OlsonZone setting as of software version TC7.2.

Europe/Minsk, Europe/Monaco, Europe/Moscow, Europe/Nicosia, Europe/Oslo, Europe/Paris, Europe/Podgorica, Europe/Prague, Europe/Riga, Europe/Rome, Europe/Samara, Europe/San_Marino, Europe/Sarajevo, Europe/Simferopol, Europe/Skopje, Europe/Sofia, Europe/Stockholm, Europe/Tallinn, Europe/Tirane, Europe/Tiraspol, Europe/Uzhgorod, Europe/Vaduz, Europe/Vatican, Europe/Vienna, Europe/Vilnius, Europe/Volgograd, Europe/Warsaw, Europe/Zagreb, Europe/Zaporozhye, Europe/Zurich, GB, GB-Eire, GMT, GMT+0, GMT-0, GMT0, Greenwich, HST, Hongkong, Iceland, Indian/Antananarivo, Indian/Chagos, Indian/Christmas, Indian/Cocos, Indian/Comoro, Indian/Kerguelen, Indian/Mahe, Indian/Maldives, Indian/Mauritius, Indian/Mayotte, Indian/Reunion, Iran, Israel, Jamaica, Japan, Kwajalein, Libya, MET, MST, MST7MDT, Mexico/BajaNorte, Mexico/BajaSur, Mexico/General, NZ, NZ-CHAT, Navajo, PRC, PST8PDT, Pacific/Apia, Pacific/Auckland, Pacific/Chatham, Pacific/Chuuk, Pacific/Easter, Pacific/Efate, Pacific/Enderbury, Pacific/Fakaofu, Pacific/Fiji, Pacific/Funafuti, Pacific/Galapagos, Pacific/Gambier, Pacific/Guadalcanal, Pacific/Guam, Pacific/Honolulu, Pacific/Johnston, Pacific/Kiritimati, Pacific/Kosrae, Pacific/Kwajalein, Pacific/Majuro, Pacific/Marquesas, Pacific/Midway, Pacific/Nauru, Pacific/Niue, Pacific/Norfolk, Pacific/Noumea, Pacific/Pago_Pago, Pacific/Palau, Pacific/Pitcairn, Pacific/Pohnpei, Pacific/Ponape, Pacific/Port_Moresby, Pacific/Rarotonga, Pacific/Saipan, Pacific/Samoa, Pacific/Tahiti, Pacific/Tarawa, Pacific/Tongatapu, Pacific/Truk, Pacific/Wake, Pacific/Wallis, Pacific/Yap, Poland, Portugal, ROC, ROK, Singapore, Turkey, UCT, US/Alaska, US/Aleutian, US/Arizona, US/Central, US/East-Indiana, US/Eastern, US/Hawaii, US/Indiana-Starke, US/Michigan, US/Mountain, US/Pacific, US/Pacific-New, US/Samoa, UTC, Universal, W-SU, WET, Zulu>

Range: Select a time zone from the list.

Example: Time OlsonZone: Etc/UTC

UserInterface settings

UserInterface TouchPanel DefaultPanel

Define what (contact list, meeting list, or dial pad) the Touch controller will display on wake up.

Requires user role: USER

Value space: <None/LastUsed/ContactList/MeetingList/Dialpad>

None: None of the below options will appear as default on the Touch controller.

LastUsed: The last used (contact list, meeting list, or dial pad) will appear as default on the Touch controller.

ContactList: The contact list (favorites, directory and history) will appear as default on the Touch controller.

MeetingList: The list of scheduled meetings will appear as default on the Touch controller.

DialPad: The dial pad will appear as default on the Touch controller.

Example: UserInterface TouchPanel DefaultPanel: LastUsed

UserInterface UserPreferences

Some user preferences (ringtone, volume, language, date and time, etc) can be made available from the Settings menu, or from the Settings > Administrator menu on the Touch controller. Accessing the Administrator menus requires that the user has admin privileges.

Requires user role: ADMIN

Value space: <Off/On>

Off: The user preferences are available from the Settings > Administrator menu on the Touch controller, for users with admin privileges.

On: The user preferences are available from the Settings menu on the Touch controller.

Example: UserInterface UserPreferences: On

Video settings

Video AllowWebSnapshots

Note: This setting is only available in TC7.3.0 to TC7.3.2.

Allow or disallow snapshots being taken of the local input sources, remote sites and presentation channel. If snapshots are allowed, the snapshots may be captured both when idle and in a call.

When snapshots are taken from a remote device, e.g. the web interface, a notification appears on the video system's screens to alert the users that remote monitoring is in operation.

Requires user role: ADMIN

Value space: <Off/On/LocalDeviceOnly>

Off: It is not possible to capture snapshots.

On: Snapshots can be captured and displayed anywhere, e.g. on the web interface.

LocalDeviceOnly: Snapshots can only be captured and displayed on devices running the experimental Cisco Proximity feature. The devices must be in the same room as the video system. It will not be possible to take and see snapshots on the web interface or by using 3rd party integrations.

Example: Video AllowWebSnapshots: LocalDeviceOnly

Video CamCtrlPip CallSetup Mode

This setting is used to switch on self-view for a short while when setting up a call. The Video CamCtrlPip CallSetup Duration setting determines for how long it remains on. This applies when self-view in general is switched off.

Requires user role: ADMIN

Value space: <Off/On>

Off: self-view is not shown automatically during call setup.

On: self-view is shown automatically during call setup.

Example: Video CamCtrlPip CallSetup Mode: On

Video CamCtrlPip CallSetup Duration

This setting only has an effect when the Video CamCtrlPip CallSetup Mode setting is switched On. In this case, the number of seconds set here determines for how long self-view is shown before it is automatically switched off.

Requires user role: ADMIN

Value space: <1..60>

Range: Choose for how long self-view remains on. The valid range is between 1 and 60 seconds.

Example: Video CamCtrlPip CallSetup Duration: 10

Video ControlPanel Brightness

Set the brightness level for the Touch controller.

Requires user role: ADMIN

Value space: <0..100>

Range: Select a value between 0 and 100.

Example: Video ControlPanel Brightness: 100

Video DefaultPresentationSource

Not applicable for this product.

Video Input DVI [2]/[1] RGBQuantizationRange

NOTE: EX90 has the DVI 2 input connector and EX60 has the DVI 1 input connector.

All devices with DVI inputs should follow the rules for RGB video quantization range defined in CEA-861. Unfortunately some devices do not follow the standard and this configuration may be used to override the settings to get a perfect image with any source. The default value is set to Full because most DVI sources expects full quantization range.

Requires user role: ADMIN

Value space: <Auto/Full/Limited>

Auto: RGB quantization range is automatically selected based on video format according to CEA-861-E. CE video formats will use limited quantization range levels. IT video formats will use full quantization range levels.

Full: Full quantization range. The R, G, B quantization range includes all code values (0 - 255). This is defined in CEA-861-E.

Limited: Limited Quantization Range. R, G, B quantization range that excludes some code values at the extremes (16 - 235). This is defined in CEA-861-E.

Example: Video Input 1 DVI 2 RGBQuantizationRange: Full

Video Input DVI [2]/[1] Type

NOTE: EX90 has the DVI 2 input connector and EX60 has the DVI 1 input connector.

The official DVI standard supports both digital and analog signals. In most cases the default AutoDetect setting can detect whether the signal is analog RGB or digital. However, in some rare cases when DVI-I cables are used (these cables can carry both the analog and digital signals) the auto detection fails. This setting makes it possible to override the AutoDetect and select the correct DVI video input.

Requires user role: ADMIN

Value space: <AutoDetect/Digital/AnalogRGB/AnalogYPbPr>

AutoDetect: Set to AutoDetect to automatically detect if the signal is analog RGB or digital.

Digital: Set to Digital to force the DVI video input to Digital when using DVI-I cables with both analog and digital pins and AutoDetect fails.

AnalogRGB: Set to AnalogRGB to force the DVI video input to AnalogRGB when using DVI-I cables with both analog and digital pins and AutoDetect fails.

AnalogYPbPr: Set to AnalogYPbPr to force the DVI video input to AnalogYPbPr, as the component (YPbPr) signal cannot be auto detected.

Example: Video Input DVI 2 Type: AutoDetect

Video Input HDMI [1] RGBQuantizationRange

NOTE: Applies only to EX90.

All devices with HDMI inputs should follow the rules for RGB video quantization range defined in CEA-861. Unfortunately some devices do not follow the standard and this configuration may be used to override the settings to get a perfect image with any source.

Requires user role: ADMIN

Value space: <Auto/Full/Limited>

Auto: RGB quantization range is automatically selected based on the RGB Quantization Range bits (Q0, Q1) in the AVI infoframe. If no AVI infoframe is available, RGB quantization range is selected based on video format according to CEA-861-E.

Full: Full quantization range. The R, G, B quantization range includes all code values (0 - 255). This is defined in CEA-861-E.

Limited: Limited Quantization Range. R, G, B quantization range that excludes some code values at the extremes (16 - 235). This is defined in CEA-861-E.

Example: Video Input 1 HDMI 1 RGBQuantizationRange: Auto

Video Input Source [1..3]/[1..2] Name

NOTE: EX90 has Video Input Source [1..3] and EX60 has Video Input Source [1..2].

Enter a name for the video input source.

Requires user role: ADMIN

Value space: <S: 0, 50>

Format: String with a maximum of 50 characters.

Example: Video Input Source 1 Name: ""

Video Input Source [1] Connector

Select which video input connector to be active on video input source 1.

Requires user role: ADMIN

Value space: <HDMI>/<DVI>

HDMI (EX90): Select HDMI when you want to use the HDMI as the video input source 1.

DVI (EX60): Select DVI when you want to use the DVI as the video input source 1.

Example: Video Input Source 1 Connector: HDMI

Video Input Source [2] Connector

Select which video input connector to be active on video input source 2.

Requires user role: ADMIN

Value space: <DVI>/<CAMERA>

DVI (EX90): Select DVI when you want to use the DVI-I as input source 2.

