

Software version TC7.2 AUGUST 2014



# Administrator guide

for Cisco TelePresence SX10 Quick Set

Thank you for choosing Cisco!

Your Cisco product has been designed to give you many years of safe, reliable operation.

This part of the product documentation is aimed at administrators working with the setup of the SX10 Quick Set.

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

► http://www.cisco.com/go/sx-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.

## Table of contents

Introduction	4
User documentation	[
Software	5
What's new in this version	(
SX10 Quick Set at a glance	8
The screen and the remote control	(
Web interface	10
Accessing the web interface	
Changing the system password	12
The interactive menu	1
System information	14
Placing a call	
Sharing content	16
Controlling and monitoring a call	17
Controlling your camera	
Local layout control	
Capturing snapshots	20
Controlling the far end camera	2
Accessing call information	22
System configuration	23
Changing system settings	24
System status	25
Managing the local contacts	26
Local contacts folders	27
Choosing a wallpaper	28
Choosing a ringtone	29
Peripherals overview	30
User administration	3
Adding a sign in banner	3!
Managing the video system's certificates	
Managing the list of trusted certificate authorities	3
Managing pre-installed certificates for Edge provisioning	39
Setting strong security mode	40
Changing the persistency mode	
Deleting trust lists (CUCM only)	42

Troubleshooting	4
Downloading log files	4
Starting extended logging	4
Capturing screenshots	4
Upgrading the system software	4
Backup and restore	4
Reverting to the previously used software version	4
Factory reset	5
Remote support user	5
Restarting the system	5
System settings	5
Overview of the system settings	5
Audio settings	5
Cameras settings	5
Conference settings	6
FacilityService settings	6
Logging settings	6
Network settings	6
NetworkServices settings	7
Peripherals settings	7
Phonebook settings	7
Provisioning settings	7
RTP settings	8
Security settings	8
SerialPort settings	8
SIP settings	8
Standby settings	8
SystemUnit settings	9
Time settings	9
UserInterface settings	9
Video settings	9
Experimental settings	103
Setting passwords	
Setting the system password	10





Appendices	106
Connecting the Touch 10 user interface	107
Cisco VCS provisioning	108
Optimal definition profiles	109
ClearPath – Packet loss resilience	110
Factory resetting the video system	11 <sup>-</sup>
Technical specification	112
Supported RFCs	114
User documentation on the Cisco web site	115
Intellectual property rights	116
Cisco contacts	116

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Chapter 1

# Introduction

This document provides you with the information required to administrate your product at an advanced level.

How to install the product and the initial configurations required are described in the Installation guide and Getting started guide, respectively.

## Products covered in this guide

· Cisco TelePresence SX10 Quick Set

## User documentation

The user documentation for the Cisco TelePresence systems running the TC software 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
- 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/sx-docs

Guidelines how to find the documentation 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/collaborationendpoints/telepresence-quick-set-series/tsd-productssupport-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 TC7.2 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-quick-set-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

#### Support for Touch 10 network pairing

Network pairing of the Touch 10 user interface is supported.

# Web snapshots can be enabled remotely from the web interface

Web snapshots can be enabled remotely from the web interface. In previous versions web snapshots had to be enabled locally on the endpoint.

# Improved fail-over support for endpoints registered through Collaboration Edge

CUCM: If the CUCM is down, the endpoint will automatically re-register to another CUCM.

VCS Control and VCS Expressway: If the VCS Control or VCS Expressway goes down, the endpoint will automatically re-register to another VCS Control / VCS Expressway. Call preservation is not supported.

Provisioning (HTTPS): If the provisioning service goes down, the endpoint will receive provisioning data from another provisioning service.

Phone book: If the phone book service goes down, the endpoint will automatically use another phone book service.

#### More parameters can be provisioned from CUCM

The following configuration parameters can now be provisioned from CUCM under vendor specific configuration:

- SystemUnit Name
- Video OSD TodaysBookings
- · Standby Standby Action
- · Audio DefaultVolume
- Conference 1 MaxTotalReceiveCallRate
- Conference 1 MaxTotalTransmitCallRate

#### Improved language support in active mode

SX10 in active mode (using the remote control) supports the same languages as the other TC endpoints except for the mirrored languages, e.g. Arabic. When SX10 is paired to Touch 10 also the mirrored languages are supported.

# Collaboration Edge provisioning option added to the setup assistant

The SX10 can now be provisioned through Collaboration Edge by selecting the "CUCM via Expressway" provisioning option.

# Touch user interface and on-screen display (OSD) screenshots can be captured from the web interface

A new web feature has been implemented to be able to capture screenshots of the OSD and the touch panel. This feature is available even if web snapshots are disabled.

# The Video Output status provides information about the connected display

In order to identify the connected display model and its preferred resolution the Video Output status will now print the following values:

- · Video Output Connector n Connected
- Video Output Connector n ConnectedDevice Name
- Video Output Connector n ConnectedDevice PreferredFormat



## System configuration changes

#### New configurations

NetworkServices CTMS Encryption

NetworkServices CTMS Mode

NetworkServices Medianet Metadata

Peripherals Pairing CiscoTouchPanels RemotePairing

Peripherals Profile TouchPanels

Time OlsonZone

#### Configurations that are modified

UserInterface Language

OLD: <English>

NEW: <English/ChineseSimplified/ ChineseTraditional/ Catalan/Czech/Danish/Dutch/Finnish/French/ German/ Hungarian/Italian/Japanese/Korean/Norwegian/Polish/ PortugueseBrazilian/Russian/Spanish/SpanishLatin/ Swedish/Turkish/ Arabic/Hebrew>

Video Input Connector[n] InputSourceType

OLD: <other/camera/PC/DVD/document\_camera>
NEW: <other/camera/PC/DVD/document\_camera/
whiteboard>

# SX10 Quick Set at a glance

The Cisco TelePresence SX10 Quick Set is an all-in-one unit designed to video-enable small collaboration spaces.

It is a high quality unit that combines camera and codec into a compact device that is mounted over a standard flat-panel display. It can be connected to power and LAN through a single cable for both power and Ethernet (PoE).

The camera has a wide-angle field of view, and provides good overview even in small spaces. High-definition video is enabled with 1080p30 resolution.

#### Features and benefits

- Optimal definition up to 1080p30 with content sharing at WXGAp5
- Wide angle 83° horizontal field of view with 5x zoom (optical and digital)
- · Ready-to-use unit with Power over Ethernet (PoE)
- · Integrated microphone
- Energy efficient with low power consumption (EU Class B)
- Registers with Cisco Unified Communications Manager (UCM) and Cisco TelePresence Video Communication Server (VCS)



SX10 Quick Set is delivered with a TRC6 remote control. You may also order the Cisco TelePresence Table Microphone 20 (optional)

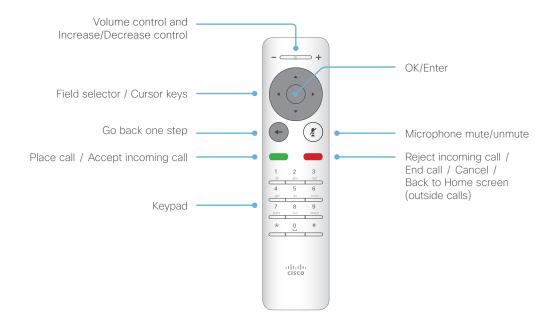


SX10 Quick Set mounted on top of a standard flat-panel display

# The screen and the remote control

How to operate the video system using the TRC6 remote control is described in full detail in the User guide for the video system.





### Operating tips

Use the *Cursor* controls to move about the screen. Press **OK/Enter** to open the selected menu field.

Use the *Cancel* key to exit a menu (and return to the *Home* screen), undoing any changes. Use the *Back* key to go just one step back.





Chapter 2

# Web interface

# 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

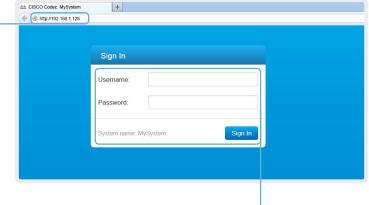
Open a web browser and enter the IP address of the video system in the address bar.



#### How to find the IP address

Remote control: Navigate to the contact information in the upper, left corner of the screen and press **OK**. Then open the *Settings* menu.

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.

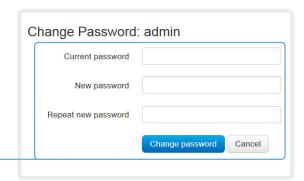
You can read more about passwords in the

► 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.



## 2. Set the new password

Enter your current and new passwords as requested, and click *Change password* for the change to take effect.

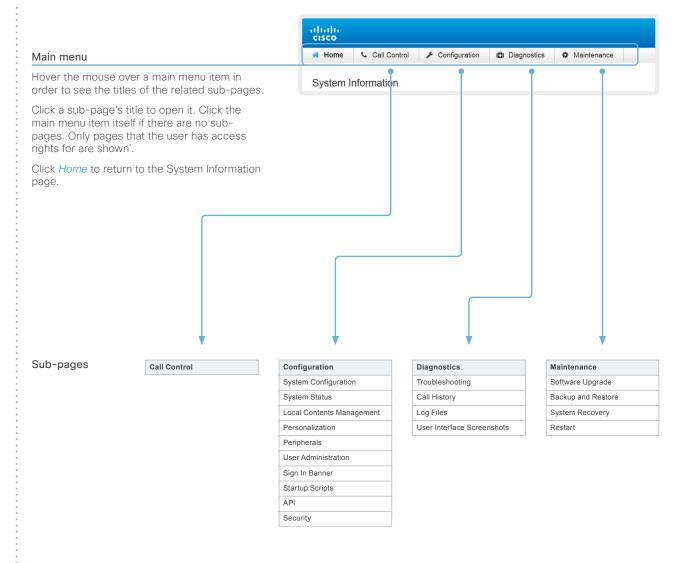


If the password currently is not set, leave the *Current password* field blank.

# 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.



<sup>\*</sup> 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 network (SIP) is included, as well as the number/URI to use when making a call to the system.

### Navigate to: Home

## System Information

General SIP Proxy 1

 Product:
 Cisco TelePresence SX10
 Status:
 Registered

 Serial number:
 ABCD12345678
 Proxy:
 192.168.1.2

 Software version:
 TC7.2.0
 URI:
 firstname.lastname@company.com

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

<sup>\*</sup> The system information shown in the illustration serve as an example. Your system may be different.

# Placing a call

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



Even if the web interface is used to initiate the 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

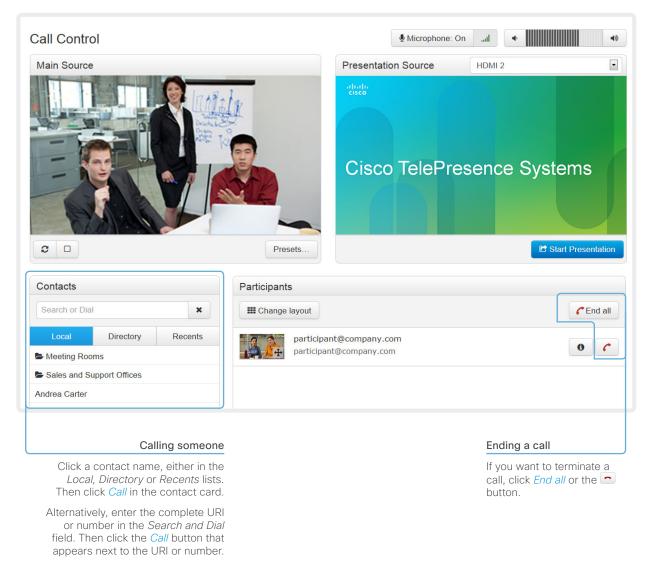
You can call someone either by choosing a contact name in the *Local, Directory* or *Recents* lists, or by typing a complete URI or number in the *Search or Dial* field. Then click *Call* in the associated contact card.

## 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.

## Navigate to: Call Control



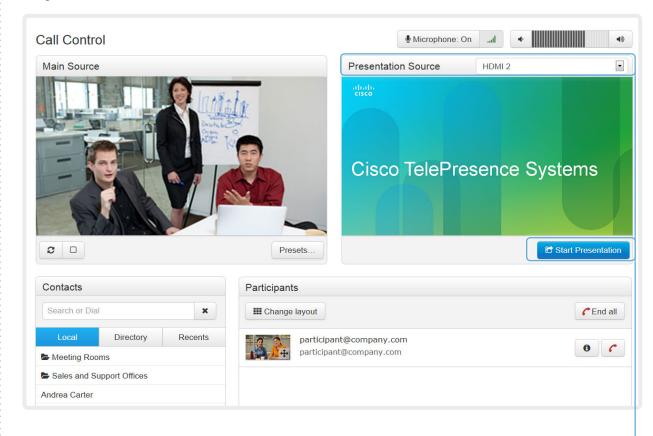
# **Sharing content**

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 far end, that is the other participant in the call.

