Software version TC4.2
JULY 2011

Application Programmer Interface (API) Reference Guide

Cisco TelePresence System Codec C20

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What's in this guide?

The top menu bar and the entries in the Table of Contents are all hyperlinks, just click on them to go to the topic.

We recommend you visit our web site regularly for updated versions of the user documentation. Go to: ▶ http://www.cisco.com/go/telepresence/docs

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Chapter 1

Introduction

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About this guide

This guide will introduce you to the Application Programmer Interface (API) for the TC software in general, and serve as a reference guide for the command line commands for the Codec C Series listed below:

- Cisco TelePresence System Codec C20

User documentation

The user documentation for the Cisco TelePresence systems, running the **TC software**, have several guides suitable to various user groups.

- Video conference room primer
- Video conference room acoustics guidelines
- Installation guides for the TelePresence systems
- Software release notes for the TC software
- Getting started guide for the TelePresence systems
- User guide for the TelePresence systems (Touch controller)
- User guide for the TelePresence systems (Remote Control)
- Quick reference guides for the TelePresence systems
- Administrator guides for the TelePresence systems
- Camera user guide for the PrecisionHD cameras
- API reference guides for the Codec C Series
- TC Console user guide for the Codec C Series
- Physical interfaces guides for the Codec C Series
- Regulatory compliance and safety information guides
- Legal & license information for the TC software

Download the user documentation

Go to: ▶ http://www.cisco.com/go/telepresence/docs

- in the right pane, select:

- ***TelePresence Solutions Platform*** for the Codec C Series and Quick Set C20.
- ***TelePresence Peripherals*** for the PrecisionHD cameras, microphones, Touch unit, and remote controls.

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What's new in this version

This section provides an overview of the new and changed API commands and new features in the TC4.2 software version.

Software release notes

For a complete overview of the news and changes, we recommend reading the Software Release Notes (TC4).

Go to: ▶ http://www.cisco.com/en/US/products/ps11422/tsd_products_support_series_home.html

Software download

For software download go to: ▶ http://www.cisco.com/cisco/software/navigator.html?a=a&i=rpm

NEW: API Reference Guide for Codec C20

To meet several customers requests for an API guide for C20 we have made this API Reference Guide for Codec C20.

New features and improvements

New software release for PrecisionHD Camera

With the TC4.2.0 release, the PrecisionHD 1080p camera will automatically be upgraded to camera software release ID40069. Included in this release is:

- Improvements to auto focus
- Improvement to hot pixel correction
- Improvements with the automatic white balance.

New features accessible from Touch panel

- Support for MultiWay conference
- Support for restart of the codec
- Support for factory defaulting the system
- Support for camera presets for cameras with pan, tilt and zoom functionality
- Support for putting someone on hold
- Support for call transfer
- Support for standby

New features accessible from menu on screen

Virtual keyboard for the remote control

New web interface

- The web interface has been redesigned.
- Recommended browsers are IE8 and Firefox.

Support for Consumer Electronics Control (CEC)

The HDMI outputs now supports Consumer Electronics Control (CEC). When set to On (default is Off), and the monitor connected to the HDMI output is CEC compatible and CEC is configured, the system will use CEC to set the monitor in standby when the system enters standby. Likewise the system will wake up the monitor when the system wakes up from standby. Note that the different manufacturers uses different marketing names for CEC: Anynet+ (Samsung); Aquos Link (Sharp); BRAVIA Sync (Sony); HDMI-CEC (Hitachi); Kuro Link (Pioneer); CE-Link and Regza Link (Toshiba); RIHD (Remote Interactive over HDMI) (Onkyo); SimpLink (LG <http://en.wikipedia.org/wiki/LG_Electronics>); HDAVI Control, EZ-Sync, VIERA Link (Panasonic); EasyLink (Philips); and NetCommand for HDMI (Mitsubishi).

Support for always unmute when not in conference

The codec can be configured to allow muting of audio only when the device is in a call. This is useful when an external telephone service/audio system is connected via the codec and you want it to be available when the codec is outside a call. See the xConfiguration Audio Microphones Mute Enabled setting. When set to InCallOnly this will prevent the audio-system from being muted accidently. When set to True, muting of audio is always available.

Support for VCS clustering

The system can now retrieve a list of SIP registrars and/or H.323 gatekeepers by configuring the unit with the fully qualified domain name of the registrar/gatekeeper. Both NAPTR and SRV records are supported in addition to A-records using DNS. This will allow the unit to retrieve a list of up to 20 registrars/gatekeepers and try to register to them in order. If the first one is full, unavailable or does not answer the registration request, the unit will try to register to the next one in the list until a successful registration is made.

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Chapter 2

About the API

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About the API

Basic Principles

The heart of the API is the API-Engine. This is where all information is stored and processed.

The API-engine can be accessed by an easy-to-use Command Line Interface called ***XACLI*** using RS-232, ***Telnet*** or ***SSH***, or by the XML API Service (***TXAS***) over HTTP/HTTPS.

Working with the API-engine is very similar to working with catalogues and files on a computer. All information is stored in a hierarchic tree structure which is accessible from different interfaces.

- When accessing the API-engine using XACLI (RS-232, Telnet or SSH), the information is formatted in a proprietary Command Line style or in XML formatting.
- When accessing the API-engine using the TXAS interface (HTTP/HTTPS), XML formatting is supported.

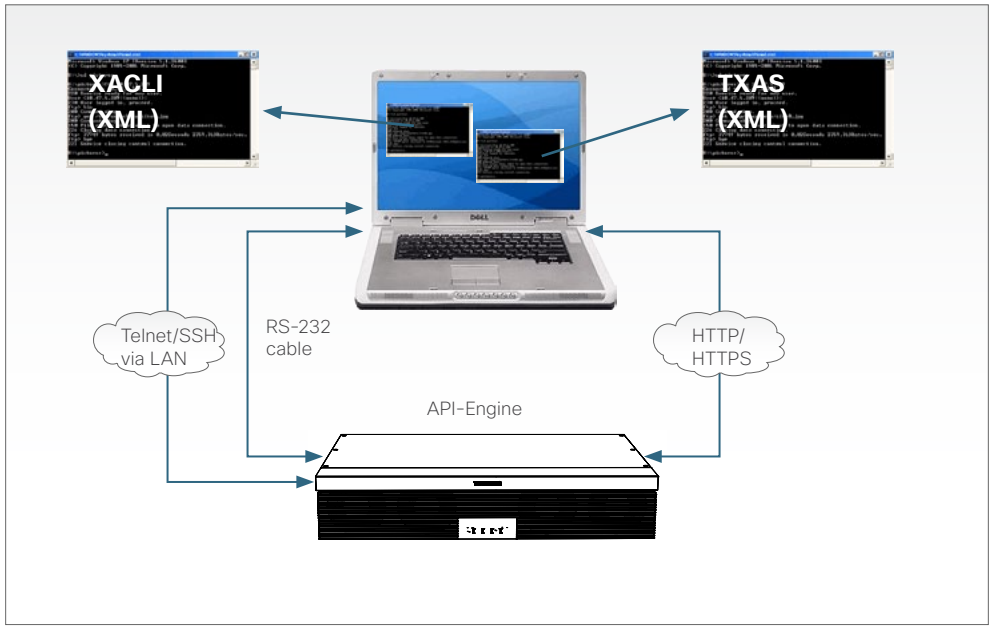
This is similar to viewing files on a computer. Accessing catalogues on a Windows computer using the Command Prompt gives a different view than using Windows Explorer, but the information is the same.

About Telnet

Telnet is disabled by default. Before connecting to the codec using Telnet you will need to enable the interface via either RS-232 or SSH.

The following command can be set from the Administrator settings menu or from the API command interface:

- `xConfiguration NetworkServices Telnet Mode: On`



The API-Engine

The API-Engine is optimized for easy, yet advanced, machine-machine interaction between a Cisco system and an external control application.

The main features can be summarized to:

1. Structuring of information
2. Addressing using XPath (XML Path Language) or SimplePath
3. Feedback

Structuring of Information

An application programming interface (API) can be seen as a gate where information is exchanged between two systems – a control application and a target system.

The control application transmits instructions to the target system, while the target system supplies information about how these instructions are executed, in addition to other system related information.

Consequently, the exchange of information can be divided into:

1. Information flowing from target. This we call READ information (R). The (R) should not be confused with the (r) used to indicate required parameters in the Commands tables.
2. Information flowing to target. This we call WRITE information (W).

Main types of information

- READ information (R)
- WRITE information (W)
- READ/WRITE information (RW)

(R) READ information. This is Status Information about the system and system processes, i.e. information generated by the system.

Typical examples include: status about ongoing calls, network status, conference status etc. All status information is structured in a hierarchy, making up a database constantly being updated by the system to reflect process changes.

(W) WRITE information. This is Command information the user/control application supply to initiate an action.

Typical examples include: instructing the system to place a call, adjust volume, disconnect a call etc.

A command is usually followed by a set of parameters to specify how the given action is to be executed.

(RW) READ/WRITE information. This is Configuration Information defining system settings. This information can both be supplied and read by the user/control application. Typical examples include: default call rate, baud rate of a serial port, enabling/disabling of various features etc.

All configuration information is structured in a hierarchy making up a database of system settings. But for the Configuration information, the data in the database can only be updated by the user/control application.

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Addressing Using XPath or SimplePath

To address information in the hierarchic structure of Status and Configuration information, the Cisco systems support abbreviated XML Path Language (XPath) and a proprietary notation called SimplePath (only available using XACLI).

This allows the user/control application to address everything from a single element of data (for example the call rate of a specific call) to larger parts of the hierarchy (for example all information available for a given call).

Using XPath

Addressing the 1st DNS Server Address of the 1st Network:

Each level is separated with a slash ('/'). Item numbers are added in brackets after the element name:

- Network[1]/DNS Server[1]/Address

Example:

```
xConfiguration Network[1]/DNS Server[1]/Address
*c xConfiguration Network 1 DNS Server 1 Address:
"test"
OK
```

Using SimplePath

Addressing the 1st DNS Server Address of the 1st Network:

Both levels and item numbers are separated with white spaces:

- Network 1 DNS Server 1 Address

Example:

```
xConfiguration Network 1 DNS Server 1 Address
*c xConfiguration Network 1 DNS Server 1 Address:
"test"
OK
```

Feedback

Feedback is an extremely powerful feature where the Cisco system actively returns updated status and configuration information to the user/control application whenever changes occur.

The user/control application can specify what parts of the status and configuration hierarchies it wants to monitor by using XPath. The user/control application can thereby limit the amount of information it receives from the target system to only those parts being of interest for the given application. This will also reduce the load on the link connecting the systems.

Feedback is supported on both XACLI (RS-232/Telnet/SSH) and TXAS (HTTP/HTTPS) simultaneously.

The system uses SimplePath when presenting configurations.

XPath and SimplePath are described thoroughly later in this section of the manual.

The structuring of information together with XPath and SimplePath for addressing, makes up powerful features as the ability to search and setting of multiple instances of a configuration.

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Connecting to the codec

Accessing XACLI

XACLI can be accessed through Telnet and SSH via the LAN interface or through the COM port by connecting a serial cable to the serial interface connector, referred to as the COM port.

The COM port (RS-232) is a 9-pin, female, D-sub connector located on the back of the Codec C-Series. The connector i marked with the text: ***Camera Control***.

The port is configured as a DCE (Data Communications Equipment). The COM port (RS-232) is default set to 38400 baud, 8 data bits, none parity and 1 stop bit from factory. The port may also be referred to as the Data port.

Telnet/SSH login

Telnet is by default disabled. This can be changed with a configuration command: xConfiguration NetworkServices Telnet Mode: On/Off

- `xConfiguration NetworkServices Telnet Mode: On`

Telnet/SSH login

- User name is: `admin`
- The default passworrd is blank.

Serial port login

The serial port is password protected by default. The password protection may be configured.

- User name is: `admin`
- The default passworrd is blank.

Serial port configurations

On the serial port the baud rate and password protection may be configured.

The configuration command for the baud rate is:

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

- `xConfiguration SerialPort BaudRate: 38400`

The configuration command for login required is:

xConfiguration SerialPort LoginRequired: <On/Off>

- `xConfiguration SerialPort LoginRequired: On`

Reboot

The system requires a reboot for the changes to baud rate and password protection to take effect.

NOTE: When system boots up the baud rate of the boot messages is 38400 regardless of the baud rate set in the codec application.

Hardware & Cabling (RS-232)

The pin outs for the RS-232 are defined in the tables to the right. Observe that the DTE (Data Terminal Equipment), could be a PC or any other device capable of serial communication.

Cable. A straight-through cable should be used between the RS-232 port and the DTE. The lower table shows the recommended cable-wiring scheme when connecting the Codec C-Series to a PC through RS-232.

DTR and RTS are ignored. DSR, CD, and CTS are always asserted, while RI is not used.

Troubleshooting (RS-232)

If communication cannot be established between the PC/terminal and the Codec data port, the following should be checked:

1. Verify that the serial cable is a straight-through 9-pin to 9-pin cable.
2. Confirm that the configuration of the PC/terminal's serial RS-232 port is identical to the configuration of the RS-232 port.
3. Verify that the PC/terminal's serial RS-232 port is working properly by connecting it back-to-back to another PC/terminal and send characters in both directions.

COM port (RS-232)

Pin	*Signal name*	*Direction*
1	Carrier detect, CD	From DCE
2	Receive data, RXD	From DCE
3	Transmit data, TXD	To DCE
4	Data terminal ready, DTR	From DCE
5	Signal GND	
6	Data set ready, DSR	From DCE
7	Ready to send, RTS	To DCE
8	Clear to send, CTS	From DCE
9	Ring indicator, RI	From DCE

Cable wiring (RS-232) DCE <-> PC

DCE 9 pin	*Direction*	*PC DTE, 9 pin*
1 CD	–>	1 CD
2 RD	–>	2 RD
3 TD	<–	3 TD
4 DTR	<–	4 DTR
5 GND	<–>	5 GND
6 DSR	–>	6 DSR
7 RTS	<–	7 RTS
8 CTS	–>	8 CTS
9 RI	–>	9 RI

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Value types and formats

The system supports the following value types:

- Integer values
- Literal values
- String values
- E164 string values (strings only containing digits, '#' and '*')
- IPv4 Address values
- *IPv6 Address values
- IPv4 or *IPv6 Address values

Formats for value types
Integer values:<x..y>
Defines the valid range for an integer input. x = min value, y = max value.
<1..100>
Literal values: <X/Y/../Z>
Defines the possible values for a given configuration.
<On/Off/Auto>
String values: <S: x, y>
Defines that the valid input for this configuration is a String with minimum length x and maximum length of y characters.
<S: 0, 49>
IPv4 Address values: <IPAddr>
Defines that the input must be an IPv4 address.
<IPAddr>
*IPv6 Address values: <IPv6Addr: x, y>
Defines that the input must be an IPv6 address with minimum length x and maximum length y.
<IPv6Addr: 0, 43>
IPv4 or *IPv6 Address values: <IPv4v6Addr: x, y>
Defines that the input must be an IPv4 or IPv6 address with minimum length x and maximum length y.
<IPv4v6Addr: 0, 43>

* Not supported in this version

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User commands

By typing ? or help after connecting to the Cisco TelePresence System Codec C Series using RS-232/Telnet/SSH, the system will list all supported root commands.

Bye

The bye command will close the command line interface.

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 no user input is displayed when entering text in a command line interface.

The oher commands

The other user commands are described in the following pages.

```
?

- User Commands -

help        xconfiguration      xfeedback       xgetxml         xhistory
xstatus     xevent              xpreferences    xcommand        systemtools
bye         log                 echo

OK
```


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Main type of commands

The XACLI is divided into three main types of commands, reflecting the information types supported by the API Engine.

The main types are:

- Configuration type commands
- Status type commands
- Command type commands

Configuration type commands

Configuration type commands defines the system settings. Configuration type commands are either supplied or read by the user.

Example: Set default call rate, baud rate of a serial port and enabling/disabling of various features etc.

The configuration commands are structured in a hierarchy, making up a database of system settings.

Supported Configuration-type commands:

- xConfiguration

Command type commands

Command type commands instructs the system to perform an action. Command type commands are supplied by the user.

Example: instructing the system to place a call, assign floor to a specific site, disconnect a call etc.

A Command type command is usually followed by a set of parameters to specify how the given action is to be executed.

Supported Command-type commands:

- xCommand

Status type commands

Status type commands returns information about the system and system processes. Status type commands are read by the user.

Example: Information generated by the system about ongoing calls, network status, conference status etc.

All status information is structured in a hierarchy, making up a database constantly being updated by the system to reflect system and process changes.

Supported Status-type commands:

- xStatus
- xHistory

Special commands

In addition to the above sets of commands, XACLI supports the following set of special commands:

Feedback type command

The xFeedback command is used to specify what parts of the configuration and status hierarchies to monitor. Feedback will only be issued on the RS-232/Telnet/SSH session for which it is specified. If connecting to the codec with multiple sessions, each session can define feedback individually.

More on this can be found in xfeedback.

- xFeedback
- xEvent

Preferences type command

The xPreferences command is used to set various preferences for the RS-232/Telnet/SSH sessions. Each session can define preferences individually. IMPORTANT! This command has various settings to define the formatting of the XACLI output. It is therefore important to define settings to match the parser used on the control system. XACLI is designed to make parsing of data from the Codec C-Series very simple.

More on this can be found in xpreferences.

- xPreferences

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About xConfiguration

The xConfiguration type commands defines the system settings and are either supplied or read by the user. The xConfigurations commands are organized in a hierarchic tree structure.

To get an overview of accessible top-level configuration elements within the xConfiguration commands, enter ? or help after the xConfiguration command:

- `xConfiguration ?`
- `xConfiguration help`

To get an overview of all supported xConfiguration commands with the corresponding value space, enter ?? after the xConfiguration command:

- `xConfiguration ??`

When issuing a xConfiguration command, the command consists of three parts:

1. The type of command: xConfiguration
2. The path: An address expression, terminated by a colon
3. The value: A value type

Example: **xConfiguration Audio Input HDMI 1 Mode: On**

The type | The path | The value

```
xConfiguration ?

- User Configurations -
 Audio                  Network              RTP                SystemUnit
 Cameras                NetworkPort          Security           Time
 Conference             NetworkServices      SerialPort         Video
 Experimental           Phonebook            SIP
 H323                   Provisioning         Standby

OK
```

```
xConfiguration ??

*h xConfiguration Audio Volume: <0..100>
Sets the volume level [0-100] on the loudspeaker output in steps of 0.5dB from -34.5dB to 15dB.
            Volume 0 = Off.  The volume level bar which is displayed on screen, when using the
            remote control, goes from 0 to 20. Range: The volume level goes from 0 to 100. Volum
            level equals Audio gain value    0  equals  0   1 equals -34.5 dB 70 equals 0.0 dB  100
            equals 15.0 dB


*h xConfiguration Audio Input Microphone [1..8] Type: <Microphone/Line>
The microphone inputs are intended for electret type microphones. The microphone inputs are
            balanced with 48 V phantom power. The microphone input can be set to line or
            microphone mode. Addresses the specific microphone. Microphone: Phantom voltage and
            pre-amplification is On.  Line: Select Line when you have a standard balanced line
            input. The phantom voltage and pre-amplification is Off.


*h xConfiguration Audio Input Microphone [1..8] Mode: <On/Off>
By default, all inputs are enabled. Just plug in an audio source and it is active. Audio inputs
            that are On will automatically be mixed. Unconnected inputs will automatically be
            muted. Addresses the specific microphone. On: Turns the microphone On. Off: Connected
            but unused inputs should be set to Off to prevent audio/noise from the inputs.
.
.
.
OK
```


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xConfiguration operations

The xConfiguration type commands defines system settings and are either supplied or read by the user.

Return result parameters

Three operations can be performed on xConfiguration:

Configuration Help

- Help text for this configuration is returned

Configuration Read

- *c is used when returning the result of a read query

Configuration Write

- No return result parameter for configuration set (write)
- Writes this value to the setting defined by the path.

xConfiguration Help

To get help on a system setting you can use a help query. Enter the path followed by ? or help.