CAMERA (EX60): Select CAMERA when you want to use the camera as input source 2.

Example: Video Input Source 2 Connector: DVI

Video Input Source [3] Connector

NOTE: Applies only to EX90.

Select which input connector to be active on video input source 3.

Requires user role: ADMIN

Value space: <CAMERA>

CAMERA: Select CAMERA when you want to use the camera as input source 3.

Example: Video Input Source 3 Connector: CAMERA

Video Input Source [1..3]/[1..2] Type

NOTE: EX90 has Video Input Source [1..3] and EX60 has Video Input Source [1..2].

Set which type of input source is connected to the video input.

Requires user role: ADMIN

Value space: <other/camera/PC/DVD/document_camera/whiteboard>

other: Use this when none of the below options match.

camera: Use this when a camera is connected to the video input.

PC: Use this when a computer is connected to the video input.

DVD: Use this when a DVD player is connected to the video input.

document_camera: Use this when a document camera is connected to the video input.

whiteboard: Use this when a whiteboard camera is connected to the video input.

Example: Video Input Source 1 Type: PC

Video Input Source [1..3]/[1..2] PresentationSelection

Define how the video system will behave when a presentation source is connected to the video input. In general, any input source can be used as a presentation source; normally, the main camera (self-view) will not be used as a presentation source.

If the video system is in standby mode, it will wake up when you connect a presentation source. Note that sharing the presentation with the far end always requires additional action (tap Start Presenting on the Touch controller).

EX60: The value for Source 1 is fixed to Automatic. The default value for Source 2 (camera) is Hidden.

EX90: The values for Source 1 and Source 2 are fixed to Automatic. The default value for Source 3 (camera) is Hidden.

Requires user role: ADMIN

Value space: <Manual/Automatic/OnConnect/Hidden>

Manual: In manual mode, the contents of the input source will not be presented on the screen until you select it. Use the Touch controller to choose which input source to present.

Automatic: In automatic mode, the content on the input source will be presented on screen automatically. If more than one source is set to Automatic, the last connected source will be used. If any content was active (presented) when the call was disconnected, the content will still be displayed locally.

OnConnect: When in on-connect mode, the content on the input source will be presented on screen when a cable is connected. Otherwise, the behavior is like when in manual mode.

Hidden: In hidden mode, the contents of the input source do not appear in the graphical user interface.

Example: Video Input Source 1 PresentationSelection: Automatic

Video Input Source [1..3]/[1..2] Visibility

NOTE: EX90 has Video Input Source [1..3] and EX60 has Video Input Source [1..2].

Define the visibility of the video input source in the menus on the user interface.

Requires user role: ADMIN

Value space: <Never/Always/IfSignal>

Never: Set to Never when the input source is not expected to be used as a presentation source.

Always: When set to Always, the menu selection for the video input source will always be visible on the graphical user interface.

IfSignal: When set to IfSignal, the menu selection for the video input source will only be visible when a presentation source is connected to the video input.

Example: Video Input Source 1 Visibility: IfSignal

Video Input Source [1..3]/[1..2] CameraControl Mode

Indicates whether or not camera control is enabled for the selected video input source when the video input is active. In this product this value is fixed for all input sources.

Value space: <Off/On>

Off: Disable camera control.

On: Enable camera control.

Video Input Source [1..3]/[1..2] CameraControl CameraleD

Indicates the ID of the camera. This value is fixed in this product.

Value space: <1>

Range: Indicates the ID of the camera.

Video Input Source [1..3]/[1..2] OptimalDefinition Profile

NOTE: EX90 has Video Input Source [1..3] and EX60 has Video Input Source [1..2].

The Video Input Source Quality setting must be set to Motion for the optimal definition settings to take any effect.

The optimal definition profile should reflect the lighting conditions in your room and the quality of the video input (camera); the better the lighting conditions and video input, the higher the profile. Then, in good lighting conditions, the video encoder will provide better quality (higher resolution or frame rate) for a given call rate.

Generally, we recommend using the Normal or Medium profiles. However, when the lighting conditions are good, the High profile can be set in order to increase the resolution for a given call rate.

Some typical resolutions used for different optimal definition profiles, call rates and transmit frame rates are shown in the table below. It is assumed that dual video is not used. The resolution must be supported by both the calling and called systems.

Use the Video Input Source OptimalDefinition Threshold60fps setting to decide when to use the 60 fps frame rate.

Typical resolutions used for different optimal definition profiles, call rates and frame rates								
Frame rate	Optimal Definition Profile	Call rate						
		256 kbps	768 kbps	1152 kbps	1472 kbps	2560 kbps	4 Mbps	6 Mbps
30 fps	Normal	512×288	1024×576	1280×720	1280×720	1920×1080	1920×1080	1920×1080
	Medium	640×360	1280×720	1280×720	1280×720	1920×1080	1920×1080	1920×1080
	High	768×448	1280×720	1280×720	1920×1080	1920×1080	1920×1080	1920×1080
60 fps	Normal	256×144	512×288	768×448	1024×576	1280×720	1280×720	1280×720
	Medium	256×144	768×448	1024×576	1024×576	1280×720	1280×720	1280×720
	High	512×288	1024×576	1280×720	1280×720	1280×720	1280×720	1280×720

Requires user role: ADMIN

Value space: <Normal/Medium/High>

Normal: Use this profile for a normally to poorly lit environment. Resolutions will be set rather conservative.

Medium: Requires good and stable lighting conditions and a good quality video input. For some call rates this leads to higher resolution.

High: Requires nearly optimal video conferencing lighting conditions and a good quality video input in order to achieve a good overall experience. Rather high resolutions will be used.

Example: Video Input Source 2 OptimalDefinition Profile: Normal

Video Input Source [1..3]/[1..2] OptimalDefinition Threshold60fps

NOTE: EX90 has Video Input Source [1..3] and EX60 has Video Input Source [1..2].

For each video input, this setting tells the system the lowest resolution where it should transmit 60 fps. So for all resolutions lower than this, the maximum transmitted frame rate would be 30 fps, while above this resolution 60 fps will also be possible, if the available bandwidth is adequate.

Requires user role: ADMIN

Value space: <512_288/768_448/1024_576/1280_720/1920_1080/Never>

512_288: Set the threshold to 512x288.

768_448: Set the threshold to 768x448.

1024_576: Set the threshold to 1024x576.

1280_720: Set the threshold to 1280x720.

1920_1080: Set the threshold to 1920x1080.

Never: Do not set a threshold for transmitting 60fps.

Example: Video Input Source 2 OptimalDefinition Threshold60fps: 1280 _ 720

Video Input Source [1..3]/[1..2] Quality

NOTE: EX90 has Video Input Source [1..3] and EX60 has Video Input Source [1..2].

When encoding and transmitting video there will be a trade-off between high resolution and high frame rate. For some video sources it is more important to transmit high frame rate than high resolution and vice versa. The Quality setting specifies whether to give priority to high frame rate or to high resolution for a given source.

Priority is always given to high frame rate for the video system's internal camera, therefore Quality is fixed to Motion for

Input Source 3 on EX90 and Input Source 2 on EX60.

Requires user role: ADMIN

Value space: <Motion/Sharpness>

Motion: Gives the highest possible frame rate. Used when there is a need for higher frame rates, typically when a large number of participants are present or when there is a lot of motion in the picture.

Sharpness: Gives the highest possible resolution. Used when you want the highest quality of detailed images and graphics.

Example: Video Input Source 2 Quality: Motion

Video MainVideoSource

Define which video input source shall be used as the main video source. The video input source is configured with the "Video Input Source [1..n] Connector" setting.

Requires user role: USER

Value space: <1/2/3>/<1/2>

Range: Select the source to be used as the main video source.

Example: Video MainVideoSource: 3

Video Layout DisableDisconnectedLocalOutputs

Determine whether or not the built-in layout engine shall set layouts on local outputs that have no monitor connected.

Requires user role: ADMIN

Value space: <Off/On>

Off: The built-in layout engine sets layout on all local outputs, also the ones not having any monitor connected.

On: The built-in layout engine does only set layout on local outputs having a monitor connected.

Example: Video Layout DisableDisconnectedLocalOutputs: Off

Video Layout LocalLayoutFamily

Select which video layout family to use locally.

Requires user role: ADMIN

Value space: <Auto/FullScreen/Equal/PresentationSmallSpeaker/PresentationLargeSpeaker/Prominent/Overlay/Single>

Auto: The default layout family, as given in the layout database provided by the system, will be used as the local layout.

FullScreen: The FullScreen layout family will be used as the local layout. It means that the active speaker or presentation will be shown in full screen. Using this value is not recommended as from TC6.0.

Equal: The Equal layout family will be used as the local layout. All videos have equal size, as long as there is space enough on the screen.

PresentationSmallSpeaker: The PresentationSmallSpeaker layout family will be used as the local layout. Using this value is not recommended as from TC6.0.

PresentationLargeSpeaker: The PresentationLargeSpeaker layout family will be used as the local layout. Using this value is not recommended as from TC6.0.

Prominent: The Prominent layout family will be used as the local layout. The active speaker, or the presentation if present, will be a large picture, while the other participants will be small pictures. Transitions between active speakers are voice switched.

Overlay: The Overlay layout family will be used as the local layout. The active speaker, or the presentation if present, will be shown in full screen, while the other participants will be small pictures-in-picture (PiP). Transitions between active speakers are voice switched.

Single: The active speaker, or the presentation if present, will be shown in full screen. The other participants are not shown. Transitions between active speakers are voice switched.

Example: Video Layout LocalLayoutFamily: Auto

Video Layout PresentationDefault View

Determine how the presentation will show on screen when you start sharing a presentation.

Requires user role: ADMIN

Value space: <Default/Minimized/Maximized>

Default: The presentation is a part of the layout.

Minimized: The presentation starts up in PiP mode.

Maximized: The presentation starts up in full screen mode.