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

### Navigate to: Call Control



#### Sharing content

- 1. Choose a Presentation source from the drop-down list.
- 2. Click Start Presentation.

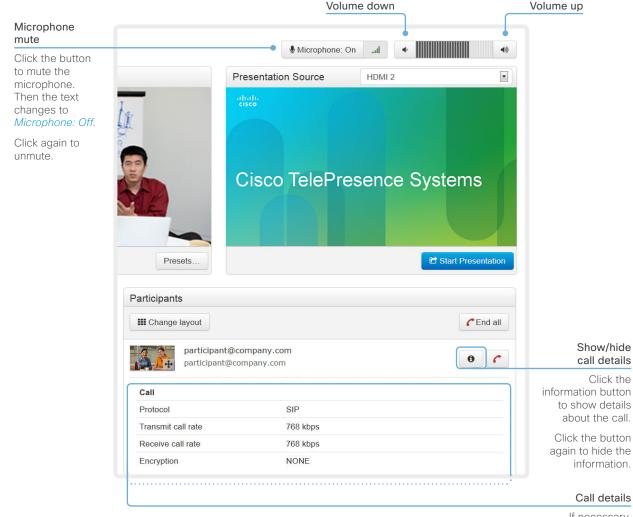
### Stop content sharing:

Click the *Stop Presentation* button that is present while sharing.

# Controlling and monitoring a call

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

### Navigate to: Call Control



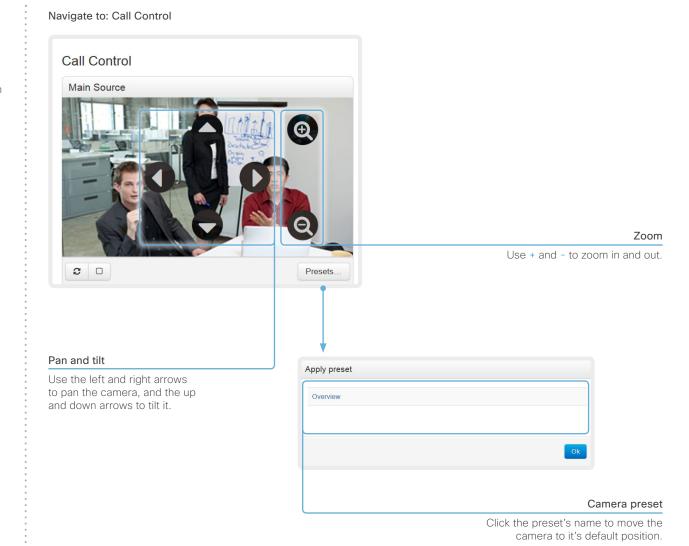
If necessary, scroll your browser to see the call details.

# Controlling your camera

You can control the camera from the Call Control page.

The camera controls (pan, tilt, zoom) are available when the cursor is placed in the Main Source video area.

Note that the camera controls are not available if the system is in standby mode.



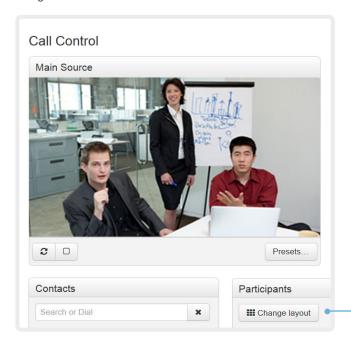
Click OK to close the window.

# 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 video and presentation can appear on the screen. Different types of meetings may require different layouts.

## Navigate to: Call Control

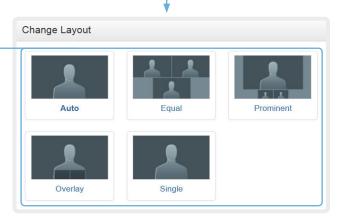


## Change the layout

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.



# Capturing snapshots

The snapshot feature, which is disabled by default, allows snapshots captured by the video system to be displayed on the Call Control page. Captures from the video system's camera as well as from its presentation channel will be displayed.

This feature might come in handy when administering the video system from a remote location, e.g. to check the camera view.

To use web snapshots you have to sign in with ADMIN credentials.

## Enabling the snapshot feature

The snapshot feature is disabled by default. The feature must be enabled using the web interface.

#### 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.

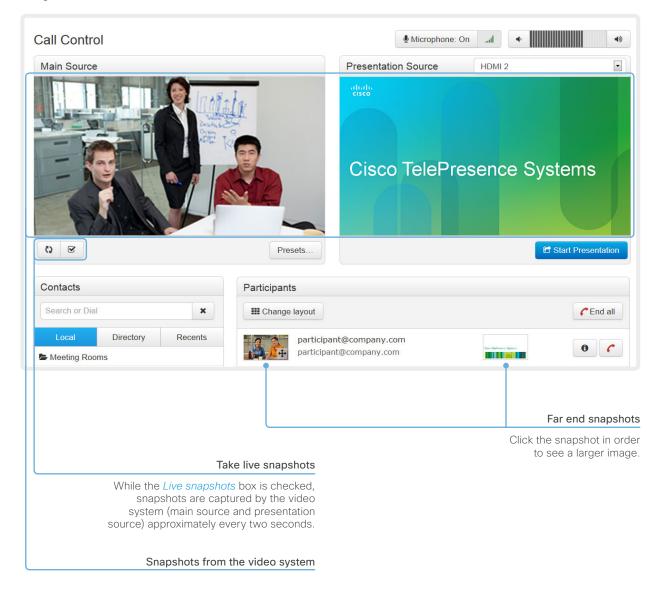
## Far end snapshots while in a call

While in a call, snapshots of the remote participant's main camera and presentation channel (far end) will be captured and displayed as shown in the illustration. The snapshots are updated approximately every 30 seconds.



Far end snapshots are captured even if web snapshots are disallowed on the far end video system. Web snapshots are prohibited only for encrypted calls.

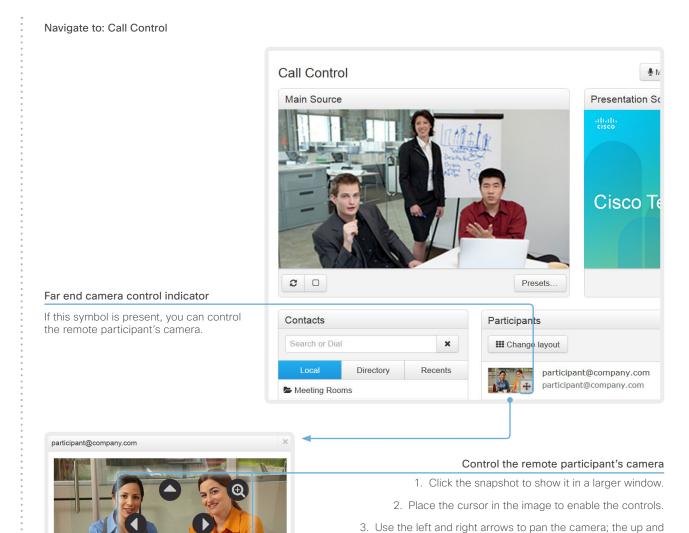
#### Navigate to: Call Control



# Controlling the far end camera

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

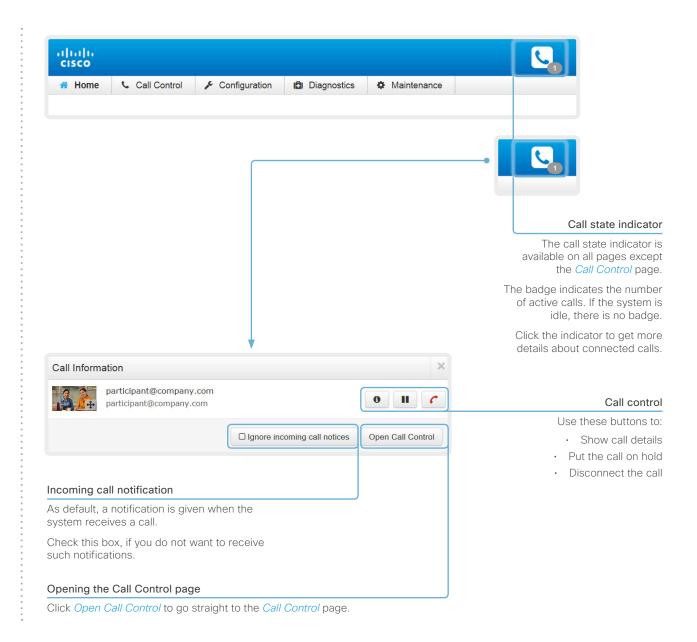
- The Conference FarEndControl Mode setting is switched On on the far end video system.
- The far end camera has pan, tilt or zoom functionality.
   Only the relevant controls will appear.



down arrows to tilt it; and + and - to zoom in and out.

# Accessing call information

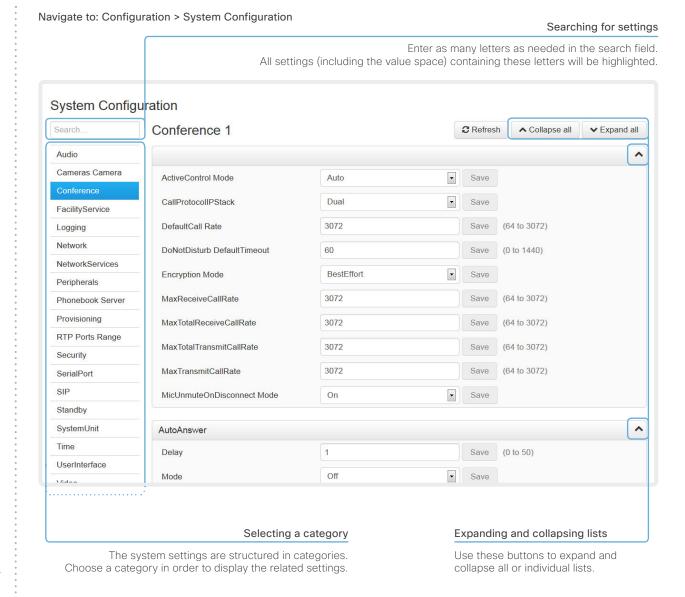
A call state indicator is available in the top bar in the web interface. It shows whether the system is in a call or not. You may also be notified about incoming calls.



# 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



<sup>\*</sup> The configuration shown in the illustration serve as an example. Your system may be configured differently.

System settings chapter.

# Changing system settings

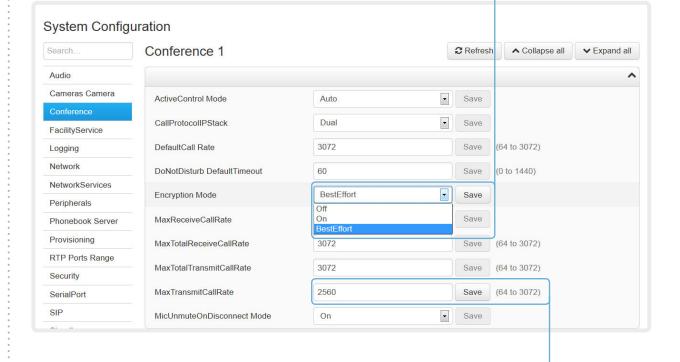
All system settings can be changed from the System Configuration page\*. The value space for a setting is specified either in a drop-down list or by text following the input field.

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.

#### Drop-down list

Click the arrow to open the drop-down list. Choose the preferred value and click *Save* for the change to take effect.



## Text input field

Enter text in the input field and click *Save* for the change to take effect.

Navigate to: Configuration > System Configuration

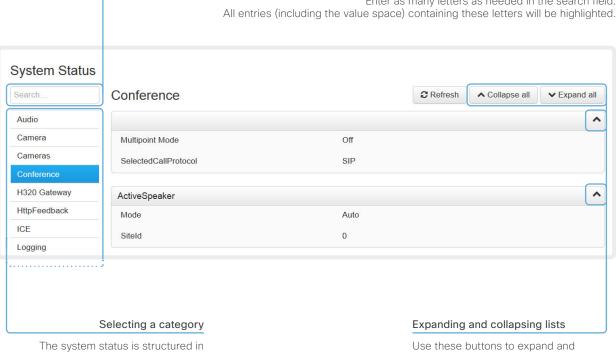
<sup>\*</sup> The configuration shown in the illustration serve as an example. Your system may be configured differently.