- `xConfiguration H323 Profile 1 Gatekeeper ?`
  Returns information about the setting defined by the path.
- `xConfiguration H323 Profile 1 Gatekeeper help`
  As above.

Example with xConfiguration Help:

To get help on xConfiguration, type ? or help after the configuration path (address expression):

xConfiguration <address expression> ?

```
xConfiguration H323 Profile 1 Gatekeeper Discovery ?
*h xConfiguration H323 Profile 1 Gatekeeper Discovery: <Manual/Auto>
OK
```

xConfiguration Read

When reading a value you will use the configuration read. The level of details is defined by the path:

- `xConfiguration H323 Profile 1 Gatekeeper Discovery`
  Returns the current value of the setting defined by the path.

Example with xConfiguration Read:

To read configurations from the system just type the root command (xConfiguration) followed by the path (address expression):

xConfiguration <address expression>

```
xConfiguration H323 Profile 1 Gatekeeper Discovery
*c xConfiguration H323 Profile 1 Gatekeeper Discovery: Manual
OK
```

xConfiguration Write

When defining a system setting you will use the configuration write. The structure is described by the example to the right.

- `xConfiguration H323 Profile 1 Gatekeeper Discovery: Auto`
  Writes this value to the setting defined by the path.

Example with xConfiguration Write:

To issue a command type a root command (xConfiguration) followed by a valid path (address expression). The path must be terminated with a colon before the value is added:

xConfiguration <address expression>: <value>

```
xConfiguration H323 Profile 1 Gatekeeper Discovery: Auto
** end
```


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About xCommand

The xCommand type commands instructs the system to perform an action. xCommand type commands are supplied by the user.

To get an overview of the supported xCommand type commands, type ? or help after the xCommand:

- `xCommand ?`
- `xCommand help`

To get an overview of all supported xCommand commands with the corresponding value space, enter ?? after the xCommand:

- `xCommand ??`

When you type a command and ? or help a list of the available parameters will show. Required parameters are identified by an (r) behind the parameter name.

```
xCommand ?

- User Commands -

 Audio                  Dial                   Message                SystemUnit
 Boot                   DTMFSend               Phonebook              Video
 Call                   Experimental           Presentation
 CallLog                FarEndControl          Preset
 CamCtrlPip             HttpFeedback           Provisioning
 Camera                 Key                    Standby

OK
```

```
xCommand ??

*h xCommand Audio Microphones Mute
*h xCommand Audio Microphones Unmute
*h xCommand Audio Sound Play
    Sound(r): <Busy/CallWaiting/Dial/KeyTone/Ringing/SpecialInfo/TelephoneCall/VideoCall>
    Loop: <On/Off>
*h xCommand Audio Sound Stop
*h xCommand Audio Vumeter Start
    ConnectorType(r): <HDMI/Line/Microphone>
    ConnectorId(r): <1..8>
*h xCommand Audio Vumeter Stop
    ConnectorType(r): <HDMI/Line/Microphone>
    ConnectorId(r): <1..8>
*h xCommand Audio Setup Clear
.
.
.
OK
```


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xCommand operations

The xCommand type commands are used to instruct the system to perform a given action.

Return result parameters

The following operations can be performed on xCommand:

Command Help

- *h is used when returning the result of a help query

Command Write

- *r is used when returning the result of a write command

xCommand Help

To get help on a setting you can use a help query. Enter the path followed by **?** or `help`.

- `xCommand dial ?`
  Returns a set of return values. See the example to the right.
- `xCommand dial help`
  As above.

Example with xCommand Help

To get help on xCommand, type ? or help after the command path (address expression):
xCommand <address expression> ?

```
xCommand Dial ?
*h xCommand Dial
    Number(r): <S: 0, 255>
    Protocol: <H323/Sip>
    CallRate: <64..6000>
    CallType: <Audio/Video>
    ForceNewConference: <False/True>
    ConferenceId: <0..65534>
OK
```

xCommand Write

When issuing a command, the system will return a set of return values. The structure is described by the example to the right.

- `xCommand Dial Number: 12345`
  Issues the command and gives a response. See the example to the right.

The response will by default be on the same format as the standard XACLI Status format. The XML status format is also supported.

You can read more about XML in the xPreferences section.

Example with xCommand Write

Dial a number with only the required parameter:

```
xCommand Dial Number: 95458458

OK
*r DialResult (status=OK):
   CallId: 2
   ConferenceId: 1
*r/end
OK
```


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About xStatus commands

The xStatus type commands returns information about the system and system processes. Status type commands are read by the user.

All status information is structured in a hierarchy, making up a database constantly being updated by the system to reflect system and process changes.

To get an overview of the supported xStatus type commands, type ? or help after the xStatus:

- `xStatus ?`
- `xStatus help`

```
xStatus ?

- Status -

 Audio                    HTTPFeedback[1..3]       SystemUnit
 Call[...]                MediaChannels            Time
 Camera[1..7]             Network                  Video
 Conference               Preset[1..15]
 Diagnostics              Provisioning
 Experimental             SIP
 H323                     Standby
OK
```

Return result parameters

The following operation can be performed on xStatus commands:

xStatus Read

- *s is used when returning the result of xStatus read query

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Quering status information

The xStatus type commands returns information about the system and system processes. You can query all information or just some of it.

To address status information enter the xStatus command followed by an address expression (XPath or SimplePath).

You can set up the xStatus read command to address all information or just some of it, see the examples to the right for illustrations.

Addressing status information with xStatus

To read status from the system just type the root command (xStatus) followed by the path (address expression):
xStatus <address expression>

Example 1: Query all ongoing Call information:

```
xstatus call
*s Call 3 Status: Connected
*s Call 3 Direction: Outgoing
*s Call 3 Protocol: "h323"
*s Call 3 RemoteNumber: "firstname.lastname@company.com"
*s Call 3 CallbackNumber: "h323:firstname.lastname@company.com"
*s Call 3 DisplayName: "firstname.lastname@company.com"
*s Call 3 TransmitCallRate: 768
*s Call 3 ReceiveCallRate: 768
*s Call 3 Encryption Type: "None"
*s Call 3 PlacedOnHold: False
*s Call 3 Duration: 9
** end

OK
```

Example 2: Query the protocol for a call:

```
xstatus call protocol
*s Call 3 Protocol: "h323"

OK
```


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About xHistory

The xHistory type commands returns information about what has happened on the system. History type commands are read by the user.

All history information is structured in a hierarchy, making up a database constantly being updated by the system to reflect system and process changes.

To get an overview of the supported xHistory type commands, type ? or help after the xHistory:

- `xHistory ?`
- `xHistory help`

```
xHistory ?

- History -

   CallLogs

OK
```

Return result parameters

xHistory Log

- *h is used when returning the result of xHistory log query

Example with xHistory CallLogs

```
xhistory
*h xHistory CallLogs Call 1 CallId: 13
*h xHistory CallLogs Call 1 Protocol: "h323"
*h xHistory CallLogs Call 1 Direction: Outgoing
*h xHistory CallLogs Call 1 CallType: Video
*h xHistory CallLogs Call 1 RemoteNumber: "h323:firstname.lastname.office@company.com"
*h xHistory CallLogs Call 1 CallbackNumber: "h323:firstname.lastname.office@company.com"
*h xHistory CallLogs Call 1 DisplayName: "firstname.lastname@company.com"
*h xHistory CallLogs Call 1 CallRate: 768
*h xHistory CallLogs Call 1 DisconnectCauseValue: 1
*h xHistory CallLogs Call 1 DisconnectCause: "MC:Normal"
*h xHistory CallLogs Call 1 StartTime: "2010/04/14 11:04:14"
*h xHistory CallLogs Call 1 Duration: 184
*h xHistory CallLogs Call 1 Encryption: "None"
...
*h xHistory CallLogs Recent 6 CounterMissed: 0
*h xHistory CallLogs Recent 7 CounterMissed: 0
...
*h xHistory CallLogs Outgoing 29 Counter: 1
*h xHistory CallLogs Outgoing 30 Counter: 1
...
*h xHistory CallLogs Missed 50 Counter: 2
** end
```


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About xEvent

The xEvent type commands returns information about what events that are available for xFeedback.

To get an overview of the supported events type ? or help after the xEvent:

- `xEvent ?`
- `xEvent ??`
- `xEvent help`

Return result parameters

- *es is used when returning the result of xEvent query

```
xEvent ?

  *es Event Audio
  *es Event CallDisconnect
  *es Event CallLog
  *es Event CallSuccessful
  *es Event CallTransfer
  *es Event FeccReceive
  *es Event IncomingCallIndication
  *es Event KeyDown
  *es Event KeyRelease
  *es Event KeyRepeat
  *es Event OutgoingCallIndication
  *es Event Shutdown
  *es Event Standby
  *es Event WebSnapshotTaken
  ** end

OK
```

Example with xEvent IncomingCallIndication

```
xevent IncomingCallIndication ??
*es Event IncomingCallIndication RemoteURI
*es Event IncomingCallIndication DisplayNameValue
*es Event IncomingCallIndication CallId
** end

OK
xfeedback register event/incomingcallindication
** end

OK
*e IncomingCallIndication RemoteURI: “h323:559216” DisplayNameValue: “firstname.lastname@company.com” CallId: 11
** end
```


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About xFeedback

The xFeedback is a powerful feature on the Codec C Series. It lets you subscribe to what you want to be notified about when changes occur on the system

- This can be configuration changes like someone changes the name of the system.
- It might be events like key press from the remote control.
- Or it can be changes to the state of the system, like a call connecting or disconnecting.

The xFeedback command is used to specify what parts of the configuration and status hierarchies to monitor, and will only be issued on the RS-232/Telnet/SSH for which it is specified.

If connecting to the codec with multiple sessions, each session can define feedback individually.

CAUTION: We discourage registering all status changes as this may give too much feedback information than the control systems are able to handle.

```
xFeedback ?

xFeedback help:
 xFeedback Register XPathExpression      - Registers feedback on expression XPathExpression
 xFeedback Deregister XPathExpression    - Deregisters feedback if resistered on XPathExpression
 xFeedback List                          - Generate list of currently registered XPathExpressions
 xFeedback Help                          - Display this help text
```

Example with xFeedback

```
xFeedback register Status/Audio
xFeedback register Configuration/Video
xFeedback register Event

xFeedback list
xFeedback deregister Event
xFeedback list
```


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About xPreferences

The xPreferences command is used to set various preferences for the RS-232/Telnet/SSH sessions.

Each session can define preferences individually.

IMPORTANT! This command has various settings to define the formatting of the XACLI output. It is therefore important to define settings to match the parser used on the control system. XACLI is designed to make parsing of data from the Codec C-Series very simple.

To get an overview of the supported xPreferences commands and their value space, type ? or help after the xPreferences:

- `xPreferences ?`
- `xPreferences help`

```
xPreferences ?

xpreferences usage:
 xpreferences outputmode <terminal/xml>
 xpreferences apiversion <1/2>
OK
```

The xPreferences output modes

- Terminal: Line based XACLI output for use with line based control systems
- XML: Pure XML output for use with control systems that understand XML. NOTE! This mode is to be considered experimental in version 1 of the software. Its format WILL change in next version.

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The SystemTools commands

The systemtools command is used for administrative control of the codec and is only available from a command line interface.

Required parameters in angle brackets: <text>

Optional parameters in square brackets: [text]

To get an overview of the supported commands type "systemtools ?".

Example:

```
systemtools ?
authorizedkeys
license
network
pairing
passwd
pki
rootsettings
securitysettings

OK
```

To see the usage of the commands add a question mark after the command.

Example:

```
systemtools authorizedkeys ?
usage: authorizedkeys <add <method> <key>
[comment] | delete <id> | list | clear>

OK
```

systemtools authorizedkeys add <method> <key> [comment]

Add the ssh keys on the codec.

method(r): The encryption method used, which can be ssh-rsa or ssh-dss.

key(r): The public key as it is in the ssh public key file.

comment: Optional comment.

systemtools authorizedkeys delete <id>

Delete the given ssh key on the codec, defined by the id.

id(r): The id as as displayed in the authorized keys list.

systemtools authorizedkeys list

List the ssh keys on the codec.

systemtools authorizedkeys clear

Clear all ssh keys on the codec.

systemtools license list

Lists all the licenses for the codec.

systemtools license show <name>

Shows the content of a license file, define by the name.

name(r): The name of the license file.

systemtools network ping <hostname>

Network debug commands.

hostname(r): The IP address or URL of the host.

systemtools network traceroute <hostname>

Network debug commands.

hostname(r): The IP address or URL of the host.

systemtools pairing unpair

Remove association with Cisco TelePresence Touch controller.

systemtools passwd

Change the password for the logged in user.

systemtools pki list

Lists the codec certificate and CA list if they exist.

systemtools pki delete <cert-name>

Delete the codec certificate and CA list if they exist.

cert-name(r): The name of the certificate.

systemtools rootsettings get

Obtain the current setting for the systemtools rootsetting.

systemtools rootsettings on [password]

Command to control the root user availability.

Enable access to the system for the root user on all ports.

password: The root user password.

systemtools rootsettings serial [password]

Command to control the root user availability.

Enable access to the system for the root user on the serial port.

password: The root user password.

systemtools rootsettings off

Command to control the root user availability.

Disable access to the system for the root user on all ports.

systemtools rootsettings never

Command to control the root user availability.

NOTE! The root user is permanently turned off!

To get back the root user the system must be reset to factory defaults, ref. xCommand SystemUnit FactoryReset.

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systemtools securitysettings jitc

Set up security requirements so they meet JITC.

Set or view password and PIN polices enforced on the codec.

systemtools securitysettings default

Revert to default security settings.

systemtools securitysettings ask

Query for the separate configurations. When issuing this command you will see each policy separately.

- Press enter to keep the current value.
- Enter a number and press enter to change the given policy.
- The default value “0” indicates no restrictions.

Max failed login attempts [0]?

- Number of failed logins until a user is set inactive.

Suspend-time after max failed login attempts (minutes) [0]?

- Number of minutes the user is set inactive after maximum failed login attempts have been exceeded.

Max simultaneous sessions total [0]?

- Maximum number of users that can be logged in simultaneous to web and maximum number of users that can be logged in simultaneous to ssh/Telnet.

Max simultaneous sessions per user [0]?

- Maximum number of simultaneous sessions per user.

Number of passwords to remember [0]?

- Number of previous passwords that the new password must differ from.

Number of PINs to remember [0]?

- Number of previous PINs that the new PIN must differ from.

Maximum time between password renewals (days) [0]?

- If the user has not changed the password within the renewal time the user will be set inactive.

Minimum time between password renewals (hours) [0]?

- The user can only change password once within this limit.

Maximum time between PIN renewals (days) [0]?

- If the user has not changed the PIN within the renewal time the user will be set inactive.

Minimum time between PIN renewals (hours) [0]?

- The user can only change PIN once within this limit.

Maximum time between logins (days) [0]?

- If the user has not logged in within this limit the user will be set inactive.

Max consecutive equal digits in PINs [0]?

- Maximum consecutive equal digits in PINs.

Minimum number of digits in PINs [0]?

- Minimum number of digits in PINs.

Maximum number of digits in PINs [0]?

- Maximum number of digits in PINs.

Max consecutive identical characters in passwords [0]?

- Maximum consecutive identical characters in passwords.

Minimum number of characters in passwords [0]?

- Minimum number of characters in passwords.

Maxmum number of characters in passwords [0]?

- Maxmum number of characters in passwords.

Minimum number of lower-case letters in passwords [0]?

- Minimum number of lower-case letters in passwords.

Minimum number of upper-case letters in passwords [0]?

- Minimum number of upper-case letters in passwords.

Minimum number of numerical characters in passwords [0]?

- Minimum number of numerical characters in passwords.

Minimum number of special characters in passwords [0]?

- Minimum number of special characters in passwords.

Minimum number of character groups in passwords [0]?

- Minimum number of character groups in passwords.

Minimum number of character changed from previous password [0]?

- Minimum number of character changed from previous password.

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XML API service

TXAS is a service provided by Cisco units for transmitting and receiving (transceiving) information encoded in XML format.

The API uses HTTP(S) as the transport mechanism and connects to the normal web port (80). TXAS can be accessed by bare-bone HTTP requests where URL's uniquely identifies the request.

Bare-bone HTTP/HTTPS Access

The bare-bone HTTP mode uses a unique URL to identify the specific request. The contents of the HTTP body will be a XML document (or part of it).

Bare-bone HTTP(S) access is accomplished by passing arguments in the query string (after '?' in URL) in a GET request, or using the "application/x-www-form-urlencoded" content-type method of POSTing form data (Each argument starts with a name '=' and a value, and every parameter separated with '&' (and opt NL).)

getxml

/getxml request returns an XML document based on the location parameter passed to the request. The elements (or complete document) matching the expression will be returned.

On Incorrect XPath expression, a <Fault> element with a <XPathError> element will be returned.

```
getxml
REQUEST:
  /getxml
PARAM:
  location = XPath expression
```

formputxml

This is most useful in a POST (to extend character limit of 255 of GET urls). It posts a Configuration or Command document to set the configurations or issue a command.

Like getxml, it has the data URL form-data encoded with one single parameter. The Content-Type of the document must be of type "application/x-www-form-urlencoded" and the body must be encoded accordingly (e.g. first line will be xmldoc=<then the document>).

```
formputxml
REQUEST:
  /formputxml
PARAM:
  xmldoc   = "an XML document of Configuration, Directory or Command"
```

putxml

Putxml is like formputxml+, put uses the complete BODY as argument (i.e. the content of the xmldoc parameter). The Content-type should be "text/xml" or "application/xml" (or "text/plain"), though no check at the moment. (Except for application/x-www-form-url encoded which will cause a failure).

```
putxml
REQUEST:
  /putxml
PARAM:
  HTTP BODY as argument
```


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Chapter 3

Description of the xConfiguration commands

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Description of the xConfiguration commands

In the following pages you will find a complete list of the xConfiguration commands. The examples shows either the default value or an example of a value.

We recommend you visit our web site regularly for updated versions of the manual.
Go to: ▶ http://www.cisco.com/go/telepresence/docs

The Audio settings

xConfiguration Audio Microphones Mute Enabled

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

Requires user role: `ADMIN`

Value space: `<True/InCallOnly>`

True: Muting of audio is always available.

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

Example: `xConfiguration Audio Microphones Mute Enabled: True`

xConfiguration Audio SoundsAndAlerts KeyTones Mode

The system can produce a sound every time a key on the remote control is pressed.

Requires user role: `USER`

Value space: `<On/Off>`

On: There will be a sound indicator when pressing keys on the remote control.

Off: The remote control Key Tones is switched off.

Example: `xConfiguration Audio SoundsAndAlerts KeyTones Mode: Off`

xConfiguration Audio SoundsAndAlerts RingTone

Select the ring tone for incoming calls.

Requires user role: `USER`

Value space: `<Marbles/IceCrystals/Polaris/Alert/Discreet/Fantasy/Jazz/Nordic/Echo/Rhythmic>`

Range: Select a tone from the list of ring tones.

Example: `xConfiguration Audio SoundsAndAlerts RingTone: Jazz`

xConfiguration Audio SoundsAndAlerts RingVolume

Sets the ring tone volume for an incoming call.

Requires user role: `USER`

Value space: `<0..100>`

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

Example: `xConfiguration Audio SoundsAndAlerts RingVolume: 50`

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xConfiguration Audio Volume

Set the volume on the loudspeaker.

Requires user role: `USER`

Value space: `<0..100>`

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

Example: `xConfiguration Audio Volume: 70`

The Cameras settings

xConfiguration Cameras PowerLine Frequency

Applies to cameras supporting PowerLine frequency anti-flickering, i.e PrecisionHD 1080p cameras.

Requires user role: `ADMIN`

Value space: `<Auto/50Hz/60Hz>`

Auto: Set to Auto to enable power frequency auto detection in the camera.

50Hz: Set to 50 Hz.

60Hz: Set to 60 Hz.

