Application Programming Interface (API) Reference Guide

Cisco Collaboration Endpoint Software 9.13
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Chapter 1

Introduction
About this guide

This guide introduces you to the Application Programming Interface (API) for the Collaboration Endpoint software, and serves as a reference guide for the command line commands. The guide describes the API for on-premise registered video conferencing devices (CUCM, VCS) as well as devices registered to Cisco's cloud service (Cisco Webex).

Which commands are available depends on the product, the back-end (on-premise, cloud), and the user role of the local user (admin, audit, integrator, roomcontrol, user). To get an overview of the commands, see the "Supported commands matrix" on page 509.

This guide applies to the following products:

- MX Series:
  - MX200 G2
  - MX300 G2
  - MX700
  - MX800
- SX Series:
  - SX10 Quick Set
  - SX20 Quick Set
  - SX80 Codec
- Room Series:
  - Room Kit
  - Room Kit Mini
  - Codec Plus
  - Codec Pro
  - Room 55
  - Room 55 Dual
  - Room 70
  - Room 70 G2
  - Room Panorama
  - Room 70 Panorama
- Desk Series / DX Series:
  - Desk Pro
  - DX70
  - DX80
- Webex Boards:
  - Webex Board 55 and 55S
  - Webex Board 70 and 70S
  - Webex Board 85S

1 Included in Room Kit Plus and Room Kit Plus Precision 60
2 Included in Room Kit Pro and Room Kit Pro Precision 60

Downloading the user documentation

You can download the user documentation from the Cisco web site, go to:
- https://www.cisco.com/go/telepresence/docs

For Cisco Webex registered devices, go to:
- https://help.webex.com

Guidelines for how to find the documentation on the Cisco web site are included in the User documentation on the Cisco web site appendix.
What’s new in CE9.13

This section provides an overview of the new and changed device settings, and the new features and improvements in the Cisco Collaboration Endpoint software version 9.13 (CE9.13) compared to CE9.12.

The following Webex products are new in CE9:

• CE9.0 - Room Kit
• CE9.1 - Codec Plus, and Room 55
• CE9.2 - Room 70
• CE9.4 - Codec Pro, Room 70 G2, and Room 55 Dual
• CE9.6 - Room Kit Mini
• CE9.8 - Board 55/55S, Board 70/70S, and Board 85S
• CE9.12 - Desk Pro, Room USB
• CE9.13 - Room Panorama, Room 70 Panorama

For more details, we recommend reading the Software release notes:


Note: Cisco Terms and Conditions have been updated, including Scheduled Meeting Join Experience. See the Cisco Terms and Conditions section for more details.

New features and improvements in CE9.13

New products

• Cisco Webex Room Panorama
• Cisco Webex Room 70 Panorama

Support for Cisco Webex Control Hub Configuration Management (All Products)

Cisco Webex Control Hub has been extended to allow more control over devices that are registered on premises and linked to Webex Edge for Devices. The new configuration management feature, disabled by default, will allow write-access to many device configurations. This can be enabled through Control Hub.

Easy-join Webex Personal Meeting Rooms (All Products)

Devices linked to Webex Edge for Devices can now search directly for users in the Webex organization. A button to join their Personal Meeting Room (PMR) will be displayed in the search result next to the user’s name.

Real-time media metrics when joining Webex meetings (All Products)

Devices linked to Webex Edge for Devices will be visible in the media troubleshooting section in Control Hub in the same way fully Webex registered devices are today. This will make it easier to troubleshoot media quality issues.

In-call touch forwarding (Boards)

Touch forwarding has been enabled for use while in-call and can be activated and deactivated using a floating toolbar.

Support for virtual backgrounds (Desk Pro)

You can now upload your own virtual backgrounds. Images are uploaded via the web interface. You can then select from one of the images via the GUI.

You can also use the content from an input device, such as a computer, as a virtual background.

Far End Cameral Control when dialing into CMS Meetings (All Products)

When you dial into a CMS meeting you can control the camera of the active speaker. Just open the participant list to find the button for “Remote Camera” control.

Note: If the active speaker is frequently changing from person to person, it may be challenging to control the camera of the intended participant. You cannot manually select a specific participant for the FECC; it’s always the current active speaker.

Custom text to video stream (Codec Plus, Codec Pro, Room 70 G2, Room Kit, Room Kit Mini, Room 55 Dual, Room 70)

You can add time, date, and/or a custom text string to a video stream (xCommand Video Graphics Text Display). You can add this text to the main video stream, the presentation stream, or to the local video output.
xConfiguration changes in CE9.13

New configurations

Audio Microphones AGC (Codec Plus, Room Kit, SX20)

Cameras PowerLine Frequency (Codec Plus, Codec Pro, MX200 G2, MX300 G2, MX700, MX800, Room Kit, Room Kit Mini, Room 55, Room 55 Dual, Room 70, Room 70 G2, SX20, SX80)

Cameras PresenterTrack CameraPosition Pan (Codec Plus, Codec Pro, MX700, MX800, Room 55 Dual, Room 70, Room 70 G2, SX80)

Cameras PresenterTrack CameraPosition Tilt (Codec Plus, Codec Pro, MX700, MX800, Room 55 Dual, Room 70, Room 70 G2, SX80)

Cameras PresenterTrack CameraPosition Zoom (Codec Plus, Codec Pro, MX700, MX800, Room 55 Dual, Room 70, Room 70 G2, SX80)

Cameras PresenterTrack Connector (Codec Plus, Codec Pro, MX700, MX800, Room 55 Dual, Room 70, Room 70 G2, SX80)

Cameras PresenterTrack Enabled (Codec Plus, Codec Pro, MX700, MX800, Room 55 Dual, Room 70, Room 70 G2, SX80)

Cameras PresenterTrack PresenterDetectedStatus (Codec Plus, Codec Pro, MX700, MX800, Room 55 Dual, Room 70, Room 70 G2, SX80)

Cameras PresenterTrack TriggerZone (Codec Plus, Codec Pro, MX700, MX800, Room 55 Dual, Room 70, Room 70 G2, SX80)

Logging CloudUpload Mode (All products)

Provisioning CUCM CallManagementRecords (All products)

UserInterface Assistant Mode (Boards, Codec Plus, Codec Pro, Desk Pro, Room Kit, Room Kit Mini, Room 55, Room 55 Dual, Room 70, Room 70 G2)

Configurations that are modified

Audio Output InternalSpeaker Mode (Codec Plus, MX700/MX800, MX200 G2, MX300 G2, Room Kit, Room 55, Room 55 Dual, Room 70, Room 70 G2)

OLD: User role: ADMIN
NEW: User role: ADMIN, INTEGRATOR
xCommand changes in CE9.13

**New commands**
- Bookings Put *(All products)*
- Cameras Background Clear *(Desk Pro)*
- Cameras Background Delete *(Desk Pro)*
- Cameras Background Fetch *(Desk Pro)*
- Cameras Background Get *(Desk Pro)*
- Cameras Background List *(Desk Pro)*
- Cameras Background Upload *(Desk Pro)*
- UserInterface Message Rating Clear *(All products)*
- UserInterface Message Rating Display *(All products)*
- UserInterface Message Rating Response *(All products)*
- Video Graphics Clear *(Codec Plus, Codec Pro, Room 70 G2, Room Kit, Room Kit Mini, Room 55 Dual, Room 70)*
- Video Graphics Text Display *(Codec Plus, Codec Pro, Room 70 G2, Room Kit, Room Kit Mini, Room 55 Dual, Room 70)*

**Commands that are removed**
- None

**Commands that are modified**
- Camera PositionSet *(All products except DX70, DX80)*
  - **OLD:** Pan: Integer (10000..10000)
  - **NEW:** Pan: Integer (-17000..17000)
  - **OLD:** Tilt: Integer (-2500..2500)
  - **NEW:** Tilt: Integer (-9000..9000)
- Camera Background Set *(Desk Pro)*
  - **OLD:** Image: Image1/Image2/Image3
  - **OLD:** Mode: Blur/BlurMonochrome/DepthOfField/Disabled/Image/Monochrome
  - **NEW:** Mode: Blur/BlurMonochrome/DepthOfField/Disabled/UsbC
- HttpClient Delete *(All products)*
- HttpClient Get *(All products)*
- HttpClient Patch *(All products)*
- HttpClient Post *(All products)*
- HttpClient Put *(All products)*
  - **OLD:** Header: String (0, 1024)
  - **NEW:** Header: String (0, 1536)
- Logging SendLogs *(All products)*
  - **OLD:** Applies to Webex cloud registered devices
  - **NEW:** Applies to both Webex cloud registered devices, and on-premises registered devices that are linked to Webex Edge for Devices
- Peripherals Connect *(All products)*
  - **OLD:** Type: Byod/ControlSystem/Other/TouchPanel
  - **NEW:** Type: AudioAmplifier/AudioMicrophone/Byod/ControlSystem/Other/TouchPanel
- Phonebook Search *(All products)*
  - **OLD:** SearchFilter: All/People/Rooms
  - **NEW:** SearchFilter: All/People/Pmr/Rooms
- Security Certificates Services Activate *(All products)*
- Security Certificates Services Deactivate *(All products)*
- Security Certificates Services Show *(All products)*
  - **OLD:** Purpose: 802.1X/Audit/HTTPS/SIP
  - **NEW:** Purpose: 802.1X/Audit/HTTPS/Pairing/SIP
xStatus changes in CE9.13

New statuses
Conference Call \([n]\) Capabilities Recording Start \((\text{All products})\)
Conference Call \([n]\) Recording \((\text{All products})\)
Conference Call \([n]\) Sip SessionId \((\text{All products})\)
SystemUnit Hardware USBC \([n]\) Connected \((\text{Desk Pro})\)
SystemUnit Hardware USBC \([n]\) MilliVolts \((\text{Desk Pro})\)
SystemUnit Hardware USBC \([n]\) MilliWatts \((\text{Desk Pro})\)

Statuses that are removed
None

Statuses that are modified
Cameras Background Image \((\text{Desk Pro})\)
\- OLD: Image1/Image2/Image3
Cameras Background Mode \((\text{Desk Pro})\)
\- OLD: Blur/BlurMonochrome/DepthOfField/Disabled/Image/Monochrome/Replace
\- NEW: Blur/BlurMonochrome/DepthOfField/Disabled/Hdmi/Image/Monochrome/UsbC
Diagnostics Message \([n]\) Type \((\text{All products})\)
\- Added to Valuespace: CUCMAndCloudConfigurability / MonitorFirmwareVersion /
\- NetworkSwitch
Provisioning Software UpgradeStatus Phase \((\text{All products})\)
\- Removed from Valuespace: FormingHierarchy / PeripheralsReady / Seeding
Video Input Connector \([n]\) SignalState \((\text{All products})\)
\- OLD: OK/Unknown/Unsupported
\- NEW: NotFound/OK/Unknown/Unstable/Unsupported
What’s new in CE9.12

This section provides an overview of the new and changed device settings, and the new features and improvements in the Cisco Collaboration Endpoint software version 9.12 (CE9.12) compared to CE9.10.

The following Webex products are new in CE9:

- CE9.0 - Room Kit
- CE9.1 - Codec Plus, and Room 55
- CE9.2 - Room 70
- CE9.4 - Codec Pro, Room 70 G2, and Room 55 Dual
- CE9.6 - Room Kit Mini
- CE9.8 - Board 55/55S, Board 70/70S, and Board 85S
- CE9.12 - Desk Pro, Room USB

For more details, we recommend reading the Software release notes:


New features and improvements in CE9.12

New products

- Cisco Webex Room USB
- Cisco Webex Desk Pro

DX Series renamed to Desk Series

The new Desk Series contains the DX70, DX80, and Desk Pro products.

Support for using Room Kit Mini with Samsung Flip

The Room Kit Mini can be connected with a Samsung Flip device to get a touch interface. Then, you can also use the whiteboard feature. You can easily switch between the Samsung Flip and the Room Kit Mini user interfaces by pressing the Flip button.

One-way whiteboard sharing in-call

You can now share the whiteboard while in-call. To initiate this, click the Home button followed by the Whiteboard button. Enter Editing mode and the sharing will begin. To stop the whiteboard sharing, press the Done button, followed by Stop sharing.

Note that the whiteboard share is one-way. Only the device sharing the whiteboard can draw on the whiteboard. Remote participants can only observe.

Webex Join support for Personal Meeting Room IDs

The Webex Join button now supports dialing Personal Meeting Room (PMR) IDs. You can address them by entering the full URL or a short path (i.e., username.sitename); as well as, by entering the meeting number.

PMRs from your recent calls list will be suggested as you type.

HTTP proxy support for Webex Edge for Devices

HTTP Proxy support has been enhanced to include devices linked to Webex Edge for Devices.

Webox Edge for Devices can select the HTTP Proxy services for the HttpClient, HttpFeedback, and/or the WebEngine.

If so enabled, all HTTP requests to the Webex Cloud will use the configured HTTP Proxy. However, regardless of the Proxy Mode, the device will never communicate with the Cisco Unified Communication Manager (CUCM), MRA (CUCM via Expressway), or TMS (phonebook) via proxy.

In addition, the following new configurations allow you to enable/disable use of the HTTP Proxy:

- xConfiguration HttpClient UseHttpProxy
- xConfiguration HttpFeedback UseHttpProxy
- xConfiguration WebEngine UseHttpProxy
Hide Proximity notifications (All products)

You can now hide the Proximity notifications. This includes the Proximity icon that is visible on-screen when someone is paired with Proximity and the notification that appears when someone has just paired.

This can be configured via the API or the web interface of the device, or it can be provisioned (e.g., via TMS).

Hide scheduled meeting titles (All products)

A setting has been added to hide/show the scheduled meeting titles. When hidden, the words “Scheduled meeting” will be displayed instead of the meeting information.

Increased manual zoom range (Room Kit Mini, Room Kit and Room 55)

The manual zoom range is increased from 2x (Room Kit Mini) / 3x (Room Kit, Room 55) to 5x. The automatic best overview or speaker track zoom range is not changed.

Improvements for the Call Control page in the web interface of the device (All products)

• On a SpeakerTrack-enabled device, a button can be used to alter the current SpeakerTrack status. Click the button to disable or enable SpeakerTrack.

• The Mute button will correctly reflect the mute status of the microphones.

• When a preset is selected and accepted by the video device, it will be highlighted in blue. This includes selection from other devices, such as the Touch 10 controller. Note that preset highlighting and detection occurs only if the Camera Positions window is open.

• On devices where PresenterTrack is configured, it can be enabled from the Camera Positions window.

• For cases where the main video consists of a composited image of more than one input source, the DefaultMainVideo source will be displayed. By default, this is the main camera. This requires the remote monitoring option key.

• Regarding the display of directory entries, recent calls, and favorite entries, the maximum number that can be displayed at one time is increased from 50 to 100. The search field can be used to narrow down the list.
xConfiguration changes in CE9.12

New configurations

- Audio Input WebView [1] Mode (Codec Pro, Room 70 G2)
- BYOD TouchForwarding Enabled (Board 55S, Board 70S, Board 85S)
- Cameras Camera [1..3] Flip (Codec Plus, Room 55D, Room 70)
- Cameras Camera [1..7] Flip (Room 70 G2)
- Cameras SpeakerTrack ConnectorDetection * (Codec Plus)
- Cameras SpeakerTrack TrackingMode (Codec Plus)
- HttpClient UseHttpProxy (All products)
- HttpFeedback UseHttpProxy (All products)
- NetworkServices SMTP * (Room Kit Mini)
- SIP TlsVerify (All products)
- Standby Signage InteractionMode (Room Kit Mini)
- SystemUnit State CameraLid (DX80, DX70)
- UserInterface Bookings Visibility Title (All products)
- UserInterface Diagnostics Notifications (All products)
- UserInterface Features Call Keypad (All products)
- UserInterface Proximity Notifications (All products)
- UserInterface Whiteboard ActivityIndicators (All products)
- Video Output Connector [n] Location HorizontalOffset (Codec Pro, Codec Plus, Room Kit, Room 55, Room 55D, Room 70, Room 70 G2, SX80, SX20, MX700, MX800, MX200 G2, MX300 G2)
- Video Output Connector [n] Location VerticalOffset (Codec Pro, Codec Plus, Room Kit, Room 55, Room 55D, Room 70, Room 70 G2, SX80, SX20, MX700, MX800, MX200 G2, MX300 G2)
- VoiceControl Wakeword Mode (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)
- WebEngine UseHttpProxy (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)

Configurations that are removed

- NetworkServices SNMP Host [1..3] Address (All products)

Configurations that are modified

- Network [1] QoS Diffserv Audio (All products)
  - OLD: Default: 0
  - NEW: Default: 46
- Network [1] QoS Diffserv Data (All products)
  - OLD: Default: 0
  - NEW: Default: 34
- Network [1] QoS Diffserv Signalling (All products)
  - OLD: Default: 0
  - NEW: Default: 24
- Network [1] QoS Diffserv Video (All products)
  - OLD: Default: 0
  - NEW: Default: 34
- NetworkServices SMTP Username (Boards, DX80, DX70)
  - OLD: String (0, 50)
  - NEW: String (0, 80)
- SerialPort BaudRate (Codec Pro, Room 70 G2)
  - OLD: Valuespace: 9600
  - NEW: Valuespace: 9600/19200/38400/57600/115200

<path> * means that the change applies to all configurations starting with <path>.
xCommand changes in CE9.12

New commands

Network SMTP VerifyConfig *(Room Kit Mini, Boards, DX80, DX70)*

Network Wifi * *(Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards, DX80, DX70)*

Webex Join *(All products)*

Webex Registration ConvertToCloud *(All products)*

Commands that are removed

None.

Commands that are modified

Audio Diagnostics Advanced Run *(All products)*

   NEW: Channel: Integer (0..13), Default: 0
   NEW: Output: HDMI/Line/Internal/Headset/All, Default: All

Audio Diagnostics MeasureDelay *(All products)*

   OLD: HDMI: All/HDMI/Internal/Line
   OLD: HDMI: All/HDMI/Headset/Internal/Line
   NEW: HDMI: All/HDMI/Headset/Internal/Line

Audio LocalInput AddConnector *(Codec Pro, Room 70 G2)*

   OLD: ConnectorType: ARC/HDMI/Microphone
   NEW: ConnectorType: ARC/HDMI/Microphone/WebView

Audio LocalInput RemoveConnector *(Codec Pro, Room 70 G2)*

   OLD: ConnectorType: ARC/HDMI/Microphone
   NEW: ConnectorType: ARC/HDMI/Microphone/WebView

CallHistory Get *(All products)*

   OLD: Filter: All/AnsweredElsewhere/Forwarded/Missed/NoAnswer/Placed/Received/Rejected/UnacknowledgedMissed
   NEW: Filter: All/AnsweredElsewhere/Forwarded/Missed/NoAnswer/Placed/Pmr/Received/Rejected/UnacknowledgedMissed

CallHistory Recents *(All products)*

   OLD: Filter: All/AnsweredElsewhere/Forwarded/Missed/NoAnswer/Placed/Received/Rejected/UnacknowledgedMissed
   NEW: Filter: All/AnsweredElsewhere/Forwarded/Missed/NoAnswer/Placed/Pmr/Received/Rejected/UnacknowledgedMissed

Presentation Start *(Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2)*

   OLD: PresentationSource: Integer (1..n)
   NEW: PresentationSource: None/1/2/..n

SystemUnit Boot *(All products)*

   NEW: Force: False/True, Default: True

UserInterface Extensions Panel Update *(All products)*

   NEW: Color: String (0, 255), Default: none
   NEW: Icon: Briefing/Camera/Concierge/Disc/Handset/Help/Helpdesk/Home/Hvac/Info/Input-Language/Laptop/Lightbulb/Media/Microphone/Power/Proximity/Record/Sponsor/Webex/General, Default: none
   NEW: Visibility: Auto/Hidden, Default: none
   OLD: Name: required parameter
   NEW: Name: optional parameter

* <path> * means that the change applies to all configurations starting with <path>. 
xStatus changes in CE9.12

New statuses
Audio Input Connectors USBC [n] Mute (All products)
Conference Presentation LocalInstance [n] DirectShare (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)
Conference SelectedCallProtocol (All products)
MediaChannels DirectShare [n] * (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)
Network [n] Wifi * (All products)
RoomAnalytics Engagement CloseProximity (Room Kit, Room Kit Mini, Room 55, Boards)
UserInterface Features Call Keypad (All products)
UserInterface OSD Output (All products)
Video Input DirectShare [n] Peer Address (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)
Video Input DirectShare [n] Peer PeripheralID (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)
Video Input DirectShare [n] Type (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)
Webex Services Proximity GuestToken (All products)

Statuses that are removed
Audio Input Connectors ARC [n] EcReferenceDelay (All products)
Audio Input Connectors HDMI [n] EcReferenceDelay (All products)
Audio Output Connectors Line [n] ConnectionStatus (Codec Pro, Room Kit Mini, Room 70 G2)
xStatus Security FIPS Mode (All products)

<path> * means that the change applies to all configurations starting with <path>.

Statuses that are modified
Diagnostics Message [n] Type (All products)
  Added to valuespace: AmplifierDetection/AmplifierFanStatus/CurrentNetworkQuality/KioskModeFailedToLoad/LowBattery/MissingDisplay/MissingThirdDisplay/PanoramaCameraHdmi/PanoramaView/PeripheralSoftwareUpgrade/WebexEdgeAccountPendingCloudRegistration
Peripherals ConnectedDevice [n] Type (All products)
  OLD: Byod/Camera/ControlSystem/ISDNLink/InputDevice/Other/SpeakerTracker/TouchPanel
  NEW: Byod/Camera/ControlSystem/Headset/ISDNLink/InputDevice/Other/SpeakerTracker/TouchPanel
Proximity Services Availability (All products)
  OLD: Available for on-premises registered devices
  NEW: Available for both on-premises and Webex cloud registered devices
What’s new in CE9.10

This section provides an overview of the new and changed device settings, and the new features and improvements in the Cisco Collaboration Endpoint software version 9.10 (CE9.10) compared to CE9.9.

The following Webex products are new in CE9:

- CE9.0 - Room Kit
- CE9.1 - Codec Plus, and Room 55
- CE9.2 - Room 70
- CE9.4 - Codec Pro, Room 70 G2, and Room 55 Dual
- CE9.6 - Room Kit Mini
- CE9.8 - Board 55/55S, Board 70/70S, and Board 85S

For more details, we recommend reading the Software release notes:


New features and improvements in CE9.10

**Webex Edge for Devices (All products)**

Devices running CE9.10 are ready for Webex Edge for Devices. You can use Webex Edge for Devices to link your on-premises devices to the Cisco Webex cloud service.

This gives you access to select cloud features, while your registration, device management, calling, and media services remain on-premises. You can manage cloud services and get device diagnostics from them in Webex Control Hub.

You need the Device Connector tool to get started. Read the Release Notes on Webex Help Center to find out when the tool is available.

**Easier to join Webex meetings (All products)**

We have added a Join Webex button in the user interface. The button is shown by default.

The Join Webex button allows users to join meetings by entering the meeting number without a domain. This information is available in the Webex email invite. The infrastructure must allow calls to be routed to *@webex.com.

**New procedure for defining a password policy (All products)**

In earlier CE software versions, the password policy was defined using the systemtools securitysettings command. This command has now been replaced by configurations (xConfiguration UserManagement PasswordPolicy *).

Some of the previous restrictions are discontinued.

When upgrading a device from an earlier CE software version, the values previously stored through the systemtools securitysettings command are preserved. The ones that are no longer reflected by configurations are deleted. The previous defaults were all 0, so on upgrade, if no changes had been made, the new defaults are also all 0.

**SNMP is switched off by default (All products)**

SNMP (Simple Network Management Protocol) is switched off by default. Also, we no longer provide a default community name.

When upgrading a device from an earlier CE software version, the values that were previously stored are preserved.
xConfiguration changes in CE9.10

New configurations

- Cameras SpeakerTrack Closeup (Boards)
- Macros UnresponsiveTimeout (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards, SX80, SX20, MX700, MX800, MX200 G2, MX300 G2, DX80, DX70)
- Peripherals Pairing CiscoTouchPanels RemotePairing (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards, SX80, SX20, SX10, MX700, MX800, MX200 G2, MX300 G2)
- Provisioning WebexEdge (All products)
- Security Fips Mode (All products)
- UserInterface Features Call JoinWebex (All products)
- UserManagement PasswordPolicy Complexity MinimumDigits (All products)
- UserManagement PasswordPolicy Complexity MinimumLength (All products)
- UserManagement PasswordPolicy Complexity MinimumLowercase (All products)
- UserManagement PasswordPolicy Complexity MinimumSpecial (All products)
- UserManagement PasswordPolicy Complexity MinimumUppercase (All products)
- UserManagement PasswordPolicy MaxLifetime (All products)
- UserManagement PasswordPolicy ReuseLimit (All products)

Configurations that are removed

None.

Configurations that are modified

- Cameras SpeakerTrack Closeup (Codec Pro, Codec Plus, Room Kit, Room 55, Room 55D, Room 70, Room 70 G2, SX80, MX700, MX800)
  - OLD: Auto/Off
  - NEW: Auto/Off/On
- NetworkServices SMTP Security (Boards)
  - OLD: Default: None
  - NEW: Default: StartTls
- NetworkServices SNMP Mode (All products)
  - OLD: Default: ReadOnly
  - NEW: Default: Off
- Standby Signage Mode (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)
  - OLD: User role: ADMIN
  - NEW: User role: ADMIN, INTEGRATOR
xCommand changes in CE9.10

New commands

Video CEC Output SendInactiveSourceRequest (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2)

Commands that are removed

Security FIPS Mode Activate (All products)
   Replaced by the Security Fips Mode configuration.

Commands that are modified

UserInterface WebView Display (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)
   NEW: Header: String (0, 8192) [multiple 15]

UserManagement User Add (All products)
   Removed: PinChangeRequired

UserManagement User Modify (All products)
   Removed: PinChangeRequired
xStatus changes in CE9.10

New statuses
None.

Statuses that are removed
None.

Statuses that are modified
Diagnostics Message [n] Type (All products)

Added to valuespace: ProvModeWebexAndWebexEdgeEnabled/
WebexAccountPlusWebexEdgeEnabled/WebexEdgeAccountPlusProvModeWebex/
WebexMustUpgradeCeSoftware/WebexShouldUpgradeCeSoftware
What’s new in CE9.9

This section provides an overview of the new and changed device settings, and the new features and improvements in the Cisco Collaboration Endpoint software version 9.9 (CE9.9) compared to CE9.8.

The following Webex products are new in CE9:
- CE9.0 - Room Kit
- CE9.1 - Codec Plus, and Room 55
- CE9.2 - Room 70
- CE9.4 - Codec Pro, Room 70 G2, and Room 55 Dual
- CE9.6 - Room Kit Mini
- CE9.8 - Board 55/55S, Board 70/70S, and Board 85S

For more details, we recommend reading the Software release notes:

New features and improvements in CE9.9

Updates to the UI Extensions editor (All products)
The in-room control editor has been renamed to UI Extensions editor to reflect the additional features that are available. You can launch the editor by going to Integration > UI Extension Editor on the web interface. In addition, the editor’s UI has been updated.

For more information, see the Customization guide for CE9.9 at https://www.cisco.com/go/in-room-control-docs

Web apps (Boards)
You can use the UI Extensions editor to create web apps. This way you can access apps such as Jira, Miro, Office 365, and Google docs directly from a board.

Digital signage
(Codac Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)
Digital signage allows you to display custom content, such as company news, building maps, or emergency information, when the device is in half-wake mode.
Users can interact with the signage content only on Webex Boards.

Fetch branding images and custom wallpaper from an external URL (All products)
You can use the xCommand UserInterface Branding Fetch API command to download branding images or a custom wallpaper from an external URL.
Custom wallpaper is not available for Webex Boards.

Changes to the Network Settings menu (All products)
The Network connection page on the device’s user interface has changed. First you see an overview of the current network set-up, then you can open the Ethernet or Wi-Fi settings if you want to change them. A few settings, which were not available from the GUI before, are now added.

Changes to the ultrasound settings (All products)
All products now has the same default value for the Audio Ultrasound MaxVolume setting. Also the volume range is aligned between the different products. Product specific differences are handled internally and no longer reflected in the range of values and the default value. We have not made any changes to the sound level that is played out from a device.

TLS configuration changes (All products)
For security reasons we have made some changes to the TLS configuration on HTTPS client, syslog, and SIP connections:

- You must explicitly turn off certificate verification if you don’t want to perform a certificate check. By default, certificates are checked on all TLS connections.
- The minimum TLS version is increased from version 1.0 to 1.1 (exceptions for CUCM and SIP, which still allow version 1.0). Also note that the Webex cloud is using TLS version 1.2.
- You can configure certificate verification for provisioning, phone book, and other HTTP servers separately. The former NetworkServices HTTPS VerifyServerCertificate setting, which covered all these server types, are replaced by three settings: Provisioning TLSVerify, Phonebook Server [1] TLSVerify, and HTTPFeedback TLSVerify.
- You can configure certificate verification for external logging (both audit logging and regular logging).
- For SIP, the certificates are verified against the Custom CA list, which is uploaded to the device manually using the web interface or API. For other connections, the certificates are verified against either the Pre-installed CA list on the device, or the Custom CA list.
Updates to whiteboxing and annotations *(Boards)*

- Create, edit, and move stickies on your whiteboard and annotations.
- Choose between three different pen sizes when whiteboarding and annotating.
- Create copies of whiteboards and annotations. The whiteboard or annotated snapshot of a presentation is stored in the Whiteboard menu. You can go back to it and continue work on the copy as you would on any other whiteboard or snapshot.

Wired touch redirect *(Boards)*

Touch redirect enables you to control your laptop from a Webex Board screen. You must connect the laptop to the Webex Board with an HDMI cable (wired sharing) and a USB-C cable.

Touch redirect only works outside of call.

This feature is only available on the second generation of boards (Webex Board 55S, 70S, and 85S).
xConfiguration changes in CE9.9

New configurations

Audio Input ARC [1] Mode (Codec Plus)
Audio Input HDMI [2..3] Level (Room 55D, Room 70)
Audio Input HDMI [2..3] Mode (Room 55D, Room 70)
Audio Input HDMI [2..3] VideoAssociation MuteOnInactiveVideo (Room 55D, Room 70)
BYOD TouchForwarding Enabled (Boards)
HttpFeedback TlsVerify (All products)
Logging External TlsVerify (All products)
Phonebook Server [1] TlsVerify (All products)
Provisioning TlsVerify (All products)
SIP MinimumTLSVersion (All products)
Standby Signage Audio (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)
Standby Signage InteractionMode (Boards)
Standby Signage Mode (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)
Standby Signage RefreshInterval (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)
Standby Signage Url (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)
WebEngine Mode (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)
WebEngine RemoteDebugging (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)

Configurations that are removed

NetworkServices HTTPS VerifyServerCertificate (All products)

- HttpFeedback TlsVerify
- Provisioning TlsVerify

Configurations that are modified

Audio Ultrasound MaxVolume

The valuespace and default value has changed for many products. Product specific differences are now handled internally and not reflected in the default value and range of possible values.

- NEW: Integer (0..90) (Codec Pro, Codec Plus, SX80, SX20)
- NEW: Integer (0..70) (Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards, SX10, MX700, MX800, MX200 G2, MX300 G2, DX70, DX80)
- NEW: Default value: 70 (All products)

SIP ListenPort (All products)

- OLD: Off/On
- NEW: Auto/Off/On

SIP ListenPort (Boards)

- OLD: Default: On
- NEW: Default: Auto
xCommand changes in CE9.9

New commands

Logging SendLogs (All products)

Security Certificates Webex Show (All products)

UserInterface Branding Fetch (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards, SX80, SX20, MX700, MX800, MX200 G2, MX300 G2, DX70, DX80)

UserInterface WebView Clear (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)

UserInterface WebView Display (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)

WebEngine DeleteStorage (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)

Commands that are removed

Cameras AutoFocus Diagnostics Start (Room Kit, Room Kit Mini, Room 55, Boards)

Cameras AutoFocus Diagnostics Stop (Room Kit, Room Kit Mini, Room 55, Boards)

Commands that are modified

Audio Volume SetToDefault (Room Kit, Room Kit Mini, Room 55)
  NEW: Device: Internal/HeadsetUSB/HandsetUSB

Camera PositionSet (Codec Pro, Room 70 G2)
  NEW: Roll: Integer (-300..300)

HttpClient Delete (All products)
  OLD: ResponseSizeLimit: Integer (0..100000)
  NEW: ResponseSizeLimit: Integer (1..100000)

HttpClient Get (All products)
  OLD: ResponseSizeLimit: Integer (0..100000)
  NEW: ResponseSizeLimit: Integer (1..100000)

HttpClient Patch (All products)
  OLD: ResponseSizeLimit: Integer (0..100000)
  NEW: ResponseSizeLimit: Integer (1..100000)

HttpClient Post (All products)
  OLD: ResponseSizeLimit: Integer (0..100000)
  NEW: ResponseSizeLimit: Integer (1..100000)

Phonebook Contact Add (All products)
  OLD: CallRate: Integer (0..6000), Default: 0
  NEW: CallRate: Integer (0..6000), Default: none

Phonebook ContactMethod Add (All products)
  OLD: CallRate: Integer (0..6000), Default: 0
  NEW: CallRate: Integer (0..6000), Default: none

Phonebook ContactMethod Modify (All products)
  OLD: CallRate: Integer (0..6000), Default: 0
  NEW: CallRate: Integer (0..6000), Default: none

Standby ResetTimer (All products)
  OLD: Delay: required parameter
  NEW: Delay: optional parameter

UserInterface Extensions Clear (All products)
  NEW: ActivityType: Custom/WebApp

UserInterface Extensions List (All products)
  NEW: ActivityType: Custom/WebApp
xStatus changes in CE9.9

New statuses

Cameras Camera [n] Position Roll (Codec Pro, Room 70 G2)

RoomAnalytics AmbientNoise Level A (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)

Renamed from RoomAnalytics AmbientNoise Level dB

RoomAnalytics Sound Level A (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)

SystemUnit Hardware Monitoring Temperature Status (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)

WebEngine Features Signage (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)

WebEngine Features WebEngine (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)

Webex Status (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)

Statuses that are removed

RoomAnalytics AmbientNoise Level dB (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, Boards)

Renamed to RoomAnalytics AmbientNoise Level A

Statuses that are modified

Diagnostics Message [n] Type (All products)

Added to valuespace: CompanionModelIncompatibilityLocal/CompanionModelIncompatibilityRemote/EmbeddedWebViewFailedToLoad/EmbeddedWebViewTerminatedUnexpectedly/SoftwareUpgradeKeepsFailing
What's new in CE9.8

This section provides an overview of the new and changed device settings, and the new features and improvements in the Cisco Collaboration Endpoint software version 9.8 (CE9.8) compared to CE9.7.

For more details, we recommend reading the Software release notes:


New features and improvements in CE9.8

New products
The Cisco Webex Boards, which previously have been available only for cloud registration, are now also available for on-premises registration:
• Cisco Webex Board 55/55S
• Cisco Webex Board 70/70S
• Cisco Webex Board 85S

Support for USB headsets (Room Kit, Room Kit Mini, Room 55)
You can connect a USB Headset, Handset or USB Bluetooth dongle to the USB-A port on the devices. This is similar to the DX series.

Extended support for HTTP requests (All products)
Since CE9.6 a device has been able to send arbitrary HTTP(S) Post and Put requests to an HTTP(S) server. This feature is extended to support more request types (Get, Patch, and Delete), and also to handle data that is returned from the server (response headers and body).

Improved USB-C experience (Room Kit Mini)
The Room Kit Mini is in USB camera mode only when it is streaming media to a computer over the USB-C port. In previous releases it was sufficient that a computer was connected to the USB-C port.

Add participant to CMS conference from the device UI (All products)
Any user can add another participant to an ongoing CMS conference using the user interface of the device. This also includes PSTN calls. When the participant accepts the call, the participant will be added to the same CMS conference.

For this feature to work, Active Control must be enabled on the device, the call protocol must be SIP, and the CMS must be on version 2.4 or higher. The feature doesn’t work if multipoint mode is set to CUCMMediaResourceGroupList.

Register a device to Cisco Webex using API or local web interface (All products)
You can register a device to Cisco Webex remotely, so you don’t have to be in the same room as the device. You can do this programatically from the API or use the local web interface. In earlier releases you had to use the on-screen setup assistant.

From the web interface, you can only start Webex registering if the device is not currently registered anywhere. If you are using the API, you can start Webex registering even if the device is currently registered to an on-premise system (CUCM or VCS).

Pre-installed list of Certificate Authorities - CAs (All products)
A list of commonly used CA certificates are pre-installed on the video conferencing device. The device uses this list when validating certificates from external servers that it communicates with:
• HTTP servers that host content used by the HttpClient API or macros
• SMTP mail servers (only relevant for Webex Boards)
A factory reset does not delete the list.

xAPI over WebSocket: Authentication using auth protocol header (All products)
Authentication using an auth protocol header is supported. This comes in addition to Basic authentication using an HTTP header field.

This means that browser-based clients, which don’t have direct control over HTTP headers, can authenticate to a device directly from the browser using Javascript.
More device settings can be provisioned from UCM than before (All products)

If the device is registered to Cisco UCM 12.5(1)SU1 more settings and parameters can be provisioned from UCM than before (Device > Product Specific Configuration Layout). Also, if these settings are changed locally on the device, the new value can be written back to the UCM.

Most of the device’s public settings (xConfiguration), are included. Exceptions are made for Network, Provisioning and SIP settings.

See the Video Endpoints Management Overview section in the Release Notes for Cisco Unified Communications Manager and the IM and Presence Service, Release 12.5(1) SU1 for more information.
xConfiguration changes in CE9.8

New configurations
Conference FarEndControl SignalCapability (All products)
Conference MicUnmuteOnDisconnect Mode (All products)
Conference Multipoint Mode (SX10, DX70, DX80)
FacilityService Service [1..5] CallType (All products)
FacilityService Service [1..5] Name (All products)
FacilityService Service [1..5] Number (All products)
FacilityService Service [1..5] Type (All products)
NetworkServices SMTP From (Boards)
NetworkServices SMTP Mode (Boards)
NetworkServices SMTP Password (Boards)
NetworkServices SMTP Port (Boards)
NetworkServices SMTP Security (Boards)
NetworkServices SMTP Server (Boards)
NetworkServices SMTP Username (Boards)
Security Audit Logging Mode (All products)
Security Audit OnError Action (All products)
Security Audit Server Address (All products)
Security Audit Server Port (All products)
Security Audit Server PortAssignment (All products)
Security Session FailedLoginsLockoutTime (All products)
Security Session InactivityTimeout (All products)
Security Session MaxFailedLogins (All products)
Security Session MaxSessionsPerUser (All products)
Security Session MaxTotalSessions (All products)
Security Session ShowLastLogon (All products)
SerialPort LoginRequired (Codec Pro, Room 70 G2)

UserInterface OSD EncryptionIndicator (All products)
UserInterface Phonebook DefaultSearchFilter (All products)
UserInterface SoundEffects Mode (All products)

Configurations that are removed
Video DefaultLayoutFamily Remote (SX10, DX70, DX80)

Configurations that are modified
Audio KeyClickDetector Attenuate (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2)
  OLD: Default: On
  NEW: Default: True
  OLD: Off/On
  NEW: False/True
Audio KeyClickDetector Enabled (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2)
  OLD: Default: Off
  NEW: Default: True
  OLD: Off/On
  NEW: False/True
Audio Output Line [1..6] Delay Mode (Room 70 G2)
  OLD: Default: RelativeToHDMI
  NEW: Default: Fixed
NetworkServices Wifi Allowed (Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, DX70, DX80)
  OLD: Public: False
  NEW: Public: True
xCommand changes in CE9.8

New commands

Audio Select (Room Kit, Room Kit Mini, Room 55)
HttpClient Delete (All Products)
HttpClient Get (All Products)
HttpClient Patch (All Products)
Security Certificates ThirdParty Disable (All Products)
Security Certificates ThirdParty Enable (All Products)
Security Certificates ThirdParty List (All Products)
Security Certificates ThirdParty Show (All Products)
Webex Registration Cancel (All Products)
Webex Registration Start (All Products)

Commands that are modified

Audio Volume Decrease (Room Kit, Room Kit Mini, Room 55)
  NEW: Device: Internal/HeadsetUSB/HandsetUSB
  NEW: Steps: Integer (1..10), Default: 5
Audio Volume Increase (Room Kit, Room Kit Mini, Room 55)
  NEW: Device: Internal/HeadsetUSB/HandsetUSB
  NEW: Steps: Integer (1..100)
Audio Volume Set (Room Kit, Room Kit Mini, Room 55)
  NEW: Device: Internal/HeadsetUSB/HandsetUSB
  NEW: Steps: Integer (1..1000), Default: 100
Audio VuMeter Start (All Products)
  NEW: IntervalMs: Integer (10..1000), Default: 100
HttpClient Post (All Products)
  NEW: ResponseSizeLimit: Integer (0..100000), Default: 100000
  NEW: ResultBody: None/PlainText/Base64, Default: None
HttpClient Put (All Products)
  NEW: ResponseSizeLimit: Integer (0..100000), Default: 100000
  NEW: ResultBody: None/PlainText/Base64, Default: None
Presentation Start (Room Kit Mini)
  OLD: ConnectorId: Integer (0..65534)
  NEW: ConnectorId: Integer (1..2)
  OLD: PresentationSource: Integer (0..65534)
  NEW: PresentationSource: Integer (1..2)
Presentation Stop (Room Kit Mini)
  OLD: PresentationSource: Integer (0..65534)
  NEW: PresentationSource: Integer (1..2)
xStatus changes in CE9.8

New statuses

- Audio Devices HandsetUSB ConnectionStatus (Room Kit, Room Kit Mini, Room 55)
- Audio Devices HandsetUSB Cradle (Room Kit, Room Kit Mini, Room 55)
- Audio Devices HeadsetUSB ConnectionStatus (Room Kit, Room Kit Mini, Room 55)
- Audio Devices HeadsetUSB Description (Room Kit, Room Kit Mini, Room 55)
- Audio Devices HeadsetUSB Manufacturer (Room Kit, Room Kit Mini, Room 55)
- Audio SelectedDevice (Room Kit, Room Kit Mini, Room 55)
- Audio VolumeHandsetUsb (Room Kit, Room Kit Mini, Room 55)
- Audio VolumeHeadsetUsb (Room Kit, Room Kit Mini, Room 55)
- Audio VolumeInternal (Room Kit, Room Kit Mini, Room 55)
- Cameras Camera [n] LightingConditions (MX700, MX800, SX80)
- Conference Call [n] Capabilities ParticipantDisconnect (All Products)
- Conference Call [n] Capabilities ParticipantList (All Products)
- Conference Call [n] Capabilities ParticipantMute (All Products)
- Conference Call [n] EventCenter Mode (All Products)
- Conference Call [n] Streamed (All Products)
- UserInterface Features Whiteboard Start (Codec Plus, Codec Pro, Room Kit, Room Kit Mini)

Statuses that are modified

- Audio Input KeyClick Attenuate (Codec Plus, Codec Pro, Room Kit, Room Kit Mini, Room 55, Room 55 Dual, Room 70, Room 70 G2)
  - OLD: On/Off
  - NEW: False/True
- Audio Input KeyClick Enabled (Codec Plus, Codec Pro, Room Kit, Room Kit Mini, Room 55, Room 55 Dual, Room 70, Room 70 G2)
  - OLD: On/Off
  - NEW: False/True
- Diagnostics Message[n] Type (All Products)
  - Added to valuespace: SignageFailedToLoad/SignageTerminatedUnexpectedly
- SystemUnit Notifications Notification [n] Type (All Products)
  - OLD: FactoryResetFailed/FactoryResetOK/Other/RebootRequired/SoftwareUpgradeFailed/SoftwareUpgradeOK
  - NEW: Other/RebootRequired/SoftwareUpgradeFailed/SoftwareUpgradeOK

Statuses that are removed

None.
What’s new in CE9.7

This section provides an overview of the new and changed device settings, and the new features and improvements in the Cisco Collaboration Endpoint software version 9.7 (CE9.7) compared to CE9.6.

For more details, we recommend reading the Software release notes:


New features and improvements in CE9.7

**Connect to xAPI over a WebSocket (All products)**

You can now connect to the xAPI over WebSocket. The communication channel over WebSocket is open both ways until it is explicitly closed. This means that the server can send data to the client as soon as the new data is available, and there is no need for re-authentication for every request. This improves speed significantly compared to HTTP.

Each message contains a complete JSON document and nothing else. Many programming languages have good library support for WebSocket and JSON-RPC.

WebSocket is not enabled by default. Note that WebSocket is tied to HTTP and HTTP or HTTPS must be enabled before you can use WebSocket.

For more information, see [xAPI over WebSocket guide](https://www.cisco.com/go/in-room-control-docs).

**Graphical sound mixer available on Audio Console**

(Codec Pro, MX700, MX800, Room 70 G2, Room 70 G2, SX80)

The Audio Console now has a graphical sound mixer. It has 8 user-definable parametric equalizer settings. A setting consists of up to 6 sections, each of which has its own filter type, gain, center/crossover frequency and Q value. Each section is shown with its own color and the effect of altering any of the parameters immediately becomes visible in the graph.

For more information, see the [Customization guide for CE9.7](https://www.cisco.com/go/in-room-control-docs).

**Ambient noise reporting**

(Codec Plus, Codec Pro, Room 55, Room 55 Dual, Room 70, Room 70 G2, Room Kit, Room Kit Mini)

The Room series devices can be configured to report the stationary ambient noise level in the room. The reported value is an A-weighted decibel value (dBA), which reflects the response of the human ear. Based on reported noise, facility management or a building manager can intervene to troubleshoot the issue.

All signal processing related to this feature is local and the only data transmitted is the calculated noise level.

**Support for multiple SRG-120DH/PTZ-12 cameras**

(Codec Plus)

You can now connect up to three SRG-120DH/PTZ-12 cameras to a Codec Plus using an HDMI and an Ethernet switch.

**Other updates**

- 1080p support for Room Kit Mini when it is used as a USB camera. (Room Kit Mini)
- You can turn video off and on during calls. (All products)
- A device administrator can prevent the use of HTTP and only allow HTTPS Post and HTTPS Put requests. (All products)
xConfiguration changes in CE9.7

New configurations

- CallHistory Mode (All products)
- Conference Multipoint Mode (Codec Pro, Codec Plus, MX200 G2, MX300 G2, MX700, MX800, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, SX20, SX80)
- HttpClient AllowHTTP (All products)
- Logging External Mode (All products)
- Logging External Protocol (All products)
- Logging External Server Address (All products)
- Logging External Server Port (All products)
- Logging Internal Mode (All products)
- NetworkServices Websocket (All products)
- Phonebook Server [1] Pagination (All products)
- RoomAnalytics AmbientNoiseEstimation Mode (Codec Plus, Codec Pro, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2)
- SIP ANAT (All products)
- UserInterface Features Call VideoMute (Codec Plus, Codec Pro, MX200 G2, MX300 G2, MX700, MX800, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2, SX10, SX20, SX80)
- UserInterface Features Whiteboard Start (DX70, DX80)
- UserInterface Phonebook Mode (All products)
- UserInterface SettingsMenu Visibility (All products)
- UserInterface UsbPromotion (Room Kit Mini)
- Video Presentation Priority (All products)

Configurations that are removed

- RoomAnalytics PeopleCountOutOfCall (MX700, MX800)

Configurations that are modified

- Audio Input Line [1..4] VideoAssociation VideoInputSource (MX700, MX800, SX80)
  - OLD: 1/2/3/4/5
  - NEW: 1/2/3/4

- Audio Input Microphone [1..8] VideoAssociation VideoInputSource (Codec Pro, Room 70 G2)
  - OLD: 1/2/3/4/5
  - NEW: 1/2/3/4/5/6

- Audio Input Microphone [1..8] VideoAssociation VideoInputSource (MX700, MX800, SX80)
  - OLD: 1/2/3/4/5
  - NEW: 1/2/3/4

- Video Input Connector [6] CameraControl Mode (Codec Pro, Room 70 G2)
  - OLD: Default: On
  - NEW: Default: Off
  - OLD: On
  - NEW: On/Off
xCommand changes in CE9.7

New commands
Audio Diagnostics Advanced Run (All products)
Audio Setup Reset (Codec Pro, MX700, M800, Room 70 G2, SX80)
Conference Call AuthenticationResponse (All products)
Conference Participant Admit (All products)
Conference Participant Disconnect (All products)
Conference Participant Mute (All products)
Conference ParticipantList Search (All products)
UserInterface Extensions Panel Open (All products)
UserInterface Extensions Panel Update (All products)
Video Input MainVideo Mute (All products)
Video Input MainVideo Unmute (All products)
Video Matrix Assign (Room 55D, Room 70)
Video Matrix Reset (Room 55D, Room 70)
Video Matrix Swap (Room 55D, Room 70)
Video Matrix Unassign (Room 55D, Room 70)

Commands that are modified
Audio LocalOutput Add (Codec Pro, MX700, M800, Room 70 G2, SX80)
   NEW: AutoconnectRemote: On/Off, Default: On
   OLD: VolumeControlled, Default: none
   NEW: VolumeControlled, Default: Off
Audio LocalOutput Update (Codec Pro, MX700, M800, Room 70 G2, SX80)
   NEW: AutoconnectRemote: On/Off
CallHistory Get (All products)
   OLD: CallHistoryId: Integer (0..65534)
   NEW: CallHistoryId: Integer (1..2147483647)
HttpClient Post (All products)
   NEW: Timeout: Integer (1..30), Default: 30
HttpClient Put (All products)
   NEW: Timeout: Integer (1..30), Default: 30
UserInterface Message TextInput Display (All products)
   NEW: InputText: String (0, 255), Default: **
xStatus changes in CE9.7

New statuses
Audio Output LocalOutput [n] AutoconnectRemote (Codec Pro, MX700, MX800, Room 70 G2, SX80)
Call [n] Ice (All products)
Conference Call [n] AuthenticationRequest (All products)
NetworkServices UPnP Status (All products)
Peripherals ConnectedDevice [n] SerialNumber (All products)
Provisioning CUCM Customization Checksum (All products)
RoomAnalytics AmbientNoise Level dBA (Codec Plus, Codec Pro, Room Kit, Room Kit Mini, Room 55, Room 55D, Room 70, Room 70 G2)
UserInterface Features Whiteboard Start (DX70, DX80)
UserInterface SettingsMenu Visibility (All products)
Video Input MainVideoMute (All products)

Statuses that are removed
None.

Statuses that are modified
Diagnostics Message [n] Type (All products)
  Added to valuespace: PIILoggingMode/WebexAudioProximityConnectivity/
  WebexLyraConnectivity/WebexNotificationConnectivity
Video Input Connector[n] Type (All products)
  OLD: 3G-SDI/Camera/Composite/DVI/HD-SDI/HDMI/USB/Unknown/VGA/VC/YPbPr
  NEW: 3G-SDI/Camera/Composite/DVI/HD-SDI/HDMI/USB/Unknown/VGA/VC/YPbPr/
  USBC-DP
What's new in CE9.6

This section provides an overview of the new and changed device settings, and the new features and improvements in the Cisco Collaboration Endpoint software version 9.6 (CE9.6) compared to CE9.5.

For more details, we recommend reading the Software release notes:


New features and improvements

**HDCP support**

(*Codec Plus, Codec Pro, Room 55 Dual, Room 70, Room 70 G2*)

One of the device’s HDMI inputs can be configured to support HDCP (High-bandwidth Digital Content Protection) protected content. This allows customers to re-purpose the screen by connecting other devices such as a Google Chromecast, an Apple TV, or an HDTV decoder. This type of content cannot be shared while in a call.

When the connector is configured to support HDCP, it is reserved for this type of content. This means that you cannot share any content from this specific connector while in a call, not even non-protected content from a laptop.

**Remove default buttons from the user interface** (*All products*)

If you don’t need all of the default buttons on the user interface, you can remove the ones that you don’t need. This makes it possible to fully customize the user interface. The configuration only removes the buttons, not the functionality as such, and the custom In-Room Control panels can still be exposed.

For more information, see the Customization guide for CE9.6 at [https://www.cisco.com/go/in-room-control-docs](https://www.cisco.com/go/in-room-control-docs)

**Support for third-party USB controllers**

(*Codec Plus, Codec Pro, DX70, DX80, Room 55, Room 55 Dual, Room 70, Room 70 G2, Room Kit*)

You can use a third-party USB input device to control certain functions on a room device. A Bluetooth remote control with a USB dongle and a USB keyboard are examples of such input devices. You can setup the desired features through macros.

This feature is meant to complement the functionality of the Touch 10 or the DX user interfaces. It is not meant to replace the Touch 10 and DX user interfaces.

For more information, see the Customization guide for CE9.6 at [https://www.cisco.com/go/in-room-control-docs](https://www.cisco.com/go/in-room-control-docs)

**HTTP Post and Put requests** (*All products*)

This feature makes it possible to send arbitrary HTTP(S) Post and Put requests from a device to an HTTP(S) server.

By using macros, you can send data to an HTTP(S) server whenever you want. You can choose what data to send, and structure them as you like. This way you can adapt the data to an already established service.

Security measures:

- The HTTP(S) Post/Put feature is disabled by default.
- The device administrator can specify a list of HTTP(S) servers that the device is allowed to send data to.
- The number of concurrent Post and Put requests is limited.

**Content priority** (*All products*)

You can now configure your device to prioritize bandwidth usage for either Main Video Channel or Presentation Channel.

- Configuration Video Presentation Priority: <Equal, High>
- Equal is the default configuration and means 50 / 50 bandwidth division. Selecting "High" divides the bandwidth 25 / 75 in favor of the presentation channel.

**Other updates** (*All products*)

- You can start and control recording meetings from the device’s user interface, provided that recording is supported by your infrastructure.
- Edit favorite contact’s information on Touch 10 controller.
- SIP calls now display the SIP Session ID field in the logs to help identify calls.
- Ability to use ICE over MRA to locate the best path for media.
xConfiguration changes in CE9.6

**New configurations**

- **Audio Input Microphone [1..8] Channel** (Codec Pro, Room 70 G2)
- **Audio Input HDMI [n] Level** (Codec Plus, Room 55, Room 70 G2, Room Kit)
- **Audio Input HDMI [n] Mode** (Room 70 G2, Room Kit)
- **Audio Input HDMI [2..5] VideoAssociation MuteOnInactiveVideo** (Room 70 G2)
- **Audio Microphones PhantomPower** (Codec Plus, MX200 G2, MX300 G2, Room 55, Room Kit, SX20)
- **Audio Output ConnectorSetup** (Codec Pro, Room 70 G2)
- **Audio Output HDMI [n] Level** (MX700, MX800)
- **Audio Output HDMI [n] Mode** (Codec Plus, MX700, MX800)
- **Audio Output InternalSpeaker Mode** (MX700, MX800, Room 55 Dual, Room 70)
- **Audio Output Line [1..6] Equalizer ID** (Room 70 G2)
- **Audio Output Line [1..6] Equalizer Mode** (Room 70 G2)
- **HttpClient AllowInsecureHTTPS** (All products)
- **HttpClient Mode** (All products)
- **NetworkServices NTP Server [1..3] Key** (All products)
- **NetworkServices NTP Server [1..3] KeyId** (All products)
- **NetworkServices NTP Server [1..3] KeyAlgorithm** (All products)
- **Peripherals InputDevice Mode** (Codec Plus, Codec Pro, DX70, DX80, Room 55, Room 55 Dual, Room 70, Room 70 G2, Room Kit)
- **UserInterface Branding AwakeBranding Colors** (All products)
- **UserInterface Features Call End** (All products)
- **UserInterface Features Call MidCallControls** (All products)
- **UserInterface Features Call Start** (All products)
- **UserInterface Features HideAll** (All products)
- **UserInterface Features Share Start** (All products)
- **Video Input Connector [n] HDCP Mode** (Codec Plus, Codec Pro, Room 55 Dual, Room 70, Room 70 G2)
- **Video Output Connector [2] CEC Mode** (Room 70 Single)

**Configurations that are removed**

- **Conference MultiStream Mode** (MX200 G2, MX300 G2, SX20)

**Configurations that are modified**

- **Audio Output ARC [1] Mode** (Codec Pro, Room 70 G2)
  
  OLD: Default: Auto
  
  NEW: Default: On
  
  OLD: Off/On/Auto
  
  NEW: Off/On

- **Audio Output HDMI [1..3] Mode** (Codec Pro, Room 70 G2)
  
  OLD: Default: Auto (Codec Pro)
  
  NEW: Default: On
  
  OLD: Default, HDMI [2..3]: Auto (Room 70 G2 Single)
  
  NEW: Default, HDMI [2..3]: Off (Room 70 G2 Single)
  
  OLD: Default, HDMI [3]: Auto (Room 70 G2 Dual)
  
  NEW: Default, HDMI [3]: Off (Room 70 G2 Dual)
  
  OLD: Off/On/Auto
  
  NEW: Off/On

- **Audio Output InternalSpeaker Mode** (Room 55, Room 70 G2, Room Kit)
  
  OLD: Default: Auto (Room 70 G2)
  
  NEW: Default: On
  
  OLD: Off/On/Auto (Room 70 G2)
  
  NEW: Off/On/UltrasoundOnly (Room 70 G2)
  
  OLD: Off/On (Room 55, Room Kit)
  
  NEW: Off/On/UltrasoundOnly (Room 55, Room Kit)

- **Audio Ultrasound MaxVolume** (SX20)
  
  OLD: Default: 70
  
  NEW: Default: 60

- **Provisioning Mode** (All products)
  
  OLD: Auto/CUCM/Edge/Off/TMS/VCS/Spark
  
  NEW: Auto/CUCM/Edge/Off/TMS/VCS/Webex
Provisioning Mode *(Room 55 Dual)*
- **OLD**: Default: Off
- **NEW**: Default: On

Standby WakeupOnMotionDetection *(Room 55 Dual)*
- **OLD**: Default: Off
- **NEW**: Default: On
**xCommand changes in CE9.6**

### New commands

- **Conference Recording Pause (All products)**
- **Conference Recording Resume (All products)**
- **Conference Recording Start (All products)**
- **Conference Recording Stop (All products)**
- **HttpClient Allow Hostname Add (All products)**
- **HttpClient Allow Hostname Clear (All products)**
- **HttpClient Allow Hostname List (All products)**
- **HttpClient Allow Hostname Remove (All products)**
- **HttpClient Post (All products)**
- **HttpClient Put (All products)**
- **Security Session Get (All products)**

### Commands that are removed

None.

### Commands that are modified

#### Audio Sound Play (All products)

OLD: Sound: Alert/Binding/Bump/Busy/CallDisconnect/CallInitiate/CallWaiting/Dial/KeyInput/KeyInputDelete/KeyTone/Nav/NavBack/Notification/OK/Pairing/PresentationConnect/Ringing/Signln/SpecialInfo/StartListening/TelephoneCall/VideoCall/VolumeAdjust/WakeUp

NEW: Sound: Alert/Binding/Bump/Busy/CallDisconnect/CallInitiate/CallWaiting/Dial/KeyInput/KeyInputDelete/KeyTone/Nav/NavBack/Notification/OK/Pairing/PresentationConnect/Ringing/Signln/SpecialInfo/StartListening/TelephoneCall/VideoCall/VolumeAdjust/WakeUp/Announcement

#### Audio VuMeter Start (DX70, DX80, Codec Plus, Codec Pro, Room 50, Room 70, Room 70 G2, Room Kit, SX10)

OLD: ConnectorType: HDMI/Microphone/Line

NEW: ConnectorType: HDMI/Microphone

#### Dial (All products)

OLD: CallType: Audio/Video

NEW: CallType: Audio/Video/Auto

#### Phonebook Contact Add (All products)

OLD: CallType: Audio/Video

NEW: CallType: Audio/Video/Auto

#### Phonebook ContactMethod Add (All products)

OLD: CallType: Audio/Video

NEW: CallType: Audio/Video/Auto

#### Phonebook ContactMethod Modify (All products)

OLD: CallType: Audio/Video

NEW: CallType: Audio/Video/Auto

#### Phonebook Search (All products)

NEW: SearchFilter: All/Roms/People

#### Presentation Start (All products)

NEW: Layout: Equal/Prominent

#### SystemUnit FactoryReset (All products)

OLD: Keep: Certificates/HTTP/LocalSetup/Network/Provisioning/SerialPort/Spark

NEW: Keep: Certificates/HTTP/LocalSetup/Network/Provisioning/SerialPort/Webex

#### UserInterface Message TextInput Clear (All products)

NEW: FeedbackId: String (0, 255)

#### UserInterface Message TextInput Display (All products)

OLD: User role: Admin, Integrator, RoomControl, User

NEW: User role: Admin, Integrator, RoomControl

OLD: FeedbackId: required parameter

NEW: FeedbackId: optional parameter

#### UserInterface Message TextInput Response (All products)

OLD: FeedbackId: required parameter

NEW: FeedbackId: optional parameter
UserManagement User Add *(All products)*

- **OLD**: Passphrase: *optional parameter*
- **NEW**: Passphrase: *required parameter*

Video Input SetMainVideoSource *(All products)*

- **OLD**: Layout: Equal/PIP
- **NEW**: Layout: Equal/PIP/Prominent
- **NEW**: PIPPosition: LowerLeft/LowerRight/UpperLeft/UpperRight
- **NEW**: PIPSizes: Auto/Large

Video Matrix Assign *(All products)*

- **NEW**: Layout: Equal/Prominent
- **NEW**: RemoteMain: Integer (1..4)

Video Matrix Unassign *(All products)*

- **OLD**: SourceId: *required parameter*
- **NEW**: SourceId: *optional parameter*
- **NEW**: RemoteMain: Integer (1..4)
xStatus changes in CE9.6

New statuses
- Audio Input Connectors HDMI [n] Mute (All products)
- Audio Input Connectors Line [n] Mute (All products)
- Audio Input Connectors Microphone [n] Mute (All products)
- H320 Gateway Address (All products)
- H320 Gateway Id (All products)
- H320 Gateway Mode (All products)
- H320 Gateway Number (All products)
- H320 Gateway Reason (All products)
- H320 Gateway Status (All products)
- MediaChannels Call [n] Channel [n] AudioChannelRole (All products)
- UserInterface Features Call End (All products)
- UserInterface Features Call MidCallControls (All products)
- UserInterface Features Call Start (All products)
- UserInterface Features Share Start (All products)
- Video Layout Site [n] Frame [n] Mirrored (All products)

Statuses that are removed
- Audio Output Connectors InternalSpeaker [n] DelayMs (Room 55 Dual, Room 70, Room 70 G2)
- Audio Output Connectors InternalSpeaker [n] Mode (Room 55 Dual, Room 70, Room 70 G2)
- Video Mute (All products)

Statuses that are modified
- Audio Output Connectors HDMI [n] Mode (Codec Plus, Codec Pro, Room 55 Dual, Room 70, Room 70 G2, Room Kit)
  - OLD: Off/On
  - NEW: Off/On/DelayMeasurement
What’s new in CE9.5

This section provides an overview of the new and changed device settings, and the new features and improvements in the Cisco Collaboration Endpoint software version 9.5 (CE9.5) compared to CE9.4.

For more details, we recommend reading the Software release notes:


New features and improvements

**Presentation source compositing**

(Codec Plus, Codec Pro, MX200 G2, MX300 G2, MX700, MX800, Room 55, Room 55 Dual, Room 70, Room 70 G2, Room Kit, SX20, SX80)

With using two or more content sources and sending them as one image, you can create a new experience for sharing in meetings.

This gives users more flexibility with what they present to remote sites. You can configure the presentation composition through In-Room Controls together with Macros or an external controller.

The number of sources is determined by the device in use:

- MX200 G2, MX300 G2, Room Kit and SX20: up to two sources
- Room 55, Room 55 Dual, Room 70, Room Kit Plus: up to three sources
- MX700, MX800, Room 70 G2, Room Kit Pro, and SX80: up to four sources

You can only compose content that has been shared through a VGA or HDMI cable.

**Web audio console** (Codec Pro, SX80)

The new audio console is natively available on the web interface of the high-end integrator devices. The audio console gives you simplified tools to route audio from an input to an output. The new audio console replaces the old java-based CE Console that is no longer maintained.

When you access the audio console for the first time you will see the default device audio routes. The audio console is controlled by an underlying macro which is saved and started once you select Choose to overwrite the current device configurations.

For more information, see the Customization guide for CE9.5 at [https://www.cisco.com/go/in-room-control-docs](https://www.cisco.com/go/in-room-control-docs)

**Classroom scenario**

(Codec Plus, Codec Pro, Room 55 Dual, Room 70, Room 70 G2, SX80)

The Classroom mode uses macros to tailor a room setup that works well for presenting and teaching scenarios. The template provides easy setup, maintenance, and use of the room. Classroom works similarly to the existing Briefing Room mode but it doesn’t require three screens.

**Support for Korean keyboard** (All products)

Korean keyboard input is now supported on Touch 10 controller when the user interface language is set to Korean.

**Remote monitoring of screen status** (SX20, SX80)

The remote monitoring of screen status that has been available for the Webex Room series and SX10 is now available for SX20 and SX80.

The video conferencing device can wake up the screen if it is in standby mode or put the screen to standby when the device enters standby. The input source can also be changed automatically when a call is received.

CEC is disabled on the device by default and must be enabled in the Video Output Connector \[1\] CEC Mode setting. Your screen must support CEC and it has to be enabled on it for remote monitoring to work.

**Welcome banner** (All products)

You can set up a welcome banner that the user sees after they sign in to the device’s web interface or the command line interface. The banner can for example contain information that the user needs to get started or things they need to be aware of when changing settings.
xConfiguration changes in CE9.5

New configurations
Audio Input ARC [n] Mode (Codec Pro, Room 70 G2)
Audio Output ARC [1] Delay DelayMs (Codec Pro, Room 70 G2)
Audio Output ARC [1] Delay Mode (Codec Pro, Room 70 G2)
Audio Output InternalSpeaker Mode (Room 70 G2)
Audio Output Line [1] Mode (Codec Plus, Room 55)
Audio Output Line [1] OutputType (Codec Plus, Room 55)
NetworkServices SSH HostKeyAlgorithm (All products)
RoomAnalytics PeopleCountOutOfCall (SX80, MX700ST)

Configurations that are removed
Audio Output InternalSpeaker Mode (Codec Pro)
Cameras SpeakerTrack ConnectorDetection CameraLeft (Codec Pro, Room 70 G2)
Cameras SpeakerTrack ConnectorDetection CameraRight (Codec Pro, Room 70 G2)
Cameras SpeakerTrack ConnectorDetection Mode (Codec Pro, Room 70 G2)
Cameras SpeakerTrack TrackingMode (Codec Pro, Room 70 G2)

Configurations that are modified
Audio Input Microphone [1..8] Equalizer ID (Codec Pro, Room 70 G2)
OLD: Integer (1..14)
NEW: Integer (1..8)

Audio Ultrasound MaxVolume (Codec Pro, MX700 with dual camera, Room 70 G2, SX80)
OLD: Default: 70 (Codec Pro, Room 70 G2, SX80)
NEW: Default: 66 (MX700 with dual camera)
OLD: Default: 70 (MX700 with dual camera)
NEW: Default: 66 (MX700 with dual camera)

Video Input Connector[3,4,5] PreferredResolution (Codec Pro, Room 70 G2)
OLD: Default: 3840_2160_30
NEW: Default: 1920_1080_60
xCommand changes in CE9.5

New commands

Audio Equalizer List (SX80, Codec Pro, MX700, MX800, Room 70 G2)
Audio Equalizer Update (SX80, Codec Pro, MX700, MX800, Room 70 G2)
Provisioning RoomType Activate (Codec Plus, Room 70)
SystemUnit WelcomeBanner Clear (All products)
SystemUnit WelcomeBanner Get (All products)
SystemUnit WelcomeBanner Set (All products)
UserInterface Extensions Panel Close (All products)
UserInterface Message TextInput Response (SX20, SX80, MX200 G2, MX300 G2, MX700, MX800)
UserManagement User Unblock (All Products)

Commands that are removed

None.

Commands that are modified

Audio LocalInput AddConnector (Codec Pro, Room 70 G2)
  OLD: ConnectorType: HDMI/Microphone/Line
  NEW: ConnectorType: HDMI/Microphone/ARC
Audio LocalInput RemoveConnector (Codec Pro, Room 70 G2)
  OLD: ConnectorType: HDMI/Microphone/Line
  NEW: ConnectorType: HDMI/Microphone/ARC
Audio LocalOutput AddConnector (Codec Pro, Room 70 G2)
  OLD: ConnectorType: HDMI/Microphone
  NEW: ConnectorType: HDMI/Microphone/ARC
Audio LocalOutput RemoveConnector (Codec Pro, Room 70 G2)
  OLD: ConnectorType: HDMI/Microphone
  NEW: ConnectorType: HDMI/Microphone/ARC
Audio Sound Play (All products)
  OLD: Sound: Alert/Bump/Busy/CallDisconnect/CallInitiate/CallWaiting/Dial/KeyInput/
       KeyInputDelete/KeyTone/Nav/NavBack/Notification/OK/Pairing/PresentationConnect/
       Ringing/SignIn/SpecialInfo/StartListening/TelephoneCall/VideoCall/VolumeAdjust/WakeUp
  NEW: Sound: Alert/Bump/Busy/CallDisconnect/CallInitiate/CallWaiting/Dial/KeyInput/
       KeyInputDelete/KeyTone/Nav/NavBack/Notification/OK/Pairing/PresentationConnect/
       Ringing/SignIn/SpecialInfo/StartListening/TelephoneCall/VideoCall/VolumeAdjust/WakeUp/Binding
Phonebook Search (SX80, Codec Plus, Codec Pro, Room Kit NOTE: Only when registered to Cisco Webex)
  NEW: SearchFilter: All/Rooms/People
UserManagement User Modify (All products)
  Removed: Unblock: False/True
Video Matrix Assign (SX20, SX80, Codec Plus, Codec Pro, Room Kit, MX200 G2, MX300 G2, MX700, MX800, Room 70 G2)
  OLD: SourceId: required parameter
  NEW: SourceId: optional parameter
Video Matrix Unassign (SX20, Codec Plus, Room Kit, MX200 G2, MX300 G2)
  OLD: SourceId: Integer (1..4) (Codec Plus)
  NEW: SourceId: Integer (1..3) (Codec Plus)
  OLD: SourceId: Integer (1..4) (Room Kit, MX200 G2, MX300 G2)
  NEW: SourceId: Integer (1..2) (Room Kit, MX200 G2, MX300 G2)
  OLD: SourceId: Integer (1..3) (SX20)
  NEW: SourceId: Integer (1..2) (SX20)
xStatus changes in CE9.5

New statuses
Audio Input Connectors ARC [n] EcReferenceDelay (All products)
Audio Output Connectors ARC [n] DelayMs (Codec Plus, Codec Pro, Room 70, Room 70 G2)
Audio Output Connectors ARC [n] Mode (Codec Plus, Codec Pro, Room 70, Room 70 G2)
Provisioning RoomType (Codec Plus, Room 70)
SystemUnit Software OptionKeys MultiSite (SX10, DX70, DX80)
Video Mute (All products)
Video Output Monitor [n] FirmwareVersion (SX20, SX80, MX200 G2, MX300 G2, MX700, MX800)
Video Output Monitor [n] ModelName (SX20, SX80, MX200 G2, MX300 G2, MX700, MX800)
Video Output Monitor [n] Position (SX20, SX80, MX200 G2, MX300 G2, MX700, MX800)
Video Output Monitor [n] SerialNumber (SX20, SX80, MX200 G2, MX300 G2, MX700, MX800)
Video Output Monitor [n] Temperature (SX20, SX80, MX200 G2, MX300 G2, MX700, MX800)

Statuses that are removed
Video Output Connector [n] ConnectedDevice CEC [n] PowerControl (All products)

Statuses that are modified
Peripherals ConnectedDevice [n] Type (All products)
  OLD: Byod/Camera/ControlSystem/ISDNLink/Other/SpeakerTracker/TouchPanel
  NEW: Byod/Camera/ControlSystem/ISDNLink/Other/SpeakerTracker/TouchPanel/InputDevice
SystemUnit Software OptionKeys MultiSite (SX20, SX80, Codec Plus, Codec Pro, Room Kit, MX200 G2, MX300 G2, MX700, MX800, Room 55, Room 70, Room 70 G2)
  OLD: False/True
  NEW: False/True/NotApplicable
What’s new in CE9.4

This section provides an overview of the new and changed device settings, and the new features and improvements in the Cisco Collaboration Endpoint software version 9.4 (CE9.4) compared to CE9.3.

For more details, we recommend reading the Software release notes:


New features and improvements

New products

- Cisco Webex Codec Pro
- Cisco Webex Room 70 Single G2
- Cisco Webex Room 70 Dual G2
- Cisco Webex Room 55 Dual

Rebranding from Cisco Spark to Cisco Webex

Cisco Spark has changed its name to Cisco Webex, and the user interface elements that displayed Spark are changed to Webex. In the activation flow you now see Cisco Webex as a registration option instead of Cisco Spark.

The following products have gotten new names:

- Cisco Spark Room Kit is now Cisco Webex Room Kit
- Cisco Spark Room Kit Plus is now Cisco Webex Room Kit Plus
- Cisco Spark Codec Plus is now Cisco Webex Codec Plus
- Cisco Spark Quad Camera is now Cisco Quad Camera
- Cisco Spark Room 55 and 70 are now Cisco Webex Room 55 and 70
- Cisco DX70 is now Cisco Webex DX70
- Cisco DX80 is now Cisco Webex DX80

The maximum number of Proximity clients is increased

A Cisco Webex Room Series device can have up to 30 paired clients simultaneously when the Proximity service ContentShare ToClients is disabled. If ContentShare ToClients is enabled, the limit of paired clients is 7 which is the same as in earlier software releases.

CUCM provisioning of the admin settings lockdown configuration

The admin settings lockdown configuration, that was introduced in CE9.2.1, can now be provisioned from CUCM. You can lock a selection of the settings on the settings menu on all of your devices simultaneously when you configure them through CUCM.

Your CUCM may require a device package in order to expose the new fields for this configuration.

Support for content sharing using H.263 in a call between Cisco Webex Room Series and legacy MXP devices

Support for H.263 content sharing between MXP and Cisco Webex Room Series is now available. The Room Series previously had a limitation where it could not receive or share content in a separate content channel. Sharing content from a Room Series device to a MXP device would in earlier versions compose the presentation into the main video stream.

This is only supported in certain scenarios:

- Direct H.323 calls (IP dialing) between a Room Series device and a MXP device.
- MXP registered on VCS on H.323 and a Room Series device registered to the same VCS on either SIP or H.323. Note that making a H.323 to SIP call on a VCS requires that an interworking option key is installed on the VCS.

See the CE9 release notes for information on other limitations related to this feature.
Enable backlight compensation from the touch screen

(DX70, DX80)

A new setting on the DX70 and DX80 main menu enables and disables backlight compensation. This is a fixed setting that increases (on) or decreases (off) the sensors brightness levels in order to compensate for sunlight or other bright light sources behind the user. The backlight compensation sets the sensor to a fixed level and it is not auto adjusted to the backlight.

Changed default HTTP mode from HTTP+HTTPS to HTTPS

(All products)

The default value of NetworkServices HTTP Mode is changed from HTTP+HTTPS to HTTPS. This is to increase the security of the room devices on default configuration. Upgrading from earlier software versions will not automatically change the default value and it will stay on HTTP+HTTPS to avoid breaking current HTTP implementations.

The change is seen on new devices running CE9.4.0 or later, or if the device is factory reset on CE9.4.0. The HTTP requests are redirect to HTTPS and on the first visit to the device's web interface, the device displays an “Insecure connection warning”. To proceed to the web interface, you need to create an exception in your browser. This is a one-time operation unless you access the web interface with a different browser that has never visited the device web interface or if the device is factory reset.

In-Room Control update (All products)

You can add buttons for as many panels as you want on the home screen as well as on the in-call screen of the user interface.
xConfiguration changes in CE9.4

New configurations
Audio Input Microphone [n] PhantomPower (Codec Pro, Room 70 G2)
Audio Input HDMI [n] Mode (Room 55, Codec Pro)
Audio Input HDMI [n] VideoAssociation MuteOnInactiveVideo (Room 55, Codec Pro)
Audio Output HDMI [n] Delay DelayMs (Room 55, Codec Pro)
Audio Output Line [1] OutputType (Room 70, Room 55D)
Cameras Camera [1] Backlight DefaultMode (DX70, DX80)
Cameras Camera [1..2] Mirror (MX700, MX800)
Conference FarendMessage Mode (All products)

Configurations that are removed
NetworkServices HTTP Proxy Allowed (All products)
Video Output Connector [2] CEC Mode (DX70, DX80)
Video Output Connector [2] OverscanLevel (DX70, DX80)
Video Output Connector [2] Resolution (DX70, DX80)

Configurations that are modified
Audio Output Line [1] OutputType (Room Kit)
OLD: Default value: LineOut
NEW: Default value: Loudspeaker
OLD: Value space: LineOut/Subwoofer
NEW: Value space: LineOut/Loudspeaker/Recorder/Subwoofer
Audio Ultrasound MaxVolume (MX200 G2, MX300 G2, Codec Plus, Room 70)
OLD: Default value:
60 (MX200 G2, MX300 G2)
70 (Codec Plus, Room 70)
64 (Room 55)
NEW: Default value:
50 (MX200 G2, MX300 G2)
60 (Codec Plus, Room 70)
64 (Room 55)
OLD: Value space:
Integer (0..80) (MX200 G2, MX300 G2)
Integer (0..90) (Room 55, Room 70)
NEW: Value space:
Integer (0..70) (MX200 G2, MX300 G2)
Integer (0..80) (Room 70)
Integer (0..84) (Room 55)
Network [1] DNS DNSSEC Mode (All products)
OLD: User role: ADMIN, USER
NEW: User role: ADMIN
Network [1] Speed (All products)
OLD: User role: ADMIN, USER
NEW: User role: ADMIN
NetworkServices HTTP Mode (All products)
OLD: Default value: HTTP+HTTPS
NEW: Default value: HTTPS
NetworkServices SNMP CommunityName (All products)
OLD: User role: ADMIN
NEW: User role: ADMIN, INTEGRATOR
NetworkServices SNMP Host [1..3] Address (All products)
OLD: User role: ADMIN
NEW: User role: ADMIN, INTEGRATOR
NetworkServices SNMP Mode (All products)
  OLD: User role: ADMIN
  NEW: User role: ADMIN, INTEGRATOR

NetworkServices SNMP SystemContact (All products)
  OLD: User role: ADMIN
  NEW: User role: ADMIN, INTEGRATOR

NetworkServices SNMP SystemLocation (All products)
  OLD: User role: ADMIN
  NEW: User role: ADMIN, INTEGRATOR

UserInterface ContactInfo Type (SX10, DX70, DX80)
  OLD: Value space: Auto/DisplayName/IPv4/IPv6/None/SipUri/SystemName
  NEW: Value space: Auto/DisplayName/E164Alias/H320Number/H323Id/IPv4/IPv6/None/
    SipUri/SystemName

Video Output Connector [1] CEC Mode (SX10)
  OLD: Default value: Off
  NEW: Default value: On

Video Output Connector [3] Resolution (SX80)
  OLD: User role: ADMIN, INTEGRATOR
  NEW: User role: ADMIN, INTEGRATOR, USER
xCommands changes in CE9.4

New commands
Audio LocalInput Add (MX700, MX800)
Audio LocalInput AddConnector (MX700, MX800)
Audio LocalInput Remove (MX700, MX800)
Audio LocalInput RemoveConnector (MX700, MX800)
Audio LocalInput Update (MX700, MX800)
Audio LocalOutput Add (MX700, MX800)
Audio LocalOutput AddConnector (MX700, MX800)
Audio LocalOutput ConnectInput (MX700, MX800)
Audio LocalOutput DisconnectInput (MX700, MX800)
Audio LocalOutput Remove (MX700, MX800)
Audio LocalOutput RemoveConnector (MX700, MX800)
Audio LocalOutput Update (MX700, MX800)
Audio LocalOutput UpdateInputGain (MX700, MX800)
Audio RemoteOutput ConnectInput (MX700, MX800)
Audio RemoteOutput DisconnectInput (MX700, MX800)
Audio RemoteOutput UpdateInputGain (MX700, MX800)
Audio Setup Clear (MX700, MX800)
Call FarEndMessage Send (All products)
Provisioning RoomType Activate (SX80, MX700, MX800, Codec Pro, Room 70 G2)
Security FIPSMode Activate (All products)
Video Matrix Assign (Room Kit, Codec Pro, Room 70 G2)
Video Matrix Reset (Room Kit, Codec Pro, Room 70 G2)
Video Matrix Swap (Room Kit, Codec Pro, Room 70 G2)
Video Matrix Unassign (Room Kit, Codec Pro, Room 70 G2)

Commands that are modified

Audio LocalInput Add (SX80)
  NEW: Direct: On/Off

Audio LocalInput Update (SX80)
  NEW: Direct: On/Off
  OLD: AGC, Channels, MixerMode, Mute, Name: Required parameters
  NEW: AGC, Channels, MixerMode, Mute, Name: Optional parameters

Audio LocalOutput Update (SX80)
  OLD: Channels, Loundspeaker, Name: Required parameters
  NEW: Channels, Loundspeaker, Name: Optional parameters

Camera PositionSet (All products except DX70, DX80)
  OLD: Zoom: Integer (0..8500)
  NEW: Zoom: Integer (0..11800)

Conference DoNotDisturb Activate (All products)
  OLD: User role: ADMIN, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

Conference DoNotDisturb Deactivate (All products)
  OLD: User role: ADMIN, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

SystemUnit FactoryReset (All products)
  OLD: Keep: Certificates/LocalSetup/Network/Provisioning/SerialPort/Spark
  NEW: Keep: Certificates/LocalSetup/Network/Provisioning/SerialPort/Spark/HTTP

SystemUnit SoftwareUpgrade (All products)
  Removed: UserName, Password

UserManagement User Modify (All products)
  NEW: Unblock: False/True

Video Selfview Set (All products)
  OLD: User role: ADMIN, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

  OLD: OnMonitorRole: First/Second/Third
  NEW: OnMonitorRole: First/Second/Third/Fourth
### xStatus changes in CE9.4

#### New statuses

<table>
<thead>
<tr>
<th>Status Type</th>
<th>New Values</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio Input LocalInput</td>
<td>Direct</td>
<td>SX80, MX700, MX800</td>
</tr>
<tr>
<td>Audio Output Connectors HDMI</td>
<td>DelayMs</td>
<td>Room Kit, Codec Plus, Codec Pro, Room 70, Room 70 G2, Room 55D</td>
</tr>
<tr>
<td>Audio Output Connectors HDMI</td>
<td>Mode</td>
<td>Room Kit, Codec Plus, Codec Pro, Room 70, Room 70 G2, Room 55D</td>
</tr>
<tr>
<td>Audio Output Connectors InternalSpeaker</td>
<td>DelayMs</td>
<td>Room Kit, Codec Plus, Codec Pro, Room 70, Room 70 G2, Room 55D</td>
</tr>
<tr>
<td>Audio Output Connectors InternalSpeaker</td>
<td>Mode</td>
<td>Codec Plus, Codec Pro, Room 55D, Room 70, Room 70 G2</td>
</tr>
<tr>
<td>Audio Output MeasuredHdmiArcDelay</td>
<td></td>
<td>All products</td>
</tr>
<tr>
<td>Audio Output MeasuredHdmiDelay</td>
<td></td>
<td>All products</td>
</tr>
<tr>
<td>Audio Output ReportedHdmiCecDelay</td>
<td></td>
<td>All products</td>
</tr>
<tr>
<td>Cameras Camera</td>
<td>LightingConditions</td>
<td>Room Kit, Room 55, Codec Plus, Codec Pro, Room 70, Room 70 G2, Room 55D</td>
</tr>
<tr>
<td>Cameras Camera</td>
<td>Position Lens</td>
<td>Codec Pro, Room 70, Room 70 G2, Room 55D</td>
</tr>
<tr>
<td>Network</td>
<td>IPv6 LinkLocalAddress</td>
<td>All products</td>
</tr>
<tr>
<td>RoomPreset</td>
<td>Defined</td>
<td>All products except DX70 and DX80</td>
</tr>
<tr>
<td>RoomPreset</td>
<td>Description</td>
<td>All products except DX70 and DX80</td>
</tr>
<tr>
<td>RoomPreset</td>
<td>Type</td>
<td>All products except DX70 and DX80</td>
</tr>
<tr>
<td>SystemUnit Hardware</td>
<td>TemperatureThreshold</td>
<td>SX80, SX20, SX10, MX200 G2, MX300 G2, MX700, MX800, DX70, DX80</td>
</tr>
</tbody>
</table>

#### Statuses that are removed

<table>
<thead>
<tr>
<th>Status Type</th>
<th>Removed Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>None.</td>
<td></td>
</tr>
</tbody>
</table>
What’s new in CE9.3

This section provides an overview of the new and changed device settings, and the new features and improvements in the Cisco Collaboration Endpoint software version 9.3 (CE9.3) compared to CE9.2.

For more details, we recommend reading the Software release notes:


New features and improvements

Backup and restore settings and custom elements

(All products)

You can include custom elements as well as configurations in a backup file bundle (zip). You can choose which of the following elements to include in the bundle:

- Branding images
- Macros
- Favorites
- Sign-in banner
- In-room control panels
- Configurations (all or a sub-set)

In previous software versions, you could only backup the configurations.

The backup file can either be restored manually from the device’s web interface, or you can generalize the backup bundle so that it can be provisioned across multiple devices, for example using Cisco UCM or TMS.

You will find the backup and restore functionality under Maintenance > Backup and Restore on the device’s web interface.

Provisioning of custom elements

(All products)

The backup bundle, as described above, can be provisioned to many devices using Cisco UCM or TMS. It is important that device specific information is removed when creating a backup bundle intended for multiple devices. If you include device specific information in such a bundle, you may end up with multiple devices that cannot be reached.

By provisioning a non-device specific backup bundle, you can for example, copy a device’s setup with macros, branding elements, and in-room control panels across multiple devices.

In-Room Control updates

(All products)

The following functionality is added to the in-room control feature:

- You can add buttons for up to 20 panels in total. The buttons appear on the home screen or the in-call screen of the user interface depending on the panel type.
- As before, there are three types of in-room control panels: global panels (always available), in-call panels (available only when in call), and out-of-call panels (only available when not in a call). The entry point for the global panel has been removed from the status bar (top right corner of the user interface). Buttons to open global panels are added to both the home screen and the in-call screen instead, together with the buttons for the out-of-call only and in-call only panels, respectively.
- You can make standalone trigger-buttons, which are buttons that trigger an event directly, without opening a panel on the user interface.

Also the following features are added in the in-room control editor:

- Some new icons are available.
- A set of colors to choose from for the in-room-control buttons.
- Double click text elements to edit text directly.
- Drag and drop in-room control XML files into the editor.

For a full description of in-room controls, see the Customization guide for CE9.3 at https://www.cisco.com/go/in-room-control-docs
Support for ISDN Link (All products)

ISDN Link with software version IL1.1.7 is supported for all video conferencing devices that supports CE9.3.0.

As before, when using automatic pairing (which allows the ISDN Link to be automatically discovered by the device) IPv6 must be enabled on the device.

One Button to Push snooze (All products)

You are able to snooze an One Button to Push (OBTP) meeting reminder for 5 minutes. The snooze time cannot be changed. The reminder typically appears if you are in a call and a scheduled meeting is about to start. You can snooze the reminder for 5 minutes each time it appears until the meeting has ended.

Screen status monitoring and control (SX10)

SX10 now has the same CEC (Consumer Electronics Control) behavior as the devices in the Room series.

The device will use CEC to set the screen in standby when the device itself enters standby, and wake up the screen and select the correct video input when the device itself wakes up from standby. CEC information from the screen is included in the device’s status. Of course, the screen must also support CEC and send the relevant information to the device.

CEC is disabled on the device by default, and must be enabled in the Video Output Connector [1] CEC Mode setting.

Adjust the call rate before making a call (All products)

As soon as you start typing in the Search or dial field, you can open a dialog and select a custom call rate. In earlier releases this was available only when selecting an entry from the Directory.

If you don’t select a custom call rate, you get the rate set in the Conference Default Call Rate setting.

Select ring-tone and adjust ring-tone volume (All products)

You can select a ring-tone and adjust the ring-tone volume from the settings menu on the user interface. In the previous releases this was done from the web interface.

Resume a postponed upgrade (All products)

When you get a notification about software upgrade, you can choose Upgrade now or Postpone. If you postpone the upgrade, you can resume the upgrade from the Settings > About this device menu on the user interface when you are ready; you don’t have to wait for 6 hours like you had to before.

If you don’t manually resume the upgrade, the upgrade will start automatically after 6 hours.

Prevent device information from being exposed in the user interface (All products)

You can prevent important device information from being exposed in the user interface, for example:

• IP addresses (video system, touch controller, UCM/VCS registrar)
• MAC address
• Serial number
• Software version

To enable this feature the following must be done:

• A passphrase must be set for all users with administrator rights
• User Interface Settings Menu Mode must be set to Locked
• User Interface Security Mode must be set to Strong

This feature also means that the IP address is not displayed on the screen when you disconnect a Touch controller.

Accessibility: Flashing screen on incoming calls (All products)

You can configure the device so that the screen and Touch controller flashes red / light grey when the system receives an incoming call. This feature is mainly targeting hearing impaired users, making it easier for them to notice an incoming call.

The feature is disabled by default, and must be enabled by the Accessibility Incoming Call Notification setting.

Mirrored self-view (DX70 and DX80)

You can configure the device to show the self-view image the way other people see you, or as you would see yourself in a mirror. Use the Video Selfview Mirrored setting. Mirrored self-view used to be available only for Cisco DX devices running Android software.

Mirroring only applies to the self-view image, and has no effect on the video that is sent to the far end.

One common API guide

We have gathered all API information in one API guide, that covers all products. This is in contrast to earlier releases were we have had one API guide per product.
xConfiguration changes in CE9.3

New configurations
- Audio KeyClickDetector Attenuate (Room Kit, Codec Plus, Room 55, Room 70)
- Audio KeyClickDetector Enabled (Room Kit, Codec Plus, Room 55, Room 70)
- Cameras Camera [1-3] AssignedSerialNumber (Codec Plus, Room 70)
- Cameras Camera [3] Backlight DefaultMode (Codec Plus, Room 70)
- Cameras Camera [3] Brightness DefaultLevel (Codec Plus, Room 70)
- Cameras Camera [3] Brightness Mode (Codec Plus, Room 70)
- Cameras Camera [3] Focus Mode (Codec Plus, Room 70)
- Cameras Camera [3] Gamma Level (Codec Plus, Room 70)
- Cameras Camera [3] Gamma Mode (Codec Plus, Room 70)
- Cameras Camera [3] Mirror (Codec Plus, Room 70)
- Cameras Camera [3] Whitebalance Level (Codec Plus, Room 70)
- Cameras Camera [3] Whitebalance Mode (Codec Plus, Room 70)
- Network [1] DNS DNSSEC Mode (All products)
- NetworkServices HTTP Proxy PACUrl (All products)
- SystemUnit CrashReporting Mode (All products)
- SystemUnit CrashReporting URL (All products)
- UserInterface Accessibility IncomingCallNotification (All products)
- UserInterface Security Mode (All products)
- Video Selfview Mirrored (DX70/DX80)

Configurations that are removed
- Provisioning HttpMethod (All products)

Configurations that are modified
- NetworkServices HTTP Proxy Allowed (All products)
  - OLD: Default value: True
  - NEW: Default value: False
- NetworkServices HTTP Proxy Mode (All products)
  - OLD: Value space: Manual/Off
  - NEW: Value space: Manual/Off/PACUrl/WPAD
- Proximity Mode (Room 70)
  - OLD: Default value: Off
  - NEW: Default value: On
- Standby WakeupOnMotionDetection (Room 70)
  - OLD: Default value: Off
  - NEW: Default value: On
- Video Input Connector [2] Name (Room 55)
  - OLD: Default value: "PC 1 (HDMI)"
  - NEW: Default value: ""
- Video Input Connector [3] Name (Room 55)
  - OLD: Default value: "PC 2 (HDMI)"
  - NEW: Default value: ""
- Video Input Connector [1] CEC Mode (Room 70)
  - OLD: Value space: Off/On
  - NEW: Value space: On
xCommands changes in CE9.3

**New commands**
- Audio SoundsAndAlerts Ringtone Stop (All products)
- Bookings Notification Snooze (All products)
- HttpFeedback Enable (All products)
- Macros Macro RemoveAll (All products)
- Provisioning Service Fetch (All products)
- Standby Reset Halfwake Timer (All products)
- UserInterface Branding Clear (All products)
- UserInterface Extensions Panel Clicked (All products)
- UserInterface Extensions Panel Remove (All products)
- UserInterface Extensions Panel Save (All products)
- Video CEC Output KeyClick (SX10)
- Video CEC Output SendActiveSourceRequest (Codec Plus, Room 55, Room 70, Room Kit, SX10)
- Video Matrix Assign (Codec Plus)
- Video Matrix Reset (Codec Plus)
- Video Matrix Swap (Codec Plus)
- Video Matrix Unassign (Codec Plus)

**Commands that are removed**
- Provisioning Start Upgrade (All products)

**Commands that are modified**

**Audio Sound Play (All products)**
- **OLD**: Sound: Alert/Bump/Busy/CallDisconnect/CallInitiate/CallWaiting/Dial/KeyInput/KeyInputDelete/KeyTone/Nav/NavBack/Notification/OK/Pairing/PresentationConnect/Ringing/SignIn/SpecialInfo/TelephoneCall/VideoCall/VolumeAdjust/WakeUp
- **NEW**: Sound: Alert/Bump/Busy/CallDisconnect/CallInitiate/CallWaiting/Dial/KeyInput/KeyInputDelete/KeyTone/Nav/NavBack/Notification/OK/Pairing/PresentationConnect/Ringing/SignIn/SpecialInfo/TelephoneCall/VideoCall/VolumeAdjust/WakeUp/StartListening

**Audio SoundsAndAlerts Ringtone Play (All products)**
- **NEW**: Loop: On/Off

**Dial (DX70, DX80)**
- **OLD**: CallRate: Integer (64,..3072)
- **NEW**: CallRate: Integer (64,..6000)

**Dial (All products)**
- **NEW**: TrackingData: String (0, 255)

**Macros Macro Save (Codec Plus, DX70, DX80, MX200 G2, MX300 G2, MX700, MX800, Room 55, Room 70, Room Kit, SX20, SX80)**
- **NEW**: Transpile: False/True

**Peripherals List (All products)**
- **NEW**: Type: Default: All

**SystemUnit ProductPlatform Set (Codec Plus, Room 70)**
- **OLD**: Platform: ROOM70D/ROOM70S
- **NEW**: Platform: ROOM70D/ROOM70S/ROOM55D

**UserInterface Extensions Widget Action (All products)**
- **OLD**: WidgetId: String (0, 40)
- **NEW**: WidgetId: String (0, 255)
User Interface Extensions Widget SetValue (All products)
  OLD: WidgetId: String (0, 40)
  NEW: WidgetId: String (0, 255)

User Interface Extensions Widget UnsetValue (All products)
  OLD: WidgetId: String (0, 40)
  NEW: WidgetId: String (0, 255)

Video Matrix Assign (MX200 G2, MX300 G2, MX800, MX700, SX20, SX80)
  OLD: User role: ADMIN, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

Video Matrix Reset (MX200 G2, MX300 G2, MX800, MX700, SX20, SX80)
  OLD: User role: ADMIN, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

Video Matrix Swap (MX200 G2, MX300 G2, MX800, MX700, SX20, SX80)
  OLD: User role: ADMIN, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

Video Matrix Unassign (MX200 G2, MX300 G2, MX800, MX700, SX20, SX80)
  OLD: User role: ADMIN, USER
  NEW: User role: ADMIN, INTEGRATOR, USER
### xStatus changes in CE9.3

#### New statuses
- **Audio Input KeyClick Attenuate** (Codec Plus, Room 55, Room 70, Room Kit)
- **Audio Input KeyClick Enabled** (Codec Plus, Room 55, Room 70, Room Kit)
- **Audio Input KeyClick Detected** (Codec Plus, Room 55, Room 70, Room Kit)
- **HttpFeedback [n] Status** (All products)
- **Peripherals ConnectedDevice [n] UpgradeFailureReason** (All products)
- **Peripherals ConnectedDevice [n] UpgradeURL** (All products)
- **Provisioning RoomType** (MX700, MX800, SX80)
- **Provisioning Software UpgradeStatus Urgency** (All products)
- **Video Output Monitor [n] FirmwareVersion** (Codec Plus, Room 55, Room 70, Room Kit, SX10)
- **Video Output Monitor [n] ModelName** (Codec Plus, Room 55, Room 70, Room Kit, SX10)
- **Video Output Monitor [n] Position** (Codec Plus, Room 55, Room Kit)
- **Video Output Monitor [n] SerialNumber** (Codec Plus, Room 55, Room 70, Room Kit, SX10)
- **Video Output Monitor [n] Temperature** (Codec Plus, Room 55, Room 70, Room Kit, SX10)

#### Statuses that are removed
- **MediaChannels Call [n] Channel [n] Netstat Drop** (All products)
- **USB Device [n] State** (SX20)
- **USB Device [n] Type** (SX20)

#### Statuses that are modified
- **Cameras Camera [n] Flip** (Codec Plus, MX700, MX800, Room 70, SX10, SX20, SX80)
  - **OLD**: String
  - **NEW**: Off/On
- **Diagnostics Message [n] Type** (All products)
  - **OLD**: ANATOnVCS/AbnormalCallTermination/AudioInternalSpeakerDisabled/AudioPairingInterference/AudioPairingNoise/AudioPairingRate/AudioPairingSNR/AudioPairingTokenDecode/CAPFOperationState/CTLInstallation/CUCMVendorConfigurationFile/CallProtocolDualStackConfig/CallProtocolIPStackPlatformCompatibility/CallProtocolUCSProvisioningCompatibility/CameraDetected/Camerad/CameraPairing/CameraSerial/CameraSoftwareVersion/CameraStatus/CamerasDetected/CaptivePortalDetected/CertificateExpiry/ConfigurationFile/ContactInfoMismatch/ControlSystemConnection/DefaultCallProtocolRegistered/ECReferenceDelay/EthernetDuplexMatches/FanStatus/FirstTimeWizardNotCompleted/H320GatewayStatus/H323GatekeeperStatus/HasActiveCallProtocol/HasValidReleaseKey/IP7v4Assignment/IPV6Assignment/IPV6Mtu/ISDNLinkCompatibility/ISDNLinkIPStack/ITLInstallation/InvalidSIPTransportConfig/IpCameraStatus/LockDown/MediaBlockingDetected/MediaPortRangeNegative/MediaPortRangeOdd/MediaPortRangeOverlap/MediaPortRangeTooSmall/MediaPortRangeValueSpace/MicrophoneReinforcement/MicrophonesConnected/MonitorDelay/NTStatus/NetLinkStatus/NetSpeedAutoNegotiated/NetworkQuality/OSDVideOOutput/OutputConnectorLocations/PlatformSanity/PresentationSourceSelection/PresenterTrack/ProvisioningDeveloperOptions/ProvisioningStatus/RoomControl/SIPEncryption/SIPListenPortAndOutboundMode/SIPListenPortAndRegistration/SIPProfileRegistration/SIPProfileType/SelectedVideoInputSourceConnected/SipCeAndAnatConflict/SipOrH323ButNotBothEnabled/SoftwareUpgrade/SparkActivationRequired/SparkConnectivity/SpeakerTrackEthernetConnection/SpeakerTrackFrontPanelMountedCorrectly/SpeakerTrackMicrophoneConnection/SpeakerTrackVideoInputs/TCPMediaFallback/TLSVerifyRequiredCerts/TouchPanelConnection/TouchPanelFirmwareVersion/Temperature/TemperatureCheck/TemperatureSensorStatus/TemperatureWarning/TimeAlignment/VideoFromInternalCamera/VideoInputSignalQuality/VideoInputStability/VideoPortRangeNegative/VideoPortRangeOdd/VideoPortRangeTooSmall/VideoPortRangeValueSpace/WifiCARquired/ActiveMacros/AudioECRefDelay
  - **NEW**: ANATOnVCS/AbnormalCallTermination/AudioInternalSpeakerDisabled/AudioPairingInterference/AudioPairingNoise/AudioPairingRate/AudioPairingSNR/AudioPairingTokenDecode/CAPFOperationState/CTLInstallation/CUCMVendorConfigurationFile/CallProtocolDualStackConfig/CallProtocolIPStackPlatformCompatibility/CallProtocolUCSProvisioningCompatibility/CameraDetected/Camerad/CameraPairing/CameraSerial/CameraSoftwareVersion/CameraStatus/CamerasDetected/CaptivePortalDetected/CertificateExpiry/ConfigurationFile/ContactInfoMismatch/ControlSystemConnection/DefaultCallProtocolRegistered/ECReferenceDelay/EthernetDuplexMatches/FanStatus/FirstTimeWizardNotCompleted/H320GatewayStatus/H323GatekeeperStatus/HasActiveCallProtocol/HasValidReleaseKey/IP7v4Assignment/IPV6Assignment/IPV6Mtu/ISDNLinkCompatibility/ISDNLinkIPStack/ITLInstallation/InvalidSIPTransportConfig/IpCameraStatus/LockDown/MediaBlockingDetected/MediaPortRangeNegative/MediaPortRangeOdd/MediaPortRangeOverlap/MediaPortRangeTooSmall/MediaPortRangeValueSpace/MicrophoneReinforcement/MicrophonesConnected/MonitorDelay/NTStatus/NetLinkStatus/NetSpeedAutoNegotiated/NetworkQuality/OSDVideOOutput/OutputConnectorLocations/PlatformSanity/PresentationSourceSelection/PresenterTrack/ProvisioningDeveloperOptions/ProvisioningStatus/RoomControl/SIPEncryption/SIPListenPortAndOutboundMode/SIPListenPortAndRegistration/SIPProfileRegistration/SIPProfileType/SelectedVideoInputSourceConnected/SipCeAndAnatConflict/SipOrH323ButNotBothEnabled/SoftwareUpgrade/
SparkActivationRequired/SparkConnectivity/SpeakerTrackEthernetConnection/
SpeakerTrackFrontPanelMountedCorrectly/SpeakerTrackMicrophoneConnection/
SpeakerTrackVideoInputs/TCPMediaFallback/TLSVerifyRequiredCerts/TemperatureCheck/
TouchPanelConnection/TurnBandwidth/UltrasoundSpeakerAvailability/ValidPasswords/
VideoFromInternalCamera/VideoInputSignalQuality/VideoInputStability/
VideoPortRangeNegative/VideoPortRangeOdd/VideoPortRangeTooSmall/
VideoPortRangeValueSpace/WifiCARquired/HTTPFeedbackFailed/
HdmiCecModeNoSound/MacrosRuntimeStatus/MicrophoneOverloaded/SparkOffline/
UltrasoundConfigSettings
What’s new in CE9.2

This section provides an overview of the new and changed device settings, and the new features and improvements in the Cisco Collaboration Endpoint software version 9.2 (CE9.2) compared to CE9.1.

For more details, we recommend reading the Software release notes:


New features and improvements

**Macro framework (All products except SX10)**

The macro framework allows users and integrators to write JavaScript macros in order to automate scenarios and customize device behavior so that it suites an individual customer’s requirements.

The combination of macros and powerful features such as listening for events/status changes, automating execution of commands and configurations, and providing local control functionality for the In-Room control feature, provides many possibilities for custom setups.

Minor behavioral changes, such as having the device in Do Not Disturb for an infinite amount of time, can be easily realized by macros. Some other examples are: Reset configurations automatically, make a call at a certain time of the day, and issue alert or help messages depending on status changes.

The macro editor, which also provides several example macros, is available from the device’s web interface.

**HDCP support (Room 55)**

The device’s second HDMI input (Connector 3) can be configured to support HDCP (High-bandwidth Digital Content Protection) protected content. This allows customers to re-purpose the device’s screen by connecting other devices such as a Google Chromecast, an AppleTV, or an HDTV decoder. This type of content cannot be shared while in a call.

When the connector is configured to support HDCP, it is reserved for this type of content. This means that you cannot share any content from this specific connector while in a call, not even non-protected content from a laptop.

**Branding and halfwake customization (All products except SX10)**

You can upload your own text and images to customize the appearance of the screen and user interface in both the halfwake state and the awake state.

In the **Halfwake** state you can:

- Add a background brand image to the screen and user interface.
- Add a small logo in the bottom right corner of the screen and user interface.

In the **Awake** state you can:

- Add a small logo in the bottom right corner of the screen and user interface.
- Add a label or message in the bottom left corner of the screen (not the user interface).

**Source composition (All products except DX70, DX80 and SX10)**

You can compose up to four input sources (depending on how many input sources are available on the device) into one image. This is the image that will be sent in the main video stream to the far end in a call. Source composition can only be enabled via the API, so we recommend creating a user interface extension combined with a macro to control the compositions on demand.

This feature replaces some of the functionality that was provided by the TC Console application for TC software.

**HTTP Proxy support (All products)**

You can set up the device to go through a HTTP Proxy when registering it to Cisco’s cloud service, Cisco Spark.
User interface features (All products)

• The Settings panel is restructured.
• The Settings panel in the user interface (Touch 10 or on-screen) can be protected by the device's admin password. If the password is blank, anyone can access the Settings and factory reset the device.
• If you select the Russian language on the user interface, you can choose between a Russian keyboard and a keyboard with a Latin character set.
• Arabic and Hebrew languages are added to the user interface. Also localized keyboards are included.
• Basic IEEE 802.1x settings are added to the Settings panel in the user interface.

Cisco TelePresence Precision 60 Camera support (Codec Plus)

You can connect Cisco TelePresence Precision 60 cameras to Codec Plus. Note that you need a switch for the camera control cables if you have more than one camera. The People Count feature is not supported if Precision 60 is the only camera type connected to the device.

Cisco Spark Quad Camera support (SX80)

You can connect a Cisco Spark Quad Camera to the SX80. Note that the Quad Camera uses only one of the device’s HDMI inputs, while the SpeakerTrack 60 camera uses two. The People Count feature (in call) is also available when using the Quad Camera.

Support for the Snap to Whiteboard feature

(SX80, MX700/MX800, Room Kit, Room Kit Plus, Room 55, Room 70)

The Snap to Whiteboard feature is now available for all products that have a camera with speaker track functionality: SX80 with Cisco TelePresence Speaker Track 60 camera or Cisco Spark Quad camera, MX700/MX800 with dual camera, Room Kit, Room Kit Plus, Room 55 and Room 70.

When the device detects a person that is speaking close to the whiteboard, the camera view will switch to the whiteboard area. The wizard in the Settings panel on the Touch 10 user interface helps you to set up the feature and define where the whiteboard area is.

Briefing Room mode (SX80, MX700/MX800)

The Briefing Room feature, which was introduced already in TC software, has been reworked. The in-room control framework is used for creating the associated user interface elements.

MX700/MX800: As before, Briefing Room is supported only for dual camera devices. Also, you need a Precision 60 camera, and a total of three screens.

SX80: Briefing Room is supported when a speaker track camera, a Precision 60 camera, and three screens are connected. The speaker track camera can be either Cisco TelePresence SpeakerTrack 60 or Cisco Spark Quad Camera.

USB to Serial port support

(Room Kit, Codec Plus, Room 55, Room 70)

You can connect a USB (Type A) to serial (D-sub 9) adapter to access the device’s API. Cisco recommends the UC232R-10 USB to RS232 (FTDI) adapter.

Mute and unmute remote participants in a CMS hosted conference – Active Control (All products)

When a device is enabled for Active Control in a CMS (2.1 or later) conference you can mute and unmute remote participants from the participant list on the user interface (the feature must also be enabled on the CMS).

A device that is running software version CE9.2 will not be unmuted directly. When you try to unmute such a device remotely, a message will show up on its screen requesting the user to unmute the audio locally.

API commands for Custom input prompt (All products)

API commands are introduced to allow for an input prompt in the user interface: xCommand UserInterface Message TextInput *. When issuing the display command a prompt with your custom text, a text input field for the user, and a submit button, shows up on the user interface. For example, you can prompt a user to leave feedback after an ended call.

You can specify what type of input you want from the user: single line text, numeric, password, or PIN code.

The prompt can only be enabled via the API, so it is recommended to combine it with macros (not available for SX10) and either a custom user interface panel or an auto-triggered event.

Certificate upload via API (All products)

ASCII PEM formatted certificates can be installed directly using multiline API commands (xCommand Security Certificates CA Add, or xCommand Security Certificates Services Add). You can also upload certificates to a device from its web interface, as before.

API commands for user management (All products)

You can create and manage user accounts directly using API commands (xCommand UserManagement User * ). As before, you can also do this from the device’s user interface.
Preview mode for In-Room Controls (All products)

The In-Room Control editor has a new preview mode. A virtual touch user interface shows how the design looks on the user interface. The user interface is interactive so that you can test the functionality. It produces real events on the device, which can trigger any functionality you have created with a third-party control system or with a macro. A console in the right pane displays both the widget values when interacted with, and control system feedback messages.

Intelligent Proximity changes (All products)

A Proximity indicator is displayed on the screen (middle right) to inform that one or more clients are paired to the device with Cisco Proximity. The old indicator (top left), which was always shown when Proximity was enabled, has been removed.

You can no longer disable the Proximity services from the user interface.

The ultrasound settings have moved from Peripherals Pairing Ultrasound to Audio Ultrasound.

Automatic factory reset when changing the call service - device activation (All products)

The device will automatically factory reset and restart when using the user interface to change the device activation method, for example from VCS to Cisco UCM. This will prevent conflicting configurations when provisioning the device to a new service.

Changing the provisioning from the API will not automatically factory reset the device.

Support for separate RTP port ranges for audio and other media (All products)

You can configure the device so that audio uses a different RTP port range than other media. The two ranges cannot overlap. As default, all media use the same RTP port range.
xConfiguration changes in CE9.2

**New configurations**
- Audio Input HDMI [n] Mode (Codec Plus)
- Audio Input HDMI [n] VideoAssociation MuteOnInactiveVideo (Room Kit, Codec Plus)
- Audio Output InternalSpeaker Mode (Room 55)
- Audio Ultrasound MaxVolume (All products)
- Cameras Camera [1..2] Focus Mode (MX700/MX800)
  - Added for the integrated cameras
- Cameras SpeakerTrack Whiteboard Mode (RoomKit, Codec Plus, Room 55)
- Macros AutoStart (All products except SX10)
- Macros Mode (All products except SX10)
- NetworkServices HTTP Proxy Allowed (All products)
- NetworkServices HTTP Proxy LoginName (All products)
- NetworkServices HTTP Proxy Mode (All products)
- NetworkServices HTTP Proxy Password (All products)
- NetworkServices HTTP Proxy Url (All products)
- Standby WakeupOnMotionDetection (All products)
- UserInterface CustomMessage (All products)
- UserInterface OSD HalfwakeMessage (All products)
- UserInterface SettingsMenu Mode (All products)
- Video Input Connector [n] CEC Mode (Room Kit, Codec Plus, Room 55)
- Video Input Connector [n] HDCP Mode (Room 55)

**Configurations that are removed**
- Conference MultiStream Mode (SX10, DX70/DX80)

**Configurations that are modified**
- Audio Input MicrophoneMode (DX70/DX80)
  - **OLD**: User role: ADMIN
  - **NEW**: User role: ADMIN, INTEGRATOR
- Audio Input Microphone [n] Level (Room Kit, Room 55)
  - **OLD**: Value space: Integer (0..36)
  - **NEW**: Value space: Integer (0..26)
- Cameras Camera [n] Focus Mode (SX80, MX700/MX800, Codec Plus)
  - **OLD**: Value space: Auto/Manual
  - **NEW**: Value space: Auto/AutoLimited/Manual
- Cameras SpeakerTrack Closeup (SX80, MX700/MX800, Codec Plus, Room 55)
  - **OLD**: User role: ADMIN, INTEGRATOR, USER
  - **NEW**: User role: ADMIN, INTEGRATOR, USER
- Cameras SpeakerTrack Whiteboard Mode (SX80, MX700/MX800)
  - **OLD**: User role: ADMIN, INTEGRATOR
  - **NEW**: User role: ADMIN, INTEGRATOR, USER
- UserInterface Language (All products)
  - **NEW**: Arabic and Hebrew added to valuespace
- UserInterface OSD Output (RoomKit)
  - **OLD**: Default value: 1
  - **NEW**: Default value: Auto
- Video Input Connector [2] Name (Codec Plus, Room 55)
  - **OLD**: Default value: PC (HDMI)
  - **NEW**: Default value: PC 1 (HDMI)
- Video Input Connector [3] Name (Codec Plus, Room 55)
  - **OLD**: Default value: PC (HDMI2)
  - **NEW**: Default value: PC 2 (HDMI)
- Video Output Connector [1] Resolution (MX200G2/MX300G2, DX70/DX80, Room 55)
  - **OLD**: User role: ADMIN, INTEGRATOR
  - **NEW**: User role: ADMIN, INTEGRATOR, USER
- Video Selfview OnCall Mode (RoomKit)
  - **OLD**: Default value: Off
  - **NEW**: Default value: On
xCommand changes in CE9.2

**New commands**
- **Cameras SpeakerTrack Whiteboard ActivatePosition** (Room Kit, Codec Plus, Room 55)
- **Cameras SpeakerTrack Whiteboard AlignPosition** (Room Kit, Codec Plus, Room 55)
- **Cameras SpeakerTrack Whiteboard SetDistance** (Room Kit, Codec Plus, Room 55)
- **Cameras SpeakerTrack Whiteboard StorePosition** (Room Kit, Codec Plus, Room 55)
- **Macros Log Clear** (All products except SX10)
- **Macros Log Get** (All products except SX10)
- **Macros Macro Activate** (All products except SX10)
- **Macros Macro Deactivate** (All products except SX10)
- **Macros Macro Get** (All products except SX10)
- **Macros Macro Remove** (All products except SX10)
- **Macros Macro Rename** (All products except SX10)
- **Macros Macro Roles Set** (All products except SX10)
- **Macros Macro Save** (All products except SX10)
- **Macros Runtime Restart** (All products except SX10)
- **Macros Runtime Start** (All products except SX10)
- **Macros Runtime Status** (All products except SX10)
- **Macros Runtime Stop** (All products except SX10)
- **Message Send** (All products)
- **Security Certificates CA Add** (All products)
- **Security Certificates CA Delete** (All products)
- **Security Certificates CA Show** (All products)
- **Security Certificates Services Activate** (All products)
- **Security Certificates Services Add** (All products)
- **Security Certificates Services Deactivate** (All products)
- **Security Certificates Services Delete** (All products)
- **Security Certificates Services Show** (All products)

**Commands that are removed**
- **UserInterface OSD Key Click** (Room Kit, Codec Plus, Room 55)
- **UserInterface OSD Key Press** (Room Kit, Codec Plus, Room 55)
- **UserInterface OSD Key Release** (Room Kit, Codec Plus, Room 55)
Commands that are modified

Audio Microphones Mute (All products)
  OLD: User role: INTEGRATOR, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

Audio Microphones ToggleMute (All products)
  OLD: User role: INTEGRATOR, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

Audio Microphones Unmute (All products)
  OLD: User role: INTEGRATOR, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

Audio Sound Play (All products)
  OLD: Sound: Alert/Bump/Busy/CallDisconnect/CallWaiting/Dial/KeyInput/
       KeyInputDelete/KeyTone/Nav/NavBack/Notification/OK/PresentationConnect/Ringing/SignIn/
       SpecialInfo/TelephoneCall/VideoCall/VolumeAdjust/WakeUp
  NEW: Sound: Alert/Bump/Busy/CallDisconnect/CallWaiting/Dial/KeyInput/
       KeyInputDelete/KeyTone/Nav/NavBack/Notification/OK/Pairing/PresentationConnect/
       Ringing/SignIn/SpecialInfo/TelephoneCall/VideoCall/VolumeAdjust/WakeUp
  OLD: User role: INTEGRATOR, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

Audio Sound Stop (All products)
  OLD: User role: INTEGRATOR, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

Audio SoundsAndAlerts Ringtone List (All products)
  OLD: User role: INTEGRATOR, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

Audio SoundsAndAlerts Ringtone Play (All products)
  OLD: User role: INTEGRATOR, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

Audio SpeakerCheck (MX700/MX800)
  OLD: Volume: Integer (1..10)
  NEW: Volume: Integer (1..30)

Call Disconnect (All products)
  OLD: User role: ADMIN, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

Camera PositionReset (SX80, SX20, SX10, MX200G2/MX300G2, MX700/MX800, Codec Plus)
  OLD: User role: ADMIN, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

Camera PositionSet (All products except DX70/DX80)
  OLD: User role: ADMIN, USER
  NEW: User role: ADMIN, INTEGRATOR, USER
  Added: Lens: Wide/Center/Left/Right

Camera Ramp (All products except DX70/DX80)
  OLD: User role: ADMIN, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

Cameras PresenterTrack ClearPosition (SX80, MX700/MX800)
  OLD: User role: INTEGRATOR, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

Cameras PresenterTrack Set (SX80, MX700/MX800)
  OLD: User role: INTEGRATOR, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

Cameras PresenterTrack StorePosition (SX80, MX700/MX800)
  OLD: User role: ADMIN, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

Cameras SpeakerTrack Diagnostics Start (SX80, MX700/MX800, RoomKit, Codec Plus, Room 55)
  OLD: User role: ADMIN, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

Cameras SpeakerTrack Diagnostics Stop (SX80, MX700/MX800, RoomKit, Codec Plus, Room 55)
  OLD: User role: ADMIN, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

Cameras SpeakerTrack Whiteboard ActivatePosition (SX80, MX700/MX800)
  Removed: Camera
  Added: CameraId: Integer (1..7)
Cameras SpeakerTrack Whiteboard AlignPosition (SX80, MX700/MX800)
  Removed: Camera
  Added: CameraId: Integer (1..7)

Cameras SpeakerTrack Whiteboard StorePosition (SX80, MX700/MX800)
  Removed: Camera
  Added: CameraId: Integer (1..7)

Dial (All products)
  OLD: User role: ADMIN, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

Peripherals HeartBeat (All products)
  OLD: User role: ADMIN, ROOMCONTROL, USER
  NEW: User role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

SystemUnit Boot (All products)
  OLD: User role: INTEGRATOR, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

SystemUnit FirstTimeWizard Stop (All products)
  OLD: User role: INTEGRATOR, USER
  NEW: User role: ADMIN, INTEGRATOR, USER

UserInterface Extensions List (All products)
  OLD: User role: INTEGRATOR, ROOMCONTROL, USER
  NEW: User role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

UserInterface Message Prompt Display (All products)
  Added: Duration: Integer (0..3600)

Video Input SetMainVideoSource (SX80, SX20, MX200G2/MX300G2, DX70/DX80, MX700/MX800, Room Kit, Codec Plus, Room 55)
  Added: Layout: Equal/PIP
  OLD: User role: INTEGRATOR, USER
  NEW: User role: ADMIN, INTEGRATOR, USER
xStatus changes in CE9.2

New statuses

Audio Input Connectors Microphone [n] EcReferenceDelay (Room Kit)
Cameras Camera [n] DetectedConnector (SX80, SX20, SX10, MX700/MX800, Codec Plus)
Cameras Camera [n] Position Lens (SX80, MX700/MX800, Codec Plus)
Cameras SpeakerTrack ActiveConnector (SX80, MX700/MX800, Room Kit, Codec Plus, Room 55)
Video Input Connector [n] ConnectedDevice CEC [n] LogicalAddress (Room Kit, Codec Plus, Room 55)
Video Output Connector [n] ConnectedDevice CEC [n] LogicalAddress (All products)

Statuses that are removed

Video Input Connector [n] ConnectedDevice CEC [n] PowerControl (Room Kit, Codec Plus, Room 55)
Cameras SpeakerTrack LeftCamera VideoInputConnector (SX80, MX700/MX800)
Cameras SpeakerTrack RightCamera VideoInputConnector (SX80, MX700/MX800)

Statuses that are modified

Video Input MainVideoSource (All products)

OLD: Value space: Integer
NEW: Value space: 1/2/3/4/Composed
What’s new in CE9.1

This section provides an overview of the new and changed device settings, and the new features and improvements in the Cisco Collaboration Endpoint software version 9.1 (CE9.1) compared to CE9.0.