# 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

# Searching for status entries Enter as many letters as needed in the search field.



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

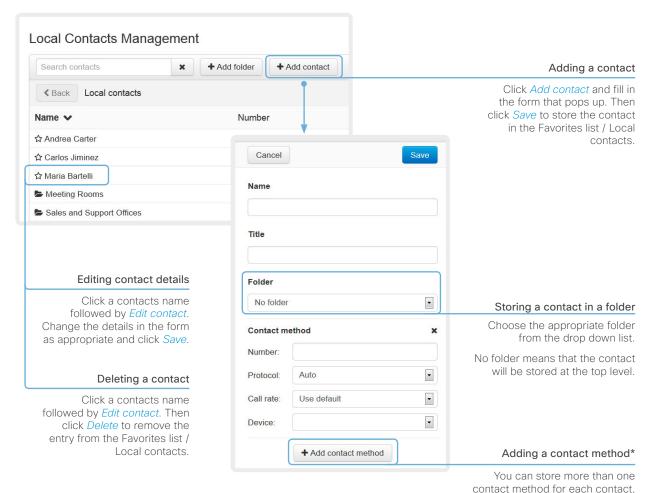
Use these buttons to expand and collapse all or individual lists.

<sup>\*</sup> The status shown in the illustration serve as an example. The status of your system may be different.

# Managing the local contacts

The local contacts can be accessed from the Touch controller (the Favorites list), the on-screen menu (the Local contacts folder in the Directory) and the Web interface.

## Navigate to: Configuration > Local Contacts Management

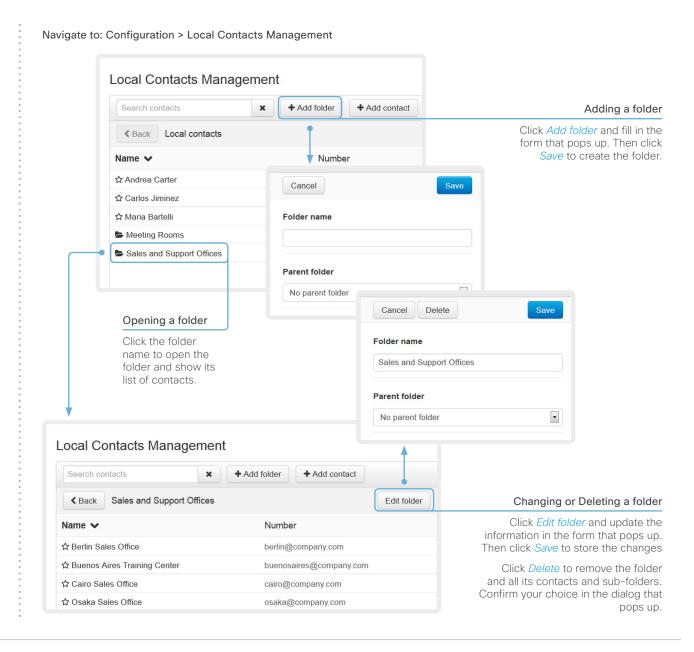


e.g. video, telephone and mobile.

<sup>\*</sup> Note that only the first contact method appears in the Favorites list on the Touch controller. All contact methods are available when using the remote control.

## Local contacts folders

The entries in the Favorites list / Local contacts can be organized in folders.



# Choosing a wallpaper

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

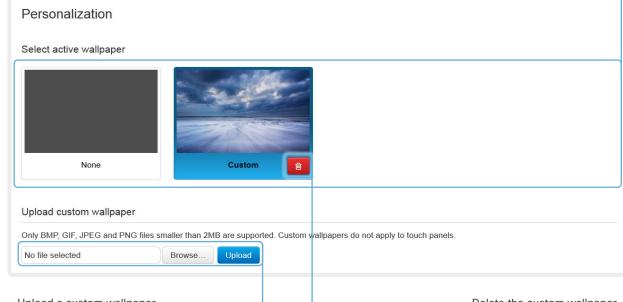
### Navigate to: Configuration > Personalization

#### 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.



### 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: 2 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.

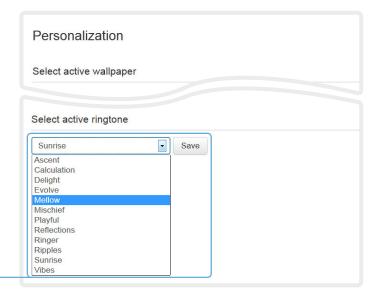
# Choosing a ringtone

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



## Changing ringtone

Choose a ringtone from the drop-down list, and click *Save* to make it the active ringtone.



# Peripherals overview

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

Navigate to: Configuration > Peripherals

eripherals	
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<b>:</b>	
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<b>:</b>	
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uch Panels	
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<sup>\*</sup> 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.

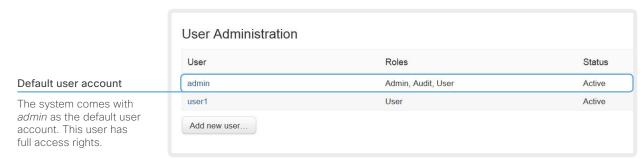
The following three user roles, with *non-overlapping rights*, exist:

- 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



# User administration (page 2 of 4)

### Creating a new user account

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

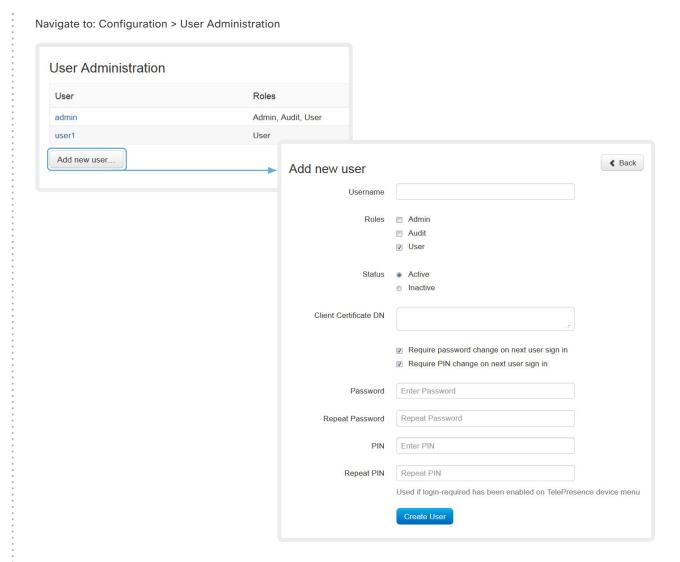
- 1. Click Add new user....
- Fill in the Username and Password\*, and check the appropriate user roles check boxes.

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.



<sup>\*</sup> 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:

- Click the name of an existing user to open the Editing user window.
- 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.
- 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 **⋠** Back Editing user: user1 admin Admin user1 User Privileges Add new user... Roles Admin Audit User 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 Enter Password Password Repeat Password Repeat Password Change Password

<sup>\*</sup> The password is used with the web interface and command line interface.

# User administration (page 4 of 4)

## Deactivating a user account

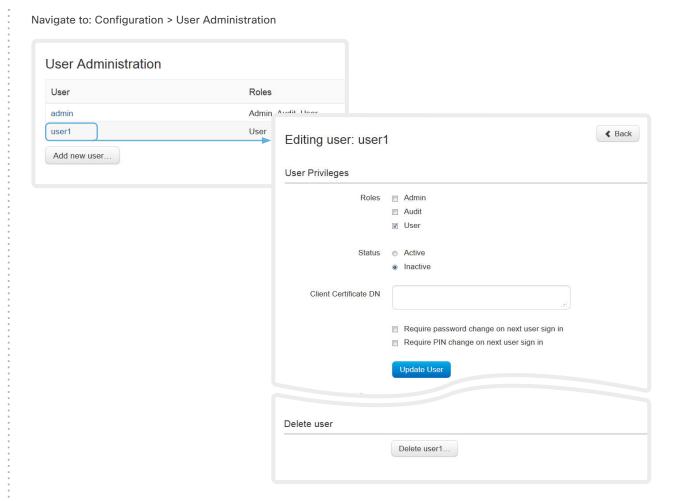
Follow these steps in order to deactivate a user account:

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

## Deleting a user account

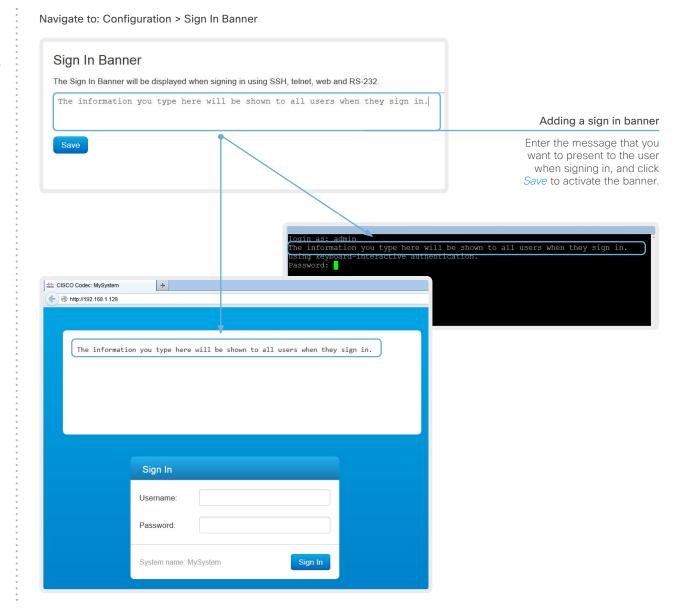
Follow these steps in order to delete a user account:

- 1. Click the name of an existing user to open the Editing user window.
- 2. Click Delete <user name>... and confirm when prompted.



# 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.



# 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.

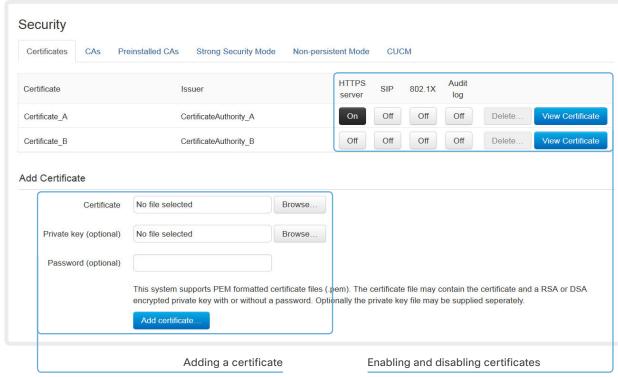


Contact your system administrator to obtain the following file(s):

- · 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



- 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.

# 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.

<sup>\*</sup> 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.

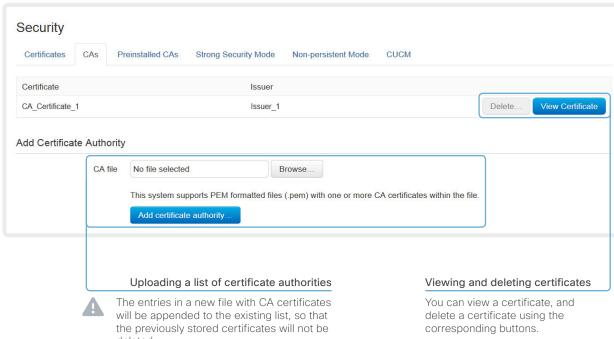
The certificates are text files that verify the authenticity of the server or client. The certificates must be signed by a trusted certificate authority (CA).

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



deleted.

- i. Click Browse... and find the file containing a list of CA certificates (file format: .PEM) on your computer.
- ii. 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).

<sup>\*</sup> 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.

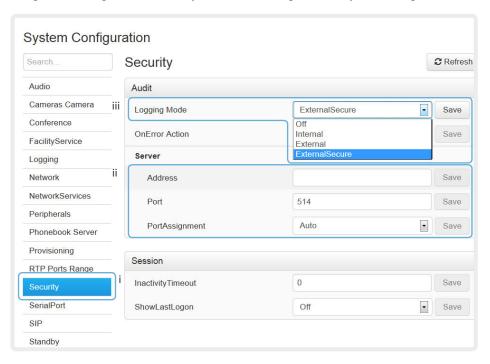
In ExternalSecure audit logging mode the video system sends encrypted audit logs to an external audit server (syslog server), which identity must be verified by a signed certificate.