Example: `xConfiguration Cameras PowerLine Frequency: Auto`

xConfiguration Cameras Camera [1..1] Backlight

The backlight functionality compensates for light shining directly at the camera (usually the sun entering the window) to avoid a too dark image from the room.

Requires user role: `ADMIN`

Value space: `<On/Off>`

On: Turn on the camera backlight.

Off: Turn off the camera backlight.

Example: `xConfiguration Cameras Camera 1 Backlight: Off`

xConfiguration Cameras Camera [1..1] Brightness Mode

Set the camera brightness mode.

Requires user role: `ADMIN`

Value space: `<Auto/Manual>`

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

Manual: Enable manual control of the camera brightness, e.g. the level of the brightness level setting will be used for the camera.

Example: `xConfiguration Cameras Camera 1 Brightness Mode: Auto`

xConfiguration Cameras Camera [1..1] Brightness Level

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

Requires user role: `ADMIN`

Value space: `<1..31>`

Range: Select a value from 1 to 31.

Example: `xConfiguration Cameras Camera 1 Brightness Level: 1`

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xConfiguration Cameras Camera [1..1] Flip

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

Requires user role: ADMIN

Value space: <Auto/On/Off>

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

On: When enabled the video on screen is flipped. This setting is used with cameras that can be mounted upside down, but cannot auto detect that the camera is mounted upside down.

Off: Display the video on screen the normal way.

Example: `xConfiguration Cameras Camera 1 Flip: Off`

xConfiguration Cameras Camera [1..1] Focus Mode

Set the camera focus mode.

Requires user role: ADMIN

Value space: <Auto/Manual>

Auto: When set to Auto the focus will be updated throughout the call. When moving the camera, the system will use auto focus for a few seconds to set the right focus of the new camera position. After a few seconds auto focus is turned off to prevent continuous focus adjustments of the camera.

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

Example: `xConfiguration Cameras Camera 1 Focus Mode: Auto`

xConfiguration Cameras Camera [1..1] Gamma Mode

Applies to cameras which supports gamma mode. The Gamma Mode setting enables for gamma corrections. Gamma describes the nonlinear relationship between image pixels and monitor brightness. The Cisco TelePresence PrecisionHD 720p camera supports gamma mode. The PrecisionHD 1080p camera does not support gamma mode.

Requires user role: ADMIN

Value space: <Auto/Manual>

Auto: Auto is the default and the recommended setting.

Manual: In severe light conditions, you may switch mode to manual and specify explicitly which gamma table to use by setting the Gamma Level.

Example: `xConfiguration Cameras Camera 1 Gamma Mode: Auto`

xConfiguration Cameras Camera [1..1] Gamma Level

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

Requires user role: ADMIN

Value space: <0..7>

Range: Select a value from 0 to 7.

Example: `xConfiguration Cameras Camera 1 Gamma Level: 0`

xConfiguration Cameras Camera [1..1] IrSensor

The IR sensor LED is located in the front of the camera and flickers when the IR sensor is activated from the remote control. Both the Codec C Series and PrecisionHD camera have IR sensors, and only one of them needs to be enabled at the time.

Requires user role: ADMIN

Value space: <On/Off>

On: Enable the IR sensor on the camera.

Off: Disable the IR sensor on the camera.

Example: `xConfiguration Cameras Camera 1 IrSensor: On`

xConfiguration Cameras Camera [1..1] Mirror

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

Requires user role: ADMIN

Value space: <Auto/On/Off>

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

On: See the selfview in mirror mode, e.g. the selfview is reversed and the experience of selfview is as seeing yourself in a mirror.

Off: See the selfview in normal mode, e.g. the experience of selfview is as seeing yourself as other people see you.

Example: `xConfiguration Cameras Camera 1 Mirror: Off`

xConfiguration Cameras Camera [1..1] Whitebalance Mode

Set the camera whitebalance mode.

Requires user role: ADMIN

Value space: <Auto/Manual>

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

Manual: Enables manual control of the camera whitebalance, e.g. the level of the whitebalance level setting will be used for the camera.

Example: `xConfiguration Cameras Camera 1 Whitebalance Mode: Auto`

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xConfiguration Cameras Camera [1..1] Whitebalance Level

Set the whitebalance level. NOTE: Requires the Camera Whitebalance Mode to be set to manual.

Requires user role: `ADMIN`

Value space: `<1..16>`

Range: Select a value from 1 to 16.

Example: `xConfiguration Cameras Camera 1 Whitebalance Level: 1`

xConfiguration Cameras Camera [1..1] DHCP

Applies to cameras which supports DHCP. The Cisco TelePresence PrecsisionHD 1080p camera supports DHCP. The camera must be connected to a LAN. When set, the command enables support for SW upgrade of daisy chained cameras. It will enable the camera's DHCP function and force start of MAC and IP address retrieval. Remember to reset the DHCP when the camera is no longer connected to a LAN.

Requires user role: `ADMIN`

Value space: `<On/Off>`

On: Enable DHCP in the camera. The camera is automatically re-booted. After re-boot the DHCP is started and the IP address will be retrieved. Run the commnand "xStatus Camera" for result.

Off: Disable DHCP in the camera. NOTE: This setting should be applied when the camera is not connected to a LAN.

Example: `xConfiguration Cameras Camera 1 DHCP: Off`

The Conference settings

xConfiguration Conference [1..1] AutoAnswer Mode

Set the AutoAnswer mode.

Requires user role: `ADMIN`

Value space: `<On/Off>`

On: Enable AutoAnswer to let the system automatically answer all incoming calls.

Off: The incoming calls must be answered manually by pressing the OK key or the green Call key on the remote control.

Example: `xConfiguration Conference 1 AutoAnswer Mode: Off`

xConfiguration Conference [1..1] AutoAnswer Mute

Determine if the microphone shall be muted when an incoming call is automatically answered. NOTE: Requires the AutoAnswer Mode to be enabled.

Requires user role: `ADMIN`

Value space: `<On/Off>`

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

Off: The incoming call will not be muted.

Example: `xConfiguration Conference 1 AutoAnswer Mute: Off`

xConfiguration Conference [1..1] AutoAnswer Delay

Define how long (in seconds) an incoming call has to wait before it is answered automatically by the system. NOTE: Requires the AutoAnswer Mode to be enabled.

Requires user role: `ADMIN`

Value space: `<0..50>`

Range: Select a value from 0 to 50 seconds.

Example: `xConfiguration Conference 1 AutoAnswer Delay: 0`

xConfiguration Conference [1..1] MicUnmuteOnDisconnect

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

Requires user role: `ADMIN`

Value space: `<On/Off>`

On: Un-mute the microphones after the call is disconnected.

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

Example: `xConfiguration Conference 1 MicUnmuteOnDisconnect: On`

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xConfiguration Conference [1..1] DoNotDisturb Mode

Determine if there should be an alert on incoming calls.

Requires user role: USER

Value space: <On/Off>

On: All incoming calls will be rejected, with no alert. The calling side will receive a busy signal when trying to call the codec. A message will display on screen, telling that Do not disturb is turned on, together with an option to turn off the Do not disturb. When turning off the Do not disturb mode you will see a list of the calls that have been rejected.

Off: The incoming calls will be alerted.

Example: `xConfiguration DoNotDisturb Mode: Off`

xConfiguration Conference [1..1] FarEndControl Mode

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

Requires user role: ADMIN

Value space: <On/Off>

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.

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

Example: `xConfiguration Conference 1 FarEndControl Mode: On`

xConfiguration Conference [1..1] FarEndControl SignalCapability

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

Requires user role: ADMIN

Value space: <On/Off>

On: Enable the far end control signal capability.

Off: Disable the far end control signal capability.

Example: `xConfiguration Conference 1 FarEndControl SignalCapability: On`

xConfiguration Conference [1..1] Encryption Mode

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

Requires user role: ADMIN

Value space: <BestEffort/On/Off>

BestEffort: The system will use encryption whenever possible.

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

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

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

Off: The system will not use encryption.

Example: `xConfiguration Conference 1 Encryption Mode: BestEffort`

xConfiguration Conference [1..1] DefaultCall Protocol

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

Requires user role: ADMIN

Value space: <H323/Sip>

H.323: Select H.323 to ensure that calls are set up as H.323 calls.

Sip: Select SIP to ensure that calls are set up as SIP calls.

Example: `xConfiguration Conference 1 DefaultCall Protocol: H323`

xConfiguration Conference [1..1] DefaultCall Rate

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

Requires user role: ADMIN

Value space: <64..6000>

Range: Select a value between 64 and 6000 kbps

Example: `xConfiguration Conference 1 DefaultCall Rate: 768`

xConfiguration Conference [1..1] MaxTransmitCallRate

Specify the maximum transmit call rate to be used when placing or receiving calls.

Requires user role: ADMIN

Value space: <64..6000>

Range: Select a value between 64 and 6000 kbps.

Example: `xConfiguration Conference 1 MaxTransmitCallRate: 6000`

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xConfiguration Conference [1..1] MaxReceiveCallRate

Specify the maximum receive call rate to be used when placing or receiving calls.

Requires user role: ADMIN

Value space: <64..6000>

Range: Select a value between 64 and 6000 kbps.

Example: xConfiguration Conference 1 MaxReceiveCallRate: 6000

xConfiguration Conference [1..1] VideoBandwidth Mode

Set the conference video bandwidth mode.

Requires user role: ADMIN

Value space: <Dynamic/Static>

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

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

Example: xConfiguration Conference 1 VideoBandwidth Mode: Dynamic

xConfiguration Conference [1..1] VideoBandwidth MainChannel Weight

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

Requires user role: ADMIN

Value space: <1..10>

Range: 1 to 10.

Example: xConfiguration Conference 1 VideoBandwidth MainChannel Weight: 5

xConfiguration Conference [1..1] VideoBandwidth PresentationChannel Weight

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

Requires user role: ADMIN

Value space: <1..10>

Range: 1 to 10.

Example: xConfiguration Conference 1 VideoBandwidth PresentationChannel Weight: 5

xConfiguration Conference [1..1] PacketLossResilience Mode

Set the packetloss resilience mode. This configuration will only take effect for calls initiated after the configuration is set.

Requires user role: ADMIN

Value space: <On/Off>

On: Enable the packetloss resilience.

Off: Disable the packetloss resilience.

Example: xConfiguration Conference 1 PacketLossResilience Mode: On

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The H323 settings

xConfiguration H323 NAT Mode

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

Requires user role: `ADMIN`

Value space: `<Auto/On/Off>`

Auto: The system will determine if the "NAT Address" or the real IP-address should be used within signalling. This is done to make it possible to place calls to endpoints on the LAN as well as endpoints on the WAN.

On: The system will signal the configured "NAT Address" in place of its own IP-address within Q.931 and H.245. The NAT Server Address will be shown in the startup-menu as: "My IP Address: 10.0.2.1".

Off: The system will signal the real IP Address.

Example: `xConfiguration H323 NAT Mode: Off`

xConfiguration H323 NAT Address

Enter the external/global IP-address to the router with NAT support. Packets sent to the router will then be routed to the system.

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

* Port 1720
* Port 5555-5574
* Port 2326-2485

Requires user role: `ADMIN`

Value space: `<S: 0, 64>`

Format: String with a maximum of 64 characters.

Example: `xConfiguration H323 NAT Address: ""`

xConfiguration H323 Profile [1..1] Authentication Mode

Set the authenticatin mode for the H.323 profile.

Requires user role: `ADMIN`

Value space: `<On/Off>`

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

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

Example: `xConfiguration H323 Profile 1 Authentication Mode: Off`

xConfiguration H323 Profile [1..1] Authentication LoginName

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

Requires user role: `ADMIN`

Value space: `<S: 0, 50>`

Format: String with a maximum of 50 characters.

Example: `xConfiguration H323 Profile 1 Authentication LoginName: ""`

xConfiguration H323 Profile [1..1] Authentication Password

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

Requires user role: `ADMIN`

Value space: `<S: 0, 50>`

Format: String with a maximum of 50 characters.

Example: `xConfiguration H323 Profile 1 Authentication Password:`

xConfiguration H323 Profile [1..1] CallSetup Mode

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

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

Requires user role: `ADMIN`

Value space: `<Direct/Gatekeeper>`

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

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

Example: `xConfiguration H323 Profile 1 CallSetup Mode: Gatekeeper`

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xConfiguration H323 Profile [1..1] Gatekeeper Discovery

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

Requires user role: ADMIN

Value space: <Manual/Auto>

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

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

Example: `xConfiguration H323 Profile 1 Gatekeeper Discovery: Manual`

xConfiguration H323 Profile [1..1] Gatekeeper Address

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

Requires user role: ADMIN

Value space: <S: 0, 255>

Format: Only the valid IP address format is accepted. An IP address that contains letters (192.a.2.0) or unvalid IP addresses (192.0.1234.0) will be rejected.

Example: `xConfiguration H323 Profile 1 Gatekeeper Address: "192.0.2.0"`

xConfiguration H323 Profile [1..1] H323Alias E164

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

Requires user role: ADMIN

Value space: <S: 0, 30>

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

Example: `xConfiguration H323 Profile 1 H323Alias E164: "90550092"`

xConfiguration H323 Profile [1..1] H323Alias ID

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

Requires user role: ADMIN

Value space: <S: 0, 49>

Format: String with a maximum of 49 characters

Example: `xConfiguration H323 Profile 1 H323Alias ID: "firstname.surname@company.com"`

xConfiguration H323 Profile [1..1] PortAllocation

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

Requires user role: ADMIN

Value space: <Dynamic/Static>

Dynamic: The system will allocate which ports to use when opening a TCP connection. The reason for doing this is to avoid using the same ports for subsequent calls, as some firewalls consider this as a sign of attack. When Dynamic is selected, the H.323 ports used are from 11000 to 20999. Once 20999 is reached they restart again at 11000. For RTP and RTCP media data, the system is using UDP ports in the range 2326 to 2487. Each media channel is using two adjacent ports, ie 2330 and 2331 for RTP and RTCP respectively. The ports are automatically selected by the system within the given range. Firewall administrators should not try to deduce which ports are used when, as the allocation schema within the mentioned range may change without any further notice.

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

Example: `xConfiguration H323 Profile 1 PortAllocation: Dynamic`

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The Network settings

xConfiguration Network [1..1] Assignment

Define whether to use DHCP or Static IPv4 assignment.

Requires user role: ADMIN

Value space: <Static/DHCP>

Static: Set the network assignment to Static and configure the static IPv4 settings (IP Address, SubnetMask and Gateway).

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

Example: `xConfiguration Network 1 Assignment: DHCP`

xConfiguration Network [1..1] DNS Domain Name

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

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

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: String with a maximum of 64 characters.

Example: `xConfiguration Network 1 DNS Domain Name: ""`

xConfiguration Network [1..1] DNS Server [1..5] Address

Define the network addresses for DNS servers. Up to 5 addresses may be specified. If the network addresses are unknown, contact your administrator or Internet Service Provider.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: String with a maximum of 64 characters.

Example: `xConfiguration Network 1 DNS Server 1 Address: ""`

xConfiguration Network [1..1] IPStack

Select which internet protocols the system will support.

Requires user role: ADMIN

Value space: <IPv4/IPv6>

IPv4: IP version 4 is supported.

IPv6: IP version 6 is supported. The IPv4 settings (IP Address, IP Subnet Mask and Gateway) will be disabled.

Example: `xConfiguration Network 1 IPStack: IPv4`

xConfiguration Network [1..1] IPv4 Address

Enter the static IPv4 network address for the system. Only applicable if the Network Assignment is set to Static.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: Only the valid IP address format is accepted. An IP address that contains letters (192.a.2.0) or unvalid IP addresses (192.0.1234.0) will be rejected.

Example: `xConfiguration Network 1 IPv4 Address: "192.0.2.0"`

xConfiguration Network [1..1] IPv4 Gateway

Define the IPv4 network gateway. Only applicable if the Network Assignment is set to Static.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: Compact string with a maximum of 64 characters.

Example: `xConfiguration Network 1 IPv4 Gateway: "192.0.2.0"`

xConfiguration Network [1..1] IPv4 SubnetMask

Define the IPv4 network subnet mask. Only applicable if the Network Assignment is set to Static.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: Compact string with a maximum of 64 characters.

Example: `xConfiguration Network 1 IPv4 SubnetMask: "255.255.255.0"`

xConfiguration Network [1..1] IPv6 Address

Enter the static IPv6 network address for the system. Only applicable if the Network IPv6 Assignment is set to Static.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: The IPv6 address of host name.

Example: `xConfiguration Network 1 IPv6 Address: "ffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff"`

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xConfiguration Network [1..1] IPv6 Gateway

Define the IPv6 network gateway address. Only applicable if the Network IPv6 Assignment is set to Static.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: The IPv6 address of host name.

Example: xConfiguration Network 1 IPv6 Gateway: "ffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff"

xConfiguration Network [1..1] IPv6 Assignment

Define whether to use Autoconf or Static IPv6 assignment.

Requires user role: ADMIN

Value space: <Static/Autoconf>

Static: Set the network assignment to Static and configure the static IPv6 settings (IP Address and Gateway).

Autoconf: Enable IPv6 stateless autoconfiguration of the IPv6 network interface. See RFC4862 for a detailed description.

Example: xConfiguration Network 1 IPv6 Assignment: Autoconf

xConfiguration Network [1..1] IPv6 DHCPOptions

Retrieves a set of DHCP options from a DHCPv6 server.

Requires user role: ADMIN

Value space: <On/Off>

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

Off: Set to Off when IPv6 Assignment is set to Static.

Example: xConfiguration Network 1 IPv6 Gateway: On

xConfiguration Network [1..1] QoS Mode

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

Requires user role: ADMIN

Value space: <Off/Diffserv>

Off: No QoS method is used.

Diffserv: When you set the QoS Mode to Diffserv you must configure the Diffserv sub menu settings (Audio, Data, Signalling and Video).

Example: xConfiguration Network 1 QoS Mode: diffserv

xConfiguration Network [1..1] QoS Diffserv Audio

The Diffserv Audio defines which priority Audio packets should have in an IP network. Enter a priority, which ranges from 0 to 63 for the packets. The higher the number, the higher the priority. These priorities might be overridden when packets are leaving the network controlled by the local network administrator. NOTE: Requires the Network QoS Mode to be set to Diffserv.

Requires user role: ADMIN

Value space: <0..63>

Audio: A recommended value is Diffserv Code Point (DSCP) AF41, which equals the value 34. If in doubt, contact your network administrator.

Range: Select a value from 0 to 63.

Example: xConfiguration Network 1 QoS Diffserv Audio: 0

xConfiguration Network [1..1] QoS Diffserv Data

The Diffserv Data defines which priority Data packets should have in an IP network. Enter a priority, which ranges from 0 to 63 for the packets. The higher the number, the higher the priority. These priorities might be overridden when packets are leaving the network controlled by the local network administrator. NOTE: Requires the Network QoS Mode to be set to Diffserv.

Requires user role: ADMIN

Value space: <0..63>

Data: A recommended value is Diffserv Code Point (DSCP) AF23, which equals the value 22. If in doubt, contact your network administrator.

Range: Select a value from 0 to 63.

Example: xConfiguration Network 1 QoS Diffserv Data: 0

xConfiguration Network [1..1] QoS Diffserv Signalling

The Diffserv Signalling defines which priority Signalling packets should have in an IP network. Enter a priority, which ranges from 0 to 63 for the packets. The higher the number, the higher the priority. These priorities might be overridden when packets are leaving the network controlled by the local network administrator. NOTE: Requires the Network QoS Mode to be set to Diffserv.

Requires user role: ADMIN

Value space: <0..63>

Signalling: A recommended value is Diffserv Code Point (DSCP) AF31, which equals the value 26. If in doubt, contact your network administrator.

Range: Select a value from 0 to 63.

Example: xConfiguration Network 1 QoS Diffserv Signalling: 0

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xConfiguration Network [1..1] QoS Diffserv Video

The Diffserv Video defines which priority Video packets should have in an IP network. Enter a priority, which ranges from 0 to 63 for the packets. The higher the number, the higher the priority. These priorities might be overridden when packets are leaving the network controlled by the local network administrator. NOTE: Requires the Network QoS Mode to be set to Diffserv.