For more details, we recommend reading the Software release notes:


New features and improvements

**Dual Screen experience and Active Control for CMS based meetings** *(All products except DX70/DX80, SX10, SX20, MX200/MX300)*

Dual screen devices can utilize both screens for video in a CMS based meeting. The device receives two transcoded video streams and one content stream from the CMS, and utilizes both screens to render the streams.

With Active Control enabled, you get a participant list that shows all meeting participants and their current activity status, such as mute, sharing and active speaker indication. You can change the layout seamlessly from the touch interface by using the layout selection panels.

**New wake-up experience** *(All products)*

SX10/DX70: Only Halfwake

Other products: Halfwake, and Standby with motion detection

The new wake-up experience introduces a Halfwake state, which leads to a calmer wake-up of the device, and gives users better guidance on how to get started.

When wake-up on motion detection is enabled the device will automatically wake to the Halfwake state when people enter the room. The device will also wake to this state when a user pairs a Cisco Proximity client to the device (also DX70).

**Bluetooth headset support** *(DX70, DX80)*

A Bluetooth headset can be used with the device. The headset must support HFP (Hands Free Protocol). The user can enable Bluetooth and set the device in Bluetooth pairing mode from the user interface.

**Support for the EAP authentication framework for wireless networks** *(DX70, DX80, Room Kit)*

In addition to WPA-PSK and WPA2-PSK, the device now supports the WPA-EAP authentication framework for Wi-Fi connections. In total the following methods are supported:

- Open
- WPA-PSK (AES)
- WPA2-PSK (AES)
- EAP-TLS
- EAP-TTLS
- EAP-FAST
- PEAP
- EAP-MSCHAPv2
- EAP-GTC

**Additions for Room Analytics** *(All products except SX10, DX70, DX80)*

Detect people presence in the room: The device has the capability to find whether there are people present in the room. The feature is based on ultrasound, and it does not keep record of who was in the room, only whether or not the room is in use.

People count *(only Room Kit, Codec Plus, Room 55)*: The device counts the number of people in the room when in a call, and when displaying the self-view picture. You can configure the device to also count the number of people outside of call, but the device cannot count the number of people when it is in standby. It does not keep record of who was in the room, only the number of faces that were detected.
Network port 2 can be disabled (DX70, DX80)

You can connect a computer to the network through the video conferencing device’s second network port. Then you only need one network wall socket to support both the device and the computer.

For security reasons, we recommend that you disable this network port if the device is used in a public environment. This way, you prevent someone from connecting a computer to your network through the device.
xConfiguration changes in CE9.1

New configurations
Cameras Camera Framerate (Room Kit)
NetworkPort [2] Mode (DX70, DX80)
RoomAnalytics PeopleCountOutOfCall (Room Kit)
RoomAnalytics PeoplePresenceDetector (MX200 G2, MX300 G2, MX700, MX800, Room Kit, SX20, SX80)

Configurations that are removed
None.

Configurations that are modified
Conference DefaultCall Rate (MX200 G2, MX300 G2, MX700, MX800, Room Kit, SX20, SX80)
  OLD: Default value: 3072
  NEW: Default value: 6000
Conference MultiStream Mode (MX700, MX800, Room Kit, SX80)
  OLD: Valuespace: Off; Default value: Off
  NEW: Valuespace: Auto/Off; Default value: Auto
Network [1] IKE8021X Password (All products)
  OLD: Valuespace: String (0, 32)
  NEW: Valuespace: String (0, 50)
Peripherals Profile TouchPanels (SX80, Room Kit)
  OLD: Default value: NotSet
  NEW: Default value: Minimum1
Video Input Connector [n] PresentationSelection (All products)
  OLD: Valuespace: AutoShare/Manual/OnConnect (MX200 G2, MX300 G2, MX700, MX800, Room Kit, SX10, SX20, SX80)
  OLD: Valuespace: AutoShare/Desktop/Hidden/Manual/OnConnect (DX70, DX80)
  NEW: Valuespace: AutoShare/Desktop/Manual/OnConnect (All products)
Video Output Connector [1..2] MonitorRole (Room Kit)
  OLD: Default value: Connector [1]: First; Connector [2]: Second
  NEW: Default value: Auto
xCommand changes in CE9.1

**New commands**
- **SystemUnit FirstTimeWizard Stop** *(All products)*
- **UserInterface Extensions Set** *(All products)*

**Commands that are removed**
- **Camera PositionReset** *(Room Kit)*
- **Camera TriggerAutofocus** *(Room Kit)*

**Commands that are modified**

- **Audio Select** *(DX70, DX80)*
  - OLD: Device: Internal/HeadsetUSB/HeadsetAnalog/HandsetUSB
  - NEW: Device: Internal/HeadsetBluetooth/HeadsetUSB/HeadsetAnalog/HandsetUSB

- **Audio Volume Decrease** *(DX70, DX80)*
  - OLD: Device: Internal/HeadsetUSB/HeadsetAnalog/HandsetUSB
  - NEW: Device: Internal/HeadsetBluetooth/HeadsetUSB/HeadsetAnalog/HandsetUSB

- **Audio Volume Increase** *(DX70, DX80)*
  - OLD: Device: Internal/HeadsetUSB/HeadsetAnalog/HandsetUSB
  - NEW: Device: Internal/HeadsetBluetooth/HeadsetUSB/HeadsetAnalog/HandsetUSB

- **Audio Volume Set** *(DX70, DX80)*
  - OLD: Device: Internal/HeadsetUSB/HeadsetAnalog/HandsetUSB
  - NEW: Device: Internal/HeadsetBluetooth/HeadsetUSB/HeadsetAnalog/HandsetUSB

- **Audio Volume SetToDefault** *(DX70, DX80)*
  - OLD: Device: Internal/HeadsetUSB/HeadsetAnalog/HandsetUSB
  - NEW: Device: Internal/HeadsetBluetooth/HeadsetUSB/HeadsetAnalog/HandsetUSB

- **Dial** *(DX70, DX80)*
  - OLD: CallRate: Integer (64..6000)
  - NEW: CallRate: Integer (64..3072)

- **Cameras SpeakerTrack Diagnostics Start** *(MX700, MX800, Room Kit, SX80)*
  - OLD: User role: ADMIN, INTEGRATOR
  - NEW: User role: ADMIN, USER

**Cameras SpeakerTrack Diagnostics Stop** *(MX700, MX800, Room Kit, SX80)*
  - OLD: User role: ADMIN, INTEGRATOR
  - NEW: User role: ADMIN, USER

**Presentation Start** *(Room Kit)*
  - OLD: ConnectorID: Integer (0..65534)
  - NEW: ConnectorID: Integer (1..2)
  - OLD: PresentationSource: Integer (0..65534)
  - NEW: PresentationSource: Integer (1..2)

**Presentation Stop** *(Room Kit)*
  - OLD: PresentationSource: Integer (0..65534)
  - NEW: PresentationSource: Integer (1..2)

**SystemUnit FactoryReset** *(All products)*
  - OLD: Keep: LocalSetup/Network/Spark/Provisioning
  - NEW: Keep: LocalSetup/Network/Spark/Provisioning/SerialPort/Certificates (not in use)
xStatus changes in CE9.1

**New statuses**

Audio Output Connectors Line ConnectionStatus (Room Kit)

Audio Devices Bluetooth ActiveProfile (DX70, DX80)

Audio Volume Headset Bluetooth (DX70, DX80)

RoomAnalytics People Count Current (Room Kit)

RoomAnalytics People Presence (SX20, SX80, Room Kit, MX200, MX300, MX700, MX800)

System Unit Software Option Keys Encryption (SX20, Room Kit, DX70, DX80)

Video Input Connector [n] Connected Device CEC [n] Device Type (Room Kit)

Video Input Connector [n] Connected Device CEC [n] Name (Room Kit)

Video Input Connector [n] Connected Device CEC [n] Power Status (Room Kit)

Video Input Connector [n] Connected Device CEC [n] Vendor ID (Room Kit)

**Statuses that are removed**

Cameras Camera [n] Flip (Room Kit)

Cameras Camera [n] Hardware ID (Room Kit)

Cameras Camera [n] Mac Address (DX70, DX80, Room Kit)

Cameras Camera [n] Position Focus (Room Kit)

Cameras Camera [n] Serial Number (Room Kit)

Cameras Camera [n] Software ID (Room Kit)

Video Input Source [n] Tmds Clock Present (Room Kit)

**Statuses that are modified**

Diagnostics Message Type (All products)


Standby State *(All products)*

- **OLD**: Value space: Standby/EnteringStandby/Off
- **NEW**: Value space: Standby/EnteringStandby/Halfwake/Off
What’s new in CE9.0

This section provides an overview of the new and changed device settings, and the new features and improvements in the Cisco Collaboration Endpoint software version 9.0 (CE9.0) compared to CE8.3.

For more details, we recommend reading the Software release notes:


New features and improvements

**Updated user interface** *(All products)*

The user interfaces on the Touch 10, on screen, and on the integrated touch screen have been updated. The main menu items on the home screen have been replaced with more prominent activities.

Some of the setting have been removed from the Touch 10 advanced settings menu to align with the on-screen display menu.

**Wakeup on motion detection** *(All products)*

Wakeup on motion detection senses when a person walks into the conference room and the device wakes up automatically. You need to enable the following setting for this feature to work:

xConfiguration Standby WakeupOnMotionDetection

You can’t manually place the device in standby when this feature is enabled.

**Updated In-Room Control Editor** *(All products)*

The In-Room Control editor is updated with a new look, improved logic and usability for producing a control interface more efficiently. In addition, a new directional pad widget and an In-Room Control simulator is added.

**Added language support** *(All products)*

We have added support for Portuguese (Portugal) to the on-screen display and Touch controller menus.

**Other changes** *(All products)*

- Support for HTTPS client certificates has been added.
- Unplugging the presentation cable instantly stops the presentation sharing.
xConfiguration changes in CE9.0

New configurations

Cameras SpeakerTrack Closeup (MX700, MX800, SX80)
NetworkServices HTTPS Server MinimumTLSVersion (All products)
NetworkServices HTTPS StrictTransportSecurity (All products)
NetworkServices UPnP Mode (MX200 G2, MX300 G2, MX700, MX800, SX10, SX20, SX80)

Configurations that are removed

Audio Microphones PhantomVoltage (MX200 G2, MX300 G2, SX20)

Configurations that are modified

Cameras Camera [n] * (MX200 G2, MX300 G2, MX700, MX800, SX10, SX20, SX80)
OLD: User role: ADMIN, USER
NEW: User role: ADMIN, INTEGRATOR

Cameras SpeakerTrack * (MX700, MX800, SX80)
OLD: User role: ADMIN, USER
NEW: User role: ADMIN, INTEGRATOR

Conference MultiStream Mode (MX200 G2, MX300 G2, MX700, MX800, SX20, SX80)
OLD: Value space: Auto/Off
NEW: Value space: Off

UserInterface Language (All products)
NEW: Portuguese added to value space

xConfigurations with INTERATOR user role

A new user role - INTEGRATOR - is introduced in CE9.0. It has been added to the following configurations:

Audio DefaultVolume (All products)
Audio Input HDMI [n] * (MX700, MX800, SX80)
Audio Input Line [n] * (MX700, MX800, SX20, SX80)
Audio Input Microphone [n] * (MX200 G2, MX300 G2, MX700, MX800, SX10, SX20, SX80)
Audio MicrophoneReinforcement * (MX700, MX800, SX80)
Audio Microphones Mute Enabled (All products)
Audio Output HDMI [n] * (SX80)
Audio Output Line [n] * (MX700, MX800, SX10, SX20, SX80)
Audio SoundsAndAlerts * (All products)
Cameras Camera [n] * (MX200 G2, MX300 G2, MX700, MX800, SX10, SX20, SX80)
Cameras SpeakerTrack * (MX700, MX800, SX80)
Conference DefaultCall Rate (All products)
Conference DoNotDisturb DefaultTimeout (All products)
GPIO Pin [n] Mode (MX700, MX800, SX80)
Peripherals Profile * (MX200 G2, MX300 G2, MX700, MX800, SX10, SX20, SX80)
SerialPort BaudRate (MX700, MX800, SX20, SX80)
SerialPort Mode (All products)
Standby * (DX70, DX80, MX200 G2, MX300 G2, SX80, SX10, SX20, SX80)
Standby BootAction (MX700, MX800)
Standby Control (MX700, MX800)
Standby Delay (MX700, MX800)
Standby StandbyAction (MX700, MX800)
Standby WakeupAction (MX700, MX800)
SystemUnit Name (All products)
Time Zone (All products)
UserInterface OSD Output (All products)
Video Input Connector [n] CameraControl CameraId (All products)
Video Input Connector [n] CameraControl Mode (All products)
Video Input Connector [n] InputSourceType (All products)
Video Input Connector [n] Name (All products)
Video Input Connector [n] PresentationSelection (All products)
Video Input Connector [n] Quality (All products)
Video Input Connector [n] Visibility (All products)
Video Monitors (All products)
Video Output Connector [n] CEC Mode (All products)
Video Output Connector [n] MonitorRole (MX700, MX800, SX20, SX80)
Video Output Connector [n] Resolution (All products)
Video Presentation DefaultPIPPosition (All products)
Video Selfview Default * (All products)
Video Selfview OnCall * (All products)

* means that the change applies to all configurations starting with *path*.
xCommand changes in CE9.0

**New commands**
- Audio Microphones ToggleMute *(All products)*
- Audio Volume ToggleMute *(All products)*
- Audio Sound Play *(All products)*
- Audio Sound Stop *(All products)*
- Cameras AutoFocus Diagnostics Start *(MX700, MX800, Room Kit, SX80)*
- Cameras AutoFocus Diagnostics Stop *(MX700, MX800, Room Kit, SX80)*
- SystemUnit SignInBanner Clear *(All products)*
- SystemUnit SignInBanner Get *(All products)*
- SystemUnit SignInBanner Set *(All products)*
- Video Output Monitor Backlight Set *(MX700, MX800)*
- Video Output Monitor Brightness Set *(MX700, MX800)*
- Video Output Monitor Color Blue Set *(MX700, MX800)*
- Video Output Monitor Color Green Set *(MX700, MX800)*
- Video Output Monitor Color Red Set *(MX700, MX800)*
- Video Output Monitor Color Select *(MX700, MX800)*
- Video Output Monitor Contrast Set *(MX700, MX800)*
- Video Output Monitor CSC Select *(MX700, MX800)*
- Video Output Monitor Gamma Set *(MX700, MX800)*
- Video Output Monitor Reset *(MX700, MX800)*
- Video Output Monitor Sharpness Set *(MX700, MX800)*

**Commands that are modified**
- SystemUnit FactoryReset *(All products)*  
  NEW: Keep: LocalSetup, Network, Spark, Provisioning

**xCommand with INTEGRATOR user role**
- Audio Microphones Unmute *(All products)*
- Audio Microphones ToggleMute *(All products)*
- Audio Sound Play *(All products)*
- Audio SoundsAndAlerts Ringtone List *(All products)*
- Audio SoundsAndAlerts Ringtone Play *(All products)*
- Audio Sound Stop *(All products)*
- Cameras AutoFocus Diagnostics Start *(MX700, MX800, Room Kit, SX80)*
- Cameras AutoFocus Diagnostics Stop *(MX700, MX800, Room Kit, SX80)*
- Cameras PresenterTrack ClearPosition *(SX80, MX700, MX800)*
- Cameras PresenterTrack Set *(SX80, MX700, MX800)*
- Cameras PresenterTrack StorePosition *(SX80, MX700, MX800)*
- Cameras SpeakerTrack Diagnostics Start *(SX80, MX700, MX800)*
- Peripherals Connect *(All products)*
- Peripherals List *(All products)*
- Standby Activate *(All products)*
- Standby Deactivate *(All products)*
- SystemUnit Boot *(All products)*
- UserInterface Extensions Clear *(All products)*
- UserInterface Extensions List *(All products)*
- UserInterface Extensions Widget SetValue *(All products)*
- UserInterface Extensions Widget UnsetValue *(All products)*
- UserInterface Message Alert Clear *(All products)*
- UserInterface Message Alert Display *(All products)*
- UserInterface Message Prompt Clear *(All products)*
- UserInterface Message Prompt Display *(All products)*
- UserInterface Message Prompt Response *(All products)*
- UserInterface Message TextLine Clear *(All products)
UserInterface Message TextLine Display (All products)
UserInterface Presentation ExternalSource Add (All products)
UserInterface Presentation ExternalSource List (All products)
UserInterface Presentation ExternalSource Remove (All products)
UserInterface Presentation ExternalSource RemoveAll (All products)
UserInterface Presentation ExternalSource Select (All products)
UserInterface Presentation ExternalSource State Set (All products)
UserManagement User Passphrase Change (All products)
Video Input SetMainVideoSource (DX70, DX80, MX200 G2, MX300 G2, MX700, MX800, SX20, SX80)
**xStatus changes in CE9.0**

**New statuses**

- **Cameras PresenterTrack Availability** *(MX700, MX800, SX80)*
- **Cameras PresenterTrack PresenterDetected** *(MX700, MX800, SX80)*
- **Cameras PresenterTrack Status** *(MX700, MX800, SX80)*

**Video Output Connector [n] ConnectedDevice CEC [n] Name** *(All products)*

**Video Output Connector [n] ConnectedDevice CEC [n] VendorId** *(All products)*

**Statuses that are modified**

**Diagnostics Message [n] Type** *(All Products)*

**OLD:** CAPOperationState/CTLinstallation/CUCMVendorConfigurationFile/CallProtocolDualStackConfig/CallProtocolVcs/CallProtocolVcsProvisioningCompatibility/CameraId/CameraPairing/CameraSerial/CameraSoftwareVersion/CamerasDetected/ConfigurationFile/DefaultCallProtocolRegistered/EthernetDuplexMatches/FanStatus/PresenterTrack/H320GatewayStatus/H323GatekeeperStatus/IpCameraStatus/IPv4Assignment/IPv6Assignment/IPv6Mtu/ISDNLinkCompatibility/ISDNLinkStack/ITLinstallation/InvalidSIPTransportConfig/LockDown/RoomControl/MediaBlockingDetected/NetLinkStatus/NetSpeedAutoNegotiated/NetworkQuality/NTPStatus/OSDVideoOutput/OutputConnectorLocations/ProvisioningDeveloperOptions/ProvisioningStatus/SIPEncryption/SIPListenerPortAndOutboundMode/SIPProfileRegistration/SIPProfileTypeSelected/SIPProfileType/SIPProfileType/ValidSIPTransportConfig/SelectedVideoInputSourceConnected/SipIceAndAnatConflict/SIPListenPortAndRegistration/TCPMediaFallback/TemperatureCheck/TLSVerifyRequiredCerts/TouchPanelConnection/ControlSystemConnection/TurnBandwidth/UdpPortRangeViolation/UltrasoundSpeakerAvailability/ValidPasswords/VideoFromInternalCamera/VideoInputStability/VideoInputSignalQuality/SpeakersConnectivity/SpeakerTrackFrontPanelMountedCorrectly/SpeakerTrackMicrophoneConnection/SpeakerTrackVideoInputs/SpeakerTrackEthernetConnection/ANATOnVCS/ECReferenceDelay/AudioECRefDelay/AudioPairingNoise/AudioPairingRate/AudioPairingSNR/AudioPairingInterference/AudioPairingTokenDecode/AudioInternalSpeakerDisabled/AbnormalCallTermination/HasActiveCallProtocol/SipOrH323ButNotBothEnabled/PresentationSourceSelection/SoftwareUpgrade/PlatformSanity/ContactInfoMismatch/MicrophoneReinforcement/FirstTimeWizardNotCompleted/CaptivePortalDetected/MonitorDelay

**NEW:** CAPOperationState/CTLinstallation/CUCMVendorConfigurationFile/CallProtocolDualStackConfig/CallProtocolVcs/CallProtocolVcsProvisioningCompatibility/CameraId/CameraPairing/CameraSerial/CameraSoftwareVersion/CamerasStatus/CamerasDetected/ConfigurationFile/DefaultCallProtocolRegistered/EthernetDuplexMatches/FanStatus/PresenterTrack/H320GatewayStatus/H323GatekeeperStatus/HasValidReleaseKey/IpCameraStatus/IPv4Assignment/IPv6Assignment/IPv6Mtu/ISDNLinkCompatibility/ISDNLinkStack/ITLinstallation/InvalidSIPTransportConfig/LockDown/RoomControl/MediaBlockingDetected/NetLinkStatus/NetSpeedAutoNegotiated/NetworkQuality/NTPStatus/OSDVideoOutput/OutputConnectorLocations/ProvisioningDeveloperOptions/ProvisioningStatus/SIPEncryption/SIPListenerPortAndOutboundMode/SIPProfileRegistration/SIPProfileType/SelectedVideoInputSourceConnected/SipIceAndAnatConflict/SIPListenPortAndRegistration/TCPMediaFallback/TemperatureCheck/TLSVerifyRequiredCerts/TouchPanelConnection/ControlSystemConnection/TurnBandwidth/UdpPortRangeViolation/UltrasoundSpeakerAvailability/ValidPasswords/VideoFromInternalCamera/VideoInputStability/VideoInputSignalQuality/SpeakersConnectivity/SpeakerTrackFrontPanelMountedCorrectly/SpeakerTrackMicrophoneConnection/SpeakerTrackVideoInputs/SpeakerTrackEthernetConnection/ANATOnVCS/ECReferenceDelay/AudioECRefDelay/AudioPairingNoise/AudioPairingRate/AudioPairingSNR/AudioPairingInterference/AudioPairingTokenDecode/AudioInternalSpeakerDisabled/AbnormalCallTermination/HasActiveCallProtocol/SipOrH323ButNotBothEnabled/PresentationSourceSelection/SoftwareUpgrade/PlatformSanity/ContactInfoMismatch/MicrophoneReinforcement/FirstTimeWizardNotCompleted/CaptivePortalDetected/MonitorDelay

**xStatus with INTEGRATOR user role**

- **Audio Input Connectors Microphone [n] ConnectionStatus** *(MX200 G2, MX300 G2, SX10, SX20)*
- **Audio Microphones Mute** *(All products)*
- **Audio Output Connectors Line [n] DelayMs** *(All products)*
- **Audio Volume** *(All products)*
- **Call [n] FacilityServiceId** *(All products)*
- **Call [n] ReceiveCallRate** *(All products)*
- **Call [n] TransmitCallRate** *(All products)*
- **Cameras Camera [n] Capabilities Options** *(All products)*
- **Cameras Camera [n] Connected** *(All products)*
- **Cameras Camera [n] Flip** *(MX700, MX800, Room Kit, SX10, SX20, SX80)*
- **Cameras Camera [n] MacAddress** *(DX70, DX80, MX700, MX800, Room Kit, SX10, SX20, SX80)*
- **Cameras Camera [n] Manufacturer** *(All products)*
- **Cameras Camera [n] Model** *(All products)*
- **Cameras Camera [n] Position Focus** *(MX200 G2, MX300 G2, MX700, MX800, Room Kit, SX10, SX20, SX80)*
### Cameras
- **Position Pan** (MX200 G2, MX300 G2, MX700, MX800, Room Kit, SX10, SX20, SX80)
- **Position Tilt** (MX200 G2, MX300 G2, MX700, MX800, Room Kit, SX10, SX20, SX80)
- **Position Zoom** (MX200 G2, MX300 G2, MX700, MX800, Room Kit, SX10, SX20, SX80)
- **SerialNumber** (DX70, DX80, MX700, MX800, Room Kit, SX10, SX20, SX80)
- **SoftwareID** (All products)
- **PresenterTrack Availability** (MX700, MX800, SX80)
- **PresenterDetected** (MX700, MX800, SX80)
- **Status** (MX700, MX800, SX80)
- **Availability** (MX700, MX800, Room Kit, SX80, SX80)
- **LeftCamera VideoInputConnector** (MX700, MX800, SX80)
- **RightCamera VideoInputConnector** (MX700, MX800, SX80)
- **SpeakerTrack Status** (MX700, MX800, SX80)
- **DoNotDisturb** (All products)
- **Presentation CallId** (All products)
- **LocalInstance SendingMode** (All products)
- **LocalInstance Source** (All products)
- **Mode** (All products)
- **State** (MX700, MX800, SX80)
- **NumberOfActiveCalls** (All products)
- **NumberOfInProgressCalls** (All products)
- **SystemTime** (All products)
- **ActiveSpeaker PIPPosition** (All products)
- **Input Connector Connected** (All products)
- **Input Connector SignalState** (All products)
- **Input Connector SourceId** (All products)
- **Input Connector Type** (All products)
- **Input Source ConnectorId** (All products)
- **Input Source FormatStatus** (All products)
- **Input Source FormatType** (All products)
- **Input Source Resolution Height** (All products)
- **Input Source Resolution RefreshRate** (All products)
- **Input Source Resolution Width** (All products)
- **Output Connector Connected** (All products)
- **Output Connector ConnectedDevice CEC DeviceType** (All products)
- **Output Connector ConnectedDevice CEC Name** (All products)
- **Output Connector ConnectedDevice CEC PowerControl** (All products)
- **Output Connector ConnectedDevice CEC PowerStatus** (All products)
- **Output Connector ConnectedDevice CEC VendorId** (All products)
- **Output Connector ConnectedDevice PreferredFormat** (All products)
- **Selfview FullscreenMode** (All products)
- **Selfview Mode** (All products)
- **Selfview OnMonitorRole** (All products)
- **Selfview PIPPosition** (All products)
Chapter 2

About the API
Cisco Terms and Conditions
Your use of Cisco software and cloud services are subject to these 
terms and conditions. Your use of Cisco APIs are subject to the Cisco 
Webex Developer Terms of Service.

Permitted Commercial Use for Scheduled Meeting Join Experience
In addition, the following use case requires separate permission 
for commercial use: providing a scheduled meeting join experi-
ence similar to one button to push. This includes use of any API that 
updates the device with calendar data from an external source to 
provide this functionality, including “xCommand Bookings Put”, or 
previous private API’s, such as “bookingsputxml”. In addition, using 
other APIs to accomplish the same functionality would also require 
permission for commercial use. 

If you are providing a Scheduled Meeting Join Experience, you either 
must comply with the below permitted commercial use terms or it 
must be for non-commercial use. Non-commercial use is defined 
as being solely for your internal business operations only and not for 
any activities that involve you using the API as part of or in further-
ance of an income-generating service or product, whether directly or 
indirectly.

Any use to provide a Scheduled Meeting Join Experience that does 
not qualify under non-commercial use requires separate permission 
from Cisco. 

Cisco reserves the right to revoke your license to use our API if, 
in our sole discretion, we deem that your use is for unauthorized 
commercial purposes or otherwise violates the Webex Developer 
Terms of Service. Please contact us at devsupport@webex.com if 
you have any questions about whether your intended use of the API 
is permitted, or to inquire about obtaining permission.
API fundamentals

This chapter contains a top-level view of the mechanisms supported by the device API.

Here you can read about how to access the API, how to use the command line and what the different parts of the API can be used for. This chapter also describes how to use the feedback functions that are available for the device.

The API consists of four major groups:

- Commands
- Configurations
- Status
- Events

These four groups are hierarchically organized, which makes it easier to find related functionality. You can find the complete lists of all commands, configurations and statuses in the following chapters.

**NOTE:** The commands return values that may affect how the device interacts with third-party systems. These may change from release to release and are not documented.

Connecting to the API

There are several ways to access the device API:

- SSH
- Telnet
- HTTP/HTTPS
- WebSocket
- Serial connection

Regardless of which method you choose, the structure of the API is the same. Choose the connection method that suits your application best. Note that all methods are not available for all products.

Before you start, please read this section about the different methods, as some of them may require additional configuration changes before being enabled. The configurations, apart from password, can be set from the Configuration menu on the web interface or from the command line interface. The examples are for the command line interface.

**SSH**

SSH is a secure TCP/IP connection and it is enabled by default on the device. It can be disabled. You need an SSH client, such as PuTTY, to access the API over SSH.

```plaintext
xConfiguration NetworkServices SSH Mode: <Off, On>
```

**Telnet**

Telnet can be viewed as the equivalent of the serial protocol in the TCP/IP world. Telnet is disabled by default. Before connecting to the device with Telnet you have to enable it.

To enable the Telnet service, configure the following setting on the device. Changing this setting does not require a reboot of the device, but it may take some time to take effect.

```plaintext
xConfiguration NetworkServices Telnet Mode: <Off, On>
```

**HTTP/HTTPS**

As HTTP/HTTPS are connectionless protocols, there is no persistent connection. There are several ways of communicating with the API over HTTP.

In order to enable or disable the HTTP and HTTPS services, configure the following setting on the device.

```plaintext
xConfiguration NetworkServices HTTP Mode: <Off, HTTP+HTTPS, HTTPS>
```

**Connecting**

You can inspect the API by entering the IP-address or host name of the device in your web browser. This opens the web interface, and you can find the API documents under the menu section Integration > Developer API. The HTTP POST and GET methods are used to execute commands and get feedback from the device. This is described in “Using HTTP” on page 90 in this document.

**WebSocket**

WebSocket is a protocol that provides a full-duplex communication channel between a client and the API of the device. The API commands are embedded in JSON-RPC objects before they are sent over WebSocket.

In order to enable or disable the use of WebSocket, configure the following settings. Because WebSocket is tied to HTTP, also HTTP or HTTPS must be enabled before you can use WebSocket.

```plaintext
xConfiguration NetworkServices WebSocket: <Off, FollowHTTPService>
```

Read the [API over WebSocket guide](#) for details how to convey API commands in JSON-RPC objects over WebSocket.

---

1 Telnet is only available for DX, MX, and SX series.
2 API access over a serial connection is not available for DX70, DX80, Room 55 Dual, and Room 70.
RS-232 / serial connection

You may want to set up serial connection to a device for the following purposes:

- **Access to the device’s API**
  Depending on the device type, the serial connection for API access is set up via an USB-A or a COM-port (D-SUB 9 or 3-pin Euroblock).  

- **Maintenance and service**
  You may need a serial connection to the device to recover from a faulty state. Refer to the administrator guide of the product for details.

Serial communication can be used without an IP-address, DNS, or a network.

Serial communication is enabled by default, but can be disabled by setting the serial port mode to Off.  

```
xConfiguration SerialPort Mode: <Off/On>
```

### Baud rate and other serial port parameters

Refer to the table to find the connector types and serial port parameters for each device type.

Some device types allow a range of baud rates. The device can give very much feedback, so we recommend keeping the connection at the highest rate possible. In some situations, such as when using long cables, a lower rate may be used to avoid bit errors.  

```
xConfiguration SerialPort BaudRate: <9600/19200/38400/57600/115200>
```

A new baud rate takes effect after a device reboot.

### Login and password

For security reasons the password prompting is turned on by default, but it can be turned off if preferred.  

```
xConfiguration SerialPort LoginRequired: <Off/On>
```

---

<table>
<thead>
<tr>
<th>Device type</th>
<th>Connector type</th>
<th>Baud rate (bps)</th>
<th>Other parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room Kit Mini</td>
<td>USB-A + RS-232 adapter</td>
<td>115200</td>
<td></td>
</tr>
<tr>
<td>Room Kit</td>
<td>COM (Euroblock, 3-pin)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room 55</td>
<td>USB-A + RS-232 adapter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Codec Plus</td>
<td>COM (D-SUB 9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Desk Pro</td>
<td>USB-A + RS-232 adapter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SX10</td>
<td>COM (Euroblock, 3-pin)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Codec Pro</td>
<td>USB-A + RS-232 adapter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SX80</td>
<td>COM (D-SUB 9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MX700, MX800</td>
<td>USB-A + RS-232 adapter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SX20</td>
<td>USB-A + RS-232 adapter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MX200 G2, MX300 G2</td>
<td>USB-A + RS-232 adapter</td>
<td>115200</td>
<td></td>
</tr>
<tr>
<td>Board 55, 70</td>
<td>Not available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board 55S, 70S, 85S</td>
<td>Not available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DX70, DX80</td>
<td>Not available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room 55 Dual, Room 70</td>
<td>Not available</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

1. API access over a serial connection is not available for DX70, DX80, Room 55 Dual, and Room 70.
2. Serial communication is always enabled for Webex Board 55 and 70 (first generation of boards); it cannot be disabled.
3. Applies only to the ports that are used to access the device’s API. A dedicated maintenance port (micro USB) always uses the default baud rate.
4. During the initial boot sequence, the device uses a baud rate of 38400 bps regardless of the baud rate you have set.
Ethernet ports

The main network port - Network port 1 - is always reserved for the connection to LAN. This applies to all devices.

Some of our devices have more than one network port. The additional ports can be used for peripheral devices like cameras, Touch 10, and more.

A device that is connected to such a network port gets a local IP-address from the video conferencing device, and therefore is not part of the corporate network.

- A Cisco device is assigned a dynamic IP-address in the range (DHCP): 169.254.1.41 to 169.254.1.240
- A non-Cisco device is assigned the dynamic IP-address (DHCP): 169.254.1.30

**NOTE:** Only one non-Cisco device can get a dynamic IP-address at a time.

- A non-Cisco device can be assigned a static IP-address in the range: 169.254.1.241 to 169.254.1.254

This method can also be used to connect to the device with SSH. In this case you can use the IP-address 169.254.1.1.

Power over Ethernet (PoE)

The following products have one or more Ethernet ports that provide PoE:

- Codec Plus, Room Kit Mini, Room 55, Room 55 Dual, Room 70 (marked with the Touch controller symbol (_TOUCH_))
- Codec Pro, Room 70 G2 (2 ports: one marked with the Touch controller symbol ( TOUCH_ ), the other with the letters "PoE")

User roles

A user account may hold one or a combination of user roles. A user account with full access rights, like the default admin user, should possess the ADMIN, USER, and AUDIT roles.

These are the user roles:

- **ADMIN:** A user with this role can create new users, change most settings, make calls, and search the contact lists. The user cannot upload audit certificates and change the security audit settings.
- **USER:** A user with this role can make calls and search the contact lists. The user can modify a few settings, for example adjust the ringtone volume and set the time and date format.
- **AUDIT:** A user with this role can change the security audit settings and upload audit certificates.
- **ROOMCONTROL:** A user with this role can create customized UI panels (for example in-room controls). The user has access to the UI Extensions editor and associated development tools.
- **INTEGRATOR:** A user with this role has access to settings, commands and status that are required to set up advanced AV scenarios, and to integrate our devices with third-party equipment. Such a user can also create customized UI panels.

Passphrase

The device is delivered with a default user account with full credentials. The user name is `admin`, and initially, no passphrase is set for the default user.

It is mandatory to set a passphrase for the `admin` user in order to restrict access to device configuration. You should in addition set a passphrase for any other user with similar credentials.

You can set the passphrase on the device’s web interface. Open a web browser and enter the IP-address of the device in the address bar and sign in. Click your user name in the upper right corner and choose `Change passphrase` in the drop down menu.
API output

The `xPreferences` is used to set preferences for the RS-232, Telnet and SSH sessions.

The output modes are:

- **Terminal**: Line based output for use with line based control systems
- **XML**: XML output for use with control systems that understand XML.
- **JSON**: JSON format is convenient when integrating with web based systems.

The default output mode is **terminal**. To change this you have to define your preferences for each session individually. Examples in this guide are in terminal mode.

To set output mode to XML, issue the command:

```
xPreferences outputmode xml
```

To revert to terminal mode, issue the command:

```
xPreferences outputmode terminal
```

Example: Command in terminal mode

```
xCommand Audio Volume Set Level: 50
```

Example: Command in XML mode

```
<Command>
  <Audio>
    <Volume>
      <Set command="True">
        <Level>50</Level>
      </Set>
    </Volume>
  </Audio>
</Command>
```
Using the command line

Help
To get a list of all supported top level commands you can type `?` or `help` after connecting to the device using RS-232, Telnet or SSH (Example 1).

Bye
Typing the bye command closes the command line interface.

API commands

xConfiguration
Configurations are device settings, such as device name and network settings. These are persistent across boots. Refer to “Configurations” on page 84.

xCommand
Commands instruct the device to execute actions, such as to dial a number or to search the phone book. Refer to “Commands” on page 84.

xStatus
A status contains the current state of the device, such as connected calls, the status of the gatekeeper registration, connected inputs and output sources. Refer to “Status” on page 84.

xFeedback
The Feedback commands are used to specify what parts of the configuration and status hierarchies to monitor. Feedback is only issued on the RS-232, Telnet or SSH session for which it is specified. If you are connecting to the device with multiple sessions, you have to define feedback individually for each session. Refer to “Feedback mechanism” on page 88.

Example 1:

```
?  
- User Commands -
help  xcommand  xconfiguration  xevent  xfeedback
xgetxml  xpreferences  xstatus  bye  echo
log  systemtools
OK
```

xPreferences
The xPreferences command is used to set preferences for the RS-232, Telnet and SSH sessions. Refer to “API output” on page 81.

Echo <on/off>
If echo is set to On the key inputs are displayed when entering text in a command line interface.
If echo is set to Off user input is not displayed when entering text in a command line interface.

xEvent
The xEvent command returns information on which events are available for feedback. Refer to “Events” on page 87.

xGetxml
The xGetxml request returns an XML document based on the location parameter attached to the request. The elements (or a complete document) matching the expression will be returned. Refer to “Feedback mechanism” on page 88.

Other commands

Systemtools
The systemtools commands are a set of command line tools for administrative control and diagnostics. The commands can be used for advanced troubleshooting together with Cisco technical support. Systemtools are not a part of the programming API. Refer to “The SystemTools commands” on page 560.

Log
The log command is used to enable advanced logs. It is only used for debugging the device.
Command line shortcuts

If your client supports it, there are some timesaving shortcuts you can use:

- Tab-completion to complete the commands and arguments.
- Arrow up and arrow down keys to navigate your command history.
- <CTRL-a>: Jump to the beginning of the line.
- <CTRL-e>: Jump to the end of the line.
- <CTRL-r>: Incremental command history search.
- <CTRL-w>: Erase the current line.

Searching

You can use // to search for elements anywhere in the status or configuration hierarchy (Example 1).

You can also combine multiple //’s (Example 2).

NOTE: The search shortcuts work well for inspecting the API, but should not be used in applications. We recommend that you always use the complete paths to avoid command ambiguity when upgrading to newer firmware releases.

Example 1:

List all configurations that include words that start with OUT and HDMI:

```bash
xConfiguration //out//hdmi
```

```
*c xConfiguration Audio Output HDMI 1 Level: 0
*c xConfiguration Audio Output HDMI 1 Mode: On
*c xConfiguration Audio Output HDMI 2 Level: 0
*c xConfiguration Audio Output HDMI 2 Mode: Off
** end
```

Example 2:

Get the resolution width of all connected sources for both inputs and outputs:

```bash
xStatus //vid//res//wid
```

```
*s Video Input Source 1 Resolution Width: 1920
*s Video Input Source 2 Resolution Width: 0
*s Video Input Source 3 Resolution Width: 0
*s Video Input Source 4 Resolution Width: 0
*s Video Output Connector 1 Resolution Width: 1920
*s Video Output Connector 2 Resolution Width: 1280
*s Video Output Connector 3 Resolution Width: 1280
** end
```

Value types and formats

The device supports the following value types:

- **Integer values: <x..y>**
  Defines the valid range for an integer input. x = min value, y = max value.
- **Literal values: <X/Y../Z>**
  Defines the possible values for a given configuration.
- **String values: <S: x, y>**
  Defines the valid input for this configuration is a string with minimum length of x and maximum length of y characters. Strings can have rules that further specify their format and length.

Input values that contain spaces need to be quoted

Any values for configurations and commands containing spaces must be enclosed in quotes. Quotes are not necessary for values without spaces.

**Example:**

**Correct:**

```bash
xCommand dial number: "my number contains spaces"
```

**Correct:**

```bash
xCommand dial number: 12345
```

**Incorrect:**

```bash
xCommand dial number: my number contains spaces
```

Case sensitivity

All commands are case-insensitive. All of the following commands will work.

```bash
XCOMMAND DIAL NUMBER: foo@bar.org
xcommand dial number: foo@bar.org
xCommand Dial Number: foo@bar.org
```
Commands
Commands instruct the device to execute actions, such as to dial a number or to search the phone book. All commands start with the prefix `xCommand` followed by a command path.

Writing `xCommand ?` on the command line will list all the top level commands.

To view the complete list of commands and their parameters, write `xCommand ??` on the command line.

Command arguments are key-value pairs.

When issuing a `xCommand`, the command consists of one argument and one required parameter. In this document the command usage is described for all `xCommands`, with both required and optional parameters. The optional parameters are in brackets.

**Example:**
```
xCommand Dial Number: 123
```
**Example:**
```
xCommand is the command prefix. The command to be executed is Dial.
```
The example contains one argument, Number: 123. Number is the key and 123 is its value. The key/value pair is separated with `:`.

Configurations
Configurations are device settings that are persistent across boots. Like commands, also configurations are structured in a hierarchy.

Writing `xCOnfiguration ?` on the command line lists all the top level configurations.

Writing `xCOnfiguration ??` lists all configurations and their value spaces.

Writing `xCOnfiguration` lists all configurations and their current values. To list out only some of the configurations, write `xCOnfiguration` followed by one or more parts of the configuration paths.

**Example: Set the H323 Alias ID**

**Type:**
```
xConfiguration H323 Profile 1 H323Alias ID: "changed@company.com"
```

**Example: Get the H323 Alias ID**

**Type:**
```
xConfiguration H323 Profile 1 H323Alias ID
Result:
*cxConfiguration H323 Profile 1 H323Alias ID: "changed@company.com"
**end
```

Status
A status contains the current state of the device, such as connected calls, the status of the gatekeeper registration, connected inputs and output sources.

Writing `xStatus ?` on the command line lists all top level statuses.

Writing `xStatus` lists all statuses and their current values.

To list out only some of the statuses, write `xstatus` followed by the relevant part of the status path (address expression):
```
xStatus <address expression>
```
Multiline commands

Multiline commands support larger amounts of data as input than the single line commands. Some examples of use are input of in-room control definitions, branding images (base64 encoded), macros, welcome banners, and security certificates.

Multiline command syntax:
```
xCommand <command path> <enter>
<payload> <enter>
.<enter>
```

You enter a multiline command just like any other xAPI command. However, the command waits for you to supply the command payload as input before executing. The format of the payload depends on the command. It can include line breaks.

The command is executed when you enter a separate line containing just a period followed by a line break.

The result returned is OK or ERROR depending on the command being executed successfully or not.

The multiline commands are marked as such in the command descriptions in this guide.

Example: Set up a welcome banner text

Command:
```
xCommand SystemUnit WelcomeBanner Set
Hello!
This is the second line of text.
This is the third.
Thank you!
.
```

Command result:
```
OK
*r WelcomeBannerSetResult (status=OK):
** end
```
Synchronous API calls

The API works asynchronously. This means that there is no guarantee that command responses arrive in the same order as the commands were issued. The device may also respond with feedback between your request and the response, in form of status changes or events, due to changes on the device.

For some applications it might be crucial to match requests with responses. The API therefore supports a response-tagging mechanism.

This mechanism works with all command types: xcommand, xconfiguration, and xstatus. A typical use of this would be to create a command queue in your application and assign unique IDs to every command sent to the device. A listener then listens to all feedback from the device and matches the ID on the response with the corresponding ID in the command queue. This enables matching the original request with the specific response.

### Example:

```text
xcommand Video Layout Add | resultId="mytag_1"
OK

*r VideoLayoutAddResult (status=OK):
  LayoutId: 1
  ** resultId: "mytag_1"
  ** end

In XML mode the resultId is added as an attribute to the top-level XmlDoc tag:

```xml
xgetxml /Configuration/Video/Layout/Scaling | resultId="mytag_2"
<XmlDoc resultId="mytag_2">
  <Configuration item="1">
    <Video item="1">
      <Layout item="1">
        <Scaling item="1" valueSpaceRef="...">Off</Scaling>
      </Layout>
    </Video>
  </Configuration>
</XmlDoc>
```
Events

Event returns information about the events that are available for feedback. This overview presents examples of some of the events that are available on the API.

To get an overview of the supported events:
- **xEvent** - Lists the top level events
- **xEvent <top level category>** - List all of the available events in that category
- **xEvent * - Lists all available events on that device

The result for events depends on the state of the device.

Example 1: Outgoing Call Indication
Outgoing Call Indication is an event reported when an outgoing call is about to be dialed. Returns the CallId the call has been assigned.

```plaintext
*e OutgoingCallIndication CallId: x
** end
```

Example 2: Call Disconnect
Call Disconnect is an event reported when a call is disconnected. Returns the CallId of the disconnected call and reason for the call's disconnection.

```plaintext
*e CallDisconnect CallId: x CauseValue: 0
  CauseString: "" CauseType: LocalDisconnect
  OrigCallDirection: "outgoing"
** end
```

Example 3: Call Successful
Call Successful is an event reported when a call is connected successfully, that is when all channels are up and established.

```plaintext
*e CallSuccessful CallId: 132 Protocol: "h223"
  Direction: "outgoing" CallRate: 768 RemoteURI:
  "h223:integratorHQ@company.com" EncryptionIn:
  "Off" EncryptionOut: "Off"
** end
```

Example 4: FECC Action request
FECC Action request is an event reported when far end is sending FECC commands.

```plaintext
*e FeccActionInd Id: 132 Req: 1 Pan: 1 PanRight:
  1 Tilt: 0 TiltUp: 0 Zoom: 0 ZoomIn: 0 Focus: 0
  FocusIn: 0 Timeout: 300 VideoSrc: 0 m: 0
** end
```

Example 5: TString message received
TString message received is an event reported when far end has sent a TString message.

```plaintext
*e TString CallId: 132 Message: "ee"
** end
```

Example 6: SString message received
SString message received is an event reported when far end has sent a SString message.

```plaintext
*e SString String: "ee" Id: 132
** end
```
Feedback mechanism

To build solutions that can reliably keep the state between your application and the device synchronized, you can set up a notification system to report the changes in the state of the device.

The API supports notifications on the following:
- Configuration changes
- Status changes
- Event notifications

These notifications will not be sent unless you have explicitly told the device to do so. You can subscribe to the feedback by registering feedback expressions. How you register feedback expressions varies according to the connection method used.

Feedback expressions

The expression used when registering for feedback is a variant of the XPath language. The XPath language describes a way to select nodes from an XML/JSON document. The CE software contains three main feedback documents.

<table>
<thead>
<tr>
<th>Document</th>
<th>API command</th>
<th>Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>xStatus</td>
<td>/Status</td>
</tr>
<tr>
<td>Configuration</td>
<td>xConfiguration</td>
<td>/Configuration</td>
</tr>
<tr>
<td>Event</td>
<td>xEvent</td>
<td>/Event</td>
</tr>
</tbody>
</table>

The syntax for feedback registering is:

```
xFeedback register <path>
```

Never register for all status feedback by issuing `xFeedback register /Status`.

Never register for all status feedback by issuing `xFeedback register /Status`. This may give the control application too much data to handle, which may lead to sluggish or unpredictable behavior.

By going through some examples, we can see how this information can be used to build feedback expressions. A good way to verify the expressions is to point your browser to `http://<ip-address>/getxml?location=path` or to execute `xgetxml <path>` from the terminal, and check that the output matches the nodes you want feedback on.

WARNING: A device may give very much feedback, especially when calls are connected and disconnected. Do only subscribe to the feedback you need.

Example 1: Microphones Mute status

Terminal query

```
xStatus Audio Microphones Mute
*s Audio Microphones Mute: Off
** end
```

Equivalent feedback expression

```
xFeedback register /Status/Audio/Microphones/Mute
```

Example 2: Name of all video input connectors

Terminal query

```
xConfiguration Video Input Connector Name
%c xConfiguration Video Input Connector 1 Name: "NameA"
%c xConfiguration Video Input Connector 2 Name: "NameB"
%c xConfiguration Video Input Connector 3 Name: "NameC"
%c xConfiguration Video Input Connector 4 Name: "NameD"
%c xConfiguration Video Input Connector 5 Name: "NameE"
** end
```

Equivalent feedback expression

```
xFeedback register /Configuration/Video/Input/Connector/Name
```

Example 3: Name of video input connector 3

Terminal query

```
xConfiguration Video Input Connector 3 Name
%c xConfiguration Video Input Connector 3 Name: "NameC"
** end
```

Equivalent feedback expression

```
xFeedback register /Configuration/Video/Input/Connector[@item='3']/Name
```
Terminal connections

Managing feedback subscriptions
To register, list and deregister feedback expressions you use the command `xFeedback` and its corresponding sub commands.

The registered expressions are only valid for the currently active connection. If you open two Telnet sessions and register to get feedback in one session, you do not receive feedback in the other session. This also means that if you disconnect from a session, you have to re-register all expressions after reconnecting.

You can register up to 38 expressions.

Feedback output
The feedback output is exactly the same as you get when querying the device using the `xConfiguration` and `xStatus` commands. E.g., if you issue the command `xStatus Standby Active` on the command line the result is:

```
*s Standby Active: On
** end
```

If you have registered for feedback on status changes the feedback you get when the device goes to standby-mode will be exactly the same:

```
*s Standby Active: On
** end
```

This means that when you are programming against the device you only need to handle one format.

Example: Managing feedback subscriptions
A: Register feedback expressions.
Write in: `xFeedback register /Status/Audio`
Result: ** end
        OK

Write in: `xFeedback register /Event/CallDisconnect`
Result: ** end
        OK

Write in: `xFeedback register /Configuration/Video/MainVideoSource`
Result: ** end
        OK

B: List out currently registered expressions.
Write in: `xFeedback list`
Result:
```
/Configuration/Video/MainVideoSource
/Event/CallDisconnect
/Status/Audio
** end
OK
```

C: Deregister feedback expressions.
Write in: `xFeedback deregister /Event/CallDisconnect`
Result: ** end
        OK

Write in: `xFeedback deregister /Status/Audio`
Result: ** end
        OK

D: List the new feedback expressions.
Write in: `xFeedback list`
Result:
```
/Configuration/Video/MainVideoSource
** end
OK
```
Using HTTP

The device supports sending commands and configurations over HTTP and HTTPS. It is also possible to retrieve configurations and statuses this way. This interface exposes the same API as the command line, but in XML format.

HTTP XMLAPI Authentication

Access to the XMLAPI requires the user to authenticate using HTTP Basic Access Authentication as a user with 'ADMIN' role. Unauthenticated requests prompt a 401 HTTP response containing a Basic Access Authentication challenge. How to use HTTP Basic Access Authentication varies according to the HTTP library or tool that you are using.

If your application will be issuing multiple commands through the API, we highly recommend that you use Session Authentication (see below). The standard basic authentication does a full re-authentication per request, which may affect the performance of your application.

HTTP XMLAPI Session Authentication

Authenticating with your username and password combination for each API request might introduce too much latency for some use-cases. To mitigate this, the API supports a session-based authentication mechanism.

To open a session, issue a POST to http://<ip-address>/xmlapi/session/begin with Basic Access Authentication. The response sets a SessionId-cookie that can be used with subsequent requests.

Note that when using API Session Authentication, it is important to explicitly close the session when you are done. Failing to do so may cause the device to run out of sessions, as there are a limited number of concurrent sessions available, and they do not time out automatically.

URL cheat sheet

The following table contains the main URLs used when accessing the API over HTTP.

<table>
<thead>
<tr>
<th>Method</th>
<th>URL</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GET</td>
<td>http://&lt;ip-address&gt;/status.xml</td>
<td>Complete status document</td>
</tr>
<tr>
<td>GET</td>
<td>http://&lt;ip-address&gt;/configuration.xml</td>
<td>Complete configuration document</td>
</tr>
<tr>
<td>GET</td>
<td>http://&lt;ip-address&gt;/command.xml</td>
<td>Complete command document</td>
</tr>
<tr>
<td>GET</td>
<td>http://&lt;ip-address&gt;/valuespace.xml</td>
<td>Complete valuespace document</td>
</tr>
<tr>
<td>GET</td>
<td>http://&lt;ip-address&gt;/getxml?location=&lt;path&gt;</td>
<td>Retrieve document based on a path</td>
</tr>
<tr>
<td>POST</td>
<td>http://&lt;ip-address&gt;/putxml</td>
<td>Configurations and commands in HTTP body</td>
</tr>
</tbody>
</table>

Example: Starting a HTTP XMLAPI session

Request:

```plaintext
POST /xmlapi/session/begin HTTP/1.1
Authorization: Basic <Base64 encoded authentication string>
```

Response:

```plaintext
HTTP/1.1 204 No Content
Server: nginx/1.8.0
Connection: keep-alive
Set-Cookie: SessionId=f08102c8ce5aaf8fba23a7238cc2ef46b990e18fbb7f048820c0e28955c54; Path=/HttpOnly
```

This session counts toward the device’s concurrent sessions limit.

With an open session, provide the SessionId cookie to following requests. Your tool/library may do this automatically.

Example: Using a HTTP XMLAPI session

Request:

```plaintext
GET /configuration.xml HTTP/1.1
Cookie: SessionId=f08102c8ce5aaf8fba23a7238cc2ef46b990e18fbb7f048820c0e28955c54
```

Response:

```plaintext
HTTP/1.1 200 OK
Server: nginx/1.8.0
Content-Type: text/xml; charset=UTF-8
Content-Length: 43549
Connection: keep-alive
<?xml version="1.0"?><Configuration product="Cisco Codec" version="ce8.2.0" apiVersion="4"> ...
```

To close a session after use, issue a POST to http://<ip-address>/xmlapi/session/end with the provided cookie.

Example: Closing a HTTP XMLAPI session

Request:

```plaintext
POST /xmlapi/session/end HTTP/1.1
Cookie: SessionId=f08102c8ce5aaf8fba23a7238cc2ef46b990e18fbb7f048820c0e28955c54
```

Response:

```plaintext
HTTP/1.1 204 No Content
Server: nginx/1.8.0
Connection: keep-alive
Set-Cookie: SessionId=; Max-Age=0; Path=/HttpOnly
```
Getting status and configurations

Example 1: Get all status entries on the device
http://<ip-address>/getxml?location=/Status

Example 2: Get just the audio statuses of the device
http://<ip-address>/getxml?location=/Status/Audio

Example 3: Get all configurations of the device
http://<ip-address>/getxml?location=/Configuration

Example 4: Get all video configurations of the device
http://<ip-address>/getxml?location=/Configuration/Video

Sending commands and configurations

Using HTTP POST

When sending configurations and commands to the device, it is important that the HTTP header Content-Type is set to text/xml, i.e. Content-Type: text/xml. The body of the POST should contain the XML content.

Example 2: Setting the camera position

Request
POST /putxml HTTP/1.1
Content-Type: text/xml

<?xml version="1.0"?>
<Command>
  <Camera>
    <PositionSet command="true">
      <CameraId>1</CameraId>
      <Pan>200</Pan>
      <Tilt>200</Tilt>
    </PositionSet>
  </Camera>
</Command>

Response
HTTP/1.1 200 OK
Content-Type: text/xml
Content-Length: 91

<?xml version="1.0"?>
<Command>
  <CameraPositionSetResult item="1" status="OK"/>
</Command>

Example 1: Changing the device name

Request
POST /putxml HTTP/1.1
Content-Type: text/xml

<?xml version="1.0"?>
<Configuration>
  <SystemUnit>
    <Name>newName</Name>
  </SystemUnit>
</Configuration>
Feedback from the device over HTTP

You can get the device to post HTTP feedback messages (also known as webhooks) on changes to the API state, e.g. statuses, events and configuration updates. The HTTP Post feedback messages will be sent to the specified ServerURL. You can choose between events being posted in either XML or JSON format. You can subscribe to changes on multiple parts of the API by register up to 15 different feedback expressions.

Registering for feedback

The command for registering is `xCommand HttpFeedback Register`. The syntax for this command and its arguments are described in this section.

HttpFeedback Register syntax:

```
xCommand HttpFeedback Register
  FeedbackSlot: <1..4>
  ServerUrl(r): <S: 1, 2048>
  Format: <XML/JSON>
  Expression: <S: 1, 255>
  Expression: <S: 1, 255>
  Expression: <S: 1, 255>
  Expression: <S: 1, 255>
  Expression: <S: 1, 255>
  Expression: <S: 1, 255>
  Expression: <S: 1, 255>
  Expression: <S: 1, 255>
```

HttpFeedback Register arguments:

- **FeedbackSlot**: The device can register up to 4 slots of servers requesting HTTP feedback. Set the registering to one of them.
- **ServerUrl**: The URL to the HTTP server where you want the device to post the HTTP feedback messages to.
- **Format**: Set the format for the feedback from the HTTP server to XML or JSON.
- **Expression 1-15**: The XPath expression specifies which parts of the Status, Configuration or Event documents are monitored. You can have from 1 to 15 XPath expressions. Register the expressions you want to receive feedback on. See “Feedback mechanism” on page 88 for more information about the expression formats.

Example: Registering feedback on configuration changes, disconnect events and call status changes.

```
POST /putxml HTTP/1.1
Content-Type: text/xml

<Command>
  <HttpFeedback>
    <Register command="True">
      <FeedbackSlot>1</FeedbackSlot>
      <ServerUrl>http://127.0.0.1/myhtttppostscripturl</ServerUrl>
      <Format>XML</Format>
      <Expression item="1">/Configuration</Expression>
      <Expression item="2">/Event/CallDisconnect</Expression>
      <Expression item="3">/Status/Call</Expression>
    </Register>
  </HttpFeedback>
</Command>
```

Feedback output

When the device notifies the registered HTTP server about changes, the body contains the same XML as when polling. There is however one small difference. The root-node contains an Identification node with children that specify the device from which the notification originated. This means that you can handle multiple devices with a single HTTP server URI.

Example: Audio volume changed.

```
<Configuration xmlns="http://www.company.com/XML/CUIL/2.0">
  <Identification>
    <SystemName>My Device Name</SystemName>
    <MACAddress>00:00:de:ad:be:ef</MACAddress>
    <IPAddress>192.168.1.100</IPAddress>
    <ProductType>Cisco Codec</ProductType>
    <ProductID>Cisco Codec SX80</ProductID>
    <SWVersion>CE8.3.0.199465</SWVersion>
    <HWBoard>101401-5 [08]</HWBoard>
    <SerialNumber>PH00000000</SerialNumber>
  </Identification>
  <Audio item="1">
    <Volume item="1">60</Volume>
  </Audio>
</Configuration>
```
Translating from terminal mode to XML

Translating commands
The XML commands maintain the same structure as the terminal commands, but they use a parent-child relationship to describe the hierarchy. You can see this structure in the examples below.

Example 1: Setting up a call
Terminal
xCommand Dial Number: “12345” Protocol: H323
XML
<Command>
  <Dial command="True">
    <Number>12345</Number>
    <Protocol>H323</Protocol>
  </Dial>
</Command>

Example 2: Assigning volume level
Terminal
xCommand Audio Volume Set Level: 50
XML
<Command>
  <Audio>
    <Volume>
      <Set command="True">
        <Level>50</Level>
      </Set>
    </Volume>
  </Audio>
</Command>

Translating configurations
Translating from xConfiguration to XML is similar to commands, but with the addition of a special attribute item="NN" for specifying the index in arrays.

Example: Configuring the input source type for video input connector 2
Terminal
xConfiguration Video Input Connector 2
  InputSourceType: camera
XML
<Configuration>
  <Video>
    <Input>
      <Connector item="2">
        <InputSourceType>camera</InputSourceType>
      </Connector>
    </Input>
  </Video>
</Configuration>
Dos and don’ts

Here are some best practices when programming the Cisco DX, MX, SX, and Room series and Webex Board API.

AVOID remote control emulation

The use of xCommand UserInterface OSD Key Click and xCommand UserInterface OSD Key Press commands is highly discouraged. The commands are still available in the API, but we recommend the use of direct commands, as this ensures backwards compatibility in your integrations. Program against the device, not the on-screen-display.

DO use complete commands

You should always use complete commands when programming, i.e. always use xConfiguration Video instead of xconfvid. The shortcuts can be used for searches in the API on the command line, but not for programming. The reason for this is that you might end up with ambiguous code when additional commands are added to the API.

DO NOT subscribe to unnecessary feedback

Subscribing to too much feedback may congest the control application. Although the amount of feedback may seem fine in the current version, the amount of feedback may grow in future releases.
Chapter 3

xConfiguration commands
In this chapter, you can find a complete list of the xConfiguration commands.

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- xConfiguration Cameras PresenterTrack CameraPosition Pan
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- xConfiguration Cameras SpeakerTrack ConnectorDetection CameraLeft
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- xConfiguration Cameras SpeakerTrack WhiteboardMode

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- xConfiguration BYOD TouchForwarding Enabled

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- xConfiguration CallHistory Mode

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- xConfiguration Conference DefaultCall Rate
- xConfiguration Conference DoNotDisturb DefaultTimeout
- xConfiguration Conference Encryption Mode
- xConfiguration Conference FarEndControl Mode
- xConfiguration Conference FarEndControl SignalCapability
- xConfiguration Conference FarEndMessage Mode
- xConfiguration Conference MaxReceiveCallRate
- xConfiguration Conference MaxTransmitCallRate
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xConfiguration Video Presentation Priority

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xConfiguration Video Selfview Default OnMonitorRole

xConfiguration Video Selfview Default PIPPosition

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xConfiguration Video Selfview OnCall Mode

xConfiguration Video Selfview OnCall Duration

WebEngine configuration

xConfiguration WebEngine Mode

xConfiguration WebEngine RemoteDebugging

xConfiguration WebEngine UseHttpProxy
Audio configuration

xConfiguration Audio DefaultVolume

**Applies to:** All products

Requires user role: ADMIN, INTEGRATOR, USER

Define the default volume for the speakers. The volume is set to this value when you switch on or restart the video conferencing device. Use the controls on the user interface to change the volume while it is running. You may also use API commands (xCommand Audio Volume) to change the volume while the device is running, and to reset to default value.

**USAGE:**
xConfiguration Audio DefaultVolume: `DefaultVolume`

where

- **DefaultVolume:**
  - **Range:** Integer (0..100)
  - **Range:** Select a value between 1 and 100. This corresponds to the dB range from -34.5 dB to 15 dB, in steps of 0.5 dB. If set to 0 the audio is switched off.
  - **Default value:**
    - 50 (DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro)
    - 70 (Boards)

xConfiguration Audio Input ARC [n] Mode

**Applies to:** CodecPlus CodecPro Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

Each HDMI output has an associated audio return channel (ARC). You can use the ARC to send audio from a screen or TV, which is connected to the HDMI output, to the video conferencing device. You can decide for each HDMI output connector (n) separately, whether or not to allow audio transmission.

**USAGE:**
xConfiguration Audio Input ARC [n] Mode: `Mode`

where

- **n:** Unique ID that identifies the ARC input.
  - **Range:** 1..1 CodecPlus
  - **Range:** 1..3 CodecPro
  - **Range:** 3..3 for Room 70 Dual G2; 2..3 for Room 70 Single G2 Room70G2 RoomPanorama/Room70Panorama

- **Mode:**
  - **Off/On**
    - **Off:** Disable the ARC channel of HDMI output n (audio is not sent to the video conferencing device).
    - **On:** Enable the ARC channel of HDMI output n (audio is sent to the video conferencing device).

- **Default value:** On
xConfiguration Audio Input HDMI [n] Level

Applies to: SX80 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

Requires user role: ADMIN, INTEGRATOR

Set the gain on the HDMI input connector. The gain can be tuned in steps of 1 dB.

**USAGE:**

xConfiguration Audio Input HDMI [n] Level: \[ Level \]

where

- \( n \): Unique ID that identifies the HDMI input.
  
  Range: 1..3 \( [ SX80 ] \)
  
  Range: 2..3 for single camera devices; 3..3 for dual camera devices \( [ MX700/MX800/MX800D ] \)
  
  Range: 2..3 \( [ CodecPlus Room70/Room55D ] \)
  
  Range: 1..5 \( [ CodecPro ] \)
  
  Range: 1..1 \( [ RoomKit RoomKitMini DeskPro ] \)
  
  Range: 1..2 \( [ Room55 ] \)
  
  Range: 2..5 \( [ Room70G2 RoomPanorama/Room70Panorama ] \)

**Level:**

Integer (-24..0)

**Range:** Select the gain in decibel (dB).

Default value: 0

---

xConfiguration Audio Input HDMI [n] Mode

Applies to: SX80 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

Requires user role: ADMIN, INTEGRATOR

Define if the audio on the HDMI input connector shall be enabled.

**USAGE:**

xConfiguration Audio Input HDMI [n] Mode: \[ Mode \]

where

- \( n \): Unique ID that identifies the HDMI input.
  
  Range: 1..3 \( [ SX80 ] \)
  
  Range: 2..3 for single camera devices; 3..3 for dual camera devices \( [ MX700/MX800/MX800D ] \)
  
  Range: 2..3 \( [ CodecPlus Room70/Room55D ] \)
  
  Range: 1..5 \( [ CodecPro ] \)
  
  Range: 1..1 \( [ RoomKit RoomKitMini DeskPro ] \)
  
  Range: 1..2 \( [ Room55 ] \)
  
  Range: 2..5 \( [ Room70G2 RoomPanorama/Room70Panorama ] \)

**Mode:**

Off/On

**Off:** Disable audio on the HDMI input.

**On:** Enable audio on the HDMI input.

Default value:

- On \( [ MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro ] \)

- HDMI [1..2]: Off

- HDMI [3]: On \( [ SX80 ] \)
xConfiguration Audio Input HDMI [n] VideoAssociation MuteOnInactiveVideo

Applies to: SX80 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

Use this setting to decide whether to stop the audio playback of a connected presentation source if that presentation source is not currently shown on-screen, or to always playback the audio as long as the presentation source is connected.

**USAGE:**

```
xConfiguration Audio Input HDMI [n] VideoAssociation MuteOnInactiveVideo: MuteOnInactiveVideo
```

where

- `n`: Unique ID that identifies the HDMI input.
  - Range: 1..3 (SX80)
  - Range: 2..3 for single camera devices; 3..3 for dual camera devices (MX700/MX800/MX800D)
  - Range: 1..5 (CodecPlus Room70/Room55D)
  - Range: 1..2 (CodecPro)
  - Range: 1..1 (RoomKit RoomKitMini)

```
MuteOnInactiveVideo: Off/On
```

**Off**:
- Audio is played, locally and to far end, as long as a presentation source is connected; you do not have to present the HDMI input source.

**On**:
- Audio is played, locally and to far end, only when the connected presentation source is shown on-screen.

Default value:

- **Off**:
  - SX80 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D
  - Room70G2 RoomPanorama/Room70Panorama

- **On**:
  - CodecPlus Room70/Room55D

xConfiguration Audio Input Line [n] Equalizer ID

Applies to: SX80 MX700/MX800/MX800D

Requires user role: ADMIN, INTEGRATOR

Select the equalizer ID of the audio source that is connected to the line input.

**USAGE:**

```
xConfiguration Audio Input Line [n] Equalizer ID: ID
```

where

- `n`: Unique ID that identifies the audio line input.
  - Range: 1..4

```
ID: Integer (1..8)
```

- Set the equalizer ID.
  - Default value:
    - 1

xConfiguration Audio Input Line [n] Equalizer Mode

Applies to: SX80 MX700/MX800/MX800D

Requires user role: ADMIN, INTEGRATOR

Define the equalizer mode for the audio source that is connected to the line input.

**USAGE:**

```
xConfiguration Audio Input Line [n] Equalizer Mode: Mode
```

where

- `n`: Unique ID that identifies the audio line input.
  - Range: 1..4

```
Mode: Off/On
```

- **Off**:
  - No equalizer.
- **On**:
  - Enable the equalizer for the audio source that is connected to the line input.

Default value:

- **Off**
xConfiguration Audio Input Line [n] VideoAssociation MuteOnInactiveVideo

Applies to: SX20 SX80 MX700/MX800/MX800D
Requires user role: ADMIN, INTEGRATOR

The audio source can be associated with a video source on the video input connector, and you can determine whether to play or mute audio depending on whether the video source is presented or not.

**USAGE:**
xConfiguration Audio Input Line [n] VideoAssociation MuteOnInactiveVideo:

MuteOnInactiveVideo

where

n: Unique ID that identifies the audio line input.
  Range: 1..4 [SX80 MX700/MX800/MX800D]
  Range: 1..1 [SX20]

MuteOnInactiveVideo:

Off/On

Off: The audio source is not associated with a video source. The audio will be played locally and to far end regardless of whether the video source is presented.

On: The audio source is associated with a video source. The audio will be played (locally and to far end) when the associated video source is presented. The audio will be muted when the video source is not presented.

Default value:

Line [1, 2]: On Line [3, 4]: Off [SX80 MX700/MX800/MX800D]
On [SX20]

---

xConfiguration Audio Input Line [n] VideoAssociation VideoInputSource

Applies to: SX20 SX80 MX700/MX800/MX800D
Requires user role: ADMIN, INTEGRATOR

The audio source can be associated with a video source on the video input connector.

**USAGE:**
xConfiguration Audio Input Line [n] VideoAssociation VideoInputSource:

VideoInputSource

where

n: Unique ID that identifies the audio line input.
Range: 1..4 [SX80 MX700/MX800/MX800D]
Range: 1..1 [SX20]

VideoInputSource:

1/2/3/4 [SX80 MX700/MX800/MX800D]
1/2 [SX20]

Select the video input connector to associate the audio source with.

Default value:

Line [1, 2]: 4 Line [3, 4]: 1 [SX80 MX700/MX800/MX800D]
2 [SX20]
xConfiguration Audio Input Line [n] Channel

Applies to: SX80 MX700/MX800/MX800D
Requires user role: ADMIN, INTEGRATOR

Define whether the audio source on the line input is a mono signal or part of a multichannel signal.

**USAGE:**
xConfiguration Audio Input Line [n] Channel: **Channel**

where

- **n**: Unique ID that identifies the audio line input.
  Range: 1..4

**Channel:**

- **Left/Mono/Right**
  - **Left**: The Audio Line input signal is the left channel of a stereo signal.
  - **Mono**: The Audio Line input signal is a mono signal.
  - **Right**: The Audio Line input signal is the right channel of a stereo signal.

Default value: **Left**

---

xConfiguration Audio Input Line [n] Level

Applies to: SX80 MX700/MX800/MX800D
Requires user role: ADMIN, INTEGRATOR

Set the gain on the Line input connector. The gain should be adjusted to suit the output level of the connected audio source. The gain can be tuned in steps of 1 dB. If the gain is set too high, the audio signal will be clipped. If the gain is set too low, the audio signal-to-noise ratio will be degraded; however, this is usually preferable to clipping.
The maximum input level with 0 dB gain is 22 dBu.
Example: If your audio source has a maximum output level of 8 dBu, then you should set the gain to 22 dBu - 8 dBu = 14 dB.

**USAGE:**
xConfiguration Audio Input Line [n] Level: **Level**

where

- **n**: Unique ID that identifies the audio line input.
  Range: 1..4

**Level:**

- **Integer (0..24)**

Default value: **10**
xConfiguration Audio Input Line [n] Mode
Applies to: SX80, MX700/MX800/MX800D
Requires user role: ADMIN, INTEGRATOR

Define the mode for the audio input line.

**USAGE:**

```text
xConfiguration Audio Input Line [n] Mode: Mode
```

where

- **n**: Unique ID that identifies the audio line input.
  - Range: 1..4
- **Mode**
  - **Off/On**
  - **Off**: Disable the Audio Line input.
  - **On**: Enable the Audio Line input.

Default value: **On**

---

xConfiguration Audio Input Microphone [n] Channel
Applies to: CodecPro, Room70G2, RoomPanorama/Room70Panorama
Requires user role: ADMIN, INTEGRATOR

Define whether the signal on the microphone input is a mono signal or part of a multichannel signal.

**USAGE:**

```text
xConfiguration Audio Input Microphone [n] Channel: Channel
```

where

- **n**: Unique ID that identifies the microphone input.
  - Range: 1..8
- **Channel**
  - **Left/Mono/Right**
  - **Left**: The microphone input signal is the left channel of a stereo signal.
  - **Mono**: The microphone input signal is a mono signal.
  - **Right**: The microphone input signal is the right channel of a stereo signal.

Default value: **Mono**
xConfiguration Audio Input Microphone [n] EchoControl Mode

Applies to: SX10 SX20 SX80 MX700/MX800/MX800D RoomKit CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

The echo canceller continuously adjusts itself to the audio characteristics of the room, and compensates for any changes it detects in the audio environment. If the changes in the audio conditions are significant, the echo canceller may take a second or two to re-adjust.

**USAGE:**

```
xConfiguration Audio Input Microphone [n] EchoControl Mode: Mode
```

**where**

- **n**: Unique ID that identifies the microphone input.
  - Range: 1..8 [ SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama ]
  - Range: 1..2 [ SX20 ]
  - Range: 2..2 [ SX10 ]
  - Range: 1..3 [ CodecPlus Room70/Room55D ]
  - Range: 2..3 [ RoomKit Room55 ]

- **Mode**: Off/On
  - **Off**: Turn off the echo control. Recommended if external echo cancellation or playback equipment is used.
  - **On**: Turn on the echo control. Recommended, in general, to prevent the far end from hearing their own audio. Once selected, echo cancellation is active at all times.

Default value:

- **On**

---

xConfiguration Audio Input Microphone [n] EchoControl Dereverberation

Applies to: SX10 SX20 SX80 MX700/MX800/MX800D RoomKit CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

The video conferencing device has built-in signal processing to reduce the effect of room reverberation. Dereverberation requires that Audio Input Microphone [n] EchoControl Mode is enabled.

**USAGE:**

```
xConfiguration Audio Input Microphone [n] EchoControl Dereverberation: Dereverberation
```

**where**

- **n**: Unique ID that identifies the microphone input.
  - Range: 1..8 [ SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama ]
  - Range: 1..2 [ SX20 ]
  - Range: 2..2 [ SX10 ]
  - Range: 1..3 [ CodecPlus Room70/Room55D ]
  - Range: 2..3 [ RoomKit Room55 ]

- **Dereverberation**: Off/On
  - **Off**: Turn off the dereverberation.
  - **On**: Turn on the dereverberation.

Default value:

- **Off**
xConfiguration Audio Input Microphone [n] EchoControl NoiseReduction

 Applies to: SX10 SX20 SX80 MX700/MX800/MX800D RoomKit CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama
 Requires user role: ADMIN, INTEGRATOR

The video conferencing device has built-in noise reduction, which reduces stationary background noise, for example noise from air-conditioning systems, cooling fans etc. In addition, a high pass filter (Humfilter) reduces very low frequency noise. Noise reduction requires that Audio Input Microphone [n] EchoControl Mode is enabled.

**USAGE:**

```bash
xConfiguration Audio Input Microphone [n] EchoControl NoiseReduction: NoiseReduction
```

where

- n: Unique ID that identifies the microphone input.
  - Range: 1..8 [ SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama ]
  - Range: 1..2 [ SX20 ]
  - Range: 2..2 [ SX10 ]
  - Range: 1..3 [ CodecPlus Room70/Room55D ]
  - Range: 2..3 [ RoomKit Room55 ]

**NoiseReduction:**

- Off/On
  - Off: Turn off the noise reduction.
  - On: Turn on the noise reduction. Recommended in the presence of low frequency noise.

Default value:

```bash
On
```

xConfiguration Audio Input Microphone [n] Equalizer ID

 Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
 Requires user role: ADMIN, INTEGRATOR

Select the equalizer ID of the source that is connected to the microphone input.

**USAGE:**

```bash
xConfiguration Audio Input Microphone [n] Equalizer ID: ID
```

where

- n: Unique ID that identifies the microphone input.
  - Range: 1..8
- ID: Integer (1..8)
  - Set the equalizer ID.
  - Default value:
    ```bash
    1
    ```

xConfiguration Audio Input Microphone [n] Equalizer Mode

 Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
 Requires user role: ADMIN, INTEGRATOR

Define the equalizer mode for the source that is connected to the microphone input.

**USAGE:**

```bash
xConfiguration Audio Input Microphone [n] Equalizer Mode: Mode
```

where

- n: Unique ID that identifies the microphone input.
  - Range: 1..8
- Mode: Off/On
  - Off: No equalizer.
  - On: Enable the equalizer for the source that is connected to the microphone input.

Default value:

```bash
Off
```
xConfiguration Audio Input Microphone [n] Level

Applies to: SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

Set the gain on the Microphone input connector. The gain should be adjusted to suit the output level of the connected audio source. The gain can be tuned in steps of 1 dB.

If the gain is set too high, the audio signal will be clipped. If the gain is set too low, the audio signal-to-noise ratio will be degraded; however, this is usually preferable to clipping.

Note that unprocessed speech signals typically contain significant level variations, making it very important to allow for sufficient signal headroom.

The maximum input level with 0 dB gain differs depending on the product: -18 dBu (SX10, SX20, MX200G2/MX300G2, Room Kit, Codec Plus, Room 55, Room 70, Room 55 Dual), 22 dBu (SX80, MX700/MX800), 24 dBu (Codec Pro, Room 70 G2).

Example: If your microphone has a maximum output level of -44 dBu, and it is connected to an SX80, then you should set the gain to 22 dBu - (-44 dBu) = 66 dB.

**USAGE:**
xConfiguration Audio Input Microphone [n] Level: Level

where

- **n**: Unique ID that identifies the microphone input.
  
  - Range: 1..8  [ SX80  MX700/MX800/MX800D  CodecPro  Room70G2  RoomPanorama/Room70Panorama ]
  
  - Range: 1..2  [ SX20 ]
  
  - Range: 1..3  [ SX10  CodecPlus  Room70/Room55D ]
  
  - Range: 2..3  [ MX200G2/MX300G2  RoomKit  Room55 ]

- **Level**: Integer (0..26)  [ RoomKit  Room55 ]
  
  - Integer (0..24)  [ SX10  SX20  MX200G2/MX300G2  CodecPlus  Room70/Room55D ]
  
  - Integer (0..70)  [ SX80  MX700/MX800/MX800D  CodecPro  Room70G2  RoomPanorama/Room70Panorama ]

- **Range**: Select the gain in decibel (dB).

  Default value:
  
  - On: 14  [ SX20  MX200G2/MX300G2  RoomKit  CodecPlus  Room55  Room70/Room55D ]
  
  - 17  [ SX10 ]
  
  - 58  [ SX80  MX700/MX800/MX800D  CodecPro  Room70G2  RoomPanorama/Room70Panorama ]

xConfiguration Audio Input Microphone [n] Mode

Applies to: SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

Disable or enable audio on the microphone connector.
SX10, MX200 G2, MX300 G2, Room Kit, Room Kit Mini, Room 55: Microphone [1] is the device’s internal microphone.

**USAGE:**
xConfiguration Audio Input Microphone [n] Mode: Mode

where

- **n**: Unique ID that identifies the microphone input.

  - Range: 1..8  [ SX80  MX700/MX800/MX800D  CodecPro  Room70G2  RoomPanorama/Room70Panorama ]
  
  - Range: 1..2  [ SX10  SX20 ]
  
  - Range: 1..3  [ RoomKit  CodecPlus  Room55  Room70/Room55D ]
  
  - Range: 1..1  [ MX200G2/MX300G2 ]

- **Mode**: Off/On

  - Off: Disable the audio input microphone connector.
  
  - On: Enable the audio input microphone connector.

  Default value:

  - On
xConfiguration Audio Input Microphone [n] Type

Applies to: SX80/MX700/MX800/MX800D

Requires user role: ADMIN, INTEGRATOR

The microphone connectors are intended for electret type microphones. The microphone connector can be set to Line or Microphone type. The pre-amplification gain is fully determined by the Audio Input Microphone Level setting. There is no limitation of the adjustment range caused by the chosen type.

**USAGE:**

xConfiguration Audio Input Microphone [n] Type: Type

where

n: Unique ID that identifies the microphone input.
Range: 1..8

Type:

- **Line/Microphone**
- **Microphone**: Select Microphone if your input source requires 48 V phantom power to operate.
- **Line**: Select Line if 48 V phantom power is not required or desired for correct operation.

Default value:

- Microphone

xConfiguration Audio Input Microphone [n] PhantomPower

Applies to: CodecPro Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

Define whether or not to have phantom power (48 V +/- 1 V) on the microphone input.

**USAGE:**

xConfiguration Audio Input Microphone [n] PhantomPower

where

n: Unique ID that identifies the microphone input.
Range: 1..8

PhantomPower:

- **Off/On**
- **Off**: Disable the phantom power on the microphone input. Use this when connecting to equipment that do not need phantom power, such as external mixers.
- **On**: Enable the phantom power on the microphone input. Use this when connecting directly to microphones that require phantom power, including the Cisco Table Microphone and Cisco Ceiling Microphone.

Default value:

- On
xConfiguration Audio Input Microphone [n] VideoAssociation
MuteOnInactiveVideo

Applies to: SX80 MX700/MX800/MX800D CodecPro
Requires user role: ADMIN, INTEGRATOR

The microphone can be associated with a video source on the video input connector, and you can determine whether to play or mute audio depending on whether the video source is presented or not. By default, audio is not muted.

**Usage:**
xConfiguration Audio Input Microphone [n] VideoAssociation MuteOnInactiveVideo:
MuteOnInactiveVideo

where
n: Unique ID that identifies the microphone input.
Range: 1..8
MuteOnInactiveVideo:

Off/On
Off: No video source is associated.
On: A video source is associated, and the audio will be muted if the associated video source is not displayed.
Default value:
On

xConfiguration Audio Input Microphone [n] VideoAssociation
VideoInputSource

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, INTEGRATOR

Select the video input connector to associate the audio source with.

**Usage:**
xConfiguration Audio Input Microphone [n] VideoAssociation VideoInputSource:
VideoInputSource

where
n: Unique ID that identifies the microphone input.
Range: 1..8
VideoInputSource:

1/2/3/4 { SX80 MX700/MX800/MX800D }
1/2/3/4/5/6 { CodecPro Room70G2 RoomPanorama/Room70Panorama }
Select the video input connector to associate the audio source with.
Default value:
1
xConfiguration Audio Input MicrophoneMode

**Applies to:** DX70/DX80 DeskPro
**Requires user role:** ADMIN, INTEGRATOR

This setting does not apply to DX70.

If the microphone mode is Focused, the microphones can be combined to focus sound sensitivity. As a result, the noise in the room is suppressed, and you can be heard better when sitting right in front of the device. The voice of people not sitting right in front of the device will be suppressed.

If the microphone mode is Wide, the device behaves like any other device. The voice of people sitting beside you will be heard, and also more noise from the room.

We recommend that you use Focused mode when you are the only speaker. Use Wide mode when several speakers are in front of the device.

**USAGE:**

```
xConfiguration Audio Input MicrophoneMode: MicrophoneMode
where
MicrophoneMode: Focused/Wide
   Focused: Focused sound sensitivity, suppressing sound from sources that are not right in front of the device.
   Wide: Default microphone operation with normal sound sensitivity.
Default value: Wide
```

xConfiguration Audio Input USBC[n] Level

**Applies to:** DeskPro
**Requires user role:** ADMIN, INTEGRATOR

Set the USB-C audio level.

**USAGE:**

```
xConfiguration Audio Input USBC[n] Level: Level
where
   n: Unique ID that identifies the USBC input.
   Range: 1..1
   Level: Integer (-24..0)
   The audio level, between -24 and 0 decibels.
   Default value: 0
```

xConfiguration Audio Input USBC[n] Mode

**Applies to:** DeskPro
**Requires user role:** ADMIN, INTEGRATOR

Set the USB-C audio mode.

**USAGE:**

```
xConfiguration Audio Input USBC[n] Mode: Mode
where
   n: Unique ID that identifies the USBC input.
   Range: 1..1
   Mode: Off/On
   On: Allow audio from the USB-C.
   Off: Do not allow any audio from the USB-C.
Default value: On
```

xConfiguration Audio Input USBC[1] Level

**Applies to:** DeskPro
**Requires user role:** ADMIN, INTEGRATOR

Set the USB-C audio level.

**USAGE:**

```
xConfiguration Audio Input USBC[1] Level: Level
where
   n: Unique ID that identifies the USBC input.
   Range: 1..1
   Level: Integer (-24..0)
   The audio level, between -24 and 0 decibels.
   Default value: 0
```

xConfiguration Audio Input USBC[1] Mode

**Applies to:** DeskPro
**Requires user role:** ADMIN, INTEGRATOR

Set the USB-C audio mode.

**USAGE:**

```
xConfiguration Audio Input USBC[1] Mode: Mode
where
   n: Unique ID that identifies the USBC input.
   Range: 1..1
   Mode: Off/On
   On: Allow audio from the USB-C.
   Off: Do not allow any audio from the USB-C.
Default value: On
```
xConfiguration Audio Input WebView[n] Mode

Applies to: CodecPro Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, INTEGRATOR

Set the WebView mode.

**USAGE:**
xConfiguration Audio Input WebView[n] Mode: Mode

where

n: Unique ID that identifies the WebView input.
  Range: 1..1

Mode:
  Off/On
  On: Allow audio from the web browser.
  Off: Do not allow any audio to be played from the web browser.

Default value: On

xConfiguration Audio KeyClickDetector Attenuate

Applies to: RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN, INTEGRATOR, USER

The device can detect clicking noise from a keyboard and automatically attenuate the microphone signal. This is useful when a meeting participant starts typing on the keyboard, because the noise can disturb the other participants. If the participant types on the keyboard and speaks at the same time the microphone signal will not be attenuated. Requires that the Audio KeyClickDetector Enabled setting is set to On.

**USAGE:**
xConfiguration Audio KeyClickDetector Attenuate: Attenuate

where

Attenuate:
  False/True
  False: The attenuation of the microphone signal is disabled.
  True: The device attenuates the microphone signal if clicking noise from keyboards is detected. If voice or voice + keyboard clicks are detected the microphone signal is not attenuated.

Default value: True
xConfiguration Audio KeyClickDetector Enabled

** Applies to:** RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room70D, Room70G2, RoomPanorama, Room70Panorama, DeskPro, Boards

**Requires user role:** ADMIN, INTEGRATOR, USER

The device can detect clicking noise from a keyboard and automatically attenuate the microphone signal. This is useful when a meeting participant starts typing on the keyboard, because the noise can disturb other participants. To enable attenuation on the microphone signal, set the Audio KeyClickDetector Attenuate to On.

**USAGE:**

```
xConfiguration Audio KeyClickDetector Enabled: Enabled
```

where

** Enabled:**

```
False/True
```

**False:** The key click detection is disabled.

**True:** The device will detect clicking noise from keyboards.

Default value:

```
True
```

xConfiguration Audio Microphones AGC

** Applies to:** SX20, RoomKit, CodecPlus

**Requires user role:** ADMIN, INTEGRATOR, USER

Enable or disable Automatic Gain Control (AGC) on the microphones.

**USAGE:**

```
xConfiguration Audio Microphones AGC: AGC
```

where

** AGC:**

```
Off/On
```

**Off:** Disable AGC. Use this when connecting to equipment where AGC is already applied to the microphone signal, like external mixers or DSPs.

**On:** Enable Automatic Gain Control.

Default value:

```
On
```

xConfiguration Audio Microphones Mute Enabled

** Applies to:** DX70/DX80, SX10, SX20, SX80, MX200G2, MX300G2, MX700/MX800/MX800D, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room70D, Room70G2, RoomPanorama, Room70Panorama, DeskPro

**Requires user role:** ADMIN, INTEGRATOR

Define the microphone mute behavior on the device.

**USAGE:**

```
xConfiguration Audio Microphones Mute Enabled: Enabled
```

where

** Enabled:**

```
True/InCallOnly
```

**True:** Muting of audio is always available. In general, the microphone mute LED will not be lit outside of call, but you can still mute using the API commands.

**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 device and is to be available when the device is not in a call. When set to InCallOnly this will prevent the audio-system from being muted by mistake.

Default value:

```
True
```
xConfiguration Audio Microphones PhantomPower

Applies to: SX20  MX200G2/MX300G2  RoomKit  CodecPlus  Room55
Requires user role: ADMIN

Define whether or not to have phantom power (11 V +/- 1 V) on the microphone input.

**USAGE:**

```markdown
xConfiguration Audio Microphones PhantomPower: **PhantomPower**
```

where

- **PhantomPower**
  - **Off/On**
    - **Off**: Disable the phantom power on the microphone input. Use this when connecting to equipment that do not need phantom power, such as external mixers.
    - **On**: Enable the phantom power on the microphone input. Use this when connecting directly to microphones that require phantom power, including the Cisco Table Microphone and Cisco Ceiling Microphone.

Default value:

- **On**

---

xConfiguration Audio MicrophoneReinforcement Input Microphone [n] Mode

Applies to: SX80  MX700/MX800/MX800D
Requires user role: ADMIN, INTEGRATOR

Set the microphone reinforcement mode individually on each microphone. The signals from all microphones with Mode = On will be mixed and fed to the selected MicrophoneReinforcement outputs. Also consult the Audio MicrophoneReinforcement Output Line Mode setting.

**USAGE:**

```markdown
xConfiguration Audio MicrophoneReinforcement Input Microphone [n] Mode: **Mode**
```

where

- **n**: Unique ID that identifies the microphone input.
  - Range: 1..8
- **Mode**
  - **Off/On**
    - **On**: The microphone signal will be fed to the selected MicrophoneReinforcement outputs, as well as to the far end.
    - **Off**: The microphone signal will be sent only to the far end. It will not be fed to the selected MicrophoneReinforcement outputs.

Default value:

- **Off**
xConfiguration Audio MicrophoneReinforcement Output Line [n] Mode

Applies to: SX80, MX700/MX800/MX800D
Requires user role: ADMIN, INTEGRATOR

Set the microphone reinforcement mode individually on each line output. If Mode = On, the line output will add the microphone reinforcement mix to its ordinary output signal. Also consult the Audio MicrophoneReinforcement Input Microphone Mode setting.

**USAGE:**

```configuration
xConfiguration Audio MicrophoneReinforcement Output Line [n] Mode: Mode
```

where

- **n**: Unique ID that identifies the microphone output.
  - Range: 1..4
- **Mode**: 
  - Off/On
    - On: This output will deliver far end audio, local presentation audio and the microphone reinforcement mix.
    - Off: This output will deliver far end audio and local presentation audio.
- Default value: Off

xConfiguration Audio MicrophoneReinforcement Gain

Applies to: SX80, MX700/MX800/MX800D
Requires user role: ADMIN, INTEGRATOR

The gain (in dB) that will be applied to the mixed microphone signal that is fed to the selected MicrophoneReinforcement outputs.

**USAGE:**

```configuration
xConfiguration Audio MicrophoneReinforcement Gain: Gain
```

where

- **Gain**: 
  - Integer (-54..15)
    - Use this gain to adjust the level of microphone signal that should be fed to the local output. The value -54 means "Off", and no signal will be fed from the microphone to the output.
    - Default value: -54

xConfiguration Audio Output ARC [n] Delay DelayMs

Applies to: CodecPro, Room70G2, RoomPanorama, Room70Panorama
Requires user role: ADMIN, INTEGRATOR

To obtain lip-synchronization, you can configure each ARC output with an extra delay that compensates for delay in other connected devices, for example TVs and external loudspeakers. The delay that you set here is either fixed or relative to the delay measured on or reported by an external monitor, as defined in the Audio Output ARC [n] Delay Mode setting.

**USAGE:**

```configuration
xConfiguration Audio Output ARC [n] Delay DelayMs: DelayMs
```

where

- **n**: Unique ID that identifies the audio ARC output.
  - Range: 1..1
- **DelayMs**: 
  - Integer (0..290)
    - The delay in milliseconds.
    - Default value: 0
xConfiguration Audio Output ARC [n] Delay Mode

Applies to: CodecPro, Room70G2, RoomPanorama/Room70Panorama
Requires user role: ADMIN, INTEGRATOR

You may add extra delay to an audio ARC output with the Audio Output ARC [n] Delay DelayMs setting. The extra delay added is either a fixed number of milliseconds, or a number of milliseconds relative to the detected delay on or reported by an external monitor.

USAGE:
xConfiguration Audio Output ARC [n] Delay Mode: Mode
where
- n: Unique ID that identifies the audio ARC output.
  Range: 1..1
- Mode:
  Fixed/RelativeToHDMI
  Fixed: Any extra delay (DelayMs) added to the output, will be a fixed number of milliseconds.
  RelativeToHDMI: Any extra delay (DelayMs) added to the output, will be relative to the detected delay on or reported by an external monitor. The actual delay is detected-delay + DelayMs. The Audio Output Connectors ARC [n] DelayMs status reports the actual delay.
Default value:
RelativeToHDMI [ CodecPro ]
Fixed [ Room70G2, RoomPanorama/Room70Panorama ]

xConfiguration Audio Output ARC [n] Mode

Applies to: CodecPro, Room70G2, RoomPanorama/Room70Panorama
Requires user role: ADMIN, INTEGRATOR

Choose whether or not to enable the audio return channel (ARC) on the HDMI [n] input connector. The ARC output must be enabled if you want audio playback through the Quad Camera. On Room 70 G2, the Quad Camera is a part of the integrated loudspeaker system. We recommend to leave the ARC output enabled. If you want to disable the complete integrated loudspeaker system, use the Audio Output InternalSpeaker Mode setting.

USAGE:
xConfiguration Audio Output ARC [n] Mode: Mode
where
- n: Unique ID that identifies the audio ARC output.
  Range: 1..1
- Mode:
  Off/On
  Off: Disable the ARC output on the HDMI input.
  On: Enable the ARC output on the HDMI input.
Default value:
On
xConfiguration Audio Output ConnectorSetup

Applies to: CodecPro  Room70G2  RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

You can choose whether to set up the audio inputs and outputs manually, or to let the video conferencing device do it automatically based on the type of camera you have and which screens are connected.

In Auto mode, you cannot add, update, delete or connect audio inputs and outputs manually. Therefore the following API commands do not have any effect: xCommand Audio Setup *, xCommand Audio LocalInput *, and xCommand Audio LocalOutput *.

When going from Manual to Auto mode: The existing Audio setup is cleared (xCommand Audio Setup Clear), and the input and output groups are set up according to product defaults. The Audio Output HDMI [n] Mode and Audio Output ARC [1] Mode settings are set to their default value. For Codec Pro automatic delay measurement is enabled.

When going from Auto to Manual mode: The HDMI and ARC output connectors are connected to the default groups. The Audio Output HDMI [n] Mode and Audio Output ARC [1] Mode settings are not changed. For Codec Pro delay measurement is stopped.

USAGE:

xConfiguration Audio Output ConnectorSetup: ConnectorSetup

where

ConnectorSetup: Auto/Manual

Auto: For Code Pro, the video conferencing device will play audio either through the camera, or through a screen that is connected to one of the HDMI outputs. The video conferencing device chooses to play the audio on the first available device in the following list:

1. A Quad Camera that has camera control connected to one of the camera control connectors of the video conferencing device (Ethernet 2 or 3), and HDMI connected to the camera input of the video conferencing device (HDMI 1 input). Additionally, the Audio Output ARC [1] Mode and Video Input Connector [1] CEC Mode settings must be On. The audio return channel (ARC) on the HDMI 1 input is used to play audio through the camera.
2. A screen that is connected to the HDMI 1 output, provided that the Audio Output HDMI [1] Mode setting is On.
3. A screen that is connected to the HDMI 2 output, provided that the Audio Output HDMI [2] Mode setting is On.
4. A screen that is connected to the HDMI 3 output, provided that the Audio Output HDMI [3] Mode setting is On.

When audio is played out through the Quad Camera, the video conferencing device will measure the delay between a screen and the camera, so that it can synchronize the audio on the camera with the video on screen (lip-synchronization). In order to measure the delay, the video conferencing device sends a signal to the screen, and the screen sends the signal back to the video conferencing device using the audio return channel. The first screen in the list above that supports CEC (Consumer Electronics Control), and has the Video Output Connector [n] CEC Mode set to On, is used for the delay measurements.

When audio is played out through a screen, additional lip-synchronization delay is the responsibility of the screen. The video conferencing device will not add any delay.

For Room 70 G2, the video conferencing device will play audio through its integrated loudspeaker system, provided that Audio Output ARC [1] Mode and Audio Output InternalSpeaker Mode is On, and Audio Output HDMI [n] Mode is On for the integrated screen(s). Automatic delay measurement is not necessary, because the relationship between the integrated loudspeaker system and screen(s) is known.

Manual: You must set up the audio inputs and outputs manually using the Audio Console application or the API (xCommand Audio LocalInput *, and xCommand Audio LocalOutput *).

For Room 70 G2, external screen(s) may be used for audio output if the connectors are explicitly added using the Audio Console application or the API (xCommand Audio LocalOutput *). In that case, the external screens will play a stereo down mix of the audio that is played on the built-in loudspeaker system. Ultrasound signals will not play through external screens or line outputs; only through the integrated loudspeaker system.

Default value:

Auto
xConfiguration Audio Output Ethernet [n] Mode

Applies to: RoomPanorama/Room70Panorama
Requires user role: ADMIN, INTEGRATOR

Enable or disable audio output through the Ethernet connection to the DNAM IV amplifier. Note that switching this off will directly impact the audio experience in Room Panorama, rendering the system mute unless external loudspeakers are connected.

**USAGE:**
xConfiguration Audio Output Ethernet [n] Mode: Mode

where

- **n**: Unique ID that identifies the audio line output.
  Range: 1..1
- **Mode**: Off/On
- Default value: On

xConfiguration Audio Output HDMI [n] Delay DelayMs

Applies to: CodecPro
Requires user role: ADMIN, INTEGRATOR

To obtain lip-synchronization, you can configure each HDMI output with an extra delay that compensates for delay in other connected devices, for example TVs and external loudspeakers. The delay that you set here is either fixed or relative to the delay measured on or reported by an external monitor, as defined in the Audio Output HDMI [n] Delay Mode setting.

**USAGE:**
xConfiguration Audio Output HDMI [n] Delay DelayMs: DelayMs

where

- **n**: Unique ID that identifies the audio line output.
  Range: 1..3
- **DelayMs**: Integer (0..290)
  The delay in milliseconds.
- Default value: 0
xConfiguration Audio Output HDMI [n] Delay Mode

Applies to: CodecPro
Requires user role: ADMIN, INTEGRATOR

You may add extra delay to an audio HDMI output with the Audio Output HDMI [n] Delay DelayMs setting. The extra delay added is either a fixed number of milliseconds, or a number of milliseconds relative to the detected delay on or reported by an external monitor.

**USAGE:**

```
xConfiguration Audio Output HDMI [n] Delay Mode: Mode
```

where

- **n**: Unique ID that identifies the audio line output.
  - Range: 1..3

- **Mode**: Fixed/RelativeToHDMI
  - **Fixed**: Any extra delay (DelayMs) added to the output, will be a fixed number of milliseconds.
  - **RelativeToHDMI**: Any extra delay (DelayMs) added to the output, will be relative to the detected delay on or reported by an external monitor. The actual delay is detected-delay + DelayMs. The Audio Output Connectors HDMI [n] DelayMs status reports the actual delay.

Default value: Fixed

xConfiguration Audio Output HDMI [n] Level

Applies to: SX80 MX700/MX800/MX800D Room70G2
Requires user role: ADMIN, INTEGRATOR

Set the gain on the HDMI input connector. The gain can be tuned in steps of 1 dB.

**USAGE:**

```
xConfiguration Audio Output HDMI [n] Level: Level
```

where

- **n**: Unique ID that identifies the HDMI output.
  - [ SX80 ] Range: 1..1 for single screen devices; 1..2 for dual screen devices
  - [ MX700/MX800/MX800D ] Range: 1..2

- **Level**: Integer (-24..0)

**Range**: Select the gain in decibel (dB).

Default value:

0
xConfiguration Audio Output HDMI [n] Mode

Applies to: SX80, MX700/MX800/MX800D, CodecPlus, CodecPro, Room70G2

Requires user role: ADMIN, INTEGRATOR

Define if the audio channel on this HDMI output connector shall be enabled.

**USAGE:**

```markdown
xConfiguration Audio Output HDMI [n] Mode: **Mode**
```

where

- **n**: Unique ID that identifies the HDMI output.
  - Range: 1..3 ([CodecPro, Room70G2, RoomPanorama/Room70Panorama])
  - Range: 1..2 ([SX80])
  - Range: 1..1 for single screen devices; 1..2 for dual screen devices ([MX700/MX800/MX800D])

**Mode**:

- **Off**: The connector will not be used for audio out.
- **On**: The connector can be used for audio out. For Codec Pro and Room 70 G2 it depends on the Audio Output ConnectorSetup setting.

Default value:

- **Room 70 Dual G2**: HDMI 1,2: On; HDMI 3: Off
- **Room 70 Single G2**: HDMI 1: On; HDMI 2,3: Off ([Room70G2, RoomPanorama/Room70Panorama])
- **On**: ([MX700/MX800/MX800D, CodecPlus, CodecPro])
- **HDMI 1**: On; **HDMI 2**: Off ([SX80])

xConfiguration Audio Output InternalSpeaker Mode

Applies to: MX200G2/MX300G2, MX700/MX800/MX800D, RoomKit, CodecPlus, Room55, Room70/Room55D

Requires user role: ADMIN, INTEGRATOR

Define whether or not to use the camera's integrated speakers. Codec Plus must be connected to a Quad Camera for this setting to apply.

For Room 70 G2, MX700, and MX800, the Audio Output HDMI [n] Mode settings for the integrated monitor(s) must be set to On in order to play any audio on the integrated speakers. For Room 70 G2, also the Audio Output ARC 1 Mode setting must be On.

For all products except Codec Plus, MX300 G2, and MX200 G2, you can limit the use of the integrated speakers to play only ultrasound.

**USAGE:**

```markdown
xConfiguration Audio Output InternalSpeaker Mode: **Mode**
```

where

**Mode**:

- **Off/On/UltrasoundOnly**: ([MX700/MX800/MX800D, RoomKit, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama])
- **Off/On**: ([MX200G2/MX300G2, CodecPlus])

- **Off**: Disable the device's integrated speakers.
- **On**: Enable the device's integrated speakers.

**UltrasoundOnly**: Enable the device's integrated speakers only for ultrasound.

Default value:

- **On**
xConfiguration Audio Output Line [n] Channel

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

Define whether the Audio Line output is a mono signal or part of a multichannel signal.

**USAGE:** xConfiguration Audio Output Line [n] Channel: Channel

where

n: Unique ID that identifies the audio line output.

Range: 1..6

Channel:

Left/Mono/Right

Left: The Audio Line output signal is the left channel of a stereo signal.

Mono: The Audio Line output signal is a mono signal.

Right: The Audio Line output signal is the right channel of a stereo signal.

Default value:

Line [1,3,5]: Left  Line [2,4,6]: Right

---

xConfiguration Audio Output Line [n] Delay DelayMs

Applies to: SX10 SX20 SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

To obtain lip-synchronization, you can configure each audio line output with an extra delay that compensates for delay in other connected devices, for example TVs and external loudspeakers. The delay that you set here is either fixed or relative to the delay on the HDMI output, as defined in the Audio Output Line [n] Delay Mode setting.

**USAGE:**

xConfiguration Audio Output Line [n] Delay DelayMs: DelayMs

where

n: Unique ID that identifies the audio line output.

Range: 1..6 [SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama]

Range: 1..1 [SX10 SX20]

DelayMs:

Integer (0..290)

The delay in milliseconds.

Default value:

0
xConfiguration Audio Output Line [n] Delay Mode

Applies to: SX10 SX20 SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

You may add extra delay to an audio line output with the Audio Output Line [n] Delay DelayMs setting. The extra delay added is either a fixed number of milliseconds, or a number of milliseconds relative to the detected delay on the HDMI output (typically introduced by the connected TV).

**USAGE:**

xConfiguration Audio Output Line [n] Delay Mode: **Mode**

where

- **n**: Unique ID that identifies the audio line output.
  - Range: 1..6
  - SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
  - SX10 SX20

  **Mode**:
  - **Fixed/RelativeToHDMI**
    - **Fixed**: Any extra delay (DelayMs) added to the output, will be a fixed number of milliseconds.
    - **RelativeToHDMI**: Any extra delay (DelayMs) added to the output, will be relative to the detected delay on the HDMI output. The actual delay is HDMI-delay + DelayMs. The Audio Output Connectors Line [n] DelayMs status reports the actual delay.

  Default value:
  - **Fixed** [ SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama ]
  - **RelativeToHDMI** [ SX10 SX20 CodecPro ]

xConfiguration Audio Output Line [n] Equalizer ID

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

Select the equalizer ID for the audio source that is connected to the output line.

**USAGE:**

xConfiguration Audio Output Line [n] Equalizer ID: **ID**

where

- **n**: Unique ID that identifies the audio line output.
  - Range: 1..6

  **ID**:
  - **Integer (1..8)**
  - Set the equalizer ID.
  - Default value: 1

xConfiguration Audio Output Line [n] Equalizer Mode

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

Define the equalizer mode for the audio source that is connected to the line output.

**USAGE:**

xConfiguration Audio Output Line [n] Equalizer Mode: **Mode**

where

- **n**: Unique ID that identifies the audio line output.
  - Range: 1..6

  **Mode**:
  - **Off/On**
    - **Off**: No equalizer.
    - **On**: Enable the equalizer for the audio line output.

  Default value: **Off**
xConfiguration Audio Output Line [n] Level

Applies to: SX80, MX700/MX800/MX800D, CodecPro, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

Set the gain on the Line output connector. The gain should be adjusted to fit the audio input level of the connected device. The gain can be tuned in steps of 1 dB.

The maximum output level with 0 dB gain differs depending on the product: 22 dBu (SX80, MX700/MX800), 8 dBu (Room 70, Room 55 Dual), 18 dBu (Codec Pro, Room 70 G2).

Example: If the audio device that is connected to an SX80 has max input level 10 dBu, then you should set the gain to 10 dBu - 22 dBu = -12 dB.

**USAGE:**

xConfiguration Audio Output Line [n] Level: Level

where

n: Unique ID that identifies the audio line output.

Range: 1..6 [ SX80, MX700/MX800/MX800D, CodecPro, Room70G2, RoomPanorama,Room70Panorama ]

Range: 1..1 [ RoomKit, CodecPlus, Room55, Room70/Room55D ]

Level: Integer (-24..0)

Range: Select the gain in decibel (dB).

Default value:

-10 [ SX80, MX700/MX800/MX800D ]

0 [ CodecPro, Room70/Room55D, Room70G2, RoomPanorama,Room70Panorama ]

xConfiguration Audio Output Line [n] Mode

Applies to: SX80, MX700/MX800/MX800D, RoomKit, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

Define the mode for the audio line output.

**USAGE:**

xConfiguration Audio Output Line [n] Mode: Mode

where

n: Unique ID that identifies the audio line output.

Range: 1..6 [ SX80, MX700/MX800/MX800D, CodecPro, Room70G2, RoomPanorama,Room70Panorama ]

Range: 1..1 [ RoomKit, CodecPlus, Room55, Room70/Room55D ]

Mode: Off/On

Off: Disable the audio line output.

On: Enable the audio line output.

Default value:

On
**xConfiguration Audio Output Line [n] OutputType**

Applies to: RoomKit CodecPlus Room55 Room70/Room55D

Requires user role: ADMIN, INTEGRATOR

The output type should be set to match the connected device.

**USAGE:**

```
xConfiguration Audio Output Line [n] OutputType: OutputType
```

where

- **n**: Unique ID that identifies the audio line output.
  - Range: `1..1`
- **OutputType**:
  - **LineOut/Loudspeaker/Recorder/Subwoofer**
  - **Loudspeaker**: Use Loudspeaker if a loudspeaker is connected to the line output. In this mode, the output level on that connector follows the master volume control, and the output signal includes all system sounds (ringtones, webex assistant etc.).
  - **Recorder**: Use Recorder if a recorder is connected to the line output. In this mode, the output level is fixed, and system sounds are not included. What is included is the sound from local presentation sources, the local microphones as well as any far end sources.
  - **Subwoofer**: Use Subwoofer if a subwoofer is connected to the line output. In this mode the bass is sent to LineOut and the rest of the audio range is played on the internal speaker.
  - **LineOut**: Use LineOut for other devices. In this mode, the internal speaker will play full range audio. The output level is fixed, and system sounds are not included. What is included is the sound from local presentation sources, as well as any far end sources.

Default value:

- **Loudspeaker** [RoomKit CodecPlus Room55]
- **LineOut** [Room70/Room55D]

---

**xConfiguration Audio SoundsAndAlerts RingTone**

Applies to: All products

Requires user role: ADMIN, INTEGRATOR, USER

Define which ringtone to use for incoming calls.

**USAGE:**

```
xConfiguration Audio SoundsAndAlerts RingTone: RingTone
```

where

- **RingTone**:
  - **Sunrise/Mischief/Ripples/Reflections/Vibes/Delight/Evolve/Playful/Ascent/Calculation/Mellow/Ringer**
  - Select a ringtone from the list.

Default value:

- **Sunrise** [DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro]
- **Waves** [Boards]
xConfiguration Audio SoundsAndAlerts RingVolume

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

Define the ring volume for incoming calls.

USAGE:

xConfiguration Audio SoundsAndAlerts RingVolume: **RingVolume**

where

**RingVolume**: Integer (0..100)

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

Default value:

- 50 [ DX70/DX80 SX10 SX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards ]
- 40 [ MX200G2/MX300G2 ]
- 30 [ MX700/MX800/MX800D ]

---

xConfiguration Audio Ultrasound MaxVolume

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

This setting applies to the Intelligent Proximity feature. Set the maximum volume of the ultrasound pairing messages.

The Audio Ultrasound MaxVolume and Proximity Mode settings only affect ultrasound pairing messages. See the RoomAnalytics PeoplePresenceDetector and Standby WakeupOnMotionDetection settings for information about the use of ultrasound in presence and motion detection.

USAGE:

xConfiguration Audio Ultrasound MaxVolume: **MaxVolume**

where

**MaxVolume**: Integer (0..90)

**Range**: Select a value in the specified range. If set to 0, ultrasound pairing messages are not emitted.

Default value: 70
BYOD configuration

xConfiguration BYOD TouchForwarding Enabled

 Applies to: DeskPro Boards
 Requires user role: ADMIN, INTEGRATOR

Use this setting to enable or disable the Touch redirect feature. Touch redirect enables you to control your laptop from the touch screen of the board or video device. You must connect the laptop to the device with an HDMI cable (wired sharing) and a USB-C cable. You can use either a USB-C to USB-C cable or a USB-C to USB-A cable from the device to the laptop. This feature is not available on the first generation of boards (Webex Board 55 and 70, not S-series).

 USAGE:
 xConfiguration BYOD TouchForwarding Enabled: Enabled
 where
  Enabled:
   False/True
   False: Touch redirect is disabled.
   True: Touch redirect is enabled.
  Default value:
   True

CallHistory configuration

xConfiguration CallHistory Mode

 Applies to: All products
 Requires user role: ADMIN, INTEGRATOR

Specify whether or not information about calls that are placed or received are stored, including missed calls and calls that are not answered (call history). This determines whether or not the calls appear in the Recents list in the user interfaces.

 USAGE:
 xConfiguration CallHistory Mode: Mode
 where
  Mode:
   Off/On
   Off: New entries are not added to the call history.
   On: New entries are stored in the call history list.
  Default value:
   On
Cameras configuration

xConfiguration Cameras Camera [n] AssignedSerialNumber

**Applies to:** SX80 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D

**Requires user role:** ADMIN, INTEGRATOR

The camera ID is the number n in Camera [n]. By default, the camera ID is assigned automatically to a camera. If EDID information is not passed on from the camera to the video conferencing device, the camera ID is not persistent after a reboot. This means that a camera may get a new camera ID when the video conferencing device is restarted.

You should use the Cameras Camera AssignedSerialNumber setting to cater for configurations where the video conferencing device does not receive EDID information from multiple cameras. This setting allows you to manually assign a camera ID to a camera by associating the camera ID with the camera's serial number. The setting is persistent until the video conferencing device is factory reset.

Typical situations where the video conferencing device does not receive EDID information are: when you connect a Cisco TelePresence Precision 60 camera using 3G-SDI; when you connect a Cisco TelePresence Precision 40 (Cisco TelePresence PrecisionHD 1080p4xS2) camera; when you use an HDMI repeater that does not pass on EDID information.

**USAGE:**