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



#### Enable secure audit logging

- Go to the System Configuration page and choose the Security category.
- ii. 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.
- iii. Choose ExternalSecure from the Logging Mode drop-down list. Click Save for the change to take effect.

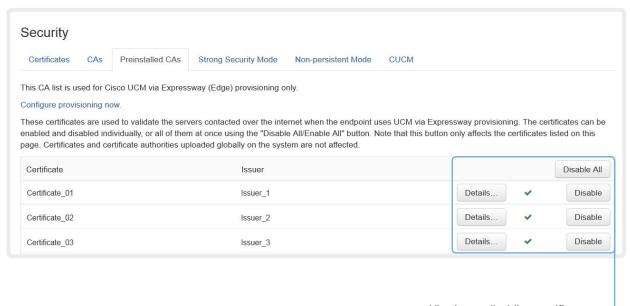
## Managing pre-installed certificates for Edge provisioning

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



#### Viewing or disabling certificates

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

You can disable all the preinstalled 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.

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

## Setting strong security mode

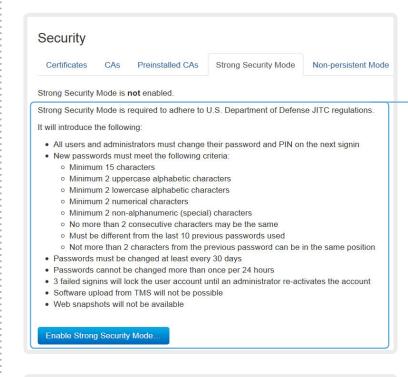
Strong security mode should be used only when compliance with DoD JITC regulations is required.



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.

Software upload from TMS, web snapshots and calling from the web interface are prohibited in strong security mode. Navigate to: Configuration > Security: Strong Security Mode tab



#### Setting strong security mode

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

 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.

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.



#### 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 were a new user is not supposed to see or trace back to any kind of logged information from the previous session, Nonpersistent 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.

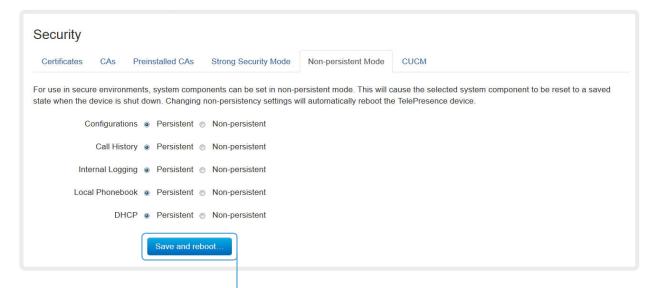
When in Non-persistent mode, the following information will be lost/cleared each time the system restarts:

- 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 has been made since the last system
- 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 Nonpersistent mode, will not be cleared or deleted.

## Deleting trust lists (CUCM only)

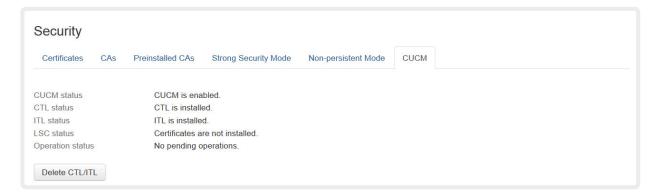
The information on this page is only relevant for video systems that are registered to a Cisco Unified Communications Manager (CUCM).

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



## 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.

#### 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

Deactivate standby

Re-run diagnostics

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

**CRITICAL**: Admin Password

No admin password set. Please secure the system with an admin password.

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

Navigate to: Diagnostics > Troubleshooting

<sup>\*</sup> The messages shown in the illustration serve as examples. Your system may show other information.

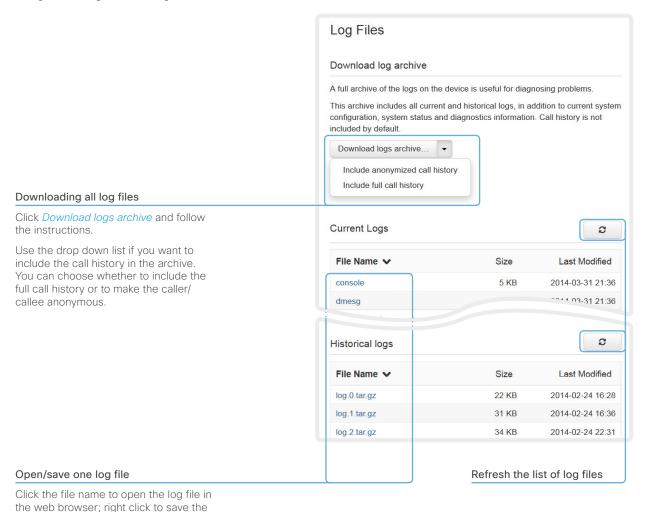
## Downloading log files

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



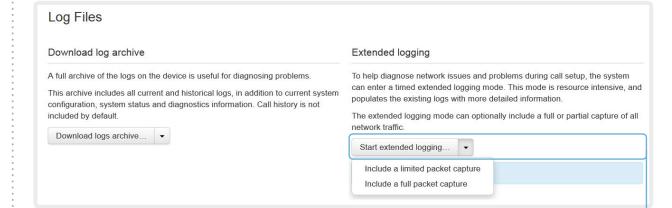
file on the computer.

<sup>\*</sup> 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 underperform. You should only use extended logging mode when troubleshooting an issue.



## 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.

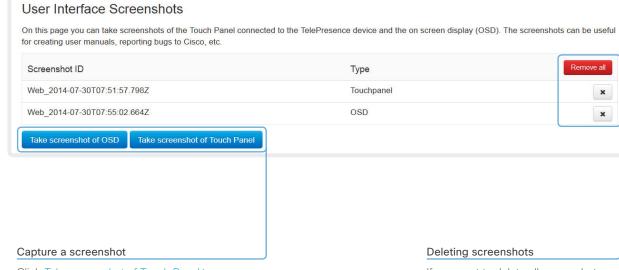
As default, the network traffic is not captured. Use the drop down menu if you want to include a full or partial capture of the network traffic.

Navigate to: Diagnostics > Log Files

## Capturing 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



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.

If you want to delete all screenshots,

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

## Upgrading the system software

This video conference system is using TC software. The version described in this document is TC7.2.



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-quick-set-series/tsdproducts-support-series-home.html

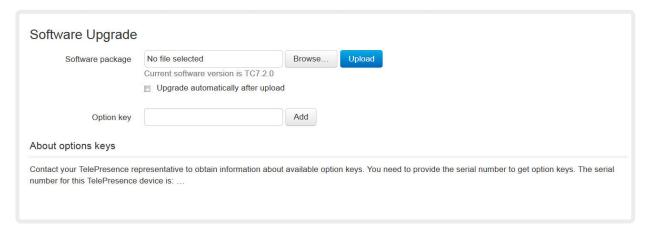
#### New software

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 "s52030tc7\_2\_0.pkg" (each software version has a unique file name).

#### Navigate to: Maintenance > Software Upgrade



#### Adding option keys

An *option key* is required to activate optional functionality. You may have several option keys in your system. If the keys are already installed, you can skip this point and continue with the software installation.

If you do not have the required key(s), contact your Cisco representative to obtain them.

 Enter an Option Key in the appropriate text input field and click Add.

If you have more than one option key, repeat this step for all keys.



Each system has unique keys, for example:

· 1R000-1-AA7A4A09

#### Installing 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.
- ii. Check the *Upgrade automatically after upload* check box, then click *Upload* to start the installation process straight away.

Keep the check box unchecked if you want to upload the software now and do the installation later.

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.

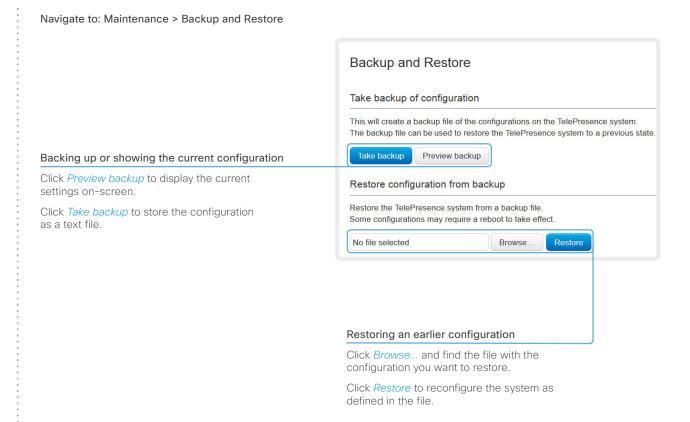


You must sign in anew in order to continue working with the web interface after the restart

### 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.



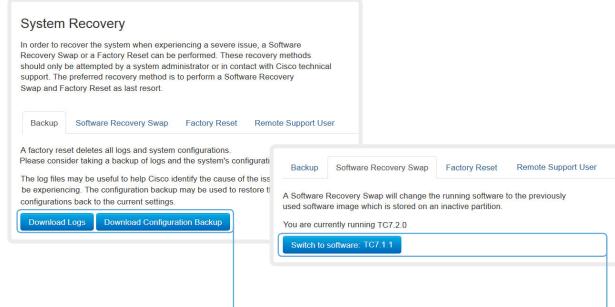
## Reverting to the previously used software version

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
- 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, local contacts and favorites list.
- The previous (inactive) software image will be deleted.
- Option kevs will **not** be affected.

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

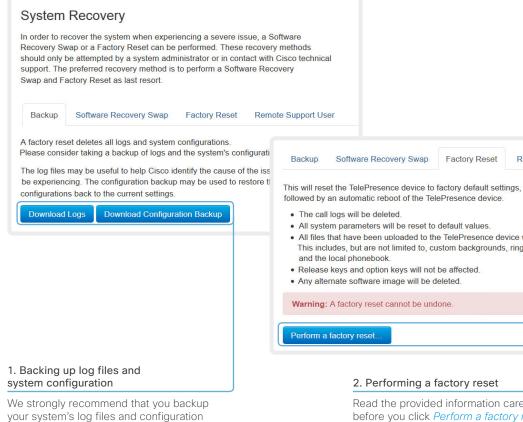
We strongly recommend that you backup your system's log files and configuration before you perform a factory reset.



It is not possible to undo a factory reset.

There is more information about performing a factory reset in the Factory resetting appendix.

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



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.

Backup Software Recovery Swap Factory Reset Remote Support User

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.

#### 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.

50

Read about software swapping in the ▶ Reverting to the previously used software version section.

## Remote support user

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

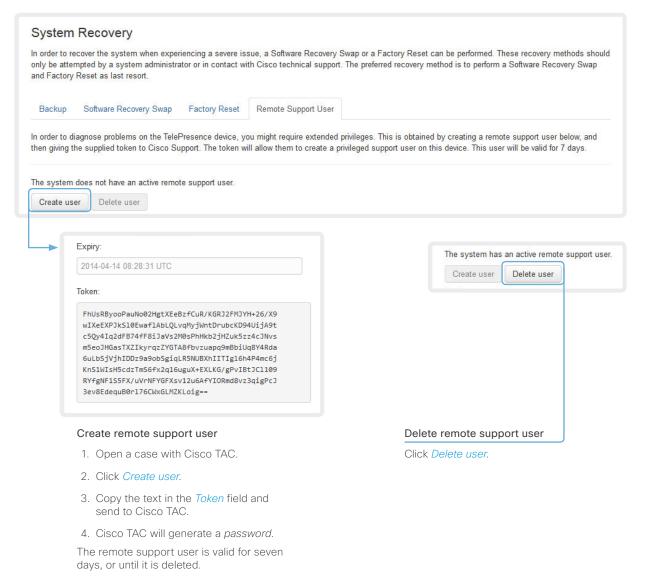
The remote support user will be granted read access to the system and will have access to a limited set of commands that can aid troubleshooting.

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



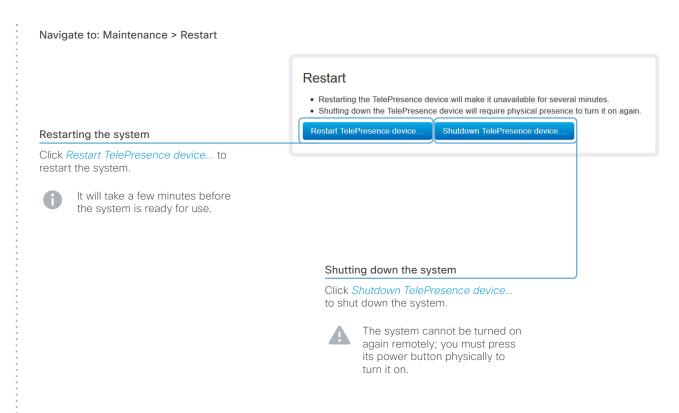
The remote support user should only be enabled for troubleshooting reasons when instructed by Cisco TAC.