Example: Video Layout PresentationDefault View: Default

Video Layout RemoteLayoutFamily

Select which video layout family to be used for the remote participants.

Requires user role: ADMIN

Value space: <Auto/FullScreen/Equal/PresentationSmallSpeaker/PresentationLargeSpeaker/Prominent/Overlay/Single>

Auto: The default layout family, as given by the local layout database, will be used as the remote layout.

FullScreen: The FullScreen layout family will be used as the remote layout. It means that the active speaker or presentation will be shown in full screen. It is recommended not to use this value as from TC6.0.

Equal: The Equal layout family will be used as the remote layout. All videos have equal size, as long as there is space enough on the screen.

PresentationSmallSpeaker: The PresentationSmallSpeaker layout family will be used as the remote layout. Using this value is not recommended as from TC6.0.

PresentationLargeSpeaker: The PresentationLargeSpeaker layout family will be used as the remote layout. Using this value is not recommended as from TC6.0.

Prominent: The Prominent layout family will be used as the remote layout. The active speaker, or the presentation if present, will be a large picture, while the other participants will be small pictures. Transitions between active speakers are voice switched.

Overlay: The Overlay layout family will be used as the remote layout. The active speaker, or the presentation if present, will be shown in full screen, while the other participants will be small pictures-in-picture (PiP). Transitions between active speakers are voice switched.

Single: The active speaker, or the presentation if present, will be shown in full screen. The other participants are not shown. Transitions between active speakers are voice switched.

Example: Video Layout RemoteLayoutFamily: Auto

Video Layout Scaling

Define how the system shall adjust the aspect ratio for images or frames when there is a difference between the image and the frame it is to be placed in.

Requires user role: ADMIN

Value space: <Off/On>

Off: No adjustment of the aspect ratio.

On: Let the system automatically adjust aspect ratio.

Example: Video Layout Scaling: On

Video Layout ScaleToFrame

Define what to do if the aspect ratio of a video input source doesn't match the aspect ratio of the corresponding image frame in a composition. For example if you have a 4:3 input source (like XGA) to be displayed on a 16:9 output (like HD720).

Requires user role: ADMIN

Value space: <Manual/MaintainAspectRatio/StretchToFit>

Manual: If the difference in aspect ratio between the video input source and the target image frame is less than the Video Layout ScaleToFrameThreshold setting (in percent), the image is stretched to fit. If not, the system will maintain the original aspect ratio.

MaintainAspectRatio: Maintain the aspect ratio of the input source, and fill in black in the rest of the frame (letter boxing or pillar boxing).

StretchToFit: Stretch (horizontally or vertically) the input source to fit into the image frame. NOTE: The general limitation is that you cannot upscale in one direction and at the same time downscale in the other direction. In such situations the codec will apply letterboxing.

Example: Video Layout ScaleToFrame: MaintainAspectRatio

Video Layout ScaleToFrameThreshold

Only applicable if the Video Layout ScaleToFrame setting is set to manual. If the difference in aspect ratio between the video input source and the target image frame is less than the ScaleToFrameThreshold setting (in percent), the image is stretched to fit. If not, the system will maintain the original aspect ratio.

Requires user role: ADMIN

Value space: <0..100>

Range: Select a value between 0 and 100 percent.

Example: Video Layout ScaleToFrameThreshold: 5

Video PIP ActiveSpeaker DefaultValue Position

Determine the position on screen of the active speaker picture-in-picture (PiP). The setting only takes effect when using a video layout where the active speaker is a PiP, i.e. the Overlay layout, or possibly a Custom layout (see the Video Layout LocalLayoutFamily setting). The setting takes effect from the next call onwards; if changed during a call, it will have no effect on the current call.

Requires user role: ADMIN

Value space: <Current/UpperLeft/UpperCenter/UpperRight/CenterLeft/CenterRight/LowerLeft/LowerRight>

Current: The position of the active speaker PiP will be kept unchanged when leaving a call.

UpperLeft: The active speaker PiP will appear in the upper left corner of the screen.

UpperCenter: The active speaker PiP will appear in the upper center position.

UpperRight: The active speaker PiP will appear in the upper right corner of the screen.

CenterLeft: The active speaker PiP will appear in the center left position.

CenterRight: The active speaker PiP will appear in the center right position.

LowerLeft: The active speaker PiP will appear in the lower left corner of the screen.

LowerRight: The active speaker PiP will appear in the lower right corner of the screen.

Example: Video PIP ActiveSpeaker DefaultValue Position: Current

Video PIP Presentation DefaultValue Position

Determine the position on screen of the presentation picture-in-picture (PiP). The setting only takes effect when the presentation is explicitly minimized to a PiP, for example using the Touch controller. The setting takes effect from the next call onwards; if changed during a call, it will have no effect on the current call.

Requires user role: ADMIN

Value space: <Current/UpperLeft/UpperCenter/UpperRight/CenterLeft/CenterRight/LowerLeft/LowerRight>

Current: The position of the presentation PiP will be kept unchanged when leaving a call.

UpperLeft: The presentation PiP will appear in the upper left corner of the screen.

UpperCenter: The presentation PiP will appear in the upper center position.

UpperRight: The presentation PiP will appear in the upper right corner of the screen.

CenterLeft: The presentation PiP will appear in the center left position.

CenterRight: The presentation PiP will appear in the center right position.

LowerLeft: The presentation PiP will appear in the lower left corner of the screen.

LowerRight: The presentation PiP will appear in the lower right corner of the screen.

Example: Video PIP Presentation DefaultValue Position: Current

Video Selfview

Determine if the main video source (self-view) shall be displayed on screen. This setting is obsoleted by the Video SelfviewDefault Mode setting.

Requires user role: USER

Value space: <Off/On>

Off: Do not display self-view on screen.

On: Display self-view on screen.

Example: Video Selfview: On

Video SelfviewDefault Mode

Determine if the main video source (self-view) shall be displayed on screen after a call. The position and size of the self-view window is determined by the Video SelfviewDefault PIPPosition and the Video SelfviewDefault FullscreenMode settings respectively.

Requires user role: ADMIN

Value space: <Off/Current/On>

Off: self-view is switched off when leaving a call.

Current: self-view is left as is, i.e. if it was on during the call, it remains on after the call; if it was off during the call, it remains off after the call.

On: self-view is switched on when leaving a call.

Example: Video SelfviewDefault Mode: Current

Video SelfviewDefault FullscreenMode

Determine if the main video source (self-view) shall be shown in full screen or as a small picture-in-picture (PiP) after a call. The setting only takes effect when self-view is switched on (see the Video SelfviewDefault Mode setting).

Requires user role: ADMIN

Value space: <Off/Current/On>

Off: self-view will be shown as a PiP.

Current: The size of the self-view picture will be kept unchanged when leaving a call, i.e. if it was a PiP during the call, it remains a PiP after the call; if it was fullscreen during the call, it remains fullscreen after the call.

On: The self-view picture will be shown in fullscreen.

Example: Video SelfviewDefault FullscreenMode: Current

Video SelfviewDefault PIPPosition

Determine the position on screen of the small self-view picture-in-picture (PiP) after a call. The setting only takes effect when self-view is switched on (see the Video SelfviewDefault Mode setting) and fullscreen view is switched off (see the Video SelfviewDefault FullscreenMode setting).

Requires user role: ADMIN

Value space: <Current/UpperLeft/UpperCenter/UpperRight/CenterLeft/CenterRight/LowerLeft/LowerRight >

Current: The position of the self-view PiP will be kept unchanged when leaving a call.

UpperLeft: The self-view PiP will appear in the upper left corner of the screen.

UpperCenter: The self-view PiP will appear in the upper center position.

UpperRight: The self-view PiP will appear in the upper right corner of the screen.

CenterLeft: The self-view PiP will appear in the center left position.

CenterRight: The self-view PiP will appear in the center right position.

LowerLeft: The self-view PiP will appear in the lower left corner of the screen.

LowerRight: The self-view PiP will appear in the lower right corner of the screen.

Example: Video SelfviewDefault PIPPosition: Current

Video SelfviewDefault OnMonitorRole

Determine which monitor/output to display the main video source (self-view) on after a call. The value reflects the monitor roles set for the different outputs in the Video Output HDMI/Internal MonitorRole settings.

The setting applies both when self-view is displayed in full screen, and when it is displayed as picture-in-picture (PiP), but only if the Video Monitors setting is set to Dual.

Requires user role: ADMIN

Value space: <First/Second/Current>

First: The self-view picture will be shown on outputs with the Video Output LCD/Internal MonitorRole set to First.

Second: The self-view picture will be shown on outputs with the Video Output LCD/Internal MonitorRole set to Second.

Current: When leaving a call, the self-view picture will be kept on the same output as it was during the call.

Example: Video SelfviewDefault OnMonitorRole: Current

Video Monitors

EX60 supports only the internal monitor, so the Video Monitors setting is fixed to Single and cannot be changed.

EX90 supports a second monitor. The Video Monitors setting is automatically set to Single if a second monitor is not connected; and it is automatically set to DualPresentationOnly when a second monitor is connected. Do not change this setting manually; keep the default setting.

Requires user role: ADMIN

Value space: <Single/DualPresentationOnly>

Single: Everything (call participants and presentation) is shown on the internal monitor.

DualPresentationOnly: All participants in the call are shown on the internal monitor. If a presentation is part of the layout, the presentation is shown on the second monitor.

This value is not supported on EX60.

Example: Video Monitors: Single

Video OSD Mode

This setting is not applicable for this product.

Video OSD WallpaperSelection

This setting is not applicable for this product.

Video OSD LanguageSelection

This setting is not applicable for this product.

Video OSD MenuStartupMode

This setting is not applicable for this product.

Video OSD VirtualKeyboard

This setting is not applicable for this product.

Video OSD EncryptionIndicator

Define for how long the encryption indicator (a padlock) will be shown on screen. The setting applies to both encrypted and non-encrypted calls, i.e. both to secure and non-secure conferences. The icon for encrypted calls is a locked padlock, and the icon for non-encrypted calls is a crossed out locked padlock.