```plaintext
xConfiguration Cameras Camera [n] AssignedSerialNumber: "AssignedSerialNumber"
```

where

- **n:** Unique ID that identifies the camera.
  - **Range:** 1..7 [ SX80 MX700/MX800/MX800D CodecPro ]
  - **Range:** 1..3 [ CodecPlus Room70/Room55D ]

- **AssignedSerialNumber:**
  - **String (0, 20)**
  - The camera's serial number.
  - **Default value:** ""
xConfiguration Cameras Camera [n] Backlight DefaultMode

Applies to: DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

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.

Not applicable for the Cisco Quad Camera and the integrated camera of Room 55 Dual, Room 70, Room 70 G2, Room 70 Panorama, and Room Panorama. These cameras automatically adjust themselves based on the room lighting conditions.

USAGE:

xConfiguration Cameras Camera [n] Backlight DefaultMode: DefaultMode

where

n: Unique ID that identifies the camera.
Range: 1..7 [ SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama ]
Range: 1..1 [ DX70/DX80 SX10 SX20 MX200G2/MX300G2 ]
Range: 1..3 [ CodecPlus Room70/Room55D ]

DefaultMode:
Off/On

Off: Turn off the camera backlight compensation.
On: Turn on the camera backlight compensation.
Default value:
Off

xConfiguration Cameras Camera [n] Brightness Mode

Applies to: SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

Define the camera brightness mode.

Not applicable for the integrated camera of Room 55 Dual, Room 70, and Room 70 G2. These cameras automatically adjust themselves based on the room lighting conditions.

USAGE:

xConfiguration Cameras Camera [n] Brightness Mode: Mode

where

n: Unique ID that identifies the camera.

Range: 1..7 [ SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama ]
Range: 1..1 [ SX10 SX20 MX200G2/MX300G2 ]
Range: 1..3 [ CodecPlus Room70/Room55D ]

Mode:
Auto/Manual

Auto: The camera brightness is automatically set by the device.
Default value:
Auto
xConfiguration Cameras Camera [n] Brightness DefaultLevel

**Applies to:** SX10, SX20, SX80, MX200G2/MX300G2, MX700/MX800/MX800D, CodecPlus, CodecPro, Room70/Room70G2, RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, INTEGRATOR

Define the brightness level. Requires the Cameras Camera [n] Brightness Mode to be set to Manual.

Not applicable for the integrated camera of Room 55 Dual, Room 70, and Room 70 G2. These cameras automatically adjust themselves based on the room lighting conditions.

**USAGE:**

xConfiguration Cameras Camera [n] Brightness DefaultLevel: **DefaultLevel**

where

- **n**: Unique ID that identifies the camera.
  - Range: 1..7 [SX80, CodecPro, Room70G2, RoomPanorama,Room70Panorama]
  - Range: 1..3 [SX10, MX200G2/MX300G2]
  - Range: 1..3 [CodecPlus, Room70/Room70G2]

**DefaultLevel:**

- **Integer (1..31)**
- The brightness level.
- Default value: 20

---

xConfiguration Cameras Camera [n] Flip

**Applies to:** SX10, SX20, SX80, MX700/MX800/MX800D, CodecPlus, CodecPro, Room70/Room70G2, RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, INTEGRATOR

**USAGE:**

xConfiguration Cameras Camera [n] Flip: **Flip**

where

- **n**: Unique ID that identifies the camera.

  - **Range:** 1..7 [SX80, CodecPro, Room70G2, RoomPanorama/Room70Panorama]
  - **Range:** 1..3 [CodecPlus, Room70/Room70G2]
  - **Range:** 2..7 for single camera devices; 3..7 for dual camera devices [MX700/MX800/MX800D]
  - **Range:** 1..1 [SX10, SX20]

**Flip:**

- **Auto/Off/On** [SX20, SX80, MX700/MX800/MX800D, CodecPro]
- **Auto** [SX10]

**Auto:** If the camera detects that it is mounted upside down, the image is automatically flipped. If the camera cannot auto-detect whether it is mounted upside down or not, the image is not changed.

**Off:** Display the image on screen the normal way.

**On:** Display the image flipped upside down. This setting is used when a camera is mounted upside down, but cannot automatically detect which way it is mounted.

- Default value: **Auto**
**xConfiguration Cameras Camera [n] Focus Mode**

*Applies to:* SX10, SX20, SX80, MX200G2, MX300G2, MX700, MX800, MX800D, CodecPlus, CodecPro, Room70/Room70D, Room70G2, RoomPanorama, Room70Panorama

*Requires user role:* ADMIN, INTEGRATOR

Define the camera focus mode.

**USAGE:**

```
xConfiguration Cameras Camera [n] Focus Mode: Mode
```

where

- **n**: Unique ID that identifies the camera.
  - Range: 1..7 [SX80 CodecPro Room70G2 RoomPanorama/Room70Panorama]
  - Range: 2..7 for single camera devices; 3..7 for dual camera devices [MX700/MX800/MX800D]
  - Range: 1..1 [SX10 SX20 MX200G2/MX300G2]
  - Range: 1..3 [CodecPlus Room70/Room70D]

**Mode:**

- **Auto/AutoLimited/Manual** [SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D CodecPlus]
- **Auto/Manual** [CodecPro Room70/Room70D Room70G2 RoomPanorama/Room70Panorama]

**Auto:** The auto focus works differently for different products. For Room 55 Dual, Room 70, Room 70 G2, Room 70 Panorama, Room Panorama, and when using the Cisco Quad Camera with a codec (SX80, Codec Plus, or Codec Pro), the camera will do single shot auto focusing once a call is connected, and when the view has changed. For SX10, SX20, MX200 G2, MX300 G2 and SX80 with a Cisco TelePresence Precision 40 or Cisco TelePresence PrecisionHD 12x camera, the camera will do single shot auto focusing once a call is connected, as well as after a pan, tilt, or zoom. For MX700/MX800 and when using a Cisco TelePresence Precision 60 camera with a codec (SX80, Codec Plus, or Codec Pro), the camera will do continuous auto focusing. It will run auto focus once a call is connected, after pan, tilt, or zoom, and generally when the camera identifies a change in the scene.

**AutoLimited:** This mode only applies when using a Cisco TelePresence Precision 60 camera with a codec (SX80 or Codec Plus), and to MX700/MX800. In most cases this mode will operate the same way as auto focus. In some cases auto–limited will reduce the focus hunting that may occur. Problematic scenes have large areas with no or low contrast, for instance a painted wall with no details, or maybe a partly empty whiteboard. There’s a slightly higher chance of background focus with this mode, compared to auto focus.

**Manual:** Turn the auto focus off and adjust the camera focus manually.

Default value:

- Auto

**xConfiguration Cameras Camera [n] Gamma Mode**

*Applies to:* SX20, SX80, MX200G2, MX300G2, MX700, MX800, MX800D, CodecPlus, CodecPro, Room70/Room70D, Room70G2, RoomPanorama, Room70Panorama

*Requires user role:* ADMIN, INTEGRATOR

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

It’s not applicable for the Cisco Quad Camera and the integrated camera of Room 55 Dual, Room 70, Room 70 G2, Room 70 Panorama, and Room Panorama. These cameras automatically adjust themselves based on the room lighting conditions. Also, this feature is not supported by the PTZ-12 camera.

**USAGE:**

```
xConfiguration Cameras Camera [n] Gamma Mode: Mode
```

where

- **n**: Unique ID that identifies the camera.
  - Range: 1..7 [SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama]
  - Range: 1..1 [SX20 MX200G2/MX300G2]
  - Range: 1..3 [CodecPlus Room70/Room70D]

**Mode:**

- **Auto/Manual** [SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D CodecPlus]
- **Auto/Manual** [CodecPro Room70/Room70D Room70G2 RoomPanorama/Room70Panorama]

**Auto:** Auto is the default and the recommended setting.

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

Default value:

- Auto
xConfiguration Cameras Camera [n] Gamma Level

Applies to: SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

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

It’s not applicable for the Cisco Quad Camera and the integrated camera of Room 55 Dual, Room 70, Room 70 G2, Room 70 Panorama, and Room Panorama. These cameras automatically adjust themselves based on the room lighting conditions. Also, this feature is not supported by the PTZ-12 camera.

**USAGE:**

```
xConfiguration Cameras Camera [n] Gamma Level: Level
```

where

- **n**: Unique ID that identifies the camera.
  - Range: 1..7 [ SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama ]
  - Range: 1..1 [ SX20 MX200G2/MX300G2 ]
  - Range: 1..3 [ CodecPlus Room70/Room55D ]

- **Level**: Integer (0..7)
  - Define the gamma level.
  - Default value: 0

xConfiguration Cameras Camera [n] Mirror

Applies to: SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

With Mirror mode (horizontal flip) you can mirror the image on screen. Mirroring applies both to the self-view and the video that is transmitted to the far end. Mirroring is automatically disabled when speaker tracking is on.

This setting is not applicable for the Cisco Quad Camera and the integrated camera of Room 55 Dual, Room 70, Room 70 G2, Room 70 Panorama, and Room Panorama. Also, this feature is not supported by the PTZ-12 camera.

**USAGE:**

```
xConfiguration Cameras Camera [n] Mirror: Mirror
```

where

- **n**: Unique ID that identifies the camera.
  - Range: 1..7 [ SX80 CodecPro Room70G2 RoomPanorama/Room70Panorama ]
  - Range: 2..7 for single camera devices; 3..7 for dual camera devices [ MX700/MX800/MX800D ]
  - Range: 1..1 [ SX10 SX20 CodecPlus Room70/Room55D ]
  - Range: 1..3 [ MX200G2/MX300G2 ]

- **Mirror**: Auto/Off/On
  - Auto: If the camera detects that it is mounted upside down, the image is automatically mirrored. If the camera cannot auto-detect whether it is mounted upside down or not, the image is not changed. MX700/MX800 integrated cameras: Always display the image as other people see you.
  - Off: Display the image as other people see you. MX200 G2, MX700/MX800 integrated cameras: Display the image as you see yourself in a mirror.
  - On: Display the image as you see yourself in a mirror. MX200 G2, MX700/MX800 integrated cameras: Display the image as other people see you.

  - Default value:
    - Auto [ SX10 SX20 SX80 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama ]
    - Off [ MX200G2/MX300G2 ]
    - On [ MX200G2/MX300G2 ]
xConfiguration Cameras Camera [n] Whitebalance Mode

Applies to: SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

Define the camera white balance mode.
It's not applicable for the Cisco Quad Camera and the integrated camera of Room 55 Dual, Room 70, Room 70 G2, Room 70 Panorama, and Room Panorama. These cameras automatically adjust themselves based on the room lighting conditions.

 USAGE:

xConfiguration Cameras Camera [n] Whitebalance Mode: Mode

where

n: Unique ID that identifies the camera.
Range: 1..7 [ SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama ]
Range: 1..1 [ SX10 SX20 MX200G2/MX300G2 ]
Range: 1..3 [ CodecPlus Room70/Room55D ]

Mode:
Auto/Manual
Auto: The camera will continuously adjust the white balance depending on the camera view.
Default value: Auto

xConfiguration Cameras Camera [n] Whitebalance Level

Applies to: SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

It's not applicable for the Cisco Quad Camera and the integrated camera of Room 55 Dual, Room 70, Room 70 G2, Room 70 Panorama, and Room Panorama. These cameras automatically adjust themselves based on the room lighting conditions. Also, the Whitebalance Level setting has no effect for the PTZ-12 camera, which is using Sony's One Push mode when the Whitebalance Mode is set to manual.

 USAGE:

xConfiguration Cameras Camera [n] Whitebalance Level: Level

where

n: Unique ID that identifies the camera.
Range: 1..7 [ SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama ]
Range: 1..1 [ SX10 SX20 MX200G2/MX300G2 ]
Range: 1..3 [ CodecPlus Room70/Room55D ]

Level:
Integer (1..16)
The white balance level.
Default value: 1
xConfiguration Cameras Camera Framerate

Applies to: RoomKit, RoomKitMini, Room55
Requires user role: ADMIN

As default, the camera outputs 30 frames per second. This allows for good quality both in close-ups and overview pictures for normal bandwidths and lighting conditions. If the conditions are better, a 60 frames per second output from the camera may give a better overall quality.

USAGE:
xConfiguration Cameras Camera Framerate: Framerate
where
Framerate:
  30/60
  30: The camera outputs 30 frames per second.
  60: The camera outputs 60 frames per second.
Default value:
  30

xConfiguration Cameras PowerLine Frequency

Applies to: SX20, SX80, MX200G2/MX300G2, MX700/MX800/MX800D, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro
Requires user role: ADMIN, INTEGRATOR

If your camera supports power line frequency anti-flickering, the camera is able to compensate for any flicker noise from the electrical power supply. You should set this camera configuration based on your power line frequency. If your camera supports auto detection of line frequency, you can select the Auto option in the configuration.

The Cisco cameras support both anti-flickering and auto detection of line frequency. Auto is the default value, so you should change this setting if you have a camera that does not support auto detection.

USAGE:
xConfiguration Cameras PowerLine Frequency: Frequency
where
Frequency:
  50Hz/60Hz/Auto
  50Hz: Use this value when the power line frequency is 50 Hz.
  60Hz: Use this value when the power line frequency is 60 Hz.
  Auto: Allow the camera to detect the power frequency automatically.
Default value:
  Auto
**xConfiguration Cameras PresenterTrack CameraPosition Pan**

**Applies to:** SX80, MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, INTEGRATOR

Define the pan position that the presenter tracking camera will move to when the feature is activated. Only the following cameras support presenter tracking: Precision 60, SpeakerTrack 60 (available for SX80, Codec Pro and Codec Plus), and the internal camera of MX700/MX800.

**USAGE:**

```
xConfiguration Cameras PresenterTrack CameraPosition Pan: Pan
```

where

```
Pan: Integer (-65535...65535)
The pan position.
Default value:
0
```

**xConfiguration Cameras PresenterTrack CameraPosition Zoom**

**Applies to:** SX80, MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, INTEGRATOR

Define the zoom position that the presenter tracking camera will move to when the feature is activated. Only the following cameras support presenter tracking: Precision 60, SpeakerTrack 60 (available for SX80, Codec Pro and Codec Plus), and the internal camera of MX700/MX800.

**USAGE:**

```
xConfiguration Cameras PresenterTrack CameraPosition Zoom: Zoom
```

where

```
Zoom: Integer (-65535...65535)
The zoom position.
Default value:
0
```

**xConfiguration Cameras PresenterTrack CameraPosition Tilt**

**Applies to:** SX80, MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, INTEGRATOR

Define the tilt position that the presenter tracking camera will move to when the feature is activated. Only the following cameras support presenter tracking: Precision 60, SpeakerTrack 60 (available for SX80, Codec Pro and Codec Plus), and the internal camera of MX700/MX800.

**USAGE:**

```
xConfiguration Cameras PresenterTrack CameraPosition Tilt: Tilt
```

where

```
Tilt: Integer (-65535...65535)
The tilt position.
Default value:
0
```
xConfiguration Cameras PresenterTrack Connector

Applies to: SX80 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

Define which video input connector the presenter tracking camera is connected to. Only the following cameras support presenter tracking: Precision 60, SpeakerTrack 60 (available for SX80, Codec Pro and Codec Plus), and the internal camera of MX700/MX800.

USAGE:

xConfiguration Cameras PresenterTrack Connector: Connector

where

Connector:

Integer (1..5) (SX80 MX700/MX800/MX800D)
Integer (1..6) (CodecPro Room70G2 RoomPanorama/Room70Panorama)
Integer (1..3) (CodecPlus Room70/Room55D)

The video input connector.

Default value:

1 (SX80 MX700/MX800/MX800D CodecPlus Room70/Room55D)
6 (CodecPro Room70G2 RoomPanorama/Room70Panorama)

xConfiguration Cameras PresenterTrack Enabled

Applies to: SX80 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR

Define whether or not the PresenterTrack feature is available for use. Only the following cameras support presenter tracking: Precision 60, SpeakerTrack 60 (available for SX80, Codec Pro and Codec Plus), and the internal camera of MX700/MX800.

USAGE:

xConfiguration Cameras PresenterTrack Enabled: Enabled

where

Enabled:

False/True
False: The PresenterTrack feature is disabled.
True: The PresenterTrack feature is available for use.

Default value:

False
xConfiguration Cameras PresenterTrack PresenterDetectedStatus

**Applies to:** SX80 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, INTEGRATOR

Define whether to enable or disable automatic switching between the Remote Presenter and Local Presenter modes in the Briefing room and Classroom scenarios (Room Type templates). Automatic switching implies that the device switches to Local Presenter mode when a person is detected in the PresenterTrack trigger zone, and that the device switches back to the Remote Presenter mode when the local presenter leaves the stage.

If this setting is enabled, the Cameras PresenterTrack PresenterDetected status will be updated when a new person enters the trigger zone.

Only the following cameras support presenter tracking: Precision 60, SpeakerTrack 60 (available for SX80, Codec Pro and Codec Plus), and the internal camera of MX700/MX800. Briefing room is not supported by Codec Plus, Room 70, and Room 55 Dual.

**USAGE:**

```plaintext
xConfiguration Cameras PresenterTrack PresenterDetectedStatus:

where

   PresenterDetectedStatus:
   Disabled/Enabled
   Disabled: No automatic switching between modes.
   Enabled: Automatic switching between the Local Presenter and Remote Presenter modes.

Default value:

   Enabled
```

xConfiguration Cameras PresenterTrack TriggerZone

**Applies to:** SX80 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, INTEGRATOR

Define the trigger zone, which corresponds to the area where a person's face must be detected for presenter tracking to start.

The format is a string of x and y coordinate pairs: ",x1,y1,...,xn,yn", where the range of x is (0,1920) and y is (0,1080). Two coordinate pairs define the upper left and lower right corner of a rectangular trigger zone. More than two coordinate pairs define the vertices of a polygonal trigger zone.

Only the following cameras support presenter tracking: Precision 60, SpeakerTrack 60 (available for SX80, Codec Pro and Codec Plus), and the internal camera of MX700/MX800.

**USAGE:**

```plaintext
xConfiguration Cameras PresenterTrack TriggerZone: "TriggerZone"

where

   TriggerZone:
   String (0..255)
   The coordinates for the trigger zone.

Default value:

   *
```
xConfiguration Cameras Preset TriggerAutofocus

Applies to: SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D
Requires user role: ADMIN

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

**USAGE:**

xConfiguration Cameras Preset TriggerAutofocus: **TriggerAutofocus**

where

*TriggerAutofocus*:

Auto/Off/On

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

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

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

Default value: Auto

xConfiguration Cameras SpeakerTrack Mode

Applies to: SX80 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN, INTEGRATOR

This setting applies only when using a camera with support for speaker tracking or best overview.

Cisco Quad Camera: Speaker tracking uses automatic camera framing to select the best camera view based on where people are in the room. The Quad Camera uses an audio tracking technique that finds and captures a close-up of the active speaker.

Cisco TelePresence SpeakerTrack 60 Camera: The dual camera assembly consists of two cameras and uses an audio tracking technique that finds and captures a close-up of the active speaker. When a change of speaker is detected, the video conferencing device can switch automatically between the two cameras to always show the best camera view. Refer to the Cameras SpeakerTrack TrackingMode setting for different switching modes.

Video conferencing devices with a built-in speakertrack camera (Room Kit, Room 55, Room 55 Dual, Room 70, Room 70 G2, Room 70 Panorama, Room Panorama, Boards): Speaker tracking uses automatic camera framing to select the best camera view based on where people are in the room. The camera uses an audio tracking technique that finds and captures a close-up of the active speaker.

Video conferencing devices with a camera that supports Best overview, but not speaker tracking (Room Kit Mini): Best overview uses automatic camera framing to select the best camera view based on where people are in the room.

MX700 and MX800 with a dual camera (speaker tracking): The dual camera assembly consists of two cameras and uses an audio tracking technique that finds and captures a close-up of the active speaker. When a change of speaker is detected, the video conferencing device can switch automatically between the two cameras to always show the best camera view. Refer to the Cameras SpeakerTrack TrackingMode setting for different switching modes.

**USAGE:**

xConfiguration Cameras SpeakerTrack Mode: **Mode**

where

*Mode*:

Auto/Off

*Auto*: Speaker tracking (not supported on Room Kit Mini) and best overview (not supported on SX80 and MX700/MX800) is switched on. The device will detect people in the room and automatically select the best camera framing. Users can switch the feature on or off instantly in the camera control panel on the Touch controller, but the feature is switched back on after each call so that the device is ready for the next user.

*Off*: Speaker tracking (not supported on Room Kit Mini) and best overview (not supported on SX80 and MX700/MX800) are switched off. The device will use the camera settings that are stored with the preset instead of automatically selecting the best camera view.
on SX80 and MX700/MX800) is switched off. If you have a Cisco TelePresence SpeakerTrack 60 Camera, or MX700/MX800 with a dual camera (speaker tracking), the two cameras will operate as individual cameras.

Default value:

**Auto**

### xConfiguration Cameras SpeakerTrack Closeup

**Applies to:** SX80 MX700/MX800 MX800D RoomKit CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama Boards

Requires user role: ADMIN, INTEGRATOR, USER

This setting applies only when the Cameras SpeakerTrack Mode is set to Auto.

When the closeup functionality is turned on, the device will detect that a person is speaking and select the best framing to cover that person. This is called a closeup and may not include all the persons in the room. If you want all the persons in the room to be in the picture at all times you can turn off the closeup functionality.

**USAGE:**

```text
xConfiguration Cameras SpeakerTrack Closeup: Closeup
```

where

```
Closeup:
```

- **Auto/Off/On**

  - **Auto:** The behavior depends on the device type. Boards will keep all the persons in the room in the camera framing at all times, while other devices will zoom in on the person speaking.

  - **Off:** The device will keep all the persons in the room in the camera framing at all times.

  - **On:** The device will zoom in on the person speaking.

Default value:

**Auto**

### xConfiguration Cameras SpeakerTrack TrackingMode

**Applies to:** SX80 MX700/MX800 MX800D CodecPlus CodecPro

Requires user role: ADMIN, INTEGRATOR

The speaker tracking algorithm can react to changes in two modes, one faster than the other. The mode determines when the camera view will change to a new speaker.

This setting applies only to MX700/MX800 with dual camera (speaker tracking), and to codecs with a Cisco TelePresence SpeakerTrack 60 camera. Also, the Cameras SpeakerTrack Mode must be set to Auto.

**USAGE:**

```text
xConfiguration Cameras SpeakerTrack TrackingMode: TrackingMode
```

where

```
TrackingMode:
```

- **Auto/Conservative**

  - **Auto:** This is the normal tracking mode.

  - **Conservative:** The camera view will change to a new speaker later than in normal tracking mode.

Default value:

**Auto**
xConfiguration Cameras SpeakerTrack ConnectorDetection Mode

Applies to: SX80 MX700/MX800/MX800D CodecPlus CodecPro
Requires user role: ADMIN, INTEGRATOR

This setting applies only when a Cisco TelePresence SpeakerTrack 60 camera is connected to the video conferencing device.
Define whether to automatically detect or manually configure which video input each individual camera is connected to. You should choose manual configuration in situations where the video conferencing device does not receive EDID information from the cameras. Typically, this will be when you use HDMI repeaters that do not pass on EDID information.

MX700, MX800: Not applicable in this version.

USAGE:
xConfiguration Cameras SpeakerTrack ConnectorDetection Mode: Mode

where

Mode:
    Auto/Manual  \[ SX80 CodecPlus CodecPro \]
    Auto: Automatically detect which video inputs the cameras are connected to.
    Manual: Manually define which video inputs the cameras are connected to. Use the Cameras SpeakerTrack ConnectorDetection CameraLeft and Cameras SpeakerTrack ConnectorDetection CameraRight settings.

Default value:
    Auto  \[ SX80 CodecPlus CodecPro \]

xConfiguration Cameras SpeakerTrack ConnectorDetection CameraLeft

Applies to: SX80 MX700/MX800/MX800D CodecPlus CodecPro
Requires user role: ADMIN, INTEGRATOR

Define the number of the video input that SpeakerTrack 60's left camera is connected to.
This setting applies only when a Cisco TelePresence SpeakerTrack 60 camera is connected to the video conferencing device. Furthermore, Cameras SpeakerTrack ConnectorDetection Mode must be set to Manual.

MX700, MX800: Not applicable in this version.

USAGE:
xConfiguration Cameras SpeakerTrack ConnectorDetection CameraLeft: CameraLeft

where

CameraLeft:
    Integer (1..5)  \[ SX80 CodecPro \]
    Integer (1..3)  \[ CodecPlus \]

Set a valid video input number. For example, set to 1 if the left camera is connected to video input 1.

Default value:
    1  \[ SX80 CodecPlus CodecPro \]
xConfiguration Cameras SpeakerTrack ConnectorDetection CameraRight

Applies to: SX80 MX700/MX800/MX800D CodecPlus CodecPro
Requires user role: ADMIN, INTEGRATOR

Define the number of the video input that SpeakerTrack 60's right camera is connected to. This setting applies only when a Cisco TelePresence SpeakerTrack 60 camera is connected to the video conferencing device. Furthermore, Cameras SpeakerTrack ConnectorDetection Mode must be set to Manual.

MX700, MX800: Not applicable in this version.

USAGE:

xConfiguration Cameras SpeakerTrack ConnectorDetection CameraRight: **CameraRight**

where

**CameraRight:**

*Integer (1..5)* [SX80 CodecPro]

*Integer (1..3)* [CodecPlus]

Set a valid video input number. For example, set to 2 if the right camera is connected to video input 2.

Default value:

* 2 [SX80 CodecPlus CodecPro]

---

xConfiguration Cameras SpeakerTrack Whiteboard Mode

Applies to: SX80 MX700/MX800/MX800D RoomKit CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, INTEGRATOR, USER

The Snap to Whiteboard feature extends the speaker tracking functionality, thus you need a camera that supports speaker tracking. When a presenter is standing next to the whiteboard, the camera will capture both the presenter and the whiteboard if the Snap to Whiteboard feature is enabled. If the feature is disabled, only the presenter will be captured. The Snap to Whiteboard feature is set up from the Touch controller or web interface.

SX80, Codec Plus, Codec Pro: Applies only when the connected camera supports speaker tracking.

MX700, MX800: Applies only when the device has a dual camera (speaker tracking).

USAGE:

xConfiguration Cameras SpeakerTrack Whiteboard Mode: **Mode**

where

**Mode:**

*Off/On*

*Off:* The Snap to Whiteboard feature is disabled.

*On:* The Snap to Whiteboard feature is enabled.

Default value:

*Off*
Conference configuration

xConfiguration Conference AutoAnswer Mode
Applies to: All products
Requires user role: ADMIN
Define the auto answer mode. Use the Conference AutoAnswer Delay setting if you want
the device 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.

**USAGE:**
xConfiguration Conference AutoAnswer Mode: **Mode**
where

**Mode:**
- **Off/On**
  - **Off:** You can answer incoming calls manually from the devices user interface.
  - **On:** The device automatically answers incoming calls, except if you are already in a call.

You can answer or decline incoming calls manually when you are already engaged in a call.

Default value:
- **Off**

xConfiguration Conference AutoAnswer Mute
Applies to: All products
Requires user role: ADMIN
Define if the microphone shall be muted when an incoming call is automatically answered.
Requires that AutoAnswer Mode is switched on.

**USAGE:**
xConfiguration Conference AutoAnswer Mute: **Mute**
where

**Mute:**
- **Off/On**
  - **Off:** The incoming call will not be muted.
  - **On:** The incoming call will be muted when automatically answered.

Default value:
- **Off**

xConfiguration Conference AutoAnswer Delay
Applies to: All products
Requires user role: ADMIN
Define how long (in seconds) an incoming call has to wait before it is answered automatically by
the device. Requires that AutoAnswer Mode is switched on.

**USAGE:**
xConfiguration Conference AutoAnswer Delay: **Delay**
where

**Delay:**
- **Integer (0..50)**
  - The auto answer delay (seconds).

Default value:
- **0**
xConfiguration Conference DefaultCall Protocol

Applies to: All products
Requires user role: ADMIN

Define the Default Call Protocol to be used when placing calls from the device.

**USAGE:**
xConfiguration Conference DefaultCall Protocol: Protocol

where

Protocol:
- **Auto**/H320/H323/Sip/Spark
- **Auto**: Enables auto-selection of the call protocol based on which protocols are available. If multiple protocols are available, the order of priority is: 1) SIP; 2) H323; 3) H320. If the device cannot register, the auto-selection chooses H323.
- **H320**: All calls are set up as H.320 calls (only applicable if used with Cisco TelePresence ISDN Link).
- **H323**: All calls are set up as H.323 calls.
- **Sip**: All calls are set up as SIP calls.
- **Spark**: Reserved for Webex registered devices. Do not use.

Default value: Auto

xConfiguration Conference DefaultCall Rate

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Define the Default Call Rate to be used when placing calls from the device.

**USAGE:**
xConfiguration Conference DefaultCall Rate: Rate

where

Rate:
- Integer (64..6000) [ SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 DeskPro ]
- Integer (64..10000) [ Boards ]
- Integer (64..20000) [ RoomPanorama/Room70Panorama ]
- Integer (64..3072) [ DX70/DX80 SX10 ]

The default call rate (kbps).

Default value:
- 6000 [ SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 DeskPro ]
- 10000 [ Boards ]
- 16000 [ RoomPanorama/Room70Panorama ]
- 3072 [ DX70/DX80 SX10 ]
xConfiguration Conference DoNotDisturb DefaultTimeout

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

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.

**USAGE:**
xConfiguration Conference DoNotDisturb DefaultTimeout: DefaultTimeout

where

**DefaultTimeout:**
- Integer (1..1440)
  - The number of minutes (maximum 1440 minutes = 24 hours) before the Do Not Disturb session times out automatically.
- Default value: 60

xConfiguration Conference Encryption Mode

Applies to: All products
Requires user role: ADMIN

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

**USAGE:**
xConfiguration Conference Encryption Mode: Mode

where

**Mode:**
- Off/On/BestEffort
- Off: The device will not use encryption.
- On: The device will only allow calls that are encrypted.
- BestEffort: The device will use encryption whenever possible.
  - In Point to point calls: If the far end device 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.
- Default value: BestEffort
xConfiguration Conference FarEndControl Mode

Applies to: All products
Requires user role: ADMIN

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).

USAGE:
```
xConfiguration Conference FarEndControl Mode: Mode
```
where

- **Mode**:
  - **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.

Default value: **On**

---

xConfiguration Conference FarEndMessage Mode

Applies to: All products
Requires user role: ADMIN

Toggle whether it is allowed to send data between two devices in a point-to-point call, for use with control systems or macros. Works with SIP calls only. This setting will enable/disable the use of the xCommand Call FarEndMessage Send command.

USAGE:
```
xConfiguration Conference FarEndMessage Mode: Mode
```
where

- **Mode**:
  - **Off/On**
  - **Off**: It is not possible to send messages between two devices.
  - **On**: It is possible to send messages between two devices in a point-to-point call.

Default value: **Off**

---

xConfiguration Conference FarEndControl SignalCapability

Applies to: All products
Requires user role: ADMIN

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

USAGE:
```
xConfiguration Conference FarEndControl SignalCapability: SignalCapability
```
where

- **SignalCapability**:
  - **Off/On**
  - **Off**: Disable the far end control signal capability.
  - **On**: Enable the far end control signal capability.

Default value: **On**
xConfiguration Conference MaxReceiveCallRate

Applies to: All products
Requires user role: ADMIN

Define 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.

**USAGE:**

```
Conference xConfiguration MaxReceiveCallRate: MaxReceiveCallRate
where
MaxReceiveCallRate: Integer (64..6000) [ SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room70G2 Room70G2 DeskPro ]
Integer (64..20000) [ RoomPanorama/Room70Panorama ]
Integer (64..10000) [ Boards ]
Integer (64..3072) [ DX70/DX80 SX10 ]
```

The maximum receive call rate (kbps).

Default value:

- 6000 [ SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room70G2 Room70G2 DeskPro ]
- 20000 [ RoomPanorama/Room70Panorama ]
- 10000 [ Boards ]
- 3072 [ DX70/DX80 SX10 ]

---

xConfiguration Conference MaxTransmitCallRate

Applies to: All products
Requires user role: ADMIN

Define 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.

**USAGE:**

```
Conference xConfiguration MaxTransmitCallRate: MaxTransmitCallRate
where
MaxTransmitCallRate: Integer (64..6000) [ SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room70G2 Room70G2 DeskPro ]
Integer (64..20000) [ RoomPanorama/Room70Panorama ]
Integer (64..10000) [ Boards ]
Integer (64..3072) [ DX70/DX80 SX10 ]
```

The maximum transmit call rate (kbps).

Default value:

- 6000 [ SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room70G2 Room70G2 DeskPro ]
- 20000 [ RoomPanorama/Room70Panorama ]
- 3072 [ DX70/DX80 SX10 ]
xConfiguration Conference MaxTotalReceiveCallRate

Applies to: All products
Requires user role: ADMIN

Define the maximum overall receive bit rate allowed.
This configuration applies when using a device's built-in MultiSite feature (optional) to host a multipoint video conference. The bit rate will be divided fairly among all active calls at any time. This means that the individual calls will be up-speeded or down-speeded as appropriate when someone leaves or enters a multipoint conference, or when a call is put on hold (suspended) or resumed. The maximum receive bit rate for each individual call is defined in the Conference MaxReceiveCallRate setting.

DX70, DX80, and SX10 do 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).

**USAGE:**

```c
xConfiguration Conference MaxTotalReceiveCallRate: MaxTotalReceiveCallRate
```

where

```c
MaxTotalReceiveCallRate:
```

- `Integer (64..6000)` [ SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus Room55 Room70/Room55D ]
- `Integer (64..10000)` [ Boards ]
- `Integer (64..15000)` [ CodecPro Room70G2 DeskPro ]
- `Integer (64..20000)` [ RoomPanorama/Room70Panorama ]
- `Integer (64..3072)` [ DX70/DX80 SX10 ]

The maximum receive call rate (kbps).

**Default value:**

- `6000` [ SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus Room55 Room70/Room55D ]
- `10000` [ Boards ]
- `15000` [ CodecPro Room70G2 DeskPro ]
- `20000` [ RoomPanorama/Room70Panorama ]
- `3072` [ DX70/DX80 SX10 ]

xConfiguration Conference MaxTotalTransmitCallRate

Applies to: All products
Requires user role: ADMIN

Define the maximum overall transmit bit rate allowed.
This configuration applies when using a device's built-in MultiSite feature (optional) to host a multipoint video conference. The bit rate will be divided fairly among all active calls at any time. This means that the individual calls will be up-speeded or down-speeded as appropriate when someone leaves or enters a multipoint conference, or when a call is put on hold (suspended) or resumed. The maximum transmit bit rate for each individual call is defined in the Conference MaxTransmitCallRate setting.

DX70, DX80, SX10: 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).

**USAGE:**

```c
xConfiguration Conference MaxTotalTransmitCallRate: MaxTotalTransmitCallRate
```

where

```c
MaxTotalTransmitCallRate:
```

- `Integer (64..6000)` [ SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus Room55 Room70/Room55D Boards ]
- `Integer (64..15000)` [ CodecPro Room70G2 DeskPro ]
- `Integer (64..20000)` [ RoomPanorama/Room70Panorama ]
- `Integer (64..3072)` [ DX70/DX80 SX10 ]

The maximum transmit call rate (kbps).

**Default value:**

- `6000` [ SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus Room55 Room70/Room55D Boards ]
- `15000` [ CodecPro Room70G2 DeskPro ]
- `20000` [ RoomPanorama/Room70Panorama ]
- `3072` [ DX70/DX80 SX10 ]
**xConfiguration Conference MicUnmuteOnDisconnect Mode**

Applies to: All products  
Requires user role: ADMIN

Define 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 device for the next user.

**USAGE:**

```plaintext
xConfiguration Conference MicUnmuteOnDisconnect Mode: Mode
```

where

- **Mode:**  
  - 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.  

Default value: On

---

**xConfiguration Conference Multipoint Mode**

Applies to: All products  
Requires user role: ADMIN

Define how to expand a point-to-point video call (a call involving only two parties) into a multipoint conference with more participants (ad hoc conferences). Both the built-in MultiSite feature, which relies only on local resources, and different solutions based on centralized infrastructure (multipoint control units – MCUs) are available.

The MultiSite feature is an upgrade option and may not be available on all devices. The MultiSite option key must be installed on the device. The MultiSite feature is not available at all for SX10, DX70, and DX80.

If registered to a Cisco TelePresence Video Communication Server (VCS), the device can use MultiSite when calling other video devices. If registered to a Cisco Unified Communications Manager (CUCM) version 8.6.2 or newer, the device can use either a CUCM conference bridge, or the device’s own built-in MultiSite feature. Which option to use, is set-up by CUCM.

In either case, multiparty conferences may be set up via an MCU if you call an MCU that allows devices to add participants to a conference (Direct Remote Add).

**USAGE:**

```plaintext
xConfiguration Conference Multipoint Mode: Mode
```

where

- **Mode:**  
  - Auto/CUCMMediaResourceGroupList/MultiSite/Off
  - **Auto/CUCMMediaResourceGroupList**
    - **Auto**: The multipoint method is selected automatically.  
      - Multiparty conferences are set up using the built-in MultiSite feature, provided that the MultiSite option key is installed on the device, and that you are calling another video device (not an MCU). Only the MultiSite host can add participants. This prevents cascaded conferences. If the device doesn’t have the MultiSite option key, you cannot call more than one video device on video. All products except SX10, DX70, and DX80 may add one extra participant on audio-only.  
      - Regardless of the MultiSite option key, multiparty conferences may be set up via an MCU if you call an MCU that allows devices to add participants to a conference (Direct Remote Add).  
  - **CUCMMediaResourceGroupList**: Multiparty conferences are hosted by the CUCM configured conference bridge. This setting is provisioned by CUCM in a CUCM environment, and should never be set manually by the user.  
  - **MultiSite**: Multiparty conferences are set up using the built-in MultiSite feature, provided
FacilityService configuration

xConfiguration FacilityService Service [n] Type

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Up to five different facility services can be supported simultaneously. With this setting you can select what kind of services they are. A facility service is not available unless both the FacilityService Service [n] Name and the FacilityService Service [n] Number settings are properly set. Facility services are available from the user interface. They are not available for devices that use a remote control.

USAGE:
xConfiguration FacilityService Service [n] Type: Type

where

n: Unique ID that identifies the service.
Range: 1..5

Type:

- Catering/Concierge/Emergency/Helpdesk/Security/Transportation/Other

Catering: Select this option for catering services.
Concierge: Select this option for concierge services.
Emergency: Select this option for emergency services.
Helpdesk: Select this option for helpdesk services.
Security: Select this option for security services.
Transportation: Select this option for transportation services.
Other: Select this option for services not covered by the other options.

Default value: Helpdesk

xConfiguration Conference MultiStream Mode

Applies to: SX80, MX700/MX800/MX800D, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70Q2, RoomPanorama/Room70Panorama

Requires user role: ADMIN

The device supports multistream video for conferences.

USAGE:
xConfiguration Conference MultiStream Mode: Mode

where

Mode:

Auto/Off

Auto: Multistream will be used when the conference infrastructure supports the feature. Minimum versions required: CMS 2.2, CUCM 11.5, VCS X8.7.

Off: Multistream is disabled.

Default value: Auto
xConfiguration FacilityService Service [n] Name

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Define the name of the facility service. Up to five different facility services are supported. A facility service is not available unless both the FacilityService Service [n] Name and the FacilityService Service [n] Number settings are properly set. The name will show on the facility service call button, which appears when you tap the question mark icon in the top bar. Facility services are available from the user interface. They are not available for devices that use a remote control.

USAGE:
xConfiguration FacilityService Service [n] Name: "Name"

where:
  n: Unique ID that identifies the service.
    Range: 1..5
  Name:
    String (0, 1024)
    The name of the facility service.
    Default value:
      Service 1: "Live Support"  Other services: ""

xConfiguration FacilityService Service [n] Number

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Define the number (URI or phone number) of the facility service. Up to five different facility services are supported. A facility service is not available unless both the FacilityService Service [n] Name and the FacilityService Service [n] Number settings are properly set. Facility services are available from the user interface. They are not available for devices that use a remote control.

USAGE:
xConfiguration FacilityService Service [n] Number: "Number"

where:
  n: Unique ID that identifies the service.
    Range: 1..5
  Number:
    String (0, 1024)
    The number (URI or phone number) of the facility service.
    Default value:
      **
xConfiguration FacilityService Service [n] CallType

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Define the call type for each facility service. Up to five different facility services are supported. A facility service is not available unless both the FacilityService Service [n] Name and the FacilityService Service [n] Number settings are properly set. Facility services are available from the user interface. They are not available for devices that use a remote control.

USAGE:
xConfiguration FacilityService Service [n] CallType: CallType
where
n: Unique ID that identifies the service.
  Range: 1..5
CallType:
  Audio/Video
  Audio: Select this option for audio calls.
  Video: Select this option for video calls.
Default value:
  Video

GPIO configuration

xConfiguration GPIO Pin [n] Mode

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, INTEGRATOR

The four GPIO pins are configured individually. The state can be retrieved by xStatus GPIO Pin [1..4] State. The default pin state is High (+12 V). When activated as an output, a pin is set to 0 V (Low); when deactivated, it is set to +12 V (High). To activate a pin as an input, the voltage on the pin must be pulled down to 0 V; to deactivate it, raise the voltage to +12 V.

USAGE:
xConfiguration GPIO Pin [n] Mode: Mode
where
n: GPIO pin number.
  Range: 1..4
Mode:
  InputAcceptAllCalls/InputDisconnectAllCalls/InputMuteMicrophones/InputNoAction/
  OutputAllCallsEncrypted/OutputInCall/OutputManualState/OutputMicrophonesMuted/
  OutputPresentationOn/OutputStandbyActive
  InputAcceptAllCalls: When the pin is activated, the xCommand Call Accept command, which accepts all incoming calls, will be issued.
  InputDisconnectAllCalls: When the pin is activated, the xCommand Call Disconnect command, which disconnects all calls, will be issued.
  InputMuteMicrophones: When the pin is activated, the microphones will be muted. When deactivated, the microphones will be unmuted.
  InputNoAction: The pin state can be set, but no operation is performed.
  OutputAllCallsEncrypted: The pin is activated when all calls are encrypted, and deactivated when one or more calls are not encrypted.
  OutputInCall: The pin is activated when in call, and deactivated when not in call.
  OutputManualState: The pin state can be set by xCommand GPIO ManualState Set PinX: High/Low. It is set to +12 V or 0 V, respectively.
  OutputMicrophonesMuted: The pin is activated when microphones are muted, and deactivated when not muted.
  OutputPresentationOn: The pin is activated when presentation is active, and deactivated when presentation is not active.
  OutputStandbyActive: The pin is activated when the device is in standby mode, and deactivated when no longer in standby.
H323 configuration

xConfiguration H323 Authentication Mode

**Applies to:** DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN

Define the authentication mode for the H.323 profile.

**USAGE:**

```plaintext
xConfiguration H323 Authentication Mode: Mode
```

where

**Mode:**

- **Off/On**
  - **Off:** The device will not try to authenticate itself to a H.323 Gatekeeper, but will still try a normal registration.
  - **On:** If an H.323 Gatekeeper indicates that it requires authentication, the device will try to authenticate itself to the gatekeeper. Requires the H323 Authentication LoginName and H323 Authentication Password settings to be defined on both the device and the Gatekeeper.

**Default value:**

**Off**
**xConfiguration H323 Authentication LoginName**

** Applies to:** DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

** Requires user role:** ADMIN

The device sends the H323 Authentication Login Name and the H323 Authentication Password to an H.323 Gatekeeper for authentication. The authentication is a one way authentication from the device to the H.323 Gatekeeper, i.e. the device is authenticated to the gatekeeper. If the H.323 Gatekeeper indicates that no authentication is required, the device will still try to register. Requires the H.323 Authentication Mode to be enabled.

** USAGE:**

```plaintext
xConfiguration H323 Authentication LoginName: "LoginName"
```

where

- **LoginName:**
  - **String (0, 50)**
  - The authentication login name.
- **Default value:** ""

**xConfiguration H323 Authentication Password**

** Applies to:** DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

** Requires user role:** ADMIN

The device sends the H323 Authentication Login Name and the H323 Authentication Password to an H.323 Gatekeeper for authentication. The authentication is a one way authentication from the device to the H.323 Gatekeeper, i.e. the device is authenticated to the gatekeeper. If the H.323 Gatekeeper indicates that no authentication is required, the device will still try to register. Requires the H.323 Authentication Mode to be enabled.

** USAGE:**

```plaintext
xConfiguration H323 Authentication Password: "Password"
```

where

- **Password:**
  - **String (0, 50)**
  - The authentication password.
- **Default value:** ""
xConfiguration H323 CallSetup Mode

Applies to: DX70/DX80, SX10, SX20, SX80, MX200G2/MX300G2, MX700/MX800/MX800D, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55SD, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

Requires user role: ADMIN

Defines whether to use a Gatekeeper or Direct calling when establishing H.323 calls. Direct H.323 calls can be made also when H323 CallSetup Mode is set to Gatekeeper.

USAGE:

```ini
xConfiguration H323 CallSetup Mode: Mode
where
Mode:
  Direct/Gatekeeper
  Direct: You can only make an H.323 call by dialing an IP address directly.
  Gatekeeper: The device uses a Gatekeeper to make an H.323 call. When choosing this option, the H323 Gatekeeper Address must also be configured.

Default value:
  Gatekeeper
```

xConfiguration H323 Encryption KeySize

Applies to: DX70/DX80, SX10, SX20, SX80, MX200G2/MX300G2, MX700/MX800/MX800D, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55SD, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

Requires user role: ADMIN

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

USAGE:

```ini
xConfiguration H323 Encryption KeySize: KeySize
where
KeySize:
  Max1024bit/Min1024bit/Min2048bit
  Max1024bit: The maximum size is 1024 bit.
  Min1024bit: The minimum size is 1024 bit.
  Min2048bit: The minimum size is 2048 bit.

Default value:
  Min1024bit
```

xConfiguration H323 Gatekeeper Address

Applies to: DX70/DX80, SX10, SX20, SX80, MX200G2/MX300G2, MX700/MX800/MX800D, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55SD, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

Requires user role: ADMIN

Define the IP address of the Gatekeeper. Requires H323 CallSetup Mode to be set to Gatekeeper.

USAGE:

```ini
xConfiguration H323 Gatekeeper Address: "Address"
where
Address:
  String (0, 255)
  A valid IPv4 address, IPv6 address or DNS name.

Default value:
  *
```
xConfiguration H323 H323Alias E164

Applies to: DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN

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

USAGE:
configuration H323 H323Alias E164: "E164"
where
E164:
String (0, 30)
The H.323 Alias E.164 address. Valid characters are 0–9, * and #.
Default value:
"

xConfiguration H323 H323Alias ID

Applies to: DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN

Define the H.323 Alias ID, which is used to address the device on a H.323 Gatekeeper and will be displayed in the call lists.

USAGE:
configuration H323 H323Alias ID: "ID"
where
ID:
String (0, 49)
The H.323 Alias ID. Example: "firstname.lastname@company.com", "My H.323 Alias ID"
Default value:
"

xConfiguration H323 NAT Mode

Applies to: DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN

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

USAGE:
configuration H323 NAT Mode: Mode
where
Mode:
Auto/Off/On
Auto: The device will determine if the H323 NAT Address or the real IP address should be used in signaling. This makes it possible to place calls to devices on the LAN as well as devices on the WAN. If the H323 NAT Address is wrong or not set, the real IP address will be used.
Off: The device will signal the real IP address.
On: The device will signal the configured H323 NAT Address instead of its real IP address in Q.931 and H.245. The NAT server address will be shown in the startup-menu as: "My IP Address: 10.0.2.1". If the H323 NAT Address is wrong or not set, H.323 calls cannot be set up.
Default value:
Off
xConfiguration H323 NAT Address

**Applies to:** DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN

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

In the router, the following ports must be routed to the video conferencing device's IP address:

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

**USAGE:**

```
xConfiguration H323 NAT Address: "Address"
```

where

**Address:**

String (0, 64)

A valid IPv4 address or IPv6 address.

Default value: ""

HttpClient configuration

**xConfiguration HttpClient Mode**

**Applies to:** All products

Requires user role: ADMIN

Allow or prohibit communication with an external HTTP(S) server using HTTP(S) requests and responses.

**USAGE:**

```
xConfiguration HttpClient Mode: Mode
```

where

**Mode:**

```
Off/On
```

**Off:** The video conferencing device cannot communicate with an external HTTP(S) server.

**On:** The video conferencing device is allowed to communicate with an external HTTP(S) server.

Default value: **Off**
xConfiguration HttpClient AllowHTTP

Applies to: All products
Requires user role: ADMIN

The HttpClient Mode setting is used to allow or prohibit communication with an external HTTP(S) server. The Mode setting does not distinguish between HTTP and HTTPS. You must use the HttpClient AllowHTTP setting to further allow or prohibit the use of HTTP.

**USAGE:**

```plaintext
xConfiguration HttpClient AllowHTTP: AllowHTTP
where
   AllowHTTP:
      False/True
   False: The video conferencing device can communicate only over HTTPS.
   True: The video conferencing device can communicate over both HTTPS and HTTP.
Default value:
   True
```

xConfiguration HttpClient AllowInsecureHTTPS

Applies to: All products
Requires user role: ADMIN

You can choose whether or not to allow the video conferencing device to communicate with a server over HTTPS without checking the server's certificate first. Even if the device is allowed to skip the certificate validation process, it doesn't automatically do it. You must specifically set the AllowInsecureHTTPS parameter in each xCommand HttpClient command for data to be exchanged with the server without certificate validation.

**USAGE:**

```plaintext
xConfiguration HttpClient AllowInsecureHTTPS: AllowInsecureHTTPS
where
   AllowInsecureHTTPS:
      False/True
   False: The device always checks that the HTTPS server has a valid certificate. No communication with the server takes place if the certificate validation fails.
   True: The device is allowed to skip the certificate validation process before communicating with the server.
Default value:
   False
```
xConfiguration HttpClient UseHttpProxy

Applies to: All products
Requires user role: ADMIN

There are several UseHttpProxy settings that specify if a service shall communicate via an HTTP proxy or not. The HttpClient UseHttpProxy setting applies to macros and arbitrary HTTP(S) requests using the HttpClient commands.

For this setting to have any effect, a proxy server for HTTP, HTTPS, and WebSocket traffic must be set up using the NetworkServices HTTP Proxy settings.

**USAGE:**

xConfiguration HttpClient UseHttpProxy: `UseHttpProxy`

where

`UseHttpProxy`:

- **Off/On**
  
  - **Off**: Set up communication directly with the server (not using a proxy).
  
  - **On**: Set up communication via proxy.

Default value: On

httpFeedback configuration

xConfiguration HttpFeedback TlsVerify

Applies to: All products
Requires user role: ADMIN

This setting applies when a video conferencing device connects to an HTTPS server for arbitrary HTTPS communication (refer to the HttpClient Post/Put/Patch/Get/Delete commands). For phone book, provisioning, and external logging servers, see the Phonebook Server 1 TlsVerify, Provisioning TlsVerify, and Logging External TlsVerify settings.

Before establishing a connection between the device and the HTTPS server, the device checks if the certificate of the server is signed by a trusted Certificate Authority (CA). The CA certificate must be included in the CA list on the device, either pre-installed or manually uploaded using the web interface or API.

In general, the minimum TLS (Transport Layer Security) version for the HTTPS connection is 1.1. There are two exceptions to this rule: 1) For compatibility reasons, the minimum TLS version is 1.0 for devices that are registered to CUCM. 2) Devices registered to the Webex cloud service always use version 1.2.

Note: The value is set to Off for a device that has been upgraded to CE9.9 (or later) from CE9.8 or earlier software versions, provided that the device has not been factory reset after the upgrade, and that the old NetworkServices HTTPS VerifyServerCertificate setting was not explicitly set to On.

**USAGE:**

xConfiguration HttpFeedback TlsVerify: `TlsVerify`

where

`TlsVerify`:

- **Off/On**
  
  - **Off**: The device doesn't check the certificate of the HTTPS server.
  
  - **On**: The device checks if the certificate of the HTTPS server can be trusted. If not, the connection between the device and the server is not established.

Default value: On
xConfiguration HttpFeedback UseHttpProxy

Applies to: All products
Requires user role: ADMIN

There are several UseHttpProxy settings that specify if a service shall communicate via an HTTP proxy or not. The HttpFeedback UseHttpProxy setting applies to feedback sent from the video device.

For this setting to have any effect, a proxy server for HTTP, HTTPS, and WebSocket traffic must be set up using the NetworkServices HTTP Proxy settings.

**USAGE:**

```
xConfiguration HttpFeedback UseHttpProxy: UseHttpProxy
```

where

```
UseHttpProxy: Off/On
```

**Off:** Set up communication directly with the server (not using a proxy).

**On:** Set up communication via proxy.

Default value:

```
On
```

Logging configuration

xConfiguration Logging CloudUpload Mode

Applies to: All products
Requires user role: ADMIN

Specify whether or not logs can be uploaded to the cloud by this device.

When enabled, the device will display an "Upload Logs" button on the user interface for the video device and in Control Hub.

If the "Upload Logs" button is pressed, the device logs will be collected, filtered for personally-identifiable information, and uploaded to the cloud. From there, the Administrator can access the logs through the administration pages.

The device must either be registered to the Webex cloud service or registered to an on-premises service and linked to Webex Edge for Devices.

**USAGE:**

```
xConfiguration Logging CloudUpload Mode: Mode
```

where

```
Mode: Off/On
```

**Off:** Hide the "Upload Logs" button.

**On:** Display the "Upload Logs" button on a cloud-registered device.

Default value:

```
Off
```
xConfiguration Logging External Mode
Applies to: All products
Requires user role: ADMIN
Specify whether or not to store the device logs on a remote syslog server. This setting has no effect if the Logging Mode setting is set to Off.
You must enter the address of the remote server in the Logging External Server Address setting. Unless otherwise specified in the Logging External Server Port setting, the standard syslog port is used.

USAGE:
xConfiguration Logging External Mode: Mode
where
Mode:
  Off/On
  Off: Device logs will not be stored on the remote syslog server.
  On: Device logs will be stored on the remote syslog server.
  Default value:
    Off

xConfiguration Logging External Server Address
Applies to: All products
Requires user role: ADMIN
Specify the address of the remote syslog server.

USAGE:
xConfiguration Logging External Server Address: "Address"
where
  Address:
    String (0, 255)
    A valid IPv4 address, IPv6 address or DNS name.
    Default value:
      *

xConfiguration Logging External Server Port
Applies to: All products
Requires user role: ADMIN
The port that the remote syslog server listens for messages on. If set to 0, the device will use the standard syslog port. The standard syslog port is 514 for syslog, and 6514 for syslog over TLS.

USAGE:
xConfiguration Logging External Server Port: Port
where
  Port:
    Integer (0..65535)
    The number of the port that the remote syslog server is using. 0 means that the device uses the standard syslog port.
    Default value:
      514

xConfiguration Logging External Protocol
Applies to: All products
Requires user role: ADMIN
Specify which protocol to use toward the remote logging server. You can use either the syslog protocol over TLS (Transport Layer Security), or the syslog protocol in plaintext. For details about the syslog protocol, see RFC 5424.

USAGE:
xConfiguration Logging External Protocol: Protocol
where
  Protocol:
    Syslog/SyslogTLS
    Syslog: Syslog protocol in plain text.
    SyslogTLS: Syslog protocol over TLS.
    Default value:
      SyslogTLS
xConfiguration Logging External TlsVerify

 Applies to: All products
 Requires user role: ADMIN

 This setting applies when a video conferencing device connects to a remote syslog server. It applies to both regular logging (refer to the Logging External Mode setting) and audit logging (refer to the Security Audit Logging Mode setting).

 Before establishing a connection between the device and the syslog server, the device checks if the certificate of the server is signed by a trusted Certificate Authority (CA). The CA certificate must be included in the CA list on the device, either pre-installed or manually uploaded using the web interface or API.

 The minimum TLS (Transport Layer Security) version for the syslog connection is 1.1.

 USAGE:
  xConfiguration Logging External TlsVerify: TlsVerify
  where
  TlsVerify:
  Off/On
  Off: The device doesn't check the certificate of the syslog server.
  On: The device checks if the certificate of the syslog server can be trusted. If not, the connection between the device and the server is not established.
  Default value:
  On

xConfiguration Logging Internal Mode

 Applies to: All products
 Requires user role: ADMIN

 Specify whether or not to store the system logs on the device (local files). These are the files that you get when you download the log bundles from the device. This setting has no effect if the Logging Mode setting is set to Off.

 USAGE:
  xConfiguration Logging Internal Mode: Mode
  where
  Mode:
  Off/On
  Off: System logs will not be stored on the device.
  On: System logs will be stored on the device.
  Default value:
  On
Macros configuration

**xConfiguration Macros Mode**

*Applies to: DX70/DX80 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards*

*Requires user role: ADMIN*

Macros allow you to write snippets of JavaScript code that can automate parts of your video conferencing device, thus creating custom behavior. Use of macros is disabled by default, but the first time you open the Macro Editor you will be asked whether to enable use of macros on the device. Use this setting when you want to manually enable, or to permanently disable the use of macros on the device. You can disable the use of macros within the Macro Editor. But this will not permanently disable macros from running, because every time the device is reset the macros will be re-enabled automatically.

**USAGE:**

```
xConfiguration Macros Mode: Mode

Mode:
Off/On

Off: Permanently disable the use of macros on this device.
On: Enable the use of macros on this device.
```

*Default value: Off*

---

**xConfiguration Macros AutoStart**

*Applies to: DX70/DX80 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards*

*Requires user role: ADMIN*

All the macros run in a single process on the video conferencing device, called the macro runtime. It should be running by default, but you can choose to stop and start it manually. If you restart the device, the runtime will automatically start again if auto start is enabled.

**USAGE:**

```
xConfiguration Macros AutoStart: AutoStart

AutoStart:
Off/On

Off: The macro runtime will not start automatically after a restart of the device.
On: The macro runtime will start automatically after a restart of the device.
```

*Default value: On*
xConfiguration Macros UnresponsiveTimeout

**Applies to:** DX70/DX80 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN

Macros are continuously monitored to detect unresponsive code. Unresponsive macros are typically a sign of a programming error, but occasionally it might be due to limited system resources. Increasing the value allows macros to run for longer without being terminated, while decreasing the value ensures that faulty macros do not consume system resources.

**USAGE:**

xConfiguration Macros UnresponsiveTimeout: **UnresponsiveTimeout**

where

**UnresponsiveTimeout:**

Integer (0..65535)

Set the number of seconds before terminating an unresponsive macro. The value 0 disables the check altogether.

Default value:

5  [ SX80 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards ]

10  [ DX70/DX80 SX20 MX200G2/MX300G2 ]

Network configuration

xConfiguration Network [n] DNS DNSSEC Mode

**Applies to:** All products

**Requires user role:** ADMIN

Domain Name System Security extensions (DNSSEC) is a set of extensions to DNS. It is used to authenticate DNS replies for zones that are signed. It will still allow unsigned zones.

**USAGE:**

xConfiguration Network [n] DNS DNSSEC Mode: **Mode**

where

**n:** Index that identifies the network.

Range: 1..1

**Mode:**

**Off/On**

**Off:** Disable Domain Name System Security Extensions.

**On:** Enable Domain Name System Security Extensions.

Default value:

**Off**
xConfiguration Network [n] DNS Domain Name

Applies to: All products
Requires user role: ADMIN, USER

The 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".

USAGE:
```
xConfiguration Network [n] DNS Domain Name: "Name"
where
  n: Index that identifies the network.
    Range: 1..1
  Name:
    String (0, 64)
    The DNS domain name.
    Default value: ""
```

xConfiguration Network [n] DNS Server [m] Address

Applies to: All products
Requires user role: ADMIN, USER

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

USAGE:
```
xConfiguration Network [n] DNS Server [m] Address: "Address"
where
  n: Index that identifies the network.
    Range: 1..1
  m: Index that identifies the DNS server. Maximum three DNS servers are allowed.
    Range: 1..3
  Address:
    String (0, 64)
    A valid IPv4 address or IPv6 address.
    Default value: ""
```
xConfiguration Network \([n]\) IEEE8021X Mode

Applies to: All products
Requires user role: ADMIN, USER

The device 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.

**USAGE:**
xConfiguration Network \([n]\) IEEE8021X Mode: \texttt{Mode} where
\(n\) Index that identifies the network.
Range: 1..1
\texttt{Mode}:
\texttt{Off/On}
\texttt{Off}: The 802.1X authentication is disabled.
\texttt{On}: The 802.1X authentication is enabled.
Default value: \texttt{Off}

xConfiguration Network \([n]\) IEEE8021X TlsVerify

Applies to: All products
Requires user role: ADMIN, USER

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 conferencing device. This can be done from the web interface.
This setting takes effect only when Network \([1]\) IEEE8021X Eap Tls is enabled (On).

**USAGE:**
xConfiguration Network \([n]\) IEEE8021X TlsVerify: \texttt{TlsVerify} where
\(n\) Index that identifies the network.
Range: 1..1
\texttt{TlsVerify}:
\texttt{Off/On}
\texttt{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 device.
\texttt{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.
Default value: \texttt{Off}
xConfiguration Network [n] IEEE8021X UseClientCertificate
Applies to: All products
Requires user role: ADMIN, USER

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

**USAGE:**

where:
  n: Index that identifies the network.
  Range: 1..1
UseClientCertificate:
  Off/On
  Off: When set to Off client-side authentication is not used (only server-side).
  On: When set to On the client (video conferencing device) will perform a mutual authentication TLS handshake with the server.
Default value:
  Off

xConfiguration Network [n] IEEE8021X Identity
Applies to: All products
Requires user role: ADMIN, USER

Define the username for 802.1X authentication.

**USAGE:**

xConfiguration Network [n] IEEE8021X Identity: "Identity"
where
  n: Index that identifies the network.
  Range: 1..1
Identity:
  String (0, 64)
  The username for 802.1X authentication.
  Default value:
    *

xConfiguration Network [n] IEEE8021X Password
Applies to: All products
Requires user role: ADMIN, USER

Define the password for 802.1X authentication.

**USAGE:**

xConfiguration Network [n] IEEE8021X Password: "Password"
where
  n: Index that identifies the network.
  Range: 1..1
Password:
  String (0, 50)
  The password for 802.1X authentication.
  Default value:
    *
xConfiguration Network [n] IEEE8021X AnonymousIdentity

Applies to: All products
Requires user role: ADMIN, USER

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.

**USAGE:**

```
```

where

- `n`: Index that identifies the network.
  - Range: 1..1
- `AnonymousIdentity`: String (0, 64)
  - The 802.1X Anonymous ID string.
  - Default value: ""

xConfiguration Network [n] IEEE8021X Eap Md5

Applies to: All products
Requires user role: ADMIN, USER

Define 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.

**USAGE:**

```
xConfiguration Network [n] IEEE8021X Eap Md5: Md5
```

where

- `n`: Index that identifies the network.
  - Range: 1..1
- `Md5`: Off/On
  - Off: The EAP-MD5 protocol is disabled.
  - On: The EAP-MD5 protocol is enabled.

Default value: On
xConfiguration Network \([n]\) IEEE8021X Eap Ttls

**Applies to:** All products

**Requires user role:** ADMIN, USER

Define 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.

**USAGE:**

```
xConfiguration Network \([n]\) IEEE8021X Eap Ttls: Ttls
```

where

\(n\): Index that identifies the network.

- **Range:** 1..1

**Ttls:**

- **Off/On**
  - **Off:** The EAP-TTLS protocol is disabled.
  - **On:** The EAP-TTLS protocol is enabled.

**Default value:** **On**

---

xConfiguration Network \([n]\) IEEE8021X Eap Tls

**Applies to:** All products

**Requires user role:** ADMIN, USER

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.

**USAGE:**

```
xConfiguration Network \([n]\) IEEE8021X Eap Tls: Tls
```

where

\(n\): Index that identifies the network.

- **Range:** 1..1

**Tls:**

- **Off/On**
  - **Off:** The EAP-TLS protocol is disabled.
  - **On:** The EAP-TLS protocol is enabled.

**Default value:** **On**
**xConfiguration Network [n] IEEE8021X Eap Peap**

**Applies to:** All products  
**Requires user role:** ADMIN, USER  

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

**USAGE:**

```
xConfiguration Network [n] IEEE8021X Eap Peap: Peap
```

where

- **n**: Index that identifies the network.  
  Range: 1..1

**Peap:**

- **Off/On**
  - **Off**: The EAP-PEAP protocol is disabled.  
  - **On**: The EAP-PEAP protocol is enabled.

Default value:

- **On**

---

**xConfiguration Network [n] IPStack**

**Applies to:** All products  
**Requires user role:** ADMIN, USER

Select if the device 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.

**USAGE:**

```
xConfiguration Network [n] IPStack: IPStack
```

where

- **n**: Index that identifies the network.  
  Range: 1..1

**IPStack:**

- **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 device will use IPv4 on the network interface.  
  - **IPv6**: When set to IPv6, the device will use IPv6 on the network interface.

Default value:

- **Dual**
xConfiguration Network [n] IPv4 Assignment

Applies to: All products
Requires user role: ADMIN, USER

Define how the device will obtain its IPv4 address, subnet mask and gateway address.
When using DHCP for address assignment, the MAC address is used as client identifier in DHCP requests for the SX10, SX20, SX80, MX200 G2, MX300 G2, and Touch 10. "01" appended by the MAC address is used for the other products.

USAGE:
xConfiguration Network [n] IPv4 Assignment: Assignment
where
  n: Index that identifies the network.
    Range: 1..1

Assignment:
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 device addresses are automatically assigned by the DHCP server.

Default value:
  DHCP

xConfiguration Network [n] IPv4 Address

Applies to: All products
Requires user role: ADMIN, USER

Define the static IPv4 network address for the device. Applicable only when Network IPv4 Assignment is set to Static.

USAGE:
xConfiguration Network [n] IPv4 Address: "Address"
where
  n: Index that identifies the network.
    Range: 1..1
  Address:
    String (0, 64)
    A valid IPv4 address.
    Default value:
      *

xConfiguration Network [n] IPv4 Gateway

Applies to: All products
Requires user role: ADMIN, USER

Define the IPv4 network gateway address. Applicable only when the Network IPv4 Assignment is set to Static.

USAGE:
xConfiguration Network [n] IPv4 Gateway: "Gateway"
where
  n: Index that identifies the network.
    Range: 1..1
  Gateway:
    String (0, 64)
    A valid IPv4 address.
    Default value:
      *
xConfiguration Network [n] IPv4 SubnetMask

 Applies to: All products
 Requires user role: ADMIN, USER

 Define the IPv4 network subnet mask. Applicable only when the Network IPv4 Assignment is set to Static.

 USAGE:
 xConfiguration Network [n] IPv4 SubnetMask: "SubnetMask"
 where
 n: Index that identifies the network.
   Range: 1..1
 SubnetMask:
   String (0, 64)
   A valid IPv4 address.
   Default value: ""

 xConfiguration Network [n] IPv6 Assignment

 Applies to: All products
 Requires user role: ADMIN, USER

 Define how the device will obtain its IPv6 address and the default gateway address.

 When using DHCPv6 for address assignment, the MAC address is used as client identifier in DHCP requests for the SX10, SX20, SX80, MX200 G2, MX300 G2, and Touch 10. "01" appended by the MAC address is used for the other products.

 USAGE:
 xConfiguration Network [n] IPv6 Assignment: Assignment
 where
 n: Index that identifies the network.
   Range: 1..1
 Assignment:
   Static/DHCPv6/Autoconf
   Static: The device 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.
   Default value: Autoconf
xConfiguration Network [n] IPv6 Address
Applies to: All products
Requires user role: ADMIN, USER
Define the static IPv6 network address for the device. Applicable only when the Network IPv6 Assignment is set to Static.

USAGE:
xConfiguration Network [n] IPv6 Address: "Address"
where
  n: Index that identifies the network.
    Range: 1..1
  Address:
    String (0, 64)
    A valid IPv6 address including a network mask. Example: 2001:DB8::/48
    Default value: ""

xConfiguration Network [n] IPv6 Gateway
Applies to: All products
Requires user role: ADMIN, USER
Define the IPv6 network gateway address. This setting is only applicable when the Network IPv6 Assignment is set to Static.

USAGE:
xConfiguration Network [n] IPv6 Gateway: "Gateway"
where
  n: Index that identifies the network.
    Range: 1..1
  Gateway:
    String (0, 64)
    A valid IPv6 address.
    Default value: ""

xConfiguration Network [n] IPv6 DHCPOptions
Applies to: All products
Requires user role: ADMIN, USER
Retrieve a set of DHCP options, for example NTP and DNS server addresses, from a DHCPv6 server.

USAGE:
xConfiguration Network [n] IPv6 DHCPOptions: DHCPOptions
where
  n: Index that identifies the network.
    Range: 1..1
  DHCPOptions:
    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.
    Default value: On

xConfiguration Network [n] MTU
Applies to: All products
Requires user role: ADMIN, USER
Define the Ethernet MTU (Maximum Transmission Unit) size. The MTU size must be supported by your network infrastructure. The minimum size is 576 for IPv4 and 1280 for IPv6.

USAGE:
xConfiguration Network [n] MTU: MTU
where
  n: Index that identifies the network.
    Range: 1..1
  MTU:
    Integer (576..1500)
    Set a value for the MTU (bytes).
    Default value: 1500
xConfiguration Network [n] QoS Mode

Applies to: All products
Requires user role: ADMIN, USER

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

**USAGE:**

xConfiguration Network [n] QoS Mode: Mode

where

- \( n \): Index that identifies the network.
  - Range: 1..1
- **Mode**:
  - Off/Diffserv
  - Off: No QoS method is used.
  - 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.

Default value: Diffserv

---

xConfiguration Network [n] QoS Diffserv Audio

Applies to: All products
Requires user role: ADMIN, USER

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

Define which priority Audio packets should have in the IP network. The traffic classes recommended in the DiffServ RFCs map to a decimal value between 0 and 63. We recommend you use EF for Audio. EF equals the decimal value 46.

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

**USAGE:**

xConfiguration Network [n] QoS Diffserv Audio: Audio

where

- \( n \): Index that identifies the network.
  - Range: 1..1
- **Audio**:
  - Integer (0..63)
  - Set the priority of the audio packets in the IP network. 0 means "best-effort".

Default value: 46
xConfiguration Network [n] QoS Diffserv Video

Applies to: All products
Requires user role: ADMIN, USER

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

Define which priority Video packets should have in the IP network. The packets of the presentation channel (shared content) are also in the Video packet category. The traffic classes recommended in the DiffServ RFCs map to a decimal value between 0 and 63. We recommend you use AF41 for Video. AF41 equals the decimal value 34.

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

**USAGE:**

xConfiguration Network [n] QoS Diffserv Video: Video

where

- **n**: Index that identifies the network.
  - Range: 1..1

**Video**:

- Integer (0..63)
  - Set the priority of the video packets in the IP network. 0 means "best-effort".
  - Default value: 34

---

xConfiguration Network [n] QoS Diffserv Data

Applies to: All products
Requires user role: ADMIN, USER

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

Define which priority Data packets should have in the IP network. The traffic classes recommended in the DiffServ RFCs map to a decimal value between 0 and 63. We recommend you use AF41 for Data. AF41 equals the decimal value 34.

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

**USAGE:**

xConfiguration Network [n] QoS Diffserv Data: Data

where

- **n**: Index that identifies the network.
  - Range: 1..1

**Data**:

- Integer (0..63)
  - Set the priority of the data packets in the IP network. 0 means "best-effort".
  - Default value: 34
xConfiguration Network [n] QoS Diffserv Signalling
Applies to: All products
Requires user role: ADMIN, USER

This setting takes effect only 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 traffic classes recommended in the DiffServ RFCs map to a decimal value between 0 and 63. We recommend you use CS3 for Signalling. CS3 equals the decimal value 24.
The priority set here might be overridden when packets are leaving the network controlled by the local network administrator.

USAGE:
xConfiguration Network [n] QoS Diffserv Signalling: Signalling
where
  n: Index that identifies the network.
    Range: 1..1
  Signalling:
    Integer (0..63)
    Set the priority of the signalling packets in the IP network. 0 means "best-effort".
    Default value:
      24

xConfiguration Network [n] QoS Diffserv ICMPv6
Applies to: All products
Requires user role: ADMIN, USER

This setting takes effect only if Network QoS Mode is set to Diffserv.
Define which priority ICMPv6 packets should have in the IP network. The traffic classes recommended in the DiffServ RFCs map to a decimal value between 0 and 63. We recommend you use 0 for ICMPv6.
The priority set here might be overridden when packets are leaving the network controlled by the local network administrator.

USAGE:
xConfiguration Network [n] QoS Diffserv ICMPv6: ICMPv6
where
  n: Index that identifies the network.
    Range: 1..1
  ICMPv6:
    Integer (0..63)
    Set the priority of the ICMPv6 packets in the IP network. 0 means "best effort".
    Default value:
      0
xConfiguration Network [n] QoS Diffserv NTP

Applies to: All products
Requires user role: ADMIN, USER

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

Define which priority NTP packets should have in the IP network. The traffic classes recommended in the DiffServ RFCs map to a decimal value between 0 and 63. We recommend you use 0 for NTP.

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

**USAGE:**

```
xConfiguration Network [n] QoS Diffserv NTP: NTP
```

where

- `n`: Index that identifies the network.
- `Range: 1..1`
- `NTP`: `Integer (0..63)`
  - Set the priority of the NTP packets in the IP network. 0 means "best-effort".
  - Default value: 0

xConfiguration Network [n] RemoteAccess Allow

Applies to: All products
Requires user role: ADMIN, USER

Define which IP addresses (IPv4/IPv6) are allowed for remote access to the device from HTTP, HTTPS, SSH or Telnet.

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

Telnet is only supported by SX Series, MX Series and DX70/DX80.

**USAGE:**

```
xConfiguration Network [n] RemoteAccess Allow: "Allow"
```

where

- `n`: Index that identifies the network.
- `Range: 1..1`
- `Allow`: `String (0..255)`
  - A valid IPv4 address or IPv6 address.
  - Default value: ""
xConfiguration Network [n] Speed

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Define the Ethernet link speed. We recommend not to change from the default value, which negotiates with the network to set the speed automatically. If you do not use auto-negotiation, make sure that the speed you choose is supported by the closest switch in your network infrastructure.

USAGE:
xConfiguration Network [n] Speed: Speed

where
n: Index that identifies the network.
Range: 1..1
Speed:
Auto/10half/10full/100half/100full
Auto/10half/10full/100half/100full/1000full
[ SX10 ]
[ DX70/DX80 SX20 SX80 MX200G2/MX300G2 MX700/ MX800/MX800D RoomKit RoomKitMini CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards ]
Auto: Auto-negotiate link speed.
10half: Force link to 10 Mbps half-duplex.
10full: Force link to 10 Mbps full-duplex.
100half: Force link to 100 Mbps half-duplex.
100full: Force link to 100 Mbps full-duplex.
1000full: Force link to 1 Gbps full-duplex.
Default value: Auto

xConfiguration Network [n] VLAN Voice Mode

Applies to: All products
Requires user role: ADMIN, USER

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

USAGE:
xConfiguration Network [n] VLAN Voice Mode: Mode

where
n: Index that identifies the network.
Range: 1..1
Mode:
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.
Default value:
Auto
xConfiguration Network [n] VLAN Voice VlanId

Applies to: All products
Requires user role: ADMIN, USER

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

**USAGE:**

```
xConfiguration Network [n] VLAN Voice VlanId: VlanId
```

where

- **n**: Index that identifies the network.
  - Range: 1..1
- **VlanId**: Integer (1..4094)
  - Set the VLAN voice ID.
  - Default value: 1

---

NetworkPort configuration

xConfiguration NetworkPort [n] Mode

Applies to: DX70/DX80
Requires user role: ADMIN

The video conferencing device has two network ports. The first network port is for connecting the device to Ethernet LAN. The second network port (also called the computer network port) allows you to connect a computer to the Ethernet LAN via the device. In this way, you only need one network wall socket to support both the video conferencing device and the computer.

If the video conferencing device is used in a public environment we recommend that you disable this network port, to prevent people from connecting a computer to your network through the device.

You have to restart the device for any change to this setting to take effect.

**USAGE:**

```
xConfiguration NetworkPort [n] Mode: Mode
```

where

- **n**: Unique ID that identifies the network port.
  - Range: 2..2
- **Mode**: Off/On
  - *Off*: The computer network port is disabled.
  - *On*: The computer network port is available for use.
  - Default value: On
NetworkServices configuration

xConfiguration NetworkServices CDP Mode

 Applies to: All products
 Requires user role: ADMIN

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

 USAGE:
 xConfiguration NetworkServices CDP Mode: Mode
 where
 Mode:
 Off/On
 Off: The CDP daemon is disabled.
 On: The CDP daemon is enabled.
 Default value: On

xConfiguration NetworkServices H323 Mode

 Applies to: All products
 Requires user role: ADMIN

 Define whether the device should be able to place and receive H.323 calls or not.

 USAGE:
 xConfiguration NetworkServices H323 Mode: Mode
 where
 Mode:
 Off/On
 Off: Disable the possibility to place and receive H.323 calls.
 On: Enable the possibility to place and receive H.323 calls.
 Default value: Off

xConfiguration NetworkServices HTTP Mode

 Applies to: All products
 Requires user role: ADMIN

 Define whether or not to allow access to the device using the HTTP or HTTPS (HTTP Secure) protocols. Note that the device’s web interface use HTTP or HTTPS. If this setting is switched Off, you cannot use the web interface.

 For additional security (encryption and decryption of requests and pages that are returned by the web server), allow only HTTPS.

 Note: The default value is HTTP+HTTPS for devices that have been upgraded to CE9.4 (or later) from an earlier software version, provided that the device has not been factory reset after the upgrade.

 USAGE:
 xConfiguration NetworkServices HTTP Mode: Mode
 where
 Mode:
 Off/HTTP+HTTPS/HTTPS
 Off: Access to the device not allowed via HTTP or HTTPS.
 HTTP+HTTPS: Access to the device allowed via both HTTP and HTTPS.
 HTTPS: Access to the device allowed via HTTPS, but not via HTTP.
 Default value: HTTPS (changed from HTTP+HTTPS to HTTPS in CE9.4)
xConfiguration NetworkServices HTTP Proxy LoginName

Applies to: All products
Requires user role: ADMIN, USER

This is the username part of the credentials for authentication towards the HTTP proxy.
Requires that the NetworkServices HTTP Proxy Mode is set to Manual.

**USAGE:**

```xConfiguration NetworkServices HTTP Proxy LoginName: "LoginName"```

where

- **LoginName:**
  - String (0, 80)
  - The authentication login name.
  - Default value: ""

xConfiguration NetworkServices HTTP Proxy Password

Applies to: All products
Requires user role: ADMIN, USER

This is the password part of the credentials for authentication towards the HTTP proxy.
Requires that the NetworkServices HTTP Proxy Mode is set to Manual.

**USAGE:**

```xConfiguration NetworkServices HTTP Proxy Password: "Password"```

where

- **Password:**
  - String (0, 64)
  - The authentication password.
  - Default value: ""

xConfiguration NetworkServices HTTP Proxy Mode

Applies to: All products
Requires user role: ADMIN, USER

You can configure to use a proxy server for HTTP, HTTPS, and WebSocket traffic. The HTTP proxy can be set up manually, it can be auto-configured (PACUrl), fully automated (WPAD), or it can be turned off.

If NetworkServices HTTP Proxy Mode is not turned Off, you can further specify which services shall use the proxy in the HttpClient UseHttpProxy, HttpFeedback UseHttpProxy, and WebEngine UseHttpProxy settings.

Communication with the Cisco Webex cloud will always go via the proxy if NetworkServices HTTP Proxy Mode is not turned Off.
Regardless of the Proxy Mode, the device will never communicate with CUCM, MRA (CUCM via Expressway), or TMS via proxy.

**USAGE:**

```xConfiguration NetworkServices HTTP Proxy Mode: Mode```

where

- **Mode:**
  - Manual/Off/PACUrl/WPAD
    - **Manual:** Enter the address of the proxy server in the NetworkServices HTTP Proxy URL setting. Optionally, also add the HTTP proxy login name and password in the NetworkServices HTTP Proxy LoginName/Password settings.
    - **Off:** The HTTP proxy mode is turned off.
    - **PACUrl:** The HTTP proxy is auto-configured. You must enter the URL for the PAC (Proxy Auto Configuration) script in the NetworkServices HTTP Proxy PACUrl setting.
    - **WPAD:** With WPAD (Web Proxy Auto Discovery) the HTTP proxy is fully automated and auto-configured.

Default value: Off
xConfiguration NetworkServices HTTP Proxy Url

Applies to: All products
Requires user role: ADMIN, USER

Set the URL of the HTTP proxy server. Requires that the NetworkServices HTTP Proxy Mode is set to Manual.

USAGE:

xConfiguration NetworkServices HTTP Proxy Url: "Url"
where
Url:
  String (0..255)
The URL of the HTTP proxy server.
  Default value:"

xConfiguration NetworkServices HTTP Proxy PACUrl

Applies to: All products
Requires user role: ADMIN, USER

Set the URL of the PAC (Proxy Auto Configuration) script. Requires that the NetworkServices HTTP Proxy Mode is set to PACUrl.

USAGE:

xConfiguration NetworkServices HTTP Proxy PACUrl: "PACUrl"
where
PACUrl:
  String (0..255)
The URL of the PAC (Proxy Auto Configuration) script.
  Default value:"

xConfiguration NetworkServices HTTPS Server MinimumTLSVersion

Applies to: All products
Requires user role: ADMIN

Set the lowest version of the TLS (Transport Layer Security) protocol that is allowed.

USAGE:

xConfiguration NetworkServices HTTPS Server MinimumTLSVersion: MinimumTLSVersion
where
MinimumTLSVersion:
  TLSv1.1/TLSv1.2
  TLSv1.1: Support of TLS version 1.1 or higher.
  TLSv1.2: Support of TLS version 1.2 or higher.
  Default value:
  TLSv1.1

xConfiguration NetworkServices HTTPS StrictTransportSecurity

Applies to: All products
Requires user role: ADMIN

The HTTP Strict Transport Security header lets a web site inform the browser that it should never load the site using HTTP and should automatically convert all attempts to access the site using HTTP to HTTPS requests instead.

USAGE:

xConfiguration NetworkServices HTTPS StrictTransportSecurity: StrictTransportSecurity
where
StrictTransportSecurity:
  Off/On
  Off: The HTTP strict transport security feature is disabled.
  On: The HTTP strict transport security feature is enabled.
  Default value:
  Off
xConfiguration NetworkServices HTTPS VerifyClientCertificate

Applies to: All products
Requires user role: ADMIN

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

**USAGE:**

```
xConfiguration NetworkServices HTTPS VerifyClientCertificate:
  VerifyClientCertificate:
where
  VerifyClientCertificate:
    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 device in advance.
Default value:
  Off
```

xConfiguration NetworkServices NTP Mode

Applies to: All products
Requires user role: ADMIN

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

**USAGE:**

```
xConfiguration NetworkServices NTP Mode: Mode
where
  Mode:
    Auto/Manual/Off
    Auto: The device will use an NTP server for time reference. As default, the server address will be obtained from the network's DHCP server. If a DHCP server is not used, or if the DHCP server does not provide an NTP server address, the NTP server address that is specified in the NetworkServices NTP Server [n] Address setting will be used.
    Manual: The device will use the NTP server that is specified in the NetworkServices NTP Server [n] Address setting for time reference.
    Off: The device will not use an NTP server. The NetworkServices NTP Server [n] Address setting will be ignored.
Default value:
  Auto
```
xConfiguration NetworkServices NTP Server [n] Address

Applies to: All products
Requires user role: ADMIN

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

**USAGE:**

```
xConfiguration NetworkServices NTP Server [n] Address: "Address"
```

where:

- `n`: Unique ID for the NTP server.
  - Range: 1..3
- `Address`:
  - `String (0, 255)`: A valid IPv4 address, IPv6 address or DNS name.
  - Default value:
    - "0.tandberg.pool.ntp.org"

xConfiguration NetworkServices NTP Server [n] Key

Applies to: All products
Requires user role: ADMIN

To make sure that the NTP information comes from a trusted source, the video conferencing device must know the ID/key pair that the NTP source uses. Use the NetworkServices NTP Server [n] Key and NetworkServices NTP Server [n] KeyId settings for the key and ID respectively.

**USAGE:**

```
xConfiguration NetworkServices NTP Server [n] Key: "Key"
```

where:

- `n`: Unique ID for the NTP server.
  - Range: 1..3
- `Key`:
  - `String (0, 2045)`: The key, which is part of the ID/key pair that the NTP source uses.
  - Default value:
    - **"**
xConfiguration NetworkServices NTP Server [n] KeyId

Applies to: All products
Requires user role: ADMIN

To make sure that the NTP information comes from a trusted source, the video conferencing device must know the ID/key pair that the NTP source uses. Use the NetworkServices NTP Server [n] Key and NetworkServices NTP Server [n] KeyId settings for the key and ID respectively.

**USAGE:**
```
xConfiguration NetworkServices NTP Server [n] KeyId: "KeyId"
```
where
- `n`: Unique ID for the NTP server.
  - Range: 1..3
- `KeyId`: String (0, 10)
  The ID, which is part of the ID/key pair that the NTP source uses.
  Default value:"

xConfiguration NetworkServices NTP Server [n] KeyAlgorithm

Applies to: All products
Requires user role: ADMIN

Choose the authentication hash function that the NTP server uses, and that the video conferencing device must use to authenticate the time messages.

**USAGE:**
```
xConfiguration NetworkServices NTP Server [n] KeyAlgorithm: KeyAlgorithm
```
where
- `n`: Unique ID for the NTP server.
  - Range: 1..3
- `KeyAlgorithm`: `None/SHA1/SHA256`
  - `None`: The NTP server doesn't use a hash function.
  - `SHA1`: The NTP server uses the SHA-1 hash function.
  - `SHA256`: The NTP server uses the SHA-256 hash function (from the SHA-2 family of hash functions).
  Default value:"

xConfiguration NetworkServices SIP Mode

Applies to: All products
Requires user role: ADMIN

Define whether the device should be able to place and receive SIP calls or not.

**USAGE:**
```
xConfiguration NetworkServices SIP Mode: Mode
```
where
- `Mode`: `Off/On`
  - `Off`: Disable the possibility to place and receive SIP calls.
  - `On`: Enable the possibility to place and receive SIP calls.
  Default value: `On`
xConfiguration NetworkServices SMTP Mode

Applies to: DX70/DX80 RoomKitMini DeskPro Boards
Requires user role: ADMIN

You can set up the device to use SMTP (Simple Mail Transfer Protocol) for sending email from the device to a mail server for relaying. This is required if you want to allow users to send their whiteboards and presentations via email to people inside or outside their organization.

If the device is set up for encrypted communication (see the NetworkServices SMTP Security setting), the device only allows connections where the SMTP server's certificate is validated. There is no option for ignoring the certificate check.

This setting is not available for Room Kit Mini in general, only when Room Kit Mini is used with Samsung Flip (Webex on Flip).

**APPLICATION:**

```
xConfiguration NetworkServices SMTP Mode: Mode
where
  Mode:
    Off/On
    Off: Disable SMTP (and email) support.
    On: Enable SMTP support for sending email.
  Default value: Off
```

xConfiguration NetworkServices SMTP Server

Applies to: DX70/DX80 RoomKitMini DeskPro Boards
Requires user role: ADMIN

This is the address of the SMTP server.

This setting is not available for Room Kit Mini in general, only when Room Kit Mini is used with Samsung Flip (Webex on Flip).

**APPLICATION:**

```
xConfiguration NetworkServices SMTP Server: Server
where
  Server:
    String (0, 255)
    A valid IPv4 address, IPv6 address or DNS name.
  Default value:
    **
```

xConfiguration NetworkServices SMTP Port

Applies to: DX70/DX80 RoomKitMini DeskPro Boards
Requires user role: ADMIN

This port is used for outgoing emails from the device to the SMTP server.

Set a port number based on the encryption setting (NetworkServices SMTP Security) and the requirements of the SMTP server. Do not use the default value.

This setting is not available for Room Kit Mini in general, only when Room Kit Mini is used with Samsung Flip (Webex on Flip).

**APPLICATION:**

```
xConfiguration NetworkServices SMTP Port: Port
where
  Port:
    Integer (0..65535)
    The port used for outgoing emails from the device.
  Default value:
    0
```
xConfiguration NetworkServices SMTP Username

**Applies to:** DX70/DX80 RoomKitMini DeskPro Boards

Requires user role: ADMIN

This is the username part of the credentials that are used to authenticate the device with the SMTP server. This setting may be required by the SMTP server.

This setting is not available for Room Kit Mini in general, only when Room Kit Mini is used with Samsung Flip (Webex on Flip).

**USAGE:**

```xml
xConfiguration NetworkServices SMTP Username: "Username"
```

where

**Username:**

- `String (0, 80)`
- A valid username.
- Default value: ""

xConfiguration NetworkServices SMTP Password

**Applies to:** DX70/DX80 RoomKitMini DeskPro Boards

Requires user role: ADMIN

This is the password part of the credentials that are used to authenticate the device with the SMTP server. This setting may be required by the SMTP server.

This setting is not available for Room Kit Mini in general, only when Room Kit Mini is used with Samsung Flip (Webex on Flip).

**USAGE:**

```xml
xConfiguration NetworkServices SMTP Password: "Password"
```

where

**Password:**

- `String (0, 64)`
- A valid password.
- Default value: ""

xConfiguration NetworkServices SMTP From

**Applies to:** DX70/DX80 RoomKitMini DeskPro Boards

Requires user role: ADMIN

When sending an email message from this device, this is the name of the mailbox that the message is sent from.

This setting is not available for Room Kit Mini in general, only when Room Kit Mini is used with Samsung Flip (Webex on Flip).

**USAGE:**

```xml
xConfiguration NetworkServices SMTP From: "From"
```

where

**From:**

- `String (0, 255)`
- An email address that meets the requirements of the SMTP server.
- Default value: ""
xConfiguration NetworkServices SMTP Security

**Applies to:** DX70/DX80, RoomKitMini, DeskPro, Boards

**Requires user role:** ADMIN

Choose if and how to secure the communication between the device and the SMTP server. This setting is not available for Room Kit Mini in general, only when Room Kit Mini is used with Samsung Flip (Webex on Flip).

**USAGE:**

xConfiguration NetworkServices SMTP Security: **Security**

where

- None/StartTls/Tls

  **None:** Connect to the SMTP server without encryption.
  **StartTls:** Initially connect to the SMTP server without encryption, and then send a STARTTLS command to upgrade to an encrypted connection (TLS).
  **Tls:** Connect to the SMTP server over TLS (Transport Layer Security).

Default value:

  **StartTls**

---

xConfiguration NetworkServices SNMP Mode

**Applies to:** All products

**Requires user role:** ADMIN, INTEGRATOR

SNMP (Simple Network Management Protocol) is used by network management systems to monitor and manage devices such as routers, servers, and switches, that are connected to the IP network. SNMP exposes management data in the form of variables on the managed devices, which describe the device status and configuration. These variables can then be remotely queried, and sometimes set, by managing applications.

**USAGE:**

xConfiguration NetworkServices SNMP Mode: **Mode**

where

- Off/ReadOnly/ReadWrite

  **Off:** Disable the SNMP network service.
  **ReadOnly:** Enable the SNMP network service for queries only.
  **ReadWrite:** Enable the SNMP network service for both queries and commands.

Default value:

  **Off**
xConfiguration NetworkServices SNMP CommunityName

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Define the name of the SNMP community. The SNMP community name is used to authenticate SNMP requests. If an SNMP request from a management system does not include a matching community name (case sensitive), the message is dropped and the SNMP agent in the video device will not send a response.

If you have the Cisco TelePresence Management Suite (TMS) you must make sure the same SNMP community is configured there.

**USAGE:**

```plaintext
xConfiguration NetworkServices SNMP CommunityName: "CommunityName"
```

where

- **CommunityName**: String (0, 50)
  - The SNMP community name.
  - Default value: ""

xConfiguration NetworkServices SNMP SystemContact

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Define contact information that SNMP servers can use.

**USAGE:**

```plaintext
xConfiguration NetworkServices SNMP SystemContact: "SystemContact"
```

where

- **SystemContact**: String (0, 50)
  - String that describes the contact information for the video device.
  - Default value: ""

xConfiguration NetworkServices SNMP SystemLocation

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Define location information that SNMP servers can use.

**USAGE:**

```plaintext
xConfiguration NetworkServices SNMP SystemLocation: "SystemLocation"
```

where

- **SystemLocation**: String (0, 50)
  - String that describes the location of the video device.
  - Default value: ""

xConfiguration NetworkServices SSH Mode

Applies to: All products
Requires user role: ADMIN

The SSH (or Secure Shell) protocol can provide secure encrypted communication between the video conferencing device and your local computer.

**USAGE:**

```plaintext
xConfiguration NetworkServices SSH Mode: Mode
```

where

- **Mode**: Off/On
  - **Off**: The SSH protocol is disabled.
  - **On**: The SSH protocol is enabled.
  - Default value: **On**
xConfiguration NetworkServices SSH HostKeyAlgorithm

Applies to: All products
Requires user role: ADMIN

Choose the cryptographic algorithm that shall be used for the SSH host key. Choices are RSA (Rivest–Shamir–Adleman) with 2048 bits keysize, ECDSA (Elliptic Curve Digital Signature Algorithm) with NIST curve P-384, and EdDSA (Edwards-curve Digital Signature Algorithm) with ed25519 signature schema.

**USAGE:**

```
xConfiguration NetworkServices SSH HostKeyAlgorithm: HostKeyAlgorithm
```

where

```
HostKeyAlgorithm:
ECDSA/RSA/ed25519
ECDSA: Use the ECDSA algorithm (nist-384p).
RSA: Use the RSA algorithm (2048 bits).
ed25519: Use the ed25519 algorithm.
```

Default value: RSA

xConfiguration NetworkServices Telnet Mode

Applies to: DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN

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

**USAGE:**

```
xConfiguration NetworkServices Telnet Mode: Mode
```

where

```
Mode:
Off/On
```

Default value: Off

xConfiguration NetworkServices UPnP Mode

Applies to: SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN

Fully disable UPnP (Universal Plug and Play), or enable UPnP for a short time period after the video conferencing device has been switched on or restarted.

The default operation is that UPnP is enabled when you switch on or restart the video conferencing device. Then UPnP is automatically disabled after the timeout period that is defined in the NetworkServices UPnP Timeout setting.

When UPnP is enabled, the device advertises its presence on the network. The advertisement permits a Touch controller to discover video conferencing devices automatically, and you do not need to manually enter the device’s IP address in order to pair the Touch controller.

**USAGE:**

```
xConfiguration NetworkServices UPnP Mode: Mode
```

where

```
Mode:
Off/On
```

Default value: On
xConfiguration NetworkServices Websocket

Applies to: All products
Requires user role: ADMIN

It is possible to interact with the API of the device over the WebSocket protocol, both the insecure and secure versions (ws and wss). A WebSocket is tied to HTTP, so that also HTTP or HTTPS must be enabled before you can use WebSockets (see the NetworkServices HTTP Mode setting).

**USAGE:**
```
xConfiguration NetworkServices Websocket: Websocket
```
where
```
Websocket:
  FollowHTTPService/Off
  FollowHTTPService: Communication over the WebSocket protocol is allowed when HTTP or HTTPS is enabled.
  Off: Communication over the WebSocket protocol is not allowed.
Default value:
  Off
```

xConfiguration NetworkServices WelcomeText

Applies to: All products
Requires user role: ADMIN

Choose which information the user should see when logging on to the device through SSH or Telnet.
Telnet is only supported by SX Series, MX Series and DX70/DX80.

**USAGE:**
```
xConfiguration NetworkServices WelcomeText: WelcomeText
```
where
```
WelcomeText:
  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.
Default value:
  On
```
**xConfiguration NetworkServices Wifi Allowed**

**Applies to:** DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2

RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, USER

Devices that have a built-in Wi-Fi adapter, can connect to the network either via Ethernet or Wi-Fi. Both Ethernet and Wi-Fi are allowed by default, and the user can choose which one to use from the user interface. With this setting, the administrator can disable Wi-Fi configuration, so that it cannot be set up from the user interface.

The devices support the following standards: IEEE 802.11a, IEEE 802.11b, IEEE 802.11g, IEEE 802.11n, and IEEE 802.11ac (IEEE 802.11ac is not supported on DX70 and DX80). The device supports the following security protocols: WPA-PSK (AES), WPA2-PSK (AES), EAP-TLS, EAP-TTLS, EAP-FAST, PEAP, EAP-MSCHAPv2, EAP-GTC, and open networks (not secured).

If the PID (Product ID), found on the rating label at the rear of the device, contains the letters NR (No Radio) the device does not support Wi-Fi.

**USAGE:**

```
xConfiguration NetworkServices Wifi Allowed: Allowed
```

where

**Allowed:**

- **False/True**
  - **False:** Wi-Fi cannot be used. You must connect to the network via Ethernet.
  - **True:** Both Ethernet and Wi-Fi are allowed.

**Default value:**

- **True**

---

**Peripherals configuration**

**xConfiguration Peripherals InputDevice Mode**

**Applies to:** DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2

RoomPanorama/Room70Panorama DeskPro

**Requires user role:** ADMIN

Define whether or not to allow the use of a third-party input device, such as a USB keyboard or a wireless remote control with a USB dongle. The input device must advertise itself as a USB keyboard. You must define and implement the actions to be taken as response to key clicks yourself.

**USAGE:**

```
xConfiguration Peripherals InputDevice Mode: Mode
```

where

**Mode:**

- **Off/On**
  - **Off:** A third-party USB input device is not allowed.
  - **On:** A third-party USB input device can be used to control certain functions on the video conferencing device.

**Default value:**

- **Off**
Applies to: SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN

In order to use Cisco Touch 10 (touch controller) as user interface for the video conferencing device, Touch 10 must be paired to the device. When Touch 10 is paired 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.

USAGE:

xConfiguration Peripherals Pairing CiscoTouchPanels RemotePairing:

RemotePairing

where

RemotePairing:

Off/On

Off: Remote pairing of Touch 10 is not allowed.

On: Remote pairing of Touch 10 is allowed.

Default value:

On

Applies to: SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

Requires user role: ADMIN, INTEGRATOR

Define the number of cameras that are expected to be connected to the video conferencing device. This information is used by the device’s diagnostics service. If the number of connected cameras does not match this setting, the diagnostics service will report it as an inconsistency.

USAGE:

xConfiguration Peripherals Profile Cameras:

Cameras

where

Cameras:

NotSet/Minimum1/0/1/2/3/4/5/6/7

SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

0 (DeskPro)

NotSet: No camera check is performed.

Minimum1: At least one camera should be connected to the device.

0-7: Select the number of cameras that are expected to be connected to the device.

Default value:

Minimum1

SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

0 (DeskPro)
xConfiguration Peripherals Profile ControlSystems

Applies to: All products

Requires user role: ADMIN, INTEGRATOR

Define if a third-party control system, for example Crestron or AMX, is expected to be connected to the video conferencing device. This information is used by the video conferencing device's diagnostics service. If the number of connected control systems does not match this setting, the diagnostics service will report it as an inconsistency. Note that only one third-party control system is supported.

If set to 1, the control system must send heartbeats to the video conferencing device using xCommand Peripherals Pair and HeartBeat commands. Failing to do so will cause the video conferencing device to show a warning that it has lost connectivity to the control system.

USAGE:

xConfiguration Peripherals Profile ControlSystems: ControlSystems

where

ControlSystems:

1/NotSet [ DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama ]

NotSet [ DeskPro Boards ]

1: One third-party control system should be connected to the device.

NotSet: No check for a third-party control system is performed.

Default value: NotSet

xConfiguration Peripherals Profile TouchPanels

Applies to: SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

Requires user role: ADMIN, INTEGRATOR

Define the number of Cisco Touch controllers that are expected to be connected to the device. This information is used by the device's diagnostics service. If the number of connected Touch controllers does not match this setting, the diagnostics service will report it as an inconsistency.

USAGE:

xConfiguration Peripherals Profile TouchPanels: TouchPanels

where

TouchPanels:

NotSet/Minimum1/0/1/2/3/4/5 [ SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro ]

1: One third-party control system should be connected to the device.

NotSet: No check for a third-party control system is performed.

Minimum1: At least one Cisco Touch controller should be connected to the device.

0-5: Select the number of Touch controllers that are expected to be connected to the device. Note that only one Cisco Touch controller is officially supported.

Default value:

NotSet [ SX10 SX20 ]

Minimum1 [ SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro ]

0 [ DeskPro ]
Phonebook configuration

xConfiguration Phonebook Server [n] ID

Applies to: All products
Requires user role: ADMIN

Define a name for the external phone book.

**USAGE:**

```
xConfiguration Phonebook Server [n] ID: "ID"
```

where
- `n`: Unique ID that identifies the phonebook server.
  Range: 1..1
- `ID`: String (0, 64)
The name for the external phone book.
Default value: ""

xConfiguration Phonebook Server [n] Pagination

Applies to: All products
Requires user role: ADMIN

Configure if the phonebook server supports pagination (paging) or not. Pagination means that the server supports consecutive searches, and these searches can be relative to an offset. This allows the user interface to perform as many consecutive searches as required to get the complete search result.

If Pagination is Disabled the device does a single search and returns a maximum of 100 entries in the search result. It is not possible to scroll to any further search results beyond that.

**USAGE:**

```
xConfiguration Phonebook Server [n] Pagination: Pagination
```

where
- `n`: Unique ID that identifies the phonebook server.
  Range: 1..1
- `Pagination`: Disabled/Enabled
  - `Disabled`: The phonebook server does not support pagination. The device does a single search, and the maximum number of entries in the search result is 100.
  - `Enabled`: The phonebook server supports pagination.
Default value: `Enabled`
xConfiguration Phonebook Server [n] TlsVerify

Applies to: All products
Requires user role: ADMIN

This setting applies when a video conferencing device connects to an external phone book server via HTTPS.

Before establishing a connection between the device and the HTTPS server, the device checks if the certificate of the server is signed by a trusted Certificate Authority (CA). The CA certificate must be included in the CA list on the device, either pre-installed or manually uploaded using the web interface or API.

In general, the minimum TLS (Transport Layer Security) version for the HTTPS connection is 1.1. There are two exceptions to this rule: 1) For compatibility reasons, the minimum TLS version is 1.0 for devices that are registered to CUCM. 2) Devices registered to the Webex cloud service always use version 1.2.

Note: The value is set to Off for a device that has been upgraded to CE9.9 (or later) from CE9.8 or earlier software versions, provided that the device has not been factory reset after the upgrade, and that the old NetworkServices HTTPS VerifyServerCertificate setting was not explicitly set to On.

**USAGE:**

xConfiguration Phonebook Server [n] TlsVerify

where

TlsVerify:
- Off: The device doesn't check the certificate of the HTTPS server.
- On: The device checks if the certificate of the HTTPS server can be trusted. If not, the connection between the device and the server is not established.

Default value:
- Off

xConfiguration Phonebook Server [n] Type

Applies to: All products
Requires user role: ADMIN

Select the phonebook server type.

**USAGE:**

xConfiguration Phonebook Server [n] Type: Type

where

n: Unique ID that identifies the phonebook server.

Type:
- Off/CUCM/Spark/TMS/VCS
- Off: Do not use a phonebook.
- CUCM: The phonebook is located on the Cisco Unified Communications Manager.
- Spark: The phonebook is located in the Cisco Webex cloud service.
- TMS: The phonebook is located on the Cisco TelePresence Management Suite server.
- VCS: The phonebook is located on the Cisco TelePresence Video Communication Server.

Default value:
- Off
xConfiguration Phonebook Server [n] URL

Applies to: All products
Requires user role: ADMIN

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

**USAGE:**
xConfiguration Phonebook Server [n] URL: "URL"

where

- **n**: Unique ID that identifies the phonebook server.
  Range: 1..1
- **URL**: String (0..255)
  A valid address (URL) to the phone book server.
  Default value: ""

Provisioning configuration

xConfiguration Provisioning Connectivity

Applies to: All products
Requires user role: ADMIN, USER

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

**USAGE:**
xConfiguration Provisioning Connectivity: Connectivity

where

- **Connectivity**: 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.

Default value:

- **Auto**
xConfiguration Provisioning ExternalManager Address

Applies to: All products
Requires user role: ADMIN, USER

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

If an External Manager Address (and Path) is configured, the device 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.

**USAGE:**

```
xConfiguration Provisioning ExternalManager Address: "Address"
```

where

- **Address**:
  - String (0, 64)
  - A valid IPv4 address, IPv6 address or DNS name.
  - Default value: ""

xConfiguration Provisioning ExternalManager AlternateAddress

Applies to: All products
Requires user role: ADMIN, USER

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

**USAGE:**

```
xConfiguration Provisioning ExternalManager AlternateAddress: "AlternateAddress"
```

where

- **AlternateAddress**:
  - String (0, 64)
  - A valid IPv4 address, IPv6 address or DNS name.
  - Default value: ""

xConfiguration Provisioning ExternalManager Protocol

Applies to: All products
Requires user role: ADMIN, USER

Define whether to use the HTTP (unsecure communication) or HTTPS (secure communication) protocol when sending requests to the external manager / provisioning system.
The selected protocol must be enabled in the NetworkServices HTTP Mode setting.

**USAGE:**

```
xConfiguration Provisioning ExternalManager Protocol: Protocol
```

where

- **Protocol**:
  - HTTPS/HTTP
  - HTTPS: Send requests via HTTPS.
  - HTTP: Send requests via HTTP.
  - Default value: HTTP
**xConfiguration Provisioning ExternalManager Path**

**Applies to:** All products  
**Requires user role:** ADMIN, USER  

Define 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.

**USAGE:**

```
xConfiguration Provisioning ExternalManager Path: "Path"
```

where

- **Path:**  
  String (0..255)  
  A valid path to the external manager or provisioning system.  
  Default value: ""

**xConfiguration Provisioning ExternalManager Domain**

**Applies to:** All products  
**Requires user role:** ADMIN, USER  

Define the SIP domain for the VCS provisioning server.

**USAGE:**

```
xConfiguration Provisioning ExternalManager Domain: "Domain"
```

where

- **Domain:**  
  String (0, 64)  
  A valid domain name.  
  Default value: ""

**xConfiguration Provisioning Mode**

**Applies to:** All products  
**Requires user role:** ADMIN, USER  

It is possible to configure a device using a provisioning system (external manager). This allows video conferencing network administrators to manage many devices 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.

**USAGE:**

```
xConfiguration Provisioning Mode: Mode
```

where

- **Mode:**  
  Off/Auto/CUCM/Edge/Webex/TMS/VCS  
  - **Off:** The device is not configured by a provisioning system.  
  - **Auto:** The provisioning server is automatically selected as set up in the DHCP server.  
  - **CUCM:** Push configurations to the device from CUCM (Cisco Unified Communications Manager).  
  - **Edge:** Push configurations to the device from CUCM (Cisco Unified Communications Manager). The device connects to CUCM via the Expressway infrastructure. In order to register over Expressway the encryption option key must be installed on the device.  
  - **Webex:** Push configurations to the device from the Cisco Webex cloud service. In order to register to the Webex cloud service, the encryption option key must be installed on the device.  
  - **TMS:** Push configurations to the device from TMS (Cisco TelePresence Management System).  
  - **VCS:** Push configurations to the device from VCS (Cisco TelePresence Video Communication Server).  
  Default value: Auto
xConfiguration Provisioning LoginName
Applies to: All products
Requires user role: ADMIN, USER

This is the username part of the credentials used to authenticate the device with the provisioning server. This setting must be used when required by the provisioning server.

USAGE:
xConfiguration Provisioning LoginName: "LoginName"
where
   LoginName:
      String (0, 80)
      A valid username.
      Default value:
      ""

xConfiguration Provisioning Password
Applies to: All products
Requires user role: ADMIN, USER

This is the password part of the credentials used to authenticate the device with the provisioning server. This setting must be used when required by the provisioning server.

USAGE:
xConfiguration Provisioning Password: "Password"
where
   Password:
      String (0, 64)
      A valid password.
      Default value:
      ""

xConfiguration Provisioning TlsVerify
Applies to: All products
Requires user role: ADMIN, USER

This setting applies when a video conferencing device connects to a provisioning server via HTTPS.

Before establishing a connection between the device and the HTTPS server, the device checks if the certificate of the server is signed by a trusted Certificate Authority (CA). The CA certificate must be included in the CA list on the device, either pre-installed or manually uploaded using the web interface or API.

In general, the minimum TLS (Transport Layer Security) version for the HTTPS connection is 1.1. There are two exceptions to this rule: 1) For compatibility reasons, the minimum TLS version is 1.0 for devices that are registered to CUCM. 2) Devices registered to the Webex cloud service always use version 1.2.

Note: The value is set to Off for a device that has been upgraded to CE9.9 (or later) from CE9.8 or earlier software versions, provided that the device has not been factory reset after the upgrade, and that the old NetworkServices HTTPS VerifyServerCertificate setting was not explicitly set to On.

The certificate check is always performed, regardless of this setting, if the device is provisioned from the Cisco Webex cloud service or from CUCM via Expressway (also known as MRA or Edge).

USAGE:
xConfiguration Provisioning TlsVerify: TlsVerify
where
   TlsVerify:
      Off/On
      Off: The device doesn't check the certificate of the HTTPS server.
      On: The device checks if the certificate of the HTTPS server can be trusted. If not, the connection between the device and the server is not established.
      Default value:
      On
xConfiguration Provisioning WebexEdge

Applies to: All products
Requires user role: ADMIN, USER

Define if the device is linked to Webex Edge for Devices, which gives access to select Webex cloud services.
The setting applies only to devices that are registered to an on-premises service.

**USAGE:**

xConfiguration Provisioning WebexEdge: **WebexEdge**

where

**WebexEdge:**

- **Off/On**
  - **Off**: The device is not linked to Webex Edge for Devices.
  - **On**: The device is linked to Webex Edge for Devices.

Default value: **Off**

---

Proximity configuration

xConfiguration Proximity Mode

Applies to: All products
Requires user role: ADMIN, USER

The Proximity Mode setting has no effect for devices that are registered to the Webex cloud service. To prevent a cloud registered device from sending ultrasound pairing messages, you must set Audio Ultrasound MaxVolume to 0.

For devices registered on-premises, the Proximity Mode setting determines whether the device will emit ultrasound pairing messages or not. When the device emits ultrasound pairing messages, Cisco collaboration clients can detect that they are close to the device.

In order to use a client, at least one of the Proximity services must be enabled (refer to the Proximity Services settings) as well. In general, Cisco recommends enabling all the Proximity services.

The Proximity Mode and Audio Ultrasound MaxVolume settings only affect ultrasound pairing messages. To stop all ultrasound emissions, the RoomAnalytics PeoplePresenceDetector and Standby WakeupOnMotionDetection settings must also be switched Off.

**USAGE:**

xConfiguration Proximity Mode: **Mode**

where

**Mode:**

- **Off/On**
  - **Off**: Cisco collaboration clients cannot detect that they are close to the device, thus Proximity services cannot be used.
  - **On**: Cisco collaboration clients can detect that they are close to the device, and enabled Proximity services can be used.

Default value: **On**
xConfiguration Proximity Services CallControl

Applies to: All products
Requires user role: ADMIN, USER

Enable or disable basic call control features on Cisco collaboration clients. When this setting is enabled, you are able to control a call using a Cisco collaboration client (for example dial, mute, adjust volume and hang up). This service is supported by mobile devices (iOS and Android). Proximity Mode must be On for this setting to take any effect.

USAGE:

```
xConfiguration Proximity Services CallControl: CallControl
```

where

```
CallControl:
  Enabled/Disabled
  Enabled: Call control from a Cisco collaboration client is enabled.
  Disabled: Call control from a Cisco collaboration client is disabled.
Default value:
  Disabled
```

xConfiguration Proximity Services ContentShare FromClients

Applies to: All products
Requires user role: ADMIN, USER

Enable or disable content sharing from Cisco collaboration clients. When this setting is enabled, you can share content from a Cisco collaboration client wirelessly on the device, e.g. share your laptop screen. This service is supported by laptops (OS X and Windows). Proximity Mode must be On for this setting to take any effect.

USAGE:

```
xConfiguration Proximity Services ContentShare FromClients: FromClients
```

where

```
FromClients:
  Enabled/Disabled
  Enabled: Content sharing from a Cisco collaboration client is enabled.
  Disabled: Content sharing from a Cisco collaboration client is disabled.
Default value:
  Enabled
```

xConfiguration Proximity Services ContentShare ToClients

Applies to: All products
Requires user role: ADMIN, USER

Enable or disable content sharing to Cisco collaboration clients. When enabled, Cisco collaboration clients will receive the presentation from the device. You can zoom in on details, view previous content and take snapshots. This service is supported by mobile devices (iOS and Android). Proximity Mode must be On for this setting to take any effect.

USAGE:

```
xConfiguration Proximity Services ContentShare ToClients: ToClients
```

where

```
ToClients:
  Enabled/Disabled
  Enabled: Content sharing to a Cisco collaboration client is enabled.
  Disabled: Content sharing to a Cisco collaboration client is disabled.
Default value:
  Disabled
```
RoomAnalytics configuration

**xConfiguration RoomAnalytics AmbientNoiseEstimation Mode**

 Applies to: RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

 Requires user role: ADMIN, INTEGRATOR, USER

 The device can estimate the stationary ambient noise level (background noise level) in the room. The result is reported in the RoomAnalytics AmbientNoise Level dBA status. The status is updated when a new ambient noise level is detected.

 USAGE:

 xConfiguration RoomAnalytics AmbientNoiseEstimation Mode: Mode

 where

 Mode:

 Off/On

 On: The device regularly estimates the stationary ambient noise level.

 Off: The device doesn't estimate the stationary ambient noise level.

 Default value: Off

**xConfiguration RoomAnalytics PeopleCountOutOfCall**

 Applies to: SX80, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

 Requires user role: ADMIN, INTEGRATOR, USER

 By using face detection, the device has the capability to find how many persons are in the room. By default, the device only counts people when in a call, or when displaying the self-view picture.

 Codec Plus, Codec Pro, SX80: Applies only when the device has a Cisco Quad Camera connected. MX700/MX800: Not applicable.

 USAGE:

 xConfiguration RoomAnalytics PeopleCountOutOfCall: PeopleCountOutOfCall

 where

 PeopleCountOutOfCall:

 Off/On [ SX80, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards ]

 Off: The device counts people only when the device is in a call, or when self-view is on.

 On: The device counts people as long as the device is not in standby mode. This includes outside of call, even if self-view is off.

 Default value:

 Off [ SX80, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards ]
xConfiguration RoomAnalytics PeoplePresenceDetector

Applies to: SX20, SX80, MX200G2/MX300G2, MX700/MX800/MX800D, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room70D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

Requires user role: ADMIN, INTEGRATOR, USER

The device has the capability to find whether or not people are present in the room, and report the result in the RoomAnalytics PeoplePresence status. The feature is based on ultrasound. Read the status description for more details.

Ultrasound signals for presence detection are not emitted when both this setting AND the Standby WakeupOnMotionDetection setting are switched Off. The Audio Ultrasound MaxVolume and Proximity Mode settings has no effect on presence detection.