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



## Restarting the system

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







Chapter 3

# System settings

## 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.

Audio Settings	
Audio DefaultVolume	57
Audio Input Microphone [1]	
Audio Microphones Mute Enabled	57
Audio SoundsAndAlerts KeyTones Mode	57
Audio SoundsAndAlerts RingTone	57
Audio SoundsAndAlerts RingVolume	57
Cameras settings	58
Cameras Camera [1] Backlight	58
Cameras Camera [1] Brightness Level	58
Cameras Camera [1] Brightness Mode	58
Cameras Camera [1] Flip	58
Cameras Camera [1] Focus Mode	58
Cameras Camera [1] Mirror	59
Cameras Camera [1] Whitebalance Level	59
Cameras Camera [1] Whitebalance Mode	59
Conference settings	60
Conference [11] ActiveControl Mode	60
Conference [11] AutoAnswer Delay	60
Conference [11] AutoAnswer Mode	60
Conference [11] AutoAnswer Mute	60
Conference [11] CallProtocollPStack	60
Conference [11] DefaultCall Rate	.61
Conference [11] DoNotDisturb DefaultTimeout	.61
Conference [11] Encryption Mode	.61
Conference [11] FarEndControl Mode	.61
Conference [11] FarEndControl SignalCapability	.61
Conference [11] MaxReceiveCallRate	62
Conference [11] MaxTotalReceiveCallRate	62
Conference [11] MaxTotalTransmitCallRate	62
Conference [11] MaxTransmitCallRate	62
Conference [11] MicUnmuteOnDisconnect Mode	.61
Conference [11] Presentation OnPlacedOnHold	63
Conference [11] Presentation RelayQuality	
Conference [11] VideoBandwidth MainChannel Weight	
Conference [11] VideoBandwidth Mode	
Conference [11] VideoBandwidth PresentationChannel	
\A/ : 1:	00

Audia aattinga

FacilityService settings	64
FacilityService Service [15] CallType	64
FacilityService Service [15] Name	64
FacilityService Service [15] Number	64
FacilityService Service [15] Type	64
Logging settings	65
Logging Mode	
Network settings	66
Network [11] DHCP RequestTFTPServerAddress	
Network [11] DNS Domain Name	
Network [11] DNS Server [13] Address	
Network [11] IEEE8021X AnonymousIdentity	
Network [11] IEEE8021X Eap Md5	
Network [11] IEEE8021X Eap Peap	
Network [11] IEEE8021X Eap TIs	
Network [11] IEEE8021X Eap Ttls	
Network [11] IEEE8021X Identity	
Network [11] IEEE8021X Mode	
Network [11] IEEE8021X Password	
Network [11] IEEE8021X TIsVerify	
Network [11] IEEE8021X UseClientCertificate	
Network [11] IPStack	66
Network [11] IPv4 Address	
Network [11] IPv4 Assignment	66
Network [11] IPv4 Gateway	66
Network [11] IPv4 SubnetMask	66
Network [11] IPv6 Address	67
Network [11] IPv6 Assignment	66
Network [11] IPv6 DHCPOptions	67
Network [11] IPv6 Gateway	67
Network [11] MTU	71
Network [11] QoS Diffserv Audio	68
Network [11] QoS Diffserv Data	68
Network [11] QoS Diffserv ICMPv6	69
Network [11] QoS Diffserv NTP	69
Network [11] QoS Diffserv Signalling	
Network [11] QoS Diffserv Video	68

<sup>\*</sup> How to find the IP address (IPv4 or IPv6):

Navigate to the contact information in the upper, left corner of the screen and press **OK** on the remote control. Then open the *Settings* menu.

	Network [11] QoS Mode	
	Network [11] RemoteAccess Allow	
	Network [11] TrafficControl Mode	
	Network [11] VLAN Voice Mode	
	Network [11] VLAN Voice VlanId	72
١	letworkServices settings	73
	NetworkServices CTMS Encryption	76
	NetworkServices CTMS Mode	
	NetworkServices HTTP Mode	
	NetworkServices HTTPS Mode	
	NetworkServices HTTPS OCSP Mode	
	NetworkServices HTTPS OCSP URL	
	NetworkServices HTTPS VerifyClientCertificate	
	NetworkServices HTTPS VerifyServerCertificate	
	NetworkServices Medianet Metadata	
	NetworkServices NTP Address	
	NetworkServices NTP Mode	
	NetworkServices SIP Mode	
	NetworkServices SNMP CommunityName	
	NetworkServices SNMP Host [13] Address	
	NetworkServices SNMP Mode	
	NetworkServices SNMP SystemContact	
	NetworkServices SNMP SystemLocation	
	NetworkServices SSH AllowPublicKey	
	NetworkServices SSH Mode	
	NetworkServices Telnet Mode	
	NetworkServices WelcomeText	
	NetworkServices XMLAPI Mode	73
P	eripherals settings	77
	Peripherals Pairing CiscoTouchPanels RemotePairing	
	Peripherals Profile TouchPanels	77
P	honebook settings	78
	Phonebook Server [11] ID	78
	Phonebook Server [11] Type	78
	Phonebook Server [11] URL	78
P	rovisioning settings	79
	Provisioning Connectivity	
	Provisioning ExternalManager Address	

	Provisioning ExternalManager AlternateAddress  Provisioning ExternalManager Domain  Provisioning ExternalManager Path  Provisioning ExternalManager Protocol  Provisioning HttpMethod  Provisioning LoginName  Provisioning Mode  Provisioning Password	80 80 80 79 79
R	RTP settingsRTP Ports Range StartRTP Ports Range Stop	.81
S	Security settings	82 82 82 82 82 83
S	SerialPort settings SerialPort LoginRequired SerialPort Mode	84
S	SIP settings  SIP ANAT  SIP AuthenticateTransferror  SIP ListenPort  SIP OCSP DefaultResponder  SIP OCSP Mode  SIP PreferredIPMedia  SIP PreferredIPSignaling  SIP Profile [11] Authentication [11] LoginName  SIP Profile [11] Authentication [11] Password  SIP Profile [11] DefaultTransport  SIP Profile [11] DisplayName  SIP Profile [11] Ice DefaultCandidate  SIP Profile [11] Ice Mode	85 85 85 85 85 85 87 87 87 87
	SIP Profile [1.1] Line	

SIP Profile [11] Outbound  SIP Profile [11] Proxy [14] Address  SIP Profile [11] Proxy [14] Discovery  SIP Profile [11] TISVerify  SIP Profile [11] Turn BandwidthProbe  SIP Profile [11] Turn DiscoverMode  SIP Profile [11] Turn DropRflx  SIP Profile [11] Turn Password  SIP Profile [11] Turn Server  SIP Profile [11] Turn UserName	88 87 86 86 87 86
SIP Profile [11] Type	88
Standby settings Standby BootAction Standby Control Standby Delay Standby StandbyAction Standby WakeupAction	89 89 89
SystemUnit settings SystemUnit CallLogging Mode SystemUnit ContactInfo Type SystemUnit MenuLanguage SystemUnit Name	90 90 90
Time settings Time DateFormat Time OlsonZone Time TimeFormat Time Zone	.91 92 .91
UserInterface settings.  UserInterface Language.  UserInterface OSD EncryptionIndicator.  UserInterface OSD LanguageSelection.  UserInterface OSD LoginRequired.  UserInterface OSD Output.  UserInterface TouchPanel DefaultPanel  UserInterface UserPreferences.	94 94 94 94 95
UserInterface Wallpaper	94



Video settings96	
Video AllowWebSnapshots96	
Video CamCtrlPip CallSetup Duration	
Video CamCtrlPip CallSetup Mode	
Video Input Connector [13] CameraControl Camerald 97	
Video Input Connector [13] CameraControl Mode	
Video Input Connector [13] InputSourceType	
Video Input Connector [13] Name	
Video Input Connector [13] OptimalDefinition Profile 97	
Video Input Connector [13] Visibility	
Video Input Connector [23] PresentationSelection98	
Video Input Connector [23] Quality	
Video Input Connector [2] RGBQuantizationRange	

Video Layout LocalLayoutFamily	98
Video Layout PresentationDefault View	98
Video Layout RemoteLayoutFamily	99
Video Layout ScaleToFrame	99
Video Layout ScaleToFrameThreshold	99
Video Layout Scaling	99
Video Monitors	101
Video OSD EncryptionIndicator	101
Video OSD LanguageSelection	101
Video OSD LoginRequired	101
Video OSD Output	101
Video Output Connector [1] CEC Mode	101
Video Output Connector [1] OverscanLevel	101

Video Output Connector [1] Resolution
Video Output Connector [1] RGBQuantizatonRange 102
Video PIP ActiveSpeaker DefaultValue Position 100
Video PIP Presentation DefaultValue Position
Video SelfviewDefault FullscreenMode101
Video SelfviewDefault Mode
Video SelfviewDefault PIPPosition101
Video SelfviewPosition
Video WallPaper
Experimental settings103

## **Audio settings**

#### Audio Input Microphone [1]

Set the audio input microphone mode.

Requires user role: ADMIN

Value space: <Off/On>

Off: Disable the microphone connector.

On: Enable the microphone connector.

Example: Audio Input Microphone 1 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 pressing a key on the remote control, or when typing text or numbers on the Touch controller.

Requires user role: USER Value space: <Off/On>

Off: No key tone will be played when you press a key. On: You will hear a key tone when you press a key.

Example: Audio SoundsAndAlerts KeyTones Mode: On

#### 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 remote control or 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  $-34.5~\mathrm{dB}$  to 15 dB (0.5 dB steps). The value 0 means that the audio is switched

off.

Example: Audio DefaultVolume: 50

### Cameras settings

#### 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 from 1 to 31.

**Example:** Cameras Camera 1 Brightness Level: 20

#### Cameras Camera [1] Flip

With Flip mode (vertical flip) you can flip the image upside down.

Requires user role: ADMIN Value space: <Auto/Off/On>

Auto: When the camera is placed upside down the image is automatically flipped upside down. This setting will only take effect for a camera that automatically detects which way it is mounted

Off: Display the video on screen the normal way.

*On:* When enabled the video on screen is flipped. This setting is used when a camera is mounted upside down, but cannot automatically detect which way it is mounted.

Example: Cameras Camera 1 Flip: Auto

#### Cameras Camera [1] Focus Mode

Set the camera focus mode.

Requires user role: ADMIN

Value space: <Auto/Manual>

Auto: The camera will auto focus once a call is connected, as well as after moving the camera (pan, tilt, zoom). 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.

Example: Cameras Camera 1 Focus Mode: Auto



#### Cameras Camera [1] Mirror

With Mirror mode (horizontal flip) you can mirror the image on screen.

Requires user role: ADMIN Value space: <Auto/Off/On>

*Auto:* When the camera is placed upside down the image is automatically mirrored. Use this setting with cameras that can be mounted upside down, and that can auto detect that the camera is mounted upside down.

Off: See the self-view in normal mode, that is the experience of self-view is as seeing yourself as other people see you.

On: See the self-view in mirror mode, that is the self-view is reversed and the experience of self-view is as seeing yourself in a mirror.

Example: Cameras Camera 1 Mirror: Auto

#### 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 from 1 to 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. 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] CallProtocollPStack

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

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] 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 incomming calls manually by pressing the OK key or the green Call key on the remote control, or 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 from 0 to 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 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 (remote control or Touch controller). 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

Set 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: Requires the Encryption Option Key to be installed. When the Encryption Option Key is not installed the encryption mode is set to 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 Rate

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

Requires user role: ADMIN Value space: <64..3072>

Range: Select a value between 64 and 3072 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..3072>

Range: Select a value between 64 and 3072 kbps.

Example: Conference 1 MaxTransmitCallRate: 3072

#### 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..3072>

Range: Select a value between 64 and 3072 kbps.

Example: Conference 1 MaxReceiveCallRate: 3072

#### Conference [1..1] MaxTotalTransmitCallRate

Specify the maximum overall transmit bit rate allowed. This product does not support multiple simultaneous calls, so the total transmit call rate will be the same as the transmit bit rate for one call (ref. Conference MaxTransmitCallRate setting).