Requires user role: ADMIN

Value space: <0..63>

Video: A recommended value is Diffserv Code Point (DSCP) AF41, which equals the value 34. If in doubt, contact your network administrator.

Range: Select a value from 0 to 63.

Example: `xConfiguration Network 1 QoS Diffserv Video: 0`

xConfiguration Network [1..1] IEEE8021X Mode

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

Requires user role: ADMIN

Value space: <On/Off>

On: The 802.1X authentication is enabled.

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

Example: `xConfiguration Network 1 IEEE8021X Mode: Off`

xConfiguration Network [1..1] IEEE8021X Identity

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

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: String with a maximum of 64 characters.

Example: `xConfiguration Network 1 IEEE8021X Identity: ""`

xConfiguration Network [1..1] IEEE8021X Password

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

Requires user role: ADMIN

Value space: <S: 0, 32>

Format: String with a maximum of 32 characters.

Example: `xConfiguration Network 1 IEEE8021X Password: "***"`

xConfiguration Network [1..1] IEEE8021X AnonymousIdentity

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

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: String with a maximum of 64 characters.

Example: `xConfiguration Network 1 IEEE8021X AnonymousIdentity: ""`

xConfiguration Network [1..1] IEEE8021X Eap Md5

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

Requires user role: ADMIN

Value space: <On/Off>

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

Off: The EAP-MD5 protocol is disabled.

Example: `xConfiguration Network 1 IEEE8021X Eap Md5: On`

xConfiguration Network [1..1] IEEE8021X Eap Peap

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

Requires user role: ADMIN

Value space: <On/Off>

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

Off: The EAP-PEAP protocol is disabled.

Example: `xConfiguration Network 1 IEEE8021X Eap Peap: On`

xConfiguration Network [1..1] IEEE8021X Eap Ttls

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

Requires user role: ADMIN

Value space: <On/Off>

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

Off: The EAP-TTLS protocol is disabled.

Example: `xConfiguration Network 1 IEEE8021X Eap Ttls: On`

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xConfiguration Network [1..1] MTU

Set the Ethernet MTU (Maximum Transmission Unit).

Requires user role: ADMIN

Value space: <576..1500>

Range: Select a value from 576 to 1500 bytes.

Example: xConfiguration Network 1 MTU: 1500

xConfiguration Network [1..1] Speed

Set the Ethernet link speed.

Requires user role: ADMIN

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

Auto: Autonegotiate link speed.

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

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

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

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

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

Example: xConfiguration Network 1 Speed: Auto

xConfiguration Network [1..1] TrafficControl Mode

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

Requires user role: ADMIN

Value space: <On/Off>

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

Off: Transmit video packets at link speed.

Example: xConfiguration Network 1 TrafficControl: On

xConfiguration Network [1..1] RemoteAccess Allow

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

Requires user role: ADMIN

Value space: <S: 0, 255>

Format: String with a maximum of 255 characters, comma separated IP adresses or IP range.

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

The NetworkServices settings

xConfiguration NetworkServices Multiway Address

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

Multiway™ can be used in the following situations:

1) When you want to add someone else in to your existing call.

2) When you are called by a 3rd party while already in a call and you want to include that person in the call.

Requirements: The Codec C20 must be running TC3.0 (or later), Codec C90/C60/C40 must be running TC4.0 (or later), EX90/EX60/MX200 must be running TC4.2 (or later), Video Communication Server (VCS) version X5 (or later) and Codian MCU version 3.1 (or later). Endpoints invited to join the Multiway™ conference must support the H.323 routeToMC facility message if in an H.323 call, or SIP REFER message if in a SIP call.

Requires user role: ADMIN

Value space: <S: 0, 255>

Format: String with a maximum of 255 characters.

Example: xConfiguration NetworkServices Multiway Address: "h323:multiway@company.com"

xConfiguration NetworkServices Multiway Protocol

Determine the protocol to be used for Multiway calls. NOTE: Requires a restart of the codec.

Requires user role: ADMIN

Value space: <Auto/H323/Sip>

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

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

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

Example: xConfiguration NetworkServices Multiway Protocol: Auto

xConfiguration NetworkServices H323 Mode

Determine whether the system should be able to place and receive H.323 calls or not. NOTE: Requires a restart of the codec.

Requires user role: ADMIN

Value space: <On/Off>

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

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

Example: xConfiguration NetworkServices H323 Mode: On

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xConfiguration NetworkServices HTTP Mode

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

Requires user role: ADMIN

Value space: <On/Off>

On: The HTTP protocol is enabled.

Off: The HTTP protocol is disabled.

Example: xConfiguration NetworkServices HTTP Mode: On

xConfiguration NetworkServices HTTPS Mode

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

Requires user role: ADMIN

Value space: <On/Off>

On: The HTTPS protocol is enabled.

Off: The HTTPS protocol is disabled.

Example: xConfiguration NetworkServices HTTPS Mode: On

xConfiguration NetworkServices HTTPS VerifyServerCertificate

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

Requires user role: ADMIN

Value space: <On/Off>

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

Off: Do not verify server certificates.

Example: xConfiguration NetworkServices HTTPS VerifyServerCertificate: Off

xConfiguration NetworkServices HTTPS VerifyClientCertificate

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

Requires user role: ADMIN

Value space: <On/Off>

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

Off: Do not verify client certificates.

Example: xConfiguration NetworkServices HTTPS VerifyClientCertificate: Off

xConfiguration NetworkServices HTTPS OCSP Mode

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

Requires user role: ADMIN

Value space: <On/Off>

On: Enable OCSP support.

Off: Disable OCSP support.

Example: xConfiguration NetworkServices HTTPS OCSP Mode: Off

xConfiguration NetworkServices HTTPS OCSP URL

Specify the URL of an OCSP server.

Requires user role: ADMIN

Value space: <S: 0, 255>

Format: String with a maximum of 255 characters.

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

xConfiguration NetworkServices NTP Mode

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

Requires user role: ADMIN

Value space: <Off/Auto/Manual>

Off: The system will not use an NTP server.

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

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

Example: xConfiguration NetworkServices NTP Mode: Manual

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xConfiguration NetworkServices NTP Address

Enter the NTP Address to define the network time protocol server address. This address will be used if NTP Mode is set to Manual, or if set to Auto and no address is supplied by a DHCP server.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: String with a maximum of 64 characters.

Example: xConfiguration NetworkServices NTP Address: "1.ntp.tandberg.com"

xConfiguration NetworkServices SIP Mode

Determine whether the system should be able to place and receive SIP calls or not. NOTE: Requires a restart of the codec.

Requires user role: ADMIN

Value space: <On/Off>

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

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

Example: xConfiguration NetworkServices SIP Mode: On

xConfiguration NetworkServices SNMP Mode

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

Requires user role: ADMIN

Value space: <Off/ReadOnly/ReadWrite>

Off: Disable the SNMP network service.

ReadOnly: Enable the SNMP network service for queries only.

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

Example: xConfiguration NetworkServices SNMP Mode: ReadWrite

xConfiguration NetworkServices SNMP Host [1..3] Address

Enter the address of up to three SNMP Managers. All traps will then be sent to the hosts listed.

The system's SNMP Agent (in the codec) responds to requests from SNMP Managers (a PC program etc.). SNMP Traps are generated by the SNMP Agent to inform the SNMP Manager about important events. Can be used to send event created messages to the SNMP agent about different events like: system reboot, system dialling, system disconnecting, MCU call, packet loss etc. Traps can be sent to multiple SNMP Trap Hosts.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: String with a maximum of 64 characters.

Example: xConfiguration NetworkServices SNMP Host 1 Address: ""

xConfiguration NetworkServices SNMP CommunityName

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

Requires user role: ADMIN

Value space: <S: 0, 50>

Format: String with a maximum of 50 characters.

Example: xConfiguration NetworkServices SNMP CommunityName: "public"

xConfiguration NetworkServices SNMP SystemContact

Enter the name of the Network Services SNMP System Contact.

Requires user role: ADMIN

Value space: <S: 0, 50>

Format: String with a maximum of 50 characters.

Example: xConfiguration NetworkServices SNMP SystemContact: ""

xConfiguration NetworkServices SNMP SystemLocation

Enter the name of the Network Services SNMP System Location.

Requires user role: ADMIN

Value space: <S: 0, 50>

Format: String with a maximum of 50 characters.

Example: xConfiguration NetworkServices SNMP SystemLocation: ""

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xConfiguration NetworkServices SSH Mode

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

Requires user role: ADMIN

Value space: <On/Off>

On: The SSH protocol is enabled.

Off: The SSH protocol is disabled.

Example: xConfiguration NetworkServices SSH Mode: On

xConfiguration NetworkServices SSH AllowPublicKey

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

Requires user role: ADMIN

Value space: <On/Off>

On: The SSH public key is allowed.

Off: The SSH public key is not allowed.

Example: xConfiguration NetworkServices SSH AllowPublicKey: On

xConfiguration NetworkServices Telnet Mode

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

Requires user role: ADMIN

Value space: <On/Off>

On: The Telnet protocol is enabled.

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

Example: xConfiguration NetworkServices Telnet Mode: Off

The Phonebook settings

xConfiguration Phonebook Server [1..1] ID

Enter a name for the external phonebook.

Requires user role: ADMIN

Value space: <S: 0, 64>

Format: String with a maximum of 64 characters.

Example: xConfiguration Phonebook Server 1 ID: ""

xConfiguration Phonebook Server [1..1] Type

Select the phonebook server type.

Requires user role: ADMIN

Value space: <VCS/TMS/Callway>

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

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

Callway: Select Callway if the phonebook is to be provided by the Callway subscription service. Contact your Callway provider for more information.

Example: xConfiguration Phonebook Server 1 Type: TMS

xConfiguration Phonebook Server [1..1] URL

Enter the address (URL) to the external phonebook server.

Requires user role: ADMIN

Value space: <S: 0, 255>

Format: String with a maximum of 255 characters.

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

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The Provisioning settings

xConfiguration Provisioning Mode

Provides the possibility of managing the codec (endpoint) by using an external manager/management system.

Requires user role: `ADMIN`

Value space: `<Off/TMS/VCS/CallWay/Auto>`

Off: The system will not try to register to any management system.

TMS: If set to TMS (Cisco TelePresence Management System) the system will try to register with a TMS server. Contact your Cisco representative for more information.

VCS: If set to VCS (Cisco TelePresence Video Communication Server) the system will try to register with a VCS. Contact your Cisco representative for more information.

Callway: If set to Callway the system will try to register with the Callway subscription provider. Contact your Callway provider for more information.

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

Example: `xConfiguration Provisioning Mode: TMS`

xConfiguration Provisioning LoginName

Enter the user id provided by the provisioning server. This is the user name part of the credentials used to authenticate towards the HTTP server when using HTTP provisioning.

Requires user role: `ADMIN`

Value space: `<S: 0, 80>`

Format: String with a maximum of 80 characters.

Example: `xConfiguration Provisioning LoginName: ""`

xConfiguration Provisioning Password

Enter the password provided by the provisioning server. This is the password part of the credentials used to authenticate towards the HTTP server when using HTTP provisioning.

Requires user role: `ADMIN`

Value space: `<S: 0, 64>`

Format: String with a maximum of 64 characters.

Example: `xConfiguration Provisioning Password: ""`

xConfiguration Provisioning HttpMethod

Select the HTTP method to be used for the provisioning.

Requires user role: `ADMIN`

Value space: `<GET/POST>`

GET: Select GET when the provisiong server supports GET.

POST: Select POST when the provisiong server supports POST.

Example: `xConfiguration Provisioning HttpMethod: POST`

xConfiguration Provisioning ExternalManager Address

Enter the IP Address to the External Manager/Management system. If an External Manager address and a path is configured, the system will post an HTTP message to this address when starting up. When receiving this HTTP posting the External Manager (typically a management system) can return configurations/commands to the unit as a result. If the DHCP Option 242 is returned in the DHCP response from the DHCP server the system will interpret this as the External Manager address to use.

Requires user role: `ADMIN`

Value space: `<S: 0, 64>`

Format: Only the valid IP address format is accepted. An IP address that contains letters (192.a.2.0) or unvalid IP addresses (192.0.1234.0) will be rejected.

Example: `xConfiguration Provisioning ExternalManager Address: ""`

xConfiguration Provisioning ExternalManager Protocol

Determine whether or not to use secure management.

Requires user role: `ADMIN`

Value space: `<HTTP/HTTPS>`

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

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

Example: `xConfiguration Provisioning ExternalManager Protocol: HTTP`

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xConfiguration Provisioning ExternalManager Path

Set the path to the External Manager/Management system. If an External Manager address and a path is configured, the system will post an HTTP message to this address when starting up. When receiving this HTTP posting the External Manager (typically a management system) can return configurations/commands to the unit as a result. If the DHCP Option 242 is returned in the DHCP response from the DHCP server the system will interpret this as the External Manager address to use.

Requires user role: `ADMIN`

Value space: `<S: 0, 255>`

Format: String with a maximum of 255 characters.

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

xConfiguration Provisioning ExternalManager Domain

Enter the SIP domain for the provisioning server.

Requires user role: `ADMIN`

Value space: `<S: 0, 64>`

Format: String with a maximum of 64 characters.

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

The RTP settings

xConfiguration RTP Ports Range Start

Specify the first port in the range of RTP ports. See also the "H323 Profile [1..1] PortAllocation" command.

Requires user role: `USER`

Value space: `<1024..65502>`

Range: Select a value from 1024 to 65502.

Example: `xConfiguration RTP Ports Range Start: 2326`

xConfiguration RTP Ports Range Stop

Specify the last RTP port in the range. See also the "H323 Profile [1..1] PortAllocation" command.

Requires user role: `USER`

Value space: `<1056..65535>`

Range: Select a value from 1056 to 65535.

Example: `xConfiguration RTP Ports Range Stop: 2486`

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The Security settings

xConfiguration Security Audit Server Address

Enter the external/global IP-address to the audit syslog server.

Requires user role: `AUDIT`

Value space: `<S: 0, 64>`

Format: String with a maximum of 64 characters.

Example: `xConfiguration Security Audit Server Address: ""`

xConfiguration Security Audit Server Port

Enter the port of the syslog server that the system shall send its audit logs to. A user with AUDIT rights is required to change this setting.

Requires user role: `AUDIT`

Value space: `<0..65535>`

Range: Select a value from 0 to 65535.

Example: `xConfiguration Security Audit Server Port: 514`

xConfiguration Security Audit OnError Action

Describes what actions will be taken if connection to the syslog server is lost. A user with AUDIT rights is required to change this setting.

Requires user role: `AUDIT`

Value space: `<Halt/Ignore>`

Halt: If the connection to the syslog server is lost for more than a few seconds, the system will reboot and try to establish connection. If connection is restored, the audit logs are respooled to the syslog server, and the system starts up again.

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

Example: `xConfiguration Security Audit OnError Action: Ignore`

xConfiguration Security Audit Logging Mode

Describes where the audit logs are recorded or transmitted. A user with AUDIT rights is required to change this setting.

Requires user role: `AUDIT`

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

Off: No audit logging is performed.

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

External: The system sends the audit logs to an external audit server.

ExternalSecure: The system sends the audit logs to an external audit server that is verified by the Audit CA list.

Example: `xConfiguration Security Audit Logging Mode: Off`

xConfiguration Security Session ShowLastLogon

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

Requires user role: `ADMIN`

Value space: `<Off/On>`

On: Set to On to enable the possibility to show information about the last session.

Off: Set to Off to disable the possibility to show information about the last session.

Example: `xConfiguration Security Session ShowLastLogon: Off`

xConfiguration Security Session InactivityTimeout

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

Requires user role: `ADMIN`

Value space: `<0..10000>`

Range: Select a value from 0 to 10000 seconds. 0 means that inactivity will not enforce automatically logout.

Example: `xConfiguration Security Session InactivityTimeout: 0`

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The SerialPort settings

xConfiguration SerialPort Mode

Set the COM 1 serial port to be enabled/disabled.

Requires user role: `ADMIN`

Value space: `<On/Off>`

On: Enable the COM 1 serial port.

Off: Disable the COM 1 serial port.

Example: `xConfiguration SerialPort Mode: On`

xConfiguration SerialPort BaudRate

Specify the baud rate (data transmission rate, bits per second) for the COM 1 port on the codec. The default value is 38400.

Connection parameters for the COM port: Data bits: 8; Parity: None; Stop bits: 1; Flow control: None.

Requires user role: `ADMIN`

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

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

Example: `xConfiguration SerialPort BaudRate: 38400`

xConfiguration SerialPort LoginRequired

Determine if login shall be required when connecting to the COM 1 port at the codec.

Requires user role: `ADMIN`

Value space: `<On/Off>`

On: Login is required when connecting to the codec through COM 1 port.

Off: The user can access the codec through COM 1 port without any login.

Example: `xConfiguration SerialPort LoginRequired: On`

The SIP settings

xConfiguration SIP Profile [1..1] URI

The SIP URI or number is used to address the system. This is the URI that is registered and used by the SIP services to route inbound calls to the system. A Uniform Resource Identifier (URI) is a compact string of characters used to identify or name a resource.

Requires user role: `ADMIN`

Value space: `<S: 0, 255>`

Format: Compact string with a maximum of 255 characters.

Example: `xConfiguration SIP Profile 1 URI: "sip:firstname.lastname@company.com"`

xConfiguration SIP Profile [1..1] DisplayName

When configured the incoming call will report the DisplayName instead of the SIP URI.

Requires user role: `ADMIN`

Value space: `<S: 0, 255>`

Format: String with a maximum of 255 characters.

Example: `xConfiguration SIP Profile 1 DisplayName: ""`

xConfiguration SIP Profile [1..1] Authentication [1..1] LoginName

This is the user name part of the credentials used to authenticate towards the SIP proxy.

Requires user role: `ADMIN`

Value space: `<S: 0, 128>`

Format: String with a maximum of 128 characters.

Example: `xConfiguration SIP Profile 1 Authentication 1 LoginName: ""`

xConfiguration SIP Profile [1..1] Authentication [1..1] Password

This is the password part of the credentials used to authenticate towards the SIP proxy.

Requires user role: `ADMIN`

Value space: `<S: 0, 128>`

Format: String with a maximum of 128 characters.

Example: `xConfiguration SIP Profile 1 Authentication 1 Password:`

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xConfiguration SIP Profile [1..1] DefaultTransport

Select the transport protocol to be used over the LAN.

Requires user role: ADMIN

Value space: <UDP/TCP/Tls/Auto>

UDP: The system will always use UDP as the default transport method.

TCP: The system will always use TCP as the default transport method.

Tls: The system will always use TLS as the default transport method. For TLS connections a SIP CA-list can be uploaded using the web interface. If no such CA-list is available on the system then anonymous Diffie Hellman will be used.

Auto: The system will try to connect using transport protocols in the following order: TLS, TCP, UDP.

Example: `xConfiguration SIP Profile 1 DefaultTransport: Auto`

xConfiguration SIP Profile [1..1] TlsVerify

For TLS connections a SIP CA-list can be uploaded using the web interface.

Requires user role: ADMIN

Value space: <On/Off>

On: Set to On to verify TLS connections. Only TLS connections to servers, whom x.509 certificate is validated against the CA-list, will be allowed.

Off: Set to Off to allow TLS connections without verifying them. The TLS connections are allowed to be set up without verifying the x.509 certificate received from the server against the local CA-list. This should typically be selected if no SIP CA-list has been uploaded.

Example: `xConfiguration SIP Profile 1 TlsVerify: Off`

xConfiguration SIP Profile [1..1] Outbound

The client initiated connections mechanism for firewall traversal, connection reuse and redundancy. The current version supports http://tools.ietf.org/html/draft-ietf-sip-outbound-20.

Requires user role: ADMIN

Value space: <On/Off>

On: Set up multiple outbound connections to servers in the Proxy Address list.

Off: Connect to the single proxy configured first in Proxy Address list.