USAGE:

xConfiguration RoomAnalytics PeoplePresenceDetector: PeoplePresenceDetector

where

PeoplePresenceDetector:

Off/On

Off: Information about the presence of people is not reported in the device’s status.

On: Information about the presence of people is reported in the device’s status.

Default value:

Off

Security configuration

xConfiguration Security Audit Logging Mode

Applies to: All products

Requires user role: AUDIT

Define where to record or transmit the audit logs. The audit logs are sent to a syslog server. This setting has no effect if the Logging Mode setting is set to Off.

When using the External or ExternalSecure mode you must enter the address of the audit server in the Security Audit Server Address setting.

USAGE:

xConfiguration Security Audit Logging Mode: Mode

where

Mode:

External/ExternalSecure/Internal/Off

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

ExternalSecure: The device 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 device using the web interface. The common_name parameter of a certificate in the CA list must match the IP address or DNS name of the syslog server, and the secure TCP server must be set up to listen for secure (TLS) TCP Syslog messages.

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

Off: No audit logging is performed.

Default value:

Internal
xConfiguration Security Audit OnError Action

Applies to: All products
Requires user role: AUDIT

Define 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.

USAGE:
```
xConfiguration Security Audit OnError Action: Action
```

where
```
Action:

Halt/Ignore

Halt: If a halt condition is detected the device 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 device 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.
```

Default value:
Ignore

xConfiguration Security Audit Server Address

Applies to: All products
Requires user role: AUDIT

Set the IP address or DNS name of the syslog server that the audit logs are sent to. This setting is only relevant when Security Audit Logging Mode is set to External or ExternalSecure.

USAGE:
```
xConfiguration Security Audit Server Address: "Address"
```

where
```
Address:

String (0..255)
A valid IPv4 address, IPv6 address, or DNS name.
Default value:
"
```

xConfiguration Security Audit Server Port

Applies to: All products
Requires user role: AUDIT

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

USAGE:
```
xConfiguration Security Audit Server Port: Port
```

where
```
Port:

Integer (0..65535)
Set the audit server port.
Default value:
514
```

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xConfiguration Security Audit Server PortAssignment

Applies to: All products
Requires user role: AUDIT

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 Setup > Status on the web interface or, if on a command line interface, run the command xStatus Security Audit Server Port.

**USAGE:**
xConfiguration Security Audit Server PortAssignment: **PortAssignment**

where

**PortAssignment:**
  
  **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.
  
  **Default value:**
  
  **Auto**

xConfiguration Security Fips Mode

Applies to: All products
Requires user role: ADMIN

If required, you can set the device in FIPS mode (Federal Information Processing Standard (FIPS) Publication 140-3, Security Requirements for Cryptographic Modules). While in FIPS mode the remote support user is not available, and Digest access authentication is not supported between the device and an HTTP Proxy, because Digest access authentication is using MD5 cryptographic hashing, which is not allowed in FIPS. This last limitation only affects Webex registered devices, since an HTTP Proxy is used only for the Webex solution.

You should allow only HTTPS, and do not switch on Telnet, SNMP, or IEEE8021X in FIPS mode (keep the default values).

For changes to this setting to take full effect, you must restart the device.

**USAGE:**
xConfiguration Security Fips Mode: **Mode**

where

**Mode:**

**Off/On**

**Off:** The device is not in FIPS mode.

**On:** The device is in FIPS mode.

**Default value:**

**Off**
**xConfiguration Security Session FailedLoginsLockoutTime**

*Applies to: All products*

*Requires user role: ADMIN*

Define how long the device will lock out a user after failed login to a web or SSH session. Restart the device for any change to this setting to take effect.

**USAGE:**
```
xConfiguration Security Session FailedLoginsLockoutTime: FailedLoginsLockoutTime
```

where
```
FailedLoginsLockoutTime:
   Integer (0..10000)
   Set the lockout time (minutes).
   Default value: 60
```

**xConfiguration Security Session InactivityTimeout**

*Applies to: All products*

*Requires user role: ADMIN*

Define how long the device will accept inactivity from the user before he is automatically logged out from a web, SSH or Telnet session. Restart the device for any change to this setting to take effect.

Telnet is only supported by SX Series, MX Series and DX70/DX80.

**USAGE:**
```
xConfiguration Security Session InactivityTimeout: InactivityTimeout
```

where
```
InactivityTimeout:
   Integer (0..10000)
   Set the inactivity timeout (minutes); or select 0 when inactivity should not enforce automatic logout.
   Default value: 0
```

**xConfiguration Security Session MaxFailedLogins**

*Applies to: All products*

*Requires user role: ADMIN*

Define the maximum number of failed login attempts per user for a web or SSH session. If the user exceeded the maximum number of attempts the user will be locked out. 0 means that there is no limit for failed logins. Restart the device for any change to this setting to take effect.

**USAGE:**
```
xConfiguration Security Session MaxFailedLogins: MaxFailedLogins
```

where
```
MaxFailedLogins:
   Integer (0..10)
   Set the maximum number of failed login attempts per user.
   Default value: 0
```

**xConfiguration Security Session MaxSessionsPerUser**

*Applies to: All products*

*Requires user role: ADMIN*

The maximum number of simultaneous sessions per user is 20 sessions.

**USAGE:**
```
xConfiguration Security Session MaxSessionsPerUser: MaxSessionsPerUser
```

where
```
MaxSessionsPerUser:
   Integer (1..20)
   Set the maximum number of simultaneous sessions per user.
   Default value: 20
```
xConfiguration Security Session MaxTotalSessions

 Applies to: All products
 Requires user role: ADMIN

 The maximum number of simultaneous sessions in total is 20 sessions.

 USAGE:
 xConfiguration Security Session MaxTotalSessions: MaxTotalSessions
 where
 MaxTotalSessions: Integer (1..20)
 Set the maximum number of simultaneous sessions in total.
 Default value:
 20

xConfiguration Security Session ShowLastLogon

 Applies to: All products
 Requires user role: ADMIN

 When logging in to the device using SSH or Telnet you will see the UserId, time and date of the
 last session that did a successful login.
 Telnet is only supported by SX Series, MX Series and DX70/DX80.

 USAGE:
 xConfiguration Security Session ShowLastLogon: ShowLastLogon
 where
 ShowLastLogon: Off/On
 Off: Do not show information about the last session.
 On: Show information about the last session.
 Default value:
 Off

SerialPort configuration

xConfiguration SerialPort Mode

 Applies to: All products
 Requires user role: ADMIN, INTEGRATOR

 Enable/disable the serial port. If the device has more than one serial port, this setting applies to
 all of them.
 This setting is not available for the first generation of boards (Webex Board 55 and Webex
 Board 70).

 USAGE:
 xConfiguration SerialPort Mode: Mode
 where
 Mode: Off/On
 Off: Serial communication is disabled.
 On: Serial communication is enabled.
 Default value:
 On
**xConfiguration SerialPort BaudRate**

**Applies to:** SX20 SX80 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, INTEGRATOR

Set the baud rate (data transmission rate) for the serial port. A new baud rate takes effect after a device reboot.

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

This setting does not have any effect on a dedicated maintenance port (micro USB). The maintenance port always uses the default baud rate.

This setting is not available for the first generation of boards (Webex Board 55 and Webex Board 70).

**USAGE:**

```
xConfiguration SerialPort BaudRate: BaudRate
```

where

```
BaudRate: 115200
9600/19200/38400/57600/115200
```

Choose a baud rate from the list (bits per second).

**Default value:** 115200

**xConfiguration SerialPort LoginRequired**

**Applies to:** All products

**Requires user role:** ADMIN

Define if login shall be required when connecting to a serial port. If the device has more than one serial port, this setting applies to all of them.

This setting is not available for the first generation of boards (Webex Board 55 and Webex Board 70).

**USAGE:**

```
xConfiguration SerialPort LoginRequired: LoginRequired
```

where

```
LoginRequired: Off/On
```

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

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

**Default value:** On
SIP configuration

xConfiguration SIP ANAT

Applies to: All products
Requires user role: ADMIN

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

USAGE:

```
xConfiguration SIP ANAT: ANAT
```

where

```
ANAT:
  Off/On
  Off: Disable ANAT.
  On: Enable ANAT.

Default value:
  Off
```

xConfiguration SIP Authentication UserName

Applies to: All products
Requires user role: ADMIN

This is the username part of the credentials used to authenticate towards the SIP proxy.

USAGE:

```
xConfiguration SIP Authentication UserName: "UserName"
```

where

```
UserName:
  String (0, 128)
  A valid username.

Default value:
  ""
```

xConfiguration SIP Authentication Password

Applies to: All products
Requires user role: ADMIN

This is the password part of the credentials used to authenticate towards the SIP proxy.

USAGE:

```
xConfiguration SIP Authentication Password: "Password"
```

where

```
Password:
  String (0, 128)
  A valid password.

Default value:
  ""
```

xConfiguration SIP DefaultTransport

Applies to: All products
Requires user role: ADMIN

Select the transport protocol to be used over the LAN.

USAGE:

```
xConfiguration SIP DefaultTransport: DefaultTransport
```

where

```
DefaultTransport:
  Auto/TCP/Tls/UDP
  TCP: The device will always use TCP as the default transport method.
  UDP: The device will always use UDP as the default transport method.
  Tls: The device will always use TLS as the default transport method. For TLS connections a SIP CA-list can be uploaded to the device. If no such CA-list is available on the device then anonymous Diffie Hellman will be used.
  Auto: The device will try to connect using transport protocols in the following order: TLS, TCP, UDP.

Default value:
  Auto
```
xConfiguration SIP DisplayName

Applies to: All products
Requires user role: ADMIN

When configured the incoming call will report the display name instead of the SIP URI.

**USAGE:**
xConfiguration SIP DisplayName: "DisplayName"
where

*DisplayName*

String (0, 550)
The name to be displayed instead of the SIP URI.

Default value:
""

xConfiguration SIP Ice DefaultCandidate

Applies to: All products
Requires user role: ADMIN

The ICE protocol needs some time to reach a conclusion about which media route to use (up to the first 5 seconds of a call). During this period media for the device will be sent to the Default Candidate as defined in this setting.

**USAGE:**
xConfiguration SIP Ice DefaultCandidate: DefaultCandidate
where

*DefaultCandidate*

Host/Rflx/Relay

*Host*: Send media to the device’s private IP address.

*Rflx*: Send media to the device’s public IP address, as seen by the TURN server.

*Relay*: Send media to the IP address and port allocated on the TURN server.

Default value:
*Host*

xConfiguration SIP Ice Mode

Applies to: All products
Requires user role: ADMIN

ICE (Interactive Connectivity Establishment, RFC 5245) is a NAT traversal solution that the devices can use to discover the optimized media path. Thus the shortest route for audio and video is always secured between the devices. Initially STUN (Session Traversal Utilities for NAT) messages are exchanged when setting up the media path.

**USAGE:**
xConfiguration SIP Ice Mode: Mode
where

*Mode*

Auto/Off/On

*Auto*: ICE is enabled if a TURN server is provided, otherwise ICE is disabled.

*Off*: ICE is disabled.

*On*: ICE is enabled.

Default value:
*Auto*
xConfiguration SIP ListenPort

Applies to: All products
Requires user role: ADMIN

Turn on or off the listening for incoming connections on the SIP TCP/UDP ports. If turned off, the device will only be reachable through a SIP Proxy (CUCM or VCS). As a security measure, SIP ListenPort should be Off when the device is registered to a SIP Proxy.

**USAGE:**

xConfiguration SIP ListenPort: \textit{ListenPort} where

\- \textit{ListenPort}: Auto/Off/On
  \- \textit{Auto}: Listening for incoming connections on the SIP TCP/UDP ports is automatically turned off if the device is registered to a SIP Proxy; otherwise it is turned on.
  \- \textit{Off}: Listening for incoming connections on the SIP TCP/UDP ports is turned off.
  \- \textit{On}: Listening for incoming connections on the SIP TCP/UDP ports is turned on.

Default value:

- \textit{On} [ DX70/DX80 SX10 SX80 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKt RoomKtMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama ]
- \textit{Auto} [ DeskPro Boards ]

xConfiguration SIP MinimumTLSVersion

Applies to: All products
Requires user role: ADMIN

Set the lowest version of the TLS (Transport Layer Security) protocol that is allowed.

**USAGE:**

xConfiguration SIP MinimumTLSVersion: \textit{MinimumTLSVersion} where

\- \textit{MinimumTLSVersion}: TLSv1.0/TLSv1.1/TLSv1.2
  \- TLSv1.0: Support TLS version 1.0 or higher.
  \- TLSv1.1: Support TLS version 1.1 or higher.
  \- TLSv1.2: Support TLS version 1.2 or higher.

Default value:

- TLSv1.0

xConfiguration SIP Proxy \([n]\) Address

Applies to: All products
Requires user role: ADMIN

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.

**USAGE:**

xConfiguration SIP Proxy \([n]\) Address: "\textit{Address}" where

\- \textit{n}: Index that identifies the proxy (maximum 4 proxys can be defined).
  \- Range: 1..4
\- \textit{Address}: String (0..255)
  \- A valid IPv4 address, IPv6 address or DNS name.

Default value:

- **
xConfiguration SIP TlsVerify
Applies to: All products
Requires user role: ADMIN

Before establishing a connection over SIP TLS, the device checks if the certificate of the peer is signed by a trusted Certificate Authority (CA). The CA must be included in the CA list that is manually uploaded to the device using the web interface or API. The list of pre-installed certificates is not used to validate certificates for SIP TLS connections.

Note: The value is set to Off for a device that has been upgraded to CE9.9 (or later) from CE9.8 or earlier software versions, provided that the device has not been factory reset after the upgrade, and that the setting was not explicitly set to On.

Use the SIP MinimumTLSVersion setting to specify which TLS versions are allowed.

USAGE:
xConfiguration SIP TlsVerify: TlsVerify
where
TlsVerify:
  Off/On
  Off: The device doesn’t check the certificate of the peer. The SIP TLS connection is established anyway.
  On: The device checks if the certificate of the peer can be trusted. If not, the SIP TLS connection is not established.
  Default value: On

xConfiguration SIP Turn Server
Applies to: All products
Requires user role: ADMIN

Define the address of the TURN (Traversal Using Relay NAT) server. It is used as a media relay fallback and it is also used to discover the device’s own public IP address.

USAGE:
xConfiguration SIP Turn Server: "Server"
where
  Server:
    String (0..255)
    The preferred format is DNS SRV record (e.g. _turn._udp.<domain>), or it can be a valid IPv4 or IPv6 address.
    Default value: *

xConfiguration SIP Turn UserName
Applies to: All products
Requires user role: ADMIN

Define the username needed for accessing the TURN server.

USAGE:
xConfiguration SIP Turn UserName: "UserName"
where
  UserName:
    String (0, 128)
    A valid username.
    Default value: *
xConfiguration SIP Turn Password
Applies to: All products
Requires user role: ADMIN

Define the password needed for accessing the TURN server.

**Usage:**

`xConfiguration SIP Turn Password: "Password"
where
Password:
String (0, 128)
A valid password.
Default value:
""

xConfiguration SIP URI
Applies to: All products
Requires user role: ADMIN

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

**Usage:**

`xConfiguration SIP URI: "URI"
where
URI:
String (0, 255)
An address (URI) that is compliant with the SIP URI syntax.
Default value:
""

Standby configuration

xConfiguration Standby BootAction
Applies to: SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro
Requires user role: ADMIN, INTEGRATOR, USER

Define the camera position after a restart of the video conferencing device.

**Usage:**

`xConfiguration Standby BootAction: BootAction
where
BootAction:
None/DefaultCameraPosition/RestoreCameraPosition
None: No action.
DefaultCameraPosition: When the video conferencing device restarts, the camera moves to the factory default position.
Default value:
DefaultCameraPosition
RestoreCameraPosition: When the video conferencing device restarts, the camera returns to the position that it had before the restart.

Default value:
DefaultCameraPosition [ SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro ]
RestoreCameraPosition [ SX10 SX20 ]`
xConfiguration Standby Control

Applies to: All products

Requires user role: ADMIN, INTEGRATOR

Define whether the device should go into standby mode or not.

**USAGE:**

```
xConfiguration Standby Control: Control
```

where

```
Control:
```

**Off/On**

**Off:** The device will not enter standby mode.

**On:** The device will enter standby mode when the Standby Delay has timed out.

Default value:

```
On
```

xConfiguration Standby Delay

Applies to: All products

Requires user role: ADMIN, INTEGRATOR

Define how long (in minutes) the device shall be in idle mode before it goes into standby mode.

Requires the Standby Control to be enabled.

**USAGE:**

```
xConfiguration Standby Delay: Delay
```

where

```
Delay:
```

**Integer (1..480)**

Set the standby delay (minutes).

Default value:

```
10
```


xConfiguration Standby Signage Audio

Applies to: RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70, Room70G2, RoomPanorama, Room70Panorama, DeskPro, Boards

Requires user role: ADMIN, INTEGRATOR

By default, a device does not play out audio in digital signage mode even if the web page has audio. You can use this setting to override the default behavior.

**USAGE:**

```
xConfiguration Standby Signage Audio: Audio
```

where

```
Audio:
```

**Off/On**

**Off:** The device does not play out audio with the web page.

**On:** If the web page has audio, the device plays it out. The volume follows the volume setting of the device.

Default value:

```
Off
```

xConfiguration Standby Signage InteractionMode

Applies to: RoomKitMini, DeskPro, Boards

Requires user role: ADMIN, INTEGRATOR

By default, a user cannot interact with a digital signage web page. You can use this setting to enable the ability to interact with the web page.

The Interactive mode is not available for Room Kit Mini in general, only when Room Kit Mini is used with Samsung Flip (Webex on Flip).

**USAGE:**

```
xConfiguration Standby Signage InteractionMode: InteractionMode
```

where

```
InteractionMode:
```

**Interactive/NonInteractive**

**Interactive:** It's possible to interact with the web page.

**NonInteractive:** It's not possible to interact with the web page.

Default value:

```
NonInteractive
```

xConfiguration Standby Signage Mode

Content from a URL (a web page) can replace the traditional half-wake background image and information. This feature is called digital signage. Users can interact with the web page on devices with interactive screens (Webex Boards), for example click on a link or enter text in a form.

The use of digital signage does not prevent the device from entering standby the normal way. Therefore, the Standby Delay setting determines for how long the digital signage is shown before the device goes into standby.

**USAGE:**

xConfiguration Standby Signage Mode: `Mode`

where

- **Mode**:
  - `Off`/`On`
  - **Off**: Digital signage is not enabled on the device.
  - **On**: Digital signage is enabled and replaces the device's half-wake mode, provided that also the WebEngine Mode setting is On.

Default value: `Off`

xConfiguration Standby Signage RefreshInterval

You can use this setting to force a web page to refresh at regular intervals. This is useful for web pages that are not able to refresh themselves. It is not recommended to set a refresh interval with the interactive mode.

**USAGE:**

xConfiguration Standby Signage RefreshInterval: `RefreshInterval`

where

- **RefreshInterval**:
  - Integer (0..1440)
  - The number of seconds between each web page refresh. The value of 0 means that the web page is never forced to refresh.

Default value: `0`

xConfiguration Standby Signage Url

Set the URL of the web page you want to display on the screen (digital signage). If the length of the URL is 0, the device retains normal half-wake mode. If the URL fails, the device retains normal half-wake mode and a diagnostics message is issued.

**USAGE:**

xConfiguration Standby Signage Url: `"Url"`

where

- **Url**:
  - String (0, 2000)
  - The URL of the web page.

Default value: `""`
xConfiguration Standby StandbyAction

Applies to: SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

Requires user role: ADMIN, INTEGRATOR

Define the camera position when going into standby mode.

USAGE:

xConfiguration Standby StandbyAction: StandbyAction
where
   StandbyAction:
       None/PrivacyPosition
       None: No action.
       PrivacyPosition: When the video conferencing device enters standby, the camera turns to a sideways position for privacy.
       Default value:
           PrivacyPosition

xConfiguration Standby WakeupAction

Applies to: SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

Requires user role: ADMIN, INTEGRATOR, USER

Define the camera position when leaving standby mode.

USAGE:

xConfiguration Standby WakeupAction: WakeupAction
where
   WakeupAction:
       None/RestoreCameraPosition/DefaultCameraPosition
       None: No action.
       RestoreCameraPosition: When the video conferencing device leaves standby, the camera returns to the position that it had before entering standby.
       DefaultCameraPosition: When the video conferencing device leaves standby, the camera moves to the factory default position.
       Default value:
           RestoreCameraPosition

xConfiguration Standby WakeupOnMotionDetection

Applies to: All products

Requires user role: ADMIN, INTEGRATOR

Automatic wake up on motion detection is a feature that allows the device to detect when people enter the room. The feature is based on ultrasound detection. Ultrasound signals for motion detection are not emitted when both this setting AND the RoomAnalytics PeoplePresenceDetector setting are switched Off. The Audio Ultrasound MaxVolume and Proximity Mode settings has no effect on motion detection.

USAGE:

xConfiguration Standby WakeupOnMotionDetection: WakeupOnMotionDetection
where
   WakeupOnMotionDetection:
       Off/On
       Off: Wake up on motion detection is disabled.
       On: When people walk into the room the device will automatically wake up from standby.
       Not applicable for DX70 and SX10.
       Default value:
           On

       Default value:
           On

       Default value:
           On

       Default value:
           On

       Default value:
xConfiguration Standby PowerSave

Applies to: MX700/MX800/MX800D
Requires user role: ADMIN

You can reduce the video conferencing device's power consumption during out-of-office hours with this setting. The Power Save mode is an extension to the regular standby mode. When the device enters power save mode, power is cut to some of the device's modules, for example the integrated cameras. The video conferencing device and Touch controller behaves like in regular standby. The device wakes up from power save mode when you tap the touch panel.

Waking up the device from power save mode takes longer than waking it up from regular standby, because the cameras must boot. You can make calls right away, but there is no outgoing video until the cameras has completed their boot process.

USAGE:

xConfiguration Standby PowerSave: PowerSave
where

PowerSave:
Never/OutsideOfficeHours
Never: The device will never go into power save mode; only to regular standby.
OutsideOfficeHours: The device will go into power save mode during out-of-office hours. You must provide the office hours with the following settings: Time WorkWeek FirstDayOfWeek, Time WorkWeek LastDayOfWeek, Time WorkDay Start, and Time WorkDay End.

Default value:
Never

SystemUnit configuration

xConfiguration SystemUnit Name

Applies to: All products
Requires user role: ADMIN

Define the device name. The device name will be sent as the hostname in a DHCP request and when the device is acting as an SNMP Agent.

USAGE:

xConfiguration SystemUnit Name: "Name"
where

Name:
String (0, 50)
Define the device name.
Default value:
""
**xConfiguration SystemUnit CrashReporting Mode**

**Applies to:** All products  
**Requires user role:** ADMIN

If the device crashes, the device can automatically send logs to the Cisco Automatic Crash Report tool (ACR) for analyses. The ACR tool is for Cisco internal usage only and not available to customers.

**USAGE:**

```
xConfiguration SystemUnit CrashReporting Mode: Mode
```

*Mode*

- **Off**/**On**
  - **Off:** No logs will be sent to ACR tool.  
  - **On:** The logs will automatically be sent to ACR tool.

**Default value:**

```
Off [ DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D ]
On [ RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards ]
```

---

**xConfiguration SystemUnit CrashReporting Url**

**Applies to:** All products  
**Requires user role:** ADMIN

If the device crashes, the device can automatically send logs to the Cisco Automatic Crash Report tool (ACR) for analyses. The ACR tool is for Cisco internal usage only and not available to customers.

**USAGE:**

```
xConfiguration SystemUnit CrashReporting Url: "Url"
```

*Url*

- **String (0..255)**  
  - The URL to the Cisco Automatic Crash Report tool (ACR).

**Default value:**

```
"acr.cisco.com" [ RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards ]
```

---
Time configuration

xConfiguration Time Format
Applies to: All products
Requires user role: ADMIN, USER

Define the time format.

USAGE:
xConfiguration Time Format: **TimeFormat**

where

**TimeFormat**:
24H/12H
24H: Set the time format to 24 hours.
12H: Set the time format to 12 hours (AM/PM).
Default value:
24H

xConfiguration Time Date Format
Applies to: All products
Requires user role: ADMIN, USER

Define the date format.

USAGE:
xConfiguration Time Date Format: **DateFormat**

where

**DateFormat**:
DD_MM_YY/MM/DD/YYYY/MM/DD
DD/MM/YY: The date January 30th 2010 will be displayed: 01.30.10
MM/DD/YY: The date January 30th 2010 will be displayed: 01.30.10
YYYY/MM/DD: The date January 30th 2010 will be displayed: 2010.01.30
Default value:
DD/MM/YY

xConfiguration Time Zone
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

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

USAGE:
xConfiguration Time Zone: **Zone**

where

**Zone**:
xConfiguration Time WorkDay Start

Applies to: MX700/MX800/MX800D
Requires user role: ADMIN, USER

The Time WorkWeek FirstDayOfWeek, Time WorkWeek LastDayOfWeek, Time WorkDay Start, and Time WorkDay End settings are available so that you can specify when the regular working hours are, and thereby also find the out-of-office hours.

Knowing the out-of-office hours is required if you want to use the power save mode, which is set up using the Standby PowerSave setting.

USAGE:

xConfiguration Time WorkDay Start: "Start"
where

Start:
String (5, 5)
The working day start time, using the 24-hour clock.
Default value:
"07:00"

xConfiguration Time WorkWeek FirstDayOfWeek

Applies to: MX700/MX800/MX800D
Requires user role: ADMIN, USER

The Time WorkWeek FirstDayOfWeek, Time WorkWeek LastDayOfWeek, Time WorkDay Start, and Time WorkDay End settings are available so that you can specify when the regular working hours are, and thereby also find the out-of-office hours.

Knowing the out-of-office hours is required if you want to use the power save mode, which is set up using the Standby PowerSave setting.

USAGE:

xConfiguration Time WorkWeek FirstDayOfWeek: FirstDayOfWeek
where

FirstDayOfWeek:
Monday/Tuesday/Wednesday/Thursday/Friday/Saturday/Sunday
The first day of the working week.
Default value:
Monday

xConfiguration Time WorkWeek LastDayOfWeek

Applies to: MX700/MX800/MX800D
Requires user role: ADMIN, USER

The Time WorkWeek FirstDayOfWeek, Time WorkWeek LastDayOfWeek, Time WorkDay Start, and Time WorkDay End settings are available so that you can specify when the regular working hours are, and thereby also find the out-of-office hours.

Knowing the out-of-office hours is required if you want to use the power save mode, which is set up using the Standby PowerSave setting.

USAGE:

xConfiguration Time WorkWeek LastDayOfWeek: LastDayOfWeek
where

LastDayOfWeek:
Monday/Tuesday/Wednesday/Thursday/Friday/Saturday/Sunday
The last day of the working week.
Default value:
Friday

xConfiguration Time WorkDay End

Applies to: MX700/MX800/MX800D
Requires user role: ADMIN, USER

The Time WorkWeek FirstDayOfWeek, Time WorkWeek LastDayOfWeek, Time WorkDay Start, and Time WorkDay End settings are available so that you can specify when the regular working hours are, and thereby also find the out-of-office hours.

Knowing the out-of-office hours is required if you want to use the power save mode, which is set up using the Standby PowerSave setting.

USAGE:

xConfiguration Time WorkDay End: "End"
where

End:
String (5, 5)
The working day end time, using the 24-hour clock.
Default value:
"18:00"
UserInterface configuration

xConfiguration UserInterface Accessibility IncomingCallNotification

**Applies to:** All products

Requires user role: ADMIN, INTEGRATOR, USER

You can enable an incoming call notification with amplified visuals. The screen and Touch 10 will flash red/white approximately once every second (1.75 Hz) to make it easier for hearing impaired users to notice an incoming call. If the device is already in a call the screen will not flash as this will disturb the on-going call, instead you will get a normal notification on screen and touch panel.

**USAGE:**

xConfiguration UserInterface Accessibility IncomingCallNotification: 

where

IncomingCallNotification: 

AmplifiedVisuals/Default

AmplifiedVisuals: Enable the amplified visuals on screen and touch panel when the device receives a call.

Default: Enable the default behavior with a notification on screen and touch panel.

Default value: 

Default

xConfiguration UserInterface Assistant Mode

**Applies to:** RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN

Webex Assistant allows you to control the device by using voice commands. Webex Assistant is a cloud service, so the device must either be registered to the Webex cloud service or registered to an on-premises service and linked to Webex Edge for Devices. Use this setting to enable or disable the Webex Assistant on the device.

**USAGE:**

xConfiguration UserInterface Assistant Mode: 

where

Mode:

Off/On

Off: Webex Assistant is switched off.

On: Webex Assistant can be used if it is supported by the infrastructure.

Default value:

On

xConfiguration UserInterface Bookings Visibility Title

**Applies to:** All products

Requires user role: ADMIN, INTEGRATOR, USER

Sets the meeting details to private. “Schedule meeting” will be displayed as the title of the meeting.

**USAGE:**

xConfiguration UserInterface Bookings Visibility Title: 

where

Title:

Auto/Hidden

Auto: The title of the meeting is public and will be displayed on the user interface.

Hidden: The title of the meeting will be hidden and “Schedule meeting” will be displayed on the user interface.

Default value:

Auto
xConfiguration UserInterface Branding AwakeBranding Colors
Applies to: All products
Requires user role: ADMIN, INTEGRATOR

If the device is set up with branding customizations, this setting affects the colors of the logo that is shown when the device is awake. You can choose whether you want to show the logo in full color, or reduce the opacity of the logo so that it blends in more naturally with the background and other elements on the screen.

USAGE:
xConfiguration UserInterface Branding AwakeBranding Colors: Colors
where
  Colors:
    Auto/Native
    Auto: The opacity of the logo is reduced.
    Native: The logo has full colors.
  Default value: Auto

xConfiguration UserInterface ContactInfo Type
Applies to: All products
Requires user role: ADMIN

Choose which type of contact information to show in the user interface.

USAGE:
xConfiguration UserInterface ContactInfo Type: Type
where
  Type:
    Auto/Display/Name/E164Alias/H320Number/H323Id/IPv4/IPv6/None/SIP URI/SystemName
    Auto: Show the address which another device should dial to reach this video conferencing device. The address depends on the default call protocol and device registration.
    None: Do not show any contact information.
    IPv4: Show the device’s IPv4 address.
    IPv6: Show the device’s IPv6 address.
    H323Id: Show the device’s H.323 ID (refer to the H323 H323Alias ID setting).
    H320Number: Show the device’s H.320 number as contact information (only supported if used with Cisco TelePresence ISDN Link).
    E164Alias: Show the device’s H.323 E164 Alias as contact information (refer to the H323 H323Alias E164 setting).
    SIP URI: Show the device’s SIP URI (refer to the SIP URI setting).
    SystemName: Show the device’s name (refer to the SystemUnit Name setting).
    DisplayName: Show the device’s display name (refer to the SIP DisplayName setting).
    Default value: Auto
xConfiguration UserInterface CustomMessage

**Applies to:** DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

**Requires user role:** ADMIN, INTEGRATOR

A custom message can be displayed, in the lower left side of the screen, in awake mode.

**USAGE:**

```plaintext
xConfiguration UserInterface CustomMessage: "CustomMessage"
```

where

- **CustomMessage:**
  - String (0, 128)
  - Add a custom message. Add an empty string to remove a custom message.
  - Default value: ""

-xConfiguration UserInterface Diagnostics Notifications

**Applies to:** All products

**Requires user role:** ADMIN

Hide or show diagnostics notifications on the user interface.

**USAGE:**

```plaintext
xConfiguration UserInterface Diagnostics Notifications: Notifications
```

where

- **Notifications:**
  - Auto/Hidden
  - **Auto:** The diagnostics notifications will be displayed on the user interface.
  - **Hidden:** The diagnostics notifications will not be displayed on the user interface.
  - Default value: Auto

-xConfiguration UserInterface KeyTones Mode

**Applies to:** All products

**Requires user role:** ADMIN, USER

You can configure the device to make a keyboard click sound effect (key tone) when typing text or numbers in the user interface.

**USAGE:**

```plaintext
xConfiguration UserInterface KeyTones Mode: Mode
```

where

- **Mode:**
  - Off/On
  - **Off:** There is no key tone sound effect.
  - **On:** The key tone sound effect is turned on.
  - Default value: Off

-xConfiguration UserInterface Features Call End

**Applies to:** All products

**Requires user role:** ADMIN, INTEGRATOR

Choose whether or not to remove the default End Call button from the user interface. The setting removes only the button, not its functionality as such.

**USAGE:**

```plaintext
xConfiguration UserInterface Features Call End: End
```

where

- **End:**
  - Auto/Hidden
  - **Auto:** Shows the default button in the user interface.
  - **Hidden:** Removes the default button from the user interface.
  - Default value: Auto
xConfiguration UserInterface Features Call Keypad
Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Choose whether or not to remove the default in-call Keypad button from the user interface. This button opens a keypad, which for example can be used for DTMF input.

USAGE:
xConfiguration UserInterface Features Call Keypad: Keypad
where
   Keypad: Auto/Hidden
       Auto: Shows the default button in the user interface.
       Hidden: Removes the default button from the user interface.

   Default value:
       Auto

xConfiguration UserInterface Features Call MidCallControls
Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Choose whether or not to remove the default Hold, Transfer, and Resume in-call buttons from the user interface. The setting removes only the buttons, not their functionality as such.

USAGE:
xConfiguration UserInterface Features Call MidCallControls: MidCallControls
where
   MidCallControls: Auto/Hidden
       Auto: Shows the default buttons in the user interface.
       Hidden: Removes the default buttons from the user interface.

   Default value:
       Auto

xConfiguration UserInterface Features Call JoinWebex
Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Choose whether or not to remove the default Join Webex button from the user interface. The button allows users to dial into a Webex meeting using just the Webex meeting number, no domain is required. However, for this to work, you must set up the infrastructure to allow calls to be routed to *@webex.com.
The Join Webex button is not available if you are controlling the device with a remote control.

USAGE:
xConfiguration UserInterface Features Call JoinWebex: JoinWebex
where
   JoinWebex: Auto/Hidden
       Auto: Shows the default button in the user interface.
       Hidden: Removes the default button from the user interface.

   Default value:
       Auto
xConfiguration UserInterface Features Call Start

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Choose whether or not to remove the default Call button (including the directory, favorites, and recent calls lists) and the default in-call Add participant button from the user interface. The setting removes only the buttons, not their functionality as such.

USAGE:

xConfiguration UserInterface Features Call Start: Start

where

Start: Auto/Hidden
   Auto: Shows the default buttons in the user interface.
   Hidden: Removes the default buttons from the user interface.

Default value: Auto

xConfiguration UserInterface Features Call VideoMute

Applies to: SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70Q2 RoomPanorama/Room70Panorama Boards

Requires user role: ADMIN, INTEGRATOR

Choose whether or not to show the default "Turn video off" button in the user interface.

USAGE:

xConfiguration UserInterface Features Call VideoMute: VideoMute

where

VideoMute: Auto/Hidden
   Auto: Shows the "Turn video off" button in the user interface if this feature is supported in the ongoing call.
   Hidden: The "Turn video off" button is never shown in the user interface.

Default value: Auto

xConfiguration UserInterface Features HideAll

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Choose whether or not to remove all default buttons from the user interface. The setting removes only the buttons, not their functionality as such.

USAGE:

xConfiguration UserInterface Features HideAll: HideAll

where

HideAll: False/True
   False: Shows all default buttons in the user interface.
   True: Removes all default buttons from the user interface.

Default value: False

xConfiguration UserInterface Features Share Start

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Choose whether or not to remove the default buttons and other UI elements for sharing and previewing content, both in call and out of call, from the user interface. The setting removes only the buttons and UI elements, not their functionality as such. You can share content using Proximity or the Cisco Webex Teams app still.

USAGE:

xConfiguration UserInterface Features Share Start: Start

where

Start: Auto/Hidden
   Auto: Shows the default buttons and UI elements in the user interface.
   Hidden: Removes the default buttons and UI elements from the user interface.

Default value: Auto
xConfiguration UserInterface Features Whiteboard Start

Applies to: DX70/DX80 DeskPro Boards
Requires user role: ADMIN, INTEGRATOR

Choose whether or not to remove the default Whiteboard button from the user interface. The setting removes only the button, not its functionality as such. This setting only applies to Cisco Webex registered devices.

**USAGE:**
xConfiguration UserInterface Features Whiteboard Start: Start
where
- **Start**:
  - Auto/Hidden
    - Auto: Shows the default button in the user interface.
    - Hidden: Removes the default button from the user interface.
- Default value: Auto

xConfiguration UserInterface Language

Applies to: All products
Requires user role: ADMIN, USER

Select the language to be used in the user interface. If the language is not supported, the default language (English) will be used.

**USAGE:**
xConfiguration UserInterface Language: Language
where
- **Language**:
  - Arabic/Catalan/ChineseSimplified/ChineseTraditional/Czech/Danish/Dutch/English/
    EnglishUK/Finnish/French/FrenchCanadian/German/Hebrew/Hungarian/Italian/Japanese/
    Korean/Norwegian/Polish/Portuguese/PortugueseBrazilian/Russian/Spanish/SpanishLatin/
    Swedish/Turkish
  - Select a language from the list.
- Default value: English

xConfiguration UserInterface OSD EncryptionIndicator

Applies to: All products
Requires user role: ADMIN

Define for how long the encryption indicator is shown on screen. The icon for encrypted calls is a locked padlock.

**USAGE:**
xConfiguration UserInterface OSD EncryptionIndicator: EncryptionIndicator
where
- **EncryptionIndicator**:
  - Auto/AlwaysOn/AlwaysOff
    - Auto: If the call is encrypted, a *Call is encrypted* notification is shown for 5 seconds. Then, an encryption indicator icon is shown for the rest of the call.
    - If the call is not encrypted, a *Call is not encrypted* notification is shown for 5 seconds. No encryption indicator icon is shown.
    - AlwaysOn: The *Call is encrypted* notification is shown for 5 seconds. Then, an encryption indicator icon is shown for the rest of the call.
    - AlwaysOff: The encryption indicator is never displayed on screen.
- Default value: Auto
xConfiguration UserInterface OSD HalfwakeMessage

 Applies to: DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

 Requires user role: ADMIN, INTEGRATOR

 A custom message can be displayed in the middle of the main screen when the device is in the half wake state. The custom message will replace the default message, which gives instructions how to start using the device. You can also delete the default message, without adding a custom message.

 USAGE:

 xConfiguration UserInterface OSD HalfwakeMessage: "HalfwakeMessage"

 where

 HalfwakeMessage:

 String (0, 128)

 The custom message. An empty string: Restore the default message. A space only: There will be no message at all.

 Default value:

 ""

---

xConfiguration UserInterface OSD Output

 Applies to: All products

 Requires user role: ADMIN, INTEGRATOR

 Define on which monitor on-screen information and indicators (OSD) should be displayed. If the device is controlled with a remote control also the on-screen menus appear on this monitor.

 USAGE:

 xConfiguration UserInterface OSD Output: Output

 where

 Output:

 1 [ SX10 Room55 DeskPro Boards ]

 Auto/1/2 [ SX20 MX200G2/MX300G2 RoomKit CodecPlus Room70/Room55D ]

 Auto/1/2/3 [ SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama ]

 Auto [ DX70/DX80 RoomKitMini ]

 Auto: For devices with integrated screen, the on-screen information and indicators are sent to the integrated screen. If the device has two integrated screens, the left monitor is used.

 For devices without integrated screens, the device detects when a monitor is connected to a video output, and sends the on-screen information and indicators to the first monitor you connect. If you have a multi-monitor setup, and all monitors are connected before switching on the device, the on-screen information and indicators are sent to the video output with the lowest number, starting with Output Connector 1 (HDMI 1).

 1..n: The device sends the on-screen information and indicators to the specified output. Choose n to send the on-screen information and indicators to the device’s Output Connector n.

 For devices with integrated screens, the lowest numbers refer to the integrated screens.

 Default value:

 1 [ SX10 MX700/MX800/MX800D CodecPro Room55 Room70G2 RoomPanorama/Room70Panorama DeskPro Boards ]

 Auto [ DX70/DX80 SX20 SX80 MX200G2/MX300G2 RoomKit RoomKitMini CodecPlus Room70/Room55D ]
xConfiguration UserInterface Phonebook Mode

Applies to: All products

Requires user role: ADMIN, INTEGRATOR

This setting determines if a user is allowed to add or change a contact in the Directory and Favorites list from the user interface of the device.

USAGE:
xConfiguration UserInterface Phonebook Mode: Mode

where

Mode:
- ReadOnly/ReadWrite
  - ReadOnly: You neither can add a contact to the Favorites list, edit a contact in the Favorites list, nor edit any contact from the Directory or Favorites list before calling.
  - ReadWrite: You are able to add a contact to the Favorites list, edit a contact in the Favorites list, and edit a contact from the Directory or Favorites list before calling.

Default value:
- ReadWrite

xConfiguration UserInterface Proximity Notifications

Applies to: All products

Requires user role: ADMIN, INTEGRATOR

Configure the display of proximity notifications on the user interface.

USAGE:
xConfiguration UserInterface Proximity Notifications: Notifications

where

Notifications:
- Auto/Off/On
  - Auto: Allow the system to automatically determine when to display proximity notifications.
  - Off: Proximity notifications will not be shown on the user interface.
  - On: All proximity notifications will be shown on the user interface.

Default value:
- Auto

xConfiguration UserInterface Security Mode

Applies to: All products

Requires user role: ADMIN

This setting allows you to prevent important device information from being exposed in the user interface (drop down menu and Settings panel), for example the contact information and IP addresses of the video conferencing device, touch controller, and UCM/VCS registrars. It is important to note that such information is not hidden when navigating further into the Settings panel.

If you want to fully prevent that people without administrator rights can see the contact information, IP addresses, MAC address, serial number, and software version, you must also set the UserInterface SettingsMenu Mode to Locked, and of course have a passphrase for all user accounts with administrator rights.

USAGE:
xConfiguration UserInterface Security Mode: Mode

where

Mode:
- Normal/Strong
  - Normal: IP addresses and other device information are shown on the user interface.
  - Strong: Contact information and IP addresses are not displayed on the user interface (drop down menu and Settings panel).

Default value:
- Normal
xConfiguration UserInterface SettingsMenu Mode

Applies to: All products
Requires user role: ADMIN

The Settings panel in the user interface (Touch 10 or on-screen) can be protected by the device's admin password. If this password is blank, anyone can access the settings in the Settings panel, and for example factory reset the device. If authentication is enabled, all settings that require authentication have a padlock icon. You will be prompted to enter the administrator's username and passphrase when you select the setting. Some settings do not require authentication, they do not have a padlock icon.

USAGE:

xConfiguration UserInterface SettingsMenu Mode: Mode
where
Mode:
  Locked/Unlocked
  Locked: Authentication with administrator's username and passphrase is required.
  Unlocked: No authentication is required.
Default value:
  Unlocked

xConfiguration UserInterface SettingsMenu Visibility

Applies to: All products
Requires user role: ADMIN

Choose whether or not to show the device name (or contact information) and the associated drop down menu and Settings panel on the user interface.

USAGE:

xConfiguration UserInterface SettingsMenu Visibility: Visibility
where
Visibility:
  Auto/Hidden
  Auto: Shows the device name with drop down menu and Settings panel on the user interface.
  Hidden: Doesn't show the device name with drop down menu and Settings panel on the user interface.
Default value:
  Auto
xConfiguration UserInterface SoundEffects Mode

Applies to: All products
Requires user role: ADMIN, USER

You can configure the device to make a sound effect, e.g. when someone connects a laptop or mobile through Proximity.
The keyboard click sound effect when typing text is not affected by this setting (refer to the UserInterface Keytones Mode setting).

USAGE:
xConfiguration UserInterface SoundEffects Mode: Mode
where
Mode:
    Off/On
    Off: There are no sound effects.
    On: The sound effects are switched on.
Default value: On

xConfiguration UserInterface UsbPromotion

Applies to: RoomKitMini
Requires user role: ADMIN

Choose whether or not to show on the halfwake screen, a text that informs you that you can use the device as a USB camera.

USAGE:
xConfiguration UserInterface UsbPromotion: UsbPromotion
where
UsbPromotion:
    Off/On
    Off: The USB camera information text is not shown.
    On: The USB camera information text is shown.
Default value: Off

xConfiguration UserInterface WebcamOnlyMode

Applies to: RoomKitMini
Requires user role: ADMIN

This device can be used as a web camera, and as a normal video conferencing device. It can be used as a web camera even if it is not registered to any on-premise or cloud call service (such as CUCM, VCS, and Webex).
This setting determines if the user interface shall be adapted to a web camera only scenario when the video conferencing device is not registered.

USAGE:
xConfiguration UserInterface WebcamOnlyMode: WebcamOnlyMode
where
WebcamOnlyMode:
    Auto/Off
    Auto: If the device is registered to a call service, the full user interface will be shown. If the device is not registered, and therefore cannot be used for calling, irrelevant user interface elements are removed.
    Off: The device will always show the full user interface.
Default value: Auto
xConfiguration UserInterface Whiteboard ActivityIndicators

**Applies to:** DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2
RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN

Activity indicators let you see who is drawing and annotating in a call.
The avatars of the participants or the initials of the device are displayed when someone is inter-
acting with the whiteboard, so you can follow who is drawing or annotating.

Applies only to cloud-registered devices.

**USAGE:**

xConfiguration UserInterface Whiteboard ActivityIndicators: *ActivityIndicators* where

- **ActivityIndicators:**
  - **Off/On**
  - **On:** Enables activity indicators.
  - **Off:** Disables activity indicators.

  Default value: **On**

UserManagement configuration

xConfiguration UserManagement LDAP Admin Filter

**Applies to:** All products

**Requires user role:** ADMIN

The LDAP filter is used to determine which users should be granted administrator privileges.
You always have to set either an LDAP Admin Group or an LDAP Admin Filter. An LDAP
Admin Filter takes precedence, so if the UserManagement LDAP Admin Filter is set, the
UserManagement LDAP Admin Group setting is ignored.

**USAGE:**

xConfiguration UserManagement LDAP Admin Filter: "Filter"

where

- **Filter:**
  - **String** (0, 1024)
  - Refer to the LDAP specification for the syntax of this string. Example:
    "((memberof=CN=admin group, OU=company groups, DC=company, DC=com)
    (sAMAccountName=username))"

  Default value: ""
xConfiguration UserManagement LDAP Admin Group

Applies to: All products
Requires user role: ADMIN

Members of this AD (Active Directory) group will be given administrator access. This setting is a shorthand for saying (memberOf:1.2.840.113556.1.4.1941:={group name}). You always have to set either an LDAP Admin Group or an LDAP Admin Filter. An LDAP Admin Filter takes precedence, so if the UserManagement LDAP Admin Filter is set, the UserManagement LDAP Admin Group setting is ignored.

**USAGE:**

xConfiguration UserManagement LDAP Admin Group: "Group"
where
  Group:
    String (0..255)
    The distinguished name of the AD group. Example: "CN=admin group, OU=company groups, DC=company, DC=com"
    Default value: 
    

xConfiguration UserManagement LDAP BaseDN

Applies to: All products
Requires user role: ADMIN

The distinguishing name of the entry at which to start a search (base).

**USAGE:**

xConfiguration UserManagement LDAP BaseDN: "BaseDN"
where
  BaseDN:
    String (0..255)
    The distinguishing name of the base. Example: "DC=company, DC=com"
    Default value:
    

xConfiguration UserManagement LDAP Attribute

Applies to: All products
Requires user role: ADMIN

The attribute used to map to the provided username. If not set, sAMAccountName is used.

**USAGE:**

xConfiguration UserManagement LDAP Attribute: "Attribute"
where
  Attribute:
    String (0..255)
    The attribute name.
    Default value:
    

xConfiguration UserManagement LDAP Encryption

Applies to: All products
Requires user role: ADMIN

Define how to secure the communication between the device and the LDAP server. You can override the port number by using the UserManagement LDAP Server Port setting.

**USAGE:**

xConfiguration UserManagement LDAP Encryption: Encryption
where
  Encryption:
    LDAPS/None/STARTTLS
    LDAPS: Connect to the LDAP server on port 636 over TLS (Transport Layer Security).
    None: Connect to the LDAP server on port 389 with no encryption.
    STARTTLS: Connect to the LDAP server on port 389, then send a STARTTLS command to upgrade to an encrypted connection (TLS).
    Default value:
    
    LDAPS
xConfiguration UserManagement LDAP MinimumTLSVersion

Applies to: All products
Requires user role: ADMIN

Set the lowest version of the TLS (Transport Layer Security) protocol that is allowed.

**Usage:**
xConfiguration UserManagement LDAP MinimumTLSVersion: \texttt{MinimumTLSVersion}

where

\texttt{MinimumTLSVersion}: \texttt{TLSv1.0/TL Sv1.1/TL Sv1.2}

\texttt{TLSv1.0}: Support TLS version 1.0 or higher.
\texttt{TLSv1.1}: Support TLS version 1.1 or higher.
\texttt{TLSv1.2}: Support TLS version 1.2 or higher.

Default value: \texttt{TLSv1.2}

xConfiguration UserManagement LDAP Mode

Applies to: All products
Requires user role: ADMIN

The device supports the use of an LDAP (Lightweight Directory Access Protocol) server as a central place to store and validate usernames and passwords. Use this setting to configure whether or not to use LDAP authentication. Our implementation is tested for the Microsoft Active Directory (AD) service.

If you switch on LDAP Mode, make sure to configure the other UserManagement LDAP settings to suit your setup. Here is a few examples.

Example 1:
- UserManagement LDAP Mode: On
- UserManagement LDAP Address: "192.0.2.20"
- UserManagement LDAP BaseDN: "DC=company, DC=com"
- UserManagement LDAP Admin Group: "CN=admin group, OU=company groups, DC=company, DC=com"

Example 2:
- UserManagement LDAP Mode: On
- UserManagement LDAP Address: "192.0.2.20"
- UserManagement LDAP BaseDN: "DC=company, DC=com"
- UserManagement LDAP Admin Filter: "((memberof=CN=admin group, OU=company groups, DC=company, DC=com)(sAMAccountName=username))"

**Usage:**
xConfiguration UserManagement LDAP Mode: \texttt{Mode}

where

\texttt{Mode}: \texttt{Off/On}

\texttt{Off}: LDAP authentication is not allowed.
\texttt{On}: LDAP authentication is allowed.

Default value: \texttt{Off}
xConfiguration UserManagement LDAP Server Address

Applies to: All products
Requires user role: ADMIN

Set the IP address or hostname of the LDAP server.

**Usage:**
xConfiguration UserManagement LDAP Server Address: "Address"

where

- **Address:**
  - String (0..255)
  - A valid IPv4 address, IPv6 address or hostname.
  - Default value:"

xConfiguration UserManagement LDAP Server Port

Applies to: All products
Requires user role: ADMIN

Set the port to connect to the LDAP server on. If set to 0, use the default for the selected protocol (see the UserManagement LDAP Encryption setting).

**Usage:**
xConfiguration UserManagement LDAP Server Port: Port

where

- **Port:**
  - Integer (0..65535)
  - The LDAP server port number.
  - Default value: 0

xConfiguration UserManagement LDAP VerifyServerCertificate

Applies to: All products
Requires user role: ADMIN

When the device connects to an LDAP server, the server will identify itself to the device by presenting its certificate. Use this setting to determine whether or not the device will verify the server certificate.

**Usage:**
xConfiguration UserManagement LDAP VerifyServerCertificate: VerifyServerCertificate

where

- **VerifyServerCertificate:**
  - Off/On
  - **Off:** The device will not verify the LDAP server's certificate.
  - **On:** The device must verify that the LDAP server's certificate is signed by a trusted Certificate Authority (CA). The CA must be on the list of trusted CAs that are uploaded to the device in advance. Use the device's web interface to manage the list of trusted CAs (see more details in the administrator guide).

Default value:

- **On**
xConfiguration UserManagement PasswordPolicy Complexity MinimumDigits

Applies to: All products
Requires user role: ADMIN

When signing in to the device as a local user, the password must follow the rules set by the UserManagement PasswordPolicy settings. These settings replace the “systemtools security-setting” command that was available in software versions older than CE9.10.

A new password rule will not apply to existing passwords but will take effect on the next password change.

This setting specifies the minimum number of numerical characters (0..9) in the password.

**USAGE:**

```
xConfiguration UserManagement PasswordPolicy Complexity MinimumDigits:

MinimumDigits

where

MinimumDigits:

Integer (0..4)

The minimum number of numerical characters. 0 means no restrictions.

Default value:

0
```

xConfiguration UserManagement PasswordPolicy Complexity MinimumLength

Applies to: All products
Requires user role: ADMIN

When signing in to the device as a local user, the password must follow the rules set by the UserManagement PasswordPolicy settings. These settings replace the “systemtools security-setting” command that was available in software versions older than CE9.10.

A new password rule will not apply to existing passwords but will take effect on the next password change.

This setting specifies the minimum number of characters in the password.

**USAGE:**

```
xConfiguration UserManagement PasswordPolicy Complexity MinimumLength:

MinimumLength

where

MinimumLength:

Integer (0..256)

The minimum number of characters. 0 means no restrictions.

Default value:

8
```
xConfiguration UserManagement PasswordPolicy Complexity MinimumLowercase
Applies to: All products
Requires user role: ADMIN
When signing in to the device as a local user, the password must follow the rules set by the UserManagement PasswordPolicy settings. These settings replace the “systemtools security-setting” command that was available in software versions older than CE9.10. A new password rule will not apply to existing passwords but will take effect on the next password change.
This setting specifies the minimum number of lower-case letters in the password.

USAGE:
```
xConfiguration UserManagement PasswordPolicy Complexity MinimumLowercase: MinimumLowercase
```
where
```
MinimumLowercase:
  Integer (0..4)
  The minimum number of lower-case characters. 0 means no restrictions.
  Default value: 0
```

xConfiguration UserManagement PasswordPolicy Complexity MinimumSpecial
Applies to: All products
Requires user role: ADMIN
When signing in to the device as a local user, the password must follow the rules set by the UserManagement PasswordPolicy settings. These settings replace the “systemtools security-setting” command that was available in software versions older than CE9.10. A new password rule will not apply to existing passwords but will take effect on the next password change.
This setting specifies the minimum number of special characters in the password.

USAGE:
```
xConfiguration UserManagement PasswordPolicy Complexity MinimumSpecial: MinimumSpecial
```
where
```
MinimumSpecial:
  Integer (0..4)
  The minimum number of special characters. 0 means no restrictions.
  Default value: 0
```
xConfiguration UserManagement PasswordPolicy Complexity

MinimumUppercase

Applies to: All products

Requires user role: ADMIN

When signing in to the device as a local user, the password must follow the rules set by the UserManagement PasswordPolicy settings. These settings replace the "systemtools security-setting" command that was available in software versions older than CE9.10.

A new password rule will not apply to existing passwords but will take effect on the next password change.

This setting specifies the minimum number of upper-case letters in the password.

USAGE:

xConfiguration UserManagement PasswordPolicy Complexity MinimumUppercase: MinimumUppercase

where

MinimumUppercase:

Integer (0..4)

The minimum number of upper-case characters. 0 means no restrictions.

Default value:

0

xConfiguration UserManagement PasswordPolicy MaxLifetime

Applies to: All products

Requires user role: ADMIN

When signing in to the device as a local user, the password must follow the rules set by the UserManagement PasswordPolicy settings. These settings replace the "systemtools security-setting" command that was available in software versions older than CE9.10.

A new password rule will not apply to existing passwords but will take effect on the next password change.

This setting specifies the maximum number of days before a password becomes invalid.

USAGE:

xConfiguration UserManagement PasswordPolicy MaxLifetime: MaxLifetime

where

MaxLifetime:

Integer (0..7300)

The minimum number of days. 0 means no restrictions.

Default value:

0
xConfiguration UserManagement PasswordPolicy ReuseLimit

Applies to: All products
Requires user role: ADMIN

When signing in to the device as a local user, the password must follow the rules set by the UserManagement PasswordPolicy settings. These settings replace the “systemtools security-setting” command that was available in software versions older than CE9.10.

A new password rule will not apply to existing passwords but will take effect on the next password change.

This setting specifies the reuse limit \( n \), which means that a user cannot change to either of their previous \( n \) passwords.

**USAGE:**

\[
\text{xConfiguration UserManagement PasswordPolicy ReuseLimit: } \text{ReuseLimit}
\]

where

\[
\text{ReuseLimit:} \quad \text{Integer (0..24)}
\]

The minimum number of passwords. 0 means no restrictions.

Default value: 12

Video configuration

xConfiguration Video DefaultMainSource

Applies to: All products
Requires user role: ADMIN, USER

Define the default input source for main video in calls. The main video is played on this source when you switch on or restart the video conferencing device. Use the Video Input SetMainVideoSource command to change to another source while the device is running.

**USAGE:**

\[
\text{xConfiguration Video DefaultMainSource: } \text{DefaultMainSource}
\]

where

\[
\text{DefaultMainSource:} \quad 1/2/3/4/5/6 \quad \{ \text{CodecPro} \}
\]

\[
1/2/3/4 \quad \{ \text{SX80 MX700/MX800/MX800D Room70G2 RoomPanorama/Room70Panorama} \}
\]

\[
1/2 \quad \{ \text{SX20} \}
\]

\[
1 \quad \{ \text{DX70/DX80 SX10 RoomKitMini Boards} \}
\]

\[
1/2/3 \quad \{ \text{MX200G2/MX300G2 RoomKit CodecPlus Room55 Room70/Room55D DeskPro} \}
\]

The default source for main video.

Default value: 1
xConfiguration Video Input Connector [n] CameraControl CameraId

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

The camera ID is a unique identifier of the camera that is connected to this video input.
For devices with more than one camera you can use the xStatus Camera API command to see the IDs of the different cameras.

**USAGE:**

```
xConfiguration Video Input Connector [n] CameraControl CameraId: CameraId
```

where

- `n`: Unique ID that identifies the video input connector.
  - Range: 1..6
    - [ CodecPro Room70G2 RoomPanorama/Room70Panorama ]
    - [ SX10 CodecPlus Room55 Room70/Room55G2 DeskPro ]
    - [ DX70/DX80 SX20 RoomKit RoomKitMini Boards ]
    - [ S X80 MX700/MX800/MX800D ]
    - [ MX200G2/MX300G2 ]

- **CameraId:**
  - 1/2/3/4/5/6/7: [ CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama ]
  - 1: [ DX70/DX80 SX10 SX20 MX200G2/MX300G2 RoomKit RoomKitMini Room55 DeskPro Boards ]
  - Connector 1,2,3,4: 1/2/3/4/5/6/7 Connector 5: 1 [ SX80 MX700/MX800/MX800D ]
  - Connector 1,2,3: On Connector 5: Off
  - Default value:
    - **Connector n:** n [ CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama ]
    - 1: [ DX70/DX80 SX10 SX20 MX200G2/MX300G2 RoomKit RoomKitMini Room55 DeskPro Boards ]
    - **Connector n:** n Connector 5: 1 [ SX80 MX700/MX800/MX800D ]
    - For devices with more than one camera, select the ID of the camera. For devices with one camera the value is fixed and cannot be changed.

-xConfiguration Video Input Connector [n] CameraControl Mode

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Define whether the camera on this video input connector can be controlled or not. Some connectors cannot be controlled (Off is the only available value).

**USAGE:**

```
xConfiguration Video Input Connector [n] CameraControl Mode: Mode
```

where

- `n`: Unique ID that identifies the video input connector.
- **Mode:**
  - Off/On
  - Range: 1..6
    - [ CodecPlus CodecPro Room70G2 RoomPanorama/Room70Panorama ]
    - [ SX10 CodecPlus Room55 Room70/Room55G2 DeskPro ]
    - [ DX70/DX80 SX20 RoomKit RoomKitMini Boards ]
    - [ S X80 MX700/MX800/MX800D ]
    - [ MX200G2/MX300G2 ]
    - **Connector n:** n Connector 5: Off
    - Default value:
      - On: Enable camera control.
      - Off: Disable camera control.
      - **Connector n:** n [ CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama ]
      - 1: [ DX70/DX80 SX10 SX20 MX200G2/MX300G2 RoomKit RoomKitMini Room55 DeskPro Boards ]
      - **Connector n:** n Connector 5: 1 [ SX80 MX700/MX800/MX800D ]
      - Connector 1,2,3,4: On Connector 6: Off [ CodecPro Room70G2 RoomPanorama/Room70Panorama ]
      - Off [ DX70/DX80 ]
      - Connector 1: On Connector 2,3,4: Off [ MX200G2/MX300G2 ]
      - Connector 1: Off Connector 2,3: Off [ SX10 Room55 DeskPro ]
      - Connector 1: Off Connector 2: Off [ SX20 RoomKit RoomKitMini Boards ]
      - Connector 1,2,3,4: Off Connector 5: Off [ SX80 MX700/MX800/MX800D ]
      - **Connector n:** n Connector 5: On
      - Default value:
        - On: Enable camera control.
        - Off: Disable camera control.
        - **Connector n:** n [ CodecPlus CodecPro Room70/Room55D ]
        - 1: [ DX70/DX80 SX10 SX20 MX200G2/MX300G2 RoomKit RoomKitMini Room55 DeskPro Boards ]
        - **Connector n:** n Connector 5: 1 [ SX80 MX700/MX800/MX800D ]
        - Connector 1,2,3,4: On Connector 6: Off [ CodecPro Room70G2 RoomPanorama/Room70Panorama ]
        - Off [ DX70/DX80 ]
        - Connector 1: On Connector 2,3,4: Off [ MX200G2/MX300G2 ]
        - Connector 1: On Connector 2,3: Off [ SX10 Room55 DeskPro ]
        - Connector 1: On Connector 2: Off [ SX20 RoomKit RoomKitMini Boards ]
        - Connector 1,2,3: On Connector 4,5: Off [ SX80 MX700/MX800/MX800D ]
xConfiguration Video Input Connector [n] CEC Mode

Applies to: RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, INTEGRATOR

The video input (HDMI) supports Consumer Electronics Control (CEC). When this setting is enabled, information about the connected device (for example device type and device name) is available in the video conferencing device status (Video Input Connector[n] ConnectedDevice CEC [n]), provided that the connected device also supports CEC.

If you have Cisco Quad Camera, do not switch off CEC on that connector because then there will be no sound on the speakers on the camera. CEC is required for HDMI ARC (Audio Return Channel), which is the channel used for sending audio from the video conferencing device to the camera.

USAGE:

xConfiguration Video Input Connector [n] CEC Mode: Mode

where

n: Unique ID that identifies the video input connector.

Range: 1..5 [ CodecPro Room70G2 RoomPanorama/Room70Panorama ]
Range: 1..3 [ CodecPlus Room70/Room55D ]
Range: 2..3 [ Room55 DeskPro ]
Range: 2..2 [ RoomKit RoomKitMini Boards ]

Mode:

Off/On [ RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70G2 RoomPanorama/Room70Panorama DeskPro Boards ]

Connector 1: On Other connectors: Off/On [ Room70/Room55D ]

Off: CEC is disabled.
On: CEC is enabled.

Default value: On

xConfiguration Video Input Connector [n] DviType

Applies to: SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D

Requires user role: ADMIN

The official DVI standard supports both digital and analog signals. In most cases the default AutoDetect setting can detect whether the signal is analog RGB or digital. However, in some rare cases when DVI-I cables are used (these cables can carry both the analog and digital signals) the auto detection fails. This setting makes it possible to override the AutoDetect and select the correct DVI video input.

USAGE:

xConfiguration Video Input Connector [n] DviType: DviType

where

n: Unique ID that identifies the video input connector.

Range: 4..4 [ SX80 MX700/MX800/MX800D ]
Range: 2..2 [ SX20 MX200G2/MX300G2 ]

DviType:

AutoDetect/Digital/AnalogRGB/AnalogYPbPr

AutoDetect: Set to AutoDetect to automatically detect if the signal is analog RGB or digital.

Digital: Set to Digital to force the DVI video input to Digital when using DVI-I cables with both analog and digital pins and AutoDetect fails.

AnalogRGB: Set to AnalogRGB to force the DVI video input to AnalogRGB when using DVI-I cables with both analog and digital pins and AutoDetect fails.

AnalogYPbPr: Set to AnalogYPbPr to force the DVI video input to AnalogYPbPr, as the component (YPbPr) signal cannot be auto detected.

Default value: AutoDetect
xConfiguration Video Input Connector [n] HDCP Mode

Applies to: CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, INTEGRATOR

One of the video conferencing device's HDMI inputs can be configured to support HDCP protected content (High-bandwidth Digital Content Protection, version 1.4). This allows customers to re-purpose a video conferencing device's screen by connecting devices such as a Google ChromeCast, an AppleTV, or an HDTV decoder. This type of content cannot be shared while in a call.

When the input connector is configured to support HDCP, it is reserved for this type of content. This means that you can’t share any content from this specific connector while in a call, regardless of what is connected, nor can you take web snapshots of this source.

The screens, on which the protected content is displayed, must support HDCP. For Codec Plus, Room 70 (Single and Dual), and Room 55 Dual, the protected content is always displayed on the screen that is connected to output connector 1; for Codec Pro and Room 70 G2 (Single and Dual), it’s displayed on screens connected to output connector 1 and 2; and for Room 55, it’s displayed on the integrated screen. The integrated screens of devices in the Room Series support HDCP.

Note: If you have connected an external screen to Room 55 (not Room 55 Dual), you cannot display HDCP content, not even on the integrated screen.

USAGE:

xConfiguration Video Input Connector [n] HDCP Mode: Mode

where
- n: Unique ID that identifies the video input connector.
  - Range: 1..3 [CodecPlus Room70/Room55D]
  - Range: 1..5 [CodecPro Room70G2 RoomPanorama/Room70Panorama]
  - Range: 2..3 [Room55]

Mode:
  - Connector 1, 3: Off, Connector 2: Off/On [CodecPlus Room70/Room55D]
  - Connector 1, 2, 3, 4: Off, Connector 5: Off/On [CodecPro Room70G2 RoomPanorama/Room70Panorama]
  - Connector 2: Off, Connector 3: Off/On [Room55]

Off: Disable support for HDCP protected content on this video input connector.

On: Enable support for HDCP protected content this video input connector.

Default value: Off

xConfiguration Video Input Connector [n] InputSourceType

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

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

If the device has an integrated camera, Connector 1 refers to the integrated camera; if the device has two integrated cameras (dual camera), Connector 1 and Connector 2 refers to the integrated cameras.

USAGE:

xConfiguration Video Input Connector [n] InputSourceType: InputSourceType

where
- n: Unique ID that identifies the video input connector.
  - Range: 1..6 [CodecPro Room70G2 RoomPanorama/Room70Panorama]
  - Range: 1..3 [SX10 CodecPlus Room55 Room70/Room55D DeskPro]
  - Range: 1..2 [DX70/DX80 SX20 RoomKit RoomKitMini Boards]
  - Range: 1..5 [MX700/MX800/MX800D]
  - Range: 1..4 [MX200G2/MX300G2]

InputSourceType:
- PC: Use this when a computer is connected to the video input.
- camera: Use this when a camera is connected to the video input.
- document_camera: Use this when a document camera is connected to the video input.
- mediaplayer: Use this when a media player is connected to the video input.
- whiteboard: Use this when a whiteboard camera is connected to the video input.
- other: Use this when the other options do not match.

Default value: Connector 1, 2, 6: camera Connector 3, 4, 5: PC [CodecPro Room70G2 RoomPanorama/Room70Panorama]

Connector 1: camera Other connectors: PC [DX70/DX80 SX20 RoomKit RoomKitMini Boards]
**xConfiguration Video Input Connector [n] Name**

**Applies to:** All products  
**Requires user role:** ADMIN, INTEGRATOR  
**Define a name for the video input connector.**

**USAGE:**

```
xConfiguration Video Input Connector [n] Name: "Name"
```

where

- `n`: Unique ID that identifies the video input connector.  
  Range: 1..6  
  [ CodecPro Room70G2 RoomPanorama/Room70Panorama ]  
  Range: 1..3  
  [ SX10 CodecPlus Room55 Room70/Room55D DeskPro ]  
  Range: 1..2  
  [ DX70/DX80 SX20 RoomKit RoomKitMini Boards ]  
  Range: 1..5  
  [ SX80 MX700/MX800/MX800D ]  
  Range: 1..4  
  [ MX200G2/MX300G2 ]

- **Name**: String (0, 50)  
  Name for the video input connector.  
  Default value:  
  - Connector 1: “Camera 1”  
  - Connector 2: “Camera 2”  
  - Connector 3: “PC 1 (HDMI)”  
  - Connector 4: “PC 2 (HDMI)”  
  - Connector 5: “Camera 3 (SDI)”  
  - Connector 6: “Camera 3 (SDI)”  

**xConfiguration Video Input Connector [n] PreferredResolution**

**Applies to:** RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards  
**Requires user role:** ADMIN, INTEGRATOR  
**Define the preferred screen resolution and refresh rate that the video conferencing device advertises to the input sources that are connected via HDMI (for example a laptop). The logic for selection of the resolution on the source side will choose this resolution and refresh rate automatically, unless it is overridden manually by the source device (for example the laptop’s display configuration software).**

**Note that larger formats than 1920_1080_60 use much more data, and requires a presentation cable (or adapter) that is qualified for at least HDMI 1.4b data rates.**

**USAGE:**

```
xConfiguration Video Input Connector [n] PreferredResolution: PreferredResolution
```

where

- `n`: Unique ID that identifies the video input connector.  
  Range: 1..5  
  [ CodecPro Room70G2 RoomPanorama/Room70Panorama ]  
  Range: 2..3  
  [ CodecPlus Room70/Room55D ]  
  Range: 1..3  
  [ RoomKit RoomKitMini Boards ]  
  PreferredResolution:  
  - Connector 1,2: 1920_1080_60  
  - Connector 3,4,5: 1920_1080_60/2560_1440_60/3840_2160_30  
  - Connector 1: 1920_1080_60  
  - Connector 2,3: 1920_1080_60/2560_1440_60/3840_2160_30  
  - Connector 1: 1920_1080_60/2560_1440_60/3840_2160_30/3840_2160_60  
  - Connector 1: 1920_1080_60: The resolution is 1920 x 1080, and the refresh rate is 60 Hz.  
  - 2560_1440_60: The resolution is 2560 x 1440, and the refresh rate is 60 Hz.  
  - 3840_2160_30: The resolution is 3840 x 2160, and the refresh rate is 30 Hz.  
  - 3840_2160_60: The resolution is 3840 x 2160, and the refresh rate is 60 Hz.  
  Default value:  
  - 1920_1080_60  
  - 3840_2160_60  
  - 1920_1080_60
xConfiguration Video Input Connector [n] PresentationSelection

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Define how the video conferencing device will behave when you connect a presentation source to the video input. If the device is in standby mode, it will wake up when you connect a presentation source. Sharing the presentation with the far end requires additional action (select Share on the user interface) except when this setting is set to AutoShare.

For devices with more than one camera: Any input source can be used as a presentation source; normally, the main camera will not be used as a presentation source.

For devices with an integrated camera: The integrated camera is not available as a presentation source.

**USAGE:**

xConfiguration Video Input Connector [n] PresentationSelection:

PresentationSelection

where

n: Unique ID that identifies the video input connector.

Range: 1..6

- CodecPro Room70G2 RoomPanorama/Room70Panorama
- CodecPlus Room70/Room55D
- DX70/DX80 RoomKit RoomKitMini Boards
- SX10 Room55 DeskPro
- SX20
- SX80 MX700/MX800/MX800D
- MX200G2/MX300G2

PresentationSelection:

AutoShare/Desktop/Manual/OnConnect

- DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards


AutoShare: While in a call, the content on the video input will automatically be presented to the far end as well as on the local screen when you connect the cable, or when the source is activated otherwise (for example when a connected computer wakes up from sleep mode). You do not have to select Share on the user interface. If a presentation source is already connected when you make or answer a call, you have to manually select Share on the user interface.

Desktop: The content on the video input will be presented on the screen when you connect the cable, or when the source is activated otherwise (for example when a connected computer wakes up from sleep mode). This applies both when idle and in a call. Also, the content on the video input will stay on the screen when you leave the call, provided that it was the active input at the time of leaving.

**Manual:** The content on the video input will not be presented on the screen until you select Share from the user interface.

**OnConnect:** The content on the video input will be presented on screen when you connect the cable, or when the source is activated otherwise (for example when a connected computer wakes up from sleep mode). Otherwise, the behavior is the same as in manual mode.

Default value:

- Connector 1,2,6: Manual  Connector 3,4,5: OnConnect  CodecPro Room70G2 RoomPanorama/Room70Panorama
- Connector 1: Manual  Connector 2,3,4: OnConnect  CodecPlus Room70/Room55D
- Desktop: [DX70/DX80 DeskPro]
- OnConnect: [SX10 MX200G2/MX300G2 RoomKit RoomKitMini Room55]
- AutoShare: [Boards]
- Connector 1: Manual  Connector 2: OnConnect  CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama
- CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
- Connector 1: Manual  Connector 2: OnConnect  SX80 MX700/MX800/MX800D
- Connector 1: Manual  Connector 2: OnConnect  SX20
xConfiguration Video Input Connector [n] Quality
Applies to: All products
Requires user role: ADMIN, INTEGRATOR

When encoding and transmitting video there is 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. This setting specifies whether to give priority to high frame rate or to high resolution.

If a Quad Camera, SpeakerTrack 60 camera, or Precision 60 camera is detected by the device this setting is automatically set to Motion. If a user changes this setting manually, it will be set back to Motion after a restart or a camera reconnect.

**USAGE:**
```
xConfiguration Video Input Connector [n] Quality: Quality
```
where

- **n**: Unique ID that identifies the video input connector.
  - Range: 1..6
  - [ CodecPro Room70G2 RoomPanorama/Room70Panorama ]
  - Range: 1..3
  - [ CodecPlus Room70/Room55D ]
  - Range: 2..2
  - [ DX70/DX80 RoomKit RoomKitMini Boards ]
  - Range: 2..3
  - [ SX10 Room55 DeskPro ]
  - Range: 1..2
  - [ SX20 ]
  - Range: 1..5
  - [ SX80 MX700/MX800/MX800D ]
  - Range: 1..4
  - [ MX200G2/MX300G2 ]

- **Quality**: 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.

Default value:
```
Connector 1,2,6: Motion   Connector 3,4,5: Sharpness
```

xConfiguration Video Input Connector [n] Visibility
Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Define the visibility of the video input connector in the menus on the user interface.

For devices with an integrated camera: Connector 1 is the device’s integrated camera and is not available as a presentation source.

**USAGE:**
```
xConfiguration Video Input Connector [n] Visibility: Visibility
```
where

- **n**: Unique ID that identifies the video input connector.
  - Range: 1..6
  - [ CodecPro Room70G2 RoomPanorama/Room70Panorama ]
  - Range: 1..3
  - [ CodecPlus Room55 Room70/Room55D DeskPro ]
  - Range: 1..2
  - [ DX70/DX80 SX20 RoomKit RoomKitMini Boards ]
  - Range: 1..5
  - [ SX80 MX700/MX800/MX800D ]
  - Range: 1..4
  - [ MX200G2/MX300G2 ]

- **Visibility**: Always/IfSignal/Never
  - **Always**: The menu selection for the video input connector will always be visible on the user interface.
  - **IfSignal**: The menu selection for the video input connector will only be visible when something is connected to the video input.
  - **Never**: The input source is not expected to be used as a presentation source, and will not show up on the user interface.

Default value:
```
Connector 1: Never   Connector 2: Always/IfSignal/Never
```

xConfiguration Video Monitors

Applies to: DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

Requires user role: ADMIN, INTEGRATOR

A monitor role is assigned to each screen/output. The monitor role for DX70, DX80, and SX10, which only support one screen, is First. The monitor role for the integrated screen of MX200 G2 and MX300 G2 is First; the monitor role for the optional external screen is Second. For the other products the monitor role is set using the Video Output Connector [n] MonitorRole setting. The monitor role decides which layout (call participants and presentation) will appear on a screen. Screens with different monitor roles will have different layouts; screens with the same monitor role will get the same layout (except for SX20). SX20 does not support the same layout on two screens.

The monitor layout mode that is set in the Video Monitors setting should reflect the number of different layouts you want in your room setup. Note that some screens can be reserved for presentations.

USAGE:

xConfiguration Video Monitors: Monitors where

Monitors: Auto/Single/Dual/DualPresentationOnly [ SX20 RoomKit CodecPlus Room55 Room70/Room55D DeskPro ]

Auto/Single/Dual/DualPresentationOnly/TriplePresentationOnly/Triple [ SX80 MX700/MX800/MX800D CodecPro Room70G2 ]

Auto/TriplePresentationOnly [ RoomPanorama/Room70Panorama ]

Auto/DualPresentationOnly [ MX200G2/MX300G2 ]

Single [ DX70/DX80 SX10 ]

Auto: The number of screens connected to the device is automatically detected, and the layout is distributed on the screens according to the monitor role.

Single: The layout is shown on the device’s screen. If the device has more than one screen, the same layout is shown on all screens (except for SX20). For SX20 with two screens, one of them will be disabled.

Dual: The layout is distributed on screens with monitor role First and Second. If a presentation is part of the layout, all participants in the call are shown on screens with monitor role First, and the presentation is shown on screens with monitor role Second.

DualPresentationOnly: All participants in the call are shown on screens with monitor role First. If a presentation is part of the layout, the presentation is shown on screens with monitor role Second.

Triple: The layout is distributed on screens with monitor role First, Second and Third.
Screens with monitor role Second are used first, then First, and finally Third. If a presentation is part of the layout, all participants in the call are shown on screens with monitor role First and Second, and the presentation is shown on the screen with monitor role Third.

**TriplePresentationOnly:** All participants in the call are distributed on screens with monitor role First and Second. Screens with monitor role Second are used first, then First. If a presentation is part of the layout, the presentation is shown on the screen with monitor role Third.

Default value:

- **Auto**
  - SX20, SX80, MX200G2/MX300G2, MX700/MX800/MX800D, RoomKit, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro
- **Single**
  - DX70/DX80, SX10

### xConfiguration Video Output Connector [n] CEC Mode

**Applies to:** SX10, SX20, SX80, MX200G2/MX300G2, MX700/MX800/MX800D, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro

**Requires user role:** ADMIN, INTEGRATOR

This video output (HDMI) supports Consumer Electronics Control (CEC). When this setting is On, the video conferencing device will use CEC to set the screen in standby when the device itself enters standby. Likewise the device will wake up the screen when the device itself wakes up from standby.

The active video input on a screen is sometimes changed by a user. When a call is started the device detects if the active video input has been switched to another input on the screen. The device then switches the input back so the device is the active video input source (not supported by SX20, SX80, and MX series).

If the device is not the active input source when the device goes into standby the screen will not be set to standby (not supported by SX20, SX80, and MX series).

It’s a prerequisite that the screen that is connected to the output is CEC compatible and that CEC is enabled on the screen.

Note that the different manufacturers use different marketing names for CEC, for example Anynet+ (Samsung); Aquos Link (Sharp); BRAVIA Sync (Sony); HDMI–CEC (Hitachi); Kuro Link (Pioneer); CE-Link and Regza Link (Toshiba); RIHD (Onkyo); HDAVI Control, EZ-Sync, VIERA Link (Panasonic); EasyLink (Philips); and NetCommand for HDMI (Mitsubishi).

**USAGE:**

**xConfiguration Video Output Connector [n] CEC Mode:**

- **Mode:**
  - **Off/On**
    - **Off:** CEC is disabled.
    - **On:** CEC is enabled.

Default value:
On | SX10 RoomKit RoomKitMini CodecPlus CodecPro Room55 DeskPro |
Off | SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D Room70/Room55D Room70G2 |
Room Panorama: On ; Room 70 Panorama: Connector 1: Off, Connector 2: Off, Connector 3: On

xConfiguration Video Output Connector [n] Location HorizontalOffset

Applies to: SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D Room70/Room55D Room70G2 RoomPanorama/Room70Panorama RoomPanorama/Room70Panorama DeskPro

Requires user role: ADMIN, INTEGRATOR

HorizontalOffset and VerticalOffset settings are associated with each video output. These settings are used to signal the relative position of the displays that are connected to these outputs.

HorizontalOffset = "0" and VerticalOffset = "0" indicates that the display is positioned in center, both horizontally and vertically. A negative horizontal offset indicates that the monitor is left of center, and a positive horizontal offset indicates that the monitor is right of center. A negative vertical offset indicates that the monitor is below center, and a positive vertical offset indicates that the monitor is above center. The magnitude of the offset indicates how far the display is from center (relative to other displays).

Example: You have two screens side by side. The left screen is on Connector 1 and the right screen on Connector 2. Then the following settings will apply:

Video Output Connector 1 Location: HorizontalOffset = "0", VerticalOffset = "0"
Video Output Connector 2 Location: HorizontalOffset = "1", VerticalOffset = "0"

Example: You have two screens, one below the other. The upper screen is on Connector 1 and the lower screen on Connector 2. Then the following settings will apply:

Video Output Connector 1 Location: HorizontalOffset = "0", VerticalOffset = "0"
Video Output Connector 2 Location: HorizontalOffset = "0", VerticalOffset = " -1"

MX200 G2, MX300 G2, and Room 55: The integrated screen (Connector 1) has HorizontalOffset = "0" and VerticalOffset = "0" (implicit, not configurable).

Usage:

xConfiguration Video Output Connector [n] Location HorizontalOffset:

"HorizontalOffset"

where

n: Unique ID that identifies the video output connector.

- Range: 1..3 (SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama)
- Range: 1..2 (SX20 RoomKit CodecPlus Room70/Room55D)
- Range: 2..2 (MX200G2/MX300G2 Room55 DeskPro)

HorizontalOffset:

String (1, 12)

The string represents a decimal number between -100.0 and 100.0 (these numbers included). Input strings that complies with the std::stof function in the C++ <string> library are accepted. This means that you can use either decimal notation or E-notation, for example "12", "12.0", "1.2E1", "-0.12", "-12e-2". Leading whitespace characters
HorizontalOffset and VerticalOffset settings are associated with each video output. These settings are used to signal the relative position of the displays that are connected to these outputs.

HorizontalOffset = "0" and VerticalOffset = "0" indicates that the display is positioned in center, both horizontally and vertically. A negative horizontal offset indicates that the monitor is left of center, and a positive horizontal offset indicates that the monitor is right of center. A negative vertical offset indicates that the monitor is below center, and a positive vertical offset indicates that the monitor is above center. The magnitude of the offset indicates how far the display is from center (relative to other displays).

Example: You have two screens side by side. The left screen is on Connector 1 and the right screen on Connector 2. Then the following settings will apply:

Video Output Connector 1 Location: HorizontalOffset = "0" , VerticalOffset = "0"
Video Output Connector 2 Location: HorizontalOffset = "1" , VerticalOffset = "0"

Example: You have two screens with one below the other. The upper screen is on Connector 1 and the lower screen on Connector 2. Then the following settings will apply:

Video Output Connector 1 Location: HorizontalOffset = "0" , VerticalOffset = "0"
Video Output Connector 2 Location: HorizontalOffset = "0" , VerticalOffset = "-1"

MX200 G2, MX300 G2, and Room 55: The integrated screen (Connector 1) has HorizontalOffset = "0" and VerticalOffset = "0" (implicit, not configurable).

**USAGE:**

```plaintext
xConfiguration Video Output Connector [n] Location VerticalOffset:

where

- **n**: Unique ID that identifies the video output connector.
  - Range: 1..3 [ SX80 MX700/MX800/MX800D CodecPro Room70G2 ]
  - Range: 1..2 [ SX20 RoomKit CodecPlus Room70/Room55D ]
  - Range: 2..2 [ MX200G2/MX300G2 Room55 DeskPro ]

- **VerticalOffset**: String (1, 12)
  The string represents a decimal number between -100.0 and 100.0 (these numbers included). Input strings that complies with the std::stof function in the C++ <string> library are accepted. This means that you can use either decimal notation or E-notation, for example "12", "12.0", "1.2E1", "-0.12", "-12e-2". Leading whitespace characters are discarded, and the decimal point is ".".
```

**Default value:**

- Connector 1: "-1"   Connector 2: "0"   Connector 3: "1"
- Connector 1: "0"   Connector 2: "1"   Connector 3: "0.5"
- Connector 1: "0"   Connector 2: "1"
- Connector 2: "1"

**Applies to:** SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama Room70Panorama DeskPro

**Requires user role:** ADMIN, INTEGRATOR
are discarded, and the decimal point is ".".

Default value:

- **Connector n**: "0"
  - `SX20` `SX80` `MX700/MX800/MX800D` `RoomKit` `CodecPlus` `CodecPro` `Room55` `Room70/Room55D` `Room70G2` `DesktopPro`
  - `RoomPanorama/Room70Panorama`

- **Connector 1, 2**: "0" **Connector 3**: "-1"

**USAGE:**

**xConfiguration Video Output Connector [n] MonitorRole**

Applies to: `SX20` `SX80` `MX700/MX800/MX800D` `RoomKit` `RoomKitMini` `CodecPlus` `CodecPro` `Room55` `Room70/Room55D` `Room70G2` `RoomPanorama/Room70Panorama/Room70Panorama/Room70Panorama` `DeskPro`

Requires user role: ADMIN, INTEGRATOR

The monitor role describes which video streams will be shown on the screen connected to this video output. Together the Video Monitors setting and the MonitorRole settings for all outputs define which layout (video streams) will be shown on each screen.

This setting is not applicable for Room Kit Mini, since it supports only one screen.

**USAGE:**

**xConfiguration Video Output Connector [n] MonitorRole**

where

- **n**: Unique ID that identifies the video output connector.
  - Range: 1..3
    - `SX80` `MX700/MX800/MX800D` `CodecPro` `Room70G2` `RoomPanorama/Room70Panorama`
  - Range: 2..2
    - `Room55` `DeskPro`
  - Range: 1..2
    - `SX20` `RoomKit` `CodecPlus` `Room70G2` `Room55D`
  - Range: 1..1
    - `RoomKitMini`

**MonitorRole:**

- **Auto/First/Second/PresentationOnly**
  - `SX20` `RoomKit` `CodecPlus` `Room55` `Room70/Room55D` `DeskPro`

- **Auto/First/Second/Third/PresentationOnly/Recorder**
  - `SX80` `MX700/MX800/MX800D` `CodecPro` `Room70G2` `RoomPanorama/Room70Panorama`

**Auto**: The device will detect when a screen is connected, and a monitor role (First, Second, Third) that corresponds with the Video Monitors setting will be assigned automatically.

First/Second/Third: Define the role of the screen in a multi-screen setup. In a single-screen setup, there is no difference between First, Second and Third.

**PresentationOnly**: Show presentation video stream if active, and nothing else. Screens/outputs with this monitor role are ignored by the Video Monitors setting.

**Recorder**: Show all participants, including the local main video (self-view). If active, also show the presentation. Screens/outputs with this monitor role are ignored by the Video Monitors setting.

Default value:

- **Auto**
  - `SX80` `MX700/MX800/MX800D` `RoomKit` `CodecPlus` `CodecPro` `Room55` `Room70G2` `RoomPanorama/Room70Panorama/DeskPro`

- **Dual**: `Connector 1,2`: **Auto** **Single**: `Connector 1`: **Auto** **Connector 2**: **PresentationOnly**

- **Single**: `Connector 1`: **Auto** **Connector 2**: **PresentationOnly**

- **Connector 1**: **First** **Connector 2**: **Second**
xConfiguration Video Output Connector [n] OverscanLevel

Applies to: SX10  SX20  MX200G2/MX300G2

Requires user role: ADMIN

Some monitors may not present the entire image that they receive. This means that the outer parts of the image that is sent from the device may be cut off when displayed on the monitor. Use this setting to instruct the device not to use the outer part of the available frame. This part might be cut off by the monitor. Both the video and messages on screen will be scaled in this case.

**USAGE:**
xConfiguration Video Output Connector [n] OverscanLevel: **OverscanLevel**

where

- n: Unique ID that identifies the video output connector.
  
  - Range: 1..1  [SX10]
  - Range: 1..2  [SX20]
  - Range: 2..2  [MX200G2/MX300G2]

**OverscanLevel:**

- None/Medium/High

**None:** The device will use all of the output resolution.

**Medium:** The device will not use the outer 3% of the output resolution.

**High:** The device will not use the outer 6% of the output resolution.

Default value: None

---

xConfiguration Video Output Connector [n] Resolution

Applies to: All products

Requires user role: ADMIN, INTEGRATOR, USER

Define the resolution and refresh rate for the connected screen.

The formats larger than 1920_1200_60 requires use of high quality display cables. For guaranteed operation, use display cables that are pre-qualified from Cisco for use at 3840_2160_60, or use a cable that has passed the “Premium HDMI certification” program.

Some UHD TVs/displays only enable 3840_2160_30 (30 Hz) and not 3840_2160_60 (60 Hz) as their default configuration. In such cases the corresponding setting on the TV/display must be reconfigured to allow 3840_2160_60 for the HDMI input where the device is connected.

**USAGE:**
xConfiguration Video Output Connector [n] Resolution: **Resolution**

where

- n: Unique ID that identifies the video output connector.
  
  - Range: 1..1  [DX70/DX80  SX10  RoomKitMini  Boards ]
  - Range: 1..2  [SX20  MX200G2/MX300G2  RoomKit  CodecPlus  Room55  Room70/Room55D  DeskPro]
  - Range: 1..3  [MX700/MX800/MX800D]
  - Range: 2..3 for MX800 Single; not available for MX700 and MX800 Dual  [MX700/MX800/MX800D]

**Resolution:**

- Connector 1,2: Auto/1920_1080_50/1920_1080_60/1920_1200_50/1920_1200_60/2560_1440_60/3840_2160_30/3840_2160_60
- Connector 3: Auto/1920_1080_50/1920_1080_60/1920_1200_50/1920_1200_60/2560_1440_60/3840_2160_30/3840_2160_60
- Connector(n): Auto/1280_720_50/1280_720_60/1920_1080_50/1920_1080_60/1920_1200_50/1920_1200_60/2560_1440_60/3840_2160_30/3840_2160_60

---
Connector 1: 1920_1080_60   Connector 2: Auto/1024_768_60/1280_720_50/1280_720_60/1920_1080_50/1920_1080_60/1280_768_60/1360_768_60/1366_768_60
Connector 1: 1920_1080_60   Connector 2: Auto/1024_768_60/1280_720_50/1280_720_60/1920_1080_50/1920_1080_60/1280_768_60/1360_768_60/1366_768_60
Connector 1: 1920_1080_60   Connector 2: Auto/1024_768_60/1280_720_50/1280_720_60/1920_1080_50/1920_1080_60/1280_768_60/1360_768_60/1366_768_60
Connector 1: 1920_1080_60   Connector 2: Auto/1024_768_60/1280_720_50/1280_720_60/1920_1080_50/1920_1080_60/1280_768_60/1360_768_60/1366_768_60

**Connector 1: 1920_1080_60**   **Connector 2: Auto**

**Auto:** The device will automatically try to set the optimal resolution based on negotiation with the connected monitor.

- **1280_720_50:** The resolution is 1280 x 720, and the refresh rate is 50 Hz.
- **1280_720_60:** The resolution is 1280 x 720, and the refresh rate is 60 Hz.
- **1920_1080_50:** The resolution is 1920 x 1080, and the refresh rate is 50 Hz.
- **1920_1080_60:** The resolution is 1920 x 1080, and the refresh rate is 60 Hz.
- **1920_1200_50:** The resolution is 1920 x 1200, and the refresh rate is 50 Hz.
- **1920_1200_60:** The resolution is 1920 x 1200, and the refresh rate is 60 Hz.
- **2560_1440_60:** The resolution is 2560 x 1440, and the refresh rate is 60 Hz.
- **3840_2160_30:** The resolution is 3840 x 2160, and the refresh rate is 30 Hz.
- **3840_2160_60:** The resolution is 3840 x 2160, and the refresh rate is 60 Hz.

**Default value:** 1920_1080_60

**XConfiguration Video Presentation DefaultSource**

**Applies to:** DX70/DX80, SX10, SX20, MX200G2/MX300G2, MX700/MX800/MX800D, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

**Requires user role:** ADMIN, USER

Define which video input source to use as a default presentation source. This setting may be used by the API and third-party user interfaces. It is not relevant when using the user interfaces provided by Cisco.

**Usage:**

xConfiguration Video Presentation DefaultSource: **DefaultSource**

where

**DefaultSource:**

1/2/3/4/5  | CodecPro, Room70G2, RoomPanorama/Room70Panorama
1/2/3/4    | SX80, MX700/MX800/MX800D
1/2/3      | CodecPlus, Room55, Room70/Room55D, DeskPro
1/2        | SX20, RoomKit, RoomKitMini, Boards
2          | DX70/DX80, SX10, MX200G2/MX300G2

The video input source to use as default presentation source.

**Default value:**

- **3**  | SX80, MX700/MX800/MX800D, CodecPro, Room70G2, RoomPanorama/Room70Panorama
- **2**  | DX70/DX80, SX10, MX200G2/MX300G2, RoomKit, RoomKitMini, CodecPlus, Room55, Room70/Room55D, DeskPro, Boards
xConfiguration Video Presentation Priority

Applies to: All products
Requires user role: ADMIN

Specify how to distribute the bandwidth between the presentation channel and the main video channel.

**USAGE:**

```
xConfiguration Video Presentation Priority: Priority
```

where

```
Priority: Equal/High/Low
```

* **Equal:** The available bandwidth is shared equally between the presentation channel and the main video channel.
* **High:** The presentation channel is assigned a larger portion of the available bandwidth at the expense of the main video channel.
* **Low:** The main video channel is assigned a larger portion of the available bandwidth at the expense of the presentation channel.

Default value: Equal

---

xConfiguration Video Selfview Default FullscreenMode

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

**USAGE:**

```
xConfiguration Video Selfview Default FullscreenMode: FullscreenMode
```

where

```
FullscreenMode: 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.

Default value: Current
xConfiguration Video Selfview Default Mode

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Define 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 Selfview Default PIPPosition and the Video Selfview Default FullscreenMode settings respectively.

USAGE:

xConfiguration Video Selfview Default Mode: Mode

where

Mode:

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.

Default value: Current

xConfiguration Video Selfview Default OnMonitorRole

Applies to: DX70/DX80  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards
Requires user role: ADMIN, INTEGRATOR

Define which screen/output to display the main video source (self-view) after a call. The value reflects the monitor roles of the different outputs.

A monitor role is assigned to each screen. The monitor role for DX70 and DX80 is First (no support for an external screen). The monitor role for the integrated screen of MX200 G2 and MX300 G2 is First; the monitor role for the optional external screen is Second. For the other products the monitor role is set using the Video Output Connector [n] MonitorRole setting.

The OnMonitorRole setting applies both when self-view is displayed in full screen, and when it is displayed as picture-in-picture (PiP).

USAGE:

xConfiguration Video Selfview Default OnMonitorRole: OnMonitorRole

where

OnMonitorRole:

Current/First/Second  [ SX20  MX200G2/MX300G2  RoomKit  RoomKitMini  CodecPlus  Room55  Room70/Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards ]

Current/First/Second/Third  [ SX80  MX700/MX800/MX800D  CodecPro  Room70G2  RoomPanorama/Room70Panorama ]

First  [ DX70/DX80 ]

Current: When leaving a call, the self-view picture will be retained on the same output as it was during the call.

First: The self-view picture will be shown on outputs with monitor role First.

Second: The self-view picture will be shown on outputs with monitor role Second.

Third: The self-view picture will be shown on outputs with monitor role Third.

Default value:

Current  [ SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards ]

First  [ DX70/DX80 ]
xConfiguration Video Selfview Default PIPPosition

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Define 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 Selfview Default Mode setting) and fullscreen view is switched off (see the Video Selfview Default FullscreenMode setting).

USAGE:
xConfiguration Video Selfview Default PIPPosition: PIPPosition
where

<table>
<thead>
<tr>
<th>PIPPosition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>The position of the self-view PiP will be kept unchanged when leaving a call.</td>
</tr>
<tr>
<td>UpperLeft</td>
<td>The self-view PiP will appear in the upper left corner of the screen.</td>
</tr>
<tr>
<td>UpperCenter</td>
<td>The self-view PiP will appear in the upper center position.</td>
</tr>
<tr>
<td>UpperRight</td>
<td>The self-view PiP will appear in the upper right corner of the screen.</td>
</tr>
<tr>
<td>CenterLeft</td>
<td>The self-view PiP will appear in the center left position.</td>
</tr>
<tr>
<td>CentreRight</td>
<td>The self-view PiP will appear in the center right position.</td>
</tr>
<tr>
<td>LowerLeft</td>
<td>The self-view PiP will appear in the lower left corner of the screen.</td>
</tr>
<tr>
<td>LowerRight</td>
<td>The self-view PiP will appear in the lower right corner of the screen.</td>
</tr>
</tbody>
</table>

Default value:

Current [ DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 DeskPro]
LowerRight [ RoomPanorama/Room70Panorama ]
LowerRight [ Boards ]

xConfiguration Video Selfview Mirrored

Applies to: DX70/DX80
Requires user role: ADMIN, INTEGRATOR

You can configure the device to show the self-view image the way other people see you, or as you would see yourself in a mirror. This setting has no effect on the video that is sent to the far end.

USAGE:
xConfiguration Video Selfview Mirrored: Mirrored
where

<table>
<thead>
<tr>
<th>Mirrored</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Display the self-view image as other people see you.</td>
</tr>
<tr>
<td>On</td>
<td>Display the self-view image as you see yourself in a mirror.</td>
</tr>
</tbody>
</table>

Default value:

On
xConfiguration Video Selfview OnCall Mode

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

This setting is used to switch on self-view for a short while when setting up a call. The Video Selfview OnCall Duration setting determines for how long it remains on. This applies when self-view in general is switched off.

USAGE:

xConfiguration Video Selfview OnCall Mode: Mode
where

Mode:
  Off/On
  Off: Self-view is not shown automatically during call setup.
  On: Self-view is shown automatically during call setup.

Default value:
  On [ DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro ]
  Off [ Boards ]

xConfiguration Video Selfview OnCall Duration

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

This setting only has an effect when the Video Selfview OnCall 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.

USAGE:

xConfiguration Video Selfview OnCall Duration: Duration
where

Duration:
  Integer (1..60)
  Range: Choose for how long self-view remains on. The valid range is between 1 and 60 seconds.
  Default value:
    10
WebEngine configuration

xConfiguration WebEngine Mode

 Applies to: RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

Requires user role: ADMIN

The web engine is a prerequisite for features that use the device’s web view, for example digital signage and web apps.

**USAGE:**

xConfiguration WebEngine Mode: Mode

where

Mode:

- Off/On
  - Off: The web engine is disabled.
  - On: The web engine is enabled.

Default value: Off

xConfiguration WebEngine RemoteDebugging

 Applies to: RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

Requires user role: ADMIN

If you encounter a problem with a web page, it can be a good idea to turn on remote debugging. Remote debugging lets you access the Chrome developer console and identify potential issues with a web page. When enabled, a banner is displayed at the bottom of the screen, warning the users that they may be monitored. The banner also shows the URL that you can enter in your local Chrome browser to open the developer console. Make sure to turn off remote debugging after use.

**USAGE:**

xConfiguration WebEngine RemoteDebugging: RemoteDebugging

where

RemoteDebugging:

- Off/On
  - Off: Remote debugging is switched off.
  - On: Remote debugging is switched on.

Default value: Off
xConfiguration WebEngine UseHttpProxy

Applies to: RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2
RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN

There are several UseHttpProxy settings that specify if a service shall communicate via an HTTP proxy or not. The WebEngine UseHttpProxy setting applies all web view based features, such as digital signage, API-driven web views, and web apps.

For this setting to have any effect, a proxy server for HTTP, HTTPS, and WebSocket traffic must be set up using the NetworkServices HTTP Proxy settings.

USAGE:

xConfiguration WebEngine UseHttpProxy: UseHttpProxy

where

UseHttpProxy:

Off/On

Off: Set up communication directly with the server (not using a proxy).

On: Set up communication via proxy.

Default value:

On
Chapter 4

xCommand commands
### Description of the xCommand commands

In this chapter, you can find a complete list of all xCommand type commands with parameters.

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Audio commands

The xCommand Audio LocalInput, xCommand Audio LocalOutput, xCommand Audio RemoteOutput commands are mainly intended for internal use by the Audio Console application, which currently is available for SX80 and Codec Pro. Audio Console provides a graphical interface for the setup and configuration of audio chains.

An audio chain consists of a physical input connector that is assigned to a virtual local input, which in turn is connected to a virtual local output, to which a physical output connector is assigned. The commands listed above define the logical connection between the physical connectors and the virtual input and outputs, and also how the virtual inputs impose such things as gain, equalization and channel mixing to the signal.

When a call is made, the remote (from the far end) input signal is automatically added to all local outputs. Likewise, all local inputs are automatically added to the remote (to the far end) output gate.

Remember that xCommands are not persistent over a reboot. Therefore you have to include the commands in a startup script, or use the macro framework, in order to make the audio chain configuration persistent. A startup script is automatically generated and activated if you use Audio Console to set up the audio chains.

For more information about startup scripts, macros and Audio Console see the Administrator Guide and Customization Guide for the device.

xCommand Audio Diagnostics Advanced Run

Applies to: All products
Requires user role: ADMIN, USER

This command sends out a noise signal sequentially on all audio output connectors and measures the room impulse response (RIR) between the output and the microphones. If a RIR is detected, the detected number of microphones (input), the detected number of output connectors, and the detected delay between the output and input is reported back.

Example:

```
xCommand Audio Diagnostics Advanced Run Volume: 50 MeasurementLength: 1
Result returned ->
OK
* r AdvancedRunResult (status=OK):
* r AdvancedRunResult HdmiSpeakersDelay: "100 ms"
* r AdvancedRunResult NumHdmiSpeakersDetected: 2
* r AdvancedRunResult NumMicsDetected: 1
** end
```

** USAGE:**

```
xCommand Audio Diagnostics Advanced Run [Channel: Channel] [MeasurementLength: MeasurementLength] [Output: Output] [Volume: Volume]
where
Channel:
   Integer (0..13)
The channel number, from left to right, of the selected output.
   Default value: 0
MeasurementLength:
   Integer (1..100)
The length of the measurement in number of seconds. In a noisy environment a longer measurement duration will give a more reliable and robust result.
   Default value: 3
Output:
   HDMI/Line/Internal/Headset/All
The output where the test signal should be directed.
   HDMI: Measure the room impulse response (RIR) of the device connected to the HDMI output.
```
**Line**: Measure the RIR of the device connected to the Line output (only available on video conferencing devices that have a Line output).

**Internal**: Measure the RIR of the internal loudspeaker (only available on video conferencing devices that have an internal loudspeaker).

**Headset**: Measure the RIR of the headset (only available on video conferencing devices that have a headset).

**All**: Measure the RIR on all outputs.

Default value: All

**Volume**: Integer (0..50)

The volume of the test signal. In a noisy environment a higher volume gives more reliable and robust results.

Default value: 20

---

**xCommand Audio Diagnostics MeasureDelay**

**Applies to:** All products

**Requires user role:** ADMIN, USER

This command measures the audio delay/latency in a device that is connected to the video conferencing device. A typical use case is to measure the delay in a TV connected to the video conferencing device via the HDMI connector. If the delay in a TV is too high, the real-time experience of a video call will be substantially degraded. If the delay is more than 50 ms we recommend the user to find a TV setting that has shorter delay. Typical TV settings that can reduce the delay are: Gaming Mode and PC Mode.

This command will measure the delay between output and input (microphone). This means that if you are using an external acoustic echo canceller or audio mixer, this command will also measure the delay of these devices.

**USAGE:**

```
xCommand Audio Diagnostics MeasureDelay [MeasurementLength: MeasurementLength] [Output: Output] [Volume: Volume]
```

where

- **MeasurementLength**: Integer (1..100)
  - The length of the measurement in number of seconds. In a noisy environment a longer measurement duration will give a more reliable and robust result.
  - Default value: 6

- **Output**: HDMI/Line/Internal/Headset/All
  - **HDMI**: Measure the delay of the device connected to the HDMI output.
  - **Line**: Measure the delay of the device connected to the Line output (only available on video conferencing devices that have a Line output).
  - **Internal**: Measure the delay of the internal loudspeaker (only available on video conferencing devices that have an internal loudspeaker).
  - **Headset**: Measure the delay of the headset (only available on video conferencing devices that have a headset).
  - **All**: Measure the maximum delay of all outputs.

  Default value: HDMI

- **Volume**: Integer (0..50)
  - The volume of the test signal. In a noisy environment a higher volume gives more reliable and robust results.
xCommand Audio Equalizer List

**Applies to:** SX80, MX700/MX800/MX800D, CodecPro, Room70G2, RoomPanorama/Room70Panorama

**Requires user role:** ADMIN

This command lists the current equalizer parameters. If no EqualizerId is specified, the command lists all 8 equalizers.

**USAGE:**

```
xCommand Audio Equalizer List [EqualizerId: EqualizerId]
```

where

- **EqualizerId:**
  - Integer (1..8)

Each EqualizerId has 6 second-order filter sections with these parameters: FilterType, Frequency, Gain and Q-value.

---

xCommand Audio Equalizer Update

**Applies to:** SX80, MX700/MX800/MX800D, CodecPro, Room70G2, RoomPanorama/Room70Panorama

**Requires user role:** ADMIN

This command sets the equalizer parameters for the selected EqualizerId and Section. Each of the 8 available equalizers consist of 6 cascaded second-order IIR filters.

**USAGE:**

```
xCommand Audio Equalizer Update EqualizerId: EqualizerId FilterType: FilterType Frequency: "Frequency" Gain: "Gain" Q: "Q" Section: Section
```

where

- **EqualizerId:**
  - Integer (1..8)

- **FilterType:**
  - highpass/highshelf/lowpass/lowshelf/none/peaking

- **Frequency:**
  - String (0, 32)

- **Gain:**
  - String (0, 32)

- **Q:**
  - String (0, 32)

- **Section:**
  - Integer (1..6)
xCommand Audio LocalInput Add

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN

Create a virtual local input, and generate an identifier for it (InputId). A local input is associated with a set of input connectors, and you can specify the following: a name for the local input, how to mix the signals from the associated input connectors, the use of Automatic Gain Control (AGC) and mute, whether to make a mono or stereo signal, and whether to use direct mode to bypass input processing.

The maximum number of local input modules is 8. You get an error message if you exceed the limit.

This command is mainly intended for internal use by the Audio Console. If you don’t use Audio Console, you need to manually add the command in a startup script, or use the macro framework, in order to make the definition persistent over a reboot.

USAGE:

```
xCommand Audio LocalInput Add [InputId: InputId] [Name: "Name"] [AGC: AGC] [Channels: Channels] [Direct: Direct] [MixerMode: MixerMode] [Mute: Mute]
```

where

- **InputId**: Integer (0..65534)  
  A unique identifier for the local input. If you don’t specify an InputId, the device will automatically create one for you. We recommend that you specify the InputId yourself in case you need to refer to the local input at a later stage.

- **Name**: String (0, 255)  
  Choose a name that describes the local input. If you don’t specify a name, the string will be empty.

- **AGC**:  
  **On/Off**  
  - **On**: Adjusts the gain continuously to maintain a constant sound level (default).  
  - **Off**: No automatic gain control.

- **Channels**:  
  **Integer (1..2)**  
  - **1**: Mixes the input signals into a mono signal (default).  
  - **2**: Mixes the input signals into a stereo signal.

- **Direct**:  
  **On/Off**

- **MixerMode**:  
  **Auto/Fixed/GainShared**  
  - **Auto**: If one input signal is dominating, the signal on the other connectors are attenuated with 20 dB each.  
  - **Fixed**: The input signals all have the same weight, and consequently they are mixed together with equal gains (default).  
  - **GainShared**: If one or some of the input signals dominate, the rest of the input signals are attenuated by a few dB so that the total gain of the mixed signal remains the same all the time.

  Auto and GainShared are intended for the microphone inputs; Fixed is recommended for Line and HDMI inputs.

- **Mute**:  
  **On/Off**  
  - **On**: Mutes the mix of input signals (default).  
  - **Off**: No muting.
xCommand Audio LocalInput AddConnector

Applies to: SX80, MX700/MX800/MX800D, CodecPro, Room70G2, RoomPanorama/Room70Panorama

Requires user role: ADMIN

Attach an input connector to the local input given by the input ID. You have to specify both the connector’s type and number (ConnectorType, ConnectorId) to uniquely identify the connector. A connector can only be attached to one local input.

Run xStatus Audio Input LocalInput to get an overview of all local inputs.

This command is mainly intended for internal use by the Audio Console. If you don’t use Audio Console, you need to manually add the command in a startup script, or use the macro framework, in order to make the definition persistent over a reboot.

USAGE:

xCommand Audio LocalInput AddConnector InputId: [InputId] ConnectorType: [ConnectorType] ConnectorId: [ConnectorId]

where

- **InputId**: Integer (0..65534)
  - The unique identifier of the local input. It was generated when the local input was created with the xCommand Audio LocalInput Add command.

- **ConnectorType**:
  - HDMI/Line/Microphone [SX80, MX700/MX800/MX800D]
  - HDMI/ARC/Microphone/WebView [CodecPro, Room70G2, RoomPanorama/Room70Panorama]

  Select the connector type.
  - **HDMI**: HDMI cable input connector.
  - **ARC**: HDMI with ARC (Audio Return Channel) is input connector.
  - **Line**: Line input connector.
  - **Microphone**: Microphone input connector.
  - **WebView**: WebView input connector.

- **ConnectorId**:
  - Integer (1..3) for an HDMI connector; Integer (1..4) for a Line connector; Integer (1..8) for a microphone connector [SX80, MX700/MX800/MX800D]
  - Integer (1..5) for an HDMI connector; Integer (1..3) for an HDMI with ARC (Audio Return Channel) connector; Integer (1..8) for a microphone connector; Integer (1..8) for WebView connector [CodecPro, Room70G2, RoomPanorama/Room70Panorama]

  Select a connector. The connectors’ numbers are printed on the codec connector panel.

xCommand Audio LocalInput Remove

Applies to: SX80, MX700/MX800/MX800D, CodecPro, Room70G2, RoomPanorama/Room70Panorama

Requires user role: ADMIN

Remove the local input given by the input ID.

Run xStatus Audio Input LocalInput to get an overview of all local inputs.

This command is mainly intended for internal use by the Audio Console. If you don’t use Audio Console, you need to manually add the command in a startup script, or use the macro framework, in order to make the definition persistent over a reboot.

USAGE:

xCommand Audio LocalInput Remove InputId: [InputId]

where

- **InputId**: Integer (0..65534)
  - The unique identifier of the local input. It was generated when the local input was created with the xCommand Audio LocalInput Add command.
xCommand Audio LocalInput RemoveConnector

Applies to: SX80, MX700/MX800/MX800D, CodecPro, Room70G2, RoomPanorama/Room70Panorama

Requires user role: ADMIN

Detach an input connector from the local input given by the input ID. You need to enter both the connector’s type and number (ConnectorType, ConnectorId) to uniquely identify the connector. Run xStatus Audio Input LocalInput to get an overview of all local inputs.

This command is mainly intended for internal use by the Audio Console. If you don’t use Audio Console, you need to manually add the command in a startup script, or use the macro framework, in order to make the definition persistent over a reboot.

**USAGE:**

```plaintext
xCommand Audio LocalInput RemoveConnector InputId: InputId
ConnectorType: ConnectorType
```

where

- **InputId**
  - Integer (0..65534)
  - The unique identifier for the local input. It was generated when the local input was created with the xCommand Audio LocalInput Add command.

- **ConnectorType**
  - HDMI/Line/Microphone (SX80, MX700/MX800/MX800D)
  - HDMI/ARC/Microphone/WebView (CodecPro, Room70G2, RoomPanorama/Room70Panorama)

Select the connector type.

- **HDMI**: HDMI cable input connector.
- **Line**: Line input connector.
- **Microphone**: Microphone input connector.
- **WebView**: WebView input connector.

**ConnectorId**

- Integer (1..3) for an HDMI connector; Integer (1..4) for a Line connector; Integer (1..8) for a microphone connector (SX80, MX700/MX800/MX800D)

- Integer (1..5) for an HDMI connector; Integer (1..3) for an HDMI with ARC (Audio Return Channel) connector; Integer (1..8) for a microphone connector; Integer (1..8) for WebView connector (CodecPro Room70G2 RoomPanorama/Room70Panorama)

Select a connector. The connectors’ numbers are printed on the codec connector panel.

xCommand Audio LocalInput Update

Applies to: SX80, MX700/MX800/MX800D, CodecPro, Room70G2, RoomPanorama/Room70Panorama

Requires user role: ADMIN

Update the settings of the local input given by the input ID.

Run xStatus Audio Input LocalInput to get an overview of all local inputs.

This command is mainly intended for internal use by the Audio Console. If you don’t use Audio Console, you need to manually add the command in a startup script, or use the macro framework, in order to make the definition persistent over a reboot.

**USAGE:**

```plaintext
xCommand Audio LocalInput Update InputId: InputId
[Name: "Name"] [AGC: AGC] [Channels: Channels] [Direct: Direct] [MixerMode: MixerMode] [Mute: Mute]
```

where

- **InputId**
  - Integer (0..65534)
  - The unique identifier for the local input. It was generated when the local input was created with the xCommand Audio LocalInput Add command.

- **Name**
  - String (0, 255)
  - Choose a name that describes the local input.

- **AGC**
  - On/Off
  - **On**: Adjust the gain continuously to maintain a constant sound level.
  - **Off**: No automatic gain control.

- **Channels**
  - Integer (1..2)
  - 1: Mix the input signals into a mono signal.
  - 2: Mix the input signals into a stereo signal.

- **Direct**
  - On/Off
  - **On**: Bypass input processing such as acoustic echo cancellation and noise reduction, regardless of the configuration for each connected input connector. Bypassing the input processing reduces the audio input delay, which is useful when doing local sound reinforcement.
  - **Off**: All regular input processing is performed, according to the configuration of each connector.
**MixerMode:**

- **Auto/Fixed/GainShared**
  - **Auto:** If one input signal is dominating, the signal on the other connectors are attenuated with 20 dB each.
  - **Fixed:** The input signals all have the same weight, and consequently they are mixed together with equal gains.
  - **GainShared:** If one or some of the input signals dominate, the rest of the input signals are attenuated by a few dB so that the total gain of the mixed signal remains the same all the time.

  Auto and GainShared are intended for the microphones; Fixed is recommended for Line and HDMI inputs.

**Mute:**

- **On/Off**
  - **On:** Mutes the mix of input signals.
  - **Off:** No muting.

**xCommand Audio LocalOutput Add**

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN

Create a virtual local output and generate an identifier for it (OutputId). A local output is a mix of local inputs and the remote input signals. Use the xCommand Audio LocalOutput ConnectInput command to specify which local inputs to include. The remote input signal (from far-end) is by default automatically added to this local output when in a call. Use the AutoconnectRemote parameter if you want to override the default behavior. A local output is associated with a set of output connectors, which all receive the same signal. The maximum number of local output modules is 6. You get an error message if you exceed the limit.

This command is mainly intended for internal use by the Audio Console. If you don't use Audio Console, you need to manually add the command in a startup script, or use the macro framework, in order to make the definition persistent over a reboot.

**USAGE:**

```plaintext
xCommand Audio LocalOutput Add [OutputId: OutputId] [Name: "Name"]
[AutoconnectRemote: AutoconnectRemote] [Loudspeaker: Loudspeaker] [Channels: Channels] [VolumeControlled: VolumeControlled]
```

**where**

- **OutputId:**
  - Integer (0..65534)
  - A unique identifier for the local output. If you don't specify an OutputId, the device will automatically create one for you. We recommend that you specify the OutputId yourself in case you need to refer to the output module at a later stage.
  - Default value: 0

- **Name:**
  - String (0, 255)
  - Choose a name that describes the local output.
  - Default value: 

- **AutoconnectRemote:**
  - On/Off
  - On: The remote input signal is automatically added to the local output when in a call.
  - Off: The remote input signal is not added to the local output.
  - Default value: On

- **Loudspeaker:**
  - On/Off
**On:** Choose On if at least one of the associated connectors are connected to a loudspeaker. This is important because it tells the echo canceler to use this signal as a reference signal.

**Off:** Choose Off if no loudspeaker is connected to the associated connectors. Note that only one of the local outputs should have a loudspeaker connected.

Default value: Off

**Channels:**

- **Integer (1..2)**
  - 1: Mix the local and remote input signals into a mono signal.
  - 2: Mix the local and remote input signals into a stereo signal.

Default value: 1

**VolumeControlled:**

- **On/Off**
  - **On:** The volume will change according to the level set with the volume controls on the user interface, or with the xCommand Audio Volume commands. If Loudspeaker is On, VolumeControlled is forced to On no matter what you specify here.
  - **Off:** The volume is neither influenced by the volume controls on the user interface, nor the xCommand Audio Volume commands.

Default value: Off

---

**xCommand Audio LocalOutput AddConnector**

**Applies to:** SX80 MX700/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama

**Requires user role:** ADMIN

Attach an output connector to the local output given by the output ID. You have to specify both the connector’s type and number (ConnectorType, ConnectorId) to uniquely identify the connector. A connector can only be attached to one local output.

Run xStatus Audio Output LocalOutput to get an overview of all local outputs.

This command is mainly intended for internal use by the Audio Console. If you don’t use Audio Console, you need to manually add the command in a startup script, or use the macro framework, in order to make the definition persistent over a reboot.

**USAGE:**

```xCommand Audio LocalOutput AddConnector OutputId: OutputId ConnectorType: ConnectorType ConnectorId: ConnectorId where
OutputId: Integer (0..65534)
The unique identifier of the local output. It was generated when the local output was created with the xCommand Audio LocalOutput Add command.