Requires user role: ADMIN Value space: <64..3072>

Range: Select a value between 64 and 3072.

Example: Conference 1 MaxTotalTransmitCallRate: 3072

#### Conference [1..1] MaxTotalReceiveCallRate

Specify the maximum overall receive bit rate allowed. This product does not support multiple simultaneous calls, so the total receive call rate will be the same as the receive bit rate for one call (ref. Conference MaxReceiveCallRate setting).

Requires user role: ADMIN Value space: <64..3072>

Range: Select a value between 64 and 3072.

Example: Conference 1 MaxTotalReceiveCallRate: 3072

#### 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: 2

#### Conference [1..1] Presentation RelayQuality

Not applicable in this version.

#### 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: NoAction



## FacilityService settings

FacilityService Service [1..5] Type

Not applicable in this version.

FacilityService Service [1..5] Name

Not applicable in this version.

FacilityService Service [1..5] Number

Not applicable in this version.

FacilityService Service [1..5] CallType

Not applicable in this version.



## 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: "2001:0DB8:0000:0000:0000:0000:0000:0002"

#### 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: "2001:0DB8:0000:0000:0000:0000:0000:0001"

#### 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 RequestTFTFServerAddress 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 coarsegrained 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 OoS 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 Diffsery.

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 OoS 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 TIsVerify

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 TIs 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.

 $\ensuremath{\textit{On:}}$  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 TIs

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 from 576 to 1500 bytes.

Example: Network 1 MTU: 1500

#### 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

Filter IP addresses for access to ssh/telnet/HTTP/HTTPS

Requires user role: ADMIN Value space: <S: 0, 255>

Format: String with a maximum of 255 characters, comma separated IP addresses or IP

range

Example: Network 1 RemoteAccess Allow: "192.168.1.231, 192.168.1.182"



#### 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.

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 from 1 to 4094.

Example: Network 1 VLAN Voice VlanId: 1

# NetworkServices settings

## 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 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

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 time of the system to a reference time server. The time server will subsequently be queried every 24th hour for time updates. The time will be displayed on the top of the screen. The system will use the time to timestamp messages transmitted to Gatekeepers or Border Controllers requiring H.235 authentication. The system will use the time to timestamp messages transmitted to Gatekeepers or Border Controllers that requires H.235 authentication. It is also used for timestamping Placed Calls, Missed Calls and Received Calls.

Requires user role: ADMIN

Value space: <Auto/Off/Manual>

Auto: The system will use the NTP server, by which address is supplied from the DHCP server in the network. If no DHCP server is used, or the DHCP server does not provide the system with a NTP server address, the system will use the static defined NTP server address specified by the user.

Off: The system will not use an NTP server.

Manual: The system will always use the static defined NTP server address specified by the

Example: NetworkServices NTP Mode: Auto



## NetworkServices NTP Address

Enter the NTP Address to define the network time protocol server address. This address will be used if NTP Mode is set to Manual, or if 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 gueries 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



# Peripherals settings

# Peripherals Pairing CiscoTouchPanels RemotePairing

In order to use Cisco Touch 10 (touch controller) as user interface for the video system, Touch 10 must be paired to the video system via the network (LAN). This is referred to as remote pairing.

Remote pairing is allowed by default; you must switch this setting Off if you want to prevent remote pairing.

Requires user role: ADMIN

Value space: <Off/On>

Off: Remote pairing of Touch 10 is not allowed.
On: Remote pairing of Touch 10 is allowed.

Example: Peripherals Pairing CiscoTouchPanels RemotePairing: On

# 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.

 $\mathit{TMS}$ : Select TMS if the phonebook is located on the Cisco TelePresence Management Suite

server.

 ${\it Callway:} \ {\it Select} \ {\it Callway if the phonebook is to be provided by the WebEx TelePresence subscription service (formerly called CallWay). Contact your WebEx TelePresence provider to the provider of the contact of the co$ 

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).

 $\it VCS$ : 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.

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 from 1024 to 65438. **Example:** RTP Ports Range Start: 2326

# RTP Ports Range Stop

Specify the last RTP port in the range.

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 from 1120 to 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 External Secure.

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 from 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 Userld, 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 (connection via Micro USB to USB cable). The serial port uses 115200 bps, 8 data bits, no parity and 1 stop bit.

Requires user role: ADMIN Value space: <Off/On>

Off: Disable the serial port.
On: Enable the serial port.
Example: SerialPort Mode: On

# 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/TIs/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] TIsVerify

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.

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. It is possible to use a fully qualified domain name, or an IP address. 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: A valid IPv4 address, IPv6 address or DNS name.

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.

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

This value is fixed and cannot be changed.

Requires user role: ADMIN Value space: <Private>

Range: This value is fixed and cannot be changed.

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 from 1 to 480 minutes.

Example: Standby Delay: 10

# Standby BootAction

Define the camera position after a restart of the codec.

Requires user role: ADMIN

Value space: <None/Preset1/Preset2/Preset3/Preset4/Preset5/Preset6/Preset7/Preset8/Preset9/Preset10/Preset11/Preset12/Preset13/Preset14/Preset15/RestoreCameraPosition/DefaultCameraPosition>

None: No action

Preset1 to Preset15: After a reboot the camera position will be set to the position defined by the selected preset.

RestoreCameraPosition: After a reboot the camera position will be set to the position it had before the last boot.

DefaultCameraPosition: After a reboot the camera position will be set to the factory default position.

Example: Standby BootAction: DefaultCameraPosition

# Standby Standby Action

Define the camera position when going into standby mode.

Requires user role: ADMIN

Value space: <None/PrivacyPosition>

None: No action.

PrivacyPosition: Turns the camera to a sideways position for privacy.

Example: Standby StandbyAction: PrivacyPosition

# Standby WakeupAction

Define the camera position when leaving standby mode.

Requires user role: ADMIN

Value space: <None/Preset1/Preset2/Preset3/Preset4/Preset5/Preset6/Preset7/Preset8/Preset9/Preset10/Preset11/Preset12/Preset13/Preset14/Preset15/RestoreCameraPosition/DefaultCameraPosition>

None: No action.

*Preset1 to Preset15:* When leaving standby the camera position will be set to the position defined by the selected preset.

RestoreCameraPosition: When leaving standby the camera position will be set to the position it had before entering standby.

DefaultCameraPosition: When leaving standby the camera position will be set to the factory default position.

Example: Standby WakeupAction: RestoreCameraPosition

# SystemUnit settings

# SystemUnit Name

Enter a System Name to define a name of the system unit. The system name will be displayed:

1) When the codec is acting as an SNMP Agent.

2) Towards a DHCP server.

Requires user role: ADMIN

Value space: <S: 0, 50>

Format: String with a maximum of 50 characters.

Example: SystemUnit Name: "Meeting Room"

# SystemUnit MenuLanguage

This has been replaced with the UserInterface Language setting.

# 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 display and Touch controller.

Requires user role: ADMIN

Value space: <Auto/None/IPv4/IPv6/SipUri/SystemName/DisplayName>

Auto: Show the address which another system can dial to reach this system. The address depends on the system registration

depends on the 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.

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)

setting).

DisplayName: Show the display name as contact information (see the SIP Profile [1..1]

DisplayName setting).

Example: SystemUnit ContactInfo Type: Auto



# 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.

## Time OlsonZone

Set the time zone for the geographical location of the video system. The information in the value space is from the tz database, also called the IANA Time Zone Database.

Requires user role: USER

Value space: <Africa/Abidjan, Africa/Accra, Africa/Addis\_Ababa, Africa/Algiers, Africa/Asmara, Africa/Asmera, Africa/Bamako, Africa/Banqui, Africa/Baniul, Africa/Bissau, Africa/Blantvre, Africa/Brazzaville, Africa/Bujumbura, Africa/Cairo, Africa/Casablanca, Africa/Ceuta, Africa/ Conakry, Africa/Dakar, Africa/Dar es Salaam, Africa/Dijbouti, Africa/Douala, Africa/El Aaiun, Africa/Freetown, Africa/Gaborone, Africa/Harare, Africa/Johannesburg, Africa/Juba, Africa/ Kampala, Africa/Khartoum, Africa/Kigali, Africa/Kinshasa, Africa/Lagos, Africa/Libreville, Africa/ Lome, Africa/Luanda, Africa/Lubumbashi, Africa/Lusaka, Africa/Malabo, Africa/Maputo, Africa/ Maseru, Africa/Mbabane, Africa/Moqadishu, Africa/Monrovia, Africa/Nairobi, Africa/Ndjamena, Africa/Niamey, Africa/Nouakchott, Africa/Ouagadougou, Africa/Porto-Novo, Africa/Sao Tome, Africa/Timbuktu, Africa/Tripoli, Africa/Tunis, Africa/Windhoek, America/Adak, America/ Anchorage, America/Anguilla, America/Antigua, America/Araguaina, America/Argentina/ Buenos\_Aires, America/Argentina/Catamarca, America/Argentina/ComodRivadavia, America/ Argentina/Cordoba, America/Argentina/Jujuy, America/Argentina/La Rioja, America/Argentina/ Mendoza, America/Argentina/Rio Gallegos, America/Argentina/Salta, America/Argentina/San Juan. America/Argentina/San Luis, America/Argentina/Tucuman, America/Argentina/Ushuaia, America/Aruba, America/Asuncion, America/Atikokan, America/Atka, America/Bahia, America/ Bahia\_Banderas, America/Barbados, America/Belem, America/Belize, America/Blanc-Sablon, America/Boa\_Vista, America/Bogota, America/Boise, America/Buenos\_Aires, America/ Cambridge Bay, America/Campo Grande, America/Cancun, America/Caracas, America/ Catamarca, America/Cayenne, America/Cayman, America/Chicago, America/Chihuahua, America/Coral\_Harbour, America/Cordoba, America/Costa\_Rica, America/Creston, America/ Cuiaba, America/Curacao, America/Danmarkshavn, America/Dawson, America/Dawson\_Creek, America/Denver, America/Detroit, America/Dominica, America/Edmonton, America/Eirunepe, America/El Salvador, America/Ensenada, America/Fort Wayne, America/Fortaleza, America/ Glace\_Bay, America/Godthab, America/Goose\_Bay, America/Grand\_Turk, America/Grenada, America/Guadeloupe, America/Guatemala, America/Guayaquil, America/Guyana, America/ Halifax, America/Havana, America/Hermosillo, America/Indiana/Indianapolis, America/Indiana/ Knox, America/Indiana/Marengo, America/Indiana/Petersburg, America/Indiana/Tell City, America/Indiana/Vevay, America/Indiana/Vincennes, America/Indiana/Winamac, America/ Indianapolis, America/Inuvik, America/Iqaluit, America/Jamaica, America/Jujuy, America/ Juneau, America/Kentucky/Louisville, America/Kentucky/Monticello, America/Knox\_IN, America/Kralendijk, America/La\_Paz, America/Lima, America/Los\_Angeles, America/Louisville, America/Lower Princes, America/Maceio, America/Managua, A Marigot, America/Martinique, America/Matamoros, America/Mazatlan, America/Mendoza, America/Menominee, America/Merida, America/Metlakatla, America/Mexico City, America/ Miguelon, America/Monton, America/Monterrey, America/Montevideo, America/Montreal, America/Montserrat, America/Nassau, America/New\_York, America/Nipigon, America/Nome, America/Noronha, America/North\_Dakota/Beulah, America/North\_Dakota/Center, America/ North Dakota/New Salem, America/Ojinaga, America/Panama, America/Panaprirtung, America/ Paramaribo, America/Phoenix, America/Port-au-Prince, America/Port of Spain, America/