Requires user role: ADMIN

Value space: <Auto/AlwaysOn/AlwaysOff>

Auto: If the Conference Encryption Mode setting is set to BestEffort and the call is encrypted, the encryption indicator is shown during the first seconds of a call. If the Conference Encryption Mode setting is set to BestEffort and the call is non-encrypted, the crossed out encryption indicator is shown during the entire call. If the Conference Encryption Mode setting is NOT set to BestEffort, the encryption indicator is not shown at all.

AlwaysOn: The encryption indicator is displayed on screen during the entire call. This applies to both encrypted and non-encrypted calls for all Conference Encryption Mode settings.

AlwaysOff: The encryption indicator is never displayed on screen. This applies to both encrypted and non-encrypted calls for all Conference Encryption Mode settings.

Example: Video OSD EncryptionIndicator: Auto

Video OSD MissedCallsNotification

This setting is not applicable for this product.

Video OSD AutoSelectPresentationSource

This setting is not applicable for this product.

Video OSD CallSettingsSelection

This setting is not applicable for this product.

Video OSD TodaysBookings

This setting is not applicable for this product.

Video OSD MyContactsExpanded

This setting is not applicable for this product.

Video OSD Output

This setting is not applicable for this product.

Video OSD InputMethod InputLanguage

This setting is not applicable for this product.

Video OSD InputMethod Cyrillic

This setting is not applicable for this product.

Video OSD LoginRequired

This setting is not applicable for this product.

Video Output HDMI [1] Location HorizontalOffset

NOTE: Applies only to EX90.

HorizontalOffset and VerticalOffset settings are associated with each video output. These settings are used to signal the relative position of the displays that are connected to these outputs. The integrated LCD display has HorizontalOffset = 0 and VerticalOffset = 0 (implicit, not configurable).

HorizontalOffset = 0 and VerticalOffset = 0 indicates that the display is positioned in center, both horizontally and vertically. A negative horizontal offset indicates that the monitor is left of center, and a positive horizontal offset indicates that the monitor is right of center. A negative vertical offset indicates that the monitor is below center, and a positive vertical offset indicates that the monitor is above center. The magnitude of the offset indicates how far the display is from center (relative to other displays).

Example: You have two displays side by side, one in center and one to the left. Then the following settings will apply: HorizontalOffset = 0 for the center display, HorizontalOffset = -1 for the left display.

Example: You have two displays, one in center and one below. Then the following settings will apply: VerticalOffset = 0 for the center display, Vertical Offset = -1 for the lower display.

The default values for the different outputs are:

Video Output HDMI [1] Location: HorizontalOffset = 1, VerticalOffset = 0

Requires user role: ADMIN

Value space: <-100..100>

Range: The value must be between -100 and 100.

Example: Video Output HDMI 1 Location HorizontalOffset: 1

Video Output HDMI [1] Location VerticalOffset

NOTE: Applies only to EX90.

HorizontalOffset and VerticalOffset settings are associated with each video output. These settings are used to signal the relative position of the displays that are connected to these outputs. The integrated LCD display has HorizontalOffset = 0 and VerticalOffset = 0 (implicit, not configurable).

HorizontalOffset = 0 and VerticalOffset = 0 indicates that the display is positioned in center, both horizontally and vertically. A negative horizontal offset indicates that the monitor is left of center, and a positive horizontal offset indicates that the monitor is right of center. A negative vertical offset indicates that the monitor is below center, and a positive vertical offset indicates that the monitor is above center. The magnitude of the offset indicates how far the display is from center (relative to other displays).

Example: You have two displays side by side, one in center and one to the left. Then the following settings will apply: HorizontalOffset = 0 for the center display, HorizontalOffset = -1 for the left display.

Example: You have two displays, one in center and one below. Then the following settings will apply: VerticalOffset = 0 for the center display, Vertical Offset = -1 for the lower display.

The default values for the different outputs are:

Video Output HDMI [1] Location: HorizontalOffset = 1, VerticalOffset = 0

Requires user role: ADMIN

Value space: <-100..100>

Range: The value must be between -100 and 100.

Example: Video Output HDMI 1 Location Vertical Offset: 0

Video Output HDMI [1] RGBQuantizationRange

NOTE: Applies only to EX90.

Devices connected to an HDMI output should follow the rules for RGB video quantization range defined in CEA-861. Unfortunately some devices do not follow the standard and this configuration may be used to override the settings to get a perfect image with any display. The default value is set to Full because most HDMI displays expects full quantization range.

Requires user role: ADMIN

Value space: <Auto/Full/Limited>

Auto: RGB quantization range is automatically selected based on the RGB Quantization Range bits (Q0, Q1) in the AVI infoframe. If no AVI infoframe is available, RGB quantization range is selected based on video format according to CEA-861-E.

Full: Full quantization range. The R, G, B quantization range includes all code values (0 - 255). This is defined in CEA-861-E.

Limited: Limited Quantization Range. R, G, B quantization range that excludes some code values at the extremes (16 - 235). This is defined in CEA-861-E.

Example: Video Output HDMI 1 RGBQuantizationRange: Full

Video Output HDMI [1] CEC Mode

NOTE: Applies only to EX90.

The HDMI output supports Consumer Electronics Control (CEC). When this setting is On (default is Off), the system will use CEC to set the monitor in standby when the system itself enters standby. Likewise the system will wake up the monitor when the system itself wakes up from standby. For this to happen, the monitor that is connected to the output must be CEC compatible and CEC must be configured on the monitor.

Note that the different manufacturers uses different marketing names for CEC, for example Anynet+ (Samsung); Aquos Link (Sharp); BRAVIA Sync (Sony); HDMI-CEC (Hitachi); Kuro Link (Pioneer); CE-Link and Regza Link (Toshiba); RIHD (Onkyo); HDAVI Control, EZ-Sync, VIERA Link (Panasonic); EasyLink (Philips); and NetCommand for HDMI (Mitsubishi).

Requires user role: ADMIN

Value space: <Off/On>

Off: Disable CEC control.

On: Enable CEC control.

Example: Video Output HDMI 1 CEC Mode: Off

Video Output HDMI [1] MonitorRole

NOTE: Applies only to EX90, and only when the Dual Display option is installed.

Define which video stream to show on the monitor connected to the HDMI output connector. Do not change this setting manually; keep the default setting.

Value space: <Second>

Second: Show the presentation, if present, on the monitor connected to the HDMI output.

Video Output HDMI [1] OverscanLevel

NOTE: Applies only to EX90.

Some monitors may not present the entire image that they receive. This means that the outer parts of the image that is sent from the video system may be cut off when displayed on the monitor.

Use this setting to instruct the video system not to use the outer part of the available frame. This part might be cut off by the monitor. Both the video and messages on screen will be scaled in this case.

Requires user role: ADMIN

Value space: <None/Medium/High>

None: The video system will use all of the output resolution.

Medium: The video system will not use the outer 3% of the output resolution.

High: The video system will not use the outer 6% of the output resolution.

Example: Video Output HDMI 1 OverscanLevel: None

Video Output HDMI [1] Resolution

NOTE: Applies only to EX90.

Select the preferred resolution for the monitor connected to the video output HDMI connector. This will force the resolution on the monitor.

Requires user role: ADMIN

Value space: <Auto/640_480_60/800_600_60/1024_768_60/1280_1024_60/1280_720_50/1280_720_60/1920_1080_50/1920_1080_60/1280_768_60/1360_768_60/1366_768_60/1600_1200_60/1680_1050_60/1920_1200_60>

Auto: The system will automatically try to set the optimal resolution based on negotiation with the connected monitor.

640_480_60: The resolution is 640 x 480, and the refresh rate is 60 Hz.

800_600_60: The resolution is 800 x 600, and the refresh rate is 60 Hz.

1024_768_60: The resolution is 1024 x 768, and the refresh rate is 60 Hz.

1280_1024_60: The resolution is 1280 x 1024, and the refresh rate is 60 Hz.

1280_720_50: The resolution is 1280 x 720, and the refresh rate is 50 Hz.

1280_720_60: The resolution is 1280 x 720, and the refresh rate is 60 Hz.

1920_1080_50: The resolution is 1920 x 1080, and the refresh rate is 50 Hz.

1920_1080_60: The resolution is 1920 x 1080, and the refresh rate is 60 Hz.

1280_768_60: The resolution is 1280 x 768, and the refresh rate is 60 Hz.

1360_768_60: The resolution is 1360 x 768, and the refresh rate is 60 Hz.

1366_768_60: The resolution is 1366 x 768, and the refresh rate is 60 Hz.

1600_1200_60: The resolution is 1600 x 1200, and the refresh rate is 60 Hz.

1680_1050_60: The resolution is 1680 x 1050, and the refresh rate is 60 Hz.

1920_1200_60: The resolution is 1920 x 1200, and the refresh rate is 60 Hz.

Example: Video Output HDMI 1 Resolution: Auto

Video Output LCD [2]/[1] Resolution

NOTE: EX90 has a LCD 2 connector and EX60 has a LCD 1 connector.

Set the resolution and refresh rate for the video system's LCD screen.

Requires user role: ADMIN

Value space: EX90: <1920_1200_60> EX60: <1920_1080_60>

1920_1200_60: The screen resolution is 1920 x 1200, and the refresh rate is 60 Hz (only EX90).

1920_1080_60: The screen resolution is 1920 x 1080, and the refresh rate is 60 Hz (only EX60).

Example: Video Output LCD 1 Resolution: 1920_1080_60

Video Output LCD [2]/[1] MonitorRole

NOTE: EX90 has a LCD 2 connector and EX60 has a LCD 1 connector.

Set the LCD monitor role. Do not change this setting manually; keep the default setting.

Value space: <InternalSetup>

InternalSetup: The internal setup as defined by the Touch controller will be used.