ConnectorType:

- HDMI/Line [SX80]
- ARC/HDMI/Line [CodecPro]
- HDMI/InternalSpeaker/Line [MX700/MX800D]
- ARC/HDMI/InternalSpeaker/Line [Room70G2]

For Room Panorama: ARC/Ethernet/InternalSpeaker/Line;
For Room 70 Panorama: ARC/HDMI/InternalSpeaker/Line

Select the connector type.

ConnectorId:

- HDMI: Integer (1..2) for an HDMI connector; Line: Integer (1..6) for a Line connector [SX80]
- ARC: Integer (1..1) for an HDMI with ARC (Audio Return Channel) connector; HDMI: Integer (1..3) for an HDMI connector; Line: Integer (1..6) for a line out connectors; [CodecPro]
- HDMI: Integer (1..2) for an HDMI connector; InternalSpeaker: Integer (1..1) for internal loudspeaker processing; Line: Integer (1..6) for a Line connector [MX700/MX800D]
- ARC: Integer (1..1) for an HDMI with ARC (Audio Return Channel) connector; HDMI: Integer (1..3) for an HDMI connector; InternalSpeaker: Integer (1..1) for internal loudspeaker processing; Line: Integer (1..6) for a line out connectors [Room70G2]```
Room Panorama: ARC: Integer (1..1) for an HDMI with ARC (Audio Return Channel) connector; Ethernet: Integer (1..1) for audio over ethernet; InternalSpeaker: Integer (1..1) for internal loudspeaker processing; Line: Integer (1..6) for a line out connectors.

Room 70 Panorama: ARC: Integer (1..1) for an HDMI with ARC (Audio Return Channel) connector; HDMI: Integer (1..3) for an HDMI connector; InternalSpeaker: Integer (1..1) for internal loudspeaker processing; Line: Integer (1..6) for a line out connectors.

Select a connector. The connectors’ numbers are printed on the codec connector panel.

xCommand Audio LocalOutput ConnectInput

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN

Connect a local or remote input to a local output by giving their IDs as parameters. A local input can be connected to any number of local outputs. Likewise, any number of local inputs can be connected to each local output. Note that the remote input signal (from far-end) is automatically added to all local outputs when a call is made, and automatically disconnected when the call is ended.

Run xStatus Audio Output LocalOutput to get an overview of all local outputs, xStatus Audio Input LocalInput to get an overview of all local inputs, and xStatus Audio Input RemoteInput to see the remote input details.

This command is mainly intended for internal use by the Audio Console. If you don't use Audio Console, you need to manually add the command in a startup script, or use the macro framework, in order to make the definition persistent over a reboot.

**USAGE:**

```
xCommand Audio LocalOutput ConnectInput OutputId: OutputId InputId: InputId [InputGain: InputGain]
```

where

- **OutputId**: Integer (0..65534)
  - The unique identifier of the local output. It was generated when the local output was created with the xCommand Audio LocalOutput Add command.

- **InputId**: Integer (0..65534)
  - The unique identifier of the local or remote input. The local input’s ID was generated when the local input was created with the xCommand Audio LocalInput Add command. The remote input’s ID was generated automatically when the call was made.

- **InputGain**: Integer (-54..15)
  - Set the gain on the input signal. The gain can also be negative (attenuation). The value -54 dB equals Off.
  - Default value: 0
xCommand Audio LocalOutput DisconnectInput

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN

Disconnect a local or remote input from a local output. Note that the remote input signal (from far-end) is automatically disconnected when a call is ended.
Run xStatus Audio Output LocalOutput to get an overview of all local outputs, xStatus Audio Input LocalInput to get an overview of all local inputs, and xStatus Audio Input RemoteInput to see the remote input details.
This command is mainly intended for internal use by the Audio Console. If you don’t use Audio Console, you need to manually add the command in a startup script, or use the macro framework, in order to make the definition persistent over a reboot.

**USAGE:**

```
xCommand Audio LocalOutput DisconnectInput OutputId: OutputId InputId: InputId
```

where

- **OutputId**: Integer (0..65534)
  - The unique identifier of the local output. It was generated when the local output was created with the xCommand Audio LocalOutput Add command.

- **InputId**: Integer (0..65534)
  - The unique identifier of the local or remote input. The local input’s ID was generated when the local input was created with the xCommand Audio LocalInput Add command. The remote input’s ID was generated automatically when the call was made.

xCommand Audio LocalOutput Remove

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN

Remove the local output given by the output ID.
Run xStatus Audio Output LocalOutput to get an overview of all local outputs.
This command is mainly intended for internal use by the Audio Console. If you don’t use Audio Console, you need to manually add the command in a startup script, or use the macro framework, in order to make the definition persistent over a reboot.

**USAGE:**

```
xCommand Audio LocalOutput Remove OutputId: OutputId
```

where

- **OutputId**: Integer (0..65534)
  - The unique identifier of the local output. It was generated when the local output was created with the xCommand Audio LocalOutput Add command.
xCommand Audio LocalOutput RemoveConnector

Applies to: SX80  MX700/MX800/MX800D  CodecPro  Room70G2  RoomPanorama/Room70Panorama
Requires user role: ADMIN

Detach an output connector from the local output given by the output ID. You need to enter both the connector's type and number (ConnectorType, ConnectorId) to uniquely identify the connector.

Run xStatus Audio Output LocalOutput to get an overview of all local outputs.

This command is mainly intended for internal use by the Audio Console. If you don't use Audio Console, you need to manually add the command in a startup script, or use the macro framework, in order to make the definition persistent over a reboot.

USAGE:

xCommand Audio LocalOutput RemoveConnector OutputId: OutputId ConnectorType: ConnectorType ConnectorId: ConnectorId

where

OutputId:

  Integer (0..65534)

  The unique identifier of the local output. It was generated when the local output was created with the xCommand Audio LocalOutput Add command.

ConnectorType:

  HDMI/Line  [ SX80 ]
  ARC/HDMI/Line  [ CodecPro ]
  HDMI/InternalSpeaker/Line  [ MX700/MX800/MX800D ]
  ARC/HDMI/InternalSpeaker/Line  [ Room70G2 ]

  For Room Panorama: ARC/Ethernet/InternalSpeaker/Line;
  For Room 70 Panorama: ARC/HDMI/InternalSpeaker/Line

  Select the connector type.

ConnectorId:

  HDMI: Integer (1..2) for an HDMI connector; Line: Integer (1..6) for a Line connector  [ SX80 ]
  ARC: Integer (1..1) for an HDMI with ARC (Audio Return Channel) connector; HDMI: Integer (1..3) for an HDMI connector; Line: Integer (1..6) for a line out connectors;  [ CodecPro ]
  HDMI: Integer (1..2) for an HDMI connector; InternalSpeaker: Integer (1..1) for internal loudspeaker processing; Line: Integer (1..6) for a Line connector;  [ MX700/MX800/MX800D ]
  ARC: Integer (1..1) for an HDMI with ARC (Audio Return Channel) connector; HDMI: Integer (1..3) for an HDMI connector; InternalSpeaker: Integer (1..1) for internal loudspeaker processing; Line: Integer (1..6) for a line out connectors  [ Room70G2 ]
xCommand Audio LocalOutput Update

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN

Update the settings of the local output given by the output ID.

Run xStatus Audio Output LocalOutput to get an overview of all local outputs.
This command is mainly intended for internal use by the Audio Console. If you don’t use Audio Console, you need to manually add the command in a startup script, or use the macro framework, in order to make the definition persistent over a reboot.

USAGE:

xCommand Audio LocalOutput Update OutputId: OutputId [Name: "Name"] [AutoconnectRemote: AutoconnectRemote] [Loudspeaker: Loudspeaker] [Channels: Channels] [VolumeControlled: VolumeControlled]

where

OutputId:
Integer (0..65534)
The unique identifier of the local output. It was generated when the local output was created with the xCommand Audio LocalOutput Add command.

Name:
String (0, 255)
Choose a name that describes the local output.

AutoconnectRemote:
On/Off
On: The remote input signal is automatically added to the local output when in a call.
Off: The remote input signal is not added to the local output.

Loudspeaker:
On/Off
On: Choose On if at least one of the associated connectors are connected to a loudspeaker. This is important because it tells the echo canceler to use this signal as a reference signal.
Off: Choose Off if no loudspeaker is connected to the associated connectors. Note that only one of the local outputs should have a loudspeaker connected.

Channels:
Integer (1..2)
1: Mix the local and remote input signals into a mono signal.
2: Mix the local and remote input signals into a stereo signal.

VolumeControlled:
On/Off
On: The volume will change according to the level set by the volume controls on the user interface, or the xCommand Audio Volume commands. If Loudspeaker is On, VolumeControlled is forced to On no matter what you specify here.
Off: The volume is neither influenced by the volume controls on the user interface, nor the xCommand Audio Volume commands.
xCommand Audio LocalOutput UpdateInputGain

**Applies to:** SX80, MX700/MX800/MX800D CodecPro, Room70G2, RoomPanorama/Room70Panorama

**Requires user role:** ADMIN

Update the gain of a local or remote input that is connected to a local output. Note that the remote input signal (from far-end) is automatically added to all local outputs when a call is made, and automatically disconnected when the call is ended.

Run xStatus Audio Output LocalOutput to get an overview of all local outputs, xStatus Audio Input LocalInput to get an overview of all local inputs, and xStatus Audio Input RemoteInput to see the remote input details.

This command is mainly intended for internal use by the Audio Console. If you don’t use Audio Console, you need to manually add the command in a startup script, or use the macro framework, in order to make the definition persistent over a reboot.

**USAGE:**

```bash
xCommand Audio LocalOutput UpdateInputGain OutputId: [OutputId] InputId: [InputId] [InputGain: InputGain]
```

where

- **OutputId:**
  - **Integer (0..65534)**
  - The unique identifier of the local output. It was generated when the local output was created with the xCommand Audio LocalOutput Add command.

- **InputId:**
  - **Integer (0..65534)**
  - The unique identifier of the local or remote input. The local input’s ID was generated when the local input was created with the xCommand Audio LocalInput Add command. The remote input’s ID was generated automatically when the call was made.

- **InputGain:**
  - **Integer (-54..15)**
  - Set the gain on the input signal. The gain can also be negative (attenuation). The value -54 dB equals Off.
  - Default value: 0

xCommand Audio Microphones Mute

**Applies to:** All products

**Requires user role:** ADMIN, INTEGRATOR, USER

Mute all microphones.

**USAGE:**

```bash
xCommand Audio Microphones Mute
```

xCommand Audio Microphones ToggleMute

**Applies to:** All products

**Requires user role:** ADMIN, INTEGRATOR, USER

Toggle the microphone between muted and unmuted.

**USAGE:**

```bash
xCommand Audio Microphones ToggleMute
```

xCommand Audio Microphones Unmute

**Applies to:** All products

**Requires user role:** ADMIN, INTEGRATOR, USER

Unmute all microphones.

**USAGE:**

```bash
xCommand Audio Microphones Unmute
```
xCommand Audio RemoteOutput ConnectInput

Applies to: SX80  MX700/MX800/MX800D  CodecPro  Room70G2  RoomPanorama/Room70Panorama
Requires user role: ADMIN

Connect an input to a remote output by giving their IDs as parameters. An input can be connected to any number of remote output gates, and any number of inputs can be connected to one remote output gate. Note that all local inputs are automatically added to all remote output gates when a call is made, and automatically disconnected when the call is ended.

Run xStatus Audio Input LocalInput to get an overview of all local inputs.

This command is mainly intended for internal use by the Audio Console. It is only applicable during a call.

Connect an input to a remote output by giving their IDs as parameters. An input can be connected to any number of remote output gates, and any number of inputs can be connected to one remote output gate. Note that all local inputs are automatically added to all remote output gates when a call is made, and automatically disconnected when the call is ended.

Run xStatus Audio Input LocalInput to get an overview of all local inputs.

This command is mainly intended for internal use by the Audio Console. It is only applicable during a call.

USAGE:

```
xCommand Audio RemoteOutput ConnectInput OutputId: OutputId InputId: InputId [InputGain: InputGain]
```

where

- `OutputId`: Integer (0..65534)
  - The unique identifier of the remote output. It was automatically generated when the call was made.

- `InputId`: Integer (0..65534)
  - The unique identifier of the input. It was either generated when the input was created with the xCommand Audio Local Input Add command, or when the call was set up (remote input).

- `InputGain`: Integer (-54..15)
  - Set the gain on the input signal. The gain can also be negative (attenuation). The value -54 dB equals Off.
  - Default value: 0

xCommand Audio RemoteOutput DisconnectInput

Applies to: SX80  MX700/MX800/MX800D  CodecPro  Room70G2  RoomPanorama/Room70Panorama
Requires user role: ADMIN

Disconnect an input from a remote output by giving their IDs as parameters. Note that the remote output is automatically removed when the call has ended.

Run xStatus Audio Output RemoteOutput to get an overview of the remote outputs, and xStatus Audio Input LocalInput to get an overview of all local inputs.

This command is mainly intended for internal use by the Audio Console. It is only applicable during a call.

Disconnect an input from a remote output by giving their IDs as parameters. Note that the remote output is automatically removed when the call has ended.

Run xStatus Audio Output RemoteOutput to get an overview of the remote outputs, and xStatus Audio Input LocalInput to get an overview of all local inputs.

This command is mainly intended for internal use by the Audio Console. It is only applicable during a call.

USAGE:

```
xCommand Audio RemoteOutput DisconnectInput OutputId: OutputId InputId: InputId
```

where

- `OutputId`: Integer (0..65534)
  - The unique identifier of the remote output. It was automatically generated when the call was made.

- `InputId`: Integer (0..65534)
  - The unique identifier of the input. It was either generated when the input was created with the xCommand Audio Local Input Add command, or when the call was set up (remote input).
xCommand Audio RemoteOutput UpdateInputGain

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN

Update the gain of an input that is connected to a remote output. Note that the remote output is automatically removed when the call has ended.

Run xStatus Audio Output RemoteOutput to get an overview of the remote outputs, and xStatus Audio Input LocalInput to get an overview of all local inputs.

This command is mainly intended for internal use by the Audio Console. It is only applicable during a call. Update the gain of an input that is connected to a remote output. Note that the remote output is automatically removed when the call has ended.

Run xStatus Audio Output RemoteOutput to get an overview of the remote outputs, and xStatus Audio Input LocalInput to get an overview of all local inputs.

This command is mainly intended for internal use by the Audio Console. It is only applicable during a call.

USAGE:

xCommand Audio RemoteOutput UpdateInputGain OutputId: OutputId InputId: InputId
[InputGain: InputGain]

where

OutputId:
- Integer (0..65534)
The unique identifier of the remote output. It was automatically generated when the call was made.

InputId:
- Integer (0..65534)
The unique identifier of the input. It was either generated when the input was created with the xCommand Audio Local Input Add command, or when the call was set up (remote input).

InputGain:
- Integer (-54..15)
Set the gain on the input signal. The gain can also be negative (attenuation). The value -54 dB equals Off.

Default value: 0

xCommand Audio Select

Applies to: DX70/DX80 RoomKit RoomKitMini Room55 DeskPro
Requires user role: ADMIN, USER

Select which type of audio device to use (built-in loudspeakers and microphone, headsets, or handset).

USAGE:

xCommand Audio Select Device: Device

where

Device:
- Internal/HeadsetBluetooth/HeadsetAnalog/HeadsetUSB/HandsetUSB
Choose whether to use the built-in loudspeakers and microphone (internal), a Bluetooth headset (DX70 and DX only), an analog headset (DX70 only), a USB headset, or a USB handset.

xCommand Audio Setup Clear

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN

Remove all local inputs and local outputs.

USAGE:

xCommand Audio Setup Clear

xCommand Audio Setup Reset

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN

This command resets the audio setup of the video conferencing device (as set up using the Audio Console application or API commands). In effect it removes all local inputs and local outputs, sets connectors and groups back to their default values, and rebuilds the audio setup the same way as after a restart.

USAGE:

xCommand Audio Setup Reset
xCommand Audio Sound Play

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

Play a specified audio sound.

**USAGE:**
```
xCommand Audio Sound Play [Loop: Loop] Sound: Sound
```

where
- **Loop:**
  - Off/On
  - Determines whether or not to loop the playout of the audio sound. The sound is looped by default. Irrespective of how this parameter is set, some of the sounds (Busy, CallWaiting, Dial, Ringing, and SpecialInfo) will play until the Audio Sound Stop command is issued.
  - Default value: Off
- **Sound:**
  - Alert/Announcement/Binding/Bump/Busy/CallDisconnect/CallInitiate/CallWaiting/
    Dial/KeyInput/KeyInputDelete/KeyTone/Nav/NavBack/Notification/OK/Pairing/
    PresentationConnect/Ringing/SignIn/StartListening/VideoCall/
    VolumeAdjust/WakeUp
  - Choose which ringtone to play.

xCommand Audio Sound Stop

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

Stop playing audio sound.

**USAGE:**
```
xCommand Audio Sound Stop
```

xCommand Audio SpeakerCheck

Applies to: MX700/MX800/MX800D Room70/Room55D Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, INTEGRATOR, USER

Runs a test that you can use to check that all the internal speakers are connected correctly.

A test tone will be emitted from each speaker in sequence, from left to right. If the speakers don’t play in correct order, reconnect the loudspeaker cables to obtain the correct sequence. All speakers are part of the test sequence, and you must be in the same room as the device to verify that the test sequence plays correctly.

The device uses the connected microphones to listen for the test signal, and the result of the test is returned in the API.

**USAGE:**
```
xCommand Audio SpeakerCheck [MeasurementLength: MeasurementLength] [Volume: Volume]
```

where
- **MeasurementLength:**
  - Integer (1..5)
  - Test signal duration for each speaker in seconds.
  - Default value: 1
- **Volume:**
  - Integer (1..30)
  - Test signal level.
  - Default value: 1

xCommand Audio SoundsAndAlerts Ringtone List

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

List all available ringtones. Use the xConfiguration Audio SoundsAndAlerts RingTone setting to choose a ringtone.

**USAGE:**
```
xCommand Audio SoundsAndAlerts Ringtone List
```
xCommand Audio SoundsAndAlerts Ringtone Play

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

Play one of the available ringtones. Use the xCommand Audio SoundsAndAlerts Ringtone List command to get a list of the available ringtones.

**USAGE:**

```
xCommand Audio SoundsAndAlerts Ringtone Play [Loop: Loop] RingTone: "RingTone"
```

where

- **Loop:**
  - On/Off
  - Repeats the chosen ringtone in a loop. To turn off the audio, use the Audio SoundsAndAlerts Ringtone Stop xCommand.
- Default value: Off

- **RingTone:**
  - String (1, 100)
  - The name of the ringtone.

xCommand Audio SoundsAndAlerts Ringtone Stop

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

Stops the chosen ringtone from playing. To start playing the ringtone again, use the Audio SoundsAndAlerts Ringtone Play xCommand.

**USAGE:**

```
xCommand Audio SoundsAndAlerts Ringtone Stop
```

xCommand Audio Volume Decrease

Applies to: All products
Requires user role: ADMIN, USER

Decrease the volume on the video conferencing device. By default, the volume is decreased by 5 steps (each step is 0.5 dB). Use the Steps parameter if you want to override the default behavior.

Note that DX70, DX80, Desk Pro, Room Kit, Room Kit Mini, and Room 55 have several audio units: built-in loudspeakers, headsets, and handset. This command affects only one unit at a time. You can use the optional Device parameter to specify which audio unit to address. The most recently selected unit is chosen if you don’t specify a unit (see xStatus Audio SelectedDevice). Also refer to xCommand Audio Select.

**USAGE:**

```
xCommand Audio Volume Decrease [Device: Device] [Steps: Steps]
```

where

- **Device:**
  - DX70/DX80
  - RoomKit
  - RoomKitMini
  - Room55
  - DeskPro
  - Internal/HeadsetBluetooth/HeadsetAnalog/HeadsetUSB/HandsetUSB
- **Steps:**
  - Integer (1..10)
  - Choose the number of steps to decrease the volume with. One step is 0.5 dB.
  - Default value: 5
xCommand Audio Volume Increase

Applies to: All products
Requires user role: ADMIN, USER

Increase the volume on the video conferencing device. By default, the volume is increased by 5 steps (each step is 0.5 dB). Use the Steps parameter if you want to override the default behavior.

Note that DX70, DX80, Desk Pro, Room Kit, Room Kit Mini, and Room 55 have several audio units: built-in loudspeakers, headsets, and handset. This command affects only one unit at a time. You can use the optional Device parameter to specify which audio unit to address. The most recently selected unit is chosen if you don’t specify a unit (see xStatus Audio SelectedDevice). Also refer to xCommand Audio Select.

**USAGE:**

```
xCommand Audio Volume Increase [Device: Device] [Steps: Steps]
```

where

- **Device**: [DX70/DX80 RoomKit RoomKitMini Room55 DeskPro]
  - Internal/HeadsetBluetooth/HeadsetAnalog/HeadsetUSB/HandsetUSB [DX70/DX80 DeskPro]
  - Internal/HeadsetUSB/HandsetUSB [RoomKit RoomKitMini Room55]

Choose whether to increase the volume on the built-in loudspeakers, a Bluetooth headset (only Desk Pro, DX70, and DX80), an analog headset (only Desk Pro and DX70), a USB headset, or a USB handset.

- **Steps**: Integer (1..10)
  - Choose the number of steps to increase the volume with. One step is 0.5 dB.
  - Default value: 5

xCommand Audio Volume Mute

Applies to: All products
Requires user role: ADMIN, USER

Mute the volume on the video conferencing device.

Note that DX70, DX80, Room Kit, Room Kit Mini, and Room 55 have several audio units: built-in loudspeakers, headsets, and handset. This command affects only the selected audio unit. Refer to the xStatus Audio SelectedDevice and xCommand Audio Select commands for more information about the selected unit.

**USAGE:**

```
xCommand Audio Volume Mute
```

xCommand Audio Volume Set

Applies to: All products
Requires user role: ADMIN, USER

Set the volume on the video conferencing device to a specified level.

Note that DX70, DX80, Desk Pro, Room Kit, Room Kit Mini, and Room 55 have several audio units: built-in loudspeakers, headsets, and handset. This command affects only one unit at a time. You can use the optional Device parameter to specify which unit to address. The most recently selected unit is chosen if you don’t specify a unit (see xStatus Audio SelectedDevice). Also refer to xCommand Audio Select.

**USAGE:**

```
xCommand Audio Volume Set [Device: Device] Level: Level
```

where

- **Device**: [DX70/DX80 RoomKit RoomKitMini Room55 DeskPro]
  - Internal/HeadsetBluetooth/HeadsetAnalog/HeadsetUSB/HandsetUSB [DX70/DX80 DeskPro]
  - Internal/HeadsetUSB/HandsetUSB [RoomKit RoomKitMini Room55]

Choose whether to set the volume on the built-in loudspeakers, a Bluetooth headset (only Desk Pro, DX70, and DX80), an analog headset (only Desk Pro and DX70), a USB headset, or a USB handset.

- **Level**: Integer (0..100)
  - Select the gain level. 70 equals 0 dB gain, and 100 equals 15 dB gain.
xCommand Audio Volume SetToDefault

Applies to: All products

Requires user role: ADMIN, USER

Set the volume to the default level that is defined in the xConfiguration Audio DefaultVolume setting.

Note that DX70, DX80, Desk Pro, Room Kit, Room Kit Mini, and Room 55 have several audio units: built-in loudspeakers, headsets, and handset. This command affects only one unit at a time. You can use the optional Device parameter to specify which audio unit to address. The most recently selected unit is chosen if you don’t specify a unit (see xStatus Audio SelectedDevice). Also refer to xCommand Audio Select.

USAGE:

xCommand Audio Volume SetToDefault [Device: Device]

where

Device: [ DX70/DX80  RoomKit  RoomKitMini  Room55  DeskPro ]
Internal/HeadsetUSB/HandsetUSB  [ RoomKit  RoomKitMini  Room55 ]

Internal/HeadsetBluetooth/HeadsetAnalog/HeadsetUSB/HandsetUSB  [ DX70/DX80  DeskPro ]

Choose whether to set the volume on the built-in loudspeakers, a Bluetooth headset (only Desk Pro, DX70, and DX80), an analog headset (only Desk Pro and DX70), a USB headset, or a USB handset.

xCommand Audio Volume ToggleMute

Applies to: All products

Requires user role: ADMIN, USER

Toggle the loudspeaker between muted and unmuted.

USAGE:

xCommand Audio Volume ToggleMute

xCommand Audio Volume Unmute

Applies to: All products

Requires user role: ADMIN, USER

Set the volume on the device back on after muting.

USAGE:

xCommand Audio Volume Unmute
xCommand Audio VuMeter Start

Applies to: All products
Requires user role: ADMIN, USER

Start a VU meter to show the audio signal level on the specified connector. You have to specify both the connector's type and number (ConnectorType, ConnectorId) to uniquely identify the connector. The VU meter measures the input level for frequencies below 20 kHz.

USAGE:

```
xCommand Audio VuMeter Start ConnectorID: ConnectorID ConnectorType: ConnectorType [IncludePairingQuality: IncludePairingQuality] [IntervalMs: IntervalMs]
```

where

- **ConnectorID**:  
  - Integer (1..8) for Microphone; Integer (1..4) for Line; Integer (1..3) for HDMI
  - SX80/MX700/MX800/MX800D
  - Integer (1..8) for Microphone; Integer (1..5) for HDMI
  - CodecPro/Room70G2/RoomPanorama/Room70Panorama
  - Integer (1..2) for Microphone; Integer (1..1) for Line
  - SX20
  - Integer (1..2) for Microphone; Integer (1..1) for HDMI
  - SX10/RoomKit/CodecPlus/Room55/Room70/Room55D
  - Integer (1..1) for Microphone; Integer (1..1) for HDMI
  - RoomKitMini/DeskPro/Boards
  - Integer (1..3) for Microphone; Integer (1..1) for Line; Integer (1..2) for HDMI
  - CodecPlus/Room55/Room70G2/RoomPanorama
  - Integer (1..1)

- **ConnectorType**:  
  - HDMI/Line/Microphone
  - SX80/MX200G2/MX300G2/MX700/MX800/MX800D
  - Line/Microphone
  - SX20
  - HDMI/Microphone
  - SX70/SX80/SX10/RoomKit/CodecPlus/Room55/Room70/Room55D/Room70G2/RoomPanorama/Room70Panorama
  - HDMI/Microphone/MicArray

Select the connector type.

- **IncludePairingQuality**: Off/On
  - The device can measure the pairing quality (value 0 to 100). With no other ultrasound sources in the same room this value will be high, but if there are other ultrasound sources in the same room the value will be low. To monitor the pairing quality, sign in to the device's web interface, navigate to Setup > Peripherals > Microphones and tick the Show Pairing Rate check box. Or, use the xFeedback and xEvents commands to monitor the value. Read more about the xFeedback and xEvents commands in the API introduction section in this guide.
  - Default value: Off

- **IntervalMs**:  
  - 10..1000
  - Specifies the update interval in milliseconds of the VuMeter values. The values can be specified in 10 ms steps.
  - Default value: 100

Select a connector number.

Note the following if the ConnectorType is Microphone: If the device has a built-in microphone, that microphone will be Microphone [1]. The external microphones connected to the input connectors starts from Microphone [2]. For DX70 and DX80, Microphone [1] refers to the selected audio device, which may be either the built-in microphone, or a connected headset or handset. Refer to the xStatus Audio SelectedDevice and xCommand Audio Select commands for more information about the selected device.
**xCommand Audio VuMeter Stop**

*Applies to: All products*

*Requires user role: ADMIN, USER*

Stop the VU meter on the specified connector. You have to specify both the connector's type and number (ConnectorType, ConnectorId) to uniquely identify the connector.

**USAGE:**

```plaintext
xCommand Audio VuMeter Stop ConnectorID: ConnectorID ConnectorType: ConnectorType

where:

**ConnectorID:**
- Integer (1..8) for Microphone; Integer (1..4) for Line; Integer (1..3) for HDMI [ SX80 MX700/MX800/MX800D ]
- Integer (1..8) for Microphone; Integer (1..5) for HDMI [ CodecPro Room70G2 RoomPanorama/Room70Panorama ]
- Integer (1..2) for Microphone; Integer (1..1) for Line [ SX20 ]
- Integer (1..2) for Microphone; Integer (1..1) for HDMI [ SX10 RoomKit CodecPlus Room55 Room70/Room55D ]
- Integer (1..1) for Microphone; Integer (1..1) for HDMI [ RoomKitMini DeskPro Boards ]
- Integer (1..3) for Microphone; Integer (1..1) for Line; Integer (1..2) for HDMI [ MX200G2/MX300G2 ]
- Integer(1..1) [ DX70/DX80 ]

Select a connector number.

Note the following if the ConnectorType is Microphone: If the device has a built-in microphone, that microphone will be Microphone [1]. The external microphones connected to the input connectors starts from Microphone [2]. For DX70 and DX80, Microphone [1] refers to the selected audio device, which may be either the built-in microphone, or a connected headset or handset. Refer to the xStatus Audio SelectedDevice and xCommand Audio Select commands for more information about the selected device.

**ConnectorType:**
- HDMI/Line/Microphone [ SX80 MX200G2/MX300G2 MX700/MX800/MX800D ]
- Line/Microphone [ SX20 ]
- HDMI/Microphone [ DX70/DX80 SX10 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama ]
- HDMI/Microphone/MicArray [ DeskPro Boards ]

Select the connector type.

---

**xCommand Audio VuMeter StopAll**

*Applies to: All products*

*Requires user role: ADMIN, USER*

Stop all VU meters.

**USAGE:**

```plaintext
xCommand Audio VuMeter StopAll
```
Bookings commands

xCommand Bookings Clear

Applies to: All products
Requires user role: ADMIN, USER
Clear the current stored list of bookings.

USAGE:
xCommand Bookings Clear

xCommand Bookings Get

Applies to: All products
Requires user role: ADMIN, USER
Get the booking information for a specific ID.

USAGE:
xCommand Bookings Get Id: "Id"
where
  Id:
      String (0, 128)
      The booking ID of a call or conference.

xCommand Bookings List

Applies to: All products
Requires user role: ADMIN, USER
List the stored bookings for the device. The list of booking details is received from the management system. All parameters are optional, and can be used to limit the search result. If no parameters are set, past, present and future bookings are all listed. To avoid listing bookings from yesterday and before, use DayOffset = 0.

USAGE:
xCommand Bookings List [Days: Days] [DayOffset: DayOffset] [Limit: Limit] [Offset: Offset]
where
  Days:
      Integer (1..365)
      Number of days to retrieve bookings from.
  DayOffset:
      Integer (0..365)
      Which day to start the search from (today: 0, tomorrow: 1, ...).
      Default value: 0
  Limit:
      Integer (1..65534)
      Max number of bookings to list.
  Offset:
      Integer (0..65534)
      Offset number of bookings for this search.
      Default value: 0
xCommand Bookings NotificationSnooze

Applies to: All products
Requires user role: ADMIN, USER

Sets notifications for the stored bookings in this device to snooze.

USAGE:
xCommand Bookings NotificationSnooze [Id: "Id"] [SecondsToSnooze: SecondsToSnooze]

where

Id:
String (0, 128)
The ID of the notification snooze setting.

SecondsToSnooze:
Integer (1..3600)
The duration of the snooze period, in seconds.
Default value: 300

xCommand Bookings Put

Applies to: All products
Requires user role: ADMIN

This command applies to devices that are either registered to the Webex cloud service or registered to an on-premises service and linked to Webex Edge for Devices.

NOTE: This API has special terms and conditions, please refer to the “About the API – Terms and Conditions” section.

Replace the list of stored bookings. This is a multiline command, with with details of the stored bookings as payload. The meeting information is provided in JSON format.

For example:

```
{  
  "Bookings": [
    
    {  
      "Id": "1",
      "Number": "number@example.com",
      "Organizer": {  
        "Name": "John Doe"
      },
      "Protocol": "SIP",
      "Time": {  
        "Duration": 60,
        "EndTimeBuffer": 50,
        "StartTime": "2024-06-04T08:40:42.300000000Z"
      },
      "Title": "Booking Title"
    }
  ]
}
```

The JSON structure supports the following fields:

```json
{  
  "Id": "id",
  "MeetingId": "MyMeeting",
  "Agenda": "MyAgenda"
}
```
Call commands

xCommand Call Accept
Applies to: All products
Requires user role: ADMIN, USER
Accept an incoming call. If no CallId is specified, all incoming calls are accepted.

**USAGE:**
xCommand Call Accept [CallId: CallId]
where

*CallId*
Integer (0..65534)
The CallId is returned when the xCommand Dial command is run. During the call you can run the xStatus Call command to see the CallId.
Default value: 0

xCommand Call Disconnect
Applies to: All products
Requires user role: ADMIN,INTEGRATOR, USER
Disconnect a call.

**USAGE:**
xCommand Call Disconnect [CallId: CallId]
where

*CallId*
Integer (0..65534)
The CallId is returned when the xCommand Dial command is run. During the call you can run the xStatus Call command to see the CallId.
Default value: 0
xCommand Call DTMFSend

Applies to: All products
Requires user role: ADMIN, USER

Send DTMF tones to the far end.

**USAGE:**
xCommand Call DTMFSend [CallId: \texttt{CallId}] DTMFString: "\texttt{DTMFString}\"

where

\texttt{CallId}:
 integer \((0..65534)\)
The CallID is returned when the xCommand Dial command is run. During the call you can run the xStatus Call command to see the CallId.

Default value: -1

\texttt{DTMFString}:
 string \((0, 32)\)
Enter the DTMF string.

xCommand Call FarEndControl Camera Move

Applies to: All products
Requires user role: ADMIN, USER

Move the far end camera (the remote camera).
NOTE: The far end camera moves in the specified direction until the stop command (ref: xCommand FarEndControl Camera Stop) is issued.

**USAGE:**
xCommand Call FarEndControl Camera Move [CallId: \texttt{CallId}] Value: \texttt{Value}

where

\texttt{CallId}:
 integer \((0..65534)\)
The CallID is returned when the xCommand Dial command is run. During the call you can run the xStatus Call command to see the CallId.

Default value: -1

\texttt{Value}:
 Left/Right/Up/Down/ZoomIn/ZoomOut
Select the action for how to move the camera.

xCommand Call FarEndControl Camera Stop

Applies to: All products
Requires user role: ADMIN, USER

Stop the far end camera after the xCommand FarEndControl Camera Move has been issued.

**USAGE:**
xCommand Call FarEndControl Camera Stop [CallId: \texttt{CallId}]

where

\texttt{CallId}:
 integer \((0..65534)\)
The CallID is returned when the xCommand Dial command is run. During a call you can run the xStatus Call command to see the CallId.

Default value: -1
xCommand Call FarEndControl RoomPreset Activate

Applies to: All products
Requires user role: ADMIN, USER

While in a call, this command is used to activate a preset on the far end codec. The preset covers the far end codec's camera positions and input video switcher settings.

The preset must be stored on the far end codec beforehand, either by using the xCommand Preset Store command locally on the far end codec, or by using the xCommand FarEndControl Preset Store command from a remote codec.

Note: The far end codec's xConfiguration Conference FarEndControl Mode setting must be switched On for the FarEndControl commands to work.

USAGE:
xCommand Call FarEndControl RoomPreset Activate [CallId: \texttt{CallId}] PresetId: \texttt{PresetId}

where
- \texttt{CallId}: \texttt{Integer (0..65534)}
  - The CallId is required to identify the far end codec only when in a Multipoint call. The CallId is returned when issuing the xCommand Dial command. During a call you can run the xStatus Call command to see the CallId.
  - Default value: \texttt{-1}
- \texttt{PresetId}: \texttt{Integer (1..15)}
  - The ID of the preset that is stored on the far end codec.

xCommand Call FarEndControl Source Select

Applies to: All products
Requires user role: ADMIN, USER

Select which video input source to use as the main source on the far end device.

USAGE:
xCommand Call FarEndControl Source Select [CallId: \texttt{CallId}] SourceId: \texttt{SourceId}

where
- \texttt{CallId}: \texttt{Integer (0..65534)}
  - The CallId is returned when the xCommand Dial command is run. During a call you can run the xStatus Call command to see the CallId.
  - Default value: \texttt{-1}
- \texttt{SourceId}: \texttt{Integer (0..15)}
  - Select a video input source on the far end.
xCommand Call FarEndMessage Send

Applies to: All products
Requires user role: ADMIN, USER

Send data between two codecs in a point-to-point call, for use with control systems or macros. Works with SIP calls only. Requires that the Conference FarEndMessage Mode is set to On.

USAGE:
xCommand Call FarEndMessage Send: "Text" Type: "Type" [CallId: CallId]

where

- **Text**: String (1, 1450)
  - Enter the message to be sent to the far end.

- **Type**: String (0, 255)
  - Enter the message type to be sent to the far end.

- **CallId**: Integer (0..65534)
  - The CallID is returned when the xCommand Dial command is run. During a call you can run the xStatus Call command to see the CallId.

---

xCommand Call FarEndMessage SStringSend

Applies to: SX80
Requires user role: ADMIN, USER

Send data between two codecs in a point-to-point call, for use with control systems or macros. Works with H.323 and SIP calls. Uses the H.224 data channel (UDP). We recommend to use the new version of the command: xCommand Call FarEndMessage Send.

USAGE:
xCommand Call FarEndMessage SStringSend Message: "Message" [CallId: CallId]

where

- **Message**: String (0, 255)
  - Enter the message to be sent to the far end.

- **CallId**: Integer (0..65534)
  - The CallID is returned when the xCommand Dial command is run. During a call you can run the xStatus Call command to see the CallId.

---

xCommand Call FarEndMessage TStringSend

Applies to: SX80
Requires user role: ADMIN, USER

Send data between two codecs in a point-to-point call, for use with control systems or macros. Works with H.323 calls only. Uses the H.245 control channel (TCP).

USAGE:
xCommand Call FarEndMessage TStringSend Message: "Message" CallId: CallId

where

- **Message**: String (0, 255)
  - Enter the message to be sent to the far end.

- **CallId**: Integer (0..65534)
  - The CallID is returned when the xCommand Dial command is run. During a call you can run the xStatus Call command to see the CallId.
xCommand Call Forward
Applies to: All products
Requires user role: ADMIN, USER

Specifies what number or URI you want to forward your incoming calls to. The display name is a local reference for the forwarded destination. A message, together with the local reference, is shown on screen when you have configured the device to forward all calls.

USAGE:
xCommand Call Forward DisplayName: "DisplayName" Number: "Number"
where
 DisplayName:
   String (0, 255)
   The local reference for the forwarded destination.
 Number:
   String (0, 255)
   The directory number or URI which you want to forward the incoming calls to.

xCommand Call Ignore
Applies to: All products
Requires user role: ADMIN, USER

Turns off the ringtone for the incoming call. The call can still be answered.

USAGE:
xCommand Call Ignore CallId: CallId
where
 CallId:
   Integer (0..65534)
   The CallID is returned when the xCommand Dial command is run. During a call you can run the xStatus Call command to see the CallId.

xCommand Call Join
Applies to: All products
Requires user role: ADMIN, USER

Internal usage only.

USAGE:
xCommand Call Join [CallId: CallId]
where
 CallId:
   Integer (0..65534)
   The CallID is returned when the xCommand Dial command is run. During a call you can run the xStatus Call command to see the CallId.

Default value: 0

Reason:
Conference/Transfer/Other
Internal usage only.
Default value: Other

xCommand Call Hold
Applies to: All products
Requires user role: ADMIN, USER

Put a call on hold.

USAGE:
xCommand Call Hold [CallId: CallId] [Reason: Reason]
where
 CallId:
   Integer (0..65534)
   The CallID is returned when the xCommand Dial command is run. During a call you can run the xStatus Call command to see the CallId.

Default value: 0

Reason:
Conference/Transfer/Other
Internal usage only.
Default value: Other
xCommand Call Reject
Applies to: All products
Requires user role: ADMIN, USER
Reject incoming call. If no call id is specified, all incoming calls are rejected.

**USAGE:**
xCommand Call Reject [CallId: CallId]
where
   CallId: Integer (0..65534)
   The CallID is returned when the xCommand Dial command is run. During a call you can run the xStatus Call command to see the CallId.
   Default value: 0

xCommand Call Resume
Applies to: All products
Requires user role: ADMIN, USER
Resume a call that have been put on hold.

**USAGE:**
xCommand Call Resume [CallId: CallId]
where
   CallId: Integer (0..65534)
   The CallID is returned when the xCommand Dial command is run. During a call you can run the xStatus Call command to see the CallId.
   Default value: 0

xCommand Call UnattendedTransfer
Applies to: All products
Requires user role: ADMIN, USER
Transfers an ongoing call to another participant. Fully supported for SIP calls only.

**USAGE:**
xCommand Call UnattendedTransfer CallId: CallId Number: "Number"
where
   CallId: Integer (0..65534)
   The CallID is returned when the xCommand Dial command is run. During a call you can run the xStatus Call command to see the CallId.
   Number: String (0, 255)
   The number the call is transfered to.
CallHistory commands

xCommand CallHistory AcknowledgeAllMissedCalls
Applies to: All products
Requires user role: ADMIN, USER
Turns off the missed calls indicator on the touch controller for all missed calls.

USAGE:

xCommand CallHistory AcknowledgeAllMissedCalls

xCommand CallHistory AcknowledgeMissedCall
Applies to: All products
Requires user role: ADMIN, USER
Turns off the missed calls indicator on the touch controller for the specified call.

USAGE:

xCommand CallHistory AcknowledgeMissedCall CallHistoryId: CallHistoryId
[AcknowledgeConsecutiveDuplicates: AcknowledgeConsecutiveDuplicates]
where

CallHistoryId:

Integer (1..2147483647)
CallHistoryId for the call in question. Run xCommand CallHistory Get to get the id number.

AcknowledgeConsecutiveDuplicates:

False/True
You can include or exclude all surrounding calls with duplicate information.
Default value: False

xCommand CallHistory DeleteAll
Applies to: All products
Requires user role: ADMIN, USER
Deletes all information on previous calls.

USAGE:

xCommand CallHistory DeleteAll [Filter: Filter]
where

Filter:

All/Missed/Placed/Received
You can filter which calls to delete.
Default value: All

xCommand CallHistory DeleteEntry
Applies to: All products
Requires user role: ADMIN, USER
Deletes all information on the specified call.

USAGE:

xCommand CallHistory DeleteEntry CallHistoryId: CallHistoryId
[DeleteConsecutiveDuplicates: DeleteConsecutiveDuplicates]
where

CallHistoryId:

Integer (1..2147483647)
CallHistoryId for the call in question. Run xCommand CallHistory Get to get the id number.

DeleteConsecutiveDuplicates:

False/True
You can delete the surrounding calls with duplicate information or not.
Default value: False
xCommand CallHistory Get

Applies to: All products
Requires user role: ADMIN, USER

Retrieve all information on previous calls made on the device.

**USAGE:**

```
xCommand CallHistory Get [Filter: Filter] [Offset: Offset] [Limit: Limit]
[DetailLevel: DetailLevel] [SearchString: "SearchString"] [CallHistoryId: CallHistoryId]
```

where

- **Filter**: All/Missed/AnsweredElsewhere/Forwarded/Placed/Pmr/NoAnswer/Received/Rejected/UnacknowledgedMissed
  
  You can filter which calls to retrieve. Pmr refers to a personal meeting room.
  
  Default value: All

- **Offset**: Integer (0..65534)
  
  Sets the call from which to start.
  
  Default value: 0

- **Limit**: Integer (0..65534)
  
  Defines the amount of calls in the output.
  
  Default value: 65534

- **DetailLevel**: Basic/Full
  
  Sets the level of detail for the information on these calls.
  
  Default value: Basic

- **SearchString**: String (0, 255)
  
  Allows you to set the command to apply to a specified display name or call back number.
  
  Default value: ""

- **CallHistoryId**: Integer (1..2147483647)
  
  CallHistoryId for the call in question.

xCommand CallHistory Recents

Applies to: All products
Requires user role: ADMIN, USER

Retrieve aggregated information on previous calls made on the device.

**USAGE:**

```
xCommand CallHistory Recents [Filter: Filter] [Offset: Offset] [Limit: Limit]
[DetailLevel: DetailLevel] [SearchString: "SearchString"] [Order: Order]
```

where

- **Filter**: All/Missed/AnsweredElsewhere/Forwarded/Placed/Pmr/NoAnswer/Received/Rejected/UnacknowledgedMissed
  
  You can filter which calls to retrieve. Pmr refers to a personal meeting room.
  
  Default value: All

- **Offset**: Integer (0..65534)
  
  Sets the call from which to start.
  
  Default value: 0

- **Limit**: Integer (0..65534)
  
  Defines the amount of calls in the output.
  
  Default value: 65534

- **DetailLevel**: Basic/Full
  
  Sets the level of detail for the information on these calls.
  
  Default value: Basic

- **SearchString**: String (0, 255)
  
  Allows you to set the command to apply to a specified display name or call back number.
  
  Default value: ""

- **Order**: OccurrenceTime/OccurrenceFrequency
  
  Define the order in which the previous calls are presented.
  
  Default value: OccurrenceTime
Camera commands

**xCommand Camera PositionReset**

**Applies to:** SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  CodecPlus  CodecPro  Room70/Room55  Room70G2  RoomPanorama/Room70Panorama  DeskPro

**Requires user role:** ADMIN, INTEGRATOR, USER

Reset the camera position to default position.

**USAGE:**
xCommand Camera PositionReset [Axis: Axis] CameraId: CameraId

where

**Axis:**
All/Focus/PanTilt/Zoom
Select which function to reset. If not specified all are reset.
Default value: All

**CameraId:**
Integer (1..1) [ SX10  SX20  MX200G2/MX300G2  DeskPro ]
Integer (1..7) [ SX80  MX700/MX800/MX800D  CodecPlus  CodecPro  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama ]

The ID of the camera preset you want to reset.

---

**xCommand Camera PositionSet**

**Applies to:** SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

**Requires user role:** ADMIN, INTEGRATOR, USER

Set the camera position. If the combination of the pan, tilt, zoom, and roll values is not possible, the camera automatically adjusts the values to a valid combination.

**USAGE:**
xCommand Camera PositionSet CameraId: CameraId [Focus: Focus] [Lens: Lens] [Pan: Pan] [Roll: Roll] [Tilt: Tilt] [Zoom: Zoom]

where

**CameraId:**
Integer (1..1) [ SX10  SX20  MX200G2/MX300G2  RoomKit  RoomKitMini  Room55  DeskPro  Boards ]
Integer (1..7) [ SX80  MX700/MX800/MX800D  CodecPlus  CodecPro  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama ]

The ID of the camera preset you want to reset.

**Focus:**
Integer (0..65535)
Focus the camera near or far.

**Lens:**
Wide/Center/Left/Right
Set the camera's lens position. This parameter only applies to the Quad Camera and the integrated cameras in Room 55 Dual, Room 70, Room 70G2, Room 70 Panorama, and Room Panorama.

**Pan:**
Integer (-17000..17000)
Move the camera to the left or right. The unit is 1/100 degree, that is 100 corresponds to 1 degree. A positive value moves the camera to the left, and a negative value moves the camera to the right. Left and right refers to when looking from the back of the camera out into the room. This is the opposite of what is seen when looking at the camera lens from the room.

**Roll:** [ CodecPro  Room70G2  RoomPanorama/Room70Panorama ]
Integer (-300..300)
Rotate the camera view. The observed image rotates counterclockwise when the value is positive, and clockwise when the value is negative. The unit is 1/100 degree, that is 100 corresponds to 1 degree.

**Tilt:**
**Integer (-9000..9000)**

Move the camera up or down. The unit is 1/100 degree, that is 100 corresponds to 1 degree. A positive value tilts the camera up, and a negative value tilts the camera down.

**Zoom:**

**Integer (0..11800)**

Zoom in or out. The unit is HOFV (horizontal field of view) in 1/100 degree, that is 100 corresponds to 1 degree. A low value corresponds to maximum zoom and the largest value corresponds to minimum zoom (full wide).

---

**xCommand Camera Preset Activate**

**Applies to:** SX10, SX20, SX80, MX200G2/MX300G2, MX700, MX800/MX800D, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

**Requires user role:** ADMIN, USER

Activate one of the stored camera presets.

Note that the `xCommand Camera Preset commands` applies to an individual camera. This is in contrast to the `xCommand Preset commands` where a single preset covers ALL connected cameras plus the Video Input switcher settings.

**USAGE:**

```
xCommand Camera Preset Activate PresetId: PresetId
```

where

- **PresetId:**
  - **Integer (1..35)**
  - The ID of the camera preset you want to activate.

---

**xCommand Camera Preset ActivateDefaultPosition**

**Applies to:** SX10, SX20, SX80, MX200G2/MX300G2, MX700, MX800/MX800D, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

**Requires user role:** ADMIN, USER

Sets the cameras to their default position, if one is defined. The default position is defined by `xCommand Camera Preset Store` or by `xCommand Camera Preset Edit`. Only one default position can be defined per camera.

**USAGE:**

```
xCommand Camera Preset ActivateDefaultPosition [CameraId: CameraId]
```

where

- **CameraId:**
  - **Integer (1..1)** [ SX10, SX20, MX200G2/MX300G2, RoomKit, RoomKitMini, Room55, DeskPro, Boards ]
  - **Integer (1..7)** [ SX80, MX700, MX800/MX800D, CodecPlus, CodecPro, Room70, Room55D, Room70G2, RoomPanorama, Room70Panorama ]

The ID of the camera preset you want to activate. If `CameraId` is not specified, all cameras will be set in their respective default position, if one is defined.
**xCommand Camera Preset Edit**

**Applies to:** SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards  

**Requires user role:** ADMIN, USER

Edit a stored camera preset. You can change the name of the camera preset and its position in the list that is returned by the xCommand Camera Preset List command. You can also change whether or not this preset is the default position for the associated camera.

Note that the xCommand Camera Preset commands applies to an individual camera. This is in contrast to the xCommand Preset commands where a single preset covers ALL connected cameras and the Video Input switcher settings.

**USAGE:**

```
xCommand Camera Preset Edit PresetId: PresetId [ListPosition: ListPosition] [Name: "Name"] [DefaultPosition: DefaultPosition]
```

where

- **PresetId:** 
  - Integer (1..35)
  - The ID of the camera preset you want to edit.

- **ListPosition:**
  - Integer (1..35)
  - The position in the list returned by the xCommand Camera Preset List command.

- **Name:**
  - String (0, 255)
  - The name of the camera preset. It will be used in the list returned by the xCommand Camera Preset List command.

- **DefaultPosition:**
  - False/True
  - Defines whether or not this preset is the default position for the associated camera. Note that each camera can only have one default position, so if set, the old default preset will automatically be marked as not default.

**xCommand Camera Preset List**

**Applies to:** SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards  

**Requires user role:** ADMIN, USER

List information about available camera presets.

Note that the xCommand Camera Preset commands applies to an individual camera. This is in contrast to the xCommand Preset commands where a single preset covers ALL connected cameras plus the Video Input switcher settings.

**USAGE:**

```
xCommand Camera Preset List [CameraId: CameraId] [DefaultPosition: DefaultPosition]
```

where

- **CameraId:**
  - Integer (1..1) [ SX10  SX20  MX200G2/MX300G2  RoomKit  RoomKitMini  Room55  DeskPro  Boards ]
  - Integer (1..7) [ SX80  MX700/MX800/MX800D  CodecPlus  CodecPro  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama ]

  Only list presets for the specified camera.

- **DefaultPosition:**
  - False/True
  - List default positions only, or only those that are not default positions.
**xCommand Camera Preset Remove**

**Applies to:** SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, USER

Remove a camera preset.

Note that the `xCommand Camera Preset commands applies to an individual camera. This is in contrast to the `xCommand Preset commands where a single preset covers ALL connected cameras plus the Video Input switcher settings.

**USAGE:**

```
xCommand Camera Preset Remove PresetId: PresetId
```

where

```
PresetId: Integer (1..35)
```

The ID of the camera preset you want to remove.

---

**xCommand Camera Preset Show**

**Applies to:** SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, USER

Shows the preset details for the requested PresetId.

**USAGE:**

```
xCommand Camera Preset Show PresetId: PresetId
```

where

```
PresetId: Integer (1..35)
```

The ID of the camera preset you wish to see.

---

**xCommand Camera Preset Store**

**Applies to:** SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, USER

Store the current position (pan and tilt), zoom and focus of the chosen camera. The camera is identified by the CameraId parameter.

Note that the `xCommand Camera Preset commands applies to an individual camera. This is in contrast to the `xCommand Preset commands where a single preset covers ALL connected cameras plus the Video Input switcher settings. The `xCommand Camera Preset commands are useful when you want to handle multiple camera positions individually per camera, rather than working with complete sets of camera positions. The individual camera presets are not available for end control.

**USAGE:**

```
xCommand Camera Preset Store [PresetId: PresetId] CameraId: CameraId [ListPosition: ListPosition] [Name: "Name"] [TakeSnapshot: TakeSnapshot] [DefaultProsition: DefaultProsition]
```

where

```
PresetId: Integer (1..35)
```

The ID of this camera preset. If not set explicitly, the codec will assign a preset ID automatically.

```
CameraId: Integer (1..1) [ SX10 SX20 ] Integer (1..7) [ SX80 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama ]
```

Select the camera for which to store the preset position.

```
ListPosition: Integer (1..35)
```

The new camera preset's position in the list returned by the `xCommand Camera Preset List command.

```
Name: String (0, 255)
```

The name of the new camera preset. It will be used in the list returned by the `xCommand Camera Preset List command.

```
TakeSnapshot: False/True
```

The `xCommand Camera Preset commands are useful when you want to handle multiple camera positions individually per camera, rather than working with complete sets of camera positions. The individual camera presets are not available for end control.
Allow or disallow snapshot of the preview.

**DefaultPosition**: False/True

Defines whether or not this preset shall be the default position of the associated camera. Note that each camera can hold only one default position, so if set, the old default preset will automatically be marked as not default.

---

**xCommand Camera Ramp**

**Applies to:** SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, INTEGRATOR, USER

Move the camera in a specified direction. The camera moves at specified speed until a stop command is issued. In a daisy chain, you need to know the CameraId for the camera you want to address. Be aware that pan and tilt can be operated simultaneously, but no other combinations. In the latter case only the first operation specified is executed. For example, if you try to run both zoom and pan at the same time, only zoom is executed.

**NOTE:** You must run a stop command to stop the camera, see the example below.

**USAGE:**

```
xCommand Camera Ramp CameraId: CameraId [Pan: Pan] [PanSpeed: PanSpeed] [Tilt: Tilt] [TiltSpeed: TiltSpeed] [Zoom: Zoom] [ZoomSpeed: ZoomSpeed] [Focus: Focus]
```

where

- **CameraId**: Integer (1..7)
  - SX80 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama
  - Integer (1..1)
    - SX10 SX20 MX200G2/MX300G2 RoomKit RoomKitMini Room55 DeskPro Boards

Select the camera.

- **Pan**: Left/Right/Stop
  - Move the camera to the Left or Right, followed by Stop.

- **PanSpeed**: Integer (1..15)
  - Set the pan speed.

- **Tilt**: Down/Up/Stop
  - Move the camera Up or Down, followed by Stop.

- **TiltSpeed**: Integer (1..15)
  - Set the tilt speed.

- **Zoom**: In/Out/Stop
  - Zoom the camera In or Out, followed by Stop.

- **ZoomSpeed**: Integer (1..15)
Integer (1..15)
Set the zoom speed.

Focus:
Far/Near/Stop
Focus the camera Far or Near, followed by Stop.

xCommand Camera TriggerAutofocus
Applies to: SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro
Requires user role: ADMIN, USER
Trigger the auto-focus functionality. The camera must support auto-focus functionality. If the camera is daisy chained, the CameraId is given by its place in the chain.
USAGE:
xCommand Camera TriggerAutofocus CameraId: CameraId
where
CameraId: Integer (1..7)
[SX80 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama]
[SX10 SX20 MX200G2/MX300G2 CodecPro]
Select the camera to auto-focus.

Cameras commands

xCommand Cameras AutoFocus Diagnostics Start
Applies to: SX80 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, INTEGRATOR
Start diagnostics on auto focus.
USAGE:
xCommand Cameras AutoFocus Diagnostics Start CameraId: CameraId
where
CameraId: 1..7
Select which camera to diagnose.

xCommand Cameras AutoFocus Diagnostics Stop
Applies to: SX80 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, INTEGRATOR
Stop diagnostics on auto focus.
USAGE:
xCommand Cameras AutoFocus Diagnostics Stop CameraId: CameraId
where
CameraId: 1..7
Select which camera to diagnose.
xCommand Cameras Background Clear

**Applies to:** DeskPro
**Requires user role:** ADMIN, INTEGRATOR, USER
Delete all of the user-installed background images.

**USAGE:**
```
xCommand Cameras Background Clear
```

xCommand Cameras Background Delete

**Applies to:** DeskPro
**Requires user role:** ADMIN, INTEGRATOR, USER
Delete the specified user-supplied camera background image.

**USAGE:**
```
xCommand Cameras Background Delete Image: [Image]
```

where
- **Image:** (User1/User2/User3) User1, User2, and User3 are slots where an uploaded image can be installed.

xCommand Cameras Background Fetch

**Applies to:** DeskPro
**Requires user role:** ADMIN, INTEGRATOR, USER
Uploads an image from the specified URL and installs into the selected user1-3 slot.

**USAGE:**
```
xCommand Cameras Background Fetch [Checksum: [Checksum]] [ChecksumType: [ChecksumType]] Image: [Image] Url: [Url]
```

where
- **Checksum:** () String(0, 128) The checksum for the image file.
- **ChecksumType:** () SHA512 The type for the given checksum. Default value: SHA512
- **Image:** () User1/User2/User3 User1, User2, and User3 are slots where an uploaded image can be installed.
- **Url:** () String(8, 2048) The URL for an image.
xCommand Cameras Background Get

**Applies to:** DeskPro

**Requires user role:** ADMIN, INTEGRATOR, USER

Get the image data for user-uploaded image at the specified slot.
The intended user is the User Interface (e.g., settings.webex.com) to allow for displaying thumbnails or large version of user images.

**USAGE:**
xCommand Cameras Background Get Image: \[\text{Image} \mid \text{Size}

where

- **Image:** [User1/User2/User3]
  - User1, User2, and User3 are slots where an uploaded image can be installed.
- **Size:** [Large/Thumbnail]
  - The size of the image to display.
  - Default value: Large

xCommand Cameras Background List

**Applies to:** DeskPro

**Requires user role:** ADMIN, INTEGRATOR, USER

Displays Installed/NotInstalled for each of the user background image slots, User1, User2, and User3.

**USAGE:**
xCommand Cameras Background List

xCommand Cameras Background Set

**Applies to:** DeskPro

**Requires user role:** ADMIN, INTEGRATOR, USER

Specify the camera background settings. The Cameras Background Enabled configuration must be True for this command to take effect.

**USAGE:**
xCommand Cameras Background Set [Image: \[\text{Image}\] [Mode: \[\text{Mode}\]]

where

- **Image:** [Image1/Image2/Image3/User1/User2/User3]
  - The image to use as the background. For the image to be shown, the "xCommand Cameras Background Set Mode" must be set to "Image".
  - Image 1-3 is a set of pre-installed images.
  - **Image1:** Office space
  - **Image2:** Home office
  - **Image3:** Beach
  - User1, User2, and User3: Slots where an uploaded image can be installed.
- **Mode:** [Disabled/Blur/BlurMonochrome/DepthOfField/Hdmi/Monochrome/Image/UsbC]
  - The mode for the background image. Options include:
    - **Disabled:** There are no images or effects masking the background of the camera view.
    - **Blur:** The background is blurred.
    - **BlurMonochrome:** A combination of blur and monochrome (blurred without colors).
    - **DepthOfField:** A variant of blur with less blurring.
    - **Hdmi:** HDMI input is providing a live background.
    - **Monochrome:** Shows the image in grayscale.
    - **Image:** An images is providing the background.
    - **UsbC:** USB-C is providing a live background.
xCommand Cameras Background Upload

Applies to: DeskPro
Requires user role: ADMIN, INTEGRATOR, USER
Uploads image data and installs into the selected user1-3 slot.
The content to be uploaded follows as base64-encoded image data.
This is a multiline command.
Use:
xCommand Cameras Background Upload <enter>
Encoded image text <enter>

<enter>

USAGE:
xCommand Cameras Background Upload Image: Image
where
   Image: ()
   User1/User2/User3
   User1, User2, and User3 are slots where an uploaded image can be installed.

xCommand Cameras PresenterTrack ClearPosition

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, INTEGRATOR, USER
Clear the stored presenter tracking camera position for the overview image of the stage. The PresenterTrack feature will still work after the camera position has been cleared, but the camera will not view a predefined position upon activation.
For SX80 and Codec Pro: This setting applies only when using a Precision 60 camera or SpeakerTrack 60 camera.

USAGE:
xCommand Cameras PresenterTrack ClearPosition

xCommand Cameras PresenterTrack Set

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, INTEGRATOR, USER
Set the presenter tracking mode.
This command takes effect only if the PresenterTrack feature is enabled. Sign in to the device's web interface and use the Cameras PresenterTrack Enabled setting to enable or disable the feature.
For SX80 and Codec Pro: This setting applies only when using a Precision 60 camera or SpeakerTrack 60 camera.

USAGE:
xCommand Cameras PresenterTrack Set Mode: Mode
where
   Mode: Off/Follow/Diagnostic/Background/Setup/Persistent
   Off: Turn off presenter tracking.
   Follow: Turn on presenter tracking. This is the default mode when the feature is activated from the Touch user interface. Presenter tracking is automatically turned off when camera moves to a different preset, when another camera is selected, or when standby is activated.
   Diagnostic: Turn on diagnostic mode in order to troubleshoot presenter tracking, or to see exactly what happens on the device screen. In diagnostics mode there are several activities on the screen. The screen will show the overview image, and the rectangles/squares listed below will be visible:
   * RED: The trigger zone.
   * YELLOW: The cropped image of the presenter. Visible only when a face is being tracked.
   * GREEN: Indicates that a face is detected and that it is tracked.
   * GREEN BLINKING FILLED: Indicates a positive face detection. If the tracked individual does not get a valid face-read the square becomes red.
   * RED BLINKING FILLED: Indicates a false face detection. After some seconds the tracking stops.
   * BLUE: A face is detected but the face is not tracked.
   Background: This setting is used by the codec’s internal scripts. Turns on presenter tracking with no cropping of the image.
   Setup: This setting is used by the codec’s web interface to show the trigger zone on the device screen when setting up the PresenterTrack feature.
   Persistent: This setting is used by the codec’s internal scripts. Turns on presenter tracking
in persistent mode. Persistent mode is automatically turned off when camera moves to a different preset.

xCommand Cameras PresenterTrack StorePosition

Applies to: SX80, MX700/MX800/MX800D, CodecPro, Room70G2, RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR, USER

Store the current position of the presenter tracking camera for the overview image of the stage. The presenter tracking camera will move to this position when activating the feature.

For SX80 and Codec Pro: This setting applies only when using a Precision 60 camera or SpeakerTrack 60 camera.

**USAGE:**

\[
\text{xCommand Cameras PresenterTrack StorePosition}
\]

xCommand Cameras SpeakerTrack Activate

Applies to: SX80, MX700/MX800/MX800D, RoomKit, RoomKitMini CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

Requires user role: ADMIN, USER

Activate SpeakerTrack or Best Overview mode. Requires that xConfiguration Cameras SpeakerTrack Mode is set to Auto (default).

This command applies only to devices with cameras that support speaker tracking or best overview.

**USAGE:**

\[
\text{xCommand Cameras SpeakerTrack Activate}
\]

xCommand Cameras SpeakerTrack Deactivate

Applies to: SX80, MX700/MX800/MX800D, RoomKit, RoomKitMini CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

Requires user role: ADMIN, USER

Deactivate SpeakerTrack or Best Overview mode.

This command applies only to devices with cameras that support speaker tracking or best overview.

**USAGE:**

\[
\text{xCommand Cameras SpeakerTrack Deactivate}
\]

xCommand Cameras SpeakerTrack Diagnostics Start

Applies to: SX80, MX700/MX800/MX800D, RoomKit, RoomKitMini CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

Requires user role: ADMIN, INTEGRATOR, USER

Starts diagnostics on the camera's tracking.

This command applies only to devices with cameras that support speaker tracking or best overview.

The Tracking parameter only applies to the SpeakerTrack 60 camera and MX700/MX800 with dual camera.

**USAGE:**

\[
\text{xCommand Cameras SpeakerTrack Diagnostics Start \([\text{Tracking: } \text{Tracking}]\)}
\]

where

\[
\text{Tracking:}
\]

\[
\text{On/Off}
\]

\[
\text{On: } \text{Displays diagnostics from both cameras simultaneously. In this mode the tracking is determined by who is talking in the room identical to SpeakerTrack's standard behavior.}
\]

\[
\text{Off: } \text{Displays diagnostics from one camera at a time. Diagnostics is switched from one camera to the other in 15 seconds intervals, and camera related diagnostics are shown for the active camera. Both cameras stay in full wide position. Use Tracking: Off when you wish to see the tracking diagnostics from one camera at a time.}
\]

Default value: On
xCommand Cameras SpeakerTrack Diagnostics Stop

Applies to: SX80, MX700/MX800/MX800D, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

Requires user role: ADMIN, INTEGRATOR, USER

Stops diagnostics on the camera’s tracking.

USAGE:

xCommand Cameras SpeakerTrack Diagnostics Stop

xCommand Cameras SpeakerTrack Whiteboard ActivatePosition

Applies to: SX80, MX700/MX800/MX800D, RoomKit, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama

Requires user role: ADMIN, USER

Moves the specified camera to the position stored with xCommand Cameras SpeakerTrack Whiteboard StorePosition.

USAGE:

xCommand Cameras SpeakerTrack Whiteboard ActivatePosition CameraId: [CameraId]

where

CameraId:

Integer(1..7) [SX80, MX700/MX800/MX800D, CodecPro, Room70G2, RoomPanorama/Room70Panorama]

The ID of the camera that is being positioned.

WhiteboardId:

Integer(1..8)

The id set for the camera position used for the snap-to-whiteboard feature. Currently only id 1 can be used.

Default value: 1

xCommand Cameras SpeakerTrack Whiteboard AlignPosition

Applies to: SX80, MX700/MX800/MX800D, RoomKit, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama

Requires user role: ADMIN, USER

Only applicable for MX700 and MX800 with a dual camera, and for SX80 and Codec Pro with a SpeakerTrack 60 camera. Not applicable for any other products.

Align the position of the second camera to the first camera’s stored position. You must also set the distance to a whiteboard.

USAGE:

xCommand Cameras SpeakerTrack Whiteboard AlignPosition CameraId: [CameraId] Distance: [Distance]

where

CameraId:

Integer(1..7) [SX80, MX700/MX800/MX800D, CodecPro, Room70G2, RoomPanorama/Room70Panorama]

The ID of the camera that is being positioned.

Distance:

Integer(300..1500) [SX80, MX700/MX800/MX800D, CodecPro, Room70G2, RoomPanorama/Room70Panorama]

Set distance to whiteboard in centimeters. Use an accurate measurement for the feature to work seamlessly.
xCommand Cameras SpeakerTrack Whiteboard SetDistance

**Applies to:** SX80 MX700/MX800/MX800D RoomKit CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, USER

Set the cameras distance to the whiteboard. This information is needed by the camera to frame the whiteboard automatically.

**USAGE:**

```
xCommand Cameras SpeakerTrack Whiteboard SetDistance Distance: [Distance]
```

**where**

```
Distance:
  Integer (0..65534)
```

Set distance to whiteboard in centimeters. Use an accurate measurement for the feature to work seamlessly.

```
WhiteboardId
  Integer (1..8)
```

The id set for the camera position used for the snap-to-whiteboard feature. Currently only id 1 can be used.

Default value: 1

xCommand Cameras SpeakerTrack Whiteboard StorePosition

**Applies to:** SX80 MX700/MX800/MX800D RoomKit CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, USER

Store the position of the specified camera as the Snap to Whiteboard position. Frame the image so that there is room around the whiteboard for the speaker. To use the Snap to Whiteboard feature it must be enabled with xConfiguration Cameras SpeakerTrack Whiteboard Mode and tracking must be enabled with xConfiguration Cameras SpeakerTrack Mode.

**Note:** For MX700 and MX800 with a dual camera, and for SX80 and Codec Pro with a SpeakerTrack 60 camera, you must store a snap-to-whiteboard position for both cameras.

**USAGE:**

```
xCommand Cameras SpeakerTrack Whiteboard StorePosition CameraId: [CameraId]
```

**where**

```
CameraId:
  Integer (1..1)  [RoomKit Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama]
  Integer (1..2)  [CodecPlus]
  Integer (1..7)  [SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama]
```

The ID of the camera that is being positioned.

```
WhiteboardId
  Integer (1..8)
```

You can give the position an id number. Currently the only id that can be used is 1.

Default value: 1
Conference commands

xCommand Conference Call AuthenticationResponse

Applies to: All products
Requires user role: ADMIN, USER

This command is only available for Cisco Webex registered devices. The command gives a response to an authentication request based on the Conference Call[n] AuthenticationRequest status.

USAGE:

xCommand Conference Call AuthenticationResponse [CallId: CallId]
ParticipantRole: ParticipantRole [Pin: Pin]
where

CallId:
Integer (1..65534)
Unique identifier of the call. During a call you can run the xStatus Call command to see the CallId.
Default value: 0

ParticipantRole:
Host/Panelist/Guest
Host: Join as host.
Panelist: Join as panelist.
Guest: Join as guest.

Pin:
String(0, 32)
PIN code. Must be provided if joining as host, panelist or as guest when the Conference Call[n] AuthenticationRequest status indicates that a PIN code must provided.
Default value: ""

xCommand Conference DoNotDisturb Activate

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

This command switches on the Do Not Disturb mode, and the Timeout parameter allows you to control when it is switched off again. When Do Not Disturb is switched on, all incoming calls are rejected and registered as missed calls. The calling side receives a busy signal.

USAGE:

xCommand Conference DoNotDisturb Activate [Timeout: Timeout]
where

Timeout:
integer (1..1440)
Set the number of minutes before Do Not Disturb is switched off. If not set, Do Not Disturb times out after 1440 minutes (24 hours).

xCommand Conference DoNotDisturb Deactivate

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

Switch off the Do Not Disturb mode. When Do Not Disturb is switched off incoming calls come through as normal.

USAGE:

xCommand Conference DoNotDisturb Deactivate
xCommand Conference Participant Admit

Applies to: All products
Requires user role: ADMIN, USER

Admits or lets in a participant that is waiting to be admitted into the call or meeting. This command is only available Cisco Webex registered devices.

A participant is waiting to be admitted if he has status "waiting" in the result from the Conference ParticipantList Search command (*r ParticipantListSearchResult Participant [n] Status = "waiting").

USAGE:

xCommand Conference Participant Admit CallId: CallId ParticipantId: "ParticipantId"

where

CallId:
  Integer (0..65534)
  Unique identifier of the call. During a call you can run the xStatus Call command to see the CallId.

ParticipantId:
  String (0, 255)
  Unique identifier of a participant in the call.

xCommand Conference Participant Disconnect

Applies to: All products
Requires user role: ADMIN, USER

Disconnects the participant from a call or meeting. It is only possible to disconnect a participant if the Conference Call[n] Capabilities ParticipantDisconnect status for the meeting shows Available.

USAGE:

xCommand Conference Participant Disconnect CallId: CallId ParticipantId: "ParticipantId"

where

CallId:
  Integer (0..65534)
  Unique identifier of the call. During a call you can run the xStatus Call command to see the CallId.

ParticipantId:
  String (0, 255)
  Unique identifier of a participant in the call.
xCommand Conference Participant Mute

Applies to: All products
Requires user role: ADMIN, USER

Mutes the participant in the call or meeting. It is only possible to mute a participant if the Conference Call[n] Capabilities ParticipantMute status shows Available.

**USAGE:**

```
xCommand Conference Participant Mute AudioMute: AudioMute CallId: CallId
ParticipantId: "ParticipantId"
```

where

- **AudioMute:**
  - On/Off
    - Indicate the desired mute state of the participant.

- **CallId:**
  - Integer (0..65534)
    - Unique identifier of the call. During a call you can run the xStatus Call command to see the CallId.

- **ParticipantId:**
  - String (0, 255)
    - Unique identifier of a participant in the call.

xCommand Conference Participant Search

Applies to: All products
Requires user role: ADMIN, USER

Searches the list of participants in the call or meeting. There is a participant list that can be searched only if the Conference Call[n] Capabilities ParticipantList status shows Available.

**USAGE:**

```
xCommand Conference Participant Search [CallId: CallId] [Limit: Limit] [Offset: Offset] [SearchString: "SearchString"]
```

where

- **CallId:**
  - Integer (0..65534)
    - Unique identifier of the call. During a call you can run the xStatus Call command to see the CallId.
    - Default value: 0

- **Limit:**
  - Integer (0..65534)
    - Limit the number of records (participants) in the result set to this number. For example, if the limit is set to 10, the result set will contain only 10 entries even if the total number of hits is larger.
    - Default value: 200

- **Offset:**
  - Integer (0..65534)
    - Get records starting with this offset in a search.
    - Default value: 0

- **SearchString:**
  - String (0, 255)
    - URI or DisplayName. Leave this parameter empty if you want the search to return all participants in the call.
    - Default value: ""
xCommand Conference Recording Pause

Applies to: All products
Requires user role: ADMIN, USER

Define if the recording of a meeting shall be paused. When you are recording a meeting, you can use this setting if you want to pause the recording. You can resume the recording by using the command Conference Recording Resume.

**USAGE:**

```plaintext
xCommand Conference Recording Pause [CallId: CallId]
```

where

- **CallId**
  - Integer (1..65534)
  - Identify CallID for the remote participant.

---

xCommand Conference Recording Resume

Applies to: All products
Requires user role: ADMIN, USER

Define if the recording of a meeting shall be resumed. When you are recording a meeting, you can use this setting if you want to resume a recording that has previously been paused.

**USAGE:**

```plaintext
xCommand Conference Recording Resume [CallId: CallId]
```

where

- **CallId**
  - Integer (1..65534)
  - Identify CallID for the remote participant.

---

xCommand Conference Recording Start

Applies to: All products
Requires user role: ADMIN, USER

Define if the meeting shall be recorded. Once you are in a meeting, you can use this setting if you want to start recording. Note that the recording commands are only available if your infrastructure (Cisco Meeting Server) supports recording.

**USAGE:**

```plaintext
xCommand Conference Recording Start [CallId: CallId]
```

where

- **CallId**
  - Integer (1..65534)
  - Identify CallID for the remote participant.

---

xCommand Conference Recording Stop

Applies to: All products
Requires user role: ADMIN, USER

Define if the recording of a meeting shall be stopped. When you are recording a meeting, you can use this setting to stop recording.

**USAGE:**

```plaintext
xCommand Conference Recording Stop [CallId: CallId]
```

where

- **CallId**
  - Integer (1..65534)
  - Identify CallID for the remote participant.
xCommand Conference SpeakerLock Release

Applies to: All products
Requires user role: ADMIN, USER

Releases locked speaker set by xCommand Conference SpeakerLock Set. Default voice switching is switched back on.

**USAGE:**
xCommand Conference SpeakerLock Release

xCommand Conference SpeakerLock Set

Applies to: All products
Requires user role: ADMIN, USER

For manually locking one of the speakers to the prominent speaker position. This overrides the default voice switching.

**USAGE:**
xCommand Conference SpeakerLock Set Target: **Target** [CallId: **CallId**]
where

Target:
- Local/Remote
  - Identifies local or remote participant.

CallId:
- Integer (0..65534)
  - Identify CallID for the remote participant. Only relevant if Target is set to "remote".
  - Default value: 0

---

Diagnostics commands

xCommand Diagnostics Run

Applies to: All products
Requires user role: ADMIN

This command runs self-diagnostics commands on the device.

**USAGE:**
xCommand Diagnostics Run [ResultSet: **ResultSet**]
where

ResultSet:
- Alerts/All/None
  - You can filter the diagnostics results to alerts, all or none. If not set, the result will show all results.
  - Default value: Alerts
Dial commands

xCommand Dial

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

Dial out from the device. Returns information about the CallId and ConferenceId, which are required for some of the other commands.

USAGE:

xCommand Dial Number: "Number" [Protocol: Protocol] [CallRate: CallRate] [CallType: CallType] [BookingId: "BookingId"] [Appearance: Appearance] [DisplayName: "DisplayName"] [TrackingData: "TrackingData"]

where

Number:
    String (0, 255)
    Enter the number or address.

Protocol:
    H320/H323/Sip/Spark
    Select the call protocol.

CallRate:
    Integer (64..6000) [DX70/DX80 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 DeskPro ]

Integer (64..20000) [RoomPanorama/Room70Panorama ]

Integer (64..10000) [Boards ]

Integer (64..3072) [SX10 ]

Set the call rate.

CallType:
    Audio/Video/Auto
    Select a call type (audio or video). By selecting Auto, the device will detect the call type automatically.

BookingId:
    String (0, 255)
    Any identifier that an external booking system (e.g. TMS, CTS-MAN) can use for its own references to match placed calls with the booking systems internal identifier for a meeting. This can be any string, e.g. a GUID. The booking id is supplied in call logs, call events etc

for the call.

Default value: ""

Appearance:
    Integer (1..999999999)
    Not applicable. For internal usage only.

DisplayName:
    String (0, 255)
    The display name of the remote participant.

Default value: ""

TrackingData:
    String (0, 255)
    Adds a tag to a call, so that it can be identified in the call history.

Default value:
GPIO commands

xCommand GPIO ManualState Set

Applies to: SX80 MX700/MX800/MX900D CodecPro Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, USER

Set the state of a GPIO pin that is configured to OutputManualState mode (ref. xConfiguration GPIO Pin [1..4] Mode).

USAGE:
where
Pin1:
High/Low
Pin2:
High/Low
Pin3:
High/Low
Pin4:
High/Low

HttpClient commands

xCommand HttpClient Allow Hostname Add

Applies to: All products
Requires user role: ADMIN

Adds an HTTP(S) server to the list of allowed servers (hosts).
The HttpClient Allow Hostname commands let you set up and maintain a list of up to ten allowed hosts. As long as the list is not empty, you can send HTTP(S) requests only to the servers in the list. The check against the list is performed both when using insecure (HTTP) and secure (HTTPS) transfer of data.

USAGE:
xCommand HttpClient Allow Hostname Add Expression: "Expression"
where
Expression:
String (2, 200)

Regular expression that matches a host name or IP address of an HTTP(S) server.

xCommand HttpClient Allow Hostname Clear

Applies to: All products
Requires user role: ADMIN

Removes all HTTP(S) servers from the list of allowed servers (hosts), leaving you with an empty list.

USAGE:
xCommand HttpClient Allow Hostname Clear
xCommand HttpClient Allow Hostname List

Applies to: All products
Requires user role: ADMIN

Returns the list of allowed HTTP(S) servers (hosts).

The HttpClient Allow Hostname commands let you set up and maintain a list of up to ten allowed hosts. As long as the list is not empty, you can send HTTP(S) requests only to the servers in the list. The check against the list is performed both when using insecure (HTTP) and secure (HTTPS) transfer of data.

USAGE:

xCommand HttpClient Allow Hostname List

xCommand HttpClient Allow Hostname Remove

Applies to: All products
Requires user role: ADMIN

Removes an HTTP(S) server from the list of allowed servers (hosts). Use the HttpClient Allow Hostname List command to find the identifier of each entry in the list.

USAGE:

xCommand HttpClient Allow Hostname Remove Id: Id

where

Id: Integer (0..9)

The identifier of the HTTP(S) server you want to remove from the list.

xCommand HttpClient Delete

Applies to: All products
Requires user role: ADMIN

Sends an HTTP(S) Delete request to the server that is specified in the Url parameter. You can use the AllowInsecureHTTPS parameter to specify whether or not to validate the server’s certificate before sending data over HTTPS. This parameter has no effect unless the xConfiguration HttpClient AllowInsecureHTTPS is set to On. The command returns the HTTP status code along with the data returned from the server (HTTP headers and body).

USAGE:

xCommand HttpClient Delete [AllowInsecureHTTPS: AllowInsecureHTTPS] [Header: "Header"] [ResponseSizeLimit: ResponseSizeLimit] [ResultBody: ResultBody] [Timeout: Timeout] Url: "Url"

where

AllowInsecureHTTPS:
False/True

If set to True the device skips the certificate validation process, and sends data to the server anyway. If set to False, the server certificate is checked, and data is not sent to the server if the certificate validation fails.

Default value: False

Header:
String (0, 1536)

An HTTP header field. You can add up 20 Header parameters in one command, each holding one HTTP header field.

ResponseSizeLimit:

Integer (1..100000)

The maximum payload size (bytes) of the response to this request. If the response payload is larger than this maximum size, the command returns a status error with a message saying that the maximum file size is exceeded. However, this has no effect on the server side; the request was received and processed properly by the server.

Default value: 100000

ResultBody:

None/PlainText/Base64

None: The body of the HTTP response (if any) is not included in the command result.

PlainText: The body of the HTTP response is included in the command result as plain text.

If the response contain non-printable letters, the command returns a status error with a message saying that non-printable data was encountered.
**Base64**: The body of the HTTP response is Base64 encoded before it is included in the command result.
Default value: None

**Timeout**: 
- Integer (1..30)
  - Timeout period in seconds. If the request is not completed during this period, the API will return an error.
  - Default value: 30

**Url**: 
- String (8, 2048)
  - The URL that the request will be sent to: `<Protocol> + <Host name or IP address of an HTTP(S) server> + <Path>`.

---

**xCommand HttpClient Get**

**Applies to**: All products

**Requires user role**: ADMIN

Sends an HTTP(S) Get request to the server that is specified in the `Url` parameter. You can use the `AllowInsecureHTTPS` parameter to specify whether or not to validate the server’s certificate before sending data over HTTPS. This parameter has no effect unless the `xConfiguration HttpClient AllowInsecureHTTPS` is set to On. The command returns the HTTP status code along with the data returned from the server (HTTP headers and body).

**USAGE:**

```
xCommand HttpClient Get [AllowInsecureHTTPS: AllowInsecureHTTPS] [Header: "Header"] [ResponseSizeLimit: ResponseSizeLimit] [ResultBody: ResultBody] [Timeout: Timeout] Url: "Url"
```

**where**

- **AllowInsecureHTTPS**: 
  - False/True
  - If set to True the device skips the certificate validation process, and sends data to the server anyway. If set to False, the server certificate is checked, and data is not sent to the server if the certificate validation fails.
  - Default value: False

- **Header**: 
  - String (0, 1536)
  - An HTTP header field. You can add up 20 Header parameters in one command, each holding one HTTP header field.

- **ResponseSizeLimit**: 
  - Integer (1..100000)
  - The maximum payload size (bytes) of the response to this request. If the response payload is larger than this maximum size, the command returns a status error with a message saying that the maximum file size is exceeded. However, this has no effect on the server side; the request was received and processed properly by the server.
  - Default value: 100000

- **ResultBody**: 
  - None/PlainText/Base64
    - **None**: The body of the HTTP response (if any) is not included in the command result.
    - **PlainText**: The body of the HTTP response is included in the command result as plain text.
    - **Base64**: The body of the HTTP response is Base64 encoded before it is included in the command result.

If the response contain non-printable letters, the command returns a status error with a message saying that non-printable data was encountered.
**Base64**: The body of the HTTP response is Base64 encoded before it is included in the command result.

Default value: None

**Timeout**

*Integer (1..30)*

Timeout period in seconds. If the request is not completed during this period, the API will return an error.

Default value: 30

**Url**

*String (8, 2048)*

The URL that the request will be sent to: `<Protocol> + <Host name or IP address of an HTTP(S) server> + <Path>`.

---

**xCommand HttpClient Patch**

**Applies to**: All products

**Requires user role**: ADMIN

Sends an HTTP(S) Patch request to the server that is specified in the `Url` parameter. This is a multiline command, so the payload (data) follows after the parameters. You can use the `AllowInsecureHTTPS` parameter to specify whether or not to validate the server's certificate before sending data over HTTPS. This parameter has no effect unless the `xConfiguration HttpClient AllowInsecureHTTPS` is set to On. The command returns the HTTP status code along with the data returned from the server (HTTP headers and body).

**USAGE:**

```
xCommand HttpClient Patch [AllowInsecureHTTPS: AllowInsecureHTTPS] [Header: "Header"] [ResponseSizeLimit: ResponseSizeLimit] [ResultBody: ResultBody] [Timeout: Timeout] Url: "Url"
```

where

**AllowInsecureHTTPS**

*False/True*

If set to True the device skips the certificate validation process, and sends data to the server anyway. If set to False, the server certificate is checked, and data is not sent to the server if the certificate validation fails.

Default value: False

**Header**

*String (0, 1536)*

An HTTP header field. You can add up 20 Header parameters in one command, each holding one HTTP header field.

**ResponseSizeLimit**

*Integer (1..100000)*

The maximum payload size (bytes) of the response to this request. If the response payload is larger than this maximum size, the command returns a status error with a message saying that the maximum file size is exceeded. However, this has no effect on the server side, the request was received and processed properly by the server.

Default value: 100000

**ResultBody**

*None/PlainText/Base64*

**None**: The body of the HTTP response (if any) is not included in the command result.

**PlainText**: The body of the HTTP response is included in the command result as plain text. If the response contain non-printable letters, the command returns a status error with a
message saying that non-printable data was encountered.

**Base64:** The body of the HTTP response is Base64 encoded before it is included in the command result.

Default value: None

**Timeout:**

*Integer (1..30)*

Timeout period in seconds. If the request is not completed during this period, the API will return an error.

Default value: 30

**Url:**

*String (8, 2048)*

The URL that the request will be sent to: <Protocol> + <Host name or IP address of an HTTP(S) server> + <Path>.

---

**xCommand HttpClient Post**

**Applies to:** All products

**Requires user role:** ADMIN

Sends an HTTP(S) Post request to the server that is specified in the Url parameter.

You can use the AllowInsecureHTTPS parameter to specify whether or not to validate the server’s certificate before sending data over HTTPS. This parameter has no effect unless the xConfiguration HttpClient AllowInsecureHTTPS is set to On.

This is a multiline command, so the payload (data) follows after the parameters.

**USAGE:**

```
xCommand HttpClient Post 
[AllowInsecureHTTPS: AllowInsecureHTTPS] 
[Header: Header] 
[ResponseSizeLimit: ResponseSizeLimit] 
[ResultBody: ResultBody] 
[Timeout: Timeout] 
Url: "Url" 
```

where

**AllowInsecureHTTPS:**

*False/True*

If set to True the device skips the certificate validation process, and sends data to the server anyway. If set to False, the server certificate is checked, and data is not sent to the server if the certificate validation fails.

Default value: False

**Header:**

*String (0, 1536)*

An HTTP header field. You can add up 20 Header parameters in one command, each holding one HTTP header field.

**ResponseSizeLimit:**

*Integer (1..100000)*

The maximum payload size (bytes) of the response to this request. If the response payload is larger than this maximum size, the command returns a status error with a message saying that the maximum file size is exceeded. However, this has no effect on the server side; the request was received and processed properly by the server.

Default value: 100000

**ResultBody:**

*None/PlainText/Base64*

**None:** The body of the HTTP response (if any) is not included in the command result.

**PlainText:** The body of the HTTP response is included in the command result as plain text.

If the response contain non-printable letters, the command returns a status error with a message saying that non-printable data was encountered.
**Base64:** The body of the HTTP response is Base64 encoded before it is included in the command result.
Default value: None

**Timeout:**
- **Integer (1..30)**
  - Timeout period in seconds. If the request is not completed during this period, the API will return an error.
  - Default value: 30

**Url:**
- **String (8, 2048)**
  - The URL that the request will be sent to: `<Protocol> + <Host name or IP address of an HTTP(S) server> + <Path>`.

---

**xCommand HttpClient Put**

**Applies to:** All products

**Requires user role:** ADMIN

Sends an HTTP(S) Put request to the server that is specified in the Url parameter.

You can use the AllowInsecureHTTPS parameter to specify whether or not to validate the server's certificate before sending data over HTTPS. This parameter has no effect unless the xConfiguration HttpClient AllowInsecureHTTPS is set to On.

This is a multiline command, so the payload (data) follows after the parameters.

**USAGE:**

```
xCommand HttpClient Put [AllowInsecureHTTPS: AllowInsecureHTTPS] [Header: "Header"] [ResponseSizeLimit: ResponseSizeLimit] [ResultBody: ResultBody] [Timeout: Timeout] Url: "Url"
```

where

- **AllowInsecureHTTPS:**
  - **False/True**
    - If set to True the device skips the certificate validation process, and sends data to the server anyway. If set to False, the server certificate is checked, and data is not sent to the server if the certificate validation fails.
    - Default value: False

- **Header:**
  - **String (0, 1536)**
    - An HTTP header field. You can add up to 20 Header parameters in one command, each holding one HTTP header field.

- **ResponseSizeLimit:**
  - **Integer (1..100000)**
    - The maximum payload size (bytes) of the response to this request. If the response payload is larger than this maximum size, the command returns a status error with a message saying that the maximum file size is exceeded. However, this has no effect on the server side; the request was received and processed properly by the server.
    - Default value: 100000

- **ResultBody:**
  - **None/PlainText/Base64**
    - **None:** The body of the HTTP response (if any) is not included in the command result.
    - **PlainText:** The body of the HTTP response is included in the command result as plain text. If the response contain non-printable letters, the command returns a status error with a message saying that non-printable data was encountered.
**Bas64:** The body of the HTTP response is Base64 encoded before it is included in the command result.

Default value: None

**Timeout:**
- **Integer (1..30)**
  - Timeout period in seconds. If the request is not completed during this period, the API will return an error.
  - Default value: 30

**Url:**
- **String (8, 2048)**
  - The URL that the request will be sent to: `<Protocol> + <Host name or IP address of an HTTP(S) server> + <Path>`.

---

**HttpFeedback commands**

**xCommand HttpFeedback Deregister**

**Applies to:** All products

**Requires user role:** ADMIN

Deregister the HTTP feedback over HTTP(S).

**USAGE:**

```
xCommand HttpFeedback Deregister FeedbackSlot: FeedbackSlot
```

where

```
FeedbackSlot:
  integer (1..4)
  Deregister the feedback slot that was registered using the xCommand HttpFeedback Register command.
```

**xCommand HttpFeedback Enable**

**Applies to:** All products

**Requires user role:** ADMIN

Re-enables a previously registered feedback slot after it has failed and become deactivated.

**USAGE:**

```
xCommand HttpFeedback Enable FeedbackSlot: FeedbackSlot
```

where

```
FeedbackSlot:
  integer (1..4)
  Specifies the feedback slot that is enabled.
```
xCommand HttpFeedback Register

Applies to: All products
Requires user role: ADMIN

Register the device to an HTTP(S) server to return XML feedback over HTTP(S) to specific URLs.

**USAGE:**

```plaintext
xCommand HttpFeedback Register FeedbackSlot: FeedbackSlot
  [Format: Format]
ServerUrl: "ServerUrl" [Expression: "Expression"]
```

where:

- **FeedbackSlot**:
  - Integer (1..4)
  - The codec can register up to 4 slots of servers requesting HTTP feedback. Set the registering to one of them.

- **Note**: Avoid using FeedbackSlot 3 in an environment where Cisco TelePresence Management Suite (TMS) is used as TMS uses this feedback slot to register its expressions.

- **Format**:
  - XML/JSON
  - Set the format for the feedback from the HTTP server to XML or JSON.
  - Default value: XML

- **ServerUrl**:
  - String (1, 2048)
  - The URL to the HTTP server where you want the codec to post the HTTP feedback messages to.

- **Expression**:
  - String (1, 255)
  - The XPath expression specifies which parts of the Status, Configuration or Event XML documents are monitored. You can have from 0 to 15 XPath expressions in the same command.

---

Logging commands

**xCommand Logging SendLogs**

Applies to: All products
Requires user role: ADMIN, USER

Send logs to the Cisco Webex cloud. These logs can help diagnose and fix issues with the device.

The command returns a log ID, which an administrator or TAC engineer can use to identify and download the logs.

For the command to work, the device must either be registered to the Webex cloud service or registered to an on-premises service and linked to Webex Edge for Devices.

Additionally, for devices linked to Webex Edge for Devices, the xConfiguration Logging CloudUpload Mode must be set to On.

**USAGE:**

```plaintext
xCommand Logging SendLogs
```
Macros commands

xCommand Macros Log Clear

**Applies to:** DX70/DX80 SX80 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN

Clears the Macros Logs.

**USAGE:**
xCommand Macros Log Clear

---

xCommand Macros Log Get

**Applies to:** DX70/DX80 SX80 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN

Shows the logs for all running macros and for the runtime itself.

**USAGE:**
xCommand Macros Log Get [Offset: **Offset**]

where

**Offset:**

*Integer (0..65535)*

Shows lines with the same or higher Offset than the one provided.

Default value: 0

---

xCommand Macros Macro Activate

**Applies to:** DX70/DX80 SX80 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN

Activates a macro created on this device.

**USAGE:**
xCommand Macros Macro Activate Name: "**Name**"

where

**Name:**

*String (0, 255)*

Specifies the name of the macro to activate.

---

xCommand Macros Macro Deactivate

**Applies to:** DX70/DX80 SX80 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN

Deactivates a macro currently running on this device.

**USAGE:**
xCommand Macros Macro Deactivate Name: "**Name**"

where

**Name:**

*String (0, 255)*

The name of the macro to deactivate.
xCommand Macros Macro Get

Applies to: DX70/DX80 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN

Shows the details of a macro created on this device.

**USAGE:**

```plaintext
xCommand Macros Macro Get [Content: Content] [Name: "Name"]
where

**Content:**
False/True
Shows the content for the specified Macro or not.
Default value: False

**Name:**
String (0, 255)
The name of the macro.
```

xCommand Macros Macro Remove

Applies to: DX70/DX80 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN

Removes a macro created on this device.

**USAGE:**

```plaintext
xCommand Macros Macro Remove Name: "Name"
```

xCommand Macros Macro RemoveAll

Applies to: DX70/DX80 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN

Removes all of the macros created on this device.

**USAGE:**

```plaintext
xCommand Macros Macro RemoveAll
```

xCommand Macros Macro Rename

Applies to: DX70/DX80 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN

Renames a macro created on this device.

**USAGE:**

```plaintext
xCommand Macros Macro Rename Name: "Name" NewName: "NewName" [Overwrite: Overwrite]
where

**Name:**
String (0, 255)
The name of the macro that is renamed.

**NewName:**
String (0, 255)
The new name of the macro.

**Overwrite:**
False/True
Overwrites the existing content or not.
Default value: False```
xCommand Macros Macro Roles Set

**Applies to:** DX70/DX80 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN

Sets the role for a macro.

**USAGE:**

```plaintext
xCommand Macros Macro Roles Set Name: "Name" [Role: Role]
```

where

- **Name:** String (0, 255)
  - The name of the macro that is set.
- **Role:**
  - Admin/Audit/User/Integrator/RoomControl
  - The role that is set for this macro.
  - Default value: Admin

xCommand Macros Macro Save

**Applies to:** DX70/DX80 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN

Saves the details of a macro. This is a multiline command.

**USAGE:**

```plaintext
xCommand Macros Macro Save Name: "Name" [Overwrite: Overwrite] [Transpile: Transpile]
```

where

- **Name:** String (0, 255)
  - The name of the macro that is saved.
- **Overwrite:**
  - False/True
  - Overwrites the existing content or not.
  - Default value: True
- **Transpile:**
  - False/True
  - Translates current JavaScript language features into EcmaScript 5.0/5.1.
  - Default value: True

xCommand Macros Runtime Restart

**Applies to:** DX70/DX80 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN

Restarts all of the macros set up on this device.

**USAGE:**

```plaintext
xCommand Macros Runtime Restart
```
xCommand Macros Runtime Start

**Applies to:** DX70/DX80  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

Requires user role: ADMIN

Starts all of the macros set up on this device.

**USAGE:**

xCommand Macros Runtime Start

---

xCommand Macros Runtime Status

**Applies to:** DX70/DX80  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

Requires user role: ADMIN

Shows the current status of the macros runtime on this device.

**USAGE:**

xCommand Macros Runtime Status

---

xCommand Macros Runtime Stop

**Applies to:** DX70/DX80  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

Requires user role: ADMIN

Stops all of the macros set up on this device.

**USAGE:**

xCommand Macros Runtime Stop

---

**Message commands**

xCommand Message Send

**Applies to:** All products

Requires user role: ADMIN, INTEGRATOR

Triggers a Message Send event which sends text to any listening clients.

**USAGE:**

xCommand Message Send Text: "Text"

where

- **Text:** String (0, 255)
  - The text that the message contains.
Network commands

xCommand Network SMTP VerifyConfig

**Applies to:** DX70/DX80 SX80 RoomKitMini DeskPro Boards

Requires user role: ADMIN, USER

Verifies if the SMTP server is configured in the instance emails are not being sent.

**USAGE:**

xCommand Network SMTP VerifyConfig

xCommand Network Wifi Configure

**Applies to:** DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, USER

Configures the device to connect to a specific Wi-Fi network.

This is only available if the Wi-Fi is enabled on the device.

To do this, you must unplug the ethernet cable.

Then, you must connect to the terminal over Wi-Fi.

**USAGE:**


where

- **AllowMissingCA:**
  - False/True
  - The policy for allowing a web connection with missing Certificate Authentication (CA).
  - **False:** Not Allowed, True: Allowed

- **AnonymousIdentity:**
  - String (0, 255)
  - The anonymous identity, if applicable.

- **Identity:**
  - String (0, 255)
  - The username for the Wi-Fi connection, if applicable.

- **Password:**
  - String (0, 255)
  - The password for the Wi-Fi connection, if applicable.

- **SSID:**
  - String (0, 255)
  - The SSID for the Wi-Fi connection.

- **Type:**
  - The encryption type for the Wi-Fi connection.

We support: open networks (not secured), WPA-PSK (AES), WPA2-PSK (AES), EAP-TLS,
EAP-TTLS, EAP-FAST, PEAP, EAP-MSCHAPv2, EAP-GTC

xCommand Network Wifi Delete
Applies to: DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN, USER
Deletes the specified Wi-Fi network connection from the device. This command is only available if Wi-Fi services are turned on and ethernet is disconnected.

USAGE:
xCommand Network Wifi Delete SSID: "SSID"
where
SSID:
String (0, 255)
The SSID for the Wi-Fi connection.

xCommand Network Wifi List
Applies to: DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN, USER
Lists the details of the current Wi-Fi connection. This command is only available if Wi-Fi services are turned on and ethernet is disconnected.

USAGE:
xCommand Network Wifi List

xCommand Network Wifi Scan Start
Applies to: DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN, USER
Scans for available Wi-Fi networks.

USAGE:
xCommand Network Wifi Scan Start [Duration: Duration]
where
Duration:
Integer (1..30)
The duration of the Wi-Fi scan, in seconds.
Default value: 10

xCommand Network Wifi Scan Stop
Applies to: DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN, USER
Stops an ongoing Wi-Fi scan.

USAGE:
xCommand Network Wifi Scan Stop
Peripherals commands

xCommand Peripherals Connect
Appplies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Register peripherals that are connected to the codec, such as control systems and touch panels. The registered peripherals are displayed on the web interface under Configuration > Peripherals.

This command should be used when the peripheral connects to the codec for the first time or when the software version on the peripheral has changed. The list of connected devices is available with the command xStatus Peripherals ConnectedDevice [n] Status.

USAGE:
```
xCommand Peripherals Connect [HardwareInfo: "HardwareInfo"] ID: "ID" [Name: "Name"] [NetworkAddress: "NetworkAddress"] [SerialNumber: "SerialNumber"] [SoftwareInfo: "SoftwareInfo"] Type: Type
```
where
```
HardwareInfo:
  String (0, 100)
  The device's hardware number.
  Default value: ""
ID:
  String (1, 100)
  A unique ID for the device you are connecting to, typically a MAC address.
Name:
  String (0, 100)
  Define a name for the device.
  Default value: ""
NetworkAddress:
  String (0, 100)
  Network address for the device you are connecting to.
  Default value: ""
SerialNumber:
  String (0, 100)
  The device's serial number.
  Default value: ""
SoftwareInfo:
  String (0, 100)
  Software version the device is running.
  Default value: ""
Type:
  AudioAmplifier/AudioMicrophone/Byod/ControlSystem/Other/TouchPanel
  Define the type of peripheral.
```

xCommand Peripherals HeartBeat
Appplies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

When a peripheral is registered as a connected device, you can set it to send a heartbeat to the codec to let the codec know that it is still connected. This will keep the device on the xStatus Peripherals ConnectedDevice list. If the peripheral is not set to send a heartbeat, the device will disappear from the list after a while.

Note: Does not apply to cameras.

USAGE:
```
xCommand Peripherals HeartBeat ID: "ID" [Timeout: Timeout]
```
where
```
ID:
  String (1, 100)
  A unique ID for the device you are connecting to, typically a MAC address.
Timeout:
  Integer (1..65535)
  Set how long the device will send heartbeat.
  Default value: 60
```
xCommand Peripherals List

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL

Lists all currently and previously connected peripherals.

**USAGE:**
xCommand Peripherals List [Connected: Connected] [Type: Type]

where

**Connected:**
  False/True
  Limit the search to currently connected devices.

**Type:**
  All/ControlSystem/ISDNLink/Other/TouchPanel
  Limit the search by device type.

  Default value: All

xCommand Peripherals Pairing DeviceDiscovery Start

Applies to: All products
Requires user role: ADMIN

Start device discovery to detect ISDN Links in the same network.

**USAGE:**
xCommand Peripherals Pairing DeviceDiscovery Start [AutoPairing: AutoPairing] [DeviceType: DeviceType] [Timeout: Timeout]

where

**AutoPairing:**
  On/Off
  You can select to automatically pair the detected device to the video conferencing device.

  Default value: Off

**DeviceType:**
  ISDNLink
  Only look for ISDN Link.

**Timeout:**
  Integer (3..60)
  Set a maximum time for the search from 3 to 60 seconds.

  Default value: 10

xCommand Peripherals Pairing Pair

Applies to: All products
Requires user role: ADMIN

Pair an ISDN Link to a video conferencing device.

**USAGE:**
xCommand Peripherals Pairing Pair MacAddress: "MacAddress"

where

**MacAddress:**
  String (1, 1450)
  Enter the MAC address for the ISDN Link you wish to pair to the video conferencing device.
**xCommand Peripherals Pairing Unpair**

**Applies to:** All products

**Requires user role:** ADMIN, USER

Unpair the video conferencing device from an ISDN Link, when the two have contact.

**USAGE:**

```command
xCommand Peripherals Pairing Unpair MacAddress: "MacAddress"
```

where

**MacAddress:**

- **String (1, 100)**
  - Enter the MAC address for the ISDN Link you wish to unpair from the video conferencing device.

**xCommand Peripherals Purge**

**Applies to:** All products

**Requires user role:** ADMIN, USER

Force unpair a video conferencing device from an ISDN Link when a connection has been lost.

Note: You must also unpair the ISDN Link to be able to pair it to another video conferencing device.

**USAGE:**

```command
xCommand Peripherals Purge ID: "ID"
```

where

**ID:**

- **String (1, 100)**
  - Mac address of the ISDN Link in the format "xxxxxxxxxx".

---

**Phonebook commands**

**xCommand Phonebook Contact Add**

**Applies to:** All products

**Requires user role:** ADMIN, USER

Add a new contact to the local phonebook. The command returns the ContactId, which is a unique string that identifies the contact; typically, the format is “localContactId-n”.

You can add several contact methods to a contact using the xCommand Phonebook ContactMethod Add command. Note that only the first contact method will appear in the Favorites list on the Cisco Touch controller. All contact methods are available on the other UIs.

**USAGE:**

```command
xCommand Phonebook Contact Add Name: "Name" [Number: "Number"] [CallRate: CallRate] [CallType: CallType] [Device: Device] [FolderId: "FolderId"] [ImageURL: "ImageURL"] [Protocol: Protocol] [Tag: Tag] [Title: "Title"]
```

where

**Name:**

- **String (0, 255)**
  - The name of the contact.

**Number:**

- **String (0, 255)**
  - The phone number or address of the contact.

**CallRate:**

- **Integer (0..6000)**
  - Set a call rate.

**CallType:**

- **Audio/Video/Auto**
  - Select a call type (audio or video). By selecting Auto, the device will detect the call type automatically.

**Device:**

- **Mobile/Other/Telephone/Video**
  - Select the device type.

**FolderId:**

- **String (0, 255)**
The unique identifier for the folder that you want to store the contact in. The identifier will be returned by an xCommand Phonebook Search command. It was also returned when the xCommand Phonebook Folder Add command was issued to make the folder.

**ImageURL:**
- **String (0, 255)**
  - Currently not in use.

**Protocol:**
- **Auto/H320/H323/SIP/Spark**
  - Select the Auto, Spark, SIP, H323 or H320 protocol.

**Tag:**
- **Untagged/Favorite**
  - Tag the contact as a Favorite, or untag an already tagged contact.

**Title:**
- **String (0, 255)**
  - The title of the contact.

---

**xCommand Phonebook Contact Delete**

**Applies to:** All products

**Requires user role:** ADMIN, USER

Delete an existing contact from the local phonebook.

**USAGE:**

```
xCommand Phonebook Contact Delete ContactId: "ContactId"
```

where

- **ContactId:**
  - **String (0, 255)**
    - The unique identifier for the contact. The identifier will be returned by an xCommand Phonebook Search command. It was also returned when the xCommand Phonebook Contact Add command was issued to make the contact.

---

**xCommand Phonebook Contact Modify**

**Applies to:** All products

**Requires user role:** ADMIN, USER

Modify contact details of an existing contact in the local phonebook. The following parameters can be changed using this command: Name, FolderId, ImageURL and Title. You must use the xCommand Phonebook ContactMethod Modify command to change the other parameters: Number, Protocol, CallRate, CallType and Device.

**USAGE:**

```
xCommand Phonebook Contact Modify ContactId: "ContactId" [Name: "Name"]
```

where

- **ContactId:**
  - **String (0, 255)**
    - The unique identifier for the contact that you want to modify. The identifier will be returned by an xCommand Phonebook Search command. The identifier was also returned when the xCommand Phonebook Contact Add command was issued to make the contact.

- **Name:**
  - **String (0, 255)**
    - The name of the contact.

- **FolderId:**
  - **String (0, 255)**
    - A unique identifier for the folder. The identifier will be returned by an xCommand Phonebook Search command. It was also returned when the xCommand Phonebook Folder Add command was issued.

- **ImageURL:**
  - **String (0, 255)**
    - Currently not in use.

- **Tag:**
  - **Untagged/Favorite**
    - Tag the contact as a Favorite, or untag an already tagged contact.

- **Title:**
  - **String (0, 255)**
    - The title of the contact.
**xCommand Phonebook ContactMethod Add**

*Applies to:* All products  
*Requires user role:* ADMIN, USER

Add contact details for an existing contact in the local phonebook. The command returns the ContactMethodId, which is a unique string that identifies the contact method; typically, the format is "n".

You can add several contact methods to a contact. Note that only the first contact method will appear in the Favorites list on the device’s user interface. The first contact method may have been created when issuing the xCommand Phonebook Contact Add command to make the contact. All contact methods are available in the API and on the web interface.

**USAGE:**

```
xCommand Phonebook ContactMethod Add ContactId: "ContactId" [CallRate: CallRate] [CallType: CallType] [Device: Device] Number: "Number" [Protocol: Protocol]
```

*where*

- **ContactId**: String (0, 255)  
  The unique identifier for the contact that you want to add a contact method to. The identifier will be returned by an xCommand Phonebook Search command. It was also returned when the xCommand Phonebook Contact Add command was issued to make the contact.

- **CallRate**: Integer (0..6000)  
  Set a call rate.

- **CallType**: Audio/Video/Auto  
  Select a call type (audio or video). By selecting Auto, the device will detect the call type automatically.  
  Default value: Auto

- **Device**: Mobile/Other/Telephone/Video  
  Set which type of device to call to.

- **Number**: String (0, 255)  
  The phone number or address of the contact.

- **Protocol**: Auto/H320/H323/SIP/Spark  
  Select protocol.

**xCommand Phonebook ContactMethod Delete**

*Applies to:* All products  
*Requires user role:* ADMIN, USER

Delete a contact method from an existing contact in the local phonebook.

**USAGE:**

```
xCommand Phonebook ContactMethod Delete ContactId: "ContactId" ContactMethodId: "ContactMethodId"
```

*where*

- **ContactId**: String (0, 255)  
  The unique identifier for the contact you want to change. The identifier will be returned by an xCommand Phonebook Search command. It was also returned when the xCommand Phonebook Contact Add command was issued to make the contact.

- **ContactMethodId**: String (0, 255)  
  The unique identifier for the contact method you want to delete. The identifier will be returned by an xCommand Phonebook Search command. It was also returned when the xCommand Phonebook ContactMethod Add command was issued to make the contact.
xCommand Phonebook ContactMethod Modify

Applies to: All products
Requires user role: ADMIN, USER

Modify details about the contact method for an existing contact in the local phonebook.

**USAGE:**

```
xCommand Phonebook ContactMethod Modify
ContactId: "ContactId"
ContactMethodId: "ContactMethodId"
[Device: Device] [Number: "Number"] [Protocol: Protocol]
[CallRate: CallRate] [CallType: CallType]
```

where

- **ContactId**: String (0, 255)
  - The unique identifier for the contact. The identifier will be returned by an xCommand Phonebook Search command. It was also returned when the xCommand Phonebook Contact Add command was issued to make the contact.

- **ContactMethodId**: String (0, 255)
  - The unique identifier for the contact method you want to modify. The identifier will be returned by an xCommand Phonebook Search command. It was also returned when the xCommand Phonebook ContactMethod Add or xCommand Phonebook Contact Add commands were issued to make the contact method.

- **Device**: Mobile/Other/Telephone/Video
  - Set which type of device to call to.

- **Number**: String (0, 255)
  - The phone number or address of the contact.

- **Protocol**: Auto/H320/H323/SIP/Spark
  - Select protocol.

- **CallRate**: Integer (0..6000)
  - Set a call rate.

- **CallType**: Audio/Video/Auto
  - Select a call type (audio or video). By selecting Auto, the device will detect the call type automatically.

  Default value: Auto

xCommand Phonebook Folder Add

Applies to: All products
Requires user role: ADMIN, USER

Phonebook entries can be stored in folders. Use this command to add a folder to the local phonebook. The command returns the FolderId, which is a unique string that identifies the folder; typically, the format is "localGroupId-n".

**USAGE:**

```
xCommand Phonebook Folder Add
Name: "Name"
[ParentFolderId: "ParentFolderId"]
```

where

- **Name**: String (0, 255)
  - The name of the folder.

- **ParentFolderId**: String (0, 255)
  - The unique identifier for the parent folder. The identifier will be returned by an xCommand Phonebook Search command. It was also returned when the xCommand Phonebook Folder Add command was issued to make the parent folder.
xCommand Phonebook Folder Delete

Applies to: All products
Requires user role: ADMIN, USER

Delete an existing folder from the local phonebook.

USAGE:

xCommand Phonebook Folder Delete FolderId: "FolderId"

where

FolderId: String (0, 255)
The unique identifier for the folder. The identifier will be returned by an xCommand Phonebook Search command. It was also returned when the xCommand Phonebook Folder Add command was issued to make the folder.

xCommand Phonebook Folder Modify

Applies to: All products
Requires user role: ADMIN, USER

Modify an existing phonebook folder.

USAGE:

xCommand Phonebook Folder Modify FolderId: "FolderId" [Name: "Name"] [ParentFolderId: "ParentFolderId"]

where

FolderId: String (0, 255)
The unique identifier for the folder. The identifier will be returned by an xCommand Phonebook Search command. It was also returned when the xCommand Phonebook Folder Add command was issued to make the folder.

Name: String (0, 255)
The name of the contact.

ParentFolderId: String (0, 255)
The unique identifier for the parent folder. The identifier will be returned by an xCommand Phonebook Search command. It was also returned when the xCommand Phonebook Folder Add command was issued to make the parent folder.
xCommand Phonebook Search

Applies to: All products
Requires user role: ADMIN, USER

The search command lets you search in both the local and corporate phone books. A search gives a ResultSet.
The total number of folders and contacts (TotalRows) is always included in the result set when searching the local phone book. When searching a corporate phonebook the total number of folders and contacts may not be included. Whether it is included or not depends on the backend corporate phonebook service (e.g. CUCM, VCS, TMS) and its version.

USAGE:

xCommand Phonebook Search [PhonebookId: "PhonebookId"] [PhonebookType: PhonebookType] [SearchString: "SearchString"] [SearchField: SearchField] [SearchFilter: SearchFilter] [ContactType: ContactType] [Offset: Offset] [FolderId: "FolderId"] [Limit: Limit] [ContactMethodLimit: ContactMethodLimit] [Recursive: Recursive] [Tag: Tag]

where

PhonebookId:
String (0, 255)
The identifier of the phonebook server that will be searched. See the xConfiguration Phonebook Server ID setting.

PhonebookType:
Corporate/Local
Define whether to search the local phone book or the corporate phonebook.

Default value: Local

SearchString:
String (0, 255)
Search for entries containing this string (note that the entry does not have to begin with the string). If no FolderId is specified, all folders / phonebook directories will be searched.

SearchField:
Name/Number
Currently not in use.

SearchFilter:
All/People/Pmr/Rooms
Only available for Cisco Webex registered devices. Filter search results by choosing the type of results you want to see.

All: Search in all directories. Available for Cisco Webex registered devices.

People: Filter results to include only people. Available for Cisco Webex registered devices.
Pmr: Filter results to include only Personal Meeting Rooms. Available for full cloud and Webex Edge for Devices (cloud aware); as well as, Cisco Webex registered devices.

Rooms: Filter results to include only rooms. Available for Cisco Webex registered devices.

ContactType:
Any/Folder/Contact
Search all contact types, or limit the search to folders or individual contacts.