Porto\_Acre, America/Porto\_Velho, America/Puerto\_Rico, America/Rainy\_River, America/ Rankin Inlet, America/Recife, America/Regina, America/Resolute, America/Rio Branco. America/Rosario, America/Santa\_Isabel, America/Santarem, America/Santiago, America/ Santo Domingo, America/Sao Paulo, America/Scoresbysund, America/Shiprock, America/ Sitka, America/St\_Barthelemy, America/St\_Johns, America/St\_Kitts, America/St\_Lucia, America/St\_Thomas, America/St\_Vincent, America/Swift\_Current, America/Tegucigalpa, America/Thule, America/Thunder\_Bay, America/Tijuana, America/Toronto, America/Tortola, America/Vancouver, America/Virgin, America/Whitehorse, America/Winnipeg, America/Yakutat, America/Yellowknife, Antarctica/Casey, Antarctica/Davis, Antarctica/DumontDUrville, Antarctica/ Macquarie, Antarctica/Mawson, Antarctica/McMurdo, Antarctica/Palmer, Antarctica/Rothera, Antarctica/South Pole, Antarctica/Syowa, Antarctica/Vostok, Arctic/Longvearbyen, Asia/Aden. Asia/Almaty, Asia/Amman, Asia/Anadyr, Asia/Aqtau, Asia/Aqtobe, Asia/Ashgabat, Asia/ Ashkhabad, Asia/Baqhdad, Asia/Bahrain, Asia/Baku, Asia/Bangkok, Asia/Beirut, Asia/Bishkek, Asia/Brunei, Asia/Calcutta, Asia/Choibalsan, Asia/Chongqing, Asia/Chungking, Asia/Colombo, Asia/Dacca, Asia/Damascus, Asia/Dhaka, Asia/Dili, Asia/Dubai, Asia/Dushanbe, Asia/Gaza, Asia/ Harbin, Asia/Hebron, Asia/Ho\_Chi\_Minh, Asia/Hong\_Kong, Asia/Hovd, Asia/Irkutsk, Asia/ Istanbul, Asia/Jakarta, Asia/Jayapura, Asia/Jerusalem, Asia/Kabul, Asia/Kamchatka, Asia/ Karachi, Asia/Kashgar, Asia/Kathmandu, Asia/Katmandu, Asia/Khandyga, Asia/Kolkata, Asia/ Krasnoyarsk, Asia/Kuala\_Lumpur, Asia/Kuching, Asia/Kuwait, Asia/Macao, Asia/Macau, Asia/ Magadan, Asia/Makassar, Asia/Manila, Asia/Muscat, Asia/Nicosia, Asia/Novokuznetsk, Asia/ Novosibirsk, Asia/Omsk, Asia/Oral, Asia/Phnom\_Penh, Asia/Pontianak, Asia/Pyongyang, Asia/ Oatar, Asia/Ovzylorda, Asia/Rangoon, Asia/Rivadh, Asia/Saigon, Asia/Sakhalin, Asia/Samarkand, Asia/Seoul, Asia/Shanghai, Asia/Singapore, Asia/Taipei, Asia/Tashkent, Asia/Tbilisi, Asia/Tehran, Asia/Tel Aviv, Asia/Thimbu, Asia/Thimphu, Asia/Tokyo, Asia/Ujung Pandang, Asia/Ulaanbaatar, Asia/Ulan\_Bator, Asia/Urumqi, Asia/Ust-Nera, Asia/Vientiane, Asia/Vladivostok, Asia/Yakutsk, Asia/Yekaterinburg, Asia/Yerevan, Atlantic/Azores, Atlantic/Bermuda, Atlantic/Canary, Atlantic/ Cape\_Verde, Atlantic/Faeroe, Atlantic/Faeroe, Atlantic/Jan\_Mayen, Atlantic/Madeira, Atlantic/ Reykjavik, Atlantic/South Georgia, Atlantic/St Helena, Atlantic/Stanley, Australia/ACT, Australia/ Adelaide, Australia/Brisbane, Australia/Broken Hill, Australia/Canberra, Australia/Currie, Australia/Darwin, Australia/Eucla, Australia/Hobart, Australia/LHI, Australia/Lindeman, Australia/ Lord\_Howe, Australia/Melbourne, Australia/NSW, Australia/North, Australia/Perth, Australia/ Queensland, Australia/South, Australia/Sydney, Australia/Tasmania, Australia/Victoria, Australia/ West, Australia/Yancowinna, Brazil/Acre, Brazil/DeNoronha, Brazil/East, Brazil/West, CET, CST6CDT, Canada/Atlantic, Canada/Central, Canada/East-Saskatchewan, Canada/Eastern, Canada/Mountain, Canada/Newfoundland, Canada/Pacific, Canada/Saskatchewan, Canada/ Yukon, Chile/Continental, Chile/EasterIsland, Cuba, EET, EST, EST5EDT, Egypt, Eire, Etc/GMT, Etc/GMT+0, Etc/GMT+1, Etc/GMT+10, Etc/GMT+11, Etc/GMT+2, Etc/GMT+3, Etc/GMT+3 GMT+4, Etc/GMT+5, Etc/GMT+6, Etc/GMT+7, Etc/GMT+8, Etc/GMT+9, Etc/GMT-0, Etc/GMT-1, Etc/GMT-10, Etc/GMT-11, Etc/GMT-12, Etc/GMT-13, Etc/GMT-14, Etc/GMT-2, Etc/GMT-3, Etc/ GMT-4, Etc/GMT-5, Etc/GMT-6, Etc/GMT-7, Etc/GMT-8, Etc/GMT-9, Etc/GMT0, Etc/Greenwich, Etc/UCT, Etc/UTC, Etc/Universal, Etc/Zulu, Europe/Amsterdam, Europe/Andorra, Europe/Athens, Europe/Belfast, Europe/Belgrade, Europe/Berlin, Europe/Bratislava, Europe/Brussels, Europe/ Bucharest, Europe/Budapest, Europe/Busingen, Europe/Chisinau, Europe/Copenhagen, Europe/ Dublin, Europe/Gibraltar, Europe/Guernsey, Europe/Helsinki, Europe/Isle of Man, Europe/ Istanbul, Europe/Jersey, Europe/Kaliningrad, Europe/Kiev, Europe/Lisbon, Europe/Ljubljana, Europe/London, Europe/Luxembourg, Europe/Madrid, Europe/Malta, Europe/Mariehamn,



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/Fakaofo, 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: Range: Select a time zone from the list time zones.

# UserInterface settings

## UserInterface Language

Select the language to be used in menus and messages on the screen and Touch controller. The default language is English.

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>

Range: Select a language from the list.

Example: UserInterface Language: English

# UserInterface 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: UserInterface OSD EncryptionIndicator: Auto

# UserInterface OSD LanguageSelection

Not applicable in this version.

# UserInterface OSD LoginRequired

Determine if the system should require the user to login before accessing the menus on screen. If enabled, the user must enter his username and his PIN code. After the user has logged in he can only execute to the configurations changes and commands allowed by his role. The OSD (On Screen Display) is where you find the menus, dialogs, icons and indicators, and the navigation is done with a remote control.

NOTE: The PIN code must be set before enabling this setting, this is done from a web interface. Login to the system from a web browser, navigate to Configuration > User Administration, select the user and add the PIN code.

Requires user role: ADMIN

Value space: <Off/On>

Off: No login to the menus on screen (OSD) is required.

On: The user must log in to access the menus on screen (OSD).

Example: UserInterface OSD LoginRequired: Off

# UserInterface OSD Output

Define on which monitor the on-screen menus, information and icons should be displayed. The system supports only one monitor, so this value is fixed and cannot be changed.

Requires user role: ADMIN

Value space: <1>

# UserInterface Wallpaper

Select a background image (wallpaper) for the video screen when idle.

You may upload a custom wallpaper to the video system using the web interface. 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>

None: There is no background image on the screen.

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: UserInterface Wallpaper: None



## 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: None

# 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

Allow or disallow snapshots being taken of the local input sources, remote sites and presentation channel. If snapshots are allowed, the web interface Call Control page will show them both when idle and in a call.

Snapshots are not allowed by default; you must switch this setting On if you want to allow snapshots being taken.

Requires user role: ADMIN

Value space: <Off/On>

Off: Capturing web snapshots is not allowed.

On: Web snapshots can be captured and displayed on the web interface.

Example: Video AllowWebSnapshots: Off

# 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 Input Connector [1..3] Name

Enter a name for the video input connector.

Requires user role: ADMIN Value space: <S: 0, 50>

Format: String with a maximum of 50 characters.

Example: Video Input Connector 1 Name: ""

# Video Input Connector [1..3] InputSourceType

Select which type of input source is connected to the video input.

Note that Connector 1 is the system's integrated camera.

Requires user role: ADMIN

Value space: Connector 1: <camera> Other connectors: <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.

 ${\it document\_camera:} \ {\it Use this when a document camera is connected to the video input.}$ 

whiteboard: Use this when a whiteboard camera is connected to the video input.

Example: Video Input Connector 2 InputSourceType: PC



# Video Input Connector [1..3] Visibility

Define the visibility of the video input connector in the menus on the user interface. Note that Connector 1 is the system's integrated camera, which is not available as a presentation source.

> The default value is Always for Video Input Connector 2 Visibility (the HDMI connector).

> The default value is IfSignal for Video Input Connector 3 Visibility (the VGA connector).

Requires user role: ADMIN

Value space: Connector 1: <Never> Other connectors: <Never/Always/IfSignal>

Never: When the input source is not expected to be used as a presentation source, set to

Always: When set to Always, the menu selection for the video input connector will always be visible on the graphical user interface.

If Signal: When set to If Signal, the menu selection for the video input connector will only be visible when something is connected to the video input.

Example: Video Input Connector 2 Visibility: Always

# Video Input Connector [1..3] CameraControl Mode

Define whether the camera that is connected to this video input connector can be controlled or not

Note that camera control is not available for Connector 2 (HDMI) and Connector 3 (VGA).

Requires user role: ADMIN

Value space: Connector 1: <Off/On> Connector 2,3: <Off>

Off: Disable camera control.
On: Enable camera control.

Example: Video Input Connector 1 CameraControl Mode: On

# Video Input Connector [1..3] CameraControl Camerald

Define the camera ID. This value is fixed and cannot be changed.

Requires user role: ADMIN

Value space: <1>

Range: This value is fixed and cannot be changed.

Example: Video Input Connector 1 CameraControl CameraId: 1

# Video Input Connector [2..3] Quality

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.

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 Connector 3 Quality: Sharpness

# Video Input Connector [1..3] OptimalDefinition Profile

This setting will only take effect if the corresponding Video Input Connector Quality setting is set to Motion.

The optimal definition profile reflects the lighting conditions in the video conferencing room and the quality of the camera. The better lighting conditions and the better quality of the camera, the higher the profile. In good lighting conditions, the video encoder will provide better quality (higher resolution or frame rate) for a given call rate. Generally, the Normal or Medium profiles are recommended. However, when the lighting conditions are very good, the High profile can be set in order to increase the resolution for a given call rate. The resolution must be supported by both the calling and called systems.

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 Connector 1 OptimalDefinition Profile: Medium

# Video Input Connector [2..3] PresentationSelection

Define how the video system will behave when you connect a presentation source to the video input.

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 (press Share on the user interface).

Requires user role: ADMIN

Value space: <Manual/Automatic/OnConnect>

*Manual:* In manual mode, the contents of the video input will not be presented on the screen until you choose it from the user interface.

Automatic: In automatic mode, the contents on the video input 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 is active (presented) when a call is disconnected, the content will still be displayed locally.

OnConnect: When in on-connect mode, the content on the video input will be presented on screen when a cable is connected. Otherwise, the behavior is the same as in manual mode.

Example: Video Input Connector 2 PresentationSelection: OnConnect

# Video Input Connector [2] RGBQuantizationRange

The devices connected to the video input 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 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 Connector 2 RGBQuantizationRange: Auto

# Video Layout LocalLayoutFamily

Select which video layout family to use locally.

Requires user role: ADMIN

Value space: <Auto/FullScreen/Equal/PresentationSmallSpeaker/PresentationLargeSpeaker/Prominent/Overlav/Single>

Auto: The default layout family, as given in the layout database provided by the system, will be used as the local layout.

FullScreen: Do not use this value.

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: Do not use this value. PresentationLargeSpeaker: Do not use this value.

*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/Overlav/Single>

Auto: The default layout family, as given by the local layout database, will be used as the remote layout.

FullScreen: Do not use this value.

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: Do not use this value. PresentationLargeSpeaker: Do not use this value.

*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 from 0 to 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.

CentreRight: 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 remote control or 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.

CentreRight: 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 SelfviewPosition

Select where the small self-view PiP (Picture-in-Picture) will appear on screen. This setting is obsoleted by the Video SelfviewDefault PIPPosition setting.

Requires user role: ADMIN

Value space: <UpperLeft/UpperCenter/UpperRight/CenterLeft/CenterRight/LowerLeft/LowerRight>

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 of the screen.

UpperRight: The self-view PiP will appear in the upper right corner of the screen.

CenterLeft: The self-view PiP will appear on the left side of the screen, in center.

CenterRight: The self-view PiP will appear on the right side of the screen, in center.

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 SelfviewPosition: CenterRight

## 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.

CentreRight: 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 Monitors

Set the monitor layout mode.