Example: `xConfiguration SIP Profile 1 Outbound: Off`

xConfiguration SIP Profile [1..1] Proxy [1..4] Address

The Proxy Address is the manually configured address for the outbound proxy. It is possible to use a fully qualified domain name, or an IP address. The default port is 5060 for TCP and UDP but another one can be provided. If Outbound is enabled, multiple proxies can be addressed.

Requires user role: ADMIN

Value space: <S: 0, 255>

Format: Compact string with a maximum of 255 characters. An IP address that contains letters (192.a.2.0) or unvalid IP addresses (192.0.1234.0) will be rejected.

Example: `xConfiguration SIP Profile 1 Proxy 1 Address: ""`

xConfiguration SIP Profile [1..1] Proxy [1..4] Discovery

Select if the SIP Proxy address is to be obtained manually or by using Dynamic Host Configuration Protocol (DHCP).

Requires user role: ADMIN

Value space: <Auto/Manual>

Auto: When Auto is selected, the SIP Proxy address is obtained using Dynamic Host Configuration Protocol (DHCP).

Manual: When Manual is selected, the manually configured SIP Proxy address will be used.

Example: `xConfiguration SIP Profile 1 Proxy 1 Discovery: Manual`

xConfiguration SIP Profile [1..1] Type

Enables SIP extensions and special behaviour for a vendor or provider.

Requires user role: ADMIN

Value space: <Standard/Alcatel/Avaya/Cisco/Microsoft/Nortel>

Standard: To be used when registering to standard SIP Proxy (tested with Cisco TelePresence VCS and Broadsoft)

Alcatel: To be used when registering to Alcatel-Lucent OmniPCX Enterprise. NOTE: This mode is not fully supported.

Avaya: To be used when registering to Avaya Communication Manager. NOTE: This mode is not fully supported.

Cisco: To be used when registering to Cisco Unified Communication Manager.

Microsoft: To be used when registering to Microsoft LCS or OCS. NOTE: This mode is not fully supported.

Nortel: To be used when registering to Nortel MCS 5100 or MCS 5200 PBX. NOTE: This mode is not fully supported.

Example: `xConfiguration SIP Profile 1 Type: Standard`

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The Standby settings

xConfiguration Standby Control

Determine whether the system should go into standby mode or not.

Requires user role: `ADMIN`

Value space: `<On/Off>`

On: Enter standby mode when the Standby Delay has timed out. NOTE: Requires the Standby Delay to be set to an appropriate value.

Off: The system will not enter standby mode.

Example: `xConfiguration Standby Control: On`

xConfiguration Standby Delay

Define how long (in minutes) the system shall be in idle mode before it goes into standby mode. NOTE: Requires the Standby Control to be enabled.

Requires user role: `ADMIN`

Value space: `<1..480>`

Range: Select a value from 1 to 480 minutes.

Example: `xConfiguration Standby Delay: 10`

xConfiguration Standby BootAction

Define the camera position after a restart of the codec.

Requires user role: `ADMIN`

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

None: No action.

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

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

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

Example: `xConfiguration Standby BootAction: DefaultCameraPosition`

xConfiguration Standby StandbyAction

Define the camera position when going into standby mode.

Requires user role: `ADMIN`

Value space: `<None/PrivacyPosition>`

None: No action.

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

Example: `xConfiguration Standby StandbyAction: PrivacyPosition`

xConfiguration Standby WakeupAction

Define the camera position when leaving standby mode.

Requires user role: `ADMIN`

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

None: No action.

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

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

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

Example: `xConfiguration Standby WakeupAction: RestoreCameraPosition`

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The SystemUnit settings

xConfiguration SystemUnit Name

Enter a System Name to define a name of the system unit. If the H.323 Alias ID is configured on the system then this ID will be used instead of the system name. The system name will be displayed:

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

2) Towards a DHCP server.

Requires user role: `ADMIN`

Value space: `<S: 0, 50>`

Format: String with a maximum of 50 characters.

Example: `xConfiguration SystemUnit Name: "Meeting Room"`

xConfiguration SystemUnit MenuLanguage

Select the language to be used in the menus on screen.

Requires user role: `USER`

Value space: `<English/ChineseSimplified/ChineseTraditional/Czech/Danish/Dutch/Finnish/French/German/Hungarian/Italian/Japanese/Korean/Norwegian/Polish/PortugueseBrazilian/Russian/Spanish/SpanishLatin/Swedish/Turkish>`

Example: `xConfiguration SystemUnit MenuLanguage: English`

xConfiguration SystemUnit ContactInfo Type

Describes which parameter to put in the status field in the upper left corner on the screen display. The information can also be read with the command xStatus SystemUnit ContactInfo.

Requires user role: `ADMIN`

Value space: `<Auto/None/IPv4/IPv6/H323Id/E164Alias/SipUri/SystemName>`

Auto: Shows the address which another system can dial to reach this system, depending on the default call protocol and system registration.

None: Do not show any contact information.

IPv4: Shows the IPv4 address as the contact information.

IPv6: Shows the IPv6 address as the contact information.

H323Id: Shows the H323 ID as the contact information.

E164Alias: Shows the H323 E164 Alias as the contact information.

SipUri: Shows the SIP URI as the contact information.

SystemName: Shows the system name as the contact information.

Example: `xConfiguration SystemUnit ContactInfo Type: Auto`

xConfiguration SystemUnit Type

Select whether the video system is for personal use or to be used in a multiuser environment. It is highly recommended not to use the default setting.

Requires user role: `ADMIN`

Value space: `<Personal/Shared>`

Personal: Set to Personal when the system is for personal use.

Shared: Set to Shared when the system is used in a multiuser environment.

Example: `xConfiguration SystemUnit Type: Shared`

xConfiguration SystemUnit CallLogging Mode

Set the call logging mode for calls that are received or placed by the system. The call logs may then be viewed via the web interface or using the xHistory command.

Requires user role: `ADMIN`

Value space: `<On/Off>`

On: Enable logging.

Off: Disable logging.

Example: `xConfiguration SystemUnit CallLogging Mode: On`

xConfiguration SystemUnit IrSensor

Both the Codec C Series and PrecisionHD camera have IR sensors, and only one of them needs to be enabled at the time. The IR sensor LED is located on the front of the codec and the camera and flickers when an IR signal is received from the remote control.

Requires user role: `ADMIN`

Value space: `<On/Off/Auto>`

On: Enable the IR sensor on the codec.

Off: Disable the IR sensor on the codec.

Auto: The system will automatically disable the IR sensor on the codec if the IR sensor at camera is enabled. Otherwise, the IR sensor on the codec will be enabled.

Example: `xConfiguration SystemUnit IrSensor: Auto`

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The Time settings

xConfiguration Time Zone

Set the time zone where the system is located, using Windows time zone description format.

Requires user role: USER

Value space: <GMT-12:00 (International Date Line West)/GMT-11:00 (Midway Island, Samoa)/GMT-10:00 (Hawaii)/GMT-09:00 (Alaska)/GMT-08:00 (Pacific Time (US & Canada); Tijuana)/GMT-07:00 (Arizona)/GMT-07:00 (Mountain Time (US & Canada))/GMT-07:00 (Chihuahua, La Paz, Mazatlan)/GMT-06:00 (Central America)/GMT-06:00 (Saskatchewan)/GMT-06:00 (Guadalajara, Mexico City, Monterrey)/GMT-06:00 (Central Time (US & Canada))/GMT-05:00 (Indiana (East))/GMT-05:00 (Bogota, Lima, Quito)/GMT-05:00 (Eastern Time (US & Canada))/GMT-04:30 (Caracas)/GMT-04:00 (La Paz)/GMT-04:00 (Santiago)/GMT-04:00 (Atlantic Time (Canada))/GMT-03:30 (Newfoundland)/GMT-03:00 (Buenos Aires, Georgetown)/GMT-03:00 (Greenland)/GMT-03:00 (Brasilia)/GMT-02:00 (Mid-Atlantic)/GMT-01:00 (Cape Verde Is.)/GMT-01:00 (Azores)/GMT (Casablanca, Monrovia)/GMT (Coordinated Universal Time)/GMT (Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London)/GMT+01:00 (West Central Africa)/GMT+01:00 (Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna)/GMT+01:00 (Brussels, Copenhagen, Madrid, Paris)/GMT+01:00 (Sarajevo, Skopje, Warsaw, Zagreb)/GMT+01:00 (Belgrade, Bratislava, Budapest, Ljubljana, Prague)/GMT+02:00 (Harare, Pretoria)/GMT+02:00 (Jerusalem)/GMT+02:00 (Athens, Istanbul, Minsk)/GMT+02:00 (Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius)/GMT+02:00 (Cairo)/GMT+02:00 (Bucharest)/GMT+03:00 (Nairobi)/GMT+03:00 (Kuwait, Riyadh)/GMT+03:00 (Moscow, St. Petersburg, Volgograd)/GMT+03:00 (Baghdad)/GMT+03:30 (Tehran)/GMT+04:00 (Abu Dhabi, Muscat)/GMT+04:00 (Baku, Tbilisi, Yerevan)/GMT+04:30 (Kabul)/GMT+05:00 (Islamabad, Karachi, Tashkent)/GMT+05:00 (Ekaterinburg)/GMT+05:30 (Chennai, Kolkata, Mumbai, New Delhi)/GMT+05:45 (Kathmandu)/GMT+06:00 (Sri Jayawardenepura)/GMT+06:00 (Astana, Dhaka)/GMT+06:00 (Almaty, Novosibirsk)/GMT+06:30 (Rangoon)/GMT+07:00 (Bangkok, Hanoi, Jakarta)/GMT+07:00 (Krasnoyarsk)/GMT+08:00 (Perth)/GMT+08:00 (Taipei)/GMT+08:00 (Kuala Lumpur, Singapore)/GMT+08:00 (Beijing, Chongqing, Hong Kong, Urumqi)/GMT+08:00 (Irkutsk, Ulaan Bataar)/GMT+09:00 (Osaka, Sapporo, Tokyo)/GMT+09:00 (Seoul)/GMT+09:00 (Yakutsk)/GMT+09:30 (Darwin)/GMT+09:30 (Adelaide)/GMT+10:00 (Guam, Port Moresby)/GMT+10:00 (Brisbane)/GMT+10:00 (Vladivostok)/GMT+10:00 (Hobart)/GMT+10:00 (Canberra, Melbourne, Sydney)/GMT+11:00 (Magadan, Solomon Is., New Caledonia)/GMT+12:00 (Fiji, Kamchatka, Marshall Is.)/GMT+12:00 (Auckland, Wellington)/GMT+13:00 (Nuku alofa)>

Range: Select a time zone from the list time zones. If using a command line interface; watch up for typos.

Example: xConfiguration Time Zone: "GMT (Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London)"

xConfiguration Time TimeFormat

Set the time format.

Requires user role: USER

Value space: <24H/12H>

24H: Set the time format to 24 hours.

12H: Set the time format to 12 hours (AM/PM).

Example: xConfiguration Time TimeFormat: 24H

xConfiguration Time DateFormat

Set the date format.

Requires user role: USER

Value space: <DD _ MM _ YY/MM _ DD _ YY/YY _ MM _ DD>

DD_MM_YY: The date January 30th 2010 will be displayed: 30.01.10

MM_DD_YY: The date January 30th 2010 will be displayed: 01.30.10

YY_MM_DD: The date January 30th 2010 will be displayed: 10.01.30

Example: xConfiguration Time DateFormat: DD _ MM _ YY

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The Video settings

xConfiguration Video Input Source [1..2] Name

Enter a name for the video input source.

Requires user role: ADMIN

Value space: <S: 0, 50>

Format: String with a maximum of 50 characters.

Example: xConfiguration Video Input Source 1 Name: ""

xConfiguration Video Input Source [1] Connector

Select which video input connector to be active on video input source 1.

Requires user role: ADMIN

Value space: <HDMI>

HDMI: Select HDMI when you want to use the HDMI as input source 1.

Example: xConfiguration Video Input Source 1 Connector: HDMI

xConfiguration Video Input Source [2] Connector

Select which video input connector to be active on video input source 2.

Requires user role: ADMIN

Value space: <DVI>

DVI: Select DVI-I when you want to use the DVI-I 2 as input source 2.

Example: xConfiguration Video Input Source 2 Connector: DVI

xConfiguration Video Input Source [1..2] Type

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

Requires user role: ADMIN

Value space: <other/camera/PC/DVD/document_camera>

Other: Select Other when some other type of equipment is connected to the selected video input.

Camera: Select Camera when you have a camera connected to the selected video input.

PC: Select PC when you have a PC connected to the selected video input.

DVD: Select DVD when you have a DVD player connected to the selected video input.

Document_Camera: Select Document_Camera when you have a document camera connected to the selected video input.

Example: xConfiguration Video Input Source 1 Type: PC

xConfiguration Video Input Source [1..2] CameraControl Mode

Set the camera control mode for the camera associated with the video source.

Requires user role: ADMIN

Value space: <On/Off>

On: Enable camera control.

Off: Disable camera control.

Example: xConfiguration Video Input Source 1 CameraControl Mode: On

xConfiguration Video Input Source [1..2] CameraControl CameraId

Select the ID of the camera in the Visca chain that is connected to this camera source. The CameraId setting represents the camera's position in the Visca chain.

Requires user role: ADMIN

Value space: <1>

Range: Set the ID of the camera.

Example: xConfiguration Video Input Source 1 CameraControl CameraId: 1

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xConfiguration Video Input Source [1..2] OptimalDefinition Profile

Adjust how rapidly the system will increase the transmitted resolution when increasing the bandwidth. NOTE: Requires that the Video Input Source Quality is set to Motion.

Normal: Use this setting for normal to poorly lit environment. If the source is a camera with 1920x1080p60, the system will transmit 1920x720p60 at about 2.2Mb/sec and above with this setting set to normal.

Medium: Requires better than normal and consistent lighting and good quality video inputs. If the source is a camera with 1920x1080p60, the system will transmit 1920x720p60 at about 1.4Mb/sec and above with this setting set to medium.

High: Requires good lighting conditions for a good overall experience and good quality video inputs. If the source is a camera with 1920x1080p60, the system will transmit 1920x720p60 at about 1.1Mb/sec and above with this setting set to high.

Requires user role: `ADMIN`

Value space: `<Normal/Medium/High>`

Ref: Table 1 and Table 2.

Example: `xConfiguration Video Input Source 1 OptimalDefinition Profile: Normal`

Table 1: Optimal definition, for systems supporting 1080p

	w288p30	*w448p30*	*w576p30*	*720p30*	*1080p30*
Normal	256 kbit/s	512 kbit/s	768 kbit/s	1152 kbit/s	2560 kbit/s
Medium	128 kbit/s	384 kbit/s	512 kbit/s	1152 kbit/s	1920 kbit/s
High	128 kbit/s	256 kbit/s	512 kbit/s	768 kbit/s	1472 kbit/s

Table 2: Optimal definition, for systems supporting 720p60

	w144p60	*w288p60*	*w448p60*	*w576p60*	*720p60*
Normal	128 kbit/s	512 kbit/s	1152 kbit/s	1472 kbit/s	2240 kbit/s
Medium	128 kbit/s	384 kbit/s	768 kbit/s	1152 kbit/s	1920 kbit/s
High	128 kbit/s	256 kbit/s	512 kbit/s	768 kbit/s	1152 kbit/s

xConfiguration Video Input Source [1..2] OptimalDefinition Threshold60fps

For each video input, this setting tells the system the lowest resolution where it should transmit 60fps. So for all resolutions lower than this, the maximum transmitted framerate would be 30fps, while above this resolution 60fps would also be possible, if the available bandwidth is adequate.

Requires user role: `ADMIN`

Value space: `<512 _ 288/768 _ 448/1024 _ 576/1280 _ 720/Never>`

512_288: Set the threshold to 512x288.

768_448: Set the threshold to 768x448.

1024_576: Set the threshold to 1024x576.

1280_720: Set the threshold to 1280x720.

Never: Do not set a threshold for transmitting 60fps.

Example: `xConfiguration Video Input Source 1 OptimalDefinition Threshold60fps: 1280 _ 720`

xConfiguration Video Input Source [1..2] Quality

When encoding and transmitting video there will be a tradeoff between high resolution and high framerate. For some video sources it is more important to transmit high framerate than high resolution and vice versa. The Quality setting specifies whether to give priority to high frame rate or to high resolution for a given source.

Requires user role: `ADMIN`

Value space: `<Motion/Sharpness>`

Motion: Gives the highest possible framerate. Used when there is a need for higher frame rates, typically when a large number of participants are present or when there is a lot of motion in the picture.

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

Example: `xConfiguration Video Input Source 1 Quality: Motion`

xConfiguration Video DefaultPresentationSource

Define which video input source shall be used as the default presentation source (when you press the Presentation key on the remote control). The input source is configured to a video input connector.

Requires user role: `USER`

Value space: `<1..2>`

Range: Select the video source to be used as the presentation source.

Example: `xConfiguration Video DefaultPresentationSource: 2`

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xConfiguration Video Input DVI [2] Type

The official DVI standard supports both digital and analog signals. In most cases the default AutoDetect setting can detect whether the signal is analog RGB or digital. However, in some rare cases when DVI-I cables are used (these cables can carry both the analog and digital signals) the auto detection fails. This setting makes it possible to override the AutoDetect and select the correct DVI video input.

Requires user role: ADMIN

Value space: <AutoDetect/Digital/AnalogRGB>

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.

Example: `xConfiguration Video Input DVI 2 Type: AutoDetect`

xConfiguration Video Layout Scaling

Define how the system shall adjust the aspect ratio for images or frames when there is a difference between the image and the frame it is to be placed in.

Requires user role: ADMIN

Value space: <On/Off>

On: Let the system automatically adjust aspect ratio.

Off: No adjustment of the aspect ratio.

Example: `xConfiguration Video Layout Scaling: On`

xConfiguration Video Layout ScaleToFrame

Define what to do if the aspect ratio of a video input source doesn't match the aspect ratio of the corresponding image frame in a composition. For example if you have a 4:3 input source (like XGA) to be displayed on a 16:9 output (like HD720).

Requires user role: ADMIN

Value space: <Manual/MaintainAspectRatio/StretchToFit>

Manual: If the difference in aspect ratio between the video input source and the target image frame is less than the ScaleToFrameThreshold configuration (in percent), the image is stretched to fit. If not, the system will maintain the original aspect ratio.

MaintainAspectRatio: Will maintain the aspect ratio of the input source, and fill in black in the rest of the frame (letter boxing or pillar boxing).

StretchToFit: Will stretch (horizontally or vertically) the input source to fit into the image frame. NOTE: The general limitation is that you cannot upscale in one direction and at the same time downscale in the other direction. In such situations the codec will apply letterboxing.

Example: `xConfiguration Video Layout ScaleToFrame: MaintainAspectRatio`

xConfiguration Video Layout ScaleToFrameThreshold

Only applicable if the ScaleToFrame configuration is set to manual. If the difference in aspect ratio between the video input source and the target image frame is less than the ScaleToFrameThreshold configuration (in percent), the image is stretched to fit. If not, the system will maintain the original aspect ratio.

Requires user role: ADMIN

Value space: <0..100>

Range: Select a value from 0 to 100 percent.

Example: `xConfiguration Video Layout ScaleToFrameThreshold: 5`

xConfiguration Video SelfviewPosition

Select where the small selfview PiP (Picture-in-Picture) will appear on screen.

Requires user role: ADMIN

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

UpperLeft: The selfview PiP will appear in the upper left corner of the screen.

UpperRight: The selfview PiP will appear in the upper right corner of the screen.

LowerLeft: The selfview PiP will appear in the lower left corner of the screen.

LowerRight: The selfview PiP will appear in the lower right corner of the screen.

CenterRight: The selfview PiP will appear in to the right side of the screen, in center.

Example: `xConfiguration Video SelfviewPosition: LowerRight`

xConfiguration Video Layout LocalLayoutFamily

Select which video layout family to be used locally.

Requires user role: ADMIN

Value space: <Auto/FullScreen/Equal/PresentationSmallSpeaker/PresentationLargeSpeaker>

Auto: The default layout family, as given by the layout database, will be used as the local layout. For more information about the layout database, see the command: xCommand Video Layout LoadDb.