Default value: Any

Offset:
Integer (0..65534)
Get records starting with this offset in a search. The default value is 0. Offset is used together with Limit to support paging.

Default value: 0

FolderId:
String (0, 255)
Search only in the specified folder. The FolderId (string) is listed in the ResultSet of a search result containing folders.

Limit:
Integer (0..65534)
Limit the number of records in the result set to this number. For example, if the limit is set to 10, the ResultSet will contain only 10 entries (Contacts and Folders) even if the total number of hits is larger. The maximum limit is 1000.

Default value: 50

ContactMethodLimit:
Integer (0..10)
Limit the number of records in the result set to this number. For example, if the limit is set to 2, the ResultSet will contain only 2 entries even if the total number of hits is larger.

Default value: 0

Recursive:
False/True
This parameter will only have effect when searching the local phone book. The setting determines whether a local phone book search should be limited to the given FolderId, or also recursively search in its subfolders. If not specified, the search will be recursive.

When issuing the command without specifying any parameters, all folders, contacts and contact methods in the local phone book will be returned.

Default value: True
Presentation commands

xCommand Presentation Start

**Applies to:** All products  
**Requires user role:** ADMIN, USER

Open a media stream from the selected presentation source.  
You can combine multiple presentation sources in a single presentation video stream (the maximum number of different input sources depend on the type of video conferencing device) by adding multiple ConnectorId or PresentationSource parameters in the same command. The order in which you write them in the command determines the order in which the sources show up on the screen. You cannot use a mix of identifier types in the same command; use either ConnectorId or PresentationSource.

**USAGE:**

```
xCommand Presentation Start [ConnectorId: ConnectorId] [Instance: Instance]  
[Layout: Layout] [PresentationSource: PresentationSource] [SendingMode: SendingMode]  
```

where

- **ConnectorId:**  
  Integer (1..6)  
  CodecPro Room70G2 RoomPanorama/Room70Panorama 
  Integer (1..5)  
  SX80 MX700/MX800/MX800D 
  Integer (1..4)  
  MX200G2/MX300G2 
  Integer (1..3)  
  CodecPlus Room55 Room70/Room55D DeskPro 
  Integer (1..2)  
  DX70/DX80 SX20 RoomKit RoomKitMini Boards 
  Integer (2..3)  
  SX10 
  Select the video input source to be used for presentation, identified by connectorId.

- **Instance:**  
  New/1/2/3/4/5/6 
  Select which local presentation instance you wish to start.

- **Layout:**  
  Equal/Prominent 
  Select the layout of the presentation if the stream is composed of multiple input sources.

  - **Equal:** The presentations are shown in same-sized images. There can be a maximum of four images on screen.
  - **Prominent:** The first presentation source is shown as a large image, and the next
presentation sources are shown as smaller images placed below.

Default value: Equal

**PresentationSource:**

None/1/2/3/4/5/6  (CodecPro Room70G2 RoomPanorama/Room70Panorama)
Integer (1..4)  (SX80 MX700/MX800/MX800D)
Integer (1..2)  (DX70/DX80 SX20 MX200G2/MX300G2 Boards)
None/1/2  (RoomKit RoomKitMini)
None/1/2/3  (CodecPlus Room55 Room70/Room55D DeskPro)
Integer (2..2)  (SX10)

Select the video input source to be used for presentation, identified by source number. The value None means that a black frame is inserted. None can only be used when you have multiple PresentationSource parameters in the same command.

**SendingMode:**

LocalRemote/LocalOnly

Select whether the presentation is shown local and/or remote.

LocalRemote: The presentation is shown both local and remote.

LocalOnly: The presentation is shown locally.

Default value: LocalRemote

---

**xCommand Presentation Stop**

Applies to: All products

Requires user role: ADMIN, USER

Stop the media stream from the presentation source.

**USAGE:**

```
xCommand Presentation Stop [Instance: Instance] [PresentationSource: PresentationSource]
```

where

**Instance:**

1/2/3/4/5/6

Select which local presentation you wish to stop, identified by presentation instance.

**PresentationSource:**

Integer (1..6)  (CodecPro Room70G2 RoomPanorama/Room70Panorama)
Integer (1..4)  (SX80 MX700/MX800/MX800D)
Integer (1..3)  (CodecPlus Room55 Room70/Room55D DeskPro)
Integer (1..2)  (DX70/DX80 SX20 MX200G2/MX300G2 RoomKit RoomKitMini Boards)
Integer (2..2)  (SX10)

Select which local presentation you wish to stop, identified by source number.
Provisioning commands

xCommand Provisioning CompleteUpgrade
Applies to: All products
Requires user role: ADMIN, USER
Starts installing the software upgrade if you wish to install it before it is set to do so.

USAGE:
xCommand Provisioning CompleteUpgrade

xCommand Provisioning PostponeUpgrade
Applies to: All products
Requires user role: ADMIN, USER
Postpones the installing of the software upgrade.

USAGE:
xCommand Provisioning PostponeUpgrade SecondsToPostpone: SecondsToPostpone
where
  SecondsToPostpone:
    Integer (0..65534)
    Set how long to postpone the upgrade. The value is in seconds.

xCommand Provisioning CUCM ExtensionMobility Login
Applies to: All products
Requires user role: ADMIN, USER
Login command for the Extension Mobility service. You log in to the Extension Mobility service with a username (UserId) and pin code (Pin). The username and pin code are set up in CUCM. CUCM also supports multiple profiles for a user.
If you, for a user that has multiple profiles, submit a login command with only username and pin code, CUCM will send a list of available profiles back to the device. Then the device will create corresponding ExtensionMobilityProfileSelection Profile events, so that a new login command, which contains the Profile parameter in addition to the username and pin code, can be submitted.

USAGE:
xCommand Provisioning CUCM ExtensionMobility Login UserId: "UserId" Pin: "Pin"
where
  UserId:
    String (1, 255)
    A valid username, as set up in CUCM.
  Pin:
    String (1, 255)
    A valid pin code for the user, as set up in CUCM.
  Profile:
    String (1, 255)
    A valid profile for the user, as set up in CUCM. This parameter applies only if the user has multiple profiles.

xCommand Provisioning CUCM ExtensionMobility Logout
Applies to: All products
Requires user role: ADMIN, USER
This command will log you out of your Extension Mobility profile.

USAGE:
xCommand Provisioning CUCM ExtensionMobility Logout
**xCommand Provisioning RoomType Activate**

**Applies to:** SX80, MX700/MX800/MX800D, CodecPro, Room70G2, RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, INTEGRATOR

Activate a room type template, that has been configured from the web interface.

**USAGE:**

```plaintext
xCommand Provisioning RoomType Activate

Name: Name
```

where

- **Name**: Briefing/Classroom/Standard
  - **Briefing**: Activate the briefing room template.
  - **Classroom**: Activate the class room template.
  - **Standard**: Turn off room templates.

**xCommand Provisioning Service Fetch**

**Applies to:** All products

**Requires user role:** ADMIN

Add or update the customization template that details the custom elements of the device. Examples of custom elements are: branding images, macros, favorites, sign-in banner, and in-room control panels.

**USAGE:**

```plaintext
xCommand Provisioning Service Fetch

[Checksum: "Checksum"] [ChecksumType: ChecksumType] [Mode: Mode] [Origin: Origin] URL: "URL"
```

**where**

- **Checksum**: String (0, 128)
  - The checksum is used to ensure the integrity of the downloaded customization template. When using HTTP, it is mandatory to add a checksum. When using HTTPS, it is mandatory to add a checksum only if you are downloading the template from a server that presents an unsigned certificate, or a self-signed certificate that is not in the CA list of the device (not trusted).

- **ChecksumType**: SHA512
  - The algorithm that is used to calculate the checksum.
  - Default value: SHA512

- **Mode**: Add/Replace
  - If the mode is set to Add, all items listed in the uploaded file are added to the existing customization template. If the mode is set to Replace, the newer customization template that is uploaded, is compared against the previously uploaded template. Items that are not present in the newer file are removed. In both cases, items with the same name are overwritten.
  - Default value: Add

- **Origin**: Other/Provisioning
  - Specifies whether the customization template is used for provisioning or for another purpose. When the value is Provisioning, the configurations (xConfiguration) in the template are ignored, and the provisioning system (CUCM or TMS) can set configurations like they normally do. CUCM always acts as if this parameter is set to Provisioning.
  - Note that some configurations may be specific to one device, and you may end up with
Proximity commands

xCommand Proximity Services Activate

**Applies to:** All products

**Requires user role:** ADMIN, USER

Reactivate the Proximity services that were deactivated with xCommand Proximity Services Deactivate.

**USAGE:**

xCommand Proximity Services Activate

xCommand Proximity Services Deactivate

**Applies to:** All products

**Requires user role:** ADMIN, USER

This command deactivates all proximity services on the device. To reactivate proximity services use the command xCommand Proximity Services Activate.

**USAGE:**

xCommand Proximity Services Deactivate
RoomPreset commands

xCommand RoomPreset Activate

**Applies to:** SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

**Requires user role:** ADMIN, USER

Activate one of the locally stored presets.

Note that information about all video input sources, and pan, tilt, zoom and focus values for all cameras are included in the same preset. In contrast, the xCommand Camera Preset commands applies to individual cameras only.

**USAGE:**

```
xCommand RoomPreset Activate PresetId: PresetId
```

where

- **PresetId:**
  - Integer (1..15)
  - The ID of the preset you want to activate.

xCommand RoomPreset Clear

**Applies to:** SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

**Requires user role:** ADMIN, USER

Delete a preset.

Note that information about all video input sources, and pan, tilt, zoom and focus values for all cameras are included in the same preset. In contrast, the xCommand Camera Preset commands applies to individual cameras only.

**USAGE:**

```
xCommand RoomPreset Clear PresetId: PresetId
```

where

- **PresetId:**
  - Integer (1..15)
  - The ID of the preset you want to delete.

xCommand RoomPreset Store

**Applies to:** SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

**Requires user role:** ADMIN, USER

Store the connector selections for all video input sources and the current position (pan and tilt), zoom and focus values for all cameras.

Note that information about all video input sources, and pan, tilt, zoom and focus values for all cameras are included in the same preset. The device may hold 15 such predefined video input presets. These presets are available for far end control, i.e. they are referred in the PresetId parameter of the xCommand FarEndControl Preset Activate command. In contrast, the xCommand Camera Preset commands applies to individual cameras only. Those presets are not available for far end control.

**USAGE:**

```
xCommand RoomPreset Store [Description: "Description"] PresetId: PresetId Type: Type
```

where

- **Description:**
  - String (0, 255)
  - Enter a description of the camera preset.

- **PresetId:**
  - Integer (1..15)
  - The ID of this preset.

- **Type:**
  - All/Camera
  - Not applicable. If you want to ensure that a preset only affects camera positions we recommend that you select Camera.
Security commands

xCommand Security Certificates CA Add

**Applies to:** All products

Requires user role: ADMIN

Uploads CA security certificates to this device. This is a multiline command.

**USAGE:**

```plaintext
xCommand Security Certificates CA Add
```

xCommand Security Certificates CA Delete

**Applies to:** All products

Requires user role: ADMIN

Deletes a CA security certificate from this device.

**USAGE:**

```plaintext
xCommand Security Certificates CA Delete Fingerprint: "Fingerprint"
```

where

- **Fingerprint:**
  - String (0, 128)
  - The unique identifier for the certificate that is deleted. You can get the fingerprint ID by running xCommand Security Certificates CA Show.

xCommand Security Certificates CA Show

**Applies to:** All products

Requires user role: ADMIN, USER

Shows the details for the CA security certificates on this device.

**USAGE:**

```plaintext
xCommand Security Certificates CA Show [Format: Format]
```

where

- **Format:**
  - PEM/Text
  - Specifies the format of the listed certificates, PEM (Privacy Enhanced Mail) or plain text.
  - Default value: Text

xCommand Security Certificates Services Activate

**Applies to:** All products

Requires user role: ADMIN

Activates a security certificate on this device.

**USAGE:**

```plaintext
xCommand Security Certificates Services Activate Fingerprint: "Fingerprint"
```

where

- **Fingerprint:**
  - String (0, 128)
  - The unique identifier (ID) for the certificate that is activated. You can get the fingerprint ID by running xCommand Security Certificates Services Show.

**Purpose:**

- **802.1X/Audit/HTTPS/Pairing/SIP**
  - The purpose of this certificate.
  - **802.1X:** For applying 802.1x security authentication.
  - **Audit:** For performing external audit logging.
  - **HTTPS:** For applying HTTPS security authentication.
  - **Pairing:** For pairing touch devices that are not directly connected to the endpoint.
  - **SIP:** For applying SIP security authentication.
xCommand Security Certificates Services Add

Applies to: All products
Requires user role: ADMIN

Uploads security certificates to this device. This is a multiline command.

**USAGE:**
xCommand Security Certificates Services Add [PrivateKeyPassword: "PrivateKeyPassword"]

where

<table>
<thead>
<tr>
<th>PrivateKeyPassword:</th>
<th>String (0, 128)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stores the details of the private key for the password.</td>
<td></td>
</tr>
<tr>
<td>Default value: &quot;&quot;</td>
<td></td>
</tr>
</tbody>
</table>

xCommand Security Certificates Services Deactivate

Applies to: All products
Requires user role: ADMIN

Deactivates security certificates on this device.

**USAGE:**
xCommand Security Certificates Services Deactivate Fingerprint: "Fingerprint"

Purpose: "Purpose"

where

<table>
<thead>
<tr>
<th>Fingerprint:</th>
<th>String (0, 128)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The unique identifier for the certificate that is deactivated. You can get the fingerprint ID by running xCommand Security Certificates Services Show.</td>
<td></td>
</tr>
</tbody>
</table>

Purpose: "802.1X/Audit/HTTPS/Pairing/SIP"

| 802.1X: | For applying 802.1x security authentication. |
| Audit: | For performing external audit logging. |
| HTTPS: | For applying HTTPS security authentication. |
| Pairing: | For pairing touch devices that are not directly connected to the endpoint. |
| SIP: | For applying SIP security authentication. |

xCommand Security Certificates Services Delete

Applies to: All products
Requires user role: ADMIN

Deletes security certificates from this device.

**USAGE:**
xCommand Security Certificates Services Delete Fingerprint: "Fingerprint"

where

<table>
<thead>
<tr>
<th>Fingerprint:</th>
<th>String (0, 128)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The unique identifier for the certificate that is deleted. You can get the fingerprint ID by running xCommand Security Certificates Services Show.</td>
<td></td>
</tr>
</tbody>
</table>
xCommand Security Certificates Services Show

Applies to: All products
Requires user role: ADMIN, USER

Shows details for security certificates on this device.

**USAGE:**
xCommand Security Certificates Services Show [Filter: Filter] [Format: Format]

- **Filter:**
  - 802.1X/Audit/HTTPS/Pairing/SIP
  - Filters the results according to the chosen service.
  - **802.1X:** For applying 802.1x security authentication.
  - **Audit:** For performing external audit logging.
  - **HTTPS:** For applying HTTPS security authentication.
  - **Pairing:** For pairing touch devices that are not directly connected to the endpoint.
  - **SIP:** For applying SIP security authentication.

- **Format:**
  - PEM/Text
  - Specifies the format of the listed certificates, PEM (Privacy Enhanced Mail) or plain text.
  - Default value: Text

xCommand Security Certificates ThirdParty Disable

Applies to: All products
Requires user role: ADMIN

Disables a bundled certificate used for SMTP and HttpClient.
Disabling a certificate results in a server providing a certificate signed with this root certificate will be declined.

**USAGE:**
xCommand Security Certificates ThirdParty Disable Fingerprint: "Fingerprint"

- **Fingerprint:**
  - String (0, 128)
  - The unique Identifier for the certificate that is disabled. You can get the fingerprint ID by running xCommand Security Certificates Services Show.

xCommand Security Certificates ThirdParty Enable

Applies to: All products
Requires user role: ADMIN

Enables a bundled certificate used for SMTP and HttpClient.

**USAGE:**
xCommand Security Certificates ThirdParty Enable Fingerprint: "Fingerprint"

- **Fingerprint:**
  - String (0, 128)
  - The unique Identifier for the certificate that is enabled. You can get the fingerprint ID by running xCommand Security Certificates Services Show.
xCommand Security Certificates ThirdParty List

Applies to: All products
Requires user role: ADMIN
Lists all bundled certificates and their state.

USAGE:
xCommand Security Certificates ThirdParty List

xCommand Security Certificates ThirdParty Show

Applies to: All products
Requires user role: ADMIN
Shows a single third-party certificate.

USAGE:
xCommand Security Certificates ThirdParty Show Fingerprint: "Fingerprint" [Format: Format]
where
Fingerprint:
String (0, 128)
The unique Identifier for the certificate you want to see. You can get the fingerprint ID by running xCommand Security Certificates Services Show.

Format:
PEM/Text
Specifies the format of the listed certificates, PEM (Privacy Enhanced Mail) or plain text.
Default value: Text

xCommand Security Certificates Webex Show

Applies to: All products
Requires user role: ADMIN, USER
This command applies only to devices that are registered to the Cisco Webex cloud service.
Shows the list of trusted CA certificates that verifies the certificates of servers and services used by the Cisco Webex cloud.

USAGE:
xCommand Security Certificates Webex Show [Filter: Filter] [Format: Format]
where
Filter:
Cisco/Non-Cisco/TLS-proxy
Cisco: Shows the list of CA certificates used when communicating with servers and services that are provided by Cisco.
Non-Cisco: Shows the list CA certificates used when communicating with servers and services that are provided by others than Cisco.
TLS-proxy: Shows the list of additional CA certificates required when using a TLS inspecting proxy for outbound traffic.

Format:
PEM/Text
Specifies the format of the listed certificates, PEM (Privacy Enhanced Mail) or plain text.
Default value: Text
xCommand Security Persistency

**Applies to:** All products

**Requires user role:** ADMIN

Set the following features to persistent or non-persistent mode. In non-persistent mode the information gathered by the specified feature does not persist a reboot of the device. Persistent mode is the default. This command reboots the device.

**USAGE:**

```
xCommand Security Persistency Configurations: Configurations, CallHistory, CallHistory, InternalLogging, InternalLogging, LocalPhonebook, LocalPhonebook, DHCP, DHCP, ConfirmAndReboot, ConfirmAndReboot
```

**where**

- **Configurations:**
  - NonPersistent/Persistent
  - In non-persistent mode, all configurations are set back to default when the device reboots.
- **CallHistory:**
  - NonPersistent/Persistent
  - In non-persistent mode call history is deleted when the device reboots.
- **InternalLogging:**
  - NonPersistent/Persistent
  - In non-persistent mode eventlog is deleted when the device reboots.
- **LocalPhonebook:**
  - NonPersistent/Persistent
  - In non-persistent mode local phone book is deleted when the device reboots.
- **DHCP:**
  - NonPersistent/Persistent
  - In non-persistent mode all IP related information is deleted when the device reboots.
- **ConfirmAndReboot:**
  - Yes
  - Reboots the device.

xCommand Security Session Get

**Applies to:** All products

**Requires user role:** ADMIN, AUDIT, INTEGRATOR, ROOMCONTROL, USER

Shows details of your current session.

**USAGE:**

```
xCommand Security Session Get
```

xCommand Security Session List

**Applies to:** All products

**Requires user role:** ADMIN

List active sessions.

**USAGE:**

```
xCommand Security Session List
```

xCommand Security Session Terminate

**Applies to:** All products

**Requires user role:** ADMIN

Terminate a session.

**USAGE:**

```
xCommand Security Session Terminate SessionId: "SessionId"
```

**where**

- **SessionId:**
  - String (0, 32)
  - The session ID number.
Standby commands

xCommand Standby Activate

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

Set the device in standby mode, which turns off the video outputs and put the camera into sleep mode.

**USAGE:**

```
xCommand Standby Activate
```

xCommand Standby Deactivate

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

Bring the device out of standby mode.

**USAGE:**

```
xCommand Standby Deactivate
```

xCommand Standby Halfwake

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

Sets the device to "Halfwake" state. This state informs the user from the UI, to pick up a remote or to tap the touch device to get started.

**USAGE:**

```
xCommand Standby Halfwake
```

xCommand Standby ResetHalfwakeTimer

Applies to: All products
Requires user role: ADMIN, USER

Sets a temporary Halfwake timer delay. If the device is in Halfwake mode when the reset timer is set, the device is brought out of Halfwake mode. When left idle for the given delay the device goes into halfwake mode.

**USAGE:**

```
xCommand Standby ResetHalfwakeTimer Delay: \[Delay\]
```

where

```
Delay: Integer (1..480)
```

Set the delay in minutes.

xCommand Standby ResetTimer

Applies to: All products
Requires user role: ADMIN, USER

Reset the standby delay timer or set a temporary standby delay. If the device is in standby mode when the timer is set, the device is brought out of standby mode before starting the countdown.

If you do not specify a Delay, the standby delay timer is reset, and the device goes into standby after the period that is given by the Standby Delay setting (xConfiguration Standby Delay). If you do specify a Delay, the device goes into standby when it has been idle for the specified period. Next time, the standby delay is as configured in the Standby Delay setting again.

**USAGE:**

```
xCommand Standby ResetTimer [Delay: \[Delay\]]
```

where

```
Delay: Integer (1..480)
```

Set the delay in minutes.
SystemUnit commands

xCommand SystemUnit Boot
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER
Reboot the device.

USAGE:

xCommand SystemUnit Boot [Action: Action] [Force: Force]
where

Action:
    Restart/Shutdown
    As a default the device restarts after a reboot. By selecting Shutdown, the device will not
    restart.
    Default value: Restart

Force:
    False/True
    As a default the device reboots right away, regardless of whether the device is in use or
    not. By selecting False, the device reboots only if it is not in use (i.e. if it is in idle, standby,
    or halfwake mode).
    Default value: True

xCommand SystemUnit FactoryReset
Applies to: All products
Requires user role: ADMIN, USER
Reset the codec to factory default settings. The call logs are deleted and all device parameters
are reset to default values. All files that have been uploaded to the codec are deleted. Option
key(s) are not affected. Use the parameter Keep in order to choose which configurations and
files to keep when you factory reset the device.
As a default the device restarts after the factory reset, but other behaviors can be forced by
selecting a different TrailingAction.

USAGE:

xCommand SystemUnit FactoryReset Confirm: Confirm [Keep: Keep] [TrailingAction: TrailingAction]
where

Confirm:
    Yes
    Include to confirm your choice.

Keep:
    Certificates/HTTP/LocalSetup/Network/Provisioning/SerialPort/Webex
    Select which configurations and files to keep when you factory reset the device. You can
    have up to 7 CallId parameters in the same command.

Certificates:
    Client and CA certificates.

HTTP:
    xConfiguration NetworkServices HTTP Mode
    xConfiguration NetworkServices HTTPS Server MinimumTLSVersion
    xConfiguration NetworkServices HTTPS StrictTransportSecurity
    xConfiguration NetworkServices HTTPS VerifyClientCertificate
    xConfiguration NetworkServices HTTPS VerifyServerCertificate

LocalSetup:
    xConfiguration Audio DefaultVolume
    xConfiguration Audio SoundsAndAlerts RingVolume
    xConfiguration Time Zone
    xConfiguration UserInterface Language
    xConfiguration Video Output Connector OverscanLevel
    xCommand Camera Preset Store
**xConfiguration**

Network Services

1. Wifi Allowed
2. Wifi Enabled

**Provisioning:**
- Provisioning Mode

**Serial Port:**
- Serial Port Mode
- Serial Port Baud Rate
- Serial Port Login Required

**Spark:**
- Spark Service Overrides GdsBaseUrl
- Spark Service Overrides U2CBaseUrl
- Spark Service Overrides WdmBaseUrl

**Trailing Action:**
- NoAction
- Restart
- Shutdown

Select Shutdown or NoAction to override the default behavior (Restart).

**Default value:** Restart

---

**xCommand SystemUnit FirstTimeWizard Stop**

**Applies to:** All products

**Requires user role:** ADMIN, INTEGRATOR, USER

Stops the wizard which appears the first time you start the device, so the device can be set up without it. The wizard only appears again if the device is reset to its factory default settings.

**Usage:**

- `xCommand SystemUnit FirstTimeWizard Stop`

---

**xCommand SystemUnit Notifications RemoveAll**

**Applies to:** All products

**Requires user role:** ADMIN

Clears the list of system notifications that are reported by `xStatus SystemUnit Notifications Text/Type`.

**Usage:**

- `xCommand SystemUnit Notifications RemoveAll`

---

**xCommand SystemUnit OptionKey Add**

**Applies to:** All products

**Requires user role:** ADMIN

Add an option key to support additional features.

**Usage:**

- `xCommand SystemUnit OptionKey Add Key: "Key"`
  - where
    - `Key`: String (16, 24)
      - The key you have received for the option you wish to switch on.

---

**xCommand SystemUnit OptionKey List**

**Applies to:** All products

**Requires user role:** ADMIN

List all option keys.

**Usage:**

- `xCommand SystemUnit OptionKey List`
xCommand SystemUnit OptionKey Remove
Applies to: All products
Requires user role: ADMIN
Remove a specified option key.

USAGE:
xCommand SystemUnit OptionKey Remove Type: Type
where
Type:
   RemoteMonitoring  [ DX70/DX80 ]
   Encryption/RemoteMonitoring  [ SX10 ]
   MultiSite/RemoteMonitoring  [ SX20 ]
   Encryption/MultiSite/RemoteMonitoring  [ SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards ]

xCommand SystemUnit OptionKey RemoveAll
Applies to: All products
Requires user role: ADMIN
Remove all option keys.

USAGE:
xCommand SystemUnit OptionKey RemoveAll Confirm: Confirm
where
   Confirm:
      Yes

xCommand SystemUnit ProductPlatform Set
Applies to: SX80 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2
RoomPanorama/Room70Panorama
Requires user role: ADMIN
Select the product platform for your device. This command is typically used after a device has
been in for repair and the product platform don’t match the actual product. Use with caution.

USAGE:
xCommand SystemUnit ProductPlatform Set Platform: Platform
where
   Platform:
      ROOM70D/ROOM70S  [ CodecPro Room70G2 RoomPanorama/Room70Panorama ]
      ROOM55D/ROOM570S/ROOM70D  [ CodecPlus Room70G2/Room55D ]
      MX700/MX700ST/MX800/MX800ST/MX800D  [ SX80 MX700/MX800/MX800D ]
      ROOM55D: The platform is set to Room 55 Dual.
      ROOM70S: For Codec Plus and Room 70, the platform is set to Room 70 Single. For
                  Codec Pro and Room 70 G2, the platform is set to Room 70 Single G2.
      ROOM70D: For Codec Plus and Room 70, the platform is set to Room 70 Dual. For Codec
                  Pro and Room 70 G2, the platform is set to Room 70 Dual G2.
      MX700: The platform is set to MX700 (dual screen, single camera).
      MX700ST: The platform is set to MX700 (dual screen, dual camera)
      MX800: The platform is set to MX800 (single screen, single camera).
      MX800ST: The platform is set to MX800 (single screen, dual camera).
      MX800D: The platform is set to MX800 Dual (dual screen, dual camera).

xCommand SystemUnit SignInBanner Clear
Applies to: All products
Requires user role: ADMIN
Clear the sign in banner set with xCommand SystemUnit SignInBanner Set.

USAGE:
xCommand SystemUnit SignInBanner Clear
### xCommand SystemUnit SignInBanner Get

**Applies to:** All products  
**Requires user role:** ADMIN, USER  
Get the custom message set with `xCommand SystemUnit SignInBanner Set`.  

**USAGE:**
```
xCommand SystemUnit SignInBanner Get
```

### xCommand SystemUnit SignInBanner Set

**Applies to:** All products  
**Requires user role:** ADMIN  
Set a sign in banner with a custom message on the device’s user interface. This is a multiline command.  

**Use:**  
```
xCommand SystemUnit SignInBanner Set <enter>
Banner text <enter>
  . <enter>
```

**USAGE:**
```
xCommand SystemUnit SignInBanner Set
```

### xCommand SystemUnit SoftwareUpgrade

**Applies to:** All products  
**Requires user role:** ADMIN  
Initiate a software upgrade by fetching the software from a given URL.  

**USAGE:**
```
xCommand SystemUnit SoftwareUpgrade URL: "URL" [Forced: Forced]  
where  
  URL: String (0, 255)  
  The URL to the software package location.  
  Forced: False/True  
  You can force a device to accept a software upgrade immediately, without giving users a chance to acknowledge or postpone the update.  
  Default value: True
```

### xCommand SystemUnit WelcomeBanner Clear

**Applies to:** All products  
**Requires user role:** ADMIN  
Clear the welcome banner set with `xCommand SystemUnit WelcomeBanner Set`.  

**USAGE:**
```
xCommand SystemUnit WelcomeBanner Clear
```

### xCommand SystemUnit WelcomeBanner Get

**Applies to:** All products  
**Requires user role:** ADMIN, AUDIT, INTEGRATOR, ROOMCONTROL, USER  
Get the custom message set with `xCommand SystemUnit WelcomeBanner Set`.  

**USAGE:**
```
xCommand SystemUnit WelcomeBanner Get
```
xCommand SystemUnit WelcomeBanner Set

Applies to: *All products*
Requires user role: **ADMIN**

Set up a welcome banner that the user sees after they sign in to the device’s web interface or the command line interface. The banner can for example contain information that the user needs to get started or things they need to be aware of when changing settings. This is a multi-line command.

Use:
```
xCommand SystemUnit WelcomeBanner Set <enter>
Banner text <enter> . <enter>
```

**USAGE:**
xCommand SystemUnit WelcomeBanner Set

---

**Time commands**

**xCommand Time DateTime Get**

Applies to: *All products*
Requires user role: **ADMIN, USER**

Read the time and date from the device.

**USAGE:**
xCommand Time DateTime Get

**xCommand Time DateTime Set**

Applies to: *All products*
Requires user role: **ADMIN, USER**

Set the date and time for the device, if not available from NTP (Network Time Protocol).

**USAGE:**
xCommand Time DateTime Set [Year: **Year**] [Month: **Month**] [Day: **Day**] [Hour: **Hour**] [Minute: **Minute**] [Second: **Second**]
where
- **Year**: Integer (2015..2037)
- **Month**: Integer (1..12)
- **Day**: Integer (1..31)
- **Hour**: Integer (0..23)
- **Minute**: Integer (0..59)
- **Second**: Integer (0..59)
UserInterface commands

xCommand UserInterface Branding Clear

Applies to: DX70/DX80 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, INTEGRATOR

Deletes the custom wallpaper, the brand background image, and the logo files from the device.

USAGE:

xCommand UserInterface Branding Clear

xCommand UserInterface Branding Delete

Applies to: DX70/DX80 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, INTEGRATOR, USER

Deletes the image file, which is specified in the Type parameter, from the device.

USAGE:

xCommand UserInterface Branding Delete Type: Type

where

Type:

- Background/Branding/HalfwakeBackground/HalfwakeBranding
- Branding
- Background: Delete the custom wallpaper.
- Branding: Delete the logo that is displayed when the device is active.
- HalfwakeBackground: Delete the brand image that is displayed as a background when the device is in the halfwake state.
- HalfwakeBranding: Delete the logo that is displayed when the device is in the halfwake state.

xCommand UserInterface Branding Fetch

Applies to: DX70/DX80 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, INTEGRATOR, USER

Fetches an image file from a URL and stores the file on the device. The following image formats are supported: BMP, GIF, JPEG, and PNG. The maximum image size is 16 megapixels, and the maximum file size is 4 MByte.

The Type parameter determines what kind of image it is. If it is a background image, the associated feature (Custom wallpaper or Branding with background and logo) is automatically applied.

This command issues an HTTP request, so it is included in the HTTP requests count. The maximum number of concurrent requests is limited.

USAGE:

xCommand UserInterface Branding Fetch [Checksum: "Checksum"] [ChecksumType: ChecksumType] Type: Type URL: "URL"

where

Checksum:

- String (0, 128)
  - The checksum is used to ensure the integrity of the downloaded image file. When using HTTP, it is mandatory to add a checksum. When using HTTPS, it is mandatory to add a checksum only if you are downloading the template from a server that presents an unsigned certificate, or a self-signed certificate that is not in the CA list of the device (not trusted).

ChecksumType:

- SHA512
  - The algorithm that is used to calculate the checksum.
  - Default value: SHA512

Type:

- Background/Branding/HalfwakeBackground/HalfwakeBranding
  - Background: Fetches a background image that can be used as custom wallpaper.
  - Branding: Fetches a logo that can be displayed when the device is active.
  - HalfwakeBackground: Fetches a brand image that can be displayed as a background when the device is in the halfwake state.
**HalfwakeBranding**: Fetches a logo that can be displayed when the device is in the halfwake state.

**URL**: String (5, 250)
The URL of the image file.

---

**xCommand UserInterface Branding Get**

**Applies to**: DX70/DX80 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, INTEGRATOR, USER

The command returns the image file that is specified in the Type parameter, given that such a file is stored on the device. The file is Base64 encoded. The format is JPG for background images and PNG for logos, regardless of the format of the originally uploaded file. Background images are stored in three sizes, one for the main screen, one for the Touch controller, and one for the web interface illustrations. Use the Size parameter to choose which one to get. Logos have only one size.

**USAGE:**

```
xCommand UserInterface Branding Get [Size: Size] Type: Type
```

where

**Size**:

- Large/Small/Thumbnail
  - **Large**: The size of the image that is displayed on the main screen.
  - **Small**: The size of the image that is displayed on the Touch controller.
  - **Thumbnail**: The size of the image that is used in the web interface illustrations.
  Default value: Large

**Type**:

- `Background/Branding/HalfwakeBackground/HalfwakeBranding` [ DX70/DX80 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro ]
- `Branding/HalfwakeBackground/HalfwakeBranding` [ Boards ]

- **Background**: Return the custom wallpaper.
- **Branding**: Return the logo that is displayed when the device is active.
- **HalfwakeBackground**: Return the brand image that is displayed as a background when the device is in the halfwake state.
- **HalfwakeBranding**: Return the logo that is displayed when the device is in the halfwake state.
Applies to: DX70/DX80, SX20, SX80, MX200G2/MX300G2, MX700/MX800/MX800D, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

Requires user role: ADMIN, INTEGRATOR, USER

This command creates an event that tells that a new image file is uploaded to the device and ready for use. The Type parameter identifies what kind of image it is.

**xCommand UserInterface Branding Updated**

**Applies to:** DX70/DX80, SX20, SX80, MX200G2/MX300G2, MX700/MX800/MX800D, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

**Usage:**

```plaintext
xCommand UserInterface Branding Updated Type: 

where

Type

Background/Branding/HalfwakeBackground/HalfwakeBranding

Background: A new background image that can be used as a custom wallpaper is ready for use.

Branding: A new logo that can be displayed when the device is active is ready for use.

HalfwakeBackground: A new brand image that can be displayed as a background when the device is in the halfwake state is ready for use.

HalfwakeBranding: A new logo that can be displayed when the device is in the halfwake state is ready for use.
```

**xCommand UserInterface Branding Upload**

**Applies to:** DX70/DX80, SX20, SX80, MX200G2/MX300G2, MX700/MX800/MX800D, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

**Usage:**

```plaintext
xCommand UserInterface Branding Upload Type: 

where

Type

Background/Branding/HalfwakeBackground/HalfwakeBranding

Background: Uploads a background image that can be used as custom wallpaper.

Branding: Uploads a logo that can be displayed when the device is active.

HalfwakeBackground: Uploads a brand image that can be displayed as a background when the device is in the halfwake state.

HalfwakeBranding: Uploads a logo that can be displayed when the device is in the halfwake state.
```
xCommand UserInterface Extensions Clear

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL

Delete user interface extensions (web apps, custom buttons, panels, and widgets) from the
device. If you don’t specify an ActivityType, all extensions are deleted.

USAGE:
xCommand UserInterface Extensions Clear [ActivityType: ActivityType]
where

ActivityType:
  Custom [ DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55S Room70G2 RoomPanorama/Room70Panorama ]
  Custom/WebApp [ DeskPro Boards ]

Custom: Custom buttons, panels, and widgets are removed. Web apps are not affected.

WebApp: Web apps are removed. Custom buttons, panels, and widgets are not affected.

xCommand UserInterface Extensions Panel Clicked

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Creates an event when the user clicks a custom panel.

USAGE:
xCommand UserInterface Extensions Panel Clicked PanelId: "PanelId"
where

PanelId:
  String (0, 255)
  The unique identifier of the custom panel.

xCommand UserInterface Extensions Panel Close

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Closes an opened custom panel.

USAGE:
xCommand UserInterface Extensions Panel Close

xCommand UserInterface Extensions List

Applies to: All products
Requires user role: INTEGRATOR, ROOMCONTROL, USER

List user interface extensions (web apps, custom buttons, panels, and widgets) that exist on the
device. If you don’t specify an ActivityType, all extensions are listed.

USAGE:
xCommand UserInterface Extensions List [ActivityType: ActivityType]
where

ActivityType:
  Custom [ DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55S Room70G2 RoomPanorama/Room70Panorama ]
  Custom/WebApp [ DeskPro Boards ]

Custom: Custom buttons, panels, and widgets are listed. Web apps are not included.

WebApp: Web apps are listed. Custom buttons, panels, and widgets are not included.
xCommand UserInterface Extensions Panel Open

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Opens the custom panel that has the given PanelId. If the panel has multiple pages you can specify which page to open by including the PageId parameter.

**USAGE:**
```
xCommand UserInterface Extensions Panel Open PanelId: "PanelId" [PageId: "PageId"]
```

where
```
PanelId:
  String (0, 255)
The unique identifier of the custom panel.
```
```
PageId:
  String (0, 255)
The unique identifier of a page on a custom panel.
```

xCommand UserInterface Extensions Panel Remove

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL

Removes the custom panel from the user interface of this device.

**USAGE:**
```
xCommand UserInterface Extensions Panel Remove PanelId: "PanelId"
```

where
```
PanelId:
  String (0, 255)
The unique identifier of the custom panel.
```

xCommand UserInterface Extensions Panel Save

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL

Adds a custom panel to the current configuration. The panel will be added to the configuration, but if a panel with the same panel ID already exists, it will be overwritten. This is a multiline command.

**USAGE:**
```
xCommand UserInterface Extensions Panel Save PanelId: "PanelId"
```

where
```
PanelId:
  String (0, 255)
The unique identifier of the custom panel.
```
xCommand UserInterface Extensions Panel Update

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Updates the custom panel that has the given PanelId. Successful changes are immediately visible on the endpoint.

**USAGE:**

```xCommand UserInterface Extensions Panel Update PanelId: "PanelId" [Name: "Name"]
[Color: "Color"] [Icon: "Icon"] [Visibility: "Visibility"]
```

where:

- **PanelId:** String (0, 255)
  The unique identifier of the custom panel.

- **Name:** String (0, 255)
  The new name of the custom panel.

- **Color:** String (0, 255)
  The color of the specified panel button, specified in hexadecimal (e.g., #4287f5).

- **Icon:** Briefing/Camera/Concierge/Disc/Handset/Help/Helpdesk/Home/Hvac/Info/Input/
  Language/Laptop/Lightbulb/Media/Microphone/Power/Proximity/Record/Spark/Tv/Webex/
  General
  The icon to display on the button as selected from the list available options.

- **Visibility:** Auto/Hidden
  The visibility of the button.

  - **Auto:** the button will be visible according to the configuration (Always, Only out of call, or Only in call).
  - **Hidden:** the button will always be hidden.

xCommand UserInterface Extensions Set

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL

Set the configuration scheme you have chosen in the user interface extensions (widgets) for your device. Updates the UserInterface Extensions status tree. This is a multiline command.

**USAGE:**

```xCommand UserInterface Extensions Set ConfigId: "ConfigId"
```

where:

- **ConfigId:** String (0, 40)
  The unique identifier for the configuration.

xCommand UserInterface Extensions Widget Action

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Sets the action of the given widget. Updates the UserInterface Extensions status tree.

**USAGE:**

```xCommand UserInterface Extensions Widget Action [Type: "Type"] [Value: "Value"]
WidgetId: "WidgetId"
```

where:

- **Type:** String (0, 255)
  The type of widget that is set.

- **Value:** String (0, 255)
  The value of the widget. The range of values depends on the widget type.

- **WidgetId:** String (0, 255)
  The unique identifier for the widget.
xCommand UserInterface Extensions Widget SetValue

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL

Set the value of the given widget. Updates the UserInterface Extensions status tree. Returns an error if the value is out of range.

**USAGE:**

```
xCommand UserInterface Extensions Widget SetValue Value: "Value" WidgetId: "WidgetId"
```

where

- **Value**: String (0, 255)
  - The value of the widget. The range of values depends on the widget type.

- **WidgetId**: String (0, 255)
  - The unique identifier for the widget.

xCommand UserInterface Extensions Widget UnsetValue

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL

Empties the value of the given widget. Updates the UserInterface Extensions status tree and notifies the user interface that this widget is no longer selected.

**USAGE:**

```
xCommand UserInterface Extensions Widget UnsetValue WidgetId: "WidgetId"
```

where

- **WidgetId**: String (0, 255)
  - The unique identifier for the widget.

xCommand UserInterface Message Alert Clear

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Remove the message which was displayed using the UserInterface Message Alert Display command. This is required when the Duration parameter is not set.

**USAGE:**

```
xCommand UserInterface Message Alert Clear
```

xCommand UserInterface Message Alert Display

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL

Display a message on screen. Optionally you can keep the message for a specified duration of time. If Duration is not set, the command must be followed by a UserInterface Message Alert Clear command.

**USAGE:**

```
xCommand UserInterface Message Alert Display [Title: "Title"] Text: "Text" [Duration: Duration]
```

where

- **Title**: String (0, 255)
  - The title of the message.
  - Default value: ""

- **Text**: String (0, 255)
  - The message to be displayed. The <p> and <br> HTML tags will result in line breaks as normal; any other tags will appear as plain text.

- **Duration**: Integer (0..3600)
  - How long (in seconds) the message is to be displayed on the screen. If set to 0 (zero) the message is displayed until a UserInterface Message Alert Clear command is sent.
  - Default value: 0
xCommand UserInterface Message Prompt Clear

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Remove the window which was displayed using the UserInterface Message Prompt Display command. This is required when the Duration parameter is not set.
Use the xFeedback commands to monitor the feedback from the user. Read more about the xFeedback commands in the API introduction section in this guide.

USAGE:
xCommand UserInterface Message Prompt Clear [FeedbackId: "FeedbackId"]

where
FeedbackId:
String (0, 255)
The FeedbackId corresponds to the FeedbackId given by the UserInterface Message Prompt Display command.
Default value: ""

xCommand UserInterface Message Prompt Display

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL

Display a small window on screen with a title, text and up to five options for response from the user. The message is displayed on screen until the user gives a response, or until the device receives a UserInterface Message Prompt Clear command.
Use the xFeedback commands to monitor the feedback from the user. Read more about the xFeedback commands in the API introduction section in this guide.

USAGE:
xCommand UserInterface Message Prompt Display [Title: "Title"] Text: "Text"
[FeedbackId: "FeedbackId"] [Duration: Duration] [Option.1: "Option.1"] [Option.2: "Option.2"] [Option.3: "Option.3"] [Option.4: "Option.4"] [Option.5: "Option.5"]

where
Title:
String (0, 255)
The title of the message.

Text:
String (0, 255)
Enter the text line to be displayed. The <p> and <br> HTML tags will result in line breaks as normal; any other tags will appear as plain text.

FeedbackId:
String (0, 255)
To identify the feedback enter a FeedbackId.

Duration:
Integer (0..3600)
How long (in seconds) the message window is to be displayed on the screen. If set to 0 (zero) the message window is displayed until a UserInterface Message Prompt Clear command is sent.
Default value: 0

Option.1:
String (0, 255)
The text to appear on feedback option 1.

Option.2:
String (0, 255)
The text to appear on feedback option 2.
Option.3:
String (0, 255)
The text to appear on feedback option 3.

Option.4:
String (0, 255)
The text to appear on feedback option 4.

Option.5:
String (0, 255)
The text to appear on feedback option 5.

xCommand UserInterface Message Prompt Response

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Give a response to the UserInterface Message Prompt Display command. This command is executed when the user selects an option in the user interface.

Use the xFeedback commands to monitor the feedback from the user. Read more about the xFeedback commands in the API introduction section in this guide.

USAGE:

xCommand UserInterface Message Prompt Response [FeedbackId: "FeedbackId"]
where

FeedbackId:
String (0, 255)
The FeedbackId corresponds to the FeedbackId given by the UserInterface Message Prompt Display command. If the FeedbackId is not given, the UserInterface Message Rating windows will be closed.
Default value: ""

OptionId:
Integer (1..5)
The OptionId corresponds to the OptionIds given as possible responses in the UserInterface Message Prompt Display command.

xCommand UserInterface Message Rating Clear

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Remove the message which was displayed using the UserInterface Message Rating Display command. This is required when the Duration parameter is not set.

USAGE:

xCommand UserInterface Message Rating Clear [FeedbackId: "FeedbackId"]
where

FeedbackId:
String (0, 255)
The FeedbackId corresponds to the FeedbackId given by the UserInterface Message Rating Display command. If the FeedbackId is not given, all UserInterface Message Rating windows will be closed.
Default value: ""

OptionId:
Integer (1..5)
The OptionId corresponds to the OptionIds given as possible responses in the UserInterface Message Rating Display command.
xCommand UserInterface Message Rating Display

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Display a small window on screen with a title and text. Rating stars are provided for the user to select. The message is displayed on screen until the user gives a response, or until the device receives a UserInterface Message Rating Clear command.

Use the xFeedback commands to monitor the feedback from the user. Read more about the xFeedback commands in the API introduction section in this guide.

**USAGE:**

```plaintext
xCommand UserInterface Message Rating Display [Title: "Title"] Text: "Text"
[FeedbackId: "FeedbackId"] [Duration: Duration]
```

where
- **Title**: String (0, 40)
  The title of the message.
- **Text**: String (0, 128)
  Enter the text line to be displayed. The <p> and <br> HTML tags will result in line breaks as normal; any other tags will appear as plain text.
- **FeedbackId**: String (0, 255)
  To identify the feedback enter a FeedbackId.
- **Duration**: Integer (0..3600)
  How long (in seconds) the message window is to be displayed on the screen. If empty or set to 0, the message window is displayed until a UserInterface Message Rating Clear command is sent.
  Default value: 0

xCommand UserInterface Message Rating Response

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Give a response to the UserInterface Message Rating Display command. This command is executed when the user selects an option in the user interface.

Use the xFeedback commands to monitor the feedback from the user. Read more about the xFeedback commands in the API introduction section in this guide.

**USAGE:**

```plaintext
xCommand UserInterface Message Rating Response [FeedbackId: "FeedbackId"
Rating: Rating]
```

where
- **FeedbackId**: String (0, 255)
  The FeedbackId corresponds to the FeedbackId given by the UserInterface Message Rating Display command.
  Default value: ""
- **Rating**: Integer (1..5)
  The Rating corresponds to the rating given as a possible response in the UserInterface Message Rating Display window where 1 is furthest to the left.
xCommand UserInterface Message TextInput Clear

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Remove the text input message which was displayed using the UserInterface Message TextInput Display command. This is required when the Duration parameter is not set.
Use the xFeedback commands to monitor the feedback from the user. Read more about the xFeedback commands in the API introduction section in this guide.

USAGE:
```
xCommand UserInterface Message TextInput Clear [FeedbackId: "FeedbackId"]
```

where
- **FeedbackId:**
  - String (0, 255)
  - The FeedbackId corresponds to the FeedbackId given by the UserInterface Message TextInput Display command.
  - Default value: ""

xCommand UserInterface Message TextInput Display

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL

Displays an input dialog box to which a user can respond. This is only supported for devices with a touch-based user interface. The message is displayed on screen until the user gives a response, or until the device receives a UserInterface Message TextInput Clear command.
Use the xFeedback commands to monitor the feedback from the user. Read more about the xFeedback commands in the API introduction section in this guide.

USAGE:
```
xCommand UserInterface Message TextInput Display [Duration: Duration] [FeedbackId: FeedbackId] [InputText: InputText] [InputType: InputType] [KeyboardState: KeyboardState] [Placeholder: Placeholder] [SubmitText: SubmitText] Text: "Text" [Title: "Title"]
```

where
- **Duration:**
  - Integer (0..3600)
  - How long (in seconds) the message is to be displayed on the screen. If set to 0 (zero) the message is displayed until a UserInterface Message TextInput Clear command is sent.
  - Default value: 0

- **FeedbackId:**
  - String (0, 255)
  - To identify the feedback enter a FeedbackId.

- **InputText:**
  - String (0, 255)
  - Text that is pre-populated in the text input field when the dialog box opens. Before submitting the response, you can edit this text, or delete it and enter your own text.
  - If this parameter is not included, the content of the Placeholder parameter is shown in the text input field when the dialog box opens.
  - Default value: ""

- **InputType:**
  - SingleLine/Numeric/Password/PIN
  - The type of text input dialog box that is displayed. This also determines the keyboard layout that it displayed.
  - Default value: SingleLine

- **KeyboardState:**
Open/Closed
Specifies if the device's keyboard should open when the text input message displays.
Default value: Open

Placeholder:
String (0, 255)
Placeholder text that is displayed in the text input field until you start typing. If the InputText parameter is included, the Placeholder parameter has no effect.
Default value: ""

SubmitText:
String (0, 32)
The text that is shown on the Submit button.
Default value: "OK"

Text:
String (0, 128)
The message that is to be displayed to the user. The <p> and <br> HTML tags will result in line breaks as normal; any other tags will appear as plain text.

Title:
String (0, 40)
The title of the input dialog box.
Default value: ""

xCommand UserInterface Message TextInput Response
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER
Give a response to the UserInterface Message TextInput Display command. This command is executed when the user submits the reply that he has entered in the text input field in the user interface.
Use the xFeedback commands to monitor the feedback from the user. Read more about the xFeedback commands in the API introduction section in this guide.

USAGE:
xCommand UserInterface Message TextInput Response [FeedbackId: "FeedbackId"]

Text: "Text"

where
FeedbackId:
String (0, 255)
To identify the feedback enter a FeedbackId.
Text:
String (0, 255)
The message that is to be displayed to the user.

xCommand UserInterface Message TextLine Clear
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER
Remove the text line which was displayed by the UserInterface Message TextLine Display command. This is required when the Duration parameter is not set.

USAGE:
xCommand UserInterface Message TextLine Clear
xCommand UserInterface Message TextLine Display

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL

Display a text line on screen. Optionally you can place the text line at a specified location and for a specified duration of time. If Duration is not set, the command must be followed by the UserInterface Message TextLine Clear command.

**USAGE:**

```
xCommand UserInterface Message TextLine Display Text: "Text" [X: X] [Y: Y] [Duration: Duration]
```

where

- **Text**: String (0, 140)
  - The text line to be displayed. The &lt;p&gt; and &lt;br&gt; HTML tags will result in line breaks as normal; any other tags will appear as plain text.

- **X**: Integer (1..10000)
  - Enter the X-coordinate (horizontal) on screen. X=0 is in the upper left corner.
  - Default value: 0

- **Y**: Integer (1..10000)
  - Enter the Y-coordinate (vertical) on screen. Y=0 is in the upper left corner.
  - Default value: 0

- **Duration**: Integer (0..3600)
  - How long (in seconds) the text line is to be displayed on the screen. If set to 0 (zero) the text line is displayed until a UserInterface Message TextLine Clear command is sent.
  - Default value: 0

xCommand UserInterface OSD Key Click

Applies to: DX70/DX80 SX10 SX20
Requires user role: ADMIN

Emulates a remote control key press, followed by a key release.

**USAGE:**

```
xCommand UserInterface OSD Key Click Key: Key
```

where

- **Key**: 0/1/2/3/4/5/6/7/8/9/C/Call/Disconnect/Down/F1/F2/F3/F4/F5/Grab/Home/Layout/Left/Mute/MuteMic/Ok/PhoneBook/Presentation/Right/Selfview/Square/SrcAux/SrcCamera/SrcDocCam/SrcPc/SrcVcr/Star/Up/VolumeDown/VolumeUp/ZoomIn/ZoomOut/+/-
  - Define the remote key to press.

xCommand UserInterface OSD Key Press

Applies to: DX70/DX80 SX10 SX20
Requires user role: ADMIN

Emulates a remote control key press without releasing it. The Key Press command must be followed by a Key Release command to emulate releasing the key.

**USAGE:**

```
xCommand UserInterface OSD Key Press Key: Key
```

where

- **Key**: 0/1/2/3/4/5/6/7/8/9/C/Call/Disconnect/Down/F1/F2/F3/F4/F5/Grab/Home/Layout/Left/Mute/MuteMic/Ok/PhoneBook/Presentation/Right/Selfview/Square/SrcAux/SrcCamera/SrcDocCam/SrcPc/SrcVcr/Star/Up/VolumeDown/VolumeUp/ZoomIn/ZoomOut/+/-
  - Define the remote key to press.
xCommand UserInterface OSD Key Release

Applies to: DX70/DX80 SX10 SX20
Requires user role: ADMIN

Emulates a remote control key release. The Key Release command is issued after a Key Press command.

**USAGE:**

```plaintext
xCommand UserInterface OSD Key Release Key: Key
```

where

- **Key**: 0/1/2/3/4/5/6/7/8/9/C/Call/Disconnect/Down/F1/F2/F3/F4/F5/Grab/Home/Layout/Left/Mute/MuteMic/Ok/PhoneBook/Presentation/Right/Selfview/Square/SrcAux/SrcCamera/SrcDocCam/SrcPc/SrcVcr/Star/Up/VolumeDown/VolumeUp/ZoomIn/ZoomOut/+/-

Define the remote control key to release.

---

xCommand UserInterface Presentation ExternalSource Add

Applies to: DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL

Establish and set up an input source that is connected to the device via an external switch.

**USAGE:**

```plaintext
xCommand UserInterface Presentation ExternalSource Add ConnectorId: ConnectorId SourceIdentifier: "SourceIdentifier" Name: "Name" Type: Type
```

where

- **ConnectorId**: Integer (2..3) [SX10]
- **Integer (1..3) [SX20]
- **Integer (1..5) [SX80 MX700/MX800/MX800D]
- **Integer (0..5) [RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro]
- **Integer (2..4) [MX200G2/MX300G2]
- **Integer (2..2) [DX70/DX80]

The ID of the device connector that the external switch is connected to.

- **SourceIdentifier**: String (0, 40)
  A unique string that identifies the input source. The identifier is used by other commands and events when addressing this specific input source.

- **Name**: String (0, 40)
  The name of the input source. This name will be displayed on the user interface.

- **Type**: camera/desktop/document_camera/mediaplayer/PC/whiteboard/other
  The type of input source. The type determines which icon to display on the user interface.
xCommand UserInterface Presentation ExternalSource List

 Applies to: DX70/DX80  SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro

 Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL

 Returns the current list of external input sources.

 USAGE:
 xCommand UserInterface Presentation ExternalSource List

xCommand UserInterface Presentation ExternalSource Remove

 Applies to: DX70/DX80  SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro

 Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL

 Remove the input source (specified by the SourceIdentifier) from the list of external input sources.

 USAGE:
 xCommand UserInterface Presentation ExternalSource Remove SourceIdentifier: "SourceIdentifier"

 where
 SourceIdentifier: String (0, 40)

 The unique string that identifies this input source. It was defined when the source was created with the UserInterface Presentation ExternalSource Add command.

xCommand UserInterface Presentation ExternalSource Select

 Applies to: DX70/DX80  SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro

 Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

 Starts to present the input source (specified by the SourceIdentifier) if it is in Ready state (see the UserInterface Presentation ExternalSource State Set command). The input source will be shown in the user interface sharetray as “Presenting”.

 USAGE:
 xCommand UserInterface Presentation ExternalSource Select SourceIdentifier: "SourceIdentifier"

 where
 SourceIdentifier: String (0, 40)

 The unique string that identifies this input source. It was defined when the source was created with the UserInterface Presentation ExternalSource Add command.

xCommand UserInterface Presentation ExternalSource RemoveAll

 Applies to: DX70/DX80  SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro

 Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL

 Remove all input sources from the list of external input sources.

 USAGE:
 xCommand UserInterface Presentation ExternalSource RemoveAll
xCommand UserInterface Presentation ExternalSource State Set

 Applies to: DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

 Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL

 Set or change the state of the input source (specified by the SourceIdentifier).

 USAGE:

 xCommand UserInterface Presentation ExternalSource State Set SourceIdentifier: "SourceIdentifier" State: State [ErrorReason: "ErrorReason"]

 where

 SourceIdentifier: String (0, 40)
 The unique string that identifies this input source. It was defined when the source was created with the UserInterface Presentation ExternalSource Add command.

 State:
 Hidden/Ready/NotReady/Error

 Ready: The input source will be presented when someone selects it (taps it on the user interface, or when the UserInterface Presentation ExternalSource Select command is issued).

 NotReady: The input source is not ready, and cannot be selected.

 Error: The input source is in an erroneous state. The ErrorReason parameter may be used to inform the user about the reason for failure.

 Hidden: The input source will not be displayed in the user interface sharetray.

 ErrorReason:
 String (0, 80)
 This string is displayed in the user interface sharetray, given that the State parameter is set to Error.

 Default value: ""

xCommand UserInterface WallpaperBundle Clear

 Applies to: RoomPanorama/Room70Panorama

 Requires user role: ADMIN

 Clears the wallpaper bundle.

 USAGE:

 xCommand UserInterface WallpaperBundle Clear

xCommand UserInterface WallpaperBundle List

 Applies to: RoomPanorama/Room70Panorama

 Requires user role: ADMIN

 For devices with built-in wallpaper bundles, you can list the bundles with this command.

 USAGE:

 xCommand UserInterface WallpaperBundle List

xCommand UserInterface WallpaperBundle Set

 Applies to: RoomPanorama/Room70Panorama

 Requires user role: ADMIN

 For devices with built-in wallpaper bundles, you can select the bundle with this command.

 USAGE:

 xCommand UserInterface WallpaperBundle Set Name: "Name"

 where

 Name:
 String (0, 255)
 This name of the wallpaper bundle as shown in the UserInterface WallpaperBundle List command.
xCommand UserInterface WebView Clear

Applies to: RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

Requires user role: ADMIN, INTEGRATOR, USER

Closes the current web view.

USAGE:

xCommand UserInterface WebView Clear

xCommand UserInterface WebView Display

Applies to: RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

Requires user role: ADMIN, INTEGRATOR, USER

Opens the web view and displays the web page given by the URL.

USAGE:

xCommand UserInterface WebView Display [Header: "Header"] [Options: "Options"] [Title: "Title"] Url: "Url"

where

Header:
String (0, 8192)
An HTTP header field. You can add up 15 Header parameters in one command, each holding one HTTP header field.

Options:
String (0, 255)
This value is intended for internal use by the UI Extensions Editor.

Title:
String (0, 255)
The title of the web page.

Url:
String (0, 2000)
The URL of the web page.

UserManagement commands

xCommand UserManagement RemoteSupportUser Create

Applies to: All products

Requires user role: ADMIN

Create a remote support user passphrase that Technical Assistance Center (TAC) can use to access the device for troubleshooting.

USAGE:


where

ExpiryDays:
Integer (1..31)
Define the duration for the passphrase validity. Default is 7 days.

xCommand UserManagement RemoteSupportUser Delete

Applies to: All products

Requires user role: ADMIN

Delete the remote support user created with the command xCommand UserManagement RemoteSupportUser Create.

USAGE:

xCommand UserManagement RemoteSupportUser Delete
xCommand UserManagement RemoteSupportUser DisablePermanently

Applies to: All products
Requires user role: ADMIN

Disable the creation of new remote support users. To enable the remote support user again you must factory reset your device.

USAGE:

xCommand UserManagement RemoteSupportUser DisablePermanently
Where
Confirm: Yes

xCommand UserManagement RemoteSupportUser GetState

Applies to: All products
Requires user role: ADMIN

Retrieves the state of the generated remote support user, if one exists.

USAGE:

xCommand UserManagement RemoteSupportUser GetState

xCommand UserManagement User Add

Applies to: All products
Requires user role: ADMIN

Adds a new user to this device.

USAGE:

Where
Active: False/True
Specifies whether this is an active user or not.
ClientCertificateDN:
String (0, 255)
Identifies a user who logs in with a client certificate instead of a username and password.
Passphrase:
String (0, 255)
Specifies a Passphrase for the user.
PassphraseChangeRequired:
False/True
Specifies whether the user's passphrase requires changing or not.
Role:
Admin/Audit/Integrator/RoomControl/User
Sets the user's role.
ShellLogin:
False/True
Specifies whether the user should have a shell login or not.
Username:
String (0, 127)
Specifies the user's username.
YourPassphrase:
String (0, 255)
The user's passphrase.
xCommand UserManagement User Delete

Applies to: All products
Requires user role: ADMIN

Deletes a user from this device.

USAGE:
xCommand UserManagement User Delete Username: "Username" [YourPassphrase: "YourPassphrase"]

where

Username:
String (0, 127)
Specifies the username of the user that is deleted.

YourPassphrase:
String (0, 255)
The passphrase of the user that is deleted.

xCommand UserManagement User Get

Applies to: All products
Requires user role: ADMIN

Shows the details of users on this device.

USAGE:

where

ClientCertificateDN:
String (0, 255)
Identifies a user who logs in with a client certificate instead of a username and password.

Username:
String (0, 127)
Specify a username to show the details of a particular user.

xCommand UserManagement User List

Applies to: All products
Requires user role: ADMIN

Shows the list of users on this device.

USAGE:
xCommand UserManagement User List [Limit: Limit] [Offset: Offset]

where

Limit:
Integer (0..65536)
Limits the number of results that are shown.
Default value: 0

Offset:
Integer (0..65536)
Shows lines with the same or higher Offset than the one provided.
Default value: 0
xCommand UserManagement User Modify

Applies to: All products
Requires user role: ADMIN

Modifies the details of a particular user.

**USAGE:**

```
xCommand UserManagement User Modify [Active: Active] [AddRole: AddRole] [ClientCertificateDN: "ClientCertificateDN"] [PassphraseChangeRequired: PassphraseChangeRequired] [RemoveRole: RemoveRole] [ShellLogin: ShellLogin]
```

where

- **Active:**
  - False/True
  - Specifies whether this is an active user or not.

- **AddRole:**
  - Admin/Audit/Integrator/RoomControl/User
  - Adds a new role for the specified user.

- **ClientCertificateDN:**
  - String (0, 255)
  - Identifies a user who logs in with a client certificate instead of a username and password.

- **PassphraseChangeRequired:**
  - False/True
  - Specifies whether the user’s passphrase requires changing or not.

- **RemoveRole:**
  - Admin/Audit/Integrator/RoomControl/User
  - Removes a role from the specified user.

- **ShellLogin:**
  - False/True
  - Specifies whether the user should have a shell login or not.

- **Username:**
  - String (0, 127)
  - Specifies the user’s username.

- **YourPassphrase:**
  - String (0, 255)
  - The user’s passphrase.

xCommand UserManagement User Passphrase Change

Applies to: All products
Requires user role: ADMIN, AUDIT, INTEGRATOR, ROOMCONTROL, USER

Change the passphrase for the user you logged in as. If you are logged in as the administrator, this will change the administrator passphrase.

**USAGE:**

```
xCommand UserManagement User Passphrase Change NewPassphrase: "NewPassphrase" OldPassphrase: "OldPassphrase"
```

where

- **NewPassphrase:**
  - String (0, 255)

- **OldPassphrase:**
  - String (0, 255)

xCommand UserManagement User Passphrase Set

Applies to: All products
Requires user role: ADMIN

Set a user passphrase for the specified user. You must be logged in as an administrator to set a user passphrase.

**USAGE:**

```
```

where

- **NewPassphrase:**
  - String (0, 255)

- **Username:**
  - String (0, 127)

- **YourPassphrase:**
  - String (0, 255)
xCommand UserManagement User Unblock

**Applies to:** All products

**Requires user role:** ADMIN

Unblocks a user who is blocked out because of too many failed login attempts.

**USAGE:**

```
xCommand UserManagement User Unblock Username: "Username" [YourPassphrase: "YourPassphrase"]
```

where

- **Username:**
  - String (0, 127)
- **YourPassphrase:**
  - String (0, 255)

---

xCommand Video ActiveSpeakerPIP Set

**Applies to:** All products

**Requires user role:** ADMIN, USER

Sets position for the active speakers PiP (picture in picture).

**USAGE:**

```
xCommand Video ActiveSpeakerPIP Set Position: Position
```

where

- **Position:**
  - CenterLeft/CenterRight/LowerLeft/LowerRight/UpperCenter/UpperLeft/UpperRight
  - Select one of the predefined positions.
xCommand Video CEC Input KeyClick

**Applies to:** RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, INTEGRATOR

Mimics a remote control key click event from the input device.

**USAGE:**

```plaintext
xCommand Video CEC Input KeyClick ConnectorId: [ConnectorId] [Key: Key]
[LogicalAddress: LogicalAddress] [NamedKey: NamedKey]
```

where

- **ConnectorId:**
  - `Integer (1..5)` [CodecPro Room70G2 RoomPanorama/Room70Panorama]
  - `Integer (1..3)` [RoomKit RoomKitMini CodecPlus Room55 Room70/Room55D DeskPro]
  - `Integer (2..2)` [Boards]
  - The unique identifier of the connector.
- **Key:**
  - `Integer (0..255)`
  - The CEC specified key code for the key that is sent to the logical address of the device as if it was pushed on a remote control.
- **LogicalAddress:**
  - `Integer (0..15)`
  - The logical address of the connected device.
- **NamedKey:**
  - As a string in the values [Up/Down/Right/Left/Ok/Back/Stop/Play]
  - The name of the key that is sent to the logical address of the device as if it was pushed on a remote control.

xCommand Video CEC Output KeyClick

**Applies to:** SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

**Requires user role:** ADMIN, INTEGRATOR

Mimics a remote control key click event from this device.

**USAGE:**

```plaintext
xCommand Video CEC Output KeyClick ConnectorId: [ConnectorId] [Key: Key]
[LogicalAddress: LogicalAddress] [NamedKey: NamedKey]
```

where

- **ConnectorId:**
  - `Integer (1..1)` [SX10]
  - `Integer (1..3)` [SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro]
  - The unique identifier of the connector.
- **Key:**
  - `Integer (0..255)`
  - The CEC specified key code for the key that is sent to the logical address of the device as if it was pushed on a remote control.
- **LogicalAddress:**
  - `Integer (0..15)`
  - The logical address of the connected device.
- **NamedKey:**
  - As a string in the values [Up/Down/Right/Left/Ok/Back/Stop/Play]
  - The name of the key that is sent to the logical address of the device as if it was pushed on a remote control.
xCommand Video CEC Output SendActiveSourceRequest

**Applies to:** SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro

**Requires user role:** ADMIN, INTEGRATOR

A request from the video conferencing device to become the active source of the screen (device) that is connected to the specified output connector.

**USAGE:**
```
xCommand Video CEC Output SendActiveSourceRequest [ConnectorId:  \[ConnectorId\]]
```

where
```
ConnectorId:
  Integer (1..1)  [ SX10  RoomKitMini ]
  Integer (1..3)  [ SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro ]
```

The unique identifier of the connector.

---

xCommand Video CEC Output SendInactiveSourceRequest

**Applies to:** RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro

**Requires user role:** ADMIN, INTEGRATOR

A request from the video conferencing device to stop being the active source of the screen (device) that is connected to the specified output connector. It is up to the screen to decide how to respond to the request. It can become the active source itself, make another source the active one, or do nothing.

**USAGE:**
```
xCommand Video CEC Output SendInactiveSourceRequest [ConnectorId:  \[ConnectorId\]]
```

where
```
ConnectorId:
  Integer (1..1)  [ RoomKitMini ]
  Integer (1..3)  [ RoomKit  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro ]
```

The unique identifier of the connector.

---

xCommand Video Graphics Clear

**Applies to:** RoomKit  RoomKitMini  CodecPlus  CodecPro  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, INTEGRATOR, USER

Remove a text string that has been added to the main video stream, the presentation stream, or the local output using the Video Graphics Text Display command. If you don’t want to remove the text string from all those places, you can use multiple Target parameters to choose a subset.

**USAGE:**
```
xCommand Video Graphics Clear [Layer:  \[Layer\]] [Target:  \[Target\]]
```

where
```
Layer:
  Integer (1..3)
  Not applicable in this version.

Target:
  LocalOutput/MainSource/PresentationSource
Specify from where to remove the text string. Choose between the local output, the main video stream, and the presentation stream.
xCommand Video Graphics Text Display

**Applies to:** RoomKit  RoomKitMini  CodecPlus  CodecPro  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, INTEGRATOR, USER

Compose a text string that will be added to the main video stream, the presentation stream, and the local output. If you don’t want to add the text string all those places, you can use multiple Target parameters to choose a subset.

**USAGE:**

```
xCommand Video Graphics Text Display [Date: Date] [Duration: Duration] [Target: Target] [Text: "Text"] [Time: Time]
```

**where**

- **Date:**
  - On/Off
  - Specify whether to include the date in the text string.

- **Duration:**
  - Integer (0..3600)
  - Not applicable in this version.

- **Target:**
  - LOCAL_OUTPUT/MainSource/PresentationSource
  - Specify where to add the text string. Choose between the local output, the main video stream, and the presentation stream.

- **Text:**
  - String (0, 1024)
  - Specify any custom text you want to include in the text string.

- **Time:**
  - On/Off
  - Specify whether to include the time of day in the text string.

---

xCommand Video Input MainVideo Mute

**Applies to:** All products

**Requires user role:** ADMIN, INTEGRATOR, USER

Stop sending video from the device. Selfview is also turned off. This command does not affect the presentation channel.

**USAGE:**

```
xCommand Video Input MainVideo Mute
```

---

xCommand Video Input MainVideo Unmute

**Applies to:** All products

**Requires user role:** ADMIN, INTEGRATOR, USER

Start sending video from the device if previously turned off using the Video Input MainVideo Mute command (or, if available, the “Turn off video” button on the user interface). Selfview is also available.

**USAGE:**

```
xCommand Video Input MainVideo Unmute
```
xCommand Video Input SetMainVideoSource

**Applies to:** DX70/DX80 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

**Requires user role:** ADMIN, INTEGRATOR, USER

Set which input source is the main video source. You can identify the input source by either the physical connector that it is connected to (ConnectorId) or the logical source identifier (SourceId).

You can combine up to four input sources in a single main video stream (the maximum number of different input sources depend on the type of video conferencing device) by adding multiple ConnectorIds or SourceIds in the same command. There cannot be a mix of identifier types in the same command; use either ConnectorId or SourceId. DX70 and DX80 don’t support such combination of input sources.

**USAGE:**

```plaintext
xCommand Video Input SetMainVideoSource [ConnectorId: ConnectorId] [Layout: Layout] [PIPPosition: PIPPosition] [PIPSize: PIPSize] [SourceId: SourceId]
```

where

- **ConnectorId:**
  - `Integer (1..n)`
  - The identifier (ID) of the connector. Connector [n] has ID n. Run the following API command to find the ID: `xStatus Video Input Connector`.

- **Layout:**
  - `Equal/PIP/Prominent`
  - Sets the layout of the main video source if the main video source is composed of multiple input sources.

  - **Equal:** The input sources are shown in same-sized images. There can be a maximum of four images on screen.

  - **PIP:** Shows one of the input source as a Picture in Picture (only available when composing two input sources).

  - **Prominent:** The first input source is shown as a large image, and the next input sources are shown as smaller images placed below.

- **PIPPosition:**
  - `LowerLeft/LowerRight/UpperLeft/UpperRight`
  - Select the PIP position of the main video source if the main video source is composed of multiple input sources.

- **PIPSize:**
  - `Auto/Large`
  - Select the PIP size of the main video source if the main video source is composed of multiple input sources.

  - **SourceId:**
    - `Integer (1..n)`
    - The identifier (ID) of the input source. Input Source [n] has ID n. Run the following API command to find the ID: `xStatus Video Input Source`.

xCommand Video Input Source SetActiveConnector

**Applies to:** SX10 SX80 MX200G2/MX300G2 MX700/MX800/MX800D

**Requires user role:** ADMIN, USER

Select which connector is active.

On SX80 and MX700/MX800 Input Connector 4 (DVI-I) and Connector 5 (S-Video/Composite) cannot be active simultaneously.

On SX10 Input Connector 2 (HDMI) and Connector 3 (VGA) cannot be active simultaneously.

On MX200G2/MX300G2: Only one of Input Connector 2 (DVI), Connector 3 (HDMI), and Connector 4 (HDMI) can be active at any time.

**USAGE:**

```plaintext
xCommand Video Input Source SetActiveConnector [ConnectorId: ConnectorId]
```

where

- **ConnectorId:**
  - `Integer (4..5)` [SX80 MX700/MX800/MX800D]
  - `Integer (2..4)` [MX200G2/MX300G2]
  - `Integer (2..3)` [SX10]
  - The identifier (ID) of the connector. Connector [n] has ID n. Check the Video Input Connector status to find the connector IDs. On SX80 and MX700/MX800, the connector ID is also printed on the codec connector panel.
xCommand Video Layout LayoutFamily Set

Applies to: All products
Requires user role: ADMIN, USER
Select the screen layout mode.

**USAGE:**
xCommand Video Layout LayoutFamily Set [Target: Target] LayoutFamily: LayoutFamily [CustomLayoutName: "CustomLayoutName"]

where

Target:
Local/Remote
Select if the target is the local layout or the remote layout.

LayoutFamily:
auto/custom/equal/overlay/prominent/single
Select a layout family.

CustomLayoutName:
String (1, 128)
Enter a name for the layout.

xCommand Video Matrix Assign

Applies to: SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, INTEGRATOR, USER
Video Matrix commands are a smart overlay to the xCommand Video Layout commands to make it easy to do simple video compositions.

**USAGE:**
xCommand Video Matrix Assign [Layout: Layout] [Mode: Mode] Output: Output [RemoteMain: RemoteMain] [SourceId: SourceId]

where

Layout:
Equal/Prominent
Select the layout you wish to use for the video composition.

Equal: All sources are shown in same-sized images on the output.

Prominent: The first source is shown as a large image, and the next sources are shown as smaller images placed below.

Mode:
Add/Replace
Choose whether to replace the existing source on that output rendered full screen or to add it. Using Add, the layout engine will recompose the multiple sources automatically. Replace is the default value.

Output:
Integer (1..2) [ SX20 MX200G2/MX300G2 RoomKit CodecPlus ]
integer (1..3) [ SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama ]

Choose the output you wish to use for this layout.

RemoteMain:
Integer (1..4)
Add a remote site to the layout.

SourceId:
Integer (1..6) [ CodecPro Room70G2 RoomPanorama/Room70Panorama ]
Integer (1..3) [ SX20 ]
Integer (1..4) [ SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit CodecPlus ]

The identifier (ID) of the input source. Input Source [n] has ID n. Run the following API command to find the ID: xStatus Video Input Source. You can use up to four SourceIds in one command.
xCommand Video Matrix Reset

**Applies to:** SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  CodecPlus  CodecPro  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, INTEGRATOR, USER

Reset the content on the output to the default layout.

**xCommand Video Matrix commands are a smart overlay to the xCommand Video Layout commands to make it easy to do simple video compositions.**

**USAGE:**

```
xCommand Video Matrix Reset [Output: Output]
```

where

- **Output:**
  - Integer (1..2) [ SX20  MX200G2/MX300G2  RoomKit  CodecPlus ]
  - Integer (1..3) [ SX80  MX700/MX800/MX800D  CodecPro  Room70G2  RoomPanorama/Room70Panorama ]

Choose the output you want to reset.

---

xCommand Video Matrix Swap

**Applies to:** SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  CodecPlus  CodecPro  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, INTEGRATOR, USER

Swap the content defined with xCommand Video Matrix Assign between two outputs.

**xCommand Video Matrix commands are a smart overlay to the xCommand Video Layout commands to make it easy to do simple video compositions.**

**USAGE:**

```
xCommand Video Matrix Swap OutputA: OutputA OutputB: OutputB
```

where

- **OutputA:**
  - Integer (1..2) [ SX20  MX200G2/MX300G2  RoomKit  CodecPlus ]
  - Integer (1..3) [ SX80  MX700/MX800/MX800D  CodecPro  Room70G2  RoomPanorama/Room70Panorama ]

  The output you are swapping from.

- **OutputB:**
  - Integer (1..2) [ SX20  MX200G2/MX300G2  RoomKit  CodecPlus ]
  - Integer (1..3) [ SX80  MX700/MX800/MX800D  CodecPro  Room70G2  RoomPanorama/Room70Panorama ]

  The output you are swapping to.
xCommand Video Matrix Unassign

**Applies to:** SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  CodecPlus  CodecPro  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, INTEGRATOR, USER

Remove a source from an output. Just as with xCommand Video Matrix Assign the layout engine will recompose the remaining sources automatically.

xCommand Video Matrix commands are a smart overlay to the xCommand Video Layout commands to make it easy to do simple video compositions.

**USAGE:**

```
xCommand Video Matrix Unassign Output: Output [RemoteMain: RemoteMain] [SourceId: SourceId]
```

where

- **Output:**
  - Integer (1..2) [ SX20  MX200G2/MX300G2  RoomKit  CodecPlus ]
  - Integer (1..3) ( SX80  MX700/MX800/MX800D  CodecPro  Room70G2  RoomPanorama/Room70Panorama ]

  Choose the output you wish to remove the source from.

- **RemoteMain:**
  - Integer (1..4)

  Remove a remote site from the layout.

- **SourceId:**
  - Integer (1..2) [ SX20  MX200G2/MX300G2  RoomKit ]
  - Integer (1..3) [ CodecPlus ]
  - Integer (1..4) ( SX80  MX700/MX800/MX800D  CodecPlus ]
  - Integer (1..6) [ CodecPro  Room70G2  RoomPanorama/Room70Panorama ]

  The identifier (ID) of the input source. Input Source [n] has ID n. Run the following API command to find the ID: xStatus Video Input Source.

xCommand Video Output Monitor Backlight Set

**Applies to:** MX700/MX800/MX800D  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama

**Requires user role:** ADMIN

Adjust the monitor backlight.

**USAGE:**

```
xCommand Video Output Monitor Backlight Set Position: Position Value: Value
```

where

- **Position:** [ MX700/MX800/MX800D  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama ]
  - Left/Right

  Choose whether to apply the command to the left or right integrated screen. This parameter is only present for devices with two integrated screens (dual screen devices).

- **Value:**
  - Integer (0..100)
  - Select the level.

xCommand Video Output Monitor Brightness Set

**Applies to:** MX700/MX800/MX800D

**Requires user role:** ADMIN

Adjust the monitor brightness.

**USAGE:**

```
xCommand Video Output Monitor Brightness Set Position: Position Value: Value
```

where

- **Position:** [ MX700/MX800/MX800D  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama ]
  - Left/Right

  Choose whether to apply the command to the left or right integrated screen. This parameter is only present for devices with two integrated screens (dual screen devices).

- **Value:**
  - Integer (0..100)
  - Select the level.
xCommand Video Output Monitor Color Blue Set

Applies to: MX700/MX800/MX800D
Requires user role: ADMIN
Adjust the level of blue on the monitor.

**USAGE:**

xCommand Video Output Monitor Color Blue Set Position: **Position** Value: **Value**

where

- **Position**:
  - Left/Right
    - Choose whether to apply the command to the left or right integrated screen. This parameter is only present for devices with two integrated screens (dual screen devices).

- **Value**:
  - Value: Integer (0..100)
    - Select the level.

xCommand Video Output Monitor Color Green Set

Applies to: MX700/MX800/MX800D
Requires user role: ADMIN
Adjust the level of green on the monitor.

**USAGE:**

xCommand Video Output Monitor Color Green Set Position: **Position** Value: **Value**

where

- **Position**:
  - Left/Right
    - Choose whether to apply the command to the left or right integrated screen. This parameter is only present for devices with two integrated screens (dual screen devices).

- **Value**:
  - Value: Integer (0..100)
    - Select the level.

xCommand Video Output Monitor Color Red Set

Applies to: MX700/MX800/MX800D
Requires user role: ADMIN
Adjust the level of red on the monitor.

**USAGE:**

xCommand Video Output Monitor Color Red Set Position: **Position** Value: **Value**

where

- **Position**:
  - Left/Right
    - Choose whether to apply the command to the left or right integrated screen. This parameter is only present for devices with two integrated screens (dual screen devices).

- **Value**:
  - Value: Integer (0..100)
    - Select the level.

xCommand Video Output Monitor Color Select

Applies to: MX700/MX800/MX800D  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama
Requires user role: ADMIN
Adjust the monitor's color temperature.

**USAGE:**

xCommand Video Output Monitor Color Select Position: **Position** Value: **Value**

where

- **Position**:
  - Left/Right
    - Choose whether to apply the command to the left or right integrated screen. This parameter is only present for devices with two integrated screens (dual screen devices).

- **Value**:
  - Value: 4900K/5500K/6500K/7200K/9300K/10500K/12000K/User  
    - MX700/MX800/MX800D
    - Room70/Room55D  Room70G2
    - RoomPanorama/Room70Panorama
xCommand Video Output Monitor Contrast Set
Applies to: MX700/MX800/MX800D
Requires user role: ADMIN
Adjust the contrast level on the monitor.

**USAGE:**
xCommand Video Output Monitor Contrast Set Position: **Position** Value: **Value**

- **Position:**
  - Left/Right
  - Choose whether to apply the command to the left or right integrated screen. This parameter is only present for devices with two integrated screens (dual screen devices).

- **Value:**
  - Integer (0..100)
  - Select the level.

xCommand Video Output Monitor CSC Select
Applies to: MX700/MX800/MX800D
Requires user role: ADMIN
Select the monitor’s color space.

**USAGE:**
xCommand Video Output Monitor CSC Select Position: **Position** Value: **Value**

- **Position:**
  - Left/Right
  - Choose whether to apply the command to the left or right integrated screen. This parameter is only present for devices with two integrated screens (dual screen devices).

- **Value:**
  - RGB/YUV
  - Select either RGB or YUV.

xCommand Video Output Monitor Gamma Set
Applies to: MX700/MX800/MX800D
Requires user role: ADMIN
Adjust the gamma level on the monitor.

**USAGE:**
xCommand Video Output Monitor Gamma Set Position: **Position** Value: **Value**

- **Position:**
  - Left/Right
  - Choose whether to apply the command to the left or right integrated screen. This parameter is only present for devices with two integrated screens (dual screen devices).

- **Value:**
  - 1.5/1.6/1.7/1.8/1.9/2.0/2.1/2.2/2.3/2.4/2.5/2.6/2.7
  - Select the level.

xCommand Video Output Monitor Reset
Applies to: MX700/MX800/MX800D  Room70/Room55D  Room70G2  Boards
Requires user role: ADMIN
Reset monitor settings (not available for Room 55 Dual).

**USAGE:**
xCommand Video Output Monitor Reset Position: **Position**

- **Position:**
  - Left/Right
  - Choose whether to apply the command to the left or right integrated screen. This parameter is only present for devices with two integrated screens (dual screen devices).
**xCommand Video Output Monitor Sharpness Set**

*Applies to:* MX700/MX800/MX800D  
*Requires user role:* ADMIN

Adjust the image sharpness on the monitor.

**USAGE:**

```
xCommand Video Output Monitor Sharpness Set Position: Position Value: Value
```

where

- **Position:** Left/Right  
  Choose whether to apply the command to the left or right integrated screen. This parameter is only present for devices with two integrated screens (dual screen devices).

- **Value:** Softest/Soft/Normal/Sharp/Sharpest  
  Select the level.

**xCommand Video PresentationPIP Set**

*Applies to:* All products  
*Requires user role:* ADMIN, USER

Sets position for the presentation PiP (picture in picture).

**USAGE:**

```
xCommand Video PresentationPIP Set Position: Position
```

where

- **Position:** CenterLeft/CenterRight/LowerLeft/LowerRight/UpperCenter/UpperLeft/UpperRight  
  Select one of the predefined positions.

**xCommand Video PresentationView Set**

*Applies to:* All products  
*Requires user role:* ADMIN, USER

Set the presentation view mode

**USAGE:**

```
xCommand Video PresentationView Set View: View
```

where

- **View:** Default/Maximized/Minimized  
  Select Default when you want the presentation to be viewed with the default settings for the codec. Select Maximized when you want the presentation to be displayed in full screen. Select Minimized when you want the presentation to be displayed in a small picture on screen.
xCommand Video Selfview Set

Applies to: All products
Requires user role: ADMIN, USER

Sets self-view on/off and specifies its size and position. If the parameter is not specified, current value is used.

USAGE:

xCommand Video Selfview Set [Mode: Mode] [FullscreenMode: FullscreenMode] [PIPPosition: PIPPosition] [OnMonitorRole: OnMonitorRole]

where

Mode:
  On/Off
  Selfview is set to on or off.

FullscreenMode:
  On/Off
  Choose between displaying the self-view in full screen or as picture-in-picture.

PIPPosition:
  CenterLeft/CenterRight/LowerLeft/LowerRight/UpperCenter/UpperLeft/UpperRight
  Select the position for the self-view image.

OnMonitorRole:
  First/Second/Third
  Displays self-view on monitors with this role.

WebEngine commands

xCommand UserInterface WebEngine DeleteStorage

Applies to: RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama, Room70Panorama, DeskPro, Boards
Requires user role: ADMIN

Deletes session data for web view types, such as digital signage and web apps.

USAGE:

xCommand UserInterface WebEngine DeleteStorage [Type: Type]

where

Type:
  All/Signage/WebApps
  All: Deletes the session data for all web view types.
  Signage: Deletes the session data related to digital signage.
  WebApps: Deletes the session data related to all web views except digital signage.

Default value: All
Webex commands

xCommand Webex Join
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER
Join the Webex Meeting specified by the meeting number.
Add optional information, such as the display name or a tag, to identify the call in the call history.

USAGE:
xCommand Webex Join [DisplayName: "DisplayName"] Number: "Number" [TrackingData: "TrackingData"]
where
DisplayName:
    String (0, 255)
The display name of the remote participant.
Number:
    String (0, 255)
The meeting number, meeting link, video address, or Personal Room ID.
TrackingData:
    String (0, 255)
A tag or label preserved with the call number in the call history.

xCommand Webex Registration Cancel
Applies to: All products
Requires user role: ADMIN, USER
Cancel device registration to Cisco Webex.
This command only works in the short period after the registration is started with xCommand Webex Registration Start.

USAGE:
xCommand Webex Registration Cancel

xCommand Webex Registration ConvertToCloud
Applies to: All products
Requires user role: ADMIN
Convert a device to be managed by the Cisco Webex cloud service.
This is only available on systems linked with Webex Edge for Devices. All current connections to on-premises services for calling and directory will be replaced with cloud data sources.
To convert back to on-premises again, the device must factory reset.

USAGE:
xCommand Webex Registration ConvertToCloud Confirm: Confirm
where
Confirm:
    Yes
Enter Yes, case-insensitive, to confirm that you will proceed with the command. Any other text will cancel the request.
xCommand Webex Registration Start

Applies to: All products
Requires user role: ADMIN, USER

Start registering a device to Cisco Webex by entering the activation code that has been created in Control Hub and choosing whether to keep local users and integrations. You get a confirmation that the registration has been successful or failed.

USAGE:

xCommand Webex Registration Start ActivationCode: ActivationCode SecurityAction: SecurityAction

where

ActivationCode:

String: 16, 19
The activation code that has been created in Control Hub for this device.

SecurityAction:

Harden/NoAction

Harden: Deactivates all local users that have been created for this device and deactivates Macros.

NoAction: Does not remove any configurations. Use NoAction if you wish to keep existing integrations.
Chapter 5

xStatus commands
In this chapter, you can find all of the xStatus commands and the responses. Status type commands return information about the system and system processes. You can query all information or just some of it.

Audio status

- xStatus Audio Devices Bluetooth ActiveProfile
- xStatus Audio Devices HandsetUSB ConnectionStatus
- xStatus Audio Devices HeadsetUSB Cradle
- xStatus Audio Devices HeadsetUSB HasMicrophone
- xStatus Audio Devices HeadsetUSB ConnectionStatus
- xStatus Audio Devices HeadsetUSB Description
- xStatus Audio Input Connectors USB[n] Mute
- xStatus Audio Input Connectors Line[n] Mute
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xStatus Video Input Connector [n] ConnectedDevice CEC [n] Name
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xStatus Video Input Connector [n] ConnectedDevice CEC [n] VendorId
xStatus Video Input Connector [n] SignalState
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xStatus Audio Devices Bluetooth ActiveProfile
Applies to: DX70/DX80 DeskPro
Requires user role: ADMIN, USER
Shows the Bluetooth headset profile currently in use.
Value space of the result returned:
None/HFP/A2DP
- HFP Hands-Free Profile), A2DP (Advanced Audio Distribution Profile), or None, no profile in use.
Example:
xStatus Audio Devices Bluetooth ActiveProfile
`*s Audio Devices Bluetooth ActiveProfile: None
  ** end

xStatus Audio Devices HandsetUSB ConnectionStatus
Applies to: DX70/DX80 RoomKit RoomKitMini Room55 DeskPro
Requires user role: ADMIN, USER
Shows if a USB handset is connected.
Value space of the result returned:
Connected/NotConnected
Example:
xStatus Audio Devices HandsetUSB ConnectionStatus
  `s Connected
  ** end

xStatus Audio Devices HandsetUSB Cradle
Applies to: DX70/DX80 RoomKit RoomKitMini Room55 DeskPro
Requires user role: ADMIN, USER
Shows if a USB handset is on hook or off hook.
Value space of the result returned:
OnHook/OffHook
Example:
xStatus Audio Devices HandsetUSB Cradle
  `s OnHook
  ** end

xStatus Audio Devices HeadsetAnalog Connection Status
Applies to: DX70/DX80 DeskPro
Requires user role: ADMIN, USER
Shows if an analog headset is connected. (DX70 only)
Value space of the result returned:
Connected/NotConnected
Example:
xStatus Audio Devices HeadsetAnalog Connection Status
  `s Connected
  ** end
xStatus Audio Devices HeadsetAnalog HasMicrophone

Applies to: DX70/DX80
Requires user role: ADMIN, USER

Shows if an analog headset has a built-in microphone. (DX70 only)

Value space of the result returned:
False/True

Example:
xStatus Audio Devices HeadsetAnalog HasMicrophone
  *s True
  ** end

xStatus Audio Devices HeadsetUSB ConnectionStatus

Applies to: DX70/DX80 RoomKit RoomKitMini Room55 DeskPro
Requires user role: ADMIN, USER

Shows if a USB headset is connected.

Value space of the result returned:
Connected/NotConnected

Example:
xStatus Audio Devices HeadsetUSB ConnectionStatus
  *s Connected
  ** end

xStatus Audio Devices HeadsetUSB Description

Applies to: DX70/DX80 RoomKit RoomKitMini Room55 DeskPro
Requires user role: ADMIN, USER

Shows a description of the attached USB headset.

Value space of the result returned:
String

Example:
xStatus Audio Devices HeadsetUSB Description
  *s HeadsetUSB Description: "Description of USB headset."
  ** end

xStatus Audio Devices HeadsetUSB Manufacturer

Applies to: DX70/DX80 RoomKit RoomKitMini Room55 DeskPro
Requires user role: ADMIN, USER

Lists the USB headset manufacturer.

Value space of the result returned:
String

Example:
xStatus Audio Devices HeadsetUSB Manufacturer
  *s HeadsetUSB Manufacturer: "CompanyName"
  ** end
xStatus Audio Input Connectors HDMI [n] Mute
Applies to: All products
Requires user role: ADMIN, USER
Shows whether the audio channel on a HDMI input connector is muted or not.
Value space of the result returned:
  On/Off
Example:
xStatus Audio Input Connectors HDMI 1 Mute
  *s Audio Input Connectors HDMI 1 Mute: Off
  ** end

xStatus Audio Input Connectors Line [n] Mute
Applies to: All products
Requires user role: ADMIN, USER
Shows whether the audio on a Line input connector is muted or not.
Value space of the result returned:
  On/Off
Example:
xStatus Audio Input Connectors Line 1 Mute
  *s Audio Input Connectors Line 1 Mute: Off
  ** end

xStatus Audio Input Connectors Microphone [n] ConnectionStatus
Applies to: SX10 SX20 MX200G2/MX300G2 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN, INTEGRATOR, USER
Indicates whether a microphone is detected on the microphone input connector.
Value space of the result returned:
  Connected/NotConnected/Unknown
  Connected: A microphone is connected.
  NotConnected: Nothing is connected.
  Unknown: The video conferencing device is not able to detect if a microphone is connected.
Example:
xStatus Audio Input Connectors Microphone ConnectionStatus
  *s Audio Input Connectors Microphone 1 ConnectionStatus: NotConnected
  *s Audio Input Connectors Microphone 2 ConnectionStatus: Connected
  ** end

xStatus Audio Input Connectors Microphone [n] EcReferenceDelay
Applies to: DX70/DX80 SX10 SX20 SX80 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN, USER
Returns the detected latency for each loudspeaker to microphone path. The result is in milliseconds.
Value space of the result returned:
  Integer
Example:
xStatus Audio Input Connectors Microphone 1 EcReferenceDelay
  *s Audio Input Connectors Microphone 1 EcReferenceDelay: 120
  ** end
xStatus Audio Input Connectors Microphone [n] Mute

Applies to: All products
Requires user role: ADMIN, USER

Shows whether the audio on a Microphone input connector is muted or not.

Value space of the result returned:
- On/Off

Example:
```
xStatus Audio Input Connectors Microphone 1 Mute
's Audio Input Connectors Microphone 1 Mute: Off
** end
```

xStatus Audio Input Connectors USBC [n] Mute

Applies to: All products
Requires user role: ADMIN, USER

Shows whether the audio channel on a USB-C input connector is muted or not.

Value space of the result returned:
- On/Off

Example:
```
xStatus Audio Input Connectors USBC 1 Mute
's Audio Input Connectors USBC 1 Mute: Off
** end
```

xStatus Audio Input KeyClick Attenuate

Applies to: RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN, USER

Shows whether the device is automatically attenuating clicking noises, such as those detected microphone signals caused by the typing of a keyboard.

Value space of the result returned:
- False/True
  - True: The attenuation of the microphone signal is turned on.
  - False: The attenuation of the microphone signal is turned off.

Example:
```
xStatus Audio Input KeyClick Attenuate
's Audio Input KeyClick Attenuate: True
** end
```

xStatus Audio Input KeyClick Detected

Applies to: RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN, USER

Shows what type of audio signals the device is detecting for attenuation. The device will attenuate the microphone signal if clicking noises from a keyboard are detected. If voice or silence is detected, the microphone signal will not be attenuated.

Value space of the result returned:
- KeyClick/Voice/Silence
  - KeyClick: Only key clicks are being detected.
  - Voice: Voice is being detected.
  - Silence: No audio signals are being detected.

Example:
```
xStatus Audio Input KeyClick Detected
's Audio Input KeyClick Detected: KeyClick
** end
```
xStatus Audio Input KeyClick Enabled

Applies to: RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, USER

Shows whether detection for attenuation on the microphone signal is enabled.

Value space of the result returned:

True/False

True: Detection on the microphone signal is turned on.
False: Detection on the microphone signal is turned off.

Example:
xStatus Audio Input KeyClick Enabled
's Audio Input KeyClick Enabled: On
** end

xStatus Audio Input LocalInput [n] AGC

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, USER

Shows the AGC (Automatic Gain Control) mode on the local input.
You can run the command xStatus Audio Input LocalInput to find the identity [n] of the input.

Value space of the result returned:

On/Off

Example:
xStatus Audio Input LocalInput 1 AGC
's Audio Input LocalInput 1 AGC: "On"
** end

xStatus Audio Input LocalInput [n] Channels

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, USER

States if the local input channels are mixed into a mono signal (1) or stereo signal (2).
You can run the command xStatus Audio Input LocalInput to find the identity [n] of the input.

Value space of the result returned:

1..2

Example:
xStatus Audio Input LocalInput 1 Channels
's Audio Input LocalInput 1 Channels: 1
** end

xStatus Audio Input LocalInput [n] Connector

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, USER

Lists the connectors that are attached to the local input.
You can run the command xStatus Audio Input LocalInput to find the identity [n] of the input.

Value space of the result returned:

Microphone.1../Microphone.4/Line.1/Line.2/HDMI.2

Example:
xStatus Audio Input LocalInput 1 Connector
's Audio Input LocalInput 1 Connector: "Microphone.1"
** end
xStatus Audio Input LocalInput [n] Direct

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, USER

Shows whether or not input processing such as acoustic echo cancellation and noise reduction is bypassed on this local input. Bypassing the input processing reduces the audio input delay, which is useful when doing local sound reinforcement. You can run the command xStatus Audio Input LocalInput to find the identity [n] of the input.

Value space of the result returned:

Off/On

Off: All regular input processing is performed, according to the configuration of each connector.
On: Bypass input processing such as acoustic echo cancellation and noise reduction, regardless of the configuration for each connected input connector.

Example:
```
xStatus Audio Input LocalInput 1 Direct
's Audio Input LocalInput 1 Direct: "Off"
** end
```

xStatus Audio Input LocalInput [n] MixerMode

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, USER

Shows how the local input connectors have been mixed together. You can run the command xStatus Audio Input LocalInput to find the identity [n] of the input.

Value space of the result returned:

Auto/Fixed/GainShared

Auto: The microphone with the strongest speaker is active and the others are strongly attenuated.
Fixed: The input connector signals are mixed together with equal gains.
GainShared: The microphones are given a normalized gain factor relative to the strongest speaker before being mixed together.

Example:
```
xStatus Audio Input LocalInput 1 MixerMode
's Audio Input LocalInput 1 MixerMode: "Auto"
** end
```

xStatus Audio Input LocalInput [n] Mute

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, USER

Shows the mute mode for the local inputs. A local input is a mix of input connectors. You can run the command xStatus Audio Input LocalInput to find the identity [n] of the input.

Value space of the result returned:

On/Off

Example:
```
xStatus Audio Input LocalInput 1 Mute
's Audio Input LocalInput 1 Mute: "Off"
** end
```

xStatus Audio Input LocalInput [n] Name

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, USER

Shows the name of the local input. A local input is a mix of input connectors. You can run the command xStatus Audio Input LocalInput to find the identity [n] of the input.

Value space of the result returned:

String

Example:
```
xStatus Audio Input LocalInput 1 Name
's Audio Input LocalInput 1 Name: "Microphone"
** end
```
xStatus Audio Input RemoteInput [n] CallId

Applies to: DX70/DX80 SX10 SX20 SX80 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, USER

Shows the CallId for the remote audio input.
You can run the command xStatus Audio Input RemoteInput to find the identity [n] of the input.

Value space of the result returned:

0..65534

Example:

```
*xStatus Audio Input RemoteInput 8 CallId
*s Audio Input RemoteInput 8 CallId: 28
** end
```

xStatus Audio Output Connectors ARC [n] DelayMs

Applies to: CodecPlus CodecPro Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR, USER

Shows the delay of the ARC output.

Value space of the result returned:

```
Integer
   The delay in milliseconds.
```

Example:

```
xStatus Audio Output Connectors ARC 1 DelayMs
*s Audio Output Connectors ARC 1 DelayMs: 60
** end
```

xStatus Audio Output Connectors ARC [n] Mode

Applies to: CodecPlus CodecPro Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR, USER

Shows whether the audio channel on the ARC output connector is enabled or disabled.

Value space of the result returned:

```
On/Off
```

Example:

```
xStatus Audio Output Connectors ARC 1 Mode
*s Audio Output Connectors ARC 1 Mode: Off
** end
```

xStatus Audio Microphones Mute

Applies to: All products

Requires user role: ADMIN, INTEGRATOR, USER

Shows whether the microphones are muted.

Value space of the result returned:

```
On/Off
```

Example:

```
xStatus Audio Microphones Mute
*s Audio Microphones Mute: Off
** end
```
xStatus Audio Output Connectors HDMI [n] DelayMs

Applies to: RoomKit, RoomKitMini, CodecPlus, CodecPro, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR, USER

Shows the delay of the HDMI output.

Value space of the result returned:

```
Integer
The delay in milliseconds.
```

Example:
```
xStatus Audio Output Connectors HDMI 1 DelayMs
's Audio Output Connectors HDMI 1 DelayMs: 60
** end
```

xStatus Audio Output Connectors InternalSpeaker [n] DelayMs

Applies to: RoomKit, RoomKitMini, CodecPlus, CodecPro

Requires user role: ADMIN, INTEGRATOR, USER

Shows the delay of the internal loudspeaker.

Value space of the result returned:

```
Integer
The delay in milliseconds.
```

Example:
```
xStatus Audio Output Connectors InternalSpeaker 1 DelayMs
's Audio Output Connectors InternalSpeaker 1 DelayMs: 0
** end
```

xStatus Audio Output Connectors HDMI [n] Mode

Applies to: RoomKit, RoomKitMini, CodecPlus, CodecPro, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR, USER

Shows whether the audio channel on the HDMI output connector is enabled or disabled, or if the connector is being used to measure the audio delay through the connected video display.

Value space of the result returned:

```
On/Off/DelayMeasurement
```

- **On**: The audio channel on the HDMI output connector is enabled.
- **Off**: The audio channel on the HDMI output connector is disabled

```
DelayMeasurement: The connector is being used to measure the audio delay through the connected video display.
```

Example:
```
xStatus Audio Output Connectors HDMI 1 Mode
's Audio Output Connectors HDMI 1 Mode: On
** end
```

xStatus Audio Output Connectors InternalSpeaker [n] Mode

Applies to: RoomKitMini, CodecPlus, CodecPro

Requires user role: ADMIN, INTEGRATOR, USER

Shows whether the device's integrated speakers are enabled or disabled.

Value space of the result returned:

```
On/Off
```

Example:
```
xStatus Audio Output Connectors InternalSpeaker 1 Mode
's Audio Output Connectors InternalSpeaker 1 Mode: On
** end
```
xStatus Audio Output Connectors Line [n] ConnectionStatus

Applies to: RoomKit CodecPlus Room55 Room70/Room55D Boards
Requires user role: ADMIN, INTEGRATOR, USER
Shows whether the audio output line is connected.
Value space of the result returned:
  Connected/NotConnected/Unknown
  Connected: A device is connected.
  NotConnected: Nothing is connected.
  Unknown: The device is not able to detect if anything is connected.
Example:
  xStatus Audio Output Connectors Line 1 ConnectionStatus
  "s Audio Output Connectors Line 1 ConnectionStatus: Connected
  ** end

xStatus Audio Output Connectors Line [n] DelayMs

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER
Shows the delay in milliseconds.
Value space of the result returned:
  Integer (0..290)
Example:
  xStatus Audio Output Connectors Line 1 DelayMs
  "s Audio Output Connectors Line 1 DelayMs: 60
  ** end

xStatus Audio Output LocalOutput [n] AutoconnectRemote

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, USER
Shows whether or not the remote input signal (from far-end) is automatically added to this local output. It can always be added manually using the Audio LocalOutput ConnectInput command.
Value space of the result returned:
  On/Off
  On: The remote input signal is automatically added to all local outputs when in a call.
  Off: The remote input signal is not automatically added to the local output.
Example:
  xStatus Audio Output LocalOutput 4 AutoconnectRemote
  "s Audio Output LocalOutput 4 AutoconnectRemote: "On"
  ** end

xStatus Audio Output LocalOutput [n] Channels

Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, USER
States if the local output channels are mixed into a mono signal (1) or stereo signal (2).
You can run the command xStatus Audio Output LocalOutput to find the identity [n] of the output.
Value space of the result returned:
  1..2
Example:
  xStatus Audio Output LocalOutput 4 Channels
  "s Audio Output LocalOutput 4 Channels: "1"
  ** end
**xStatus Audio Output LocalOutput [n] Connector [n]**

**Applies to:** SX80  MX700/MX800/MX800D  CodecPro  Room70G2  RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, USER

Lists the connectors that are attached to the local output.

You can run the command `xStatus Audio Output LocalOutput` to find the identity [n] of the output.

**Value space of the result returned:**

- **String**

**Example:**

```
xStatus Audio Output LocalOutput 4 Connector
's Audio Output LocalOutput 4 Connector: "Line.1"
** end
```

**xStatus Audio Output LocalOutput [n] Input [n] Gain**

**Applies to:** SX80  MX700/MX800/MX800D  CodecPro  Room70G2  RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, USER

Shows the gain (dB) on the input, when it is connected to the local output.

You can run the command `xStatus Audio Output LocalOutput` to find the identity [n] of the output and input.

**Value space of the result returned:**

- Range from -54 dB to 15 dB, where -54 dB equals Off.

**Example:**

```
xStatus Audio Output LocalOutput 4 Input 2 Gain
's Audio Output LocalOutput 4 Input 2 Gain: 0
** end
```

**xStatus Audio Output LocalOutput [n] Loudspeaker**

**Applies to:** SX80  MX700/MX800/MX800D  CodecPro  Room70G2  RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, USER

Shows the Loudspeaker mode on the local output. If one or more of the output connectors that are attached to the local output are connected to a loudspeaker, then this signal should be a reference signal to the echo canceler and Loudspeaker should be set to On.

You can run the command `xStatus Audio Output LocalOutput` to find the identity [n] of the output.

**Value space of the result returned:**

- On/Off

**Example:**

```
xStatus Audio Output LocalOutput 4 Loudspeaker
's Audio Output LocalOutput 4 Loudspeaker: "Off"
** end
```

**xStatus Audio Output LocalOutput [n] Name**

**Applies to:** SX80  MX700/MX800/MX800D  CodecPro  Room70G2  RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, USER

Shows the name of the local output.

You can run the command `xStatus Audio Output LocalOutput` to find the identity [n] of the output.

**Value space of the result returned:**

- **String**

**Example:**

```
xStatus Audio Output LocalOutput 4 Name
's Audio Output LocalOutput 4 Name: "MyLocalOutput1"
** end
```
xStatus Audio Output LocalOutput [n] VolumeControlled

Applies to: SX80  MX700/MX800/MX800D  CodecPro  Room70G2  RoomPanorama/Room70Panorama
Requires user role: ADMIN, USER

Shows where this output’s volume is controlled from.

Value space of the result returned:

- **String**
  - **Off**: This output’s volume is controlled by global audio control.
  - **On**: This output’s volume is at the level defined with xCommand Audio Volume Set.

Example:
xStatus Audio Output LocalOutput 5 VolumeControlled
's Audio Output LocalOutput 5 VolumeControlled: "On"
** end

xStatus Audio Output MeasuredHdmiArcDelay

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

Shows the measured audio delay of the device connected to the HDMI connector. This delay is measured through the HDMI audio return channel, and will secure good lip-synchronization between audio and video.

Value space of the result returned:

- **Integer**
  - The measured audio delay in milliseconds.

Example:
xStatus Audio Output MeasuredHdmiArcDelay
's Audio Output MeasuredHdmiArcDelay: 85
** end

xStatus Audio Output MeasuredHdmiDelay

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

Shows the measured audio delay of the device connected to the HDMI connector. This delay is measured from the HDMI output to one of the microphones.

Value space of the result returned:

- **Integer**
  - The measured audio delay in milliseconds.

Example:
xStatus Audio Output MeasuredHdmiDelay
's Audio Output MeasuredHdmiDelay: 134
** end

xStatus Audio Output MeasuredHdmiCecDelay

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

Shows the reported video delay of the device connected to the HDMI connector. This delay is reported through the consumer electronics control (CEC) protocol, and will secure good lip-synchronization between audio and video.

Value space of the result returned:

- **Integer**
  - The measured audio delay in milliseconds.

Example:
xStatus Audio Output ReportedHdmiCecDelay
's Audio Output ReportedHdmiCecDelay: 39
** end
xStatus Audio Output RemoteOutput [n] CallId
Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, USER
Shows the CallId for the remote audio output.
You can run the command xStatus Audio Output RemoteOutput to find the identity [n] of the output.
Value space of the result returned:
1..65534
Example:
xStatus Audio Output RemoteOutput 9 CallId
*s Audio Output RemoteOutput 9 CallId: 28
** end

xStatus Audio Output RemoteOutput [n] Input [n] Gain
Applies to: SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, USER
Shows the gain (dB) on the input, when input is connected to the remote output. Range from -54 dB to 15 dB, where -54 dB equals Off.
You can run the command xStatus Audio Output RemoteOutput to find the identity [n] of the output and input.
Value space of the result returned:
-54..15
Example:
xStatus Audio Output RemoteOutput 9 Input 1 Gain
*s Audio Output RemoteOutput 9 Input 1 Gain: 0
** end

xStatus Audio SelectedDevice
Applies to: DX70/DX80 RoomKit RoomKitMini Room55 DeskPro
Requires user role: ADMIN, USER
Shows the audio device that is selected. Only DX80 and DX70 support Bluetooth. Only the DX70 supports analog headsets.
Value space of the result returned:
Internal/HeadsetUSB/HeadsetAnalog/HeadsetBluetooth/HandsetUSB
Example:
xStatus Audio SelectedDevice
*s Audio SelectedDevice: Internal
** end

xStatus Audio Volume
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER
Shows the volume level (dB) of the loudspeaker output.
Value space of the result returned:
0..100
Example:
xStatus Audio Volume
*s Audio Volume: 70
** end
xStatus Audio VolumeHandsetUsb
Applies to: DX70/DX80  RoomKit  RoomKitMini  Room55  DeskPro
Requires user role: ADMIN, USER
Shows the volume level of the USB handset.
Value space of the result returned:
   Integer
Example:
   xStatus Audio VolumeHandsetUsb
   "s 6
   ** end

xStatus Audio VolumeHeadsetUsb
Applies to: DX70/DX80  DeskPro
Requires user role: ADMIN, USER
Shows the volume level of the USB headset.
Value space of the result returned:
   Integer
Example:
   xStatus Audio VolumeHeadsetUsb
   "s 6
   ** end

xStatus Audio VolumeHeadsetAnalog
Applies to: DX70/DX80  RoomKit  RoomKitMini  Room55  DeskPro
Requires user role: ADMIN, USER
Shows the volume level of the analog headset (DX70 only).
Value space of the result returned:
   Integer
Example:
   xStatus Audio VolumeHeadsetAnalog
   "s 6
   ** end

xStatus Audio VolumeInternal
Applies to: DX70/DX80  RoomKit  RoomKitMini  Room55  DeskPro
Requires user role: ADMIN, USER
Shows the internal volume level.
Value space of the result returned:
   Integer
Example:
   xStatus Audio VolumeInternal
   "s 6
   ** end
xStatus Audio VolumeMute

 Applies to: All products
 Requires user role: ADMIN, USER
 Shows whether the device volume is set to mute.
 Value space of the result returned:
   Off/On

 Example:
 xStatus Audio VolumeMute
 *s Audio VolumeMute: Off
 ** end

Bookings status

xStatus Bookings Current Id

 Applies to: All products
 Requires user role: ADMIN, USER
 The ID of the on going booking event, if any.
 Value space of the result returned:
   String

 Example:
 xStatus Bookings Current Id
 *s Bookings Current Id: "123"
 ** end
**Call status**

**xStatus Call [n] AnswerState**

*Applies to: All products*

*Requires user role: ADMIN, USER*

Indicates if a call is answered, ignored or has been automatically answered by a device.

*Value space of the result returned:*

  - Unanswered/Ignored/Autoanswered/Answered

*Example:*

  - xStatus Call AnswerState

    *s Call 5 AnswerState: Answered

    ** end

**xStatus Call [n] AttendedTransferFrom**

*Applies to: All products*

*Requires user role: ADMIN, USER*

Shows the CallId for the call the current call was transferred from.

*Value space of the result returned:*

  - Integer

*Example:*

  - xStatus Call 1 AttendedTransferFrom

    *s Call 1 AttendedTransferFrom: 1234

    ** end

**xStatus Call [n] CallbackNumber**

*Applies to: All products*

*Requires user role: ADMIN, USER*

Shows the remote (far end) number or URI of an incoming or outgoing call, including the call protocol, for call back. You can run the command xStatus Call to find the call identity.

*Value space of the result returned:*

  - String

*Example:*

  - xStatus Call 27 CallbackNumber

    *s Call 27 CallbackNumber: "h323:firstname.lastname@company.com"

    ** end

**xStatus Call [n] CallType**

*Applies to: All products*

*Requires user role: ADMIN, USER*

Shows the call type of the incoming or outgoing call. You can run the command xStatus Call to find the call identity.

*Value space of the result returned:*

  - Video/Audio/AudioCanEscalate/ForwardAllCall/Unknown

*Example:*

  - xStatus Call 27 CallType

    *s Call 27 CallType: Video

    ** end
xStatus Call [n] DeviceType
Applies to: All products
Requires user role: ADMIN, USER
Shows where the call is connected to.
Value space of the result returned:

- **Endpoint/MCU**
  - **Endpoint**: It is a point-to-point call to another device.
  - **MCU**: The call is to a multipoint conferencing unit (MCU) in the network, or a MultiSite call hosted on a device.

Example:
```
xStatus Call DeviceType
*s Call 4 DeviceType: Endpoint
** end
```

xStatus Call [n] Direction
Applies to: All products
Requires user role: ADMIN, USER
States the direction of the call initiation. You can run the command xStatus Call to find the call identity.
Value space of the result returned:

- **Incoming/Outgoing**

Example:
```
xStatus Call 27 Direction
*s Call 27 Direction: Outgoing
** end
```

xStatus Call [n] DisplayName
Applies to: All products
Requires user role: ADMIN, USER
Shows the name of the remote (far end) participant in an incoming or outgoing call. You can run the command xStatus Call to find the call identity.
Value space of the result returned:

- **String**

Example:
```
xStatus Call 27 DisplayName
*s Call 27 DisplayName: "firstname.lastname@company.com"
** end
```

xStatus Call [n] Duration
Applies to: All products
Requires user role: ADMIN, USER
Shows the duration of a call (in seconds). You can run the command xStatus Call to find the call identity.
Value space of the result returned:

- **Integer**

Example:
```
xStatus Call 27 Duration
*s Call 27 Duration: 2354
** end
```
xStatus Call [n] Encryption Type

Applies to: All products
Requires user role: ADMIN, USER

Shows the encryption type of the call. You can run the command xStatus Call to find the call identity.

Value space of the result returned:

- None
- Aes-128

Example:

```
xStatus Call 27 Encryption Type
's Call 27 Encryption Type: "None"
** end
```

xStatus Call [n] FacilityServiceId

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

When calling a facility service, the facility service id is shown. Otherwise the value 0 is returned.

Value space of the result returned:

- 0..5

Example:

```
xStatus Call FacilityServiceId
's Call 3 FacilityServiceId: 1
** end
```

xStatus Call [n] HoldReason

Applies to: All products
Requires user role: ADMIN, USER

Shows the reason the current outgoing call was put on hold.

Value space of the result returned:

- Conference
- Transfer
- None

- Conference: On hold while the call is being merged into a conference.
- Transfer: On hold while the call is being transferred.
- None: All other instances.

Example:

```
xStatus Call 2 HoldReason
's Call 2 HoldReason: None
** end
```

xStatus Call [n] Ice

Applies to: All products
Requires user role: ADMIN, USER

ICE is a feature that enables two sides of a call to send media (video and audio) directly between each other, if a direct network path has been found through ICE negotiation. This status reflects the result of that negotiation.

Value space of the result returned:

- Disabled
- Passed
- Failed

- Disabled: ICE is disabled.
- Passed: A direct network path was found and is being used.
- Failed: A direct network path was not found, and media will most likely flow through an intermediary component.

Example:

```
xStatus Call 2 Ice
's Call 2 Ice: Passed
** end
```
xStatus Call [n] PlacedOnHold
Applies to: All products
Requires user role: ADMIN, USER
Shows the placed on hold status of the call. You can run the command xStatus Call to find the call identity.
Value space of the result returned:
True/False
Example:
```
xStatus Call 27 PlacedOnHold
's Call 27 PlacedOnHold: False
** end
```

xStatus Call [n] Protocol
Applies to: All products
Requires user role: ADMIN, USER
Shows the call protocol of the incoming or outgoing call. You can run the command xStatus Call to find the call identity.
Value space of the result returned:
H320/H323/SIP/Spark/Unknown
Example:
```
xStatus Call 27 Protocol
's Call 27 Protocol: "h323"
** end
```

xStatus Call [n] ReceiveCallRate
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER
Shows the receive bandwidth in the call in kilobits per second (kbps). You can run the command xStatus Call to find the call identity.
Value space of the result returned:
Integer
Example:
```
xStatus Call 27 ReceiveCallRate
's Call 27 ReceiveCallRate: 4000
** end
```

xStatus Call [n] RemoteNumber
Applies to: All products
Requires user role: ADMIN, USER
Shows the remote (far end) number or URI of an incoming or outgoing call. You can run the command xStatus Call to find the call identity.
Value space of the result returned:
String
Example:
```
xStatus Call 27 RemoteNumber
's Call 27 RemoteNumber: "5585232"
** end
```
xStatus Call \([n]\) Status

**Applies to:** All products
**Requires user role:** ADMIN, USER

Shows the status of a call. You can run the command `xStatus Call` to find the call identity.

Value space of the result returned:
- Idle/Dialling/Ringing/Connecting/Connected/Disconnecting/OnHold/EarlyMedia/Preserved/RemotePreserved

**Example:**
```
xStatus Call 27 Status
's Call 27 Status: Connected
 '** end
```

xStatus Call \([n]\) TransmitCallRate

**Applies to:** All products
**Requires user role:** ADMIN, INTEGRATOR, USER

Shows the transmit bandwidth in the call in kilobits per second (kbps). You can run the command `xStatus Call` to find the call identity.

Value space of the result returned:
- Integer

**Example:**
```
xStatus Call 27 TransmitCallRate
's Call 27 TransmitCallRate: 768
 '** end
```

Cameras status

xStatus Cameras Background Image

**Applies to:** DeskPro
**Requires user role:** ADMIN, INTEGRATOR, ROOMCONTROL, USER

Shows which of a set of three pre-installed images is selected as the background image.

Value space of the result returned:
- `Image1`, `Image2`, `Image3`, `User1`, `User2`, `User3`
  - `Image1`: Office space
  - `Image2`: Home office
  - `Image3`: Beach
  - User1, User2, User3: Slots where an uploaded image can be installed.

**Example:**
```
xStatus Cameras Background Image
's Cameras Background Image: Image3
 '** end
```
xStatus Cameras Background Mode

Applies to: DeskPro

Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Shows whether any images or effects have been selected to mask the background of the camera view.

Value space of the result returned:

- **Disabled/Blur/BlurMonochrome/DepthOfField/Hdmi/Monochrome/Image/UsbC**
  - **Disabled**: There are no background images or effects displayed.
  - **Blur**: The background is blurred.
  - **BlurMonochrome**: Combination of blur and monochrome (blurred without colors).
  - **DepthOfField**: Variant of blur with less blurring.
  - **Hdmi**: HDMI input is providing a live background.
  - **Monochrome**: Shows the image in grayscale.
  - **Image**: An image is providing the background.
  - **UsbC**: USB-C is providing a live background.

Example:
```
xStatus Cameras Background Mode
*s Cameras Background Mode: Image
** end
```

xStatus Cameras Camera [n] Capabilities Options

Applies to: All products

Requires user role: ADMIN, INTEGRATOR, USER, ROOMCONTROL

Shows the camera capabilities (ptzf = pan, tilt, zoom, focus).

Value space of the result returned:

- **String**

Example:
```
xStatus Cameras Camera 1 Capabilities Options
*s Camera 1 Capabilities Options: "ptzf"
** end
```

xStatus Cameras Camera [n] Connected

Applies to: All products

Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Shows if the camera is connected or not.

Value space of the result returned:

- **True/False**

Example:
```
xStatus Cameras Camera 1 Connected
*s Camera 1 Connected: True
** end
```

xStatus Cameras Camera [n] DetectedConnector

Applies to: SX10 SX20 SX80 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Shows the connector number the camera has detected it is connected to, or shows 0 if no connection is detected.

Value space of the result returned:

- **Integer**

Example:
```
xStatus Cameras Camera 1 DetectedConnector
*s Cameras Camera 1 DetectedConnector: 1
** end
```
xStatus Cameras Camera [n] Flip

Applies to: SX10 SX20 SX80 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Shows if the image is flipped upside down.

Value space of the result returned:

Off/On

Example:
xStatus Cameras Camera 1 Flip  
's Camera 1 Flip: "Off"

** end

xStatus Cameras Camera [n] Framerate

Applies to: RoomKit RoomKitMini Room55 DeskPro

Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Value space of the result returned:

Integer

xStatus Cameras Camera [n] HardwareID

Applies to: DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

Requires user role: ADMIN, INTEGRATOR, USER, ROOMCONTROL

Shows the hardware identity of the camera.

Value space of the result returned:

String

Example:
xStatus Cameras Camera 1 HardwareID  
's Camera 1 HardwareID: "50000000"

** end

xStatus Cameras Camera [n] LightingConditions

Applies to: SX80 MX700/MX800/MX800D Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Rooms

Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Shows how the camera perceives the lighting conditions in the room.

Value space of the result returned:

Unknown/Good/Dark/Backlight

Unknown: The camera is turned off or does not support this functionality.

Good: The lighting is at a good level.

Dark: The lighting is too low.

Backlight: There is a high level of backlight in the image.

Example:
xStatus Cameras Camera 1 LightingConditions  
's Camera 1 LightingConditions: Good

** end

xStatus Cameras Camera [n] MacAddress

Applies to: SX10 SX20 SX80 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

Requires user role: ADMIN, INTEGRATOR, USER, ROOMCONTROL

Shows the MAC (Media Access Control) address for the camera.

Value space of the result returned:

String

Example:
xStatus Cameras Camera 1 MacAddress  
's Camera 1 MacAddress: ""
**xStatus Cameras Camera [n] Manufacturer**

**Applies to:** All products

**Requires user role:** ADMIN, INTEGRATOR, USER, ROOMCONTROL

Shows the manufacturer of the camera.

Value space of the result returned:

- **String**

Example:

```plaintext
xStatus Cameras Camera 1 Manufacturer
's Camera 1 Manufacturer: "Cisco"
** end
```

**xStatus Cameras Camera [n] Model**

**Applies to:** All products

**Requires user role:** ADMIN, INTEGRATOR, USER, ROOMCONTROL

Shows the camera model.

Value space of the result returned:

- **String**

Example:

```plaintext
xStatus Cameras Camera 1 Model
's Camera 1 Model: "Precision 40"
** end
```

**xStatus Cameras Camera [n] Position Focus**

**Applies to:** SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  CodecPlus  CodecPro  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro

**Requires user role:** ADMIN, INTEGRATOR, USER, ROOMCONTROL

Shows the current focus position of the camera. The value range depends on camera type.

Value space of the result returned:

- **0..65535**

Example:

```plaintext
xStatus Cameras Camera 1 Position Focus
's Camera 1 Position Focus: 4597
** end
```

**xStatus Cameras Camera [n] Position Lens**

**Applies to:** SX80  MX700/MX800/MX800D  CodecPlus  CodecPro  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, INTEGRATOR, USER, ROOMCONTROL

Shows the camera's current lens position.

Value space of the result returned:

- **Default/Wide/Center/Left/Right**

Example:

```plaintext
xStatus Cameras Camera 1 Position Lens
's Cameras Camera 1 Position Lens: Center
** end
```
xStatus Cameras Camera [n] Position Pan

Applies to: SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

Requires user role: ADMIN, INTEGRATOR, USER, ROOMCONTROL

Shows the current pan (move left and right) position of the camera. The value range depends on camera type.

Value space of the result returned:
-10000..10000

Example:
```
xStatus Cameras Camera 1 Position Pan
*s Camera 1 Position Pan: 412
** end
```

xStatus Cameras Camera [n] Position Roll

Applies to: CodecPro Room70G2 RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR, USER, ROOMCONTROL

Shows the current rotation (roll) of the camera view. The observed image is rotated counter-clockwise if the value is positive, and clockwise if the value is negative. The unit is 1/100 degree, that is 300 corresponds to 3 degrees.

Value space of the result returned:
-300..300

Example:
```
xStatus Cameras Camera 1 Position Roll
*s Camera 1 Position Roll: 20
** end
```

xStatus Cameras Camera [n] Position Tilt

Applies to: SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

Requires user role: ADMIN, INTEGRATOR, USER, ROOMCONTROL

Shows the current tilt (move up and down) position of the camera. The value range depends on camera type.

Value space of the result returned:
-2500..2500

Example:
```
xStatus Cameras Camera 1 Position Tilt
*s Camera 1 Position Tilt: 106
** end
```

xStatus Cameras Camera [n] Position Zoom

Applies to: SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro

Requires user role: ADMIN, INTEGRATOR, USER, ROOMCONTROL

Shows the current zoom (zoom in and out) position of the camera. The value range depends on camera type.

Value space of the result returned:
0..11800

Example:
```
xStatus Cameras Camera 1 Position Zoom
*s Camera 1 Position Zoom: 828
** end
```
xStatus Cameras Camera [n] SerialNumber

**Applies to:** DX70/DX80 SX10 SX20 SX80 MX700/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, INTEGRATOR, USER, ROOMCONTROL

Shows the camera serial number.

Value space of the result returned:

- **String**

Example:
```
xStatus Cameras Camera 1 SerialNumber
's Camera 1 SerialNumber: "B1AB26B00010"
** end
```

xStatus Cameras Camera [n] SoftwareID

**Applies to:** DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800D CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, INTEGRATOR, USER, ROOMCONTROL

Shows the software identity of the camera.

Value space of the result returned:

- **String**

Example:
```
xStatus Cameras Camera 1 SoftwareID
's Camera 1 SoftwareID: "S01718-4.FINAL [ID:40063] 2014-10-20"
** end
```

xStatus Cameras PresenterTrack Availability

**Applies to:** SX80 MX700/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, INTEGRATOR, ROOMCONTROL, USER

Shows whether presenter tracking is available.

Value space of the result returned:

- **Off/Unavailable/Available**
  - **Off:** Presenter tracking is disabled.
  - **Unavailable:** Presenter tracking is not configured correctly, camera is disconnected, or a Multisite or Multistream call is in progress.
  - **Available:** Presenter tracking is available.

Example:
```
xStatus Cameras PresenterTrack Availability
's Cameras PresenterTrack Availability: Available
** end
```

xStatus Cameras PresenterTrack PresenterDetected

**Applies to:** SX80 MX700/MX800D CodecPlus CodecPro Room70/Room55D Room70G2 RoomPanorama/Room70Panorama

**Requires user role:** ADMIN, INTEGRATOR, ROOMCONTROL, USER

Shows whether presenter tracking is currently in use.

Value space of the result returned:

- **False/True**

Example:
```
xStatus Cameras PresenterTrack PresenterDetected
's Cameras PresenterTrack PresenterDetected: False
** end
```
xStatus Cameras PresenterTrack Status

Applies to: SX80 MX700/MX800/MX800D CodecPlus CodecPro Room70/Room55D Room70G2
RoomPanorama/Room70Panorama

Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Returns the current status for presenter tracking.

Value space of the result returned:

- Off/Follow/Diagnostic/Background/Setup/Persistent
  - Off: Not running.
  - Follow: Tracking is in progress and working normally.
  - Diagnostic: In diagnostics mode. This mode is used for troubleshooting.
  - Background: The algorithm is running when the PresenterTrack camera is not selected as
    the main camera. This is used in the Briefing room setup to enable automatic switching
    between the different cameras.
  - Setup: Web wizard for setting up SpeakerTrack camera is active.
  - Persistent: The camera is active and selected as main camera.

Example:
```
xStatus Cameras PresenterTrack Status
*s Cameras PresenterTrack Status: Off
** end
```

xStatus Cameras SpeakerTrack ActiveConnector

Applies to: SX80 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/
Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, INTEGRATOR, USER, ROOMCONTROL

Shows the number of the connector that a camera with speaker tracking support is connected
to. If it is a SpeakerTrack 60 camera or the dual camera of an MX700/MX800, it is the connector
number for the camera that is currently chosen by the SpeakerTrack algorithm.

This status is not applicable for Room Kit Mini.

Value space of the result returned:

- Integer

Example:
```
xStatus Cameras SpeakerTrack ActiveConnector
*s Cameras SpeakerTrack ActiveConnector: 1
** end
```

xStatus Cameras SpeakerTrack Availability

Applies to: SX80 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/
Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, INTEGRATOR, USER, ROOMCONTROL

The product may support speaker tracking (which also includes best overview), or only the best
overview feature. This status shows whether or not that feature is available.

Value space of the result returned:

- Off/Unavailable/Available
  - Off: Speaker tracking / best overview is turned off with the command xConfiguration
    Cameras SpeakerTrack Mode: Off
  - Unavailable: Hardware for speaker tracking / best overview is not found.
  - Available: Hardware for speaker tracking / best overview is found, and it is possible to
    turn the feature on or off from the user interface.

Example:
```
xStatus Cameras SpeakerTrack Availability
*s Cameras SpeakerTrack Availability: Available
** end
```

xStatus Cameras SpeakerTrack Status

Applies to: SX80 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/
Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, INTEGRATOR, USER, ROOMCONTROL

The product may support speaker tracking (which also includes best overview), or only the best
overview feature. This status shows whether or not that feature is active.

Value space of the result returned:

- Active/Inactive
  - Active: Speaker tracking / best overview is active.
  - Inactive: Speaker tracking / best overview is inactive.

Example:
```
xStatus Cameras SpeakerTrack Status
*s Cameras SpeakerTrack Status: Active
** end
```
Capabilities status

xStatus Capabilities Conference MaxActiveCalls
 Applies to: All products
 Requires user role: ADMIN, USER
 Shows the maximum number of simultaneous active calls. Calls that are set on hold/transfer are not counted as active.
 Value space of the result returned:
 0..5
 Example:
 xStatus Capabilities Conference MaxNumberOfActiveCalls
 *s Capabilities Conference MaxNumberOfActiveCalls: 3
 ** end

xStatus Capabilities Conference MaxAudioCalls
 Applies to: All products
 Requires user role: ADMIN, USER
 Shows the maximum number of simultaneous audio calls that is supported.
 Value space of the result returned:
 Integer
 Example:
 xStatus Capabilities Conference MaxAudioCalls
 *s Capabilities Conference MaxAudioCalls: 3
 ** end

xStatus Capabilities Conference MaxCalls
 Applies to: All products
 Requires user role: ADMIN, USER
 Shows the maximum number of simultaneous calls.
 Value space of the result returned:
 0..5
 Example:
 xStatus Capabilities Conference MaxCalls
 *s Capabilities Conference MaxCalls: 3
 ** end

xStatus Capabilities Conference MaxVideoCalls
 Applies to: All products
 Requires user role: ADMIN, USER
 Shows the maximum number of simultaneous video calls that is supported.
 Value space of the result returned:
 Integer
 Example:
 xStatus Capabilities Conference MaxVideoCalls
 *s Capabilities Conference MaxVideoCalls: 3
 ** end
Conference status

xStatus Conference ActiveSpeaker CallId

 Applies to: All products
Requires user role: ADMIN, USER

Shows the CallId of the current active speaker.

Value space of the result returned:

 Integer

Example:

\[xStatus \text{ Conference ActiveSpeaker CallId} \]
\[*s \text{ Conference ActiveSpeaker CallId}: 3\]
** end

xStatus Conference Call \[n\] AuthenticationRequest

 Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

This status is only relevant for Cisco Webex registered devices. When this status has another value than "None" the device is waiting for an authentication response. Use the Conference Call AuthenticationResponse command to give the response.

Value space of the result returned:

 None/HostPinOrGuest/HostPinOrGuestPin/PanelistPin

 None: The device is not waiting for an authentication response (no authentication request).

 HostPinOrGuest: You must either provide a host PIN, or join as a Guest without PIN.

 HostPinOrGuestPin: You must either provide a host PIN or a guest PIN.

 PanelistPin: You must provide a Panelist PIN for joining an Event Center event as panelist.

Example:

\[xStatus \text{ Conference Call 2 AuthenticationRequest} \]
\[*s \text{ Conference Call 2 AuthenticationRequest}: \text{None}\]
** end

xStatus Conference Call \[n\] BookingId

 Applies to: All products
Requires user role: ADMIN, USER

Shows the booking ID of a conference (if assigned). The booking ID can be used for easy identification of a call or conference.

Value space of the result returned:

String

Example:

\[xStatus \text{ Conference Call 2 BookingId} \]
\[*s \text{ Conference Call 2 BookingId}: \text{"MyConference"}\]
** end

xStatus Conference Call \[n\] Capabilities FECC Mode

 Applies to: All products
Requires user role: ADMIN, USER

Shows whether or not you have permission to control the input sources at a far end site.

Value space of the result returned:

 On/Off

 On: Far end input source control is permitted.

 Off: Far end input source control is not permitted.

Example:

\[xStatus \text{ Conference Call 2 Capabilities FECC Mode} \]
\[*s \text{ Conference Call 2 Capabilities FECC Mode}: \text{On}\]
** end
xStatus Conference Call [n] Capabilities FECC NumberOfPresets

Applies to: All products
Requires user role: ADMIN, USER
Shows the number of presets available for the input sources at a far end site.
Value space of the result returned:
1..15

Example:
xStatus Conference Call 2 Capabilities FECC NumberOfPresets
's Conference Call 2 Capabilities FECC NumberOfPresets: 15
** end

xStatus Conference Call [n] Capabilities FECC NumberOfSources

Applies to: All products
Requires user role: ADMIN, USER
Shows the number of input sources that can be connected at a far end site.
Value space of the result returned:
1..5

Example:
xStatus Conference Call 2 Capabilities FECC NumberOfSources
's Conference Call 2 Capabilities FECC NumberOfSources: 5
** end

xStatus Conference Call [n] Capabilities FECC Source [n] Name

Applies to: All products
Requires user role: ADMIN, USER
Shows the name of an input source that can be connected at a far end site.
Value space of the result returned:
String

Example:
xStatus Conference Call 2 Capabilities FECC Source 1 Name
's Conference Call 2 Capabilities FECC Source 1 Name: "Main camera"
** end

xStatus Conference Call [n] Capabilities FECC Source [n] Options

Applies to: All products
Requires user role: ADMIN, USER
Shows available options for an input source that can be connected at a far end site (for a camera: p=pan; t=tilt; z=zoom; f=focus).
Value space of the result returned:
String

Example:
xStatus Conference Call 2 Capabilities FECC Source 1 Options
's Conference Call 2 Capabilities FECC Source 1 Options: "ptzf"
** end
xStatus Conference Call [n] Capabilities FECC Source [n] SourceId
Applies to: All products
Requires user role: ADMIN, USER
Shows the ID of an input source that can be connected at a far end site.
Value space of the result returned:
  Integer
Example:
  xStatus Conference Call 2 Capabilities FECC Source 1 SourceId
  *s Conference Call 2 Capabilities FECC Source 1 SourceId: 6
  ** end

xStatus Conference Call [n] Capabilities Hold
Applies to: All products
Requires user role: ADMIN, USER
Indicates whether the far-end site can be placed on hold or not.
Value space of the result returned:
  True/False
Example:
  xStatus Conference Call 2 Capabilities Hold
  *s Conference Call 2 Capabilities Hold: True
  ** end

xStatus Conference Call [n] Capabilities IxChannel Status
Applies to: All products
Not applicable in this release.

xStatus Conference Call [n] Capabilities ParticipantDisconnect
Applies to: All products
Requires user role: ADMIN, USER
Value space of the result returned:
  Available/Unavailable
  Shows if you can disconnect participants on this call.
Example:
  xStatus Conference Call 2 Capabilities ParticipantDisconnect
  *s Conference Call 2 Capabilities ParticipantDisconnect: Available
  ** end

xStatus Conference Call [n] Capabilities ParticipantList
Applies to: All products
Requires user role: ADMIN, USER
Value space of the result returned:
  Available/Unavailable
  Shows if you can see the participant list on this call.
Example:
  xStatus Conference Call 2 Capabilities ParticipantList
  *s Conference Call 2 Capabilities ParticipantList: Available
  ** end
xStatus Conference Call [n] Capabilities ParticipantMute

Applies to: All products
Requires user role: ADMIN, USER

Value space of the result returned:
Available/Unavailable
Shows if you can mute and unmute participants on this call.

Example:
xStatus Conference Call 2 Capabilities ParticipantMute
*s Conference Call 2 Capabilities ParticipantMute: Available
** end

xStatus Conference Call [n] Capabilities Recording Start

Applies to: All products
Requires user role: ADMIN, USER

Shows if you can start a recording on this call.
Value space of the result returned:
Available/Unavailable

Example:
xStatus Conference Call[18] Capabilities Recording Start
*s Conference Call 18 Capabilities Recording Start: Unavailable
** end

xStatus Conference Call [n] Capabilities Presentation

Applies to: All products
Requires user role: ADMIN, USER

Lists the presentation capabilities for other participants in the conference.
Value space of the result returned:
True/False

Example:
xStatus Conference Call 2 Capabilities Presentation
*s Conference Call 2 Capabilities Presentation: True
** end

xStatus Conference Call [n] EventCenter Mode

Applies to: All products
Requires user role: ADMIN, USER

Shows if the Practice Session mode is currently in use on this call. This status is only available for cloud registered devices.
Value space of the result returned:
Normal/PracticeSession

Example:
xStatus Conference Call 2 EventCenter Mode
*s Conference Call 2 EventCenter Mode: Normal
** end
**xStatus Conference Call [n] Manufacturer**

*Applies to: All products*

*Requires user role: ADMIN, USER*

Shows the manufacturer of the device at a far end site.

*Value space of the result returned:*

*String*

*Example:*

```plaintext
xStatus Conference Call 2 Manufacturer
's Conference Call 2 Manufacturer: "Cisco"
** end
```

**xStatus Conference Call [n] MicrophonesMuted**

*Applies to: All products*

*Requires user role: ADMIN, USER*

Lists the audio mute status for other participants in the conference.

*Value space of the result returned:*

*True/False*

*Example:*

```plaintext
xStatus Conference Call 2 MicrophonesMuted
's Conference Call 2 MicrophonesMuted: True
** end
```

**xStatus Conference Call [n] Recording**

*Applies to: All products*

*Requires user role: ADMIN, USER*

*Value space of the result returned:*

*None/Recording/Paused*

*Example:*

```plaintext
xstatus Conference Call[18] Recording
's Conference Call 18 Recording: None
** end
```

**xStatus Conference Call [n] Sip SessionId**

*Applies to: All products*

*Requires user role: ADMIN, USER*

*Value space of the result returned:*

*String*

*Example:*

```plaintext
xstatus Conference Call[18] Sip SessionId
's Conference Call 18 Sip SessionId: "8833d0863ac15b0083ce5aa417eb6609;remote=b3a9603e7ae6f2e6a818c815307c4f1"
** end
```
xStatus Conference Call [n] SoftwareID
Applies to: All products
Requires user role: ADMIN, USER
Shows the ID of the software running on the device at a far end site.
Value space of the result returned:
   String
Example:
   xStatus Conference Call 2 SoftwareID
   *s Conference Call 2 SoftwareID: "CE8"
   ** end

xStatus Conference Call [n] Streamed
Applies to: All products
Requires user role: ADMIN, USER
Shows if the conference is being live streamed.
Value space of the result returned:
   False/True
Example:
   xStatus Conference Call 2 Streamed
   *s Conference Call 2 Streamed: False
   ** end

xStatus Conference DoNotDisturb
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER
Shows whether DoNotDisturb mode is switched on or not.
Value space of the result returned:
   Active/Inactive
Example:
   xStatus Conference DoNotDisturb
   *s Conference DoNotDisturb: Inactive
   ** end

xStatus Conference Line [n] Mode
Applies to: All products
Requires user role: ADMIN, USER
Indicates whether the device is configured as private or shared line on CUCM.
Value space of the result returned:
   Shared/Private
Example:
   xStatus Conference Line Mode
   *s Conference Line 1 Mode: Private
   ** end
**xStatus Conference Multipoint Mode**

**Applies to:** All products

**Requires user role:** ADMIN, USER

The multipoint status depends on the Conference Multipoint Mode setting and the MultiSite option key. A device that doesn't have the MultiSite option key cannot host a MultiSite conference regardless of the Conference Multipoint Mode setting.

Value space of the result returned:

- **CUCMMediaResourceGroupList/MultiSite/Off/Spark**
  - **Off:** Multiparty conferences may be set up via an MCU if you call an MCU that allows devices to add participants to a conference (Direct Remote Add). All products except SX10, DX70, and DX80 can call one extra device on audio-only. Also if Conference Multipoint Mode is set to MultiSite on a device that doesn't have the MultiSite option key, the add one extra device on audio-only behavior applies.
  - **MultiSite:** If Conference Multipoint Mode is set to MultiSite, multiparty conferences are always set up using the built-in MultiSite feature. If Conference Multipoint Mode is set to Auto, the built-in MultiSite feature is used for multiparty conferences only when calling other video devices. Multiparty conferences are set up via an MCU if you call an MCU that allows devices to add participants to a conference (Direct Remote Add).
  - **CUCMMediaResourceGroupList:** Multiparty conferences are hosted by a CUCM configured conference bridge (ad hoc conferencing).
  - **Spark:** Multiparty conferences are set up through the Cisco Webex cloud service.

**Example:**

```plaintext
xStatus Conference Multipoint Mode
's Conference Multipoint Mode: "CUCMMediaResourceGroupList"
** end
```

---

**xStatus Conference Presentation CallId**

**Applies to:** All products

**Requires user role:** ADMIN, INTEGRATOR, USER, ROOMCONTROL

Shows the identity of the device that sends the presentation.

Value space of the result returned:

- **Integer**

**Example:**

```plaintext
xStatus Conference Presentation CallId
's Conference Presentation CallId: 0
** end
```

---

**xStatus Conference Presentation LocalInstance [n] DirectShare**

**Applies to:**

**Requires user role:** ADMIN, INTEGRATOR, ROOMCONTROL, USER

Indicates whether or not the presentation originates as a direct share session.

Value space of the result returned:

- **Integer**

**Example:**

```plaintext
xStatus Conference Presentation LocalInstance 1 DirectShare
's Conference Presentation LocalInstance 1 DirectShare: 1
** end
```
xStatus Conference Presentation LocalInstance [n] SendingMode

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Shows whether a presentation source is shared locally or with a remote participant. There can be multiple local presentations which all have their own instance.

Value space of the result returned:

LocalOnly/LocalRemote/Off

Example:

xStatus Conference Presentation LocalInstance 1 SendingMode
's Conference Presentation LocalInstance 1 SendingMode: LocalOnly
** end

xStatus Conference Presentation LocalInstance [n] Source

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Shows the SourceId for a current presentation. There can be multiple local presentations which all have their own instance.

Value space of the result returned:

Integer

Example:

xStatus Conference Presentation LocalInstance 1 Source
's Conference Presentation LocalInstance 1 Source: 1
** end

xStatus Conference Presentation Mode

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Shows the status of the secondary video stream.

Value space of the result returned:

Off/Sending/Receiving

Example:

xStatus Conference Presentation Mode
's Conference Presentation Mode: Off
** end

xStatus Conference SelectedCallProtocol

Applies to: All products
Requires user role: ADMIN, USER

Indicates which call protocol is used as default.

Value space of the result returned:

H320/H323/SIP/Spark

Example:

xStatus Conference SelectedCallProtocol
's Conference SelectedCallProtocol: SIP
** end
xStatus Conference SpeakerLock CallId

Applies to: All products
Requires user role: ADMIN, USER

Shows the CallId for the participant locked as the prominent speaker in the conference.

Value space of the result returned:

   Integer

Example:

   xStatus Conference SpeakerLock CallId
   *s Conference SpeakerLock CallId: 0
   ** end

xStatus Conference SpeakerLock Mode

Applies to: All products
Requires user role: ADMIN, USER

Shows whether the speaker lock is enabled or not.

Value space of the result returned:

   On/Off

Example:

   xStatus Conference SpeakerLock Mode
   *s Conference SpeakerLock Mode: Off
   ** end

Diagnostics status

xStatus Diagnostics Message [n] Description

Applies to: All products
Requires user role: ADMIN, USER

Shows a description of the current diagnostics alerts.

Value space of the result returned:

   String

Example:

   xStatus Diagnostics Message Description
   *s DiagnosticsResult Message 1 Description: "IP configuration incomplete"
   ** end

xStatus Diagnostics Message [n] Level

Applies to: All products
Requires user role: ADMIN, USER

Shows the level of importance of the diagnostics message.

Value space of the result returned:

   Error/Warning/Critical

   Error: There is an error in the device. The device can still be used, but there can be some restrictions.
   Warning: A problem is detected and a more specific report follows indicating the exact problem.
   Critical: The warning level is critical. The device cannot be used.

Example:

   xStatus Diagnostics Message 4 Level
   *s Diagnostics Message 4 Level: Warning
   ** end
xStatus Diagnostics Message [n] References

Applies to: All products
Requires user role: ADMIN, USER

Additional information on the diagnostics alert, if available.

Value space of the result returned:
String

Example:
xStatus Diagnostics Message 10 References
*s Diagnostics Message 10 References: "delay=190"
** end

xStatus Diagnostics Message [n] Type

Applies to: All products
Requires user role: ADMIN, USER

Shows information on the results of the latest diagnostics on the device.

Value space of the result returned:

   ANATOnVCS/AbnormalCallTermination/AmplifierDetection/AmplifierFanStatus/
   AudioInternalSpeakerDisabled/AudioPairingInterference/AudioPairingNoise/AudioPairingRate/
   AudioPairingSNR/AudioPairingTokenDecode/CAPEPOperationState/CTLLinstallation/
   CUCMAndCloudConfigurability/CUCMVendorConfigurationFile/CallProtocolDualStackConfig/
   CallProtocolIPStackPlatformCompatibility/CallProtocolVcsProvisioningCompatibility/
   CameraDetected.CameraId/CameraPairing/CameraSerial/CameraSoftwareVersion/
   CameraStatus/CamerasDetected/CaptivePortalDetected/CertificateExpiry/
   CompanionModelIncompatibilityLocal/CompanionModelIncompatibilityRemote/
   ConfigurationFile/ContactInfoMismatch/ControlSystemConnection/CurrentNetworkQuality/
   DefaultCallProtocolRegistered/ECReferenceDelay/EmbeddedWebViewFailedToLoad/
   EmbeddedWebViewTerminatedUnexpectedly/EthernetDuplexMatches/FanStatus/
   FirstTimeWizardNotCompleted/H320GatewayStatus/H323GatekeeperStatus/
   HTTPSModeSecurity/HasActiveCallProtocol/HasValidReleaseKey/
   HdmiCecModeNoSound/IPv4Assignment/IPv6Assignment/IPv6Mtu/ISDNLinkCompatibility/
   ISDNLinkConfiguration/ITLinstallation/InvalidSIPTransportConfig/IpCameraStatus/LinkDown/
   LowBattery/MacrosRuntimeStatus/MediaBlockingDetected/MediaPortRangeNegative/
   MediaPortRangeOdd/MediaPortRangeOverlap/MediaPortRangeTooSmall/
   MediaPortRangeValueSpace/MicrophoneOverloaded/MicrophoneReinforcement/
   MicrophonesConnected/MissingDisplay/MissingThirdDisplay/MonitorDelay/
   MonitorFirmwareVersion/NTFSStatus/NetLinkStatus/NetSpeedAutoNegotiated/
   NetworkQuality/NetworkSwitch/OSD/videoOutput/OutputConnectorLocations/
   PeripheralSoftwareVersion/PeripheralSoftwareUpgrade/PeripheralSoftwareVersion/PlatformSanity/
   PresentationSourceSelection/PresenterTrack/
   ProvModeWebexAndWebexEdgeEnabled/ProposalStatus/ProposalEncryption/
   ProvisioningModeAndStatus/ProposalStatus/RoomControl/SIPEncryption/
   SIPListenPortAndOutboundMode/SIPListenPortAndRegistration/
   SIPProfileRegistration/SIPProfileType/SelectedVideoInputConnected/
   SignageFailedToLoad/SignageTerminatedUnexpectedly/SipIceAndAnatConflict/
   SipOrH323ButNotBothEnabled/SoftwareUpgrade/SoftwareUpgradeKeepsFailing/
   SpeakerTrackEthernetConnection/SpeakerTrackFrontPanelMountedCorrectly/
   SpeakerTrackMicrophoneConnection/SpeakerTrackVideoInputs/TCPMediaFallback/
   TLSVerifyRequiredCerts/TemperatureCheck/TouchPanelConnection/TurnBandwidth/
   UltrasoundConfigSettings/UltrasoundSpeakerAvailability/ValidPasswords/
   VideoFromInternalCamera/VideoInputSignalQuality/VideoInputStability/
   VideoPortRangeNegative/VideoPortRangeOdd/VideoPortRangeTooSmall/
   VideoPortRangeValueSpace/WebexAccountPlusWebexEdgeEnabled/
Example:
xStatus Diagnostics Message Type
*s Diagnostics Message 1 Type: CamerasDetected
** end

xStatus GPIO Pin [n] State

** Applies to:** SX80 MX700/MX800/MX800D CodecPro Room70G2 RoomPanorama/Room70Panorama
** Requires user role:** ADMIN, INTEGRATOR, USER
 Shows the current state of each of the four GPIO pins.
** Value space of the result returned:**

  ** High/Low**
    
    ** High:** +12V, the default state.
    
    ** Low:** 0V, when activated.

Example:

xStatus GPIO Pin 1 State
*s GPIO Pin 1 State: High
** end
**H320 status**

**xStatus H320 Gateway Address**

*Applies to: All products*

*Requires user role: ADMIN, USER*

Returns the IPv4 address of the ISDN Gateway, if the video conferencing device is paired to one.

*Value space of the result returned: String*

*Example:*

```plaintext
xStatus H320 Gateway Address
*s H320 Gateway Address: ""
** end
```

**xStatus H320 Gateway Id**

*Applies to: All products*

*Requires user role: ADMIN, USER*

Returns the unique identification of the H320 Gateway, if the video conferencing device is paired with an ISDN Link.

*Value space of the result returned: String*

*Example:*

```plaintext
xStatus H320 Gateway Id
*s H320 Gateway Id: "00:50:60:0B:EF:11"
** end
```

**xStatus H320 Gateway Mode**

*Applies to: All products*

*Requires user role: ADMIN, USER*

Returns information on the type of calls the ISDN Gateway is configured for, if the video conferencing device is paired with an ISDN Link.

*Value space of the result returned: BRI/External/G703/PRI/Unknown*

*Example:*

```plaintext
xStatus H320 Gateway Mode
*s H320 Gateway Mode: Unknown
** end
```

**xStatus H320 Gateway Number**

*Applies to: All products*

*Requires user role: ADMIN, USER*

Returns the IPv6 address of the ISDN Gateway if the video conferencing device is paired to one.

*Value space of the result returned: String*

*Example:*

```plaintext
xStatus H320 Gateway Number
*s H320 Gateway Number: ""
** end
```
**xStatus H320 Gateway Reason**

*Applies to: All products*

*Requires user role: ADMIN, USER*

Show the reason for rejected Gateway registration. Only available if the video conferencing device is connected to an ISDN Link.

*Value space of the result returned:*

   *String*

*Example:*

   `xStatus H320 Gateway Reason
   "s H320 Gateway Reason: ""
   ** end`

---

**xStatus H320 Gateway Status**

*Applies to: All products*

*Requires user role: ADMIN, USER*

Returns the state of the H320 Gateway, if the video conferencing device is paired with an ISDN Link.

*Value space of the result returned:*

   *Error/Inactive/OK/OKWithWarning/Warning/NoConnection*

*Example:*

   `xStatus H320 Gateway status
   "s H320 Gateway Status: Error
   ** end`

---

**xStatus H323 Gatekeeper Address**

*Applies to: DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards*

*Requires user role: ADMIN, USER*

Displays the IP address of the gatekeeper where the device is registered.

*Value space of the result returned:*

   *String*

*Example:*

   `xStatus H323 Gatekeeper Address
   "s H323 Gatekeeper Address: "192.0.1.20"
   ** end`

---

**xStatus H323 Gatekeeper Port**

*Applies to: DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards*

*Requires user role: ADMIN, USER*

Shows the port which is used when connecting to on the gatekeeper.

*Value space of the result returned:*

   *Integer*

*Example:*

   `xStatus H323 Gatekeeper Port
   "s H323 Gatekeeper Port: 1719
   ** end`
### xStatus H.323 Gatekeeper Reason

**Applies to:** DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, USER

Shows the reason for rejected registration.

Value space of the result returned:

```
String
```

**Example:**
```
xStatus H.323 Gatekeeper Reason
's H.323 Gatekeeper Reason: ""
** end
```

### xStatus H.323 Gatekeeper Status

**Applies to:** DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, USER

Shows the gatekeeper registration status.

Value space of the result returned:

```
Required/Discovering/Discovered/Authenticating/Authenticated/Registering/Registered/Inactive/Rejected
```

**Example:**
```
xStatus H.323 Gatekeeper Status
's H.323 Gatekeeper Status: Registered
** end
```

### xStatus H.323 Mode Reason

**Applies to:** DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, USER

Shows whether there is a conflict between H.323 settings and xStatus H.323 Mode Status.

Value space of the result returned:

```
String
```

- "": When H.323 is set to On and there is no conflict between H.323 Mode configuration and the rest of the device settings.
- "SIP is enabled": When H.323 Mode is set to On and SIP is enabled on a device that does not support the two simultaneously.
- "Not available": When a device does not support H.323.

**Example:**
```
xStatus H.323 Mode Reason
's H.323 Mode Reason: ""
** end
```

### xStatus H.323 Mode Status

**Applies to:** DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, USER

Shows the status for H.323 registration.

Value space of the result returned:

```
Enabled/Disabled
```

- **Enabled:** Registration is enabled.
- **Disabled:** Registration is disable, because SIP is enabled.

**Example:**
```
xStatus H.323 Mode Status
's H.323 Mode Status: "Disabled"
** end
```
HttpFeedback status

xStatus HttpFeedback [n] Expression [n]
Applies to: All products
Requires user role: ADMIN, USER
Shows the feedback from the HTTP server. There can be up to 4 slots of servers requesting HTTP feedback and up to 15 expressions for each URL. See the xCommand HttpFeedback commands for more information.
Value space of the result returned:

String

xStatus HttpFeedback [n] Format
Applies to: All products
Requires user role: ADMIN, USER
Shows the format of the HTTP Feedback feedback from the HTTP server.
Value space of the result returned:

XML/JSON

Example:

xStatus HttpFeedback 1 Format
*s HttpFeedback 1 Format: XML
** end

xStatus HttpFeedback [n] Status
Applies to: All products
Requires user role: ADMIN, USER
Shows the status of the feedback sent to the HTTP server.
Value space of the result returned:

OK/Failed

OK: Shows that the feedback has been successfully sent.
Failed: Shows that the feedback has not been successfully sent.

Example:

xStatus HttpFeedback 1 Status
*s HttpFeedback 1 Status: OK
** end

xStatus HttpFeedback [n] URL
Applies to: All products
Requires user role: ADMIN, USER
Shows the URL (Uniform Resource Locator) of the HTTP server. There can be up to three HTTP servers, specified by the URL.
Value space of the result returned:

String

Example:

xStatus HttpFeedback 1 URL
** end
**MediaChannels status**

**xStatus MediaChannels Call \[n\] Channel \[n\] Audio Channels**

* Applies to: All products
* Requires user role: ADMIN, USER

Shows the number of incoming or outgoing audio channels.

Value space of the result returned:

\[ \text{Integer} \]

Example:

```plaintext
xStatus MediaChannels Call 27 Channel 327 Audio Channels
*s MediaChannels Call 27 Channel 327 Audio Channels: 1
** end
```

**xStatus MediaChannels Call \[n\] Channel \[n\] Audio ChannelRole**

* Applies to: All products
* Requires user role: ADMIN, USER

Shows the role of the incoming or outgoing audio channel.

Value space of the result returned:

\[ \text{Main/Presentation} \]

- **Main:** The audio from the main video is on the incoming or outgoing audio channel.
- **Presentation:** The audio from the presentation is on the incoming or outgoing audio channel.

Example:

```plaintext
xStatus MediaChannels Call 27 Channel 327 Audio ChannelRole
*s MediaChannels Call 27 Channel 327 Audio ChannelRole: Main
** end
```

**xStatus MediaChannels Call \[n\] Channel \[n\] Audio Mute**

* Applies to: All products
* Requires user role: ADMIN, USER

Audio mute status of the incoming audio.

Value space of the result returned:

\[ \text{True/False} \]

Example:

```plaintext
xStatus MediaChannels Call 27 Channel 327 Audio Mute
*s MediaChannels Call 27 Channel 327 Audio Mute: False
** end
```
**xStatus MediaChannels Call [n] Channel [n] Audio Protocol**

Applies to: All products

Requires user role: ADMIN, USER

Shows the audio algorithm of the incoming or outgoing audio.

Value space of the result returned:

- **AACLD**/
- **G711A**/
- **G711Mu**/
- **G722**/
- **G7221**/
- **G7221C**/
- **G723_1**/
- **G728**/
- **G729**/
- **G729A**/
- **G729AB**/
- **Off**/

**AACLD:** The AAC-LD is an MPEG-4 Low Delay Audio Coder audio compression format.

**G711A:** The G.711 A-law algorithm is an ITU-T standard for audio compression.

**G711Mu:** The G.711 Mu-law algorithm is an ITU-T standard for audio compression.

**G722:** The G.722 algorithm is an ITU-T standard for audio compression.

**G7221:** The G.722.1 algorithm is an ITU-T standard for audio compression.

**G7221C:** The G.722.1 annex C algorithm is an ITU-T standard for audio compression.

**G723_1:** The G.723.1 algorithm is an ITU-T standard for audio compression.

**G728:** The G.728 algorithm is an ITU-T standard for audio compression.

**G729:** The G.729 algorithm is an ITU-T standard for audio compression.

**G729A:** The G.729 annex A algorithm is an ITU-T standard for audio compression.

**G729AB:** The G.729 annex A and B algorithm is an ITU-T standard for audio compression.

**Off:** No audio.

**Opus:** Opus is a royalty-free IETF standard for audio compression.

Example:

```plaintext
xStatus MediaChannels Call 27 Channel 327 Audio Protocol
*s MediaChannels Call 27 Channel 327 Audio Protocol: AACLD
** end
```

**xStatus MediaChannels Call [n] Channel [n] Direction**

Applies to: All products

Requires user role: ADMIN, USER

Shows the direction of the call.

Value space of the result returned:

- **Incoming**/
- **Outgoing**

Example:

```plaintext
xStatus MediaChannels Call 27 Channel 327 Direction
*s MediaChannels Call 27 Channel 327 Direction: Incoming
** end
```

**xStatus MediaChannels Call [n] Channel [n] Encryption**

Applies to: All products

Requires user role: ADMIN, USER

Shows the encryption status for audio or video on the incoming or outgoing call.

Value space of the result returned:

- **On**/
- **Off**

Example:

```plaintext
xStatus MediaChannels Call 27 Channel 327 Encryption
*s MediaChannels Call 27 Channel 327 Encryption: On
** end
```
xStatus MediaChannels Call [n] Channel [n] NetStat Bytes

Applies to: All products
Requires user role: ADMIN, USER

Shows the number of bytes for audio, video or data on the incoming or outgoing channel.

Value space of the result returned:

   Integer

Example:

   xStatus MediaChannels Call 27 Channel 327 NetStat Bytes
   *s MediaChannels Call 27 Channel 327 NetStat Bytes: 496640
   ** end

xStatus MediaChannels Call [n] Channel [n] NetStat ChannelRate

Applies to: All products
Requires user role: ADMIN, USER

Shows the bandwidth for audio, video or data on the incoming or outgoing channel.

Value space of the result returned:

   Integer

Example:

   xStatus MediaChannels Call 27 Channel 327 NetStat ChannelRate
   *s MediaChannels Call 27 Channel 327 NetStat ChannelRate: 128000
   ** end

xStatus MediaChannels Call [n] Channel [n] NetStat Jitter

Applies to: All products
Requires user role: ADMIN, USER

Shows the jitter for audio, video or data at the present moment on the incoming or outgoing channel, as specified by RFC 3550.

Value space of the result returned:

   Integer

Example:

   xStatus MediaChannels Call 27 Channel 327 NetStat Jitter
   *s MediaChannels Call 27 Channel 327 NetStat Jitter: 2
   ** end

xStatus MediaChannels Call [n] Channel [n] NetStat LastIntervalLost

Applies to: All products
Requires user role: ADMIN, USER

Shows the number of packets lost for audio, video or data during the last interval on the incoming or outgoing channels.

Value space of the result returned:

   Integer

Example:

   xStatus MediaChannels Call 27 Channel 327 NetStat LastIntervalLost
   *s MediaChannels Call 27 Channel 327 NetStat LastIntervalLost: 0
   ** end
xStatus MediaChannels Call [n] Channel [n] NetStat LastIntervalReceived

Applies to: All products
Requires user role: ADMIN, USER

Shows the number of packets received for audio, video or data during the last interval on the incoming or outgoing channels.

Value space of the result returned:
Integer

Example:
```
xStatus MediaChannels Call 27 Channel 327 NetStat LastIntervalReceived
's MediaChannels Call 27 Channel 327 NetStat LastIntervalReceived: 289
** end
```

xStatus MediaChannels Call [n] Channel [n] NetStat Loss

Applies to: All products
Requires user role: ADMIN, USER

Shows the number of packets lost for audio, video or data on the incoming or outgoing channels.

Value space of the result returned:
Integer

Example:
```
xStatus MediaChannels Call 27 Channel 327 NetStat Loss
's MediaChannels Call 27 Channel 327 NetStat Loss: 0
** end
```

xStatus MediaChannels Call [n] Channel [n] NetStat MaxJitter

Applies to: All products
Requires user role: ADMIN, USER

Shows the maximum jitter for audio, video or data that has been measured during last interval (about 5 seconds).

Value space of the result returned:
Integer

Example:
```
xStatus MediaChannels Call 27 Channel 327 NetStat MaxJitter
's MediaChannels Call 27 Channel 327 NetStat MaxJitter: 2
** end
```

xStatus MediaChannels Call [n] Channel [n] NetStat Packets

Applies to: All products
Requires user role: ADMIN, USER

Shows the number of packets that was received or sent for audio, video or data on the incoming or outgoing channels.

Value space of the result returned:
Integer

Example:
```
xStatus MediaChannels Call 27 Channel 327 NetStat Packets
's MediaChannels Call 27 Channel 327 NetStat Packets: 1551
** end
```
xStatus MediaChannels Call [n] Channel [n] ParticipantId
Applies to: All products
Requires user role: ADMIN, USER
Shows the ID of the Active Control participant on the incoming audio or video channel.
Value space of the result returned:
  String
Example:
  
  xStatus MediaChannels Call 27 Channel 327 ParticipantId
  *s MediaChannels Call 27 Channel 327 ParticipantId: ""
  ** end

xStatus MediaChannels Call [n] Channel [n] Type
Applies to: All products
Requires user role: ADMIN, USER
Shows the media type on the incoming or outgoing channel.
Value space of the result returned:
  Audio/Video/Data
    Audio: The media type on the incoming or outgoing channel is audio.
    Video: The media type on the incoming or outgoing channel is video.
    Data: The media type on the incoming or outgoing channel is data.
Example:
  xStatus MediaChannels Call 27 Channel 327 Type
  *s MediaChannels Call 27 Channel 327 Type: Audio
  ** end

xStatus MediaChannels Call [n] Channel [n] Video ChannelRole
Applies to: All products
Requires user role: ADMIN, USER
Shows the role of the incoming or outgoing video channel.
Value space of the result returned:
  Main/Presentation
    Main: The main video is on the incoming or outgoing video channel.
    Presentation: The presentation is on the incoming or outgoing video channel.
Example:
  xStatus MediaChannels Call 27 Channel 327 Video ChannelRole
  *s MediaChannels Call 27 Channel 327 Video ChannelRole: Main
  ** end

xStatus MediaChannels Call [n] Channel [n] Video FrameRate
Applies to: All products
Requires user role: ADMIN, USER
Shows the frame rate of the incoming or outgoing video channel.
Value space of the result returned:
  Integer
Example:
  xStatus MediaChannels Call 27 Channel 327 Video FrameRate
  *s MediaChannels Call 27 Channel 327 Video FrameRate: 30
  ** end
xStatus MediaChannels Call [n] Channel [n] Video Protocol
Applies to: All products
Requires user role: ADMIN, USER
Shows the video algorithm of the incoming or outgoing video channel.
Value space of the result returned:

- **H261**: The H.261 algorithm is an ITU-T standard for video compression.
- **H263**: The H.263 algorithm is an ITU-T standard for video compression.
- **H263p**: The H.263p (H.263+) algorithm is an ITU-T standard for video compression.
- **H263pp**: The H.263pp (H.263++) algorithm is an ITU-T standard for video compression.
- **H264**: The H.264 algorithm (MPEG-4 AVC) is an ITU-T and ISE/IEC standard for video compression.
- **HEVC**: The HEVC (H.265) algorithm (MPEG-H part 2) is an ITU-T and ISE/IEC standard for video compression.
- **JPEG**: The JPEG algorithm is an ISO/IEC standard for video compression.
- **MP4V**: The MP4V format is an ISO/IEC file format for video compression.
- **Off**: No video.

Example:
```plaintext
xStatus MediaChannels Call 27 Channel 327 Video Protocol
*s MediaChannels Call 27 Channel 327 Video Protocol: h264
** end
```

xStatus MediaChannels Call [n] Channel [n] Video ResolutionX
Applies to: All products
Requires user role: ADMIN, USER
Shows the width (resolution in direction X) of the incoming or outgoing video.
Value space of the result returned:

```
Integer
```

Example:
```plaintext
xStatus MediaChannels Call 27 Channel 327 Video ResolutionX
*s MediaChannels Call 27 Channel 327 Video ResolutionX: 1920
** end
```

xStatus MediaChannels Call [n] Channel [n] Video ResolutionY
Applies to: All products
Requires user role: ADMIN, USER
Shows the height (resolution in direction Y) of the incoming or outgoing video.
Value space of the result returned:

```
Integer
```

Example:
```plaintext
xStatus MediaChannels Call 27 Channel 327 Video ResolutionY
*s MediaChannels Call 27 Channel 327 Video ResolutionY: 1080
** end
```

xStatus MediaChannels DirectShare [n] Channel [n] Audio Channels
Applies to: RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama DeskPro  Boards
Requires user role: ADMIN, USER
Shows the number of audio channels (none, mono, stereo) received over the channel in question.
Value space of the result returned:

```
Integer
```

Example:
```plaintext
xStatus MediaChannels DirectShare 27 Channel 327 Audio Channels
*s MediaChannels DirectShare 27 Channel 327 Audio Channels: 1
** end
```
**xStatus MediaChannels DirectShare [n] Channel [n] Audio Protocol**

**Applies to:** RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama, Room70Panorama, DeskPro, Boards

**Requires user role:** ADMIN, USER

Shows the audio codec used for the active incoming share session.

Value space of the result returned:

AAC/L/AMR/CiscoPCM16/L16-768/ComfortNoise/G711A/G711Mu/G722/G7221/G7221C/G723_1/G728/G729/G729A/G729AB/Off/Opus/Raw

The audio standards supported are essentially the same as supported in call, but the client will typically only ever use Opus (or AAC).

**AAC:** The AAC-LD is an MPEG-4 Low Delay Audio Coder audio compression format.

**G711A:** The G.711 A-law algorithm is an ITU-T standard for audio compression.

**G711Mu:** The G.711 Mu-law algorithm is an ITU-T standard for audio compression.

**G722:** The G.722 algorithm is an ITU-T standard for audio compression.

**G7221:** The G.722.1 algorithm is an ITU-T standard for audio compression.

**G7221C:** The G.722.1 annex C algorithm is an ITU-T standard for audio compression.

**G723_1:** The G.723.1 algorithm is an ITU-T standard for audio compression.

**G728:** The G.728 algorithm is an ITU-T standard for audio compression.

**G729:** The G.729 algorithm is an ITU-T standard for audio compression.

**G729A:** The G.729 annex A algorithm is an ITU-T standard for audio compression.

**G729AB:** The G.729 annex A and B algorithm is an ITU-T standard for audio compression.

**Off:** No audio.

**Opus:** Opus is a royalty-free IETF standard for audio compression.

**Example:**

```
xStatus MediaChannels DirectShare 27 Channel 327 Audio Protocol
's MediaChannels DirectShare 27 Channel 327 Audio Protocol: AAC/LD
** end
```

**xStatus MediaChannels DirectShare [n] Channel [n] Encryption**

**Applies to:** RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama, Room70Panorama, DeskPro, Boards

**Requires user role:** ADMIN, USER

Shows the encryption status for the incoming audio/video channel in question.

Value space of the result returned:

On/Off

**Example:**

```
xStatus MediaChannels DirectShare 27 Channel 327 Encryption
's MediaChannels DirectShare 27 Channel 327 Encryption: On
** end
```

**xStatus MediaChannels DirectShare [n] Channel [n] Netstat Bytes**

**Applies to:** RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama, Room70Panorama, DeskPro, Boards

**Requires user role:** ADMIN, USER

Shows the cumulative number of bytes received for the channel in question.

Value space of the result returned:

Integer

**Example:**

```
xStatus MediaChannels DirectShare 27 Channel 327 NetStat Bytes
's MediaChannels DirectShare 27 Channel 327 NetStat Bytes: 496640
** end
```
xStatus MediaChannels DirectShare [n] Channel [n] Netstat ChannelRate

Applies to: RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

Requires user role: ADMIN, USER

Shows the current incoming audio/video bandwidth for the channel in question.

Value space of the result returned:

Integer

Example:

```
xStatus MediaChannels DirectShare 27 Channel 327 NetStat ChannelRate: 128000
```

** end

---

xStatus MediaChannels DirectShare [n] Channel [n] Netstat Jitter

Applies to: RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

Requires user role: ADMIN, USER

Shows the jitter currently measured for received audio/video on the incoming channel, as specified by RFC 3550.

Value space of the result returned:

Integer

Example:

```
xStatus MediaChannels DirectShare 27 Channel 327 NetStat Jitter: 2
```

** end

---

xStatus MediaChannels DirectShare [n] Channel [n] Netstat LastIntervalLost

Applies to: RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

Requires user role: ADMIN, USER

Shows the number of lost audio/video packets during the last interval on the incoming channel in question.

Value space of the result returned:

Integer

Example:

```
xStatus MediaChannels DirectShare 27 Channel 327 NetStat LastIntervalLost: 0
```

** end

---

xStatus MediaChannels DirectShare [n] Channel [n] Netstat LastIntervalReceived

Applies to: RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

Requires user role: ADMIN, USER

Shows the number of received audio/video packets during the last interval over the channel in question.

Value space of the result returned:

Integer

Example:

```
xStatus MediaChannels DirectShare 27 Channel 327 NetStat LastIntervalReceived: 289
```

** end
### xStatus MediaChannels DirectShare [n] Channel [n] Netstat LastIntervalReceived

**Applies to:** RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, USER

Shows the number of received audio/video packets during the last interval over the channel in question.

**Value space of the result returned:**

```
Integer
```

**Example:**

```
xStatus MediaChannels DirectShare 27 Channel 327 NetStat LastIntervalReceived
  s MediaChannels DirectShare 27 Channel 327 NetStat LastIntervalReceived: 289
** end
```

### xStatus MediaChannels DirectShare [n] Channel [n] Netstat Loss

**Applies to:** RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, USER

Shows the number of audio/video packets lost for the channel in question.

**Value space of the result returned:**

```
Integer
```

**Example:**

```
xStatus MediaChannels DirectShare 27 Channel 327 NetStat Loss
  s MediaChannels DirectShare 27 Channel 327 NetStat MaxJitter: 2
** end
```

### xStatus MediaChannels DirectShare [n] Channel [n] Netstat MaxJitter

**Applies to:** RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, USER

Shows the maximum jitter measured on the channel in question during the last interval (about 5 seconds).

**Value space of the result returned:**

```
Integer
```

**Example:**

```
xStatus MediaChannels DirectShare 27 Channel 327 NetStat MaxJitter
  s MediaChannels DirectShare 27 Channel 327 NetStat MaxJitter: 2
** end
```

### xStatus MediaChannels DirectShare [n] Channel [n] Netstat Packets

**Applies to:** RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, USER

Shows the total number of packets received for the channel in question.

**Value space of the result returned:**

```
Integer
```

**Example:**

```
xStatus MediaChannels DirectShare 27 Channel 327 NetStat Packets
  s MediaChannels DirectShare 27 Channel 327 NetStat Packets: 1551
** end
```
xStatus MediaChannels DirectShare [n] Channel [n] Video FrameRate

**Applies to:** RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

**Requires user role:** ADMIN, USER

Shows the received frame rate for the channel in question. Note: Only applicable to video channels.

**Value space of the result returned:**

*integer*

**Example:**
xStatus MediaChannels DirectShare 27 Channel 327 Video FrameRate
*s MediaChannels DirectShare 27 Channel 327 Video FrameRate: 30  
** end

xStatus MediaChannels DirectShare [n] Channel [n] Video Protocol

**Applies to:** RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

**Requires user role:** ADMIN, USER

Shows the video codec used for the channel in question.

**Value space of the result returned:**

*H261/H263/H263p/H263pp/H264/HEVC/AV1/JPEG/MP4V/Off/Raw/RDP*

The video standards supported are essentially the same as supported in call, but the client will typically only ever use H264.

**H261:** The H.261 algorithm is an ITU-T standard for video compression.

**H263:** The H.263 algorithm is an ITU-T standard for video compression.

**H263p:** The H.263p (H.263+) algorithm is an ITU-T standard for video compression.

**H263pp:** The H.263pp (H.263++) algorithm is an ITU-T standard for video compression.

**H264:** The H.264 algorithm (MPEG-4 AVC) is an ITU-T and ISE/IEC standard for video compression.

**HEVC:** The HEVC (H.265) algorithm (MPEG-H part 2) is an ITU-T and ISE/IEC standard for video compression.

**JPEG:** The JPEG algorithm is an ISO/IEC standard for video compression.

**MP4V:** The MP4V format is an ISO/IEC file format for video compression.

**Off:** No video.

**Example:**
xStatus MediaChannels DirectShare 27 Channel 327 Video Protocol
*s MediaChannels DirectShare 27 Channel 327 Video Protocol: H264  
** end
xStatus MediaChannels DirectShare [n] Channel [n] Video ResolutionX

Applies to: RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, USER

Shows the width (resolution in the x-direction) of the video stream received.

Value space of the result returned:

    Integer

Example:

```
xStatus MediaChannels DirectShare 27 Channel 327 Video ResolutionX
's MediaChannels DirectShare 27 Channel 327 Video ResolutionX: 1920
** end
```

xStatus MediaChannels DirectShare [n] Channel [n] Video ResolutionY

Applies to: RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, USER

Shows the height (resolution in y-direction) of the video stream received.

Value space of the result returned:

    Integer

Example:

```
xStatus MediaChannels DirectShare 27 Channel 327 Video ResolutionY
's MediaChannels DirectShare 27 Channel 327 Video ResolutionY: 1080
** end
```

Network status

xStatus Network [n] CDP Address

Applies to: All products

Requires user role: ADMIN, USER

Returns the first network address of both receiving and sending devices.

Value space of the result returned:

    String

Example:

```
xStatus Network CDP Address
's Network 1 CDP Address: "192.0.1.20"
** end
```

xStatus Network [n] CDP Capabilities

Applies to: All products

Requires user role: ADMIN, USER

Describes the functional capability for the switch in form of a device type. See documentation for CDP protocol for more information.

Value space of the result returned:

    String

Example:

```
xStatus Network CDP Capabilities
's Network 1 CDP Capabilities: "0x0029"
** end
```


xStatus Network [n] CDP DeviceId
Applies to: All products
Requires user role: ADMIN, USER
Identifies the name of the switch in form of a character string.
Value space of the result returned:

String

Example:
xStatus Network CDP DeviceId
's Network 1 CDP DeviceId: "123456.company.com"
** end

xStatus Network [n] CDP Duplex
Applies to: All products
Requires user role: ADMIN, USER
Indicates the status (duplex configuration) of the CDP broadcast interface. Used by network operators to diagnose connectivity problems between adjacent network elements.
Value space of the result returned:

String

Example:
xStatus Network CDP Duplex
's Network 1 CDP Duplex: "Full"
** end

xStatus Network [n] CDP Platform
Applies to: All products
Requires user role: ADMIN, USER
Returns the hardware platform name of the switch connected to the device.
Value space of the result returned:

String

Example:
xStatus Network CDP Platform
's Network 1 CDP Platform: "cisco WS-C3750X-48P"
** end

xStatus Network [n] CDP PortID
Applies to: All products
Requires user role: ADMIN, USER
Returns the identification the switch uses of the port the device is connected to.
Value space of the result returned:

String

Example:
xStatus Network CDP PortID
's Network 1 CDP PortID: "GigabitEthernet1/0/23"
** end
xStatus Network [n] CDP PrimaryMgmtAddress

Applies to: **All products**
Requires user role: **ADMIN, USER**

Returns the management address used to configure and monitor the switch the device is connected to.

Value space of the result returned:

```
String
```

Example:
```csharp
xStatus Network CDP PrimaryMgmtAddress
's Network 1 CDP PrimaryMgmtAddress: "10.1.1.2"
'' end
```

xStatus Network [n] CDP SysName

Applies to: **All products**
Requires user role: **ADMIN, USER**

Returns the SysName as configured in the switch the device is connected to.

Value space of the result returned:

```
String
```

Example:
```csharp
xStatus Network CDP SysName
's Network 1 CDP SysName: ""
'' end
```

xStatus Network [n] CDP SysObjectID

Applies to: **All products**
Requires user role: **ADMIN, USER**

Returns the SysObjectID as configured in the switch the device is connected to.

Value space of the result returned:

```
String
```

Example:
```csharp
xStatus Network CDP SysObjectID
's Network 1 CDP SysObjectID: ""
'' end
```

xStatus Network [n] CDP Version

Applies to: **All products**
Requires user role: **ADMIN, USER**

Returns information about the software release version the switch is running.

Value space of the result returned:

```
String
```

Example:
```csharp
xStatus Network 1 CDP Version
'' end
```
xStatus Network [n] CDP VoIPApplianceVlanID

Applies to: All products
Requires user role: ADMIN, USER

Identifies the VLAN used for VoIP traffic from the device to the switch. For more information see documentation of the IEEE 802.1Q protocol.

Value space of the result returned:

   String

Example:

   xStatus Network CDP VoIPApplianceVlanID
   *s Network 1 CDP VoIPApplianceVlanID: "300"
   ** end

xStatus Network [n] CDP VTPMgmtDomain

Applies to: All products
Requires user role: ADMIN, USER

Returns the switch's configured VTP management domain name-string.

Value space of the result returned:

   String

Example:

   xStatus Network CDP VTPMgmtDomain
   *s Network 1 CDP VTPMgmtDomain: "anyplace"
   ** end

xStatus Network [n] DNS Domain Name

Applies to: All products
Requires user role: ADMIN, USER

Shows the domain name.

Value space of the result returned:

   String

Example:

   xStatus Network 1 DNS Domain Name
   *s Network 1 DNS Domain Name: "www.example.com www.example.int"
   ** end

xStatus Network [n] DNS Server [n] Address

Applies to: All products
Requires user role: ADMIN, USER

Shows the IP address of the DNS server.

Value space of the result returned:

   String

Example:

   xStatus Network 1 DNS Server 1 Address
   *s Network 1 DNS Server 1 Address: "192.0.2.60"
   ** end
### xStatus Network [n] Ethernet MacAddress

**Applies to:** All products  
**Requires user role:** ADMIN, USER  
Shows the MAC (Media Access Control) address for the Ethernet interface.  
Value space of the result returned:  
* String  

```plaintext  
xStatus Network 1 Ethernet MacAddress  
*s Network 1 Ethernet MacAddress: "00:50:60:02:FD:C7"  
** end
```

### xStatus Network [n] Ethernet Speed

**Applies to:** All products  
**Requires user role:** ADMIN, USER  
Shows the Ethernet speed in Mbps. The speed can be in full-duplex or half-duplex.  
Value space of the result returned:  
* 10half/10full/100half/100full/1000full  

```plaintext  
xStatus Network 1 Ethernet Speed  
*s Network 1 Ethernet Speed: "100full"  
** end
```

### xStatus Network [n] IPv4 Address

**Applies to:** All products  
**Requires user role:** ADMIN, USER  
Shows the IPv4 address that uniquely identifies this device.  
Value space of the result returned:  
* String  

```plaintext  
xStatus Network 1 IPv4 Address  
*s Network 1 IPv4 Address: "192.0.2.149"  
** end
```

### xStatus Network [n] IPv4 Gateway

**Applies to:** All products  
**Requires user role:** ADMIN, USER  
Shows the address of the IPv4 gateway.  
Value space of the result returned:  
* String  

```plaintext  
xStatus Network 1 IPv4 Gateway  
*s Network 1 IPv4 Gateway: "192.0.2.10"  
** end
```
xStatus Network [n] IPv4 SubnetMask

Applies to: All products
Requires user role: ADMIN, USER

Shows the subnet mask which determines which subnet an IPv4 address belongs to.

Value space of the result returned:

    String

Example:

    xStatus Network 1 IPv4 SubnetMask
    *s Network 1 IPv4 SubnetMask: "255.255.255.0"
    ** end

xStatus Network [n] IPv6 Address

Applies to: All products
Requires user role: ADMIN, USER

Shows the IPv6 address that uniquely identifies this device.

Value space of the result returned:

    String

Example:

    xStatus Network 1 IPv6 Address
    *s Network 1 IPv6 Address: ""
    ** end

xStatus Network [n] IPv6 Gateway

Applies to: All products
Requires user role: ADMIN, USER

Shows the address of the IPv6 gateway.

Value space of the result returned:

    String

Example:

    xStatus Network 1 IPv6 Gateway
    *s Network 1 IPv6 Gateway: ""
    ** end

xStatus Network [n] IPv6 LinkLocalAddress

Applies to: All products
Requires user role: ADMIN, USER

Shows the IPv6 link local address that is displayed on the primary user interface.

Value space of the result returned:

    String

Example:

    xStatus Network 1 IPv6 LinkLocalAddress
    *s Network 1 IPv6 LinkLocalAddress: "2001:DB8:0000:0000:0000:0000:0000:0001"
    ** end
xStatus Network [n] VLAN Voice VlanId

Applies to: All products
Requires user role: ADMIN, USER
The feedback shows the VLAN Voice ID.
Value space of the result returned:

- **Off**: The VLAN Voice Mode is not enabled.
- **1..4094**: VLAN Voice ID

Example:
```
xStatus Network 1 VLAN Voice VlanId
*s Network 1 VLAN Voice VlanId: "Off"
** end
```

xStatus Network [n] Wifi BSSID

Applies to: DX70/DX80, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70, Room55D, Room70G2, RoomPanorama, Room70Panorama, DeskPro, Boards
Requires user role: ADMIN, USER
Shows the Basic Service Set Identifiers (BSSID) used for the Wi-Fi connection.
Value space of the result returned:

- **String**

Example:
```
xStatus Network 1 Wifi BSSID
** end
```

xStatus Network [n] Wifi Channel

Applies to: DX70/DX80, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70, Room55D, Room70G2, RoomPanorama, Room70Panorama, DeskPro, Boards
Requires user role: ADMIN, USER
Shows the channel used for the Wi-Fi connection.
Value space of the result returned:

- **Integer**

Example:
```
xStatus Network 1 Wifi Channel
*s Network 1 Wifi Channel: 13
** end
```

xStatus Network [n] Wifi Frequency

Applies to: DX70/DX80, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70, Room55D, Room70G2, RoomPanorama, Room70Panorama, DeskPro, Boards
Requires user role: ADMIN, USER
Shows the frequency corresponding to the Wi-Fi channel.
Value space of the result returned:

- **Integer**

Example:
```
xStatus Network 1 Wifi Frequency
*s Network 1 Wifi Frequency: nnnn
** end
```
xStatus Network [n] Wifi MacAddress

Applies to: DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN, USER

Shows the MacAddress used for the Wi-Fi connection.

Value space of the result returned:
String

Example:
```
xStatus Network 1 Wifi MacAddress
** end
```

xStatus Network [n] Wifi RawSSID

Applies to: DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN, USER

Shows the Raw SSID of the Wi-Fi connection.

Value space of the result returned:
String

Example:
```
xStatus Network 1 Wifi RawSSID
's Network 1 Wifi RawSSID: "Aurora"
** end
```

xStatus Network [n] Wifi Phase2Method

Applies to: DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN, USER

Shows the Phase2Method used for the Wi-Fi connection, if applicable.

Value space of the result returned:
String

Example:
```
xStatus Network 1 Wifi Phase2Method
's Network 1 Wifi Phase2Method: ""
** end
```

xStatus Network [n] Wifi Reason

Applies to: DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN, USER

Shows the reason defined for the Wi-Fi connection, if applicable.

Value space of the result returned:
String

Example:
```
xStatus Network 1 Wifi Reason
's Network 1 Wifi Reason: ""
** end
```
xStatus Network [n] Wifi Region

Applies to: DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, USER

Shows the region of the Wi-Fi connection.

Value space of the result returned:

String

Example:

xStatus Network 1 Wifi Region
's Network 1 Wifi Region: "00"
** end

xStatus Network [n] Wifi RSSI

Applies to: DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, USER

Shows the Received Signal Strength Indicator (RSSI) used by the Wi-Fi connection.

Value space of the result returned:

Integer

Example:

xStatus Network 1 Wifi RSSI
's Network 1 Wifi RSSI: -62
** end

xStatus Network [n] Wifi ScanResult [n] Flags

Applies to: DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, USER

Returns all the flags found in a scan result.

Note that you must run a scan (e.g., "Network Wifi Scan Start") before this will yield results.

Value space of the result returned:

String

Example:

xStatus Network 1 Wifi ScanResult 1 Flags
's Network 1 Wifi ScanResult 1 Flags: "[ESS]"
** end

xStatus Network [n] Wifi ScanResult [n] RawSSID

Applies to: DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, USER

Returns all the RawSSID values found in a scan result.

Note that you must run a scan (e.g., "Network Wifi Scan Start") before this will yield results.

Value space of the result returned:

String

Example:

xStatus Network 1 Wifi ScanResult 1 RawSSID
's Network 1 Wifi ScanResult 1 RawSSID: "Aurora"
** end
xStatus Network [n] Wifi ScanResult [n] SignalLevel

Applies to: DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, USER

Returns all the SignalLevel values found in a scan result.
Note that you must run a scan (e.g., "Network Wifi Scan Start") before this will yield results.

Value space of the result returned:

Integer

Example:

xStatus Network 1 Wifi ScanResult 1 SignalLevel
*s Network 1 Wifi ScanResult 1 SignalLevel: -61
** end

xStatus Network [n] Wifi Speed

Applies to: DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, USER

Shows the speed of the Wi-Fi connection.

Value space of the result returned:

Integer

Example:

xStatus Network 1 Wifi Speed
*s Network 1 Wifi Speed: 39
** end

xStatus Network [n] Wifi SSID

Applies to: DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, USER

Shows the Server Set Identifier (SSID) of the Wi-Fi connection.

Value space of the result returned:

String

Example:

xStatus Network 1 Wifi SSID
*s Network 1 Wifi SSID: "Aurora"
** end
xStatus Network [n] Wifi Status

 Applies to: DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

 Requires user role: ADMIN, USER

 Shows the status of the Wi-Fi network connection.

 Value space of the result returned:
  - Associating/Connected/Disconnected/AuthFailed/Failed/Other
  - Associating-Trying to connect to a Wi-Fi network.
  - Connected- The device is not connected to a Wi-Fi network.
  - Disconnected- The device is not connected to a Wi-Fi network.
  - AuthFailed- Authentication failed when trying to connect to a Wi-Fi network.
  - Failed- The device could not connect to the Wi-Fi network for reasons other than authentication failure.
  - Other- Any other scenario.

 Example:
 xStatus Network 1 Wifi Status
 *s Network 1 Wifi Status: Connected
 ** end

xStatus Network [n] Wifi Type

 Applies to: DX70/DX80 RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

 Requires user role: ADMIN, USER

 Shows the encryption type of the Wi-Fi network connection.

 Value space of the result returned:
  - String

 Example:
 xStatus Network 1 Wifi Type
 *s Network 1 Wifi Type: "Wpa2-psk"
 ** end

NetworkServices status

xStatus NetworkServices NTP CurrentAddress

 Applies to: All products

 Requires user role: ADMIN, USER

 Returns the address of the NTP server that is currently in use.

 Value space of the result returned:
  - String

 Example:
 xStatus NetworkServices NTP CurrentAddress
 *s NetworkServices NTP CurrentAddress: "123.254.15.121"
 ** end

xStatus NetworkServices NTP Server [n] Address

 Applies to: All products

 Requires user role: ADMIN, USER

 Returns the address of the NTP server(s) the device is using.

 Value space of the result returned:
  - String

 Example:
 xStatus NetworkServices NTP Address
 *s NetworkServices NTP Address: "12.104.193.12 64.104.222.16 144.254.15.121"
 ** end
xStatus NetworkServices NTP Status
Applies to: All products
Requires user role: ADMIN, USER
Returns the status of the devices synchronizing with the NTP server.
Value space of the result returned:
   Discarded/Synced/NotSynced/Unknown/Off
   Discarded: The NTP result has been discarded.
   Synced: The device is in sync with the NTP server.
   NotSynced: The device is not in sync with the NTP server.
   Unknown: The state of the synchronization is unknown.
   Off: No synchronization with the NTP server.
Example:
   xStatus NetworkServices NTP Status
   \*s NetworkServices NTP Status: Synced
   ** end

xStatus NetworkServices UPnP Status
Applies to: All products
Requires user role: ADMIN, USER
Reports whether or not the UPnP service advertises the device’s presence on the network. The advertisement permits a Touch controller to discover the device automatically, and you do not need to manually enter the device’s IP address in order to pair the Touch controller.
Value space of the result returned:
   Running/Stopped
   Running: The device's presence is advertised on the network.
   Stopped: The device's presence is not advertised on the network.
Example:
   xStatus NetworkServices UPnP Status
   \*s NetworkServices UPnP Status: Running
   ** end

Peripherals status

xStatus Peripherals ConnectedDevice [n] HardwareInfo
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER
Shows hardware information about connected device.
Value space of the result returned:
   String
Example:
   xStatus Peripherals ConnectedDevice 1007 HardwareInfo
   \*s Peripherals ConnectedDevice 1007 HardwareInfo: "1122330-0"
   ** end

xStatus Peripherals ConnectedDevice [n] ID
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER
Shows the MAC-address of the connected device.
Value space of the result returned:
   String
Example:
   xStatus Peripherals ConnectedDevice 1007 ID
   \*s Peripherals ConnectedDevice 1007 ID: "00:10:20:20:be:21"
   ** end
xStatus Peripherals ConnectedDevice [n] Name
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER
Shows the product name of connected device.
Value space of the result returned:
  String
Example:
xStatus Peripherals ConnectedDevice 1007 Name
*s Peripherals ConnectedDevice 1007 Name: "Cisco TelePresence Touch"
** end

xStatus Peripherals ConnectedDevice [n] RoomAnalytics AmbientTemperature
Applies to: RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Not applicable this release.

xStatus Peripherals ConnectedDevice [n] RoomAnalytics RelativeHumidity
Applies to: RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Not applicable this release.

xStatus Peripherals ConnectedDevice [n] SerialNumber
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER
Shows the serial number of a connected peripheral device, for example the Touch 10.
Value space of the result returned:
  String
Example:
xStatus Peripherals ConnectedDevice 1001 SerialNumber
*s Peripherals ConnectedDevice 1001 SerialNumber: "ABC123..."
** end

xStatus Peripherals ConnectedDevice [n] SoftwareInfo
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER
Shows information of the software version running on the connected device.
Value space of the result returned:
  String
Example:
xStatus Peripherals ConnectedDevice 1007 SoftwareInfo
*s Peripherals ConnectedDevice 1007 SoftwareInfo: "TI7.2.0"
** end
xStatus Peripherals ConnectedDevice [n] Status
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER
Shows peripheral devices that are currently connected to the video conferencing device.
Value space of the result returned:
  Connected/ResponseTimedOut
Example:
  xStatus Peripherals ConnectedDevice 1001 Status
  *s Peripherals ConnectedDevice 1001 Status: Connected
  ** end

xStatus Peripherals ConnectedDevice [n] Type
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER
Shows the type of a peripheral that is connected to the video conferencing device.
Note: The Precision 60 and Quad cameras returns the value Camera. A SpeakerTrack 60 camera returns the value SpeakerTracker. Only recognized Cisco headsets returns the value Headset.
Value space of the result returned:
  AudioAmplifier/AudioMicrophone/Byod/Camera/ControlSystem/Headset/InputDevice/
  ISDNLink/Other/SpeakerTrack/TouchPanel
Example:
  xStatus Peripherals ConnectedDevice 1001 Type
  *s Peripherals ConnectedDevice 1001 Type: TouchPanel
  ** end

xStatus Peripherals ConnectedDevice [n] UpgradeFailureReason
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER
Shows that a connected device has failed during an upgrade and provides a reason.
Value space of the result returned:
  String
  Describes the reason for the upgrade failure.
Example:
  xStatus Peripherals ConnectedDevice 1001 UpgradeFailureReason
  *s Peripherals ConnectedDevice 1001 UpgradeFailureReason: 
  ** end

xStatus Peripherals ConnectedDevice [n] UpgradeStatus
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER
Shows the status of the previous software upgrade on the currently connected peripherals.
Value space of the result returned:
  Downloading/Failed/Installing/InstallationReady/None/Succeeded/Rebooting/Retrying/
  Aborted/Paused
Example:
  xStatus Peripherals ConnectedDevice 1001 UpgradeStatus
  *s Peripherals ConnectedDevice 1001 UpgradeStatus: None
  ** end
xStatus Peripherals ConnectedDevice [n] UpgradeURL

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Shows the upgrade URL for the connected device.

Value space of the result returned:

- String
  - Specifies the full URL.

Example:

```plaintext
xStatus Peripherals ConnectedDevice 1001 UpgradeURL
's Peripherals ConnectedDevice 1001 UpgradeURL: ""
** end
```

Provisioning status

xStatus Provisioning CUCM Customization Checksum

Applies to: All products
Requires user role: ADMIN, USER

You can provision custom elements to multiple devices by using a customization template (a backup file). This status reports the checksum of the last customization template that has been uploaded to the device. Also see the xCommand Provisioning Service Fetch command.

Value space of the result returned:

- String
  - The checksum of the customization template.

Example:

```plaintext
xStatus Provisioning CUCM Customization Checksum
's Provisioning CUCM Customization Checksum: "633e163e2694b89ce37103b2448c36a..."
** end
```

xStatus Provisioning CUCM ExtensionMobility Enabled

Applies to: All products
Requires user role: ADMIN, USER

Shows if Extension Mobility is enabled for a CUCM registered device.

Value space of the result returned:

- True/False

Example:

```plaintext
xStatus Provisioning CUCM ExtensionMobility Enabled
's Provisioning CUCM ExtensionMobility Enabled: False
** end
```
xStatus Provisioning CUCM ExtensionMobility LastLoggedInUserId

Applies to: All products
Requires user role: ADMIN, USER

Returns the user id that was last logged in to the device. Only in use if CUCM Extension Mobility is enabled, and CUCM is configured to remember the last logged in user on a device.

Value space of the result returned:
   String

Example:
   xStatus Provisioning CUCM ExtensionMobility LastLoggedInUserId
   "s Provisioning CUCM ExtensionMobility LastLoggedInUserId: "User 1"
   " ** end

xStatus Provisioning CUCM ExtensionMobility LoggedIn

Applies to: All products
Requires user role: ADMIN, USER

Shows if someone is logged in to Extension Mobility or not.

Value space of the result returned:
   True/False

Example:
   xStatus Provisioning CUCM ExtensionMobility LoggedIn
   "s Provisioning CUCM ExtensionMobility LoggedIn: False
   " ** end

xStatus Provisioning RoomType

Applies to: SX80, MX700/MX800/MX800D, CodecPlus, CodecPro, Room70G2, RoomPanorama/Room70Panorama
Requires user role: ADMIN, USER

Specifies the room type setup configured for this device.

Value space of the result returned:
   Briefing/Classroom/Standard

   Briefing: This device is using the briefing room setup.
   Classroom: This device is using is using the classroom setup.
   Standard: This device is using the default room setup.

Example:
   xStatus Provisioning RoomType
   "s Provisioning RoomType: Briefing
   " ** end

xStatus Provisioning Software Current CompletedAt

Applies to: All products
Requires user role: ADMIN, USER

Shows date and time for when the current software upgrade was completed.

Value space of the result returned:
   String

Example:
   xStatus Provisioning Software Current CompletedAt
   "s Provisioning Software Current CompletedAt: "2011-06-07T07:20:03Z"
   " ** end
xStatus Provisioning Software Current URL
Applies to: All products
Requires user role: ADMIN, USER
Shows the URL that the current software was uploaded from.
Value space of the result returned:
  String
Example:
  xStatus Provisioning Software Current URL
  "s Provisioning Software Current URL: "http://.../s52020ce8_0_0.pkg"
  ** end

xStatus Provisioning Software Current VersionId
Applies to: All products
Requires user role: ADMIN, USER
Shows the version ID of the current software.
Value space of the result returned:
  String
Example:
  xStatus Provisioning Software Current VersionId
  "s Provisioning Software Current VersionId: "s52020ce8_0_0.pkg"
  ** end

xStatus Provisioning Software UpgradeStatus LastChange
Applies to: All products
Requires user role: ADMIN, USER
Shows the date and time for the latest software upgrade.
Value space of the result returned:
  String
Example:
  xStatus Provisioning Software UpgradeStatus LastChange
  "s Provisioning Software UpgradeStatus LastChange: "2011-06-07T07:20:03Z"
  ** end

xStatus Provisioning Software UpgradeStatus Message
Applies to: All products
Requires user role: ADMIN, USER
Shows the system message for the software upgrade.
Value space of the result returned:
  String
Example:
  xStatus Provisioning Software UpgradeStatus Message
  "s Provisioning Software UpgradeStatus Message: ""
  ** end
xStatus Provisioning Software UpgradeStatus Phase
Applies to: All products
Requires user role: ADMIN, USER
Shows the phase of the software upgrade.
Value space of the result returned:
  None/AboutToInstallUpgrade/DownloadDone/DownloadPaused/DownloadPending/
  Downloading/Installing/InstallingPeripherals/Postponed/UpgradingPeripherals
Example:
xStatus Provisioning Software UpgradeStatus Phase
  *s Provisioning Software UpgradeStatus Phase: None
  ** end

xStatus Provisioning Software UpgradeStatus SessionId
Applies to: All products
Requires user role: ADMIN, USER
Shows the ID of the session for the software upgrade.
Value space of the result returned:
  String
Example:
xStatus Provisioning Software UpgradeStatus SessionId
  *s Provisioning Software UpgradeStatus SessionId: ""
  ** end

xStatus Provisioning Software UpgradeStatus Status
Applies to: All products
Requires user role: ADMIN, USER
Shows the status of the software upgrade.
Value space of the result returned:
  None/InProgress/Failed/InstallationFailed/Succeeded
Example:
xStatus Provisioning Software UpgradeStatus Status
  *s Provisioning Software UpgradeStatus Status: None
  ** end

xStatus Provisioning Software UpgradeStatus Urgency
Applies to: All products
Requires user role: ADMIN, USER
Shows how urgently the software needs to be upgraded.
Value space of the result returned:
  Low/Medium/Critical
Example:
xStatus Provisioning Software UpgradeStatus Urgency
  *s Provisioning Software UpgradeStatus Urgency: Low
  ** end
xStatus Provisioning Software UpgradeStatus URL

Applies to: All products  
Requires user role: ADMIN, USER  
Shows the URL that the new software currently is being uploaded and installed from.  
Value space of the result returned:  
  String  
Example:
  xStatus Provisioning Software UpgradeStatus URL  
  *s Provisioning Software UpgradeStatus URL: "http://.../s52020ce8_0_0.pkg"  
  ** end

xStatus Provisioning Software UpgradeStatus VersionId

Applies to: All products  
Requires user role: ADMIN, USER  
Shows the version ID of the software currently being uploaded and installed.  
Value space of the result returned:  
  String  
Example:
  xStatus Provisioning Software UpgradeStatus VersionId  
  *s Provisioning Software UpgradeStatus VersionId: "s52010ce8_0_0.pkg"  
  ** end

xStatus Provisioning Status

Applies to: All products  
Requires user role: ADMIN, USER  
Shows the status of the provisioning.  
Value space of the result returned:  
  Failed/AuthenticationFailed/Provisioned/Idle/NeedConfig/ConfigError  
  Failed: The provisioning failed.  
  AuthenticationFailed: The authentication failed.  
  Provisioned: The device is provisioned.  
  Idle: The provisioning is not active.  
  NeedConfig: The device needs to be configured.  
  ConfigError: An error occurred during configuration.  
Example:
  xStatus Provisioning Status  
  *s Provisioning Status: Provisioned  
  ** end
Proximity status

xStatus Proximity Services Availability

Applies to: All products
Requires user role: ADMIN, USER
Shows whether proximity services are available on the device.
Value space of the result returned:
Available, Deactivated, Disabled

Available: Proximity mode has been enabled with the command xConfiguration Proximity Mode and one or more of the proximity services have been enabled with xConfiguration Proximity Services commands.
Deactivated: Proximity services have been deactivated with the command xCommand Proximity Services Deactivate.
Disabled: Proximity mode has been disabled with xConfiguration Proximity Mode, or none of the services have been enabled with the xConfiguration Proximity Services commands.

Example:
xStatus Proximity Services Availability
  *s Proximity Services Availability: Disabled
** end

RoomAnalytics status

xStatus RoomAnalytics AmbientNoise Level A

Applies to: RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70, Room55D, Room70G2, RoomPanorama, Room70Panorama, DeskPro, Boards
Requires user role: ADMIN, INTEGRATOR, USER
The device can be set up to estimate the stationary ambient noise level in the room (refer to the RoomAnalytics AmbientNoiseEstimation Mode setting). The result is reported in this status.
The value is an A-weighted decibel value (dBA). The value is only a relative value and should not be treated as an absolute SPL (Sound Pressure Level) value. Especially not for third-party microphones that the device doesn't know the sensitivity of.
Value space of the result returned:
Integer

Example:
xStatus RoomAnalytics AmbientNoise Level A
  *s RoomAnalytics AmbientNoise Level A: 30
** end

xStatus RoomAnalytics AmbientTemperature

Applies to: DeskPro
Requires user role: ADMIN, USER
Shows the ambient temperature for the device.
Value space of the result returned:
String

Example:
xStatus RoomAnalytics AmbientTemperature
  *s RoomAnalytics AmbientTemperature: "20.7"
** end
xStatus RoomAnalytics Engagement CloseProximity

Applies to: RoomKit  RoomKitMini  Room55  DeskPro  Boards
Requires user role: ADMIN, INTEGRATOR, USER

The device can detect the presence of people at close proximity.
This status depends on the camera running. To use, we recommend turning on the configuration “RoomAnalytics PeopleCountOutOfCall”.
This will cause the camera to turn on periodically and CloseProximity will be updated.
If not, the status will only be updated in conversation or when self-view is on.

Value space of the result returned:

- **False**: The status will be False when the camera is not running or when the conditions for True are not met.
- **True**: The status becomes True if at least one person meets these criteria:
  - Less than 1 meter from the camera
  - Has face facing camera
  - Standing relatively still

The status goes from True to False again if the person goes further than 1.5 meters from the camera or leaves the camera view.

Example:
```
xstatus RoomAnalytics Engagement
*s RoomAnalytics Engagement CloseProximity: False
** end
```

xStatus RoomAnalytics PeopleCount Current

Applies to: SX80  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards
Requires user role: ADMIN, INTEGRATOR, USER

Shows the number of people who are in the room by use of face detection. The call must have a duration of minimum two minutes in order to get a reliable average. Persons that have not faced the camera will not be counted. If there are objects or pictures in the room that can be detected as faces, these might be counted. The device will not keep record of who was in the room, only the average number of faces that were detected. When the device is in standby, or if the feature is turned off, the number returned is -1.

For SX80 and Codec Plus, this status only applies if you have a Cisco Quad Camera.

Value space of the result returned:

- **Integer**

Example:
```
xStatus RoomAnalytics PeopleCount Current
*s RoomAnalytics PeopleCount Current: 2
** end
```

xStatus RoomAnalytics PeoplePresence

Applies to: SX20  SX80  MX200G2/MX300G2  MX700/MX800  MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards
Requires user role: ADMIN, INTEGRATOR, USER

Shows if there are people present in the room or not. The feature is based on ultrasound.
The device will not keep record of who was in the room, only whether or not there are people present in the room.

When someone enters the room, the status is updated immediately. After the room gets vacant, it may take up to two minutes for the status to change.

Value space of the result returned:

- **Yes/No/Unknown**

Example:
```
xStatus RoomAnalytics PeoplePresence
*s RoomAnalytics PeoplePresence: No
** end
```
xStatus RoomAnalytics Sound Level A
Applies to: RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN, INTEGRATOR, USER
If the RoomAnalytics AmbientNoiseEstimation Mode setting is On, the device will in addition to the ambient noise also measure the sound level in the room. The result is reported in this status every 10th second.
The value is an A-weighted averaged sound level in decibel (dBA). The value is only a relative value and should not be treated as an absolute SPL (Sound Pressure Level) value. Especially not for third-party microphones that the device doesn’t know the sensitivity of.
Value space of the result returned:
  Integer
  The average sound level in dBA.
Example:
xStatus RoomAnalytics Sound Level A
  *s RoomAnalytics Sound Level A: 33
  ** end

xStatus RoomAnalytics RelativeHumidity
Applies to: DeskPro
Requires user role: ADMIN, USER
Shows the relative humidity for the device.
Value space of the result returned:
  Integer
Example:
xStatus RoomAnalytics RelativeHumidity
  *s RoomAnalytics RelativeHumidity: 26
  ** end

RoomPreset status
xStatus RoomPreset [n] Defined
Applies to: SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN, USER
Shows if a camera preset is stored at this position.
Value space of the result returned:
  True/False
Example:
xStatus RoomPreset 1 Defined
  *s RoomPreset 1 Defined: True
  ** end

xStatus RoomPreset [n] Description
Applies to: SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN, USER
Lists the configured name for the specific preset.
Value space of the result returned:
  String
Example:
xStatus RoomPreset 1 Description
  *s RoomPreset 1 Description: "Zoom in"
  ** end
xStatus RoomPreset [n] Type

* Applies to: SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

* Requires user role: ADMIN, USER

Shows the camera preset type.

Value space of the result returned:

  All/Camera

Example:

xStatus RoomPreset 1 Type
's RoomPreset 1 Type: All
** end

Security status

xStatus Security Persistency CallHistory

* Applies to: All products

* Requires user role: ADMIN, USER

Shows whether call history logging is set to persistent or non-persistent mode. Persistent is the default mode.

Value space of the result returned:

  NonPersistent/Persistent

Example:

xStatus Security Persistency CallHistory
's Security Persistency CallHistory: Persistent
** end

xStatus Security Persistency Configurations

* Applies to: All products

* Requires user role: ADMIN, USER

Shows whether all the device’s configurations are set to persistent or non-persistent mode. Persistent is the default mode.

Value space of the result returned:

  NonPersistent/Persistent

Example:

xStatus Security Persistency Configurations
's Security Persistency Configurations: Persistent
** end
xStatus Security Persistency DHCP
Applies to: All products
Requires user role: ADMIN, USER
Shows whether DHCP logging is set to persistent or non-persistent mode. Persistent is the default mode.
Value space of the result returned:
  NonPersistent/Persistent
Example:
xStatus Security Persistency DHCP
*s Security Persistency DHCP: Persistent
** end

xStatus Security Persistency InternalLogging
Applies to: All products
Requires user role: ADMIN, USER
Shows whether internal logging is set to persistent or non-persistent mode. Persistent is the default mode.
Value space of the result returned:
  NonPersistent/Persistent
Example:
xStatus Security Persistency InternalLogging
*s Security Persistency InternalLogging: Persistent
** end

xStatus Security Persistency LocalPhonebook
Applies to: All products
Requires user role: ADMIN, USER
Shows whether local phone book is set to persistent or non-persistent mode. Persistent is the default mode.
Value space of the result returned:
  NonPersistent/Persistent
Example:
xStatus Security Persistency LocalPhonebook
*s Security Persistency LocalPhonebook: Persistent
** end
SIP status

xStatus SIP AlternateURI Alias [n] URI

**Applies to:** DX70/DX80  SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus CodecPro Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

**Requires user role:** ADMIN, USER

**Value space of the result returned:**
- **String**

**Example:**
```plaintext
xStatus SIP AlternateURI Alias
*s SIP AlternateURI Alias URI: ""
** end
```

xStatus SIP AlternateURI Primary [n] URI

**Applies to:** DX70/DX80  SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus CodecPro Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

**Requires user role:** ADMIN, USER

**Value space of the result returned:**
- **String**

**Example:**
```plaintext
xStatus SIP AlternateURI Primary
*s SIP AlternateURI Primary URI: ""
** end
```

xStatus SIP Authentication

**Applies to:** DX70/DX80  SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus CodecPro Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

**Requires user role:** ADMIN, USER

Shows which authentication mechanism is used when registering to the SIP Proxy Server.

**Value space of the result returned:**
- **Digest/Off**
  - **Digest:** Uses the Digest access authentication method, as specified by RFC 2069.
  - **Off:** No authentication mechanism is used.

**Example:**
```plaintext
xStatus SIP Authentication
*s SIP Authentication: Off
** end
```

xStatus SIP CallForward DisplayName

**Applies to:** DX70/DX80  SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus CodecPro Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

**Requires user role:** ADMIN, USER

Returns the URI that is displayed on the user interface for the forwarded call.

**Value space of the result returned:**
- **String**

**Example:**
```plaintext
xStatus SIP CallForward DisplayName
*s SIP CallForward DisplayName: ""
** end
```
### xStatus SIP CallForward Mode

**Applies to:** DX70/DX80  SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

**Requires user role:** ADMIN, USER

Indicates whether the call forward mode for SIP is set to on or off.

Value space of the result returned:

- **On/Off**

Example:

```plaintext
xStatus SIP CallForward Mode
*s SIP CallForward Mode: Off
** end
```

### xStatus SIP CallForward URI

**Applies to:** DX70/DX80  SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

**Requires user role:** ADMIN, USER

Indicates the address the incoming calls are directed to when call forward mode is set on.

Value space of the result returned:

- **String**

Example:

```plaintext
xStatus SIP CallForward URI
*s SIP CallForward URI: ""
** end
```

### xStatus SIP Mailbox MessagesWaiting

**Applies to:** DX70/DX80  SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

**Requires user role:** ADMIN, USER

Indicates how many new messages are in the mailbox.

Value space of the result returned:

- **Integer**

Example:

```plaintext
xStatus SIP Mailbox MessagesWaiting
*s SIP Mailbox MessagesWaiting: 0
** end
```

### xStatus SIP Mailbox URI

**Applies to:** DX70/DX80  SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro  Boards

**Requires user role:** ADMIN, USER

Returns the URI for your SIP mailbox.

Value space of the result returned:

- **String**

Example:

```plaintext
xStatus SIP Mailbox URI
*s SIP Mailbox URI: "12345678"
** end
```
xStatus SIP Proxy [n] Address

Applies to: DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, USER

Shows the address of the SIP Proxy that the device communicates with.

Value space of the result returned:

String

Example:

xStatus SIP Proxy 1 Address
*s SIP Proxy 1 Address: "192.0.2.50"
** end

xStatus SIP Proxy [n] Status

Applies to: DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, USER

Shows the status of the communication between the device and the SIP Proxy server.

Value space of the result returned:

Active/AuthenticationFailed/DNSFailed/Off/Timeout/UnableTCP/UnableTLS/Unknown

Active: The communication between the device and the SIP Proxy is active.
DNSFailed: The attempt to establish communication to the DNS server failed.
Off: There is no communication between the device and the SIP Proxy.
Timeout: The attempt to establish communication to the SIP Proxy timed out.
UnableTCP: The device is unable to use TCP as the transport method.
UnableTLS: The device is unable to use TLS as the transport method.
Unknown: The status of the communication is not known.
AuthenticationFailed: Wrong username or password.

Example:

xStatus SIP Proxy 1 Status
*s SIP Proxy 1 Status: Active
** end

xStatus SIP Registration [n] Authentication

Applies to: DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, USER

Shows which authentication mechanism is used when registering to the SIP Proxy Server.

Value space of the result returned:

Digest/Off

Digest: Uses the Digest access authentication method, as specified by RFC 2069.
Off: No authentication mechanism is used.

Example:

xStatus SIP Registration 1 Authentication
*s SIP Registration 1 Authentication: Off
** end

xStatus SIP Registration [n] Reason

Applies to: DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

Requires user role: ADMIN, USER

Shows a message to explain the reason why the SIP registration failed.

Value space of the result returned:

String

Example:

xStatus SIP Registration 1 Reason
*s SIP Registration 1 Reason: "404 Not Found"
** end
xStatus SIP Registration [n] Status

**Applies to:** DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, USER

Shows the status of the registration to the SIP Proxy Server.

**Value space of the result returned:**

- **Deregister**/Failed/Inactive/Registered/Registering
  - **Deregister:** The device is in the process of de-registering to the SIP Proxy.
  - **Failed:** The device failed to register to the SIP Proxy.
  - **Inactive:** The device is not registered to any SIP Proxy.
  - **Registered:** The device is registered to the SIP Proxy.
  - **Registering:** The device is in the process of registering to the SIP Proxy.

**Example:**
```plaintext
xStatus SIP Registration 1 Status
*s SIP Registration 1 Status: Registered
** end
```

xStatus SIP Registration [n] URI

**Applies to:** DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, USER

Shows the URI used for registration to the SIP Proxy server.

**Value space of the result returned:**

- **String**

**Example:**
```plaintext
xStatus SIP Registration 1 URI
*s SIP Registration 1 URI: "firstname.lastname@company.com"
** end
```

xStatus SIP Secure

**Applies to:** DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, USER

Shows the encryption status of the signaling with the SIP Proxy server.

**Value space of the result returned:**

- **True/False**

**Example:**
```plaintext
xStatus SIP Secure
*s SIP Secure: True
** end
```

xStatus SIP Verified

**Applies to:** DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards

**Requires user role:** ADMIN, USER

Shows whether or not the SSL certificate of the server that the device tries to register to is included in the device’s trusted CA-list. The server is typically a Cisco VCS or CUCM.

**Value space of the result returned:**

- **True/False**

**Example:**
```plaintext
xStatus SIP Verified
*s SIP Verified: False
** end
```
Standby status

xStatus Standby PowerSave State

** Applies to:** MX700/MX800/MX800D
** Requires user role:** ADMIN, USER

Shows whether the device is in power save mode or not.

**Value space of the result returned:**
- **Active**/Deactivating/Unavailable/Inactive/Disabled
  - **Active:** It is out-of-office hours, so the device is in power save mode.
  - **Deactivating:** The device is in the process of waking up from power save mode.
  - **Inactive:** It is regular working hours, so the device is not in power save mode.
  - **Disabled:** The device is configured not to use power save mode.

**Example:**

```plaintext
xStatus Standby PowerSave State
*s Standby PowerSave State: Inactive
** end
```

xStatus Standby State

** Applies to:** All products
** Requires user role:** ADMIN, INTEGRATOR, ROOMCONTROL, USER

Shows whether the device is in standby mode or not.

**Value space of the result returned:**
- **Standby/EnteringStandby/Halfwake/Off**
  - **Standby:** The device is in standby state.
  - **EnteringStandby:** The device is entering the standby state.
  - **Halfwake:** The device is in standby, but greets the user when presence is detected by motion or the Proximity pairing app. Not applicable for DX70.
  - **Off:** The device is not in standby.

**Example:**

```plaintext
xStatus Standby State
*s Standby State: Off
** end
```
SystemUnit status

xStatus SystemUnit Hardware Module CompatibilityLevel

Applies to: All products
Requires user role: ADMIN, USER

The devices have different sets of compatibility levels. Please check the release note to find the compatibility levels and minimum software version required for your product.

Value space of the result returned:

String

Shows the compatibility level for the device.

Example:

```csharp
xStatus SystemUnit Hardware Module CompatibilityLevel
*s SystemUnit Hardware Module CompatibilityLevel: 1
** end
```

xStatus SystemUnit Hardware Module SerialNumber

Applies to: All products
Requires user role: ADMIN, USER

Shows the serial number of the hardware module in the device.

Value space of the result returned:

String

Example:

```csharp
xStatus SystemUnit Hardware MainBoard SerialNumber
*s SystemUnit Hardware MainBoard SerialNumber: "FOC9999999"
** end
```

xStatus SystemUnit Hardware Monitoring Fan [n] Status

Applies to: All products
Requires user role: ADMIN, USER

The feedback shows the speed (rpm) for the specified fan.

Value space of the result returned:

String

Example:

```csharp
xStatus SystemUnit Hardware Monitoring Fan 1 Status
*s SystemUnit Hardware Monitoring Fan 1 Status: "locked on 1096 rpm"
** end
```

xStatus SystemUnit Hardware Monitoring Temperature Status

Applies to: RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN, INTEGRATOR, USER

Shows the current temperature alarm level. "High" is meant to raise attention to the temperature trend since the operating temperature is higher than normal. At "Critical" level the device will shut down processes and processors to prevent any damage to the device. To avoid high operating temperatures, make sure the device is operating in a ventilated environment.

Value space of the result returned:

Unknown, Normal, High, Critical

Example:

```csharp
xStatus SystemUnit Hardware Monitoring Temperature Status
*s SystemUnit Hardware Monitoring Temperature Status: Normal
** end
```
xStatus SystemUnit Hardware Temperature
Applies to: DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D
Requires user role: ADMIN, USER
Shows the current maximum temperature (degree Celsius) measured in the device.
Value space of the result returned:
   String
Example:
   xStatus SystemUnit Hardware Temperature
   *s SystemUnit Hardware Temperature: "64.0"
   ** end

xStatus SystemUnit Hardware TemperatureThreshold
Applies to: DX70/DX80 SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D
Requires user role: ADMIN, USER
Returns information on the maximum temperature for the device. If this temperature is exceeded the device automatically shuts down.
Value space of the result returned:
   String
Example:
   xStatus SystemUnit Hardware TemperatureThreshold
   *s SystemUnit Hardware TemperatureThreshold: "85"
   ** end

xStatus SystemUnit Hardware USBC [n] Connected
Applies to: DeskPro
Requires user role: ADMIN, USER
Shows the connection status of the specified USB-C port.
Value space of the result returned:
   False/True
Example:
   xStatus SystemUnit Hardware USBC 1 Connected
   *s SystemUnit Hardware USBC 1 Connected: False
   ** end

xStatus SystemUnit Hardware USBC [n] DPAltMode
Applies to: DeskPro
Not applicable in this release.

xStatus SystemUnit Hardware USBC [n] MilliVolts
Applies to: DeskPro
Requires user role: ADMIN, USER
Shows the MilliVolts for the specified USB-C port.
Value space of the result returned:
   Integer
Example:
   xStatus SystemUnit Hardware USBC 1 MilliVolts
   *s SystemUnit Hardware USBC 1 MilliVolts: 20351
   ** end
### xStatus SystemUnit Hardware USBC [n] MilliWatts

**Applies to:** DeskPro  
**Requires user role:** ADMIN, USER  
Shows the MilliWatts for the specified USB-C port.  
**Value space of the result returned:** Integer  
**Example:**
```plaintext
xStatus SystemUnit Hardware USBC [n] MilliWatts
's SystemUnit Hardware USBC [n] MilliWatts: 15018
```

### xStatus SystemUnit Hardware USBC [n] VideoTransmission

**Applies to:** DeskPro  
**Not applicable in this release.**

### xStatus SystemUnit Notifications Notification [n] Text

**Applies to:** All products  
**Requires user role:** ADMIN, USER  
Lists text related to important system notifications. Notifications are issued e.g. when a device was rebooted because of a software upgrade, or when a factory reset has been performed.  
All the notifications can be removed from the list by issuing the xCommand SystemUnit Notifications RemoveAll command.  
**Value space of the result returned:** String  
**Example:**
```plaintext
xStatus SystemUnit Notifications Notification [n] Text
's SystemUnit Notifications Notification [n] Text: "OK"
```

### xStatus SystemUnit Notifications Notification [n] Type

**Applies to:** All products  
**Requires user role:** ADMIN, USER  
Lists the system notification types. Notifications are issued e.g. when a device is rebooted because of a software upgrade, or when a factory reset is performed.  
All the notifications can be removed from the list by issuing the xCommand SystemUnit Notifications RemoveAll command.  
**Value space of the result returned:**  
- **SoftwareUpgradeOK:** This value is returned after a successful software upgrade.  
- **SoftwareUpgradeFailed:** This value is returned after a failed software upgrade attempt.  
- **RebootRequired:** This value is returned when a reboot is required.  
- **Other:** This value is returned for any other notifications.  
**Example:**
```plaintext
xStatus SystemUnit Notifications Notification [n] Type
's SystemUnit Notifications Notification [n] Type: SoftwareUpgradeOK
```

---

---
xStatus SystemUnit ProductId

Applies to: All products
Requires user role: ADMIN, USER
Shows the product identity.

Value space of the result returned:

- "Cisco Webex Board 55": Cisco Webex Board 55
- "Cisco Webex Board 55S": Cisco Webex Board 55S (second generation / S series)
- "Cisco Webex Board 70": Cisco Webex Board 70
- "Cisco Webex Board 70S": Cisco Webex Board 70S (second generation / S series)
- "Cisco Webex Board 85S": Cisco Webex Board 85S
- "Cisco Webex Codec Plus": Cisco Webex Codec Plus
- "Cisco Webex Codec Pro": Cisco Webex Codec Pro
- "Cisco Webex Desk Pro": Cisco Webex Desk Pro
- "Cisco TelePresence DX70": Cisco TelePresence DX70 (also sold as Cisco DX70)
- "Cisco TelePresence MX200 G2": Cisco TelePresence MX200 G2
- "Cisco TelePresence MX300 G2": Cisco TelePresence MX300 G2
- "Cisco TelePresence MX700": Cisco TelePresence MX700 with dual screen and single camera
- "Cisco TelePresence MX700 SpeakerTrack": Cisco TelePresence MX700 with dual screen and dual camera
- "Cisco TelePresence MX800": Cisco TelePresence MX800 with single screen and single camera
- "Cisco TelePresence MX800 SpeakerTrack": Cisco TelePresence MX800 with single screen and dual camera
- "Cisco TelePresence MX800 Dual": Cisco TelePresence MX800 Dual with dual screen and dual camera
- "Cisco Webex Room Kit": Cisco Webex Room Kit
- "Cisco Webex Room Kit Mini": Cisco Webex Room Kit Mini
- "Cisco Webex Room 55": Cisco Webex Room 55
- "Cisco Webex Room 55 Dual": Cisco Webex Room 55 Dual (based on Codec Plus)
- "Cisco Webex Room 70": Cisco Webex Room 70 Dual (based on Codec Plus)
- "Cisco Webex Room 70 Dual G2": Cisco Webex Room 70 Dual G2 (based on Codec Pro)
- "Cisco Webex Room 70 Single": Cisco Webex Room 70 Single (based on Codec Plus)
- "Cisco Webex Room 70 Single G2": Cisco Webex Room 70 Single G2 (based on Codec Pro)
- "Cisco Webex Room 70 USB": Cisco Webex Room USB
- "Cisco TelePresence SX10": Cisco TelePresence SX10
- "Cisco TelePresence SX20": Cisco TelePresence SX20
- "Cisco TelePresence SX80": Cisco TelePresence SX80

Example:
xStatus SystemUnit ProductId
*s SystemUnit ProductId: "Cisco TelePresence SX80"
** end
xStatus SystemUnit ProductPlatform

Applies to: All products
Requires user role: ADMIN, USER

Shows the product platform.

Value space of the result returned:

String

- "Board 55": Cisco Webex Board 55
- "Board 55S": Cisco Webex Board 55S (second generation / S series)
- "Board 70": Cisco Webex Board 70
- "Board 70S": Cisco Webex Board 70S (second generation / S series)
- "Board 85S": Cisco Webex Board 85S
- "Codec Plus": Cisco Webex Codec Plus
- "Codec Pro": Cisco Webex Codec Pro
- "Desk Pro": Cisco Webex Desk Pro
- "DX70": Cisco Webex DX70 (also sold as Cisco DX70)
- "DX80": Cisco Webex DX80 (also sold as Cisco DX80)
- "MX200 G2": Cisco TelePresence MX200 G2
- "MX300 G2": Cisco TelePresence MX300 G2
- "MX700": Cisco TelePresence MX700 with dual screen and single camera
- "MX700ST": Cisco TelePresence MX700 with dual screen and dual camera
- "MX800": Cisco TelePresence MX800 with single screen and single camera
- "MX800ST": Cisco TelePresence MX800 with single screen and dual camera
- "MX800D": Cisco TelePresence MX800 Dual with dual screen and dual camera
- "Room Kit": Cisco Webex Room Kit
- "Room Kit Mini": Cisco Webex Room Kit Mini
- "Room 55": Cisco Webex Room 55
- "Room 55D": Cisco Webex Room 55 Dual (based on Codec Plus)
- "Room 70": Cisco Webex Room 70 Dual (based on Codec Plus)
- "Room 70D G2": Cisco Webex Room 70 Dual G2 (based on Codec Pro)
- "Room 70S": Cisco Webex Room 70 Single (based on Codec Plus)
- "Room 70S G2": Cisco Webex Room 70 Single G2 (based on Codec Pro)
- "Room USB": Cisco Webex Room USB
- "SX10": Cisco TelePresence SX10
- "SX20": Cisco TelePresence SX20
- "SX80": Cisco TelePresence SX80

Example:

```plaintext
xStatus SystemUnit ProductPlatform
*s SystemUnit ProductPlatform: "SX80"
** end
```

xStatus SystemUnit ProductType

Applies to: All products
Requires user role: ADMIN, USER

Shows the product type.

Value space of the result returned:

String

Example:

```plaintext
xStatus SystemUnit ProductType
*s SystemUnit ProductType: "Cisco Codec"
** end
```

xStatus SystemUnit Software DisplayName

Applies to: All products
Requires user role: ADMIN, USER

Shows the name of the software that is installed on the device, as it is displayed in the UI.

Value space of the result returned:

String

Example:

```plaintext
xStatus SystemUnit Software DisplayName
*s SystemUnit Software DisplayName: "Display Name"
** end
```
xStatus SystemUnit Software Name
Applies to: All products
Requires user role: ADMIN, USER
Shows the name of the software that is installed on the device.
Value space of the result returned:
  String
Example:
  xStatus SystemUnit Software Name
  "s SystemUnit Software Name: "s53200"
  ** end

xStatus SystemUnit Software OptionKeys Encryption
Applies to: All products
Requires user role: ADMIN, USER
Shows if the device has the option key or the software installed that supports the encryption functionality. The option key is available for SX10, SX80, and the MX series.
Value space of the result returned:
  False/True
Example:
  xStatus SystemUnit Software OptionKeys Encryption
  "s SystemUnit Software OptionKeys Encryption: "true"
  ** end

xStatus SystemUnit Software OptionKeys MultiSite
Applies to: DX70/DX80  SX10  SX20  SX80  MX200G2/MX300G2  MX700/MX800/MX800D  RoomKit  RoomKitMini
  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro
  Boards
Requires user role: ADMIN, USER
Shows if the device has the option key installed that supports the MultiSite functionality.
Value space of the result returned:
  False/True/NotApplicable
Example:
  xStatus SystemUnit Software OptionKeys MultiSite
  "s SystemUnit Software OptionKeys MultiSite: "true"
  ** end

xStatus SystemUnit Software OptionKeys RemoteMonitoring
Applies to: All products
Requires user role: ADMIN, USER
Shows whether the device has the remote monitoring option key installed. Remote monitoring option key enables snapshots from the web interface, and from a remote paired Touch 10.
Value space of the result returned:
  False/True
Example:
  xStatus SystemUnit Software OptionKeys RemoteMonitoring
  "s SystemUnit Software OptionKeys RemoteMonitoring: "true"
  ** end
xStatus SystemUnit Software ReleaseDate
Applies to: All products
Requires user role: ADMIN, USER
Shows the release date of the software installed on the device.
Value space of the result returned:
  String
Example:
  xStatus SystemUnit Software ReleaseDate
  "s SystemUnit Software ReleaseDate: "2015-05-05"
  ** end

xStatus SystemUnit Software Version
Applies to: All products
Requires user role: ADMIN, USER
Shows the software version installed on the device.
Value space of the result returned:
  String
Example:
  xStatus SystemUnit Software Version
  "s SystemUnit Software Version: "CE8.0.0"
  ** end

xStatus SystemUnit State CameraLid
Applies to: DX70/DX80, MX200G2/MX300G2, DeskPro
Requires user role: ADMIN, USER
Shows the position of the camera lid (i.e., Closed or Open).
Value space of the result returned:
  Closed/Open
  Closed: The camera lid is closed.
  Open: The camera lid is open.
Example:
  xStatus SystemUnit State CameraLid
  "s SystemUnit State CameraLid: Closed"
  ** end

xStatus SystemUnit State NumberOfActiveCalls
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER
Shows the number of active calls.
Value space of the result returned:
  0..5
Example:
  xStatus SystemUnit State NumberOfActiveCalls
  "s SystemUnit State NumberOfActiveCalls: 0"
  ** end
xStatus SystemUnit State NumberOfInProgressCalls

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Shows the number of calls in progress.

Value space of the result returned:

0..5

Example:

xStatus SystemUnit State NumberOfInProgressCalls
's SystemUnit State NumberOfInProgressCalls: 0
** end

xStatus SystemUnit State NumberOfSuspendedCalls

Applies to: All products
Requires user role: ADMIN, USER

Shows the number of suspended calls.

Value space of the result returned:

0..5

Example:

xStatus SystemUnit State NumberOfSuspendedCalls
's SystemUnit State NumberOfSuspendedCalls: 0
** end

xStatus SystemUnit Uptime

Applies to: All products
Requires user role: ADMIN, USER

Shows the number of seconds since the last restart of the device.

Value space of the result returned:

Integer

Example:

xStatus SystemUnit Uptime
's SystemUnit Uptime: 597095
** end
### Time status

**xStatus Time SystemTime**

Applies to: *All products*
Requires user role: ADMIN, INTEGRATOR, USER

Returns the date and time set on the device.

Value space of the result returned:
- **String**

Example:
```
*xStatus Time SystemTime
*s Time SystemTime: "2014-04-25T10:04:03Z"
** end
```

### UserInterface status

**xStatus UserInterface ContactInfo ContactMethod [n] Number**

Applies to: *All products*
Requires user role: ADMIN, USER

Returns the device's active contact information. This address is used to reach this device.

Value space of the result returned:
- **String**

Example:
```
*xStatus UserInterface ContactInfo ContactMethod Number
*s UserInterface ContactInfo ContactMethod 1 Number: "12345678"
** end
```

**xStatus UserInterface ContactInfo Name**

Applies to: *All products*
Requires user role: ADMIN, USER

Returns the device's active contact name. The result depends on which protocol, if any, the device is registered on. The automatically set contact name may have been overridden with the command `xConfiguration UserInterface ContactInfo Type`. This results in a diagnostics warning about contact mismatch.

Value space of the result returned:
- **String**

Example:
```
*xStatus UserInterface ContactInfo Name
*s UserInterface ContactInfo Name: "MySystem"
** end
```
xStatus UserInterface Extensions Widget [n] Value

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Returns the value for a widget. Widgets are used in custom panels, for example in-room controls, that are added to the user interface. The value space depends on the widget type. The value is an empty string until a value is set with the UserInterface Extensions Widget SetValue command.

Value space of the result returned:

String

Example:
UserInterface Extensions Value
's UserInterface Extensions Widget 1 Value: "on"
's UserInterface Extensions Widget 2 Value: "255"
's UserInterface Extensions Widget 3 Value: "Blinds"
's UserInterface Extensions Widget 4 Value: "inactive"
's UserInterface Extensions Widget 5 Value: "2"
's UserInterface Extensions Widget 6 Value: "Projector is ready"
** end

xStatus UserInterface Extensions Widget [n] WidgetId

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, ROOMCONTROL, USER

Returns the unique identifier for a widget. Widgets are used in custom panels, for example in-room controls, that are added to the user interface.

Value space of the result returned:

String

Example:
UserInterface Extensions WidgetId
's UserInterface Extensions Widget 1 WidgetId: "togglebutton"
's UserInterface Extensions Widget 2 WidgetId: "slider"
's UserInterface Extensions Widget 3 WidgetId: "spinner"
's UserInterface Extensions Widget 4 WidgetId: "button"
's UserInterface Extensions Widget 5 WidgetId: "groupbutton"
's UserInterface Extensions Widget 6 WidgetId: "textfield"
** end

xStatus UserInterface Features Call End

Applies to: All products
Requires user role: ADMIN, INTEGRATOR

This status reports whether or not the default End call button is removed from the user interface.

Value space of the result returned:

Visible/Hidden

Visible: The default button is in the user interface.

Hidden: The default button is removed from the user interface.

Example:
xStatus UserInterface Features Call End
's UserInterface Features Call End: Visible
** end
**xStatus UserInterface Features Call Keypad**

**Applies to:** All products

**Requires user role:** ADMIN, INTEGRATOR

This status reports whether or not the default Keypad button is removed from the user interface.

**Value space of the result returned:**

- **Visible/Hidden**
  - **Visible:** The default button is in the user interface.
  - **Hidden:** The default button is removed from the user interface.

**Example:**