Video Output LCD [2]/[1] Brightness

NOTE: EX90 has a LCD 2 connector and EX60 has a LCD 1 connector.

Set the brightness level for the monitor.

Requires user role: ADMIN

Value space: <0..100>

Range: Select a value between 0 and 100.

Example: Video Output LCD 1 Brightness: 50

Video Output LCD [2]/[1] Red

NOTE: EX90 has a LCD 2 connector and EX60 has a LCD 1 connector.

Set the Red color level for the monitor.

Requires user role: ADMIN

Value space: <0..100>

Range: Select a value between 0 and 100.

Example: Video Output LCD 1 Red: 50

Video Output LCD [2]/[1] Green

NOTE: EX90 has the LCD 2 connector and EX60 has the LCD 1 connector.
Set the Green color level for the monitor.

Requires user role: ADMIN

Value space: <0..100>

Range: Select a value between 0 and 100.

Example: Video Output LCD 1 Green: 50

Video Output LCD [2]/[1] Blue

NOTE: EX90 has the LCD 2 connector and EX60 has the LCD 1 connector.
Set the Blue color level for the monitor.

Requires user role: ADMIN

Value space: <0..100>

Range: Select a value between 0 and 100.

Example: Video Output LCD 1 Blue: 50

Video Output Internal [3]/[2] MonitorRole

NOTE: EX90 has Internal 3 and EX60 has Internal 2.

Determine the role of the internal monitor and choose where to show the video stream and presentation. Do not change this setting manually; keep the default setting.

Value space: <First>

First: Show the main video stream and presentation on the internal monitor. For EX90, the presentation may be shown on a second monitor connected to the HDMI output (see the Video Output HDMI 1 MonitorRole setting).

Video Wallpaper

Select a background image (wallpaper) for the video screen when idle. A corresponding background image will be applied to the Touch controller.

You may upload a custom wallpaper to the video system using the web interface. Note that the custom wallpaper will be applied only to the video screen. The following file formats are supported: BMP, GIF, JPEG, PNG. The maximum file size is 2 MByte.

Requires user role: USER

Value space: <None/Custom/Wallpaper01/Wallpaper02/Wallpaper03/Wallpaper04/Wallpaper05/Wallpaper06/Wallpaper07/Wallpaper08/Wallpaper09/Wallpaper10/Wallpaper11/Wallpaper12>

None: There is no background image on the screen, i.e. the background is black.

Wallpaper01 to Wallpaper12: The chosen background image is shown on both the video screen and the Touch controller.

Custom: Use the custom wallpaper as background image on the screen. If no custom wallpaper is uploaded to the system, the setting will revert to the default value.

Example: Video Wallpaper: Wallpaper01

Experimental settings

The Experimental settings are for testing only and should not be used unless agreed with Cisco. These settings are not documented and WILL change in later releases.



CHAPTER 4

SETTING PASSWORDS

Setting the system password

The system password protects the video system. You have to sign in to be able to use the web interface, and to get access to the Administrator settings from a Touch 8 controller.

The *admin* user

The video system is delivered with a default user account with full credentials. The user name is *admin*, and initially, no password is set for the default user.



It is mandatory to set a password for the *admin* user in order to restrict access to system configuration. Also set a password for any other user with similar credentials.

Make sure to keep a copy of the password in a safe place. You have to factory reset the unit if you have forgotten the password.

A warning, saying that the system password is not set, is shown on screen until a password is set for the *admin* user.

Other user accounts

You can create as many user accounts as you like for your video system.

You can read more about how to create and manage user accounts in the ► [User administration](#) section.

Changing your own system password

Perform the following steps to change the system password.

If a password is currently not set, use a blank [Current password](#); to remove a password, leave the [New password](#) fields blank.

1. Sign in to the web interface with your user name and current password.
2. Click your user name in the upper right corner and choose [Change password](#) in the drop down menu.
3. Enter the [Current password](#), the [New password](#), and repeat the new password in the appropriate input fields.
The password format is a string with 0–64 characters.
4. Click [Change password](#).

Changing another user's system password

If you have administrator access rights, you can change all users' passwords by performing the following steps:

1. Sign in to the web interface with your user name and password.
2. Go to the [Configuration](#) tab and select [User Administration](#).
3. Choose the appropriate user from the list.
4. Enter a new password and PIN code.
5. Click [Save](#).



APPENDICES

The appendices section provides you with additional information that you may find useful as a system administrator for the EX60/EX90.

Cisco VCS provisioning

When using Cisco VCS (Video Communication Server) provisioning, a template containing all the settings that can be provisioned must be uploaded to Cisco TMS (TelePresence Management System). This is called the *Cisco TMS provisioning configuration template*.

All the system settings for your video system are included in this template. All settings except *SystemUnit Name* and *SIP Profile [1..1] URI* can be automatically provisioned to the video system.

The settings are described in the ► [System settings](#) chapter in this guide. Examples showing either the default value or an example value are included.

Downloading the provisioning configuration template

You can download the templates here:

► <http://www.cisco.com/c/en/us/support/collaboration-endpoints/telepresence-system-ex-series/products-release-notes-list.html>

For each software release there is one provisioning configuration template (XML file) for each video system model. Take care to use the correct file.

Read the *Cisco TMS Provisioning Deployment Guide* to find how to upload the file to Cisco TMS, and how to set the desired values for the parameters to be provisioned. If not set by Cisco TMS, the default values will be used.

Audio outputs and microphones

The EX90/EX60 offers the choice of the following audio outputs:

- Built-in loudspeaker
- Headset (wired)
- Bluetooth headset (wireless)
- Handset on Touch controller

Available microphone options depends on the chosen audio output.

Microphone input / external microphone

The microphone input at the rear of the video system may be used only for one of the following options:

- Headset microphone
- Cisco TelePresence Table Microphone 20 (external microphone). This option is supported only by EX90



Other microphone types are not supported.

Note that the internal microphone of the video system is disabled when a headset microphone or an external microphone is connected.





Headset output / external loudspeakers

The headset output is for headsets only. You should not connect external loudspeakers to the headset output.

* The [Settings](#) menu can be accessed from the drop down window that appears when you tap the contact information in the upper, left corner of the Touch controller.

** Depending on how your system is set up, the [Bluetooth Headset](#) setting may be in the [Administrator](#) menu or not. Note that you have to log in with an administrator user name and password to get access to the [Administrator](#) menu.

Choosing audio output and microphone

To select an audio output, tap the [Audio output selector](#) (   ) and choose **Speaker**, **Headset**, **Bluetooth** or **Handset**.



Speaker

As a default, the built-in loudspeaker is used together with the internal microphone.

If an external microphone is connected, the internal microphone is disabled and the external microphone will be used instead.



Headset (wired)

Connect the headset to the headset output at the rear of the system. If the headset has an in-built microphone, connect it to the microphone input.

If the headset comes without a microphone, either the internal microphone or, if connected and supported, the external microphone is used.

If you have connected both a wired headset and a Bluetooth headset, only the Bluetooth headset will be available in the selector.



Bluetooth headset (wireless)

Use the Touch controller to pair the headset with the video system (open the [Settings](#)* menu and choose ([Administrator > Bluetooth Headset](#)** and set-up the connection).

The headset's microphone will be used.



Handset

The handset is automatically selected when you lift it off the hook.

Only the microphone in the handset is enabled. Neither the internal microphone nor an external microphone can be used.

Note that only the available options are shown, i.e. if you have not connected a headset (neither wired nor wireless), and you have not lifted the handset off the hook, only Speaker is present in the selector.



Optimal definition profiles

Under ideal lighting conditions the bandwidth (call rate) requirements can be substantially reduced.

The optimal definition profile should reflect the lighting conditions in your room and the quality of the video input (camera); the better the lighting conditions and video input, the higher the profile. Then, in good lighting conditions, the video encoder will provide better quality (higher resolution or frame rate) for a given call rate.

In general, we recommend the optimal definition profile set to Normal. However, if lighting conditions are good we recommend that you test the endpoint on the various Optimal Definition Profile settings before deciding on a profile.

Go to System Configuration on the web interface and navigate to [Video > Input > Source \[1..n\] > OptimalDefinition > Profile](#) to choose the preferred optimal definition profile.

You can set a resolution threshold to determine when to allow sending video at 60 fps. For all resolutions lower than this threshold, the maximum transmitted frame rate will be 30 fps; for higher resolutions, 60 fps will be possible if the available bandwidth is adequate.

Go to System Configuration on the web interface and navigate to [Video > Input > Source \[1..n\] > OptimalDefinition > Threshold60fps](#) to set the threshold.

The video input quality settings must be set to Motion for the optimal definition settings to take any effect. With the video input quality set to Sharpness, the endpoint will transmit the highest resolution possible, regardless of frame rate.

Go to System Configuration on the web interface and navigate to [Video > Input > Source \[1..n\] > Quality](#) to set the video quality parameter to Motion.

You can read more about the video settings in the [Blue Settings](#) chapter.



High

Typically used in dedicated video conferencing rooms. Requires very good lighting conditions and a good quality video input to achieve a good overall experience.

Under ideal conditions the bandwidth requirements can be reduced by up to 50% compared to Normal.



Medium

Typically used in rooms with good and stable lighting conditions and a good quality video input.

The bandwidth requirements can be reduced by up to 25% compared to Normal.



Normal

This setting is typically used in office environments where the room is normally to poorly lit.