FullScreen: The FullScreen layout family will be used as the local layout.

Equal: The Equal layout family will be used as the local layout.

PresentationSmallSpeaker: The PresentationSmallSpeaker layout family will be used as the local layout.

PresentationLargeSpeaker: The PresentationLargeSpeaker layout family will be used as the local layout.

Example: `xConfiguration Video Layout LocalLayoutFamily: Auto`

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xConfiguration Video Layout RemoteLayoutFamily

Select which video layout family to be used for the remote participants.

Requires user role: ADMIN

Value space: <Auto/FullScreen/Equal/PresentationSmallSpeaker/PresentationLargeSpeaker>

Auto: The default layout family, as given by the local layout database, will be used as the remote layout. For more information about the layout database, see the command: xCommand Video Layout LoadDb.

FullScreen: The FullScreen layout family will be used as the remote layout.

Equal: The Equal layout family will be used as the remote layout.

PresentationSmallSpeaker: The PresentationSmallSpeaker layout family will be used as the remote layout.

PresentationLargeSpeaker: The PresentationLargeSpeaker layout family will be used as the remote layout.

Example: `xConfiguration Video Layout RemoteLayoutFamily: Auto`

xConfiguration Video MainVideoSource

Define which video input source shall be used as the main video source. The video input source is configured with the "Video Input Source [1..2] Connector" setting.

Requires user role: USER

Value space: <1..2>

Range: Select the source to be used as the main video source.

Example: `xConfiguration Video MainVideoSource: 1`

xConfiguration Video Monitors

Set the monitor layout mode.

Requires user role: ADMIN

Value space: <Single/Dual/DualPresentationOnly>

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.

Example: `xConfiguration Video Monitors: Single`

xConfiguration Video OSD Mode

The Video OSD (On Screen Display) Mode lets you define if information and icons should be displayed on screen.

Requires user role: ADMIN

Value space: <On/Off/Disabled>

On: Display the on screen menus, icons and indicators.

Off: Hide the on screen menus, icons and indicators.

Disabled: When set to disabled, the C20 can use the additional resources usually used by the GUI to do 1080p30 at the same time as sharing a presentation. The C20 must then be controlled by a Cisco TelePresence Touch or and external control panel as the GUI will be disabled.

Example: `xConfiguration Video OSD Mode: On`

xConfiguration Video OSD AutoSelectPresentationSource

Determine if the presentation source should be automatically selected.

Requires user role: ADMIN

Value space: <On/Off>

On: Enable automatic selection of the presentation source.

Off: Disable automatic selection of the presentation source.

Example: `xConfiguration Video OSD AutoSelectPresentationSource: Off`

xConfiguration Video OSD TodaysBookings

This setting can be used to display the systems bookings for today on the main OSD menu. This requires that the system is bookable by an external booking system, like Cisco TelePresence Management Suite (TMS).

Requires user role: ADMIN

Value space: <On/Off>

On: Displays information about this systems bookings on screen.

Off: Do not display todays bookings.

Example: `xConfiguration Video OSD TodaysBookings: Off`

xConfiguration Video OSD MyContactsExpanded

Set how the local contacts will be displayed in the phone book dialog in the OSD (On Screen Display).

Requires user role: ADMIN

Value space: <On/Off>

On: The local contacts in the phone book will be shown in the top level of the phonebook dialog.

Off: The local contacts will be placed in a separate folder called MyContacts in the phonebook dialog.

Example: `xConfiguration Video OSD MyContactsExpanded: Off`

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xConfiguration Video OSD Output

The Video OSD (On Screen Display) Output lets you define which monitor should display the on screen menus, information and icons. By default the OSD is sent to the monitor connected to the Video OSD Output 1. If you cannot see the OSD on screen, then you must re-configure the OSD Output. You can do this by entering a key sequence on the remote control, from the web interface, or by a command line interface.

Using the remote control: Press the Disconnect key followed by: * # * # 0 x # (where x is output 1 to 2).

Using the web interface: Open a web browser and enter the IP address of the codec. Open the Advanced Configuration menu and navigate to Video OSD Output and select the video output.

Using a command line interface: Open a command line interface and connect to the codec (if in doubt of how to do this, see the API Guide for the codec). Enter the command: xConfiguration Video OSD Output [1..2] (select the OSD Output)

Requires user role: `ADMIN`

Value space: `<1..2>`

Range: Select 1 for HDMI output, or select 2 for DVI-I output.

Example: `xConfiguration Video OSD Output: 1`

xConfiguration Video OSD InputMethod InputLanguage

The codec can be enabled for Cyrillic input characters in the menus on screen. NOTE: Requires that xConfiguration Video OSD inputMethod Cyrillic is set to On.

Requires user role: `ADMIN`

Value space: `<Latin/Cyrillic>`

Latin: Latin characters can be entered when using the remote control (default).

Cyrillic: Cyrillic characters can be entered using the remote control. NOTE: Requires a Cisco TelePresence Remote Control with Cyrillic fonts.

Example: `xConfiguration Video OSD InputMethod InputLanguage: Latin`

xConfiguration Video OSD InputMethod Cyrillic

Set the Cyrillic mode for the menu input language in the menus on screen.

Requires user role: `ADMIN`

Value space: `<On/Off>`

On: Cyrillic mode is available as a menu input language in the menus on screen. This will enable the setting xConfiguration Video OSD InputMethod InputLanguage.

Off: Cyrillic mode is NOT available as a menu input language in the menus on screen.

Example: `xConfiguration Video OSD InputMethod Cyrillic: Off`

xConfiguration Video OSD LoginRequired

Determine if the system should require the user to login before accessing the On Screen Display (OSD). If enabled, the user must enter his username and his PIN. After the user has logged in he can only execute to the configurations changes and commands allowed by his Role.

Requires user role: `ADMIN`

Value space: `<On/Off>`

On: The user must log in to access the On Screen Display (OSD).

Off: No login to the OSD is required.

Example: `xConfiguration Video OSD LoginRequired: Off`

xConfiguration Video AllowWebSnapshots

Set if the system shall be allowed to generate a web snapshot of the video input main source. To generate and view the snapshot you must open a web browser, enter the IP address of the codec, login to the Web interface, select Snapshot from the left menu, and press the button "Get snapshot".

NOTE: This is a local setting which is available only from the On Screen Display (OSD) and when connected directly to the serial port (COM 1 port) on the codec.

Requires user role: `ADMIN`

Value space: `<On/Off>`

On: If set to on, a web snapshot can be generated and displayed on the web page under "Snapshot".

Off: The generation of web snapshots is not allowed.

Example: `xConfiguration Video AllowWebSnapshots: Off`

xConfiguration Video Output HDMI [1..2] CEC Mode

The HDMI outputs support Consumer Electronics Control (CEC). When set to on (default is off), and the monitor connected to the HDMI output is CEC compatible and CEC is configured, the system will use CEC to set the monitor in standby when the system enters standby. Likewise the system will wake up the monitor when the system wakes up from standby. Please note that the different manufacturers uses different marketing names for CEC: Anynet+ (Samsung); Aquos Link (Sharp); BRAVIA Sync (Sony); HDMI-CEC (Hitachi); Kuro Link (Pioneer); CE-Link and Regza Link (Toshiba); RIHD (Onkyo); SimpLink (LG); HDAVI Control, EZ-Sync, VIERA Link (Panasonic); EasyLink (Philips); and NetCommand for HDMI (Mitsubishi).

Requires user role: `ADMIN`

Value space: `<On/Off>`

On: Enable CEC control.

Off: Disable CEC control.

Example: `xConfiguration Video Output HDMI 1 CEC Mode: Off`

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xConfiguration Video Output HDMI [1..2] MonitorRole

The HDMI monitor role describes what video stream will be shown on the monitor connected to the video output HDMI connector. Applicable only if the "Video > Monitors" configuration is set to dual.

Requires user role: ADMIN

Value space: <First/Second/PresentationOnly>

First: Show main video stream.

Second: Show presentation video stream if active, or other participants.

PresentationOnly: Show presentation video stream if active, and nothing else.

Example: `xConfiguration Video Output HDMI 1 MonitorRole: First`

xConfiguration Video Output HDMI [1..2] OverscanLevel

Some TVs or other monitors may not display the whole image sent out on the systems video output, but cuts the outer parts of the image. In this case this setting can be used to let the system not use the outer parts of video resolution. Both the video and the OSD menu will be scaled in this case.

Requires user role: ADMIN

Value space: <Medium/High/None>

Medium: The system will not use the outer 3% of the output resolution.

High: The system will not use the outer 6% of the output resolution

None: The system will use all of the output resolution.

Example: `xConfiguration Video Output HDMI 1 OverscanLevel: None`

xConfiguration Video Output HDMI [1..2] Resolution

Select the preferred resolution for the monitor connected to the video output HDMI connector. This will force the resolution on the monitor.

Requires user role: ADMIN

Value space: <Auto/640_480_60/800_600_60/1024_768_60/1280_1024_60/1280_720_50/1280_720_60/1920_1080_50/1920_1080_60/1280_768_60/1360_768_60/1366_768_60/1600_1200_60/1920_1200_60>

Auto: The system will automatically try to set the optimal resolution based on negotiation with the connected monitor.

Range: 640x480@60p, 800x600@60p, 1024x768@60p, 1280x1024@60p, 1280x720@50p, 1280x720@60p, 1920x1080@50p, 1920x1080@60p, 1280x768@60p, 1360x768@60p, 1366x768@60p, 1600x1200@60p, 1920x1200@60p

Example: `xConfiguration Video Output HDMI 1 Resolution: 1920_1080_60`

xConfiguration Video Selfview

Determine if the main video source (selfview) shall be displayed on screen.

Requires user role: USER

Value space: <On/Off>

On: Display selfview on screen.

Off: Do not display selfview on screen.

Example: `xConfiguration Video Selfview: On`

xConfiguration Video WallPaper

Determine if a background picture should be displayed on screen when idle.

Requires user role: USER

Value space: <None/Growing/Summersky/Custom>

None: No wallpaper will be displayed on screen.

Summersky, Growing: Select one of the predefined wallpapers to be displayed on screen.

Custom: The custom wallpaper must be uploaded to the codec from the web interface before selecting Custom. The maximum supported resolution is 1920x1280.

1) On the video system: Find the IP address of the codec. Open the menu on screen and go to Home > Settings > System information to find the IP Address.

2) On your computer: Open a web browser and enter the IP address of the codec. Select "Wallpaper" from the menu, browse for the file, and press the "Upload" button.

3) On the video system: Open the menu on screen and go to Home > Settings > Wallpaper > Custom. Give it a few seconds to display the new picture. If the picture does not show, toggle once between "None" and "Custom" wallpaper to make the change take effect.

Example: `xConfiguration Video Wallpaper: Summersky`

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The Experimental settings

The Experimental settings are beta preview features and can be used 'as is'. They are not fully documented.

NOTE: The Experimental settings are likely to change without further notice.

xConfiguration Experimental Audio EcReferenceDelay

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Requires user role: ADMIN

Value space: <0..300>

Example: xConfiguration Experimental Audio EcReferenceDelay: 0

xConfiguration Experimental CapsetFilter

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Requires user role: ADMIN

Value space: <S: 0, 100>

Example: xConfiguration Experimental CapsetFilter: ""

xConfiguration Experimental CapsetReduction

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Requires user role: ADMIN

Value space: <Auto/Reduced>

Example: xConfiguration Experimental CapsetReduction: Auto

xConfiguration Experimental Conference [1..1] PacketLossResilience ForwardErrorCorrection

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Will enable ForwardErrorCorrection (RFC5109) mechanism as part of the PacketLossResilience mechanism. Default value is On.

On: Forward error correction will be used as part of the PacketLossResilience mechanism.

Off: Forward error correction will NOT be used as part of the PacketLossResilience mechanism.

Requires user role: ADMIN

Value space: <On/Off>

Example: xConfiguration Experimental Conference 1 PacketLossResilience ForwardErrorCorrection: On

xConfiguration Experimental Conference [1..1] PacketLossResilience RateAdaption

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Will use the a RateAdaption algorithm adapted to the PacketLossResilience mechanism. Default value is On.

On: RateAdaption will be used as part of the PacketLossResilience mechanism.

Off: RateAdaption will NOT be used as part of the PacketLossResilience mechanism.

Requires user role: ADMIN

Value space: <On/Off>

Example: xConfiguration Experimental Conference 1 PacketLossResilience RateAdaption: On

xConfiguration Experimental Conference [1..1] ReceiverBasedDownspeeding

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Requires user role: ADMIN

Value space: <On/Off>

Example: xConfiguration Experimental Conference 1 ReceiverBasedDownspeeding: Off

xConfiguration Experimental CustomSoftbuttons State [1..2] Softbutton [1..5] Type

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Requires user role: ADMIN

Value space: <NotSet/MainSource/PresentationSource/CameraPreset/Actions/SpeedDial>

Example: xConfiguration Experimental CustomSoftbuttons State 1 Softbutton 1 Type: NotSet

xConfiguration Experimental CustomSoftbuttons State [1..2] Softbutton [1..5] Value

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Requires user role: ADMIN

Value space: <S: 0, 255>

Example: xConfiguration Experimental CustomSoftbuttons State 1 Softbutton 1 Value: ""

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xConfiguration Experimental NetworkServices UPnP Mode

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Requires user role: `ADMIN`

Value space: `<On/Off>`

Example: `xConfiguration Experimental NetworkServices UPnP Mode: Off`

xConfiguration Experimental NetworkServices UPnP Timeout

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Requires user role: `ADMIN`

Value space: `<0..3600>`

Example: `xConfiguration Experimental NetworkServices UPnP Timeout: 0`

xConfiguration Experimental SystemUnit MenuType

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Requires user role: `ADMIN`

Value space: `<Indicators/Full>`

Example: `xConfiguration Experimental SystemUnit MenuType: Full`

xConfiguration Experimental SystemUnit SoftwareUpgrade RequireAuthentication

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Requires user role: `ADMIN`

Value space: `<On/Off>`

Example: `xConfiguration Experimental SystemUnit SoftwareUpgrade RequireAuthentication: Off`

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Chapter 4

Description of the xCommand commands

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Description of the xCommands commands

In the following pages you will find a complete list of all xCommand type commands with parameters.

We recommend you visit our web site regularly for updated versions of the manual.
Go to: ▶ http://www.cisco.com/go/telepresence/docs

The Audio commands

xCommand Audio Microphones Mute

Mute all microphones.

Requires user role: USER

Example:

```
xCommand Audio Microphones Mute
*r AudioMicrophonesMuteResult (status=OK):
** end
```

xCommand Audio Microphones Unmute

Unmute microphones.

Requires user role: USER

Example:

```
xCommand Audio Microphones Unmute
*r AudioMicrophonesUnmuteResult (status=OK):
** end
```

xCommand Audio Sound Play

Play the specified audio sound.

Requires user role: USER

Parameters:

Sound(r): <Busy/CallWaiting/Dial/KeyTone/Ringing/SpecialInfo/TelephoneCall/VideoCall>
Loop: <On/Off>

Example:

```
xCommand Audio Sound Play Sound: Ringing
*r AudioSoundPlayResult (status=OK):
** end
```

xCommand Audio Sound Stop

Stop playing audio sound.

Requires user role: USER

Example:

```
xCommand Audio Sound Stop
*r AudioSoundStopResult (status=OK):
** end
```


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The Boot commands

xCommand Boot

Reboot system.

Requires user role: USER

Example:

```
xCommand Boot
*r BootResult (status=OK):
** end
OK
CUIL reboot request, restarting
Connection closed by foreign host.
```

The Call commands

xCommand Call Accept

Accept an incoming call. If no CallId is specified, all incoming calls will be accepted. 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.

Requires user role: USER

Parameters:

CallId: <0..65534>

Example:

```
xCommand Call Accept CallId:19
OK
*r CallAcceptResult (status=OK):
** end
```

xCommand Call Reject

Reject incoming call. If no call id is specified, all incoming calls will be rejected. 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.

Requires user role: USER

Parameters:

CallId: <0..65534>

Example:

```
xCommand Call Reject CallId:20
OK
*r CallRejectResult (status=OK):
** end
```

xCommand Call Disconnect

Disconnect a call. 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.

Requires user role: USER

Parameters:

CallId(r): <0..65534>

Example:

```
xCommand Call Disconnect CallId:17
OK
*r DisconnectCallResult (status=OK):
** end
```


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xCommand Call DisconnectAll

Disconnect all active calls.

Requires user role: USER

Example:

```
xCommand Call DisconnectAll
OK
*r DisconnectAllResult (status=OK):
** end
```

xCommand Call Hold

Put a call on hold. 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.

Requires user role: USER

Parameters:

CallId(r): <0..65534>

Example:

```
xCommand Call Hold CallId:19
OK
*r CallHoldResult (status=OK):
** end
```

xCommand Call Join

Join all existing calls, active and on hold.

Requires user role: USER

Parameters:

No parameters.

Example:

```
xCommand Call Join
OK
*r CallJoinResult (status=OK):
** end
```

xCommand Call Resume

Resume a call that have been put on hold. 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.

Requires user role: USER

Parameters:

CallId(r): <0..65534>

Example:

```
xCommand Call Resume CallId:19
OK
*r CallResumeResult (status=OK):
** end
```


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The CallLog commands

xCommand CallLog Clear

Clear call logs stored in the system. If a logtag is given as argument, that specific call is deleted from the logs. If no logtag is given then all call logs will be deleted. The LogTag values for the calls are found by issuing the xHistory CallLog Call command.

Requires user role: `USER`

Parameters:

LogTag: <0..2147483647>

Example:

```
xCommand CallLog Clear
*r ClearResult (status=OK):
** end
```

xCommand CallLog Recent Delete

Delete the call log of recent calls. If a logtag is given as argument, that specific call is deleted from the log. If no logtag is given, the complete recent calls log will be deleted. The LogTag values for recent calls are found by issuing the xHistory CallLog Recent command.

Requires user role: `USER`

Parameters:

LogTag: <0..2147483647>

Example:

```
xCommand CallLog Recent Delete
*r DeleteResult (status=OK):
** end
```

xCommand CallLog Outgoing Delete

Delete the call log of outgoing calls. If a logtag is given as argument, that specific call is deleted from the log. If no logtag is given, the complete outgoing calls log will be deleted. The LogTag values for outgoing calls are found by issuing the xHistory CallLog Outgoing command.

Requires user role: `USER`

Parameters:

LogTag: <0..2147483647>

Example:

```
xCommand CallLog Outgoing Delete LogTag:202
*r DeleteResult (status=OK):
** end
```

xCommand CallLog Received Delete

Delete the call log of received calls. If a logtag is given as argument, that specific call is deleted from the log. If no logtag is given, the complete received calls log will be deleted. The LogTag values for received calls are found by issuing the xHistory CallLog Received command.

Requires user role: `USER`

Parameters:

LogTag: <0..2147483647>

Example:

```
xCommand CallLog Received Delete LogTag:126
*r DeleteResult (status=OK):
** end
```

xCommand CallLog Missed Delete

Delete the call log of missed calls. If a logtag is given as argument, that specific call is deleted from the log. If no logtag is given, the complete missed calls log will be deleted. The LogTag values for missed calls are found by issuing the xHistory CallLog Missed command.

Requires user role: `USER`

Parameters:

LogTag: <0..2147483647>

Example:

```
xCommand CallLog Missed Delete LogTag:119
*r DeleteResult (status=OK):
** end
```

xCommand CallLog Missed Dismiss

Review the call log of dismissed calls. If a logtag is given as argument, that specific call is deleted from the log. If no logtag is given, the complete missed calls log will be deleted. The LogTag values for missed calls are found by issuing the xHistory CallLog Missed command.

Requires user role: `USER`

Parameters:

LogTag: <0..2147483647>

Example:

```
xCommand CallLog Missed Dimissed LogTag:119
*r DismissResult (status=OK):
** end
```


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The CamCtrlPip commands

xCommand CamCtrlPip

Show or hide the camera selfview in a small window (picture in picture).