```plaintext
xStatus UserInterface Features Call Keypad
's UserInterface Features Call Keypad: Visible
** end
```

**xStatus UserInterface Features MidCallControls**

**Applies to:** All products

**Requires user role:** ADMIN, INTEGRATOR

This status reports whether or not the default Hold, Transfer, and Resume in-call buttons are removed from the user interface.

**Value space of the result returned:**

- **Visible/Hidden**
  - **Visible:** The default button is in the user interface.
  - **Hidden:** The default button is removed from the user interface.

**Example:**

```plaintext
xStatus UserInterface Features MidCallControls
's UserInterface Features MidCallControls: Visible
** end
```

**xStatus UserInterface Features Call Start**

**Applies to:** All products

**Requires user role:** ADMIN, INTEGRATOR

This status reports whether or not the default Call button and the Add participant button are removed from the user interface.

**Value space of the result returned:**

- **Visible/Hidden**
  - **Visible:** The default button is in the user interface.
  - **Hidden:** The default button is removed from the user interface.

**Example:**

```plaintext
xStatus UserInterface Features Call Start
's UserInterface Features Call Start: Visible
** end
```

**xStatus UserInterface Features Share Start**

**Applies to:** All products

**Requires user role:** ADMIN, INTEGRATOR

This status reports whether or not the default buttons and other UI elements for sharing and previewing content, both in call and out of call, are removed from the user interface.

**Value space of the result returned:**

- **Visible/Hidden**
  - **Visible:** The default button is in the user interface.
  - **Hidden:** The default button is removed from the user interface.

**Example:**

```plaintext
xStatus UserInterface Features Share Start
's UserInterface Features Share Start: Visible
** end
```
**xStatus UserInterface Features Whiteboard Start**

* Applies to: DX70/DX80, RoomKit, RoomKitMini, CodecPlus, CodecPro, DeskPro, Boards
* Requires user role: ADMIN, INTEGRATOR

This status reports whether or not the default Whiteboard button is removed from the user interface.

Value space of the result returned:

- **Visible/Hidden**
  - **Visible**: The default button is in the user interface.
  - **Hidden**: The default button is removed from the user interface.

Example:
```
xStatus UserInterface Features Whiteboard Start
's UserInterface Features Whiteboard Start: Visible
** end
```

**xStatus UserInterface OSD Output**

* Applies to: All products
* Requires user role: ADMIN, INTEGRATOR, USER

Indicates which monitor on-screen information and indicators (OSD) are displayed on. If the device is controlled with a remote control also the on-screen menus appear on this monitor.

Value space of the result returned:

- **Integer**

Example:
```
xStatus UserInterface OSD Output
's UserInterface OSD Output: 1
** end
```

**xStatus UserInterface SettingsMenu Visibility**

* Applies to: All products
* Requires user role: ADMIN, INTEGRATOR

This status reports whether or not the device name (or contact information) in the upper left corner of the user interface, and the associated drop down menu and Settings panel, are shown in the user interface.

Value space of the result returned:

- **Visible/Hidden**
  - **Visible**: The device name with drop down menu and Settings panel is shown in the upper left corner of the user interface.
  - **Hidden**: The device name with drop down menu and Settings panel is not shown.

Example:
```
xStatus UserInterface SettingsMenu Visibility
's UserInterface SettingsMenu Visibility: Visible
** end
```
Video status

**xStatus Video ActiveSpeaker PIPPosition**

*Applies to: All products*

Requires user role: ADMIN, INTEGRATOR, USER

Shows the position of the active speaker's image on the screen.

Value space of the result returned:

- UpperLeft/UpperCenter/UpperRight/CenterLeft/CenterRight/LowerLeft/LowerRight

**Example:**

```
xStatus Video ActiveSpeaker PIPPosition
's Video PIP ActiveSpeaker Position: UpperCenter
** end
```

**xStatus Video Input Connector [n] Connected**

*Applies to: All products*

Requires user role: ADMIN, INTEGRATOR, USER

Shows whether something is connected to the specified connector. Not all connections can be detected.

Value space of the result returned:

- False/True/Unknown

**Example:**

```
xStatus Video Input Connector 2 ConnectedDevice CEC 5 DeviceType
's Video Input Connector 2 ConnectedDevice CEC 5 DeviceType: "Playback"
** end
```

**xStatus Video Input Connector [n] ConnectedDevice CEC [n] LogicalAddress**

*Applies to: RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards*

Requires user role: ADMIN, INTEGRATOR, USER

Shows the CEC logical address of the connected input device. The address is fixed at 0.

Value space of the result returned:

- Integer

**Example:**

```
xStatus Video Input Connector 1 ConnectedDevice CEC 1 LogicalAddress
's Video Input Connector 1 ConnectedDevice CEC 1 LogicalAddress: 0
** end
```
xStatus Video Input Connector [n] ConnectedDevice CEC [n] Name

Applies to: RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70, Room70G2, RoomPanorama, Room70Panorama, DeskPro, Boards

Requires user role: ADMIN, INTEGRATOR, USER

Shows the name of the connected input device.

Value space of the result returned:

String

Example:

*xStatus Video Input Connector 2 ConnectedDevice CEC 5 Name
's Video Input Connector 2 ConnectedDevice CEC 5 Name: "Device-2"
'' end

xStatus Video Input Connector [n] ConnectedDevice CEC [n] PowerStatus

Applies to: RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70, Room70G2, RoomPanorama, Room70Panorama, DeskPro, Boards

Requires user role: ADMIN, INTEGRATOR, USER

Shows the state of the CEC enabled device connected to the HDMI input.

Value space of the result returned:

String

Example:

*xStatus Video Input Connector 2 ConnectedDevice CEC 5 PowerStatus
's Video Input Connector 2 ConnectedDevice CEC 5 PowerStatus: "Standby"
'' end

xStatus Video Input Connector [n] ConnectedDevice CEC [n] VendorId

Applies to: RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70, Room70G2, RoomPanorama, Room70Panorama, DeskPro, Boards

Requires user role: ADMIN, INTEGRATOR, USER

Shows the vendor ID for the connected input device.

Value space of the result returned:

String

Example:

*xStatus Video Input Connector 2 ConnectedDevice CEC 5 VendorId
's Video Input Connector 2 ConnectedDevice CEC 5 VendorId: "20576"
'' end

xStatus Video Input Connector [n] SignalState

Applies to: All products

Requires user role: ADMIN, INTEGRATOR, USER

Shows the signal state for the specified input.

Value space of the result returned:

NotFound/OK/Unknown/Unstable/Unsupported

NotFound: No signal is detected.

Unknown: The signal format is unknown.

OK: A signal is detected and the signal format is supported.

Unstable: An unstable signal is detected.

Unsupported: A signal is detected, but the signal format is not supported.

Example:

*xStatus Video Input Connector 1 SignalState
's Video Input Connector 1 SignalState: OK
's Video Input Connector 2 SignalState: OK
's Video Input Connector 3 SignalState: NotFound
'' end
xStatus Video Input Connector [n] SourceId

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER
Shows the identifier of the input source that the connector is associated with.
Value space of the result returned:
   Integer
Example:
   xStatus Video Input Connector 1 SourceId
   *s Video Input Connector 1 SourceId: 1
   ** end

xStatus Video Input Connector [n] Type

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER
Shows which connector type it is.
Value space of the result returned:
   Camera/Composite/DVI/3G-SDI/HD-SDI/HDMI/USB/Unknown/VGA/YC/YPbPr/USBC-DP
Example:
   xStatus Video Input Connector 1 Type
   *s Video Input Connector 1 Type: HDMI
   ** end

xStatus Video Input DirectShare [n] Peer Address

Applies to: RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70, Room70G2, DeskPro, Board
Requires user role: ADMIN, INTEGRATOR, USER
Shows the IP address of the connected direct share peer.
Value space of the result returned:
   String
Example:
   xStatus Video Input DirectShare 27 Peer Address
   *s Video Input DirectShare 27 Peer Address: xxx.xxx.xxx.xxx
   ** end

xStatus Video Input DirectShare [n] Peer PeripheralID

Applies to: RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70, Room70G2, DeskPro, Board
Requires user role: ADMIN, INTEGRATOR, USER
Shows a unique identifier of the direct share peer in question.
Value space of the result returned:
   String
Example:
   xStatus Video Input DirectShare 27 Peer PeripheralID
   *s Video Input DirectShare 27 Peer PeripheralID: byod-5
   ** end
xStatus Video Input DirectShare [n] Type

**Applies to:** RoomKit  RoomKitMini  CodecPlus  CodecPro  Room55  Room70/Room55D  Room70G2  DeskPro  Boards

**Requires user role:** ADMIN, INTEGRATOR, USER

Shows the type of direct share peer (currently limited to "Proximity" only).

**Value space of the result returned:**

- **Proximity:** Sharing through a proximity connection.

**Example:**

```plaintext
xStatus Video Input DirectShare 27 Type
*s Video Input DirectShare 27 Type: Proximity
** end
```

xStatus Video Input MainVideoMute

**Applies to:** All products

**Requires user role:** ADMIN, INTEGRATOR, USER

Indicates whether sending of main video has been stopped by using the Video Input MainVideoMute command (or, if available, the "Turn video off" button on the user interface).

**Value space of the result returned:**

- **On/Off**
  - **On:** Video has been stopped.
  - **Off:** Video has not been stopped.

**Example:**

```plaintext
xStatus Video Input MainVideoMute
*s Video Input MainVideoMute: Off
** end
```

xStatus Video Input MainVideoSource

**Applies to:** All products

**Requires user role:** ADMIN, USER

Returns the local video input currently used as the main source. The value Composed is returned if the main source is composed of more than one local input. The default main video source is set with the xConfiguration Video DefaultMainSource command. It can be changed using xCommand Video Input SetMainVideoSource (this command is not applicable to SX10, DX70, and DX80).

**Value space of the result returned:**

- 1/2/3/4/5/6/Composed

**Example:**

```plaintext
xStatus Video Input MainVideoSource
*s Video Input MainVideoSource: 1
** end
```

xStatus Video Input Source [n] ConnectorId

**Applies to:** All products

**Requires user role:** ADMIN, INTEGRATOR, USER

Shows the identifier of the connector that is associated with the input source.

**Value space of the result returned:**

- Integer

**Example:**

```plaintext
xStatus Video Input Source 1 ConnectorId
*s Video Input Source 1 ConnectorId: 1
** end
```
**xStatus Video Input Source [n] FormatStatus**

**Applies to:** All products

**Requires user role:** ADMIN, INTEGRATOR, USER

Shows the resolution format status for the video input source.

Value space of the result returned:

- Ok
- OutOfRange
- NotFound
- Interlaced
- Error
- Unknown

**Example:**

```plaintext
xStatus Video Input Source 1 FormatStatus
*s Video Input Source 1 Resolution FormatStatus: Ok
** end
```

**xStatus Video Input Source [n] FormatType**

**Applies to:** All products

**Requires user role:** ADMIN, INTEGRATOR, USER

Shows the resolution format type for the video input source.

Value space of the result returned:

- Unknown
- AnalogCVTBlanking
- AnalogCVTReducedBlanking
- AnalogGTFDefault
- AnalogGTFSecondary
- AnalogDiscreteTiming
- AnalogDMTBlanking
- AnalogCEABlanking
- Digital

**Example:**

```plaintext
xStatus Video Input Source 1 FormatType
*s Video Input Source 1 Resolution FormatType: Digital
** end
```

**xStatus Video Input Source [n] MediaChannelId**

**Applies to:** All products

**Requires user role:** ADMIN, USER

For internal use only.

Value space of the result returned:

- Integer

**Example:**

```plaintext
xStatus Video Input Source MediaChannelId
*s Video Input Source 1 MediaChannelId: 2
*s Video Input Source 2 MediaChannelId: 3
** end
```

**xStatus Video Input Source [n] Resolution Height**

**Applies to:** All products

**Requires user role:** ADMIN, INTEGRATOR, USER

Shows the resolution height (in pixels) for the video input source.

Value space of the result returned:

- 0..3000

**Example:**

```plaintext
xStatus Video Input Source 1 Resolution Height
*s Video Input Source 1 Resolution Height: 1080
** end
```
xStatus Video Input Source [n] Resolution RefreshRate

Applies to: All products

Requires user role: ADMIN, INTEGRATOR, USER

Shows the resolution refresh rate (Hz) for the video input source.

Value space of the result returned:
0..300

Example:
```
xStatus Video Input Source 1 Resolution RefreshRate
*s Video Input Source 1 Resolution RefreshRate: 50
** end
```

xStatus Video Input Source [n] Resolution Width

Applies to: All products

Requires user role: ADMIN, INTEGRATOR, USER

Shows the resolution width (in pixels) for the video input source.

Value space of the result returned:
0..4000

Example:
```
xStatus Video Input Source 1 Resolution Width
*s Video Input Source 1 Resolution Width: 1920
** end
```

xStatus Video Layout LayoutFamily Local

Applies to: All products

Requires user role: ADMIN, USER

Shows the local screen layout family.

Value space of the result returned:
String

Example:
```
xStatus Video Layout LayoutFamily Local
*s Video Layout LayoutFamily Local: "equal"
** end
```

xStatus Video Layout LayoutFamily Remote

Applies to: All products

Requires user role: ADMIN, USER

Shows the remote screen layout family.

Value space of the result returned:
String

Example:
```
xStatus Video Layout LayoutFamily Remote
*s Video Layout LayoutFamily Remote: "equal"
** end
```
xStatus Video Monitors

Applies to: All products
Requires user role: ADMIN, USER

Returns the monitor layout mode.

Value space of the result returned:

- Single/Dual/DualPresentationOnly/Triple/TriplePresentationOnly
  - Single: The same layout is shown on all monitors.
  - Dual: The layout is distributed on two monitors.
  - DualPresentationOnly: All participants in the call will be shown on the first monitor, while the presentation (if any) will be shown on the second monitor.
  - Triple: The layout is distributed on three monitors.
  - TriplePresentationOnly: All participants in the call will be shown on the first and second monitors, while the presentation (if any) will be shown on the third monitor.

Example:

```
xStatus Video Monitors
*s Video Monitors: Single
** end
```

xStatus Video Output Connector [n] Connected

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

Describes whether a device (for example a display) is connected to the output connector or not. When a display enters standby mode, the video conferencing device may not be able to detect it. The connector status will then return False/Unknown even if the display is physically connected.

Value space of the result returned:

- True/False
  - True: A device is connected to the video output connector.
  - False: Nothing is connected to the video output connector.

Example:

```
xStatus Video Output Connector 1 Connected
*s Video Output Connector 1 Connected: True
** end
```

xStatus Video Output Connector [n] DeviceType

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

Shows the type of CEC enabled device connected to the HDMI output that the video conferencing device has detected.

This information is only available when the device connected to the HDMI output has the CEC feature configured on and the video conferencing device has the configuration xConfiguration Video Output Connector [n] CEC Mode set to on.

Value space of the result returned:

- Unknown/TV/Reserved/Recorder/Tuner/Playback/Audio

Example:

```
xStatus Video Output Connector 1 ConnectedDevice CEC DeviceType
*s Video Output Connector 1 ConnectedDevice CEC DeviceType: TV
** end
```

xStatus Video Output Connector [n] LogicalAddress

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

Shows the CEC logical address of the device.

Value space of the result returned:

- Integer

Example:

```
xStatus Video Output Connector 1 ConnectedDevice CEC 1 LogicalAddress
*s Video Output Connector 1 ConnectedDevice CEC 1 LogicalAddress: 4
** end
```
xStatus Video Output Connector [n] ConnectedDevice CEC [n] Name
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER
Returns the name of the connected device.
Value space of the result returned:
   String
Example:
   xStatus Video Output Connector 1 ConnectedDevice CEC 1 Name: "LG SIGNAGE TV"
   ** end

xStatus Video Output Connector [n] ConnectedDevice CEC [n] VendorId
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER
Returns the vendor ID for the connected device.
Value space of the result returned:
   String
Example:
   xStatus Video Output Connector 1 ConnectedDevice CEC VendorId
   "s Video Output Connector 1 ConnectedDevice CEC 1 VendorId: "57489"
   ** end

xStatus Video Output Connector [n] ConnectedDevice CEC [n] PowerStatus
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER
Shows the state of the CEC enabled device connected to the HDMI output.
This information is only available when the device connected to the HDMI output has the CEC feature configured on and the video conferencing device has the configuration xConfiguration Video Output Connector CEC Mode set to on.
Value space of the result returned:
   Unknown/Ok/In progress/Failed to power on/Failed to standby
Example:
   xStatus Video Output Connector 1 ConnectedDevice CEC PowerStatus
   "s Video Output Connector 1 ConnectedDevice CEC PowerStatus: Ok
   ** end

xStatus Video Output Connector [n] ConnectedDevice Name
Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER
Shows the name of the monitor connected to the HDMI port as defined in the monitors EDID.
Value space of the result returned:
   String
Example:
   xStatus Video Output Connector 1 ConnectedDevice Name
   "s Video Output Connector 1 ConnectedDevice Name: "G2420HDBL"
   ** end
xStatus Video Output Connector [n] ConnectedDevice PreferredFormat

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

Shows the preferred input format of the monitor connected to the HDMI port as defined in the monitors EDID. This is not necessarily the format the video conferencing device is sending out.

Value space of the result returned:

String

Example:

xStatus Video Output Connector 1 ConnectedDevice PreferredFormat
's Video Output Connector 1 ConnectedDevice PreferredFormat: "1920x1080@60Hz"
** end

xStatus Video Output Connector [n] ConnectedDevice ScreenSize

Applies to: All products
Requires user role: ADMIN, USER

Shows the screen size of the connected device in inches. If this information is not available, the default value is set to 0.

Value space of the result returned:

Integer

Example:

xStatus Video Output Connector 1 ConnectedDevice ScreenSize
's Video Output Connector 1 ConnectedDevice ScreenSize: 55
** end

xStatus Video Output Connector [n] Connected

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER

Describes whether a device (for example a display) is connected to the output connector or not. When a display enters standby mode, the video conferencing device may not be able to detect it. The connector status will then return False/Unknown even if the display is physically connected.

Value space of the result returned:

True/False

True: A device is connected to the video output connector.
False: Nothing is connected to the video output connector.

Example:

xStatus Video Output Connector 1 Connected
's Video Output Connector 1 Connected: True
** end

xStatus Video Output Connector [n] MonitorRole

Applies to: All products
Requires user role: ADMIN, USER

Describes which video stream is shown on the device that is connected to the video output connector.

Value space of the result returned:

First/Second/Third/PresentationOnly/Recorder

First/Second/Third: The role of the monitor in a multimonitor setup. In a singlemonitor setup, there is no difference between First, Second and Third.
PresentationOnly: Shows presentation video stream if active.
Recorder: Shows all participants, including the local main video. If active, shows also the presentation.

Example:

xStatus Video Output Connector 1 MonitorRole
's Video Output Connector 1 MonitorRole: First
** end
xStatus Video Output Connector [n] Resolution Height

Applies to: All products
Requires user role: ADMIN, USER

Shows the resolution height (in pixels) for the video output connector.

Value space of the result returned:
120..3000

Example:
xStatus Video Output Connector 1 Resolution Height
*s Video Output Connector 1 Resolution Height: 1080
** en

xStatus Video Output Connector [n] Resolution RefreshRate

Applies to: All products
Requires user role: ADMIN, USER

Shows the resolution refresh rate (Hz) for the video output connector.

Value space of the result returned:
1..300

Example:
xStatus Video Output Connector 1 Resolution RefreshRate
*s Video Output Connector 1 Resolution RefreshRate: 60
** end

xStatus Video Output Connector [n] Resolution Width

Applies to: All products
Requires user role: ADMIN, USER

Shows the resolution width (in pixels) for the video output connector.

Value space of the result returned:
176..4000

Example:
xStatus Video Output Connector 1 Resolution Width
*s Video Output Connector 1 Resolution Width: 1920
** end

xStatus Video Output Connector [n] Type

Applies to: All products
Requires user role: ADMIN, USER

Shows the type of connector.

Value space of the result returned:
HDMI/DVI

Example:
xStatus Video Output Connector 1 Type
*s Video Output Connector 1 Type: HDMI
** end
xStatus Video Output Display [n] Calibrated
Applies to: RoomPanorama/Room70Panorama
Requires user role: ADMIN, USER
Shows the calibration status of the display.
Value space of the result returned:

True/False

True: The display is calibrated.
False: The display is not calibrated.

Example:
  xStatus Video Output Display 1 Calibrated
  *s Video Output Display 1 Calibrated: True
  ** end

xStatus Video Output Display [n] Configured
Applies to: RoomPanorama/Room70Panorama
Requires user role: ADMIN, USER
Shows the configuration status of the display.
Value space of the result returned:

True/False

True: The display is configured.
False: The display is not configured.

Example:
  xStatus Video Output Display 1 Configured
  *s Video Output Display 1 Configured: True
  ** end

xStatus Video Output Display [n] IpAddress
Applies to: RoomPanorama/Room70Panorama
Requires user role: ADMIN, USER
Shows the IP Address of the display.
Value space of the result returned:

String

Example:
  xStatus Video Output Display 1 IpAddress
  *s Video Output Display 1 IpAddress: "xxxxxxxxxx"
  ** end

xStatus Video Output Display [n] Manufacturer
Applies to: RoomPanorama/Room70Panorama
Requires user role: ADMIN, USER
Shows the manufacturer of the display.
Value space of the result returned:

String

Example:
  xStatus Video Output Display 1 Manufacturer
  *s Video Output Display 1 Manufacturer: "CompanyName"
  ** end
xStatus Video Output Display [n] MDC Id
Applies to: RoomPanorama/Room70Panorama
Requires user role: ADMIN, USER
Shows the MDC Id of the display.
Value space of the result returned:
  Integer
Example:
  xStatus Video Output Display 1 MDC Id
  *s Video Output Display 1 MDC Id: xxxxxxx
  ** end

xStatus Video Output Display [n] MDC Port
Applies to: RoomPanorama/Room70Panorama
Requires user role: ADMIN, USER
Shows the MDC Port of the display.
Value space of the result returned:
  Integer
Example:
  xStatus Video Output Display 1 MDC Port
  *s Video Output Display 1 MDC Port: xxxxxxx
  ** end

xStatus Video Output Display [n] ModelName
Applies to: RoomPanorama/Room70Panorama
Requires user role: ADMIN, USER
Shows the model name of the display.
Value space of the result returned:
  String
Example:
  xStatus Video Output Display 1 ModelName
  *s Video Output Display 1 ModelName: "ModelName"
  ** end

xStatus Video Output Display [n] SerialNumber
Applies to: RoomPanorama/Room70Panorama
Requires user role: ADMIN, USER
Shows the serial number of the display.
Value space of the result returned:
  String
Example:
  xStatus Video Output Display 1 SerialNumber
  *s Video Output Display 1 SerialNumber: "ABC123..."
  ** end
**xStatus Video Output Monitor [n] Backlight**

**Applies to:** MX700/MX800/MX800D  Room70/Room55D  Room70G2  RoomPanorama/Room70Panorama  DeskPro Boards

**Requires user role:** ADMIN, USER

Retrieves the current backlight level that has been set with xCommand Video Output Monitor Backlight Set.

**Value space of the result returned:**

```
Integer
```

**Example:**
```
xStatus Video Output Monitor 1 Backlight
's Video Output Monitor 1 Backlight: 80
'' end
```

**xStatus Video Output Monitor [n] Brightness**

**Applies to:** MX700/MX800/MX800D

**Requires user role:** ADMIN, USER

Retrieves the current brightness level that has been set with xCommand Video Output Monitor Brightness Set.

**Value space of the result returned:**

```
Integer
```

**Example:**
```
xStatus Video Output Monitor 1 Brightness
's Video Output Monitor 1 Brightness: 50
'' end
```

**xStatus Video Output Monitor [n] ColorTemperature Blue**

**Applies to:** MX700/MX800/MX800D

**Requires user role:** ADMIN, USER

Retrieves the current blue level that has been set with xCommand Video Output Monitor Color Blue Set.

**Value space of the result returned:**

```
Integer
```

**Example:**
```
xStatus Video Output Monitor 1 ColorTemperature Blue
's Video Output Monitor 1 ColorTemperature Blue: 50
'' end
```

**xStatus Video Output Monitor [n] ColorTemperature Green**

**Applies to:** MX700/MX800/MX800D

**Requires user role:** ADMIN, USER

Retrieves the current green level that has been set with xCommand Video Output Monitor Color Green Set.

**Value space of the result returned:**

```
Integer
```

**Example:**
```
xStatus Video Output Monitor 1 ColorTemperature Green
's Video Output Monitor 1 ColorTemperature Green: 50
'' end
```
xStatus Video Output Monitor [n] ColorTemperature Red

Applies to: MX700/MX800/MX800D
Requires user role: ADMIN, USER

Returns the monitors level for red, that has been set with xCommand Video Output Monitor Color Red Set.

Value space of the result returned:
  Integer

Example:
  xStatus Video Output Monitor 1 ColorTemperature Red
  *s Video Output Monitor 1 ColorTemperature Red: 50
  ** end

xStatus Video Output Monitor [n] ColorTemperature Selected

Applies to: MX700/MX800/MX800D Room70/Room55D Room70G2 RoomPanorama/Room70Panorama
Requires user role: ADMIN, USER

Returns the monitors color temperature, that has been set with xCommand Video Output Monitor Color Select.

Value space of the result returned:
  4900/5500/6500/7200/9300/10500/12000/User

Example:
  xStatus Video Output Monitor 1 ColorTemperature Selected
  *s Video Output Monitor 1 ColorTemperature Selected: 6500
  ** end

xStatus Video Output Monitor [n] Contrast

Applies to: MX700/MX800/MX800D
Requires user role: ADMIN, USER

Returns the monitors contrast level, that has been set with xCommand Video Output Monitor[n] Contrast.

Value space of the result returned:
  Integer

Example:
  xStatus Video Output Monitor 1 Contrast
  *s Video Output Monitor 1 Contrast: 50
  ** end

xStatus Video Output Monitor [n] CSCYUV

Applies to: MX700/MX800/MX800D
Requires user role: ADMIN, USER

Returns the monitors selected color space, that has been set with xCommand Video Output Monitor[n] CSC Select.

Value space of the result returned:
  RGB/YUV

Example:
  xStatus Video Output Monitor 1 CSCYUV
  *s Video Output Monitor 1 CSCYUV: RGB
  ** end
xStatus Video Output Monitor [n] FirmwareVersion

**Applies to:** SX10, SX20, SX80, MX200G2/MX300G2, MX700/MX800/MX800D, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

**Requires user role:** ADMIN, USER

Shows the firmware version of the monitor. This status field is only populated when connecting with a supported LG monitor.

**Value space of the result returned:**

*String*

- The firmware version of the monitor.

**Example:**

```plaintext
xStatus Video Output Monitor 1 FirmwareVersion
's Video Output Monitor 1 FirmwareVersion: ""
** end
```

xStatus Video Output Monitor [n] Gamma

**Applies to:** MX700/MX800/MX800D

**Requires user role:** ADMIN, USER

Returns the monitors gamma level, that has been set with xCommand Video Output Monitor[n] Gamma.

**Value space of the result returned:**

*String*

- The model name of the monitor.

**Example:**

```plaintext
xStatus Video Output Monitor 1 Gamma
's Video Output Monitor 1 ModelName: ""
** end
```

xStatus Video Output Monitor [n] ModelName

**Applies to:** SX10, SX20, SX80, MX200G2/MX300G2, MX700/MX800/MX800D, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

**Requires user role:** ADMIN, USER

Shows the model name of the monitor. This status field is only populated when connecting with a supported LG monitor.

**Value space of the result returned:**

*String*

- The model name of the monitor.

**Example:**

```plaintext
xStatus Video Output Monitor 1 ModelName
's Video Output Monitor 1 ModelName: ""
** end
```

xStatus Video Output Monitor [n] Position

**Applies to:** SX20, SX80, MX200G2/MX300G2, MX700/MX800/MX800D, RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards

**Requires user role:** ADMIN, USER

Shows whether the monitor is positioned on the left or the right. Applicable for dual screen devices only.

**Value space of the result returned:**

*Left/Right*

**Example:**

```plaintext
xStatus Video Output Monitor 1 Position
's Video Output Monitor 1 Position: Left
** end
```
xStatus Video Output Monitor [n] SerialNumber
Applies to: SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN, USER
Shows the serial number of the monitor. This status field is only populated when connecting with a supported LG monitor.
Value space of the result returned:
- String
  - The serial number of the monitor.
Example:
```plaintext
xStatus Video Output Monitor 1 SerialNumber
*s Video Output Monitor 1 SerialNumber: ""
** end
```

xStatus Video Output Monitor [n] Sharpness
Applies to: MX700/MX800/MX800D
Requires user role: ADMIN, USER
Returns the monitors selected sharpness, that has been set with xCommand Video Output Monitor[n] Sharpness.
Value space of the result returned:
- Softest/Soft/Normal/Sharp/Sharpest
Example:
```plaintext
xStatus Video Output Monitor 1 Sharpness
*s Video Output Monitor 1 Sharpness: Normal
** end
```

xStatus Video Output Monitor [n] Temperature
Applies to: SX10 SX20 SX80 MX200G2/MX300G2 MX700/MX800/MX800D RoomKit RoomKitMini CodecPlus CodecPro Room55 Room70/Room55D Room70G2 RoomPanorama/Room70Panorama DeskPro Boards
Requires user role: ADMIN, USER
Shows the temperature of the monitor. This status field is only populated when connecting with a supported LG monitor.
Value space of the result returned:
- Normal/High
  - Normal: The temperature of the monitor is normal.
  - High: The temperature of the monitor is too high.
Example:
```plaintext
xStatus Video Output Monitor 1 Temperature
*s Video Output Monitor 1 Temperature: Normal
** end
```

xStatus Video Presentation PIPPosition
Applies to: All products
Requires user role: ADMIN, USER
Shows the position of the presentation image on the screen.
Value space of the result returned:
- UpperLeft/UpperCenter/UpperRight/CenterLeft/CenterRight/LowerLeft/LowerRight
Example:
```plaintext
xStatus Video Presentation PIPPosition
*s Video PIP Presentation Position: CenterLeft
** end
```
xStatus Video Selfview FullscreenMode

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER
Shows whether selfview is set on full screen mode or not.
Value space of the result returned:
  On/Off

Example:
  xStatus Video Selfview FullscreenMode
  *s Video Selfview FullscreenMode: Off
  ** end

xStatus Video Selfview Mode

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER
Shows whether selfview mode is set on or not.
Value space of the result returned:
  On/Off

Example:
  xStatus Video Selfview Mode
  *s Video Selfview Mode: Off
  ** end

xStatus Video Selfview OnMonitorRole

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER
Identifies which monitor(s) contains the selfview, if present.
Value space of the result returned:
  First/Second/Third

Example:
  xStatus Video Selfview OnMonitorRole
  *s Video Selfview OnMonitorRole: First
  ** end

xStatus Video Selfview PIPPosition

Applies to: All products
Requires user role: ADMIN, INTEGRATOR, USER
Shows the position of the selfview image on the screen.
Value space of the result returned:
  UpperLeft/UpperCenter/UpperRight/CenterLeft/CenterRight/LowerLeft/LowerRight

Example:
  xStatus Video Selfview PIPPosition
  *s Video Selfview PIPPosition: LowerRight
  ** end
WebEngine status

xStatus WebEngine Features Signage
Applies to: RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards
Requires user role: ADMIN, USER
Reports whether or not the digital signage feature is enabled. It is enabled (On) only when both the WebEngine Mode and Standby Signage Mode settings are On.
Value space of the result returned:
   On/Off
Example:
   xStatus WebEngine Features Signage
   *s WebEngine Features Signage: On
   ** end

xStatus WebEngine Features WebEngine
Applies to: RoomKit, RoomKitMini, CodecPlus, CodecPro, Room55, Room70/Room55D, Room70G2, RoomPanorama/Room70Panorama, DeskPro, Boards
Requires user role: ADMIN, USER
Reports whether or not the web engine is enabled. It is enabled (On) when the WebEngine Mode setting is On.
Value space of the result returned:
   On/Off
Example:
   xStatus WebEngine Features WebEngine
   *s WebEngine Features WebEngine: On
   ** end

Webex status

xStatus Webex Services Proximity GuestToken
Applies to: All products
Requires user role: ADMIN, USER
Provides the device-specific code that can be used with devices.webex.com. Note that the code will change periodically.
The status is only available for cloud-registered devices.
Value space of the result returned:
   String
Example:
   xStatus Webex Services Proximity GuestToken
   *s Webex Services Proximity GuestToken: "6K2-WEC-7UZ"
   ** end

xStatus Webex Status
Applies to: All products
Requires user role: ADMIN, USER
Reports the status of the connection between the device and the Cisco Webex cloud service. If the could service is up and running, the status reports Registered. If the device is registered to an on-premise service such as CUCM or VCS, the status reports Disabled.
Value space of the result returned:
   Disabled/Error/Registered/Registering/Stopped
Example:
   xStatus Webex Status
   *s Webex Status: Disabled
   ** end
Chapter 6

Appendices
Supported commands matrix

Here you can find tables that show the complete list of configurations, commands, and statuses that are supported for devices running CE9.13.

Information about the tables

1. **Which devices support a configuration, status, or command**
   
   Some entries are supported by all types of devices, while others only exist for a smaller subset.
   
   The following devices are covered:
   - Desk series: Desk Pro, DX80, DX70
   - MX series: MX800, MX700, MX300 G2, MX200 G2
   - Room series: Codec Pro, Codec Plus, Room Kit, Room Kit Mini, Room 55, Room 55 Dual, Room 70, Room 70 G2, Room Panorama, Room 70 Panorama
   - SX series: SX80, SX20, SX10
   - Webex Boards: 55, 55S, 70, 70S, and 85S

2. **Which call services support a configuration, status, or command**
   
   Some of the configurations, commands, and statuses that are available in the API only apply to on-premises registered devices. They don't apply to Webex registered devices. These items are marked with “On-prem only”.
   
   Among the non-applicable configurations, commands, and statuses, are everything that is related to H.323, H.320, SIP, NTP, CUCM, LDAP, Proximity, and Far End Camera Control.

3. **How to access each configuration, status, or command**
   
   **Configurations**: You can access all configurations from the device's web interface. A subset is also part of the device's API.
   
   **Commands**: You can only issue commands from the device's API.
   
   **Statuses**: You can request the listed statuses from the device's API. You can access more statuses from the device's web interface.

4. **Which user role is required to use a configuration, status, or command**
   
   A user account may hold one, or a combination, of the following user roles:
   - **ADMIN (A)**
   - **AUDIT (Au)**
   - **INTEGRATOR (I)**
   - **ROOMCONTROL (R)**
   - **USER (U)**
## Configuration

|                         | SX80 | SX20 | SX10 | MX800/MX700 | MX300 G2 / MX200 G2 | DX80/DX70 | Desk Pro | Room Kit | Room Kit Mini | Codec Plus | Codec Pro | Room 70 / Room 55 | Room 70 G2 | Room Panorama / Room 70 Panorama | Room 55 | Board 55/55S, 70/70S, 85S | On-prem only | Web Interface or API | User role |
|-------------------------|------|------|------|-------------|---------------------|-----------|---------|----------|---------------|------------|------------|-------------------|-----------|------------------------|--------|----------------|-----------|
| Audio DefaultVolume    | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X          | X          | X                 | X         | X                      |        | Web, API                | A I U    |
| Audio Input ARC [n] Mode | -    | -    | -    | -           | -                   | -         | -       | -        | -             | -          | -          | -                 | -         | -                      |        | Web, API                | A        |
| Audio Input HDMI [n] Level | X    | -    | -    | X           | X                   | X         | X       | X        | X             | X          | X          | X                 | X         | X                      |        | Web, API                | A        |
| Audio Input HDMI [n] Mode | X    | -    | -    | X           | X                   | X         | X       | X        | X             | X          | X          | X                 | X         | X                      |        | Web, API                | A        |
| Audio Input HDMI [n] VideoAssociation MuteOninactiveVideo | X    | -    | -    | X           | X                   | X         | X       | X        | X             | X          | X          | X                 | X         | X                      |        | Web, API                | A        |
| Audio Input Line [n] Equalizer ID | X    | -    | -    | X           | -                   | -         | -       | -        | -             | -          | -          | -                 | -         | -                      |        | Web, API                | A        |
| Audio Input Line [n] Equalizer Mode | X    | -    | -    | X           | -                   | -         | -       | -        | -             | -          | -          | -                 | -         | -                      |        | Web, API                | A        |
| Audio Input Line [n] VideoAssociation MuteOninactiveVideo | X    | X    | -    | X           | -                   | -         | -       | -        | -             | -          | -          | -                 | -         | -                      |        | Web, API                | A        |
| Audio Input Line [n] VideoAssociation VideoInputSource | X    | X    | -    | X           | -                   | -         | -       | -        | -             | -          | -          | -                 | -         | -                      |        | Web, API                | A        |
| Audio Input Line [n] Channel | X    | -    | -    | X           | -                   | -         | -       | -        | -             | -          | -          | -                 | -         | -                      |        | Web, API                | A        |
| Audio Input Line [n] Level | X    | -    | -    | X           | -                   | -         | -       | -        | -             | -          | -          | -                 | -         | -                      |        | Web, API                | A        |
| Audio Input Line [n] Mode | X    | -    | -    | X           | -                   | -         | -       | -        | -             | -          | -          | -                 | -         | -                      |        | Web, API                | A        |
| Audio Input Microphone [n] Channel | -    | -    | -    | -           | -                   | -         | -       | -        | -             | -          | -          | -                 | -         | -                      |        | Web, API                | A        |
| Audio Input Microphone [n] EchoControl Mode | X    | X    | X    | X           | -                   | -         | X       | -        | X             | X          | X          | X                 | X         | -                      |        | Web, API                | A        |
| Audio Input Microphone [n] EchoControl Dereverberation | X    | X    | X    | X           | -                   | -         | X       | -        | X             | X          | X          | X                 | X         | -                      |        | Web, API                | A        |
| Audio Input Microphone [n] EchoControl NoiseReduction | X    | X    | X    | X           | -                   | -         | X       | -        | X             | X          | X          | X                 | X         | -                      |        | Web, API                | A        |
| Audio Input Microphone [n] Equalizer ID | X    | -    | -    | X           | -                   | -         | -       | -        | -             | -          | -          | -                 | -         | -                      |        | Web, API                | A        |
| Audio Input Microphone [n] Equalizer Mode | X    | -    | -    | X           | -                   | -         | -       | -        | -             | -          | -          | -                 | -         | -                      |        | Web, API                | A        |
| Audio Input Microphone [n] Level | X    | X    | X    | X           | X                   | -         | X       | X        | X             | X          | X          | X                 | X         | -                      |        | Web, API                | A        |
| Audio Input Microphone [n] Mode | X    | -    | -    | X           | -                   | -         | -       | -        | -             | -          | -          | -                 | -         | -                      |        | Web, API                | A        |
| Audio Input Microphone [n] Type | X    | -    | -    | X           | -                   | -         | -       | -        | -             | -          | -          | -                 | -         | -                      |        | Web, API                | A        |
| Audio Input Microphone [n] PhantomPower | -    | -    | -    | -           | -                   | -         | -       | -        | -             | -          | -          | -                 | -         | -                      |        | Web, API                | A        |
| Audio Input Microphone [n] VideoAssociation MuteOninactiveVideo | X    | -    | -    | X           | -                   | -         | -       | -        | -             | X          | X          | X                 | X         | -                      |        | Web, API                | A        |

**X:** Supported   **-:** Not supported   **A:** ADMIN   **Au:** AUDIT   **I:** INTEGRATOR   **R:** ROOMCONTROL   **U:** USER
| Configuration                                                                 | SX80 | SX20 | SX10 | MX800/MX700 | MX300 G2/MX200 G2 | DX80/DX70 | Desk Pro | Room Kit | Room Kit Mini | Codec Plus | Codec Pro | Room 70 / Room 55 Dual | Room 70 G2 | Room Panorama / Room 70 Panorama | Room 55 | Board 55/55S, 70/70S, 85S | One-prem only | Web interface or API | User role |
|----------------------------------------------------------------------------|------|------|------|-------------|------------------|-----------|---------|----------|---------------|------------|-----------|------------------------|-----------|--------------------------|--------|-------------------------|------------|
| Audio Input Microphone [n] VideoAssociation VideoInputSource               | X    | -    | -    | X           | -                | -         | -       | -        | -             | -          | -         | X                      | X         | X                       | -       | -                       | Web, API  | A I                     |
| Audio Input MicrophoneMode                                                  | -    | -    | -    | -           | X                | X         | -       | -        | -             | -          | -         | -                      | -         | -                       | -       | -                       | Web, API  | A I                     |
| Audio Input USBC[n] Level                                                   | -    | -    | -    | -           | -                | -         | X       | -        | -             | -          | -         | -                      | -         | -                       | -       | -                       | Web, API  | A I                     |
| Audio Input USBC[n] Mode                                                   | -    | -    | -    | -           | -                | X         | -       | -        | -             | -          | -         | -                      | -         | -                       | -       | -                       | Web, API  | A I                     |
| Audio Input WebView[n] Mode                                                | -    | -    | -    | -           | -                | -         | X       | -        | -             | -          | -         | -                      | -         | -                       | -       | -                       | Web, API  | A I                     |
| Audio KeyClickDetector Attenuate                                           | -    | -    | -    | -           | -                | X         | X       | X        | X             | X          | X         | X                      | X         | X                       | -       | -                       | Web, API  | A I U                    |
| Audio KeyClickDetector Enabled                                             | -    | -    | -    | -           | -                | X         | X       | X        | X             | X          | X         | X                      | X         | X                       | -       | -                       | Web, API  | A I U                    |
| Audio Microphones AGC                                                      | -    | X    | -    | -           | -                | -         | X       | -        | -             | -          | -         | -                      | -         | -                       | -       | -                       | Web, API  | A I U                    |
| Audio Microphones Mute Enabled                                             | X    | X    | X    | X           | X                | X         | X       | X        | X             | X          | X         | X                      | -         | -                       | -       | -                       | Web, API  | A I                     |
| Audio Microphones PhantomPower                                             | X    | X    | -    | -           | X                | -         | X       | -        | -             | -          | -         | -                      | -         | -                       | -       | -                       | Web, API  | A I                     |
| Audio MicrophoneReinforcement Input Microphone [n] Mode                    | X    | -    | -    | X           | -                | -         | -       | -        | -             | -          | -         | -                      | -         | -                       | -       | -                       | Web, API  | A I                     |
| Audio MicrophoneReinforcement Output Line [n] Mode                         | X    | -    | -    | X           | -                | -         | -       | -        | -             | -          | -         | -                      | -         | -                       | -       | -                       | Web, API  | A I                     |
| Audio MicrophoneReinforcement Gain                                         | X    | -    | X    | -           | -                | -         | -       | -        | -             | -          | -         | -                      | -         | -                       | -       | -                       | Web, API  | A I                     |
| Audio Output ARC [n] Delay DelayMs                                         | -    | -    | -    | -           | -                | -         | X       | X        | X             | -          | -         | -                      | -         | -                       | -       | -                       | Web, API  | A I                     |
| Audio Output ARC [n] Delay Mode                                           | -    | -    | -    | -           | -                | -         | X       | X        | X             | -          | -         | -                      | -         | -                       | -       | -                       | Web, API  | A I                     |
| Audio Output ARC [n] Mode                                                  | -    | -    | -    | -           | -                | -         | -       | -        | -             | -          | -         | -                      | -         | -                       | -       | -                       | Web, API  | A I                     |
| Audio Output ConnectorSetup                                                | -    | -    | -    | -           | -                | -         | X       | X        | X             | -          | -         | -                      | -         | -                       | -       | -                       | Web, API  | A I                     |
| Audio Output Ethernet [n] Mode                                             | -    | -    | -    | -           | -                | -         | -       | -        | -             | -          | -         | -                      | -         | -                       | -       | -                       | Web, API  | A I                     |
| Audio Output HDMI [n] Delay DelayMs                                        | -    | -    | -    | -           | -                | -         | X       | -        | -             | -          | -         | -                      | -         | -                       | -       | -                       | Web, API  | A I                     |
| Audio Output HDMI [n] Delay Mode                                           | -    | -    | -    | -           | -                | -         | X       | -        | -             | -          | -         | -                      | -         | -                       | -       | -                       | Web, API  | A I                     |
| Audio Output HDMI [n] Level                                                | X    | -    | X    | -           | -                | -         | -       | -        | -             | -          | -         | -                      | -         | -                       | -       | -                       | Web, API  | A I                     |
| Audio Output HDMI [n] Mode                                                 | X    | -    | X    | -           | -                | -         | -       | -        | -             | -          | -         | -                      | -         | -                       | -       | -                       | Web, API  | A I                     |
| Audio Output InternalSpeaker Mode                                          | -    | -    | X    | X           | -                | X         | -       | X        | X             | X          | -         | -                      | -         | -                       | Web, API  | A I                     |
| Audio Output Line [n] Channel                                              | X    | -    | -    | X           | -                | -         | -       | -        | -             | -          | -         | -                      | -         | -                       | Web, API  | A I                     |

X: Supported    - : Not supported
## Configuration

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## Configuration

| Cameras Camera [n] Mirror | SX80 | SX20 | SX10 | MX500/MX700 | MX300 G2 / MX200 G2 | DX80/DX70 | Desk Pro | Room Kit | Room Kit Mini | Codec Plus | Codec Pro | Room 70 / Room 55 Dual | Room 70 G2 | Room Panorama / Room 70 Panorama | Room 55 | Board 55/55S, 70/70S, 85S | On-prem only | Web Interface or API | User role |
|--------------------------|------|------|------|-------------|---------------------|-----------|---------|---------|----------------|------------|-----------|----------------------|----------|-----------------------------|--------|------------------|-----------|
| X                        | X    | X    | X    | X           | X                   | -         | -       | -       | -              | X          | X         | X                    | X        | X                           | X       | -                | A, I      |
| Cameras Camera [n] MotorMoveDetection | X    | X    | -    | X           | X                   | -         | -       | -       | -              | X          | -         | -                   | -        | -                           | -       | -                | A, I      |
| Cameras Camera [n] Whitebalance Mode | X    | X    | X    | X           | X                   | -         | -       | -       | -              | X          | X         | X                    | X        | X                           | X       | -                | A, I      |
| Cameras Camera [n] Whitebalance Level | X    | X    | X    | X           | X                   | -         | -       | -       | -              | X          | X         | X                    | X        | X                           | X       | -                | A, I      |
| Cameras Camera FrameRate | -    | -    | -    | -           | -                   | -         | -       | -       | -              | -          | X         | X                    | -        | -                           | -       | -                | A         |
| Cameras PowerLine Frequency | X    | X    | X    | X           | X                   | X         | X       | X       | X              | X          | X         | X                    | X        | X                           | X       | -                | A, I      |
| Cameras PresenterTrack CameraPosition Pan | X    | -    | -    | X           | X                   | -         | -       | -       | -              | X          | X         | X                    | X        | X                           | X       | -                | A, I      |
| Cameras PresenterTrack CameraPosition Tilt | X    | -    | -    | X           | -                   | -         | -       | -       | -              | X          | X         | X                    | X        | X                           | X       | -                | A, I      |
| Cameras PresenterTrack CameraPosition Zoom | X    | -    | -    | X           | -                   | -         | -       | -       | -              | X          | X         | X                    | X        | X                           | X       | -                | A, I      |
| Cameras PresenterTrack Connector | X    | -    | -    | X           | -                   | -         | -       | -       | -              | X          | X         | X                    | X        | X                           | X       | -                | A, I      |
| Cameras PresenterTrack Enabled | X    | -    | -    | X           | -                   | -         | -       | -       | -              | X          | X         | X                    | X        | X                           | X       | -                | A, I      |
| Cameras PresenterTrack PresenterDetectedStatus | X    | -    | -    | X           | -                   | -         | -       | -       | -              | X          | X         | X                    | X        | X                           | X       | -                | A, I      |
| Cameras PresenterTrack TriggerZone | X    | -    | -    | X           | -                   | -         | -       | -       | -              | X          | X         | X                    | X        | X                           | X       | -                | A, I      |
| Cameras Preset TriggerAutofocus | X    | X    | -    | X           | X                   | -         | -       | -       | -              | -          | -         | -                    | -        | -                           | -       | -                | A         |
| Cameras SpeakerTrack Mode | X    | -    | -    | X           | -                   | -         | -       | -       | -              | X          | X         | X                    | X        | X                           | X       | -                | A, I      |
| Cameras SpeakerTrack Closeup | X    | -    | -    | X           | -                   | -         | -       | -       | -              | X          | X         | X                    | X        | X                           | X       | -                | A, I      |
| Cameras SpeakerTrack TrackingMode | X    | -    | -    | X           | -                   | -         | -       | -       | -              | X          | X         | X                    | X        | X                           | X       | -                | A, I      |
| Cameras SpeakerTrack ConnectorDetection Mode | X    | -    | -    | X           | -                   | -         | -       | -       | -              | X          | X         | X                    | X        | X                           | X       | -                | A, I      |
| Cameras SpeakerTrack ConnectorDetection CameraLeft | X    | -    | -    | X           | -                   | -         | -       | -       | -              | X          | X         | X                    | X        | X                           | X       | -                | A, I      |
| Cameras SpeakerTrack ConnectorDetection CameraRight | X    | -    | -    | X           | -                   | -         | -       | -       | -              | X          | X         | X                    | X        | X                           | X       | -                | A, I      |
| Cameras SpeakerTrack Whiteboard Mode | X    | -    | -    | X           | -                   | -         | -       | -       | -              | X          | X         | X                    | X        | X                           | X       | -                | A, I      |
| Conference ActiveControl Mode | X    | X    | X    | X           | X                   | X         | X       | X       | X              | X          | X         | X                    | X        | X                           | X       | -                | A         |
| Conference AutoAnswer Mode | X    | X    | X    | X           | X                   | X         | X       | X       | X              | X          | X         | X                    | X        | X                           | X       | -                | A         |
| Conference AutoAnswer Mute | X    | X    | X    | X           | X                   | X         | X       | X       | X              | X          | X         | X                    | X        | X                           | X       | -                | A         |
| Conference AutoAnswer Delay | X    | X    | X    | X           | X                   | X         | X       | X       | X              | X          | X         | X                    | X        | X                           | X       | -                | A         |

X: Supported   - : Not supported
## Configuration

| Parameter                                      | SX80 | SX20 | SX10 | MX800/MX700 | MX301 G2 / MX201 G2 | DX80/DX70 | Desk Pro | Room Kit | Room Kit Mini | Codec Pro | Codec Plus | Room 70 / Room 55 | Room 70 G2 | Room Panorama / Room 70 Panorama | Room 55 | Board 55/55S, 70/70S, 85S | On-prem only | Web Interface or API | User role |
|-----------------------------------------------|------|------|------|-------------|---------------------|-----------|---------|----------|--------------|-----------|------------|-------------------|-----------|------------------------|-------|----------------------|-----------|
| Conference CallProtocol/Stack                | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A        |
| Conference DefaultCall Protocol              | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A        |
| Conference DefaultCall Rate                  | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A I      |
| Conference DoNotDisturb DefaultTimeout       | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A I      |
| Conference Encryption Mode                   | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A        |
| Conference FarEndControl Mode                | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A        |
| Conference FarEndControl SignalCapability    | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A        |
| Conference FarEndMessage Mode                | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A        |
| Conference MaxReceiveCallRate                | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A        |
| Conference MaxTransmitCallRate               | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A        |
| Conference MaxTotalReceiveCallRate           | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A        |
| Conference MaxTotalTransmitCallRate          | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A        |
| Conference MicUnmuteOnDisconnect Mode         | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A        |
| Conference Multipoint Mode                   | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A        |
| Conference MultiStream Mode                  | X    | -    | X    | -           | -                   | -         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A        |
| Conference IncomingMultisiteCall Mode        | X    | X    | -    | X           | X                   | -         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A        |
| Conference Presentation OnPlacedOnHold       | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A        |
| Conference Presentation RelayQuality         | X    | X    | -    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A        |
| FacilityService Service [n] Type             | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A I      |
| FacilityService Service [n] Name             | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A I      |
| FacilityService Service [n] Number           | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A I      |
| FacilityService Service [n] CallType         | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A I      |
| GPIO Pin [n] Mode                            | X    | -    | -    | X           | -                   | -         | -       | -        | -            | X         | -          | X                 | X         | X                      | X      | X                    | A I      |
| H323 Authentication Mode                     | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A I      |
| H323 Authentication LoginName                | X    | X    | X    | X           | X                   | X         | X       | X        | X            | X         | X          | X                 | X         | X                      | X      | X                    | A I      |

X: Supported   - : Not supported
## Configuration

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<th>Room Kit</th>
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<th>Room 70 / Room 55 Dual</th>
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## Configuration

| Setting                                      | SX80 | SX20 | SX10 | MX800/MX700 | MX300 G2 / MX200 G2 | DX80/DX70 | Desk Pro | Room Kit | Room Kit Mini | Codec Plus | Codec Pro | Room 70 / Room 55 | Room 70 G2 | Room Panorama / Room Panorama | Room 55 | Board 55/55S, 70/70S, 85S | On-prem only | Web Interface | API | User role |
|----------------------------------------------|------|------|------|-------------|---------------------|-----------|----------|----------|--------------|------------|------------|-----------------------|-----------|----------------------|----------|----------------|-----|----------|
| Macros AutoStart                             | X    | X    | -     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Macros UnresponsiveTimeout                   | X    | X    | -     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Macros XAPI Transport                        | X    | X    | -     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web      | A        |
| Network [n] DNS DNSSEC Mode                  | X    | X    | -     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] DNS Domain Name                  | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] DNS Server [m] Address           | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] IEE8021X Mode                    | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] IEE8021X TlsVerify               | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] IEE8021X UseClientCertificate    | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] IEE8021X Identity                | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] IEE8021X Password                | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] IEE8021X AnonymousIdentity       | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] IEE8021X Eap Md5                 | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] IEE8021X Eap Ttls                | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] IEE8021X Eap Tls                 | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] IEE8021X Eap Peap                | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] IPv4 Stack                        | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] IPv4 Assignment                   | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] IPv4 Address                      | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] IPv4 Gateway                      | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] IPv4 SubnetMask                   | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] IPv6 Assignment                    | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] IPv6 Address                      | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] IPv6 Gateway                      | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |
| Network [n] IPv6 DHCP Options                  | X    | X    | X     | X           | X                   | X         | X        | X        | X            | X          | X          | X                     | X         | X                    | X        | -                | Web, API | A        |

X: Supported - : Not supported

## Configuration

| Configuration                      | SX80 | SX20 | SX10 | MX800/MX700 | MX300 G2 / MX200 G2 | DX80/DX70 | Desk Pro | Room Kit | Room Kit Mini | Codec Pro | Codec Plus | Room 70 / Room 55 Dual | Room 70 G2 | Room Panorama / Room 70 Panorama | Room 55 | Board 55/55S, 70/70S, 85S | On-prem only | Web interface or API | User role |
|-----------------------------------|------|------|------|-------------|---------------------|-----------|---------|----------|---------------|-----------|------------|--------------------------|-----------|--------------------------|---------|-------------------------|-----------|
| Network [n] MTU                  | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |
| Network [n] QoS Mode             | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |
| Network [n] QoS Diffserv Audio   | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |
| Network [n] QoS Diffserv Video   | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |
| Network [n] QoS Diffserv Data    | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |
| Network [n] QoS Diffserv Signalling | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |
| Network [n] QoS Diffserv ICMPv6   | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |
| Network [n] QoS Diffserv NTP      | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |
| Network [n] RemoteAccess Allow   | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |
| Network [n] Speed                | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A I       |
| Network [n] TrafficControl Mode  | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |
| Network [n] VLAN Voice Mode      | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |
| Network [n] VLAN Voice VLANId    | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |
| NetworkPort [n] Mode             | -    | -    | -    | -           | -                   | -         | -       | -        | -             | -         | -          | -                        | -         | -                        | -       | Web, API                | A U       |
| NetworkServices CDP Mode         | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |
| NetworkServices H323 Mode        | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A A       |
| NetworkServices HTTP Mode        | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |
| NetworkServices HTTP LoginName   | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |
| NetworkServices HTTP Password    | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |
| NetworkServices HTTP Proxy Mode  | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |
| NetworkServices HTTP Proxy Url   | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |
| NetworkServices HTTP Proxy PACUrl| X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |
| NetworkServices HTTPS OCSP Mode  | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |
| NetworkServices HTTPS OCSP URL   | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A A       |
| NetworkServices HTTPS Server MinimumTLSVersion | X    | X    | X    | X           | X                   | X         | X       | X        | X             | X         | X          | X                        | X         | X                        | X       | Web, API                | A U       |

X: Supported  - : Not supported  
### Configuration

| Parameter                                      | SX80 | SX20 | SX10 | MX800/MX700 | MX300 G2 / MX200 G2 | DX80/DX70 | Desk Pro | Room Kit | Room Kit Mini | Codec Plus | Codec Pro | Room 70 / Room 55 Dual | Room 70 G2 | Room Panorama / Room 70 Panorama | Room 55 | Board 55/75S, 70/70S, 85S | On-prem only | Web Interface or API | User role |
|-----------------------------------------------|------|------|------|-------------|--------------------|-----------|---------|----------|---------------|------------|------------|-----------------------------|-----------|-------------------------|--------|------------------------|-----------|
| NetworkServices HTTPS StrictTransportSecurity | X    | X    | X    | X           | X                  | X         | X       | X        | X             | X          | X          | X                           | X         | X                       |        | Web, API               | A        |
| NetworkServices HTTPS VerifyClientCertificate | X    | X    | X    | X           | X                  | X         | X       | X        | X             | X          | X          | X                           | X         | X                       |        | Web, API               | A        |
| NetworkServices NTP Mode                      | X    | X    | X    | X           | X                  | X         | X       | X        | X             | X          | X          | X                           | Web       | 'AI                     |        | Web, API               | A        |
| NetworkServices NTP Server [n] Address        | X    | X    | X    | X           | X                  | X         | X       | X        | X             | X          | X          | X                           | Web       | 'AI                     |        | Web, API               | A        |
| NetworkServices NTP Server [n] Key            | X    | X    | X    | X           | X                  | X         | X       | X        | X             | X          | X          | X                           | Web       | 'AI                     |        | Web, API               | A        |
| NetworkServices NTP Server [n] KeyId          | X    | X    | X    | X           | X                  | X         | X       | X        | X             | X          | X          | X                           | Web       | 'AI                     |        | Web, API               | A        |
| NetworkServices NTP Server [n] KeyAlgorithm   | X    | X    | X    | X           | X                  | X         | X       | X        | X             | X          | X          | X                           | Web       | 'AI                     |        | Web, API               | A        |
| NetworkServices SIP Mode                      | -    | -    | -    | -           | -                  | -         | -       | -        | -             | -          | -          | X                           | -         | -                       |        | Web, API               | A        |
| NetworkServices SMTP Mode                     | -    | -    | -    | -           | -                  | -         | -       | -        | -             | -          | -          | X                           | -         | -                       |        | Web, API               | A        |
| NetworkServices SMTP Server                   | -    | -    | -    | -           | -                  | -         | -       | -        | -             | -          | -          | X                           | -         | -                       |        | Web, API               | A        |
| NetworkServices SMTP Port                     | -    | -    | -    | -           | -                  | -         | -       | -        | -             | -          | -          | X                           | -         | -                       |        | Web, API               | A        |
| NetworkServices SMTP Username                 | -    | -    | -    | -           | -                  | -         | -       | -        | -             | -          | -          | X                           | -         | -                       |        | Web, API               | A        |
| NetworkServices SMTP Password                 | -    | -    | -    | -           | -                  | -         | -       | -        | -             | -          | -          | X                           | -         | -                       |        | Web, API               | A        |
| NetworkServices SMTP From                     | -    | -    | -    | -           | -                  | -         | -       | -        | -             | -          | -          | X                           | -         | -                       |        | Web, API               | A        |
| NetworkServices SMTP Security                 | -    | -    | -    | -           | -                  | -         | -       | -        | -             | -          | -          | X                           | -         | -                       |        | Web, API               | A        |
| NetworkServices SNMP Mode                     | X    | X    | X    | X           | X                  | X         | X       | X        | X             | X          | X          | X                           | X         | 'AI                     |        | Web, API, 'AI           | I        |
| NetworkServices SNMP CommunityName            | X    | X    | X    | X           | X                  | X         | X       | X        | X             | X          | X          | X                           | X         | 'AI                     |        | Web, API               | A        |
| NetworkServices SNMP SystemContact            | X    | X    | X    | X           | X                  | X         | X       | X        | X             | X          | X          | X                           | X         | 'AI                     |        | Web, API               | A        |
| NetworkServices SNMP SystemLocation           | X    | X    | X    | X           | X                  | X         | X       | X        | X             | X          | X          | X                           | X         | 'AI                     |        | Web, API               | A        |
| NetworkServices SSH Mode                      | X    | X    | X    | X           | X                  | X         | X       | X        | X             | X          | X          | X                           | X         | 'AI                     |        | Web, API               | A        |
| NetworkServices SSH HostKeyAlgorithm          | X    | X    | X    | X           | X                  | X         | X       | X        | X             | X          | X          | X                           | X         | 'AI                     |        | Web, API               | A        |
| NetworkServices SSH AllowPublicKey            | X    | X    | X    | X           | X                  | X         | X       | X        | X             | X          | X          | X                           | X         | 'AI                     |        | Web, API               | A        |
| NetworkServices Telnet Mode                   | X    | X    | X    | X           | X                  | -         | -       | -        | -             | -          | -          | -                           | -         | -                       |        | Web, API               | A        |
| NetworkServices UPnP Mode                     | X    | X    | X    | X           | X                  | -         | -       | -        | -             | -          | -          | -                           | -         | -                       |        | Web, API               | A        |
| NetworkServices UPnP Timeout                  | X    | X    | X    | X           | X                  | -         | -       | -        | -             | -          | -          | -                           | -         | -                       |        | Web, API               | A        |

## Configuration

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## Configuration

| Parameter                        | SX80 | SX20 | SX10 | MX800/MX700 | MX300 G2 / MX200 G2 | DX80/DX70 | Desk Pro | Room Kit | Room Kit Mini | Codec Plus | Codec Pro | Room 70/Room 55 Dual | Room 70 G2 | Room Panorama / Room 70 Panorama | Room 55 | Board 55/55S, 70/70S, 85S | On-prem only | Web Interface or API | User role |
|---------------------------------|------|------|------|-------------|---------------------|-----------|----------|----------|---------------|------------|-----------|------------------------|----------|-----------------------------|--------|----------------------|-----------|
| SIP Turn UserName               |  X   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | ADMIN                 | A         |
| SIP Turn Password               |  X   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | ADMIN                 | A         |
| SIP Type                        |  X   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web                   |  A       | A                          |  A      | ADMIN                 | A         |
| SIP URI                         |  X   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | ADMIN                 | A         |
| Standby BootAction              |  X   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |
| Standby Control                 |  X   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |
| Standby Delay                   |  X   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |
| Standby Signage Audio           |  -   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |
| Standby Signage InteractionMode |  -   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |
| Standby Signage Mode            |  -   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |
| Standby Signage RefreshInterval |  -   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |
| Standby Signage Url             |  -   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |
| Standby StandbyAction           |  X   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |
| Standby WakeupAction            |  X   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |
| Standby WakeupOnMotionDetection |  X   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |
| Standby PowerSave               |  -   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |
| SystemUnit Name                 |  X   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |
| SystemUnit CrashReporting Advanced| X   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |
| SystemUnit CrashReporting Mode  |  X   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |
| SystemUnit CrashReporting Url   |  X   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |
| SystemUnit IrSensor             |  -   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |
| Time TimeFormat                 |  X   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |
| Time DateFormat                 |  X   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |
| Time Zone                       |  X   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |
| Time WorkDay Start              |  -   |  X   |  X   |  X          |  X                  |  X        |  X       |  X       |  X            |  X         |  X        | Web, API               |  A       | A                          |  A      | INTEGRATOR            | A         |

X: Supported   - : Not supported

### Configuration

| Feature                          | SX80 | SX20 | SX10 | MX500/MX700 | MX300 G2 / MX200 G2 | DX960/DX70 | Desk Pro | Room Kit | Room Kit Mini | Codec Pro | Codec Pro | Room 70 / Room 70 Dual | Room 70 G2 | Room Panorama / Room Panorama | Room 55 | Board 55/55S, 70/70S, 85S | On-prem only | Web interface or WebEx | API | User role |
|----------------------------------|------|------|------|-------------|---------------------|------------|----------|----------|---------------|-----------|-----------|--------------------------|-----------|-----------------------------|--------|------------------------|----|-----------|
| Time WorkDay End                 | -    | -    | X     | -           | -                   | -          | -        | -        | -             | -         | -         | -                        | -         | -                           | -      | -                      | Web, API | A U                    |
| Time WorkWeek FirstDayOfWeek     | -    | -    | -     | X           | X                   | X          | X        | X        | X             | X         | X         | X                        | X         | X                           | X      | X                      | Web, API | A U                    |
| Time WorkWeek LastDayOfWeek      | -    | -    | X     | -           | -                   | -          | -        | -        | -             | -         | -         | -                        | -         | -                           | -      | -                      | Web, API | A U                    |
| User Interface Accessibility     | X    | X    | X     | X           | X                   | X          | X        | X        | X             | X         | X         | X                        | X         | X                           | X      | X                      | Web, API | A I U                   |
| User Interface Assistant         | -    | -    | -     | -           | -                   | -          | -        | -        | -             | -         | -         | -                        | -         | -                           | -      | -                      | Web, API | A U                    |
| User Interface Assistant         | X    | X    | X     | X           | X                   | X          | X        | X        | X             | X         | X         | X                        | X         | X                           | X      | X                      | Web, API | A U                    |
| User Interface Bookings Visibility | X   | X    | X     | X           | X                   | X          | X        | X        | X             | X         | X         | X                        | X         | X                           | X      | X                      | Web, API | A I U                   |
| User Interface Branding Colors   | X    | X    | X     | X           | X                   | X          | X        | X        | X             | X         | X         | X                        | X         | X                           | X      | X                      | Web, API | A I                    |
| User Interface ContactInfo Type  | X    | X    | X     | X           | X                   | X          | X        | X        | X             | X         | X         | X                        | X         | X                           | X      | X                      | Web, API | A I                    |
| User Interface CustomMessage     | X    | X    | X     | X           | X                   | X          | X        | X        | X             | X         | X         | X                        | X         | X                           | X      | X                      | Web, API | A I                    |
| User Interface KeyTones Mode     | X    | X    | X     | X           | X                   | X          | X        | X        | X             | X         | X         | X                        | X         | X                           | X      | X                      | Web, API | A U                    |
| User Interface Features CallEnd  | X    | X    | X     | X           | X                   | X          | X        | X        | X             | X         | X         | X                        | X         | X                           | X      | X                      | Web, API | A I                    |
| User Interface Features Keypad   | X    | X    | X     | X           | X                   | X          | X        | X        | X             | X         | X         | X                        | X         | X                           | X      | X                      | Web, API | A I                    |
| User Interface Features Call     | X    | X    | X     | X           | X                   | X          | X        | X        | X             | X         | X         | X                        | X         | X                           | X      | X                      | Web, API | A I                    |
| User Interface Features Call     | X    | X    | X     | X           | X                   | X          | X        | X        | X             | X         | X         | X                        | X         | X                           | X      | X                      | Web, API | A I                    |
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| User Interface Language           | X    | X    | X     | X           | X                   | X          | X        | X        | X             | X         | X         | X                        | X         | X                           | X      | X                      | Web, API | A U                    |
| User Interface OSD Encryption     | X    | X    | X     | X           | X                   | X          | X        | X        | X             | X         | X         | X                        | X         | X                           | X      | X                      | Web, API | A I                    |
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| User Interface OSD HalfWake       | X    | X    | X     | X           | X                   | X          | X        | X        | X             | X         | X         | X                        | X         | X                           | X      | X                      | Web, API | A I                    |
| User Interface OSD Output         | X    | X    | X     | X           | X                   | X          | X        | X        | X             | X         | X         | X                        | X         | X                           | X      | X                      | Web, API | A I                    |

X: Supported   - : Not supported

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X: Supported   - : Not supported

## Configuration

|                      | SX80 | SX20 | SX10 | MX800/MX700 | MX300 G2 / MX200 G2 | DX80/DX70 | Desk Pro | Room Kit | Room Kit Mini | Codec Plus | Codec Pro | Codec Pro | Room 70 / Room 55 Dual | Room 70 / Room 55 | Room Panorama / Room 70 Panorama | Room 55 | Board 55/55S, 70/70S, 85S | On-prem only | Web Interface or API | User role |
|----------------------|------|------|------|-------------|---------------------|----------|---------|---------|--------------|------------|-----------|-----------|----------------------------|----------------|---------------------------------|--------|--------------------------|------------|
| Video Monitors       | X    | X    | X    | X           | X                   | X        | -       | X       | -            | X          | X         | X         | -                          | -              | -                               | -      | Web, API                 | A I        |
| Video Output Connector [n] Brightness | -    | -    | -    | X           | X                   | X        | -       | -       | -            | -          | X         | -         | X                          | X              | X                               | -      | Web, API                 | A I        |
| Video Output Connector [n] BrightnessMode | -    | -    | -    | -           | X                   | -        | -       | -       | -            | -          | -         | X         | -                          | -              | -                               | -      | Web                      | A U        |
| Video Output Connector [n] CEC Mode | X    | X    | X    | X           | X                   | X        | -       | X       | X            | X          | X         | X         | X                          | X              | -                               | -      | Web, API                 | A I        |
| Video Output Connector [n] Location HorizontalOffset | X    | X    | X    | X           | X                   | X        | -       | X       | X            | X          | X         | X         | X                          | X              | -                               | -      | Web, API                 | A I        |
| Video Output Connector [n] Location VerticalOffset | X    | X    | X    | X           | X                   | X        | -       | X       | X            | X          | X         | X         | X                          | X              | -                               | -      | Web, API                 | A I        |
| Video Output Connector [n] MonitorRole | X    | X    | X    | X           | X                   | X        | -       | X       | X            | X          | X         | X         | X                          | X              | -                               | -      | Web, API                 | A I        |
| Video Output Connector [n] OverscanLevel | X    | X    | X    | X           | X                   | X        | -       | X       | X            | X          | X         | X         | X                          | X              | -                               | -      | Web, API                 | A I        |
| Video Output Connector [n] Resolution | X    | X    | X    | X           | X                   | X        | -       | X       | X            | X          | X         | X         | X                          | X              | -                               | -      | Web, API                 | A I U      |
| Video Output Connector [n] RGBQuantizationRange | X    | X    | X    | X           | X                   | X        | -       | X       | X            | X          | X         | X         | X                          | X              | -                               | -      | Web, API                 | A I        |
| Video Output Connector [n] Whitebalance Level | -    | -    | -    | -           | X                   | X        | -       | -       | -            | -          | -         | -         | X                          | -              | X                               | -      | Web, API                 | A U        |
| Video Presentation Default PIPPosition | X    | X    | X    | X           | X                   | X        | -       | X       | X            | X          | X         | X         | X                          | X              | -                               | -      | Web, API                 | A I        |
| Video Presentation Default Source | X    | X    | X    | X           | X                   | X        | -       | X       | X            | X          | X         | X         | X                          | X              | -                               | -      | Web, API                 | A U        |
| Video Presentation Priority | X    | X    | X    | X           | X                   | X        | -       | X       | X            | X          | X         | X         | X                          | X              | -                               | -      | Web, API                 | A        |
| Video Selfview Default FullscreenMode | X    | X    | X    | X           | X                   | X        | -       | X       | X            | X          | X         | X         | X                          | X              | -                               | -      | Web, API                 | A I        |
| Video Selfview Default Mode | X    | X    | X    | X           | X                   | X        | -       | X       | X            | X          | X         | X         | X                          | X              | -                               | -      | Web, API                 | A I        |
| Video Selfview Default OnMonitorRole | X    | X    | X    | X           | X                   | X        | -       | X       | X            | X          | X         | X         | X                          | X              | -                               | -      | Web, API                 | A I        |
| Video Selfview Default PIPPosition | X    | X    | X    | X           | X                   | X        | -       | X       | X            | X          | X         | X         | X                          | X              | -                               | -      | Web, API                 | A I        |
| Video Selfview Mirrored | -    | -    | -    | -           | X                   | X        | -       | -       | -            | -          | -         | -         | X                          | -              | -                               | -      | Web, API                 | A I        |
| Video Selfview OnCall Mode | X    | X    | X    | X           | X                   | X        | -       | X       | X            | X          | X         | X         | X                          | X              | -                               | -      | Web, API                 | A I        |
| Video Selfview OnCall Duration | X    | X    | X    | X           | X                   | X        | -       | X       | X            | X          | X         | X         | X                          | X              | -                               | -      | Web, API                 | A I        |
| VoiceControl WakeWord Mode | -    | -    | -    | -           | -                   | -        | -       | -       | -            | -          | -         | -         | -                          | -              | -                               | -      | Web, API                 | A I        |
| WebEngine Features WebGL | -    | -    | -    | -           | -                   | -        | -       | -       | -            | -          | -         | -         | -                          | -              | -                               | -      | Web                      | A        |
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| WebEngine RemoteDebugging | -    | -    | -    | -           | -                   | X        | -       | X       | X            | X          | X         | X         | X                          | X              | -                               | -      | Web, API                 | A        |

## Configuration

| WebEngine UseHttpProxy | SX80 | SX20 | SX10 | MX800/MX700 | MX300 G2 / MX200 G2 | DX80/DX70 | Desk Pro | Room Kit | Room Kit Mini | Codec Plus | Codec Pro | Room 70 / Room 55 Dual | Room 70 G2 | Room 70/70 Panorama | Room 55 | Board 55/55S, 70/70S, 85S | On-prem only | Web Interface or API | User role |
|-----------------------|------|------|------|--------------|---------------------|----------|---------|---------|--------------|-----------|-----------|-----------------------|-----------|----------------------|--------|-------------------------|-----------|
|                       | -    | -    | -    | X            | X                   | X        | X       | X       | X            | X         | X         | X                     | X         | X                    | X      | X                       | Web, API  | A                     |

X: Supported  - : Not supported  
## Command

| Command                                      | SX80 | SX20 | SX10 | MX80/MX70 | MX800 G2 / MX200 G2 | DX80/DX70 | Desk Pro | Room Kit | Room Kit Mini | Codec Pro | Codec Pro | Room 70 / Room 55 Dual | Room 70 G2 | Room 70 Panorama / Room 70 Panorama | Room 55 | Board 55S, 70/70S, 85S | On-prem only | Web interface or API | User role |
|----------------------------------------------|------|------|------|-----------|---------------------|-----------|---------|----------|---------------|-----------|-----------|----------------------------|-----------|------------------------|---------|------------------|---------|
| Audio Diagnostics Advanced Run              | X    | X    |      | X          | X                   | X         | X       | X        | X             | X         | X         | X                          | X         | X                      |         | -                | API     | A U               |
| Audio Diagnostics MeasureDelay              | X    | X    |      | X          | X                   | X         | X       | X        | X             | X         | X         | X                          | X         | X                      |         | -                | API     | A U               |
| Audio Equalizer List                        | X    | -    | -     | X          | -                   | -         | -       | -        | -             | -         | -         | X                          | X         | X                      |         | -                | API     | A U               |
| Audio Equalizer Update                      | X    | -    | -     | X          | -                   | -         | -       | -        | -             | -         | -         | X                          | X         | X                      |         | -                | API     | A U               |
| Audio LocalInput Add                        | X    | -    | -     | X          | -                   | -         | -       | -        | -             | -         | -         | X                          | X         | X                      |         | -                | API     | A U               |
| Audio LocalInput AddConnector               | X    | -    | -     | X          | -                   | -         | -       | -        | -             | -         | -         | X                          | X         | X                      |         | -                | API     | A U               |
| Audio LocalInput Remove                     | X    | -    | -     | X          | -                   | -         | -       | -        | -             | -         | -         | X                          | X         | X                      |         | -                | API     | A U               |
| Audio LocalInput RemoveConnector            | X    | -    | -     | X          | -                   | -         | -       | -        | -             | -         | -         | X                          | X         | X                      |         | -                | API     | A U               |
| Audio LocalInput Update                     | X    | -    | -     | X          | -                   | -         | -       | -        | -             | -         | -         | X                          | X         | X                      |         | -                | API     | A U               |
| Audio LocalOutput Add                       | X    | -    | -     | X          | -                   | -         | -       | -        | -             | -         | -         | X                          | X         | X                      |         | -                | API     | A U               |
| Audio LocalOutput AddConnector              | X    | -    | -     | X          | -                   | -         | -       | -        | -             | -         | -         | X                          | X         | X                      |         | -                | API     | A U               |
| Audio LocalOutput DisconnectInput           | X    | -    | -     | X          | -                   | -         | -       | -        | -             | -         | -         | X                          | X         | X                      |         | -                | API     | A U               |
| Audio LocalOutput Remove                    | X    | -    | -     | X          | -                   | -         | -       | -        | -             | -         | -         | X                          | X         | X                      |         | -                | API     | A U               |
| Audio LocalOutput RemoveConnector           | X    | -    | -     | X          | -                   | -         | -       | -        | -             | -         | -         | X                          | X         | X                      |         | -                | API     | A U               |
| Audio LocalOutput Update                    | X    | -    | -     | X          | -                   | -         | -       | -        | -             | -         | -         | X                          | X         | X                      |         | -                | API     | A U               |
| Audio LocalOutput UpdateInputGain           | X    | -    | -     | X          | -                   | -         | -       | -        | -             | -         | -         | X                          | X         | X                      |         | -                | API     | A U               |
| Audio Microphones Mute                      | X    | X    | X     | X          | X                   | X         | X       | X        | X             | X         | X         | X                          | X         | X                      |         | -                | API     | A I U             |
| Audio Microphones ToggleMute                | X    | X    | X     | X          | X                   | X         | X       | X        | X             | X         | X         | X                          | X         | X                      |         | -                | API     | A I U             |
| Audio Microphones Unmute                    | X    | X    | X     | X          | X                   | X         | X       | X        | X             | X         | X         | X                          | X         | X                      |         | -                | API     | A I U             |
| Audio RemoteOutput ConnectInput             | X    | -    | -     | X          | -                   | -         | -       | -        | -             | -         | -         | X                          | X         | X                      |         | -                | API     | A U               |
| Audio RemoteOutput DisconnectInput          | X    | -    | -     | X          | -                   | -         | -       | -        | -             | -         | -         | X                          | X         | X                      |         | -                | API     | A U               |
| Audio RemoteOutput UpdateInputGain          | X    | -    | -     | X          | -                   | -         | -       | -        | -             | -         | -         | X                          | X         | X                      |         | -                | API     | A U               |
| Audio Select                                | -    | -    | -     | -          | -                   | -         | -       | -        | -             | -         | -         | X                          | X         | X                      |         | -                | API     | A U               |
| Audio Setup Clear                           | X    | -    | -     | X          | X                   | X         | X       | X        | X             | X         | X         | X                          | X         | X                      |         | -                | API     | A U               |

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X: Supported   - : Not supported

| Command                                | SX90 | SX20 | SX10 | SX80/MX70 | MX3300 G2 / MX200 G2 | DX90/DX70 | Desk Pro | Room Kit | Room Kit Mini | Codec Plus | Codec Pro | Codec Pro | Room 70 / Room 55 Dual | Room 70 G2 | Room Panorama / Room 70 Panorama | Room 55 | Board 9555, 70/705, 8555 | On-prem only | Web interface or API | User role |
|----------------------------------------|------|------|------|------------|----------------------|-----------|----------|----------|---------------|------------|-------------|------------|--------------------------|-----------|--------------------------|--------|------------------------|----------|
| Call Disconnect                        | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A I U     |
| Call DTMFSend                          | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A U       |
| Call FarEndControl Camera Move         | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A U       |
| Call FarEndControl Camera Stop         | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A U       |
| Call FarEndControl RoomPreset Activate | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A U       |
| Call FarEndControl Source Select       | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A U       |
| Call FarEndMessage Send                | X    | -    | -    | -          | -                    | -         | -        | -        | -             | -          | -           | -          | -                        | -         | -                        | -      | -                      | A U       |
| Call FarEndMessage SSStringSend        | X    | -    | -    | -          | -                    | -         | -        | -        | -             | -          | -           | -          | -                        | -         | -                        | -      | -                      | A U       |
| Call FarEndMessage TStringSend         | X    | -    | -    | -          | -                    | -         | -        | -        | -             | -          | -           | -          | -                        | -         | -                        | -      | -                      | A U       |
| Call Forward                           | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A U       |
| Call Hold                              | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A U       |
| Call Ignore                            | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A U       |
| Call Join                              | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A U       |
| Call Reject                            | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A U       |
| Call Resume                            | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A U       |
| Call UnattendedTransfer                 | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A U       |
| Call History AcknowledgeAllMissedCalls | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A U       |
| Call History AcknowledgeMissedCall      | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A U       |
| Call History DeleteAll                  | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A U       |
| Call History DeleteEntry                | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A U       |
| Call History Get                        | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A U       |
| Call History Recents                    | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A U       |
| Camera PositionReset                    | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A U       |
| Camera PositionSet                      | X    | X    | X    | X          | X                    | X         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A I U     |
| Camera Preset Activate                  | X    | X    | X    | X          | -                    | -         | X        | X        | X             | X          | X           | X          | X                        | X         | X                        | X      | X                      | A U       |

X: Supported   - : Not supported
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## Command

| Command                                      | SX90 | SX20 | SX10 | MX800/MX700 | MX8000G2 / MX2000G2 | SX80/DX70 | Desk Pro | Room Kit | Room Kit Mini | Codec Plus | Codec Pro | Codec Pro | Room 70 / Room 55 Dual | Room 70 / G2 | Room Panorama / Room 70 Panorama | Room 55 | Board 9555, 9055, 8555 | On-prem only | Web interface or API | User role |
|----------------------------------------------|------|------|------|-------------|---------------------|-----------|----------|----------|---------------|------------|-----------|-----------|------------------------|-------------|-------------------------------|--------|------------------------|-----------|
| Cameras SpeakerTrack Whiteboard AlignPosition | X    | -    | -    | X           | -                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| Cameras SpeakerTrack Whiteboard SetDistance  | X    | -    | -    | X           | -                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| Cameras SpeakerTrack Whiteboard StorePosition| X    | -    | -    | X           | -                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| Conference Call AuthenticationResponse       | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| Conference DoNotDisturb Activate             | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| Conference DoNotDisturb Deactivate            | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| Conference Participant Admit                  | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| Conference Participant Disconnect              | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| Conference Participant Mute                   | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| Conference Participant Search                 | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| Conference Recording Pause                    | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| Conference Recording Resume                   | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| Conference Recording Start                    | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| Conference Recording Stop                     | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| Conference SpeakerLock Release                | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| Conference SpeakerLock Set                    | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| Diagnostics Run                               | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| Dial                                          | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| GPIO ManualState Set                          | X    | -    | -    | X           | -                   | -         | -        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| HttpClient Allow Hostname Add                 | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| HttpClient Allow Hostname Clear               | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| HttpClient Allow Hostname List                | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| HttpClient Allow Hostname Remove              | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| HttpClient Delete                              | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |
| HttpClient Get                                 | X    | X    | X    | X           | X                   | X         | X        | X        | X             | X          | X         | X         | X                      | X           | X                             | -      | API                    | A U       |

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X: Supported  - : Not supported
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X: Supported  - : Not supported  
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X: Supported   - : Not supported

## Command

| Command                                           | SX60 | SX20 | SX10 | MX800/MX700 | MX300 G2 / MX200 G2 | DX80/DX70 | Desk Pro | Room Kit | Room Kit Mini | Codec Plus | Codec Pro | Room 70 / Room 55 Dual | Room 70 G2 | Room Panorama / Room 70 Panorama | Room 55 | Board 55S, 70/70S, 85S | On-prem only | Web interface or API | User role |
|---------------------------------------------------|------|------|------|--------------|---------------------|-----------|----------|----------|----------------|------------|-----------|-------------------------|------------|-------------------------|--------|------------------------|-----------|
| Video Output Monitor Backlight Set                | -    | -    | -    | X            | -                   | -         | X        | -        | -              | X          | X         | -                        | -          | X                       | -       | X                      | API A U    |
| Video Output Monitor Brightness Set               | -    | -    | -    | X            | -                   | -         | -        | -        | -              | -          | X         | -                        | -          | X                       | -       | X                      | API A U    |
| Video Output Monitor Color Blue Set               | -    | -    | -    | X            | -                   | -         | -        | -        | -              | -          | -         | -                        | -          | -                       | API A    |
| Video Output Monitor Color Green Set              | -    | -    | -    | X            | -                   | -         | -        | -        | -              | -          | -         | -                        | -          | -                       | API A    |
| Video Output Monitor Color Red Set                | -    | -    | -    | X            | -                   | -         | -        | -        | -              | -          | -         | -                        | -          | -                       | API A    |
| Video Output Monitor Color Select                 | -    | -    | -    | X            | -                   | -         | -        | -        | -              | -          | -         | -                        | -          | -                       | API A    |
| Video Output Monitor Contrast Set                 | -    | -    | -    | X            | -                   | -         | -        | -        | -              | -          | -         | -                        | -          | -                       | API A    |
| Video Output Monitor CSC Select                   | -    | -    | -    | X            | -                   | -         | -        | -        | -              | -          | -         | -                        | -          | -                       | API A    |
| Video Output Monitor Gamma Set                    | -    | -    | -    | X            | -                   | -         | -        | -        | -              | -          | -         | -                        | -          | -                       | API A    |
| Video Output Monitor Reset                        | -    | -    | -    | X            | -                   | -         | -        | -        | -              | -          | -         | -                        | -          | -                       | API A    |
| Video Output Monitor Sharpness Set                | -    | -    | -    | X            | -                   | -         | -        | -        | -              | -          | -         | -                        | -          | -                       | API A    |
| Video PresentationPIP Set                        | X    | X    | X    | X            | X                   | X         | X        | X        | X              | X          | X         | X                        | X          | X                       | API A    |
| Video PresentationView Set                        | X    | X    | X    | X            | X                   | X         | X        | X        | X              | X          | X         | X                        | X          | X                       | API A    |
| Video Selfview Set                                | X    | X    | X    | X            | X                   | X         | X        | X        | X              | X          | X         | X                        | X          | X                       | API A    |
| UserInterface WebEngine DeleteStorage             | -    | -    | -    | -            | -                   | -         | -        | -        | -              | -          | -         | -                        | -          | -                       | API A    |
| Webex Join                                       | X    | X    | X    | X            | X                   | X         | X        | X        | X              | X          | X         | X                        | X          | X                       | API A U   |
| Webex Registration Cancel                         | X    | X    | X    | X            | X                   | X         | X        | X        | X              | X          | X         | X                        | X          | X                       | API A U   |
| Webex Registration ConvertToCloud                 | X    | X    | X    | X            | X                   | X         | X        | X        | X              | X          | X         | X                        | X          | X                       | API A    |
| Webex Registration Start                          | X    | X    | X    | X            | X                   | X         | X        | X        | X              | X          | X         | X                        | X          | X                       | API A U   |

X: Supported   - : Not supported

## Status

| Status                                      | SX80 | SX20 | SX10 | MX80/MX700 | MX330 G2 / MX200 G2 | DX80/DX70 | Desk Pro | Room Kit | Room Kit Mini | Codec Plus | Codec Pro | Room 70 / Room 55 Dual | Room 70 G2 | Room Panorama / Room 70 Panorama | Room 55 | Board 5555S, 7050S, 85S | On-prem only | Web interface or API | User role |
|---------------------------------------------|------|------|------|------------|---------------------|-----------|---------|----------|---------------|-----------|-----------|-------------------------|---------|-------------------------|--------|---------------------------|-----------|
| Audio Devices Bluetooth ActiveProfile       | -    | -    | -    | -          | -                   | -         | -       | -        | -             | -         | -         | -                       | -       | -                       |        | -                        | A U      |
| Audio Devices HandsetUSB Connection Status  | -    | -    | -    | -          | X                   | X         | X       | X        | -             | -         | -         | -                       | -       | -                       |        | -                        | A U      |
| Audio Devices HandsetUSB Cradle             | -    | -    | -    | -          | X                   | X         | X       | X        | -             | -         | -         | -                       | -       | -                       |        | -                        | A U      |
| Audio Devices HeadsetAnalog Connection Status| -    | -    | -    | -          | X                   | -         | -       | -        | -             | -         | -         | -                       | -       | -                       |        | -                        | A U      |
| Audio Devices HeadsetAnalog HasMicrophone   | -    | -    | -    | -          | X                   | -         | -       | -        | -             | -         | -         | -                       | -       | -                       |        | -                        | A U      |
| Audio Devices HeadsetUSB Connection Status  | -    | -    | -    | -          | X                   | X         | X       | X        | -             | -         | -         | -                       | -       | -                       |        | -                        | A U      |
| Audio Devices HeadsetUSB Description        | -    | -    | -    | -          | X                   | X         | X       | X        | -             | -         | -         | -                       | -       | -                       |        | -                        | A U      |
| Audio Devices HeadsetUSB Manufacturer       | -    | -    | -    | -          | X                   | X         | X       | X        | -             | -         | -         | -                       | -       | -                       |        | -                        | A U      |
| Audio Input Connectors HDMI [n] Mute         | X    | X    | X    | X          | X                   | X         | X       | X        | X             | X         | X         | -                       | Web     | A U                     |        | -                        | A U      |
| Audio Input Connectors Line [n] Mute         | X    | X    | X    | X          | X                   | X         | X       | X        | X             | X         | X         | X                       | Web     | A U                     |        | -                        | A U      |
| Audio Input Connectors Microphone [n] Connection Status | X    | X    | X    | X          | -                   | -         | -       | -        | -             | -         | -         | -                       | Web     | A U                     |        | -                        | A U      |
| Audio Input Connectors Microphone [n] EcReferenceDelay | X    | X    | X    | X          | -                   | -         | -       | -        | -             | -         | -         | -                       | Web     | A U                     |        | -                        | A U      |
| Audio Input Connectors Microphone [n] Mute   | X    | X    | X    | X          | X                   | X         | X       | X        | X             | X         | X         | X                       | Web     | A U                     |        | -                        | A U      |
| Audio Input Connectors USBC [n] Mute         | X    | X    | X    | X          | X                   | X         | X       | X        | X             | X         | X         | X                       | Web     | A U                     |        | -                        | A U      |
| Audio Input KeyClick Attenuate              | -    | -    | -    | -          | -                   | -         | -       | -        | -             | -         | -         | -                       | Web     | A U                     |        | -                        | A U      |
| Audio Input KeyClick Detected               | -    | -    | -    | -          | -                   | -         | -       | -        | -             | -         | -         | -                       | Web     | A U                     |        | -                        | A U      |
| Audio Input KeyClick Enabled                | -    | -    | -    | -          | -                   | -         | -       | -        | -             | -         | -         | -                       | Web     | A U                     |        | -                        | A U      |
| Audio Input LocalInput [n] AGC              | X    | -    | -    | X          | -                   | -         | -       | -        | -             | -         | -         | -                       | Web     | A U                     |        | -                        | A U      |
| Audio Input LocalInput [n] Channels         | X    | -    | -    | X          | -                   | -         | -       | -        | -             | -         | -         | -                       | Web     | A U                     |        | -                        | A U      |
| Audio Input LocalInput [n] Connector        | X    | -    | -    | X          | -                   | -         | -       | -        | -             | -         | -         | -                       | Web     | A U                     |        | -                        | A U      |
| Audio Input LocalInput [n] Direct           | X    | -    | -    | X          | -                   | -         | -       | -        | -             | -         | -         | -                       | Web     | A U                     |        | -                        | A U      |
| Audio Input LocalInput [n] MixerMode        | X    | -    | -    | X          | -                   | -         | -       | -        | -             | -         | -         | -                       | Web     | A U                     |        | -                        | A U      |
| Audio Input LocalInput [n] Mute             | X    | -    | -    | X          | -                   | -         | -       | -        | -             | -         | -         | -                       | Web     | A U                     |        | -                        | A U      |
| Audio Input LocalInput [n] Name             | X    | -    | -    | X          | -                   | -         | -       | -        | -             | -         | -         | -                       | Web     | A U                     |        | -                        | A U      |
| Audio Input RemoteInput [n] CallId           | X    | X    | X    | X          | X                   | X         | X       | X        | X             | X         | X         | X                       | Web     | A U                     |        | -                        | A U      |

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Audio Output Connectors ARC [n] DelayMs

Audio Output Connectors ARC [n] Mode

Audio Output Connectors HDMI [n] DelayMs

Audio Output Connectors HDMI [n] Mode

Audio Output Connectors InternalSpeaker [n] DelayMs

Audio Output Connectors InternalSpeaker [n] Mode

Audio Output Connectors Line [n] ConnectionStatus

Audio Output Connectors Line [n] DelayMs

Audio Output LocalOutput [n] AutoconnectRemote

Audio Output LocalOutput [n] Channels

Audio Output LocalOutput [n] Connector [n]

Audio Output LocalOutput [n] Input [n] Gain

Audio Output LocalOutput [n] Loudspeaker

Audio Output LocalOutput [n] Name

Audio Output LocalOutput [n] VolumeControlled

Audio Output MeasuredHdmiArcDelay

Audio Output MeasuredHdmiDelay

Audio Output MeasuredHdmiCecDelay

Audio Output RemoteOutput [n] CallId

Audio Output RemoteOutput [n] Input [n] Gain

Audio SelectedDevice

Audio Volume

Audio VolumeHandsetUsb

## Status

| Audio VolumeHeadsetAnalog | SX80 | SX20 | SX10 | MX800 | MX700 | MX300 G2 / MX200 | DX80/DX70 | Desk Pro | Room Kit | Room Kit Mini | Codec Plus | Codec Pro | Room 70 /Room 55 Dual | Room 70 G2 | Room Panorama / Room 70 Panorama | Room 55 | Board 555S, 70/70S, 85S | On-prem only | Web interface or API | User role |
|---------------------------|------|------|------|-------|-------|---------------------|-----------|----------|----------|-------------|------------|----------|--------------------------|--------|-------------------------|------|----------------|-------------|
| X: Supported | - | - | - | - | - | X | X | X | - | - | - | - | - | - | - | - | - | - | - | Web, API | A U |
| Audio VolumeHeadsetUsb | - | - | - | - | - | X | - | - | - | - | - | - | - | - | - | - | - | - | - | Web, API | A U |
| Audio VolumeInternal | - | - | - | - | - | X | X | X | - | - | - | - | - | X | - | - | - | - | - | Web, API | A U |
| Audio VolumeMute | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | Web, API | A U |
| Bookings Current Id | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A U |
| Call [n] AnswerState | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A U |
| Call [n] AttendedTransferFrom | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A U |
| Call [n] CallbackNumber | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A U |
| Call [n] CallType | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A U |
| Call [n] DeviceType | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A U |
| Call [n] Direction | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A U |
| Call [n] DisplayName | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | Web, API | A U |
| Call [n] Duration | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | Web, API | A U |
| Call [n] Encryption Type | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | Web, API | A U |
| Call [n] FacilityServiceld | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | Web, API | A U |
| Call [n] HoldReason | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | Web, API | A U |
| Call [n] Ice | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | Web, API | A U |
| Call [n] PlacedOnHold | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A U |
| Call [n] Protocol | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | Web, API | A U |
| Call [n] ReceiveCallRate | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A U |
| Call [n] RemoteNumber | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A U |
| Call [n] Status | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | Web, API | A U |
| Call [n] TransmitCallRate | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A U |
| Cameras Background Image | - | - | - | - | - | - | - | - | - | - | X | - | - | - | - | - | - | - | - | Web, API | A I R U |
| Cameras Background Mode | - | - | - | - | - | - | X | - | - | - | - | - | - | - | - | - | - | - | - | Web, API | A I R U |

X: Supported  - : Not supported

### Status

| Cameras Camera [n] Capabilities Options | SX80 | SX20 | SX10 | MX80MMX700 | MX3300G2 / MX200 | DX60D/670 | Desk Pro | Room Kit | Room Kit Mini | Codec Pro | Codec Plus | Room 70 / Room 55 Dual | Room 70 / Room 55 Panorama | Room 70 / Room 55 Panorama | Room 55 | Board 55/SS, 70/70S, 85S | On-prem only | Web interface or API | User role |
|----------------------------------------|------|------|------|------------|-----------------|-----------|---------|---------|---------------|-----------|------------|------------------------|--------------------------|--------------------------|-------|----------------------|------------|
| X                                      | X    | X    | X    | X          | X               | X         | X       | X       | X             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras Camera [n] Connected           | X    | X    | X    | X          | X               | X         | X       | X       | X             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras Camera [n] DetectedConnector  | X    | X    | X    | X          | -               | -         | X       | -       | -             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras Camera [n] Flip                | -    | -    | -    | -          | -              | -         | X       | -       | -             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras Camera [n] Framerate           | -    | -    | -    | -          | -              | -         | X       | -       | -             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras Camera [n] HardwareID          | X    | X    | X    | X          | X               | X         | -       | X       | X             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras Camera [n] LightingConditions  | X    | X    | X    | X          | -               | -         | X       | X       | X             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras Camera [n] MacAddress          | X    | X    | X    | X          | -               | -         | -       | X       | X             | X         | X          | X                      | X                        | Web, API                | X     | Web, API             | A I R U     |
| Cameras Camera [n] Manufacturer        | X    | X    | X    | X          | X               | X         | X       | X       | X             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras Camera [n] Model               | X    | X    | X    | X          | X               | X         | X       | X       | X             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras Camera [n] Position Focus      | X    | X    | X    | X          | -               | -         | X       | -       | X             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras Camera [n] Position Lens       | X    | -    | -    | -          | -               | -         | X       | X       | X             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras Camera [n] Position Pan        | X    | X    | X    | X          | X               | X         | X       | X       | X             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras Camera [n] Position Roll       | -    | -    | -    | -          | -               | -         | X       | -       | X             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras Camera [n] Position Tilt       | X    | X    | X    | X          | X               | -         | X       | X       | X             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras Camera [n] Position Zoom       | X    | X    | X    | X          | -               | X         | X       | X       | X             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras Camera [n] SerialNumber        | X    | X    | X    | X          | -               | X         | -       | X       | X             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras Camera [n] SoftwareID          | X    | X    | X    | X          | X               | X         | X       | X       | X             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras PresenterTrack Availability    | X    | -    | -    | -          | -               | -         | -       | -       | -             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras PresenterTrack PresenterDetected| X    | -    | -    | -          | -               | -         | -       | -       | -             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras PresenterTrack Status          | X    | -    | -    | -          | -               | -         | -       | -       | -             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras SpeakerTrack ActiveConnector   | X    | -    | -    | -          | -               | -         | X       | X       | X             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras SpeakerTrack Availability      | X    | -    | -    | -          | -               | -         | X       | X       | X             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Cameras SpeakerTrack Status            | X    | -    | -    | -          | -               | -         | X       | X       | X             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A I R U     |
| Capabilities Conference MaxActiveCalls | X    | X    | X    | X          | X               | X         | X       | X       | X             | X         | X          | X                      | X                        | X                        | X     | Web, API             | A U        |

X: Supported  - : Not supported  
### Status

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X: Supported  - : Not supported  
| Status                       | SX80 | SX20 | SX10 | MX80/MX700 | MX300 G2 / MX200 | DX80/DX700 | DeskPro | Room Kit | Room Kit Mini | Codec Plus | Codec Pro | Room 70/Room 55 Dual | Room 70 G2 | Room 70 Panorama / Room 55 Panorama | Room 55 | Board 55/55S, 70/70S, 85S | On-prem only | Web interface or API | User role |
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| Conference DoNotDisturb     | X    | X    | X    | X          | X                | X          | X      | X        | X            | X          | X         | X                     | X         | X                      | -       | Web, API                | A I U   |
| Conference Line [n] Mode    | X    | X    | X    | X          | X                | X          | X      | X        | X            | X          | X         | X                     | X         | X                      | -       | Web, API                | A U     |
| Conference Multipoint Mode  | X    | X    | X    | X          | X                | X          | X      | X        | X            | X          | X         | X                     | X         | X                      | -       | Web, API                | A U     |
| Conference Presentation CallId | X    | X    | X    | X          | X                | X          | X      | X        | X            | X          | X         | X                     | X         | X                      | -       | Web, API                | A U     |
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| Conference Presentation LineInstance [n] SendingMode | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | Web, API | A I R U |
| Conference Presentation LineInstance [n] Source | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | Web, API | A I R U |
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| Diagnostics Message [n] Type | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | Web, API | A U |
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X: Supported  - : Not supported  
### Status

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**X:** Supported  
**-:** Not supported

**A:** ADMIN  
**Au:** AUDIT  
**I:** INTEGRATOR  
**R:** ROOMCONTROL  
**U:** USER
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X: Supported    - : Not supported
## Status

| Status                                      | SX80 | SX20 | SX10 | MX800/MX700 | MX3300 G2 / MX200 | Q2  | DX80/DX70 | Desk Pro | Room Kit | Room Kit Mini | Codec Plus | Codec Pro | Room 70 /Room 55 Dual | Room 70 G2 | Room 70 Panorama | Room 55 | Board 5555S, 70070S, 85S | On-prem only | Web interface | API | User role |
|---------------------------------------------|------|------|------|-------------|-------------------|-----|-----------|----------|----------|------------------|------------|------------|----------------------|------------|------------------|--------|---------------------|------|----------|     |
| Network [n] IPv6 LinkLocalAddress           | X    | X    | X    | X           | X                 | X   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| Network [n] VLAN Voice VlanId               | X    | X    | X    | X           | X                 | X   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| Network [n] WiFi BSSID                      | -    | -    | -    | -           | -                 | -   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| Network [n] WiFi Channel                    | X    | X    | X    | X           | X                 | X   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| Network [n] WiFi Frequency                  | -    | -    | -    | -           | -                 | -   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| Network [n] WiFi MacAddress                 | -    | -    | -    | -           | -                 | -   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| Network [n] WiFi Phase2Method                | -    | -    | -    | -           | -                 | -   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| Network [n] WiFi RawSSID                    | -    | -    | -    | -           | -                 | -   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| Network [n] WiFi Reason                     | -    | -    | -    | -           | -                 | -   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| Network [n] WiFi Region                     | X    | X    | X    | X           | X                 | X   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| Network [n] WiFi RSSI                       | -    | -    | -    | -           | -                 | -   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| Network [n] WiFi ScanResult [n] Flags       | -    | -    | -    | -           | -                 | -   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| Network [n] WiFi ScanResult [n] RawSSID     | -    | -    | -    | -           | -                 | -   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| Network [n] WiFi ScanResult [n] SignalLevel | -    | -    | -    | -           | -                 | -   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| Network [n] WiFi ScanResult [n] SSID        | -    | -    | -    | -           | -                 | -   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| Network [n] WiFi Speed                      | -    | -    | -    | -           | -                 | -   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| Network [n] WiFi SSID                       | -    | -    | -    | -           | -                 | -   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| Network [n] WiFi Status                     | -    | -    | -    | -           | -                 | -   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| Network [n] WiFi Type                       | -    | -    | -    | -           | -                 | -   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| NetworkServices NTP CurrentAddress          | X    | X    | X    | X           | X                 | X   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| NetworkServices NTP Server [n] Address      | X    | X    | X    | X           | X                 | X   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| NetworkServices NTP Status                  | X    | X    | X    | X           | X                 | X   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| NetworkServices UPnP Status                 | X    | X    | X    | X           | X                 | X   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| Peripherals ConnectedDevice [n] HardwareInfo| X    | X    | X    | X           | X                 | X   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |
| Peripherals ConnectedDevice [n] ID          | X    | X    | X    | X           | X                 | X   | X         | X        | X        | X                | X          | X          | X                    | X          | X                | X      | X                   | X    | Web, API | A U |

X: Supported   - : Not supported
### Status

| Peripherals ConnectedDevice [n] Name | SX80 | SX20 | SX10 | MX80/MX700 | MX300 G2 / MX200 | DX80/DX70 | Desk Pro | Room Kit | Room Kit Mini | Codec | Codec Pro | Room 70 / Room 55 Dual | Room 70 G2 | Room Panorama / Room 70 Panorama | Room 55 | Board 5555S, 70/70S, 85S | On-prem only | Web interface or API | User role |
|------------------------------------|------|------|------|------------|------------------|------------|----------|----------|-------------|-------|------------|--------------------------|-----------|-------------------------------|--------|--------------------------|------------|
| X                                  | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A R U     |
| Peripherals ConnectedDevice [n] RoomAnalytics AmbientTemperature | -    | -    | -     | -          | -                | -          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A R U     |
| Peripherals ConnectedDevice [n] RoomAnalytics RelativeHumidity | -    | -    | -     | -          | -                | -          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A R U     |
| Peripherals ConnectedDevice [n] SerialNumber | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A R U     |
| Peripherals ConnectedDevice [n] SoftwareInfo | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A R U     |
| Peripherals ConnectedDevice [n] Status | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A R U     |
| Peripherals ConnectedDevice [n] Type | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A R U     |
| Peripherals ConnectedDevice [n] UpgradeFailureReason | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A R U     |
| Peripherals ConnectedDevice [n] UpgradeStatus | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A R U     |
| Peripherals ConnectedDevice [n] UpgradeURL | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A R U     |
| Provisioning CUCM Customization Checksum | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A R U     |
| Provisioning CUCM ExtensionMobility Enabled | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A U       |
| Provisioning CUCM ExtensionMobility LastLoggedInUserId | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A U       |
| Provisioning CUCM ExtensionMobility LoggedIn | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A U       |
| Provisioning RoomType | X    | -    | -     | X          | -                | -          | -        | -        | -           | X     | X          | X                        | X         | X                             | X       | X                        | A U       |
| Provisioning Software Current CompletedAt | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A U       |
| Provisioning Software Current URL | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A U       |
| Provisioning Software Current VersionId | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A U       |
| Provisioning Software UpgradeStatus LastChange | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A U       |
| Provisioning Software UpgradeStatus Message | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A U       |
| Provisioning Software UpgradeStatus Phase | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A U       |
| Provisioning Software UpgradeStatus SessionId | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A U       |
| Provisioning Software UpgradeStatus Status | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A U       |
| Provisioning Software UpgradeStatus Urgency | X    | X    | X     | X          | X                | X          | X        | X        | X           | X     | X          | X                        | X         | X                             | X       | X                        | A U       |

## Status

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X: Supported  - : Not supported  

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**Cisco Collaboration Endpoint Software API Reference Guide**

**Cisco Collaboration Endpoint Software**

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X: Supported    - : Not supported
| Status | SX80 | SX20 | SX10 | MX80/MX700 | MX300 G2 / MX200 G2 | DX80/DX70 | Desk Pro | Room Kit | Room Kit Mini | Codec Plus | Codec Pro | Room 70 / Room 55 Dual | Room 70 G2 | Room 70 Panorama / Room 70 Panorama | Room 55 | Board5555, 70/70S, 85S | On-prem only | Web interface | API | User role |
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| Video Input Source [n] Resolution RefreshRate | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A I U |
| Video Input Source [n] Resolution Width | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A I U |
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| Video Layout LayoutFamily Remote | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A U |
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| Video Output Connector [n] ConnectedDevice CEC [n] DeviceType | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A I U |
| Video Output Connector [n] ConnectedDevice CEC [n] LogicalAddress | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A I U |
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| Video Output Connector [n] ConnectedDevice PreferredFormat | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A I U |
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| Video Output Connector [n] MonitorRole | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A U |
| Video Output Connector [n] Resolution Height | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A U |
| Video Output Connector [n] Resolution RefreshRate | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A U |
| Video Output Connector [n] Resolution Width | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | - | Web, API | A U |

X: Supported  - : Not supported  
## Status

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<td>Webex Services Proximity GuestToken</td>
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<td>Webex Status</td>
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</tr>
</tbody>
</table>

Startup scripts

You can add one or more startup scripts to the device. A startup script contains commands (xCommand) and configurations (xConfiguration) that will be executed as part of the start up procedure every time the device boots. A few commands and configurations cannot be placed in a startup script, e.g. xCommand SystemUnit Boot.

Use the device’s web interface to create and manage startup scripts.

Read more about the web interface and startup scripts in the Administrator guide for your product.
The SystemTools commands

**NOTE:** The systemtools commands are used for administrative control of the device and are only available from a command line interface. Systemtools should not be used to program the device.

**Required parameters in angle brackets:** `<text>`

**Optional parameters in square brackets:** `[text]`

To get an overview of the supported commands type “systemtools ?”.

**Example:**
```
systemtools ?
rootsettings
selectsw
whoami
license
network
ntp
pki
ps
securitystatus
sudo
idefixversion
pairing
touch
```

To see the usage of the commands add a question mark after the command.

**Example:**
```
systemtools network ?
usage: network ping <hostname> | traceroute <hostname> | netstat | addr | ifconfig | ifstats <ifname>
systemtools network ping <hostname>
Network debug command.
<hostname>: The IP-address or URL of the host.
systemtools network traceroute <hostname>
Network debug command.
<hostname>: The IP-address or URL of the host.
systemtools network netstat
Network debug command.
```

**systemtools idefixversion (not for Desk Pro, DX70, and DX80)**
Returns the software version the connected Touch controller should have. Used when downgrading to TC7.3 or earlier.

**systemtools license list**
Lists all the licenses for the device.

**systemtools license show <name>**
Shows the content of a license file, defined by the name.

**systemtools network ping <hostname>**
Network debug command.

**systemtools network traceroute <hostname>**
Network debug command.

**systemtools idefixversion**

**systemtools ntp**
Shows the NTP status.

**systemtools pairing unpair**
Removes association with remotely paired Touch controller.

**systemtools pki list**
Lists the device certificate and CA list if they exist.

**systemtools pki delete <cert-name>**
Delete the device certificate and CA list if they exist.

**systemtools ps**
Lists all running processes.

**systemtools rootsettings**
Root access is no longer available in release software. Please use the remotesupport account instead.

**systemtools securitystatus**
Shows the security status for the device.
**systemtools selectsw**
Select which of the available software images to use.
Changing the software image will restart the device.

- No argument given: Lists the version of the available software images, and shows which one is active.
- **image name**: Swap to the software with this name.

**systemtools sudo on**
Changes the user role of the current session to the role of the specified user.

- `<username>`: The name of the sudo user.
- `<password>`: The password for the sudo user.

**systemtools sudo off**
Reverts back to the user role of the signed in user.

**systemtools touch start** *(only for Desk Pro, DX70, DX80, and Boards)*
Debug command for testing the touch panel.

**systemtools touch stop** *(only for Desk Pro, DX70, DX80, and Boards)*
Debug command for testing the touch panel.

**systemtools touch forever** *(only for Desk Pro, DX70, DX80, and Boards)*
Debug command for testing the touch panel.

**systemtools whoami**
Lists the name and id of the signed in user, and the user roles held by this user.
Disconnect cause types

The following parameters are logged when a call is disconnected. The disconnect cause types are used in disconnect events (xEvent).

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CauseValue</td>
<td>Proprietary. We recommend the use of CauseType and CauseCode.</td>
</tr>
<tr>
<td>CauseType</td>
<td>Describes why the call was disconnected. The value space is { OtherLocal, LocalDisconnect, UnknownRemoteSite, LocalBusy, LocalReject, InsufficientSecurity, OtherRemote, RemoteDisconnect, RemoteBusy, RemoteRejected, RemoteNoAnswer, CallForwarded, NetworkRejected }</td>
</tr>
<tr>
<td>CauseString</td>
<td>Describes the Cause Code.</td>
</tr>
<tr>
<td>CauseCode</td>
<td>The disconnect Cause Codes are defined in SIP and Q.850.</td>
</tr>
<tr>
<td>CauseOrigin</td>
<td>SIP, Q.850, internal.</td>
</tr>
</tbody>
</table>

**Example:**

```plaintext
xEvent DisconnectEvent

*e CallDisconnect CauseValue: 1
  CauseType: "LocalDisconnect"
  CauseString: ""
  OrigCallDirection: "outgoing"
  RemoteURI: "firstname.lastname@company.com"
  CallId: 89
  CauseCode: 0
  CauseOrigin: SIP
** end
```
User documentation on the Cisco web site

User documentation for the Cisco Collaboration products is available at
https://www.cisco.com/go/telepresence/docs

Select the product series:
- Webex Board
- Webex DX Series (Webex Desk Series)
- TelePresence MX Series
- Webex Room Series
- TelePresence SX Series

Alternatively, use the following short-links:
- https://www.cisco.com/go/board-docs
- https://www.cisco.com/go/desk-docs
- https://www.cisco.com/go/mx-docs
- https://www.cisco.com/go/room-docs
- https://www.cisco.com/go/sx-docs

Install and Upgrade

Installation and Upgrade Guides
- Installation guides: How to install the product
- Getting started guide: Initial configurations required to get the device up and running
- Physical interface guide: Details about the product’s physical interface, including the connector panel and LEDs (SX80 only)
- RCS1 guide: Regulatory compliance and safety information

Maintain and Operate

Maintain and Operate Guides
- Administrator guide: Information required to administer your product
- Deployment guide for TelePresence endpoints on CUCM: Tasks to perform to start using the product with the Cisco Unified Communications Manager (CUCM)

End-User Guides
- User guides: How to use the product
- Quick reference guides: How to use the product

Reference Guides

Command references
- API reference guides: Reference guide for the Application Programming Interface (API)

Technical References
- CAD drawings: 2D CAD drawings with dimensions

Configure

Configuration Guides
- Customization Guide: How to customize the user interface, how to use the device’s API to program in-room controls, making macros, configure advanced audio set-ups using the Audio Console, and other customizations.
- UI Extensions Editor (formerly: In-Room Control Editor): Download the UI extensions editor

Design

Design Guides
- Video conferencing room guidelines: General guidelines for room design and best practice
- Video conferencing acoustics room guidelines: Things to do to improve the perceived audio quality

Software Downloads, Release and General Information

Release notes
- Release notes and deferral notices

Licensing Information
- Open source licences: Licenses and notices for open source software used in this product