Typical resolutions used for different optimal definition profiles, call rates and frame rates

Frame rate	Optimal Definition Profile	Call rate						
		256 kbps	768 kbps	1152 kbps	1472 kbps	2560 kbps	4 Mbps	6 Mbps
30 fps	Normal	512×288	1024×576	1280×720	1280×720	1920×1080	1920×1080	1920×1080
	Medium	640×360	1280×720	1280×720	1280×720	1920×1080	1920×1080	1920×1080
	High	768×448	1280×720	1280×720	1920×1080	1920×1080	1920×1080	1920×1080
60 fps	Normal	256×144	512×288	768×448	1024×576	1280×720	1280×720	1280×720
	Medium	256×144	768×448	1024×576	1024×576	1280×720	1280×720	1280×720
	High	512×288	1024×576	1280×720	1280×720	1280×720	1280×720	1280×720

Packet loss resilience - ClearPath

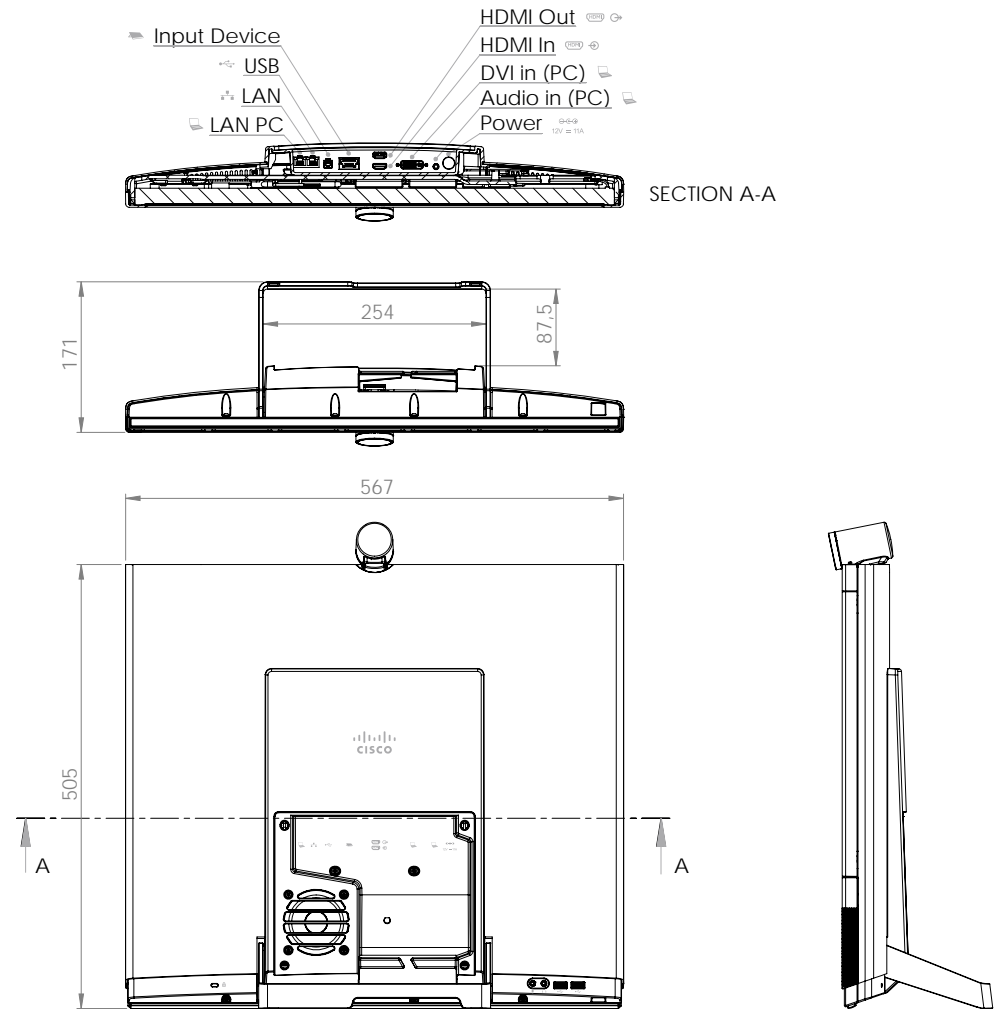
ClearPath introduces several mechanisms for advanced packet loss resilience. These mechanisms increase the experienced quality when you use your video system in an error prone environment.

ClearPath is a Cisco proprietary protocol. All endpoints running TC software support ClearPath.

If the involved endpoints and infrastructure elements support ClearPath, all packet loss resilience mechanisms are used in point-to-point connections. Only some of the mechanisms are supported when using the optional built-in MultiSite feature (available for EX90).

EX90 dimensions

The illustration shows the EX90 dimensions.

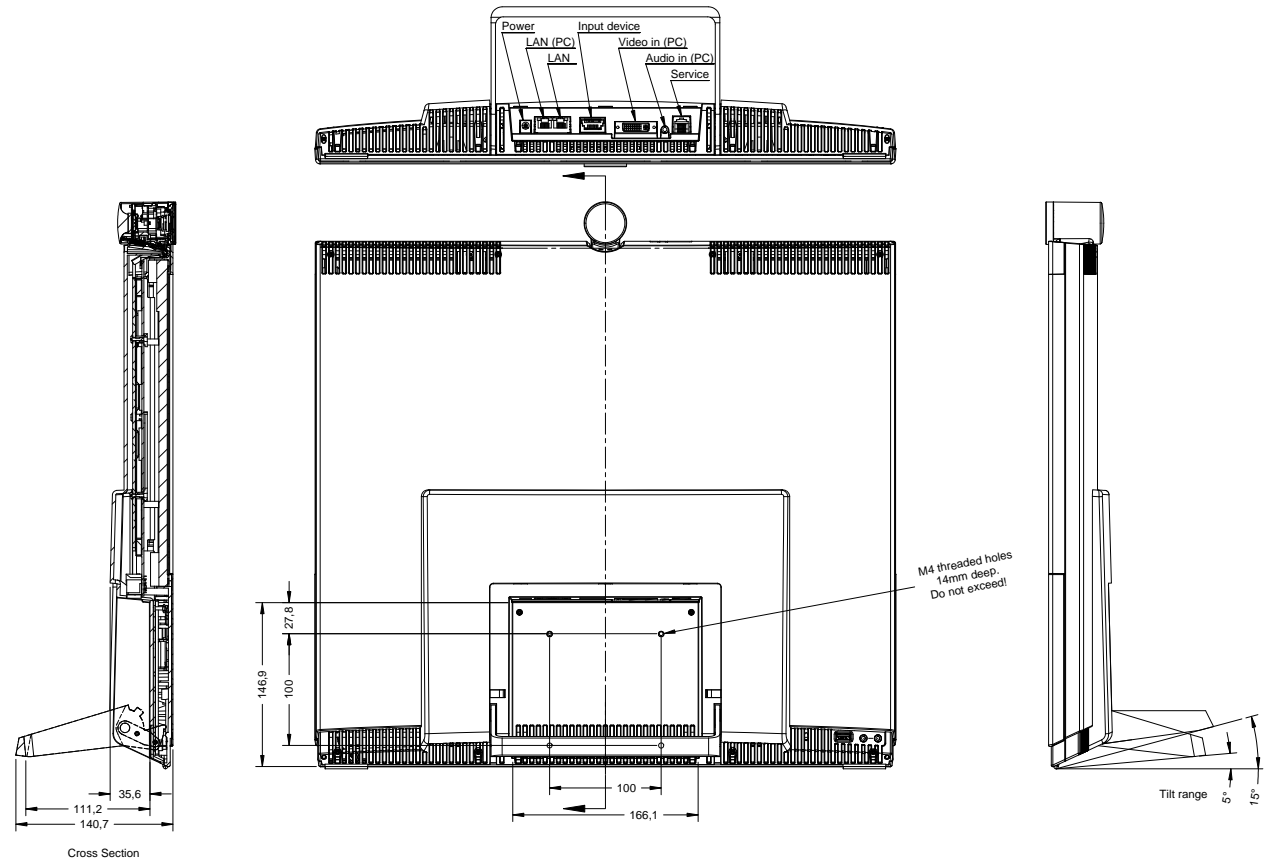


All dimensions are in mm.
EX90 weight: 11 kg (24.2lb)

EX60 dimensions - wall mounting and arm mounting

The EX60 can be attached to a variety of 100 mm × 100 mm VESA compatible wall mounts and arms.

When choosing a mounting solution, consider the mounting pattern, the EX60 dimensions and obstructions; not all VESA compatible products will easily fit with the EX60.



All dimensions are in mm.

EX60 weight: 5.85 kg (12.9 lb)

Factory resetting the video system



It is not possible to undo a factory reset.

You should always backup the log files and the current configuration before you factory reset a system. Open the web interface, sign in, and follow these steps:

- Navigate to [Maintenance > System Recovery](#) and choose the [Backup](#) tab.
- Click [Download Logs](#) and [Download Configuration Backup](#) and follow the instructions to save the files on your computer.

If there is a severe problem with the video system, the last resort may be to reset it to its default factory settings.

Always consider reverting to the previously used software version before performing a factory reset. In many situations this will recover the system. Note that both the current and the previous software images reside on the system. Read about software swapping in the [Reverting to the previously used software version](#) section.

We recommend that you use either a Touch controller or the web interface to factory reset the system. If these interfaces are not available, you can use the video system's power button.

When factory resetting the video system the following happens:

- The call logs will be deleted.
- Passwords will be reset to default.
- All system parameters will be reset to default values.
- All files that have been uploaded to the system will be deleted. This includes, but is not limited to, custom backgrounds, certificates, and the favorites list (My contacts).
- The previous (inactive) software image will be deleted.
- Release keys and option keys will **not** be affected.

The system restarts automatically after the reset. It is using the same software image as before.

User interface: Touch

1. Tap gently on the Touch screen if the unit is in sleep mode.
2. Open the [Settings*](#) menu and navigate to [Administrator > Reset](#). You have to log in with an administrator user name and password to access the [Administrator](#) menu.
3. Tap the [Factory Reset](#) button.

The system reverts to the default factory settings and restarts automatically. This will take a few minutes.

The system confirms the factory reset by displaying a notification on the main screen when up and running again. The notification disappears after approximately 10 seconds.

User interface: Web



Open the [Settings*](#) menu and tap [System Information](#) on the Touch controller to find the system's IP address (IPv4 or IPv6).

1. Open a web browser and enter the IP address of the video system in the address bar.
2. Navigate to [Maintenance > System Recovery](#) and choose the [Factory Reset](#) tab.
3. Read the provided information carefully before you click [Perform a factory reset...](#)
4. Click the red [Yes](#) button to confirm that you want to perform a factory reset.

The system reverts to the default factory settings and restarts automatically. This will take a few minutes.

The system confirms the factory reset by displaying a notification on the main screen when up and running again. The notification disappears after approximately 10 seconds.

Using the power button

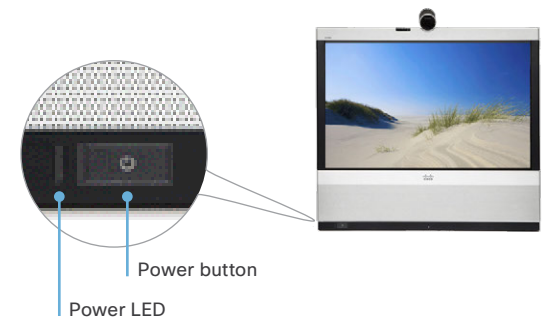
1. Power down the system by pressing and holding the power button until you see the shutdown message on screen. Release the button and wait for the system to shut down.
2. Press and hold the power button until the LED starts blinking slowly (approximately 10 seconds). Then release the button.
3. Within four seconds after the LED starts blinking, press the power button twice.

When the LED lights continuously, the system reverts to the default factory settings and restarts automatically. This will take a few minutes.

The system confirms the factory reset by displaying a notification on the main screen when up and running again. The notification disappears after approximately 10 seconds.



If you failed to press the power button twice within the four seconds, the system will not revert to the default factory settings, and you will not see the confirmation message. If this happens, go back to step 1 and try again.



* The [Settings](#) menu can be accessed from the drop down window that appears when you tap the contact information in the upper, left corner of the Touch controller.

Factory resetting the Touch 8 controller

You can reset the Touch 8 controller to its default factory settings using the New message indicator and the Mute button.

When factory resetting Touch 8 the logs are cleared, and the configuration and pairing information are lost.

Touch 8 restarts after the reset and receives a new configuration automatically from the video system.



It is not possible to undo a factory reset.

1. Locate the *New message indicator* and *Mute* buttons.

The *New message indicator* is a bit hard to see, but it is the button with the exclamation mark on it.



2. Press and hold the *New message indicator* until it lights up (approximately 10 seconds).
3. Press the *Mute* button twice.

The Touch controller automatically reverts to the default factory settings and restarts.

Technical specifications

The EX90/EX60 units are delivered with a fully integrated codec, display, camera, microphone and loudspeakers, and a Touch controller with a detachable wide band handset.

PRODUCT COMPATIBILITY

- Fully compatible with standards-compliant telepresence and video systems

SOFTWARE COMPATIBILITY

EX90:

- Cisco TelePresence Software Version TC3.1 or later, and TE6.0 *

EX60:

- Cisco TelePresence Software Version TC4.0 or later, and TE6.0 *

COMPONENTS

- Fully integrated unit including codec, display, camera, microphone and loudspeakers
- Cables including: VGA-to-DVI-I cable, DVI-D cable, 3.5 mm jack audio cable, LAN cable, power adapter, and power cable

DISPLAY

EX90:

- 24 in. LCD monitor
- Resolution: 1920 × 1200 (16:10)
- Contrast ratio: 1000:1
- Viewing angle: 160°
- Response time: 5 ms
- Brightness: 300 cd/m²
- 5° – 15° tilt

EX60:

- 21.5 in. LCD monitor (with LED backlight)
- Resolution: 1920 × 1080 (16:9)
- Contrast ratio: 1000:1
- Viewing angle: 170°
- Response time: 5 ms
- Brightness: 225 cd/m²

CAMERA

- Cisco TelePresence PrecisionHD design
- Resolutions: 1080p30 and 720p60
- Auto focus
- Integrated privacy shutter
- Document camera mode
- Multicoated all-glass optics
- 1/3-in., 2.1 megapixel CMOS sensor

EX90:

- Horizontal field of view: 45°–65°
- Vertical field of view: 40°–27°
- Focus distance 0.3-infinity
- Optical, motorized zoom

EX60:

- Horizontal field of view: 50°
- Vertical field of view: 29°
- Focus distance 0.1-infinity

AUDIO SYSTEM

- Two stereo front speakers
- Integrated full-range microphone
- One 3.5 mm line-in jack for PC or other audio source
- Two 3.5 mm jack for headset
- Wideband handset
- Bluetooth version 2.1 + EDR

Only EX90:

- Integrated subwoofer
- Support for Cisco TelePresence Table Microphone 20
- HDMI audio input/output

PC AND SECOND SOURCE VIDEO INPUT

EX90:

- DVI-I
- HDMI In (version 1.3)

EX60:

- DVI-I

SUPPORTED PC INPUT RESOLUTIONS

EX90:

- SVGA (800 × 600) to WUXGA (1920 × 1200)

EX60:

- SVGA (800 × 600) to 1080p (1920 × 1080)

USER INTERFACE

- Cisco TelePresence Touch 8 controller
- Eight-inch projected capacitive touch screen
- Resolution: 800 × 480

LANGUAGE SUPPORT

- Danish, Dutch, English, Finnish, French, German, Italian, Japanese, Korean, Norwegian, Portuguese-Brazilian, Russian, Simplified Chinese, Spanish, Swedish

POWER

EX90:

- Autosensing power supply:
 - FSP150-AHAN1-VR
 - AC input: 2.0A, 100–240V, 50–60Hz
 - DC output: 12.5A, 12V
- 150 W max

EX90 with Touch 8:

- In video call: 110 W
- In standby: 58 W

EX60:

- Autosensing power supply:
 - FSP075-DMAA1
 - AC input: 1.2A, 100–240V, 50–60Hz
 - DC output: 6.25A, 12V
- 75 W max

EX60 with Touch 8:

- In video call: 46 W
- In standby: 31 W

* TE6.0 is a CUCM-only release and does not support all non-CUCM features from software versions TC 5.x and earlier. TC6.0 does not support all CUCM features from software version TE6.0. Full feature parity in TC software was introduced in TC6.1.

OPERATING TEMPERATURE AND HUMIDITY

- Ambient temperature: 0° C to 35° C (32° F to 95° F)
- Relative Humidity (RH): 10 to 90%
- Storage and transport temperature at RH 10–90% (non-condensing): -20° C to 60° C (-4° F to 140° F)

MAIN UNIT DIMENSIONS

EX90:

- Height: 54.5 cm (21.4 in.)
- Length: 56.7 cm (22.3 in.)
- Depth: 17.3 cm (6.8 in.)
- Weight: 11.0 kg (24.2 lb)

EX60:

- Height: 50.8 cm (20.0 in.)
- Length: 52.0 cm (20.5 in.)
- Depth: 13.8 cm (5.4 in.)
- Weight: 5.85 kg (12.9 lb)

TOUCH SCREEN DIMENSIONS

Without handset:

- Height: 4.4 cm (1.7 in.)
- Length: 22.8 cm (9.0 in.)
- Depth: 14.5 cm (5.7 in.)
- Weight: 0.64 kg (1.4 lb)
- Cable length: 120 cm (47 in.)

With handset:

- Height: 7.7 cm (3.0 in.)
- Length: 29.0 cm (11.4 in.)
- Depth: 18.7 cm (7.4 in.)
- Weight: 0.94 kg (2.1 lb)
- Cable length: 120 cm (47 in.)

BANDWIDTH

- H.323/SIP up to 6 Mbps point-to-point

AUDIO STANDARDS

- G.711, G.722, G.722.1, G.729AB

EX90:

- 64 kbps and 128 kbps AAC-LD, mono and stereo
- G.728 (only point-to-point)

EX60:

- 64 kbps AAC-LD

AUDIO FEATURES

- CD quality 20 kHz stereo
- Acoustic echo canceling
- Automatic gain control
- Automatic noise reduction
- Active lip synchronization

VIDEO STANDARDS

- H.261, H.263, H.263+, H.264

VIDEO FEATURES

- Widescreen: 16:9
- Advanced screen layouts
- Intelligent video management
- Local auto layout

LIVE VIDEO RESOLUTIONS (ENCODE/DECODE)

- 176 × 144@30 fps (QCIF)
- 352 × 288@30 fps (CIF)
- 512 × 288@30 fps (w288p)
- 576 × 448@30 fps (448p)
- 768 × 448@30 fps (w448p)
- 704 × 576@30 fps (4CIF)
- 1024 × 576@30 fps (w576p)
- 640 × 480@30 fps (VGA)
- 800 × 600@30 fps (SVGA)
- 1024 × 768@30 fps (XGA)
- 1280 × 1024@30 fps (SXGA)
- 1280 × 720@30 fps (720p30)
- 1280 × 768@30 fps (WXGA)
- 1920 × 1080@30 fps (1080p30)*
- 1440 × 900@30 fps (WXGA+)*
- 1472 × 1080@30 fps (SXGA+)*
- 1680 × 1050@30 fps (WSXGA+)*
- 1600 × 1200@30 fps (UXGA)*
- 512 × 288@60 fps (w288p60)*
- 768 × 448@60 fps (w448p60)*
- 1024 × 576@60 fps (w576p60)*
- 1280 × 720@60 fps (720p60)*

Only EX90:

- 1920 × 1200@25fps (WUXGA)*

DUAL STREAM

- H.239 (H.323) dual stream
- BFCP (SIP) dual stream

EX90:

- Supports resolutions up to 1080p in both main stream and dual stream simultaneously

EX60:

- Supports resolutions up to 720p in both main stream and dual stream simultaneously

PROTOCOLS

- H.323 and SIP (dual call stack support)
- ISDN (requires Cisco TelePresence ISDN Link)

NETWORK INTERFACES

- Internal 2-port Ethernet switch
- 1 × LAN/Ethernet (RJ-45) 10/100/1000 Mbit for PC
- 1 × LAN/Ethernet (RJ-45) 10/100/1000 Mbit for LAN

OTHER INTERFACES

- Bluetooth

EX90:

- 2 × USB device for future applications

EX60:

- 1 × USB device for future applications

IP NETWORK FEATURES

- Domain Name System (DNS) lookup for service configuration
- Differentiated Services (QoS)
- IP adaptive bandwidth management (including flow control)
- Auto gatekeeper discovery
- Dynamic playout and lip-sync buffering
- H.245 DTMF tones in H.323
- Date and time support with Network Time Protocol (NTP)
- Packet loss based downspeeding
- DNS-based URI dialing
- TCP/IP
- Dynamic Host Configuration Protocol (DHCP)
- IEEE 802.1x network authentication
- IEEE 802.1q VLAN
- IEEE 802.1p QoS and class of service (CoS)
- ClearPath
- Medianet: Mediatrace and Metadata

IPv6 NETWORK SUPPORT

- Dual-stack IPv4 and IPv6 for DHCP, SSH, HTTP, HTTPS, DNS, DiffServ
- Support for static IP address assignment, stateless autoconfiguration and DHCPv6

* Requires premium resolution option

FIREWALL TRAVERSAL

- Cisco TelePresence Expressway Technology
- H.460.18 and H.460.19 Firewall Traversal
- SIP ICE (Interactive Connectivity Establishment)

EMBEDDED ENCRYPTION

- H.323/SIP point-to-point
- Standards-based: H.235v3 and Advanced Encryption Standard (AES)
- Automatic key generation and exchange
- Supported in dual stream

SECURITY FEATURES

- Management via Secure HTTP (HTTPS) and Secure Shell (SSH) protocol
- IP administration password
- Administrator menu password
- Disable IP services
- Network settings protection

MULTIPOINT SUPPORT

- Cisco TelePresence Multiway support (requires Cisco TelePresence Video Communication Server [Cisco VCS] and Cisco TelePresence MCU)
- Ability to natively join multipoint conferences hosted on Cisco TelePresence Multipoint Switch (CTMS)

Only EX90:

- Four-way embedded SIP/H.323 MultiPoint, reference MultiSite

MULTISITE

(embedded multipoint)

Only EX90:

- 4-way 720p30 Continuous Presence (CP) MultiSite
- Full individual audio and video transcoding
- Individual layouts for each participant (CP layout without self view feature)
- H.323/SIP/VoIP in the same conference
- Best Impression (Automatic CP layouts)
- H.264, encryption and dual stream from any site
- IP downsampling
- Dial in/Dial out

SUPPORTED INFRASTRUCTURE

- Cisco Unified Communications Manager 8.6.2 and newer
- Cisco TelePresence Video Communication Server (Cisco VCS)
- Cisco WebEx TelePresence Server

SYSTEM MANAGEMENT

- Support for the Cisco TelePresence Management Suite
- Total management through embedded Simple Network Management Protocol (SNMP), Telnet, SSH, XML, and Simple Object Access Protocol (SOAP)
- Remote software upload: through web server, Secure Copy Protocol (SCP), HTTP, and HTTPS

DIRECTORY SERVICES

- Support for local directories (My Contacts)
- Corporate directory
- Unlimited entries using server directory supporting
- Lightweight Directory Access Protocol (LDAP) and H.350
- Unlimited number for corporate directory (available with Cisco TelePresence Management Suite)
- Local directory: 200 numbers
- Received calls with date and time
- Placed calls with date and time
- Missed calls with date and time

MTBF PRODUCT RELIABILITY/MTBF

The predicted reliability is expressed in the expected random Mean Time Between Failures (MTBF) for the electronic components based on the Power On Hours:

- Power On Hours (POH) > 69 000 hours.
- Useful Life Cycle > 6 years.

ISO 9001 certificate is available upon request

All specifications are subject to change without notice, system specifics may vary.

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July 2015

APPROVALS**EU/EEC**

Directive 2006/95/EC (Low Voltage Directive)

- Standard EN 60950-1

Directive 2004/108/EC (EMC Directive)

- Standard EN 55022, Class A
- Standard EN 55024
- Standard EN 61000-3-2/-3-3

- Directive 2011/65/EU (RoHS)

Warning: This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

USA

Approved according to UL 60950-1

Complies with FCC15B Class A

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Canada

Approved according to CAN/CSA C22.2 No. 60950-1

This Class A digital apparatus complies with Canadian ICES-003

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada

Supported RFCs

The RFC (Request for Comments) series contains technical and organizational documents about the Internet, including the technical specifications and policy documents produced by the Internet Engineering Task Force (IETF).

Current RFCs and drafts supported

- RFC 2190 RTP Payload Format for H.263 Video Streams
- RFC 2460 Internet protocol, version 6 (IPv6) specification
- RFC 2617 Digest Authentication
- RFC 2782 DNS RR for specifying the location of services (DNS SRV)
- RFC 2976 The SIP INFO Method
- RFC 3016 RTP Payload Format for MPEG-4 Audio/Visual Streams
- RFC 3261 SIP: Session Initiation Protocol
- RFC 3262 Reliability of Provisional Responses in SIP
- RFC 3263 Locating SIP Servers
- RFC 3264 An Offer/Answer Model with SDP
- RFC 3311 UPDATE method
- RFC 3361 DHCP Option for SIP Servers
- RFC 3388 Grouping of Media Lines in the Session Description Protocol (SDP)
- RFC 3420 Internet Media Type message/sipfrag
- RFC 3515 Refer method
- RFC 3550 RTP: A Transport Protocol for Real-Time Applications
- RFC 3551 RTP Profile for Audio and Video Conferences with Minimal Control
- RFC 3581 Symmetric Response Routing
- RFC 3605 RTCP attribute in SDP
- RFC 3711 The Secure Real-time Transport Protocol (SRTP)
- RFC 3840 Indicating User Agent Capabilities in SIP
- RFC 3890 A Transport Independent Bandwidth Modifier for SDP
- RFC 3891 The SIP "Replaces" Header
- RFC 3892 Referred-By Mechanism
- RFC 3960 Early Media
- RFC 3986 Uniform Resource Identifier (URI): Generic Syntax
- RFC 4028 Session Timers in SIP
- RFC 4091 The Alternative Network Address Types (ANAT) Semantics for the Session Description Protocol (SDP) Grouping Framework
- RFC 4092 Usage of the Session Description Protocol (SDP) Alternative Network Address Types (ANAT) Semantics in the Session Initiation Protocol (SIP)
- RFC 4145 TCP-Based Media Transport in the SDP
- RFC 4235 An INVITE-Initiated Dialog Event Package for the Session Initiation Protocol (SIP)
- RFC 4566 SDP: Session Description Protocol
- RFC 4568 SDP: Security Descriptions for Media Streams
- RFC 4574 The Session Description Protocol (SDP) Label Attribute
- RFC 4582 The Binary Floor Control Protocol draft-ietf-bfcpbis-rfc4582bis-00 Revision of the Binary Floor Control Protocol (BFCP) for use over an unreliable transport
- RFC 4583 Session Description Protocol (SDP) Format for Binary Floor Control Protocol (BFCP) Streams draft-ietf-bfcpbis-rfc4583bis-00 Session Description Protocol (SDP) Format for Binary Floor Control Protocol (BFCP) Streams
- RFC 4585 Extended RTP Profile for RTCP-Based Feedback
- RFC 4587 RTP Payload Format for H.261 Video Streams
- RFC 4629 RTP Payload Format for ITU-T Rec. H.263 Video
- RFC 4733 RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals
- RFC 4796 The SDP Content Attribute
- RFC 4862 IPv6 stateless address autoconfiguration
- RFC 5104 Codec Control Messages in the RTP Audio-Visual Profile with Feedback (AVPF)
- RFC 5168 XML Schema for Media Control
- RFC 5245 Interactive Connectivity Establishment (ICE): A Protocol for Network Address Translator (NAT) Traversal for Offer/Answer Protocols
- RFC 5389 Session Traversal Utilities for NAT (STUN)
- RFC 5577 RTP Payload Format for ITU-T Recommendation G.722.1
- RFC 5589: SIP Call Control Transfer
- RFC 5626 Managing Client-Initiated Connections in the Session Initiation Protocol (SIP)
- RFC 5766 Traversal Using Relays around NAT (TURN): Relay Extensions to Session Traversal Utilities for NAT (STUN)
- RFC 5768 Indicating Support for Interactive Connectivity Establishment (ICE) in the Session Initiation Protocol (SIP)
- RFC 5905 Network Time Protocol Version 4: Protocol and Algorithms Specification
- RFC 6156 Traversal Using Relays around NAT (TURN) Extension for IPv6
- RFC 6184 RTP Payload Format for H.264 Video

User documentation on the Cisco web site

In general, user documentation for the Cisco TelePresence products is available here:

► <http://www.cisco.com/go/telepresence/docs>

You have to choose your product category in the right pane until you find your product. This is the path you have to follow:

*Smart Desk Endpoints >
TelePresence Desktop >
Cisco TelePresence System EX Series*

Alternatively, you can use the following short-link to find the documentation:

► <http://www.cisco.com/go/ex-docs>

The documents are organized in the following categories:

Installation guides:

Install and Upgrade > Install and Upgrade Guides

Getting started guide:

*Install and Upgrade > Install and Upgrade Guides
Maintain and Operate > Maintain and Operate Guides*

Administrator guides:

Maintain and Operate > Maintain and Operate Guides

User guides and Quick reference guides:

Maintain and Operate > End-User Guides

Knowledge base articles and frequently asked questions:

Troubleshoot and Alerts > Troubleshooting Guides

CAD drawings:

Reference Guides > Technical References

Video conferencing room guidelines:

Design > Design Guides

Software licensing information:

Software Downloads, Release and General Information > Licensing Information

Regulatory compliance and safety information:

Install and Upgrade > Install and Upgrade Guides

Software release notes:

Software Downloads, Release and General Information > Release Notes

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Cisco contacts

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