Requires user role: USER

Parameters:

Mode(r): <On/Off>

Example:

```
xCommand CamCtrlPip Mode: On
*r CamCtrlPipResult (status=OK):
** end
```

The Camera commands

xCommand Camera PanTiltReset

The camera is reset to its default values for pan and tilt. If the camera is daisy chained, the CameraId is given by its place in the chain.

Requires user role: USER

Parameters:

CameraId(r): <1..7>

Example:

```
xCommand Camera PanTiltReset CameraId:1
OK
*r PanTiltResetResult (status=OK):
** end
```

xCommand Camera PositionReset

Reset the camera position the the deafult position.

Requires user role: USER

Parameters:

CameraId(r): <1..7>

Example:

```
xCommand Camera PositionReset CameraId:1
OK
*r CameraPositionResetResult (status=OK):
** end
```


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xCommand Camera PositionSet

Position the camera by defining the pan, tilt, zoom and focus parameters. If the camera is placed in a daisy chain you need to know the CameraId for the camera you want to address.

Requires user role: USER

Parameters:

CameraId(r): <1..7>

Pan: <-65535..65535>

Tilt: <-65535..65535>

Zoom: <0..65535>

Focus: <0..65535>

Example:

```
xCommand Camera PositionSet CameraId:1 Pan:200 Tilt:300
OK
*r CameraPositionSetResult (status=OK):
** end
```

xCommand Camera Ramp

Move the camera in a specified direction. The camera will move 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 will be 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.

CameraId: Give the camera id.

Pan: Move the camera to the Left or Right, followed by Stop.

PanSpeed: Set the pan speeed.

Tilt: Move the camera Up or Down, followed by Stop.

TiltSpeed: Set the tilt speeed.

Zoom: Zoom the camera In or Out, followed by Stop.

ZoomSpeed: Set the zoom speeed.

Focus: Focus the camera Far or Near, followed by Stop.

Requires user role: USER

Parameters:

CameraId(r): <1..7>

Pan: <Left/Right/Stop>

PanSpeed: <1..15>

Tilt: <Down/Up/Stop>

TiltSpeed: <1..15>

Zoom: <In/Out/Stop>

ZoomSpeed: <1..15>

Focus: <Far/Near/Stop>

Example:

```
xCommand Camera Ramp CameraId:1 Pan:left PanSpeed:1
OK
*r RampResult (status=OK):
** end
xCommand Camera Ramp CameraId:1 Pan:stop
OK
*r RampResult (status=OK):
** end
```


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xCommand Camera ReconfigureCameraChain

Reinitialize the daisy chain of cameras and updates the CameraId parameter. The CameraId parameter holds information of which camera is sitting in what position in the camera chain.

Requires user role: USER

Example:

```
xCommand Camera ReconfigureCameraChain
*r ReconfigureCameraChainResult (status=OK):
** end
```

xCommand Camera TriggerAutofocus

Trigger the autofocus functionality. The camera must support autofocus functionality. If the camera is daisy chained, the CameraId is given by its place in the chain.

Requires user role: USER

Parameters:

CameraId(r): <1..7>

Example:

```
xCommand Camera TriggerAutofocus CameraId:1
OK
*r TriggerAutofocusResult (status=OK):
** end
```

xCommand Camera PositionActivateFromPreset

Selects pan, tilt, zoom and focus parameters for the given camera id from the selected preset.

PresetId: Select preset 1 to 15.

CameraId: Give the camera id.

Requires user role: USER

Parameters:

PresetId(r): <1..15>

CameraId(r): <1..7>

Example:

```
xCommand Camera PositionActivateFromPreset PresetID:1 CameraId:1
OK
*r PositionActivateFromPresetResult (status=OK):
** end
```

The Dial commands

xCommand Dial

Dial out from the system. Returns information about the CallId and ConferenceId, which are required for some other commands.

Number: Enter the number or address.

Protocol: Select the H323 or SIP protocol.

CallRate: Set a call rate.

CallType: Select the audio or video call type.

BookingId: 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 will be supplied in call logs, call events etc for the call.

Requires user role: USER

Parameters:

Number(r): <S: 0, 255>

Protocol: <H323/Sip>

CallRate: <64..6000>

CallType: <Audio/Video>

BookingId: <S: 0, 255>

Example:

```
xCommand Dial Number:543210 Protocol:h323
OK
*r DialResult (status=OK):
CallId: 2
ConferenceId: 1
** end
```


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The DTMFSend commands

xCommand DTMFSend

Send DTMF tones to the far end.

CallId: 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.

DTMFString: Enter the DTMF string.

Requires user role: `USER`

Parameters:

CallId(r): <0..65534>

DTMFString(r): <S: 0, 32>

Example:

```
xCommand DTMFSend CallId:2 DTMFString:1234
*r DTMFSendResult (status=OK):
** end
```

The FarEndControl commands

xCommand FarEndControl Camera Move

Move the far end camera (the remote camera). NOTE: The far end camera will move in the specified direction until the stop command (ref: xCommand FarEndControl Camera Stop) is issued

CallId: 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.

Value: Select the action for how to move the camera.

Requires user role: `USER`

Parameters:

CallId(r): <0..65534>

Value(r): <Left/Right/Up/Down/ZoomIn/ZoomOut>

Example:

```
xCommand FarEndControl Camera Move CallId:3 Value:left
*r FECCMoveResult (status=OK):
** end
```

xCommand FarEndControl Camera Stop

Stop the far end camera after the xCommand FarEndControl Camera Move has been issued.

CallId: 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.

Requires user role: `USER`

Parameters:

CallId(r): <0..65534>

Example:

```
xCommand FarEndControl Camera Stop CallId:3
*r FECCMoveResult (status=OK):
** end
```


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xCommand FarEndControl Preset Activate

Move the far end camera to a camera preset position.

CallId: 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.

PresetId: The PresetId for far end control must be retrieved from the far end codec.

Requires user role: `USER`

Parameters:

CallId(r): <0..65534>

PresetId(r): <1..15>

Example:

```
xCommand FarEndControl Preset Activate CallId:3 PresetId:1
*r FECCPresetActivateResult (status=OK):
** end
```

xCommand FarEndControl Preset Store

Store the far end camera position to a camera preset.

CallId: 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.

PresetId: The PresetId for far end control must be retrieved from the far end codec.

Requires user role: `USER`

Parameters:

CallId(r): <0..65534>

PresetId(r): <0..15>

Example:

```
xCommand FarEndControl Preset Store CallId:3 PresetId:1
*r FECCPresetStoreResult (status=OK):
** end
```

xCommand FarEndControl Source Select

Select which video input source to use as the main source on the far end system.

CallId: 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.

SourceId: Select a video input source on the far end.

Requires user role: `USER`

Parameters:

CallId(r): <0..65534>

SourceId(r): <0..15>

Example:

```
xCommand FarEndControl Source Select CallId:3 SourceId:1
*r FECCSelectSourceResult (status=OK):
** end
```


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The HttpFeedback commands

xCommand HttpFeedback Register

Register the system to a HTTP(S) server to return XML feedback over HTTP(S) to specific URLs.

FeedbackSlot: You can have from 1 to 4 slots for feedback.

ServerUrl: Define the URL for the HTTP(S) server.

Expression[1..15]: What parts of the Status and Configuration XML documents to monitor are specified by XPath expressions. You can have from 1 to 15 XPath expressions.

Requires user role: ADMIN

Parameters:

FeedbackSlot: <1..4>

ServerUrl(r): <S: 1, 2048>

Expression[1..15]: <S: 1, 255>

Example:

```
xCommand HttpFeedback Register FeedbackSlot:1 ServerUrl:10.47.19.41
Expression[1]:Status/Video Expression[2]:Status/Audio Expression[3]:Status/Call
Expression[4]:Status/Conference
OK
*r FeedbackRegisterResult (status=OK):
FeedbackSlot: 1
** end
```

xCommand HttpFeedback Deregister

Deregister XML feedback over HTTP(S).

Requires user role: ADMIN

Parameters:

FeedbackSlot: <1..4>

Example:

```
xCommand HttpFeedback Deregister FeedbackSlot:1
OK
*r FeedbackDeregisterResult (status=OK):
FeedbackSlot: 1
** end
```

The Key commands

xCommand Key Click

Emulates a remote control key press, followed by a key release.

Requires user role: ADMIN

Parameters:

Key(r): <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>

Example:

```
xCommand Key Click Key:Down
*r KeyClickResult (status=OK):
** end
```

xCommand Key Press

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.

Requires user role: ADMIN

Parameters:

Key(r): <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>

Example:

```
xCommand Key Press Key:Home
*r KeyPressResult (status=OK):
** end
```

xCommand Key Release

Emulates a remote control key reelase. The Key Release command is issued after a Key Press command.

Requires user role: ADMIN

Parameters:

Key(r): <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>

Example:

```
xCommand Key Release Key:Home
*r KeyReleaseResult (status=OK):
** end
```


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The Message commands

xCommand Message Alert Display

Display a message on screen, for a specified duration of time (in seconds). NOTE: If Duration is not set, the command must be followed by xCommand Message Alert Clear.

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.

Title: Enter a message title.

Text: Enter the message to be displayed.

Duration: Set how long (in seconds) the message is to be displayed on the screen. If set to 0 (zero) the message will not disappear until a xCommand Message Alert Clear message has been sent.

Requires user role: ADMIN

Parameters:

Title: <S: 0, 255>

Text(r): <S: 0, 255>

Duration: <0..3600>

Example:

```
xCommand Message Alert Display Title: "Message" Text: "The meeting will end
in 5 minutes." Duration: 20
OK
*r MessageAlertDisplayResult (status=OK):
** end
```

xCommand Message Alert Clear

Remove the message which was displayed using the xCommand Message Alert Display command. This is required when the Duration parameter is not set.

Requires user role: ADMIN

Example:

```
xCommand Message Alert Clear
OK
*r MessageAlertClearResult (status=OK):
** end
```

xCommand Message TextLine Display

Display a text line on screen. Optionally you can place the text line at a specified location and for a specified duration of time (in seconds). NOTE: If Duration is not set, the command must be followed by xCommand Message TextLine Clear.

Text: Enter the text line to be displayed.

X: Enter the X-coordinate (horizontal) on screen. X=0 is in the upper left corner.

Y: Enter the Y-coordinate (vertical) on screen. Y=0 is in the upper left corner.

Duration: Set how long (in seconds) the text line is to be displayed on the screen. If set to 0 (zero) the text line will be displayed until a xCommand Message TextLine Clear command has been sent.

Requires user role: ADMIN

Parameters:

Text(r): <S: 0, 140>

X: <1..10000>

Y: <1..10000>

Duration: <0..3600>

Example:

```
xCommand Message TextLine Display Text: "The message to be displayed." X:500
Y:2000 Duration: 20
OK
*r MessageTextLineDisplayResult (status=OK):
** end
```

xCommand Message TextLine Clear

Clears the text line which was defined by the xCommand Message TextLine Display command.

Requires user role: ADMIN

Example:

```
xCommand Message TextLine Clear
OK
*r MessageTextLineClearResult (status=OK):
** end
```


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xCommand Message Prompt Display

Display a small window on screen with a title, text and up to five options for response from the user. The message will display on screen until the user gives a response, or until the system receives the following command xCommand Message Prompt Clear.

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.

Title: Enter the title of the message.

Text: Enter the message.

FeedbackId: To identify the feedback enter a FeedbackId.

Option.1 to Option.5: Enter the text to appear on the feedback options.

Requires user role: `ADMIN`

Parameters:

Title: <S: 0, 255>

Text(r): <S: 0, 255>

FeedbackId: <S: 0, 255>

Option.1: <S: 0, 255>

Option.2: <S: 0, 255>

Option.3: <S: 0, 255>

Option.4: <S: 0, 255>

Option.5: <S: 0, 255>

Example:

```
xCommand Message Prompt Display Title: "Meeting extension" Text: "The
meeting is about to end. Do you want to extend the meeting?" Option.1:
"No" Option.2: "Yes, extend with 5 minutes" Option.3: "Yes, extend with 10
minutes"
OK
*r MessagePromptDisplayResult (status=OK):
** end
```

xCommand Message Prompt Clear

Remove the window displayed using the xCommand Message Alert Display 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.

FeedbackId: The FeedbackId corresponds to the FeedbackId given by the xCommand Message Prompt Display command.

Requires user role: `ADMIN`

Parameters:

FeedbackId: <S: 0, 255>

Example:

```
xCommand Message Prompt Clear
OK
*r MessagePromptClearResult (status=OK):
** end
```

xCommand Message Prompt Response

Give a response to the xCommand Message Prompt Display.

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.

FeedbackId: The FeedbackId corresponds to the FeedbackId given by the xCommand Message Prompt Display command.

OptionId: The OptionId corresponds to the OptionIds given as possible responses in the xCommand Message Prompt Display command.

Requires user role: `ADMIN`

Parameters:

FeedbackId: <S: 0, 255>

OptionId(r): <1..5>

Example:

```
xCommand Message Prompt Response OptionId: 1
OK
*r MessagePromptResponseResult (status=OK):
** end
```


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xCommand Message Echo

Issuing the command will make the API raise a message-echo event. The command has no other impact on the codec. Usage can be to poll the codec from a control system or any external device/system to check for connectivity. To monitor the feedback use the xFeedback command. You can read more about the xFeedback command in the general API introduction section.

Text: Enter the text to be echoed.

Requires user role: ADMIN

Parameters:

Text: <S: 0, 255>

Example:

```
xCommand Message Echo Text:" MyEchoListner99"
*** end
* e Message Echo Text: "MyEchoListner99"
```

The Phonebook commands

xCommand Phonebook Folder Add

Add a folder to the local phonebook, where phonebook entries can be stored. Returns the FolderId (localGroupId-3), which is a unique Id of the folder.

Name(r): The name of the folder.

ParentFolderId: A unique identifier for the parent folder, which was created when a previous xCommand Phonebook Folder Add command was issued.

Requires user role: ADMIN

Parameters:

Name(r): <S: 0, 255>

ParentFolderId: <S: 0, 255>

Example:

```
xCommand Phonebook Folder Add Name: "New York Office"
OK
*r PhonebookFolderAddResult (status=OK):
 Name: localGroupId-3
** end
```

xCommand Phonebook Folder Modify

Modify an existing phonebook folder.

FolderId: A unique identifier for the folder, which was created when the xCommand Phonebook Folder Add command was issued.

Name(r): The name of the contact.

ParentFolderId: A unique identifier for the parent folder, which was created when the xCommand Phonebook Folder Add command was issued.

Requires user role: ADMIN

Parameters:

FolderId(r): <S: 0, 255>

Name: <S: 0, 255>

ParentFolderId: <S: 0, 255>

Example:

```
xCommand Phonebook Folder Modify FolderId:localGroupId-3 Name: "New York
Head Office"
OK
*r PhonebookFolderModifyResult (status=OK):
** end
```


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xCommand Phonebook Folder Delete

Delete an existing folder from the local phonebook.

FolderId: A unique identifier for the folder, which was created when the xCommand Phonebook Folder Add command was issued.

Requires user role: ADMIN

Parameters:

FolderId(r): <S: 0, 255>

Example:

```
xCommand Phonebook Folder Delete FolderId:localGroupId-3
OK
*r PhonebookFolderDeleteResult (status=OK):
** end
```

xCommand Phonebook Contact Add

Add new contact to the local phonebook. Stored internally in the system. Returns the ContactId (Name: localContactId-1), which is a unique Id of the contact.

Name: The name of the contact.

FolderId: A unique identifier for the folder, which was created when the xCommand Phonebook Folder Add command was issued.

ImageURL: The URL to an image.

Title: The title of the contact.

Number: The phone number or address of the contact.

Protocol: Select H323 or SIP protocol.

CallRate: Set a call rate.

Device: Select the device type.

Requires user role: ADMIN

Parameters:

Name(r): <S: 0, 255>
FolderId: <S: 0, 255>
ImageURL: <S: 0, 255>
Title: <S: 0, 255>
Number: <S: 0, 255>
Protocol: <H323/SIP>
CallRate: <0..65534>
Device: <Mobile/Other/Telephone/Video>

Example:

```
xCommand Phonebook Contact Add Name: "John Doe" Number:12345
OK
*r PhonebookContactAddResult (status=OK):
Name: localContactId-1
** end
```


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xCommand Phonebook Contact Modify

Modify the contact details of an existing contact in the local phonebook.

ContactId: A unique identifier for the contact, which was created when the xCommand Phonebook Contact Add command was issued.

Name: The name of the contact.

FolderId: A unique identifier for the folder, which was created when the xCommand Phonebook Folder Add command was issued.

ImageURL: The URL to an image.

Title: The title of the contact.

Requires user role: ADMIN

Parameters:

ContactId(r): <S: 0, 255>

Name: <S: 0, 255>

FolderId: <S: 0, 255>

ImageURL: <S: 0, 255>

Title: <S: 0, 255>

Example:

```
xCommand Phonebook Contact Modify ContactId:localContactId-1 Name: "John Doe - office"
OK
*r PhonebookContactModifyResult (status=OK):
** end
```

xCommand Phonebook Contact Delete

Delete an existing contact from local phonebook.

ContactId: A unique identifier for the contact, which was created when the xCommand Phonebook Contact Add command was issued.

Requires user role: ADMIN

Parameters:

ContactId(r): <S: 0, 255>

Example:

```
xCommand Phonebook Contact Delete ContactId:localContactId-1
OK
*r PhonebookContactDeleteResult (status=OK):
** end
```

xCommand Phonebook ContactMethod Add

Add details about the call setup to an existing contact in the local phonebook. Returns the ContactMethodId (Name: 1), which is a unique Id of the contact method.

ContactId: A unique identifier for the contact, which was created when the xCommand Phonebook Contact Add command was issued.

Device: Set which type of device to call to.

Number(r): The phone number or address of the contact.

Protocol: Select H323 or SIP protocol.

CallRate: Set a call rate.

Requires user role: ADMIN

Parameters:

ContactId(r): <S: 0, 255>

Device: <Mobile/Other/Telephone/Video>

Number(r): <S: 0, 255>

Protocol: <H323/SIP>

CallRate: <0..65534>

Example:

```
xCommand Phonebook ContactMethod Add ContactId:localContactId-2 Number:54321
Protocol:H323
OK
*r PhonebookContactMethodAddResult (status=OK):
Name: 1
** end
```

xCommand Phonebook ContactMethod Delete

Delete details about the call setup to an existing contact in the local phonebook.

ContactId: A unique identifier for the contact, which was created when the xCommand Phonebook Contact Add command was issued.

ContactMethodId: A unique identifier for the contact method, which was created when the xCommand Phonebook ContactMethod Add command was issued.

Requires user role: ADMIN

Parameters:

ContactId(r): <S: 0, 255>

ContactMethodId(r): <S: 0, 255>

Example:

```
xCommand Phonebook ContactMethod Delete ContactId:localContactId-2
ContactMethodId:1
OK
*r PhonebookContactMethodDeleteResult (status=OK):
** end
```


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xCommand Phonebook Search

The search command lets you search in both the local and corporate phone books. A search will give a ResultSet. More examples can be found on the Developer Zone web page. Go to: http://developer.tandberg.com/web/guest/howtos/cseries-api/phonebook.

PhonebookId: The value of the ID tag for which phonebook server to use. See xConfiguration Phonebook Server. Not necessary to use.

PhonebookType: Which phone book to search in. Either the local phone book or the corporate phonebook.

SearchString: Search for entries containing specified string (not begins with). If no FolderId is specified, the search will yield search results from ALL folders/phonebook directories. The SearchString parameter is optional for software version TC2.0 and later.

SearchField: Currently not in use.

FolderId: Search only in the specified folder. FolderId (string) is listed in the ResultSet of a search result containing folders.

Offset: Get records starting with this offset in a search. Default 0. Used together with Limit to support paging.

Limit: Limit the number of records in the result set to this number. E.g. Limit: 10 will only give a ResultSet of 10 entries (Contacts + Folders) although the total number of hits may be greater.

Recursive: Set if the phonebook should search recursive. The result from an empty search will return both the directories and the content in the directories. NOTE: This command is only valid for the local directory.

Requires user role: `USER`

Parameters:

PhonebookId: <S: 0, 255>

PhonebookType: <Corporate/Local>

SearchString: <S: 0, 255>

SearchField: <Name/Number>

FolderId: <S: 0, 255>

Offset: <0..65534>

Limit: <0..65534>

Recursive: <False/True>

Example:

```
xCommand Phonebook Search PhonebookType:Corporate Limit:2
FolderId:"corporate_001"
OK
*r ResultSet ResultInfo TotalRows: 25
*r ResultSet Contact 1 Name: "/tmp"
*r ResultSet Contact 1 ContactId: "e_9664921"
*r ResultSet Contact 1 ContactMethod 1 ContactMethodId: "1"
*r ResultSet Contact 1 ContactMethod 1 Number: "H323:/John.Doe.Office@company.
com"
*r ResultSet Contact 1 ContactMethod 1 Protocol: H323
*r ResultSet Contact 1 ContactMethod 2 ContactMethodId: "2"
*r ResultSet Contact 1 ContactMethod 2 Number: "SIP:/John.Doe.Office@company.
com"
*r ResultSet Contact 1 ContactMethod 2 Protocol: SIP
*r ResultSet Contact 2 Name: "Other"
*r ResultSet Contact 2 ContactId: "e_9468400"
*r ResultSet Contact 2 ContactMethod 1 ContactMethodId: "3"
*r ResultSet Contact 2 ContactMethod 1 Number: "H323:John.Doe.Home@company.
com"
*r ResultSet Contact 2 ContactMethod 1 Protocol: H323
*r ResultSet Contact 2 ContactMethod 2 ContactMethodId: "4"
*r ResultSet Contact 2 ContactMethod 2 Number: "SIP:John.Doe.Home@company.
com"
*r ResultSet Contact 2 ContactMethod 2 Protocol: SIP
** end
```


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The Presentation commands

xCommand Presentation Start

Open a media stream from the selected presentation source.

PresentationSource: Select the video input source to be used for presentation.

Requires user role: USER

Parameters:

PresentationSource: <1..5>

Example:

```
xCommand Presentation Start PresentationSource:2
OK
*r PresentationStartResult (status=OK):
** end
```

xCommand Presentation Stop

Stop the media stream from the presentation source.

Requires user role: USER

Example:

```
xCommand Presentation Stop
OK
*r PresentationStopResult (status=OK):
** end
```

The Preset commands

xCommand Preset Store

Store the connector selections for all video input sources and the current camera position for all cameras. Note that all video input sources and all camera positions are included in each preset. The system may hold 15 predefined video input presets.

PresetId: Select preset 1 to 15.

Type: Select Camera or All. Currently there is no difference if you select Camera or All.

Description: Enter a description of the camera preset.

Requires user role: USER

Parameters:

PresetId(r): <1..15>

Type(r): <All/Camera>

Description: <S: 0, 255>

Example:

```
xCommand Preset Store PresetId:3 Type:Camera Description:"Left view"
OK
*r PresetStoreResult (status=OK):
** end
```

xCommand Preset Activate

Activate one of the local presets.

Requires user role: USER

Parameters:

PresetId(r): <1..15>

Example:

```
xCommand Preset Activate PresetId:3
OK
*r PresetActivateResult (status=OK):
** end
```


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xCommand Preset Clear

Delete an existing preset.

Requires user role: USER

Parameters:

PresetId(r): <1..15>

Example:

```
xCommand Preset Clear PresetId:3
OK
*r PresetClearResult (status=OK):
** end
```

The Provisioning commands

xCommand Provisioning StartUpgrade

The codec software can be upgraded from the provisioning server. When starting the upgrade the software is automatically downloaded and installed. A reboot of the codec is required to complete the software upgrade.

AutoComplete On: The software upgrade is automatically completed, with a reboot of the codec.

AutoComplete Off: The software upgrade is not completed, and must be completed by running the xCommand Provisioning CompleteUpgrade command.

Requires user role: USER

Parameters:

AutoComplete: <On/Off>

Example:

```
xCommand Provisioning StartUpgrade AutoComplete:On
*r StartUpgradeResult (status=OK):
** end
```

xCommand Provisioning CompleteUpgrade

Completes the software upgrade. This will reboot the codec. NOTE: This command is required if the xCommand Provisioning StartUpgrade has been run with the AutoComplete set to Off.

Requires user role: USER

Parameters:

None

Example:

```
xCommand Provisioning CompleteUpgrade
*r CompleteUpgradeResult (status=OK):
** end
```

xCommand Provisioning CancelUpgrade

Cancel a software update in progress.

Requires user role: USER

Parameters:

None

Example:

```
xCommand Provisioning CancelUpgrade
*r CancelUpgradeResult (status=OK):
** end
```


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The Standby commands

xCommand Standby Activate

Set the system in standby mode, which will turn off the video outputs and put the camera into sleep mode.

Requires user role: `USER`

Example:

```
xCommand Standby Activate
*r ActivateResult (status=OK):
** end
```

xCommand Standby Deactivate

Bring the system out of standby mode.

Requires user role: `USER`

Example:

```
xCommand Standby Deactivate
*r DeactivateResult (status=OK):
** end
```

xCommand Standby ResetTimer

Set a nonpermanent standby delay (in minutes). If the system is in standby mode when the reset timer is set, the system is brought out of standby mode. When left idle for the given delay the system goes into standby mode. Setting the reset timer will not affect the Standby Delay in the Advanced configuration menu (or by xConfiguration Standby Delay). Next time this delay will be the valid standby delay.

Requires user role: `USER`

Parameters:

Delay: <1..480>

Example:

```
xCommand Standby ResetTimer Delay:10
*r ResetResult (status=OK):
** end
```

The SystemUnit commands

xCommand SystemUnit OptionKey Add

Add an option key to support additional features.

Requires user role: `ADMIN`

Parameters:

Key(r): <S: 16, 24>

Example:

```
xCommand SystemUnit OptionKey Add Key:******************
*r OptionKeyResult (status=OK):
** end
```

xCommand SystemUnit ReleaseKey Add

Add the software release key. Used to enable new software (applicable for main software releases).

Requires user role: `ADMIN`

Parameters:

Key(r): <S: 16, 24>

Example:

```
xCommand SystemUnit ReleaseKey Add Key:******************
*r ReleaseKeyResult (status=OK):
** end
```

xCommand SystemUnit AdminPassword Set

Set an administrator password to restrict access the codec. After a restart of the codec this password will also apply to the web interface.

Requires user role: `USER`

Parameters:

Password(r): <S: 0, 64>

Example:

```
xCommand SystemUnit AdminPassword Set Password:***********
*r AdminPasswordSetResult (status=OK):
** end
```


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xCommand SystemUnit MenuPassword Set

Set a menu password to restrict access to Administrator Settings menu. If you have a remote control the password can also be set from the on screen menu. If you have a Cisco TelePresence Touch controller the menu password is set from the command line interface.

Requires user role: USER

Parameters:

Password(r): <S: 0, 255>

Example:

```
xCommand SystemUnit MenuPassword Set Password:***********
*r MenuPasswordSetResult (status=OK):
** end
```

xCommand SystemUnit MenuPassword Validate

Validate that the supplied password is correct.

Requires user role: USER

Parameters:

Password(r): <S: 0, 255>

Example:

```
xCommand SystemUnit MenuPassword Validate Password:***********
*r MenuPasswordValidateResult (status=OK):
** end
```

xCommand SystemUnit DateTime Set

Set the date and time for the system, if not available from NTP (Network Time Protocol).

Requires user role: ADMIN

Parameters:

Year: <2008..2037>

Month: <1..12>

Day: <1..31>

Hour: <0..23>

Minute: <0..59>

Second: <0..59>

Example:

```
xCommand SystemUnit DateTime Set Year:2009 Month:7 Day:3 Hour:12 Minute:0
Second:0
*r DateTimeSetResult (status=OK):
** end
```

xCommand SystemUnit DateTime Get

Read the time and date from the system.

Requires user role: USER

Example:

```
xCommand SystemUnit DateTime get
*r DateTimeGetResult (status=OK):
 Year: 2009
 Month: 7
 Day: 3
 Hour: 12
 Minute: 0
 Second: 0
** end
```

xCommand SystemUnit FactoryReset

Reset the codec to factory default settings, followed by an automatic reboot of the codec.

The call logs will be deleted and all system parameters will be reset to default values. All files that have been uploaded to the codec will be deleted. The Release key and Option key will not be affected.

Requires user role: ADMIN

Parameters:

Confirm(r): <Yes>

Example:

```
xCommand SystemUnit FactoryReset Confirm: Yes
*r FactoryResetConfirmResult (status=OK):
** end
```

xCommand SystemUnit SoftwareUpgrade

Initiate a software upgrade by fetching the software on a given URL. If the server requires username and password these parameters must be included.

Requires user role: USER

Parameters:

URL(r): <S: 0, 255>

UserName: <S: 0, 255>

Password: <S: 0, 255>

Example:

```
xCommand xCommand SystemUnit SoftwareUpgrade URL: "ftp://<ftp _ server _ ip _
address>/s52000tc4 _ 0 _ 0.pkg" UserName: testDownload Password: 1234
*r SystemUnitSoftwareUpgradeResult (status=OK):
** end
```


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xCommand SystemUnit ConfigurationProfile Change

Select a previously saved configuration profile. Will be active after next system boot.

Requires user role: USER

Parameters:

Name(r): <S: 0, 255>

Example:

```
xCommand SystemUnit ConfigurationProfile Change Name: "My _
ConfigurationProfile _ 1"
*r ConfigurationProfileChangeResult (status=OK):
   Warning: New configuration profile will be active after next boot.
** end
```

xCommand SystemUnit ConfigurationProfile Remove

Delete a configuration profile that has been stored in the system.

Requires user role: USER

Parameters:

Name(r): <S: 0, 255>

Example:

```
xCommand SystemUnit ConfigurationProfile Remove Name: "My _
ConfigurationProfile _ 1"
*r ConfigurationProfileRemoveResult (status=OK):
** end
```

xCommand SystemUnit ConfigurationProfile SaveCurrentConfigurationAs

Save the current system settings into a configuration profile. Assign a name to the new profile. The name is the unique identifier of the profile.

Requires user role: USER

Parameters:

Name(r): <S: 0, 255>

Example:

```
xCommand SystemUnit ConfigurationProfile SaveCurrentConfigurationAs Name:
"My _ ConfigurationProfile _ 1"
*r ConfigurationProfileSaveCurrentConfigurationResult (status=OK):
** end
```

xCommand SystemUnit ConfigurationProfile List

List configuration profiles that has been stored in the system.

Requires user role: USER

Example:

```
xCommand SystemUnit ConfigurationProfile List
*r ConfigurationProfileListResult (status=OK):
   Profile: My _ ConfigurationProfile _ 1
   Profile: My _ ConfigurationProfile _ 2
** end
```

xCommand SystemUnit ConfigurationProfile CancelChange

Cancel the "ConfigurationProfile Change" command, that would otherwise take effect after next system boot.

Requires user role: USER

Parameters:

Name(r): <S: 0, 255>

Example:

```
xCommand SystemUnit ConfigurationProfile CancelChange Name: "My _
ConfigurationProfile _ 1"
*r ConfigurationProfileCancelChangeResult (status=OK):
** end
```


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The Video commands

xCommand Video PictureLayoutSet

Select the screen layout mode.

Target: Select if the target is the local layout or the remote layout.

CallId: 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.

LayoutFamily: Select a layout family.

CustomLayoutName: Enter a name for the layout.

Requires user role: `USER`

Parameters:

Target: <Local/Remote>

CallId: <0..65534>

LayoutFamily(r): <Auto/Custom/Equal/Fullscreen/PresentationLargeSpeaker/PresentationSmallSpeaker/Speaker_Full>

CustomLayoutName: <S: 1, 128>

Example:

```
xCommand Video PictureLayoutSet Target: Local LayoutFamily: Equal
*r SetPictureLayoutResult (status=OK):
** end
```

xCommand Video Layout SetPresentationView

Set the presentation view mode.

View: 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.

Requires user role: `ADMIN`

Parameters:

View(r): <Default/Maximized/Minimized>

Example:

```
xCommand Video Layout SetPresentationView View:Default
OK
*r VideoLayoutSetPresentationViewResult (status=OK):
** end
```

xCommand Video Layout LoadDb

Loads and starts using the specified video layout database. The default video layout database is initially provided by the system. The custom database is generated by the Cisco TC Console tool and is made available to the codec from within the TC Console tool. The TC Console software is found at the Developer Zone web page. Go to: http://developer.tandberg.com/web/guest/tools/integrators/audio-console.

Custom: The system will use the custom video layout database which generated by the Cisco TC Console tool.

CustomAutoMode: The system will use the auto mode part of the custom video layout database.

Default: The system use the default video layout database which is provided by the system.

Requires user role: `USER`

Parameters:

Type(r): <Custom/CustomAutoMode/Default>

Example:

```
xCommand Video Layout LoadDb Type: Default
*r VideoLayoutLoadDbResult (status=OK):
** end
```


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The Experimental commands

The Experimental commands can be used 'as is' and will not be further documented.

NOTE: The Experimental commands are likely to change.

xCommand Experimental SetLowLevel

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Requires user role: ADMIN

Parameters:

Mode(r): <On/Off>

Example:

```
xCommand Experimental SetLowLevel Mode:Off
*r SetLowLevelResult (status=OK):
** end
```

xCommand Experimental Call UnattendedTransfer

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Requires user role: ADMIN

Parameters:

CallId(r): <0..65534>

Number(r): <S: 0, 255>

Example:

```
xCommand Experimental Call UnattendedTransfer CallId:321 Number:12345678
*r CallUnattendedTransferlResult (status=OK):
** end
```

xCommand Experimental Call AttendedTransfer

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Requires user role: ADMIN

Parameters:

FirstCallId(r): <0..65534>

SecondCallId(r): <0..65534>

Example:

```
xCommand Experimental Call AttendedTransfer FirstCallId:321 SecondCallId:322
*r CallAttendedTransferlResult (status=OK):
** end
```

xCommand Experimental TakeWebSnapshot

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Requires user role: ADMIN

Example:

```
xCommand Experimental TakeWebSnapshot
*r TakeWebSnapshotResult (status=OK):
** end
```

xCommand Experimental TouchPanelAdjustment

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Requires user role: ADMIN

Parameters:

Type(r): <A/B>

Example:

```
xCommand Experimental TouchPanelAdjustment Type:A
*r TouchPanelAdjustmentResult (status=OK):
** end
```


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Chapter 5

Description of the xStatus commands

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Description of the xStatus commands

The following pages will list an example of the xStatus commands and the response. Status type commands returns information about the system and system processes. You can query all information or just some of it.

We recommend you visit our web site regularly for updated versions of the manual.
Go to: ▶ http://www.cisco.com/go/telepresence/docs

The Audio status

xStatus Audio

Shows the top level overview of the audio status. The identities of the LocalInput, RemoteInput, LocalOutput and RemoteOutput are used when querying additional information.

Example:

```
xStatus Audio
xStatus Audio
*s Audio Microphones Mute: Off
*s Audio Volume: 35
** end
```

xStatus Audio Microphones Mute

Shows the microphones mute mode.

Value space of the result returned:

<On/Off>

Example:

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

xStatus Audio Volume

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
```


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The Call status

xStatus Call

Shows the top level overview of the call status. The call identity is used when query for additional information about the call.

Example:

```
xStatus Call
*s Call 27 Status: Connected
*s Call 27 Direction: Outgoing
*s Call 27 Protocol: "sip"
*s Call 27 CallType: Video
*s Call 27 RemoteNumber: "firstname.lastname@company.com"
*s Call 27 CallbackNumber: "sip:firstname.lastname@company.com"
*s Call 27 DisplayName: "Firstname Lastname"
*s Call 27 TransmitCallRate: 3968
*s Call 27 ReceiveCallRate: 4000
*s Call 27 Encryption Type: "None"
*s Call 27 PlacedOnHold: False
*s Call 27 Duration: 2354
** end
```

xStatus Call [1..n] Status

Shows the status of a call. You can run the command xStatus Call to find the call identity.

Value space of the result returned:

<Dialling/Connecting/Ringing/Connected/Idle>

Example:

```
xStatus Call 27 Status
*s Call 27 Status: Connected
** end
```

xStatus Call [1..n] Direction

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 [1..n] Protocol

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:

<H323/SIP>

Example:

```
xStatus Call 27 Protocol
*s Call 27 Protocol: "h323"
** end
```

xStatus Call [1..n] CallType

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>

Example:

```
xStatus Call 27 CallType
*s Call 27 CallType: Video
** end
```

xStatus Call [1..n] RemoteNumber

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:

<S: 0, 100>

Example:

```
xStatus Call 27 RemoteNumber
*s Call 27 RemoteNumber: "5585232"
** end
```

xStatus Call [1..n] CallbackNumber

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:

<S: 0, 100>

Example:

```
xStatus Call 27 CallbackNumber
*s Call 27 CallbackNumber: "h323:firstname.lastname@company.com"
** end
```


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xStatus Call [1..n] DisplayName

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:

<S: 0, 100>

Example:

```
xStatus Call 27 DisplayName
*s Call 27 DisplayName: "firstname.lastname@company.com"
** end
```

xStatus Call [1..n] TransmitCallRate

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 value>

Example:

```
xStatus Call 27 TransmitCallRate
*s Call 27 TransmitCallRate: 768
** end
```

xStatus Call [1..n] ReceiveCallRate

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 value>

Example:

```
xStatus Call 27 ReceiveCallRate
*s Call 27 ReceiveCallRate: 4000
** end
```

xStatus Call [1..n] Encryption Type

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 [1..n] PlacedOnHold

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 [1..n] Duration

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 value>

Example:

```
xStatus Call 27 Duration
*s Call 27 Duration: 2354
** end
```


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The Camera status

xStatus Camera

Shows the top level overview of the camera status.

xStatus Camera [1..7] Connected

Shows if the camera is connected or not.

Value space of the result returned:

<True/False>

Example:

```
xStatus Camera 1 Connected
*s Camera 1 Connected: True
** end
```

xStatus Camera [1..7] HardwareID

Shows the hardware identity of the camera.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus Camera 1 HardwareID
*s Camera 1 HardwareID: "50000000"
** end
```

xStatus Camera [1..7] Manufacturer

Shows the manufacturer of the camera.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus Camera 1 Manufacturer
*s Camera 1 Manufacturer: "TANDBERG"
** end
```

xStatus Camera [1..7] Model

Shows the camera model.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus Camera 1 Model
*s Camera 1 Model: "PrecisionHD 1080p 12X"
** end
```

xStatus Camera [1..7] SoftwareID

Shows the software identity of the camera.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus Camera 1 SoftwareID
*s Camera 1 SoftwareID: "S01718-4.0FINAL [ID:40063] 2010-10-20"
** end
```

xStatus Camera [1..7] SerialNumber

Shows the camera serial number.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus Camera 1 SerialNumber
*s Camera 1 SerialNumber: "B1AB26B00010"
** end
```

xStatus Camera [1..7] IpAddress

Shows the camera IP address.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus Camera 1 IpAddress
*s Camera 1 IpAddress: ""
** end
```


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xStatus Camera [1..7] MacAddress

Shows the MAC (Media Access Control) address for the camera.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus Camera 1 MacAddress
*s Camera 1 MacAddress: ""
** end
```

xStatus Camera [1..7] Position Pan

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:

<-65535..65535>

Example:

```
xStatus Camera 1 Position Pan
*s Camera 1 Position Pan: 412
** end
```

xStatus Camera [1..7] Position Tilt

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:

<-65535..65535>

Example:

```
xStatus Camera 1 Position Tilt
*s Camera 1 Position Tilt: 106
** end
```

xStatus Camera [1..7] Position Zoom

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..65535>

Example:

```
xStatus Camera 1 Position Zoom
*s Camera 1 Position Zoom: 