Requires user role: ADMIN

Value space: <Single>

Single: The layout is shown on the video system's monitor. Note that this video system

supports only one monitor.

Example: Video Monitors: Single

# Video OSD LanguageSelection

This has been replaced with the UserInterface OSD LanguageSelection setting.

# Video OSD EncryptionIndicator

This has been replaced with the UserInterface OSD EncryptionIndicator setting.

# Video OSD Output

This has been replaced with the UserInterface OSD Output setting.

# Video OSD LoginRequired

This has been replaced with the UserInterface OSD LoginRequired setting.

# Video Output Connector [1] CEC Mode

Not supported in this version.

# Video Output Connector [1] OverscanLevel

Not supported in this version.



# Video Output Connector [1] RGBQuantizatonRange

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 Connector 1 RGBQuantizatonRange: Full

# Video Output Connector [1] Resolution

Set the resolution and refresh rate for the connected screen. This value is fixed and cannot be changed.

Requires user role: ADMIN

Value space: <Auto>

# Video WallPaper

This has been replaced with the UserInterface Wallpaper setting

# **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.

#### 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.

- 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



# Connecting the Touch 10 user interface

In order to use Touch 10 as user interface for the SX10 video system, Touch 10 must be paired to the system via the network (LAN). This is referred to as remote pairing.

# Connecting Touch 10 to SX10 via LAN

Connect Touch 10 and SX10 to the network wall socket or network switch as illustrated.

## Touch 10 set-up

Once Touch 10 is connected to power, the set-up procedure begins. Follow the instructions on screen.

When the *Select codec to pair with* dialog appears, note the following:

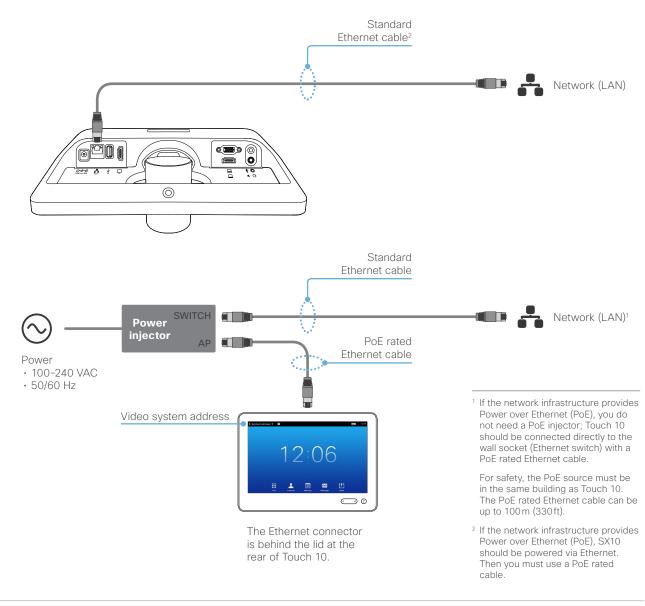
 A list of video systems signalling that they are available for paring will show up in the dialog. Tap the name of the system you want to pair to followed by Start Pairing.

Note that the following must be fulfilled for a video system to show up in the list:

- The video system and Touch 10 must be on the same subnet.
- The video system must have been restarted within the last 10 minutes. If your system does not appear in the list, try restarting it.
- If your video system does not appear in the list of available codecs, you can pair the devices manually. Click Select codec manually..., enter the IP address or host name of the video system, and tap Start Pairing.
- You have to enter the video system's administrator username and password for the paring to commence.

If Touch 10 needs software upgrade, new software will be downloaded from the video system and installed on the unit automatically as part of the set-up procedure. Touch 10 restarts after the upgrade.

You can verify that Touch 10 is successfully connected to the video system by checking that the video system's address is displayed in the top banner.



# 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-quick-set-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.



# 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 > Connector [1..n] > OptimalDefinition > Profile* to choose the preferred optimal definition profile.

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 > Connector [1..n] > Quality* to set the video quality parameter to **Motion**.

You can read more about the video settings in the System 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.



# ClearPath - Packet loss resilience

ClearPath introduces advanced packet loss resilience mechanisms that increase the experienced quality when you use your video system in an error prone environment.

We recommend that you keep ClearPath enabled on your video system.

Go to System Configuration (on the web interface):

Navigate to Conference 1 > PacketLossResilience > Mode
 Choose Off to disable ClearPath and On to enable
 ClearPath.



# 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 System recovery section.

We recommend that you use the web interface to factory reset the system. If these interfaces are not available, you can use the video system's reset 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.
- The previous (inactive) software image will be deleted.
- · Option keys will **not** be affected.

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

### User interface: Web

- 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

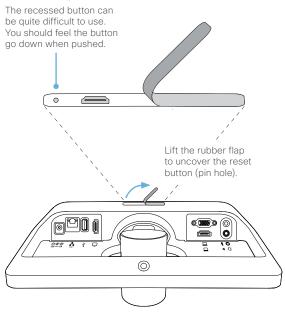
## Using the reset button

- 1. Lift the rubber flap on the back of the unit to uncover the reset button (pin hole).
- Use the tip of a pen (or similar) to press and hold the recessed reset button until the screen turns black (approximately 10 seconds). Then release the 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.

## Reset button (pin hole)



<sup>\*</sup> How to find the IP address (IPv4 or IPv6):

Navigate to the contact information in the upper, left corner of the screen and press **OK** on the remote control. Then open the *Settings* menu.

# **Technical specification**

### Software compatibility

Cisco TelePresence Software Version TC7.1 or later

#### Product delivered with:

- SX10 codec with integrated HD camera and microphone
- · Wall mount
- · TRC6 remote control
- · Network and HDMI cables

## Integrated HD Camera

- 5x total zoom
- · +5°/-25° tilt, +/- 30° pan
- · 51.5° vertical field of view
- · 83° horizontal field of view
- F-value from 2.1
- 1920 × 1080 pixels progressive @ 30 fps
- Automatic or manual focus, brightness, and white balance
- Automatic flipping of picture when up-side down

#### User interface

- TRC6 remote control and on-screen graphical user interface
- · Cisco TelePresence Touch 10 (optional)

## Language support

 English, Arabic, Catalan, Czech, Danish, Dutch, Finnish, French, German, Hebrew, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese-Brazilian, Russian, Simplified Chinese, Spanish, Swedish, Traditional Chinese, Turkish (depends on software version)

### System management

- Total management using embedded Telnet, SSH, XML, and SOAP
- Remote software upload using web server, SCP, HTTP, and HTTPS
- · Remote control and on-screen menu system

## Directory services

- · Support for local directories (Favorites)
- Corporate directory (through Cisco Unified Communications Manager and Cisco TelePresence Managment Suite)
- Server directory supporting LDAP and H.350 (requires Cisco TelePresence Managment Suite)
- Call history with received, placed and missed calls with date and time

#### Power

- · PoE enabled
- Autosensing power supply
- · 100-240 VAC, 50/60 Hz
- · Maximum 12 W in normal operation

## Operating temperature and humidity

- Ambient temperature: 0°C to 40°C (32°F to 95°F)
- · Relative humidity (RH): 10 to 90%

## Storage and transport temperature

 -20°C to 60°C (-4°F to 140°F) at RH 10-90% (noncondensing)

#### SX10 Codec Dimensions

- · Width: 10.8 in. (27.5 cm)
- · Height: 4.6 in. (11.7 cm)
- Depth: 3.6 in. (9.1 cm) (with max camera tilt downward)
- Weight: 2.0 lb (0.9 kg)

#### Approvals and compliance

#### EU/EEC

- · Directive 2006/95/EC (Low Voltage Directive)
- Standard IEC/EN 60950-1
- · Directive 2004/108/EC (EMC Directive)
- Standard EN 55022, Class B
- Standard EN 55024
- Standard EN 61000-3-2/-3-3
- Directive 2011/65/EU (RoHS)

#### USA/Canada

- Approved according to UL 60950-1
- Approved according to CAN/CSA C22.2 No. 60950-1-07
- · Complies with FCC CFR 47 Part15 Class A

#### Bandwidth

· Up to 3 Mbps

# Minimum bandwidth for resolution and frame

- · 720p30 from 768 kbps
- · 1080p30 from 1472 kbps

#### Firewall traversal

· Cisco TelePresence Expressway technology

#### Video standards

- · H.263
- · H.263+
- H.264

## Video input

Two video inputs (HDMI or VGA selectable through user interface). Support formats up to maximum 1280 × 768@30fps, including:

- 640 × 480 (VGA)
- · 720 × 480
- 704 × 576 (4CIF)
- · 800 × 600 (SVGA)
- · 848 × 480
- · 1024 × 768 (XGA)
- · 1152 × 864 (XGA+)
- 1280 × 720(720p)
- 1280 × 768 (WXGA)

Extended Display Identification Data (EDID)

#### Video output

One HDMI output. Supports format:

- 1920 × 1080 @ 60 fps (1080p60)

VESA Monitor Power Management

Extended Display Identification Data (EDID)

#### Live video resolutions (encode/decode)

Supports encode/decode video formats up to maximum 1920 × 1080@30fps (HD1080p30), including:

- 176 × 144 @ 30 fps (QCIF) (decode only)
- 352 × 288 @ 30 fps (CIF)
- · 512 × 288 @ 30 fps (w288p)
- 576 × 448 @ 30 fps (448p)
- · 640 × 480 @ 30 fps (VGA)
- 704 × 576 @ 30 fps (4CIF)

- · 768 × 448 @ 30 fps (w448p)
- 800 × 600 @ 30 fps (SVGA)
- · 1024 × 576 @ 30 fps (w576p)
- · 1024 × 768 @ 30 fps (XGA)
- · 1280 × 720 @ 30 fps (HD720p)
- · 1280 × 768 @ 30 fps (WXGA)
- 1920 × 1080 @ 30 fps (HD1080p)

#### Audio standards

- · 64 kbps AAC-LD
- · OPUS
- G.722
- · G.722.1
- G.711mu
- G.711a
- · G.729AB
- · G.729

#### Audio features

- · High quality 20 kHz audio
- Two acoustic echo cancellers
- · Automatic gain control
- · Automatic noise reduction
- · Active lip synchronization

#### Audio inputs

- · One Internal microphone
- One external microphone, 4-pin mini-jack (Cisco TelePresence Table Microphone 20)
- · One HDMI audio-in

## Audio outputs

- · One line out, mini-jack
- One HDMI (digital main audio)

## Dual stream

- · BFCP (SIP) dual stream
- · Resolutions up to WXGAp5

## Multipoint support

 Cisco ad-hoc conferencing (requires Cisco Unified Communications Manager, Cisco TelePresence Serve and Cisco TelePresence Conductor)

## Protocols

· SIP



## Cisco TelePresence SX10 Quick Set

### Embedded encryption

- · SIP point-to-point
- Standards-based: Advanced Encryption Standard (AES)
- · Automatic key generation and exchange
- · Supported in dual stream

#### IP network features

- · DNS lookup for service configuration
- · Differentiated Services (QoS)
- IP adaptive bandwidth management (including flow control)
- Dynamic playout and lip-sync buffering
- Date and time support via NTP
- · Packet loss based downspeeding
- URI dialing
- · TCP/IP
- · DHCP
- IEEE 802.1x network authentication
- IEEE 802.1q Virtual LAN
- IEEE 802.1p QoS and class of service
- · Cisco ClearPath
- · Medianet: Mediatrace and Metadata

### IPv6 network support

- · Single call stack support for SIP
- Dual stack IPv4 and IPv6 for DHCP, SSH, HTTP, HTTPS, DNS, DiffServ
- Support for static IP address assignment, stateless autoconfiguration and DHCPv6

### Supported infrastructure

- Cisco Unified Communications Manager 8.6.2 and newer
- Cisco TelePresence Video Communication Server (Cisco VCS)

## Security features

- Management using web interface (HTTPS/HTTP) and SSH
- · Password protected IP administration
- · Password protected administration menu
- · Disable IP services
- · Network settings protection

#### Network interfaces

 One PoE enabled LAN connector (RJ-45) 100 Mbps

#### Other interfaces

- · One USB port for future use
- · One Micro USB port for maintenance

All specifications are subject to change without notice, system specifics may vary

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# 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.

TelePresence Integration Solutions >
Cisco TelePresence SX Series >
Cisco TelePresence SX Series

Alternatively, you can use the following short-link to find the documentation:

► http://www.cisco.com/go/sx-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:

Maintain and Operate > End-User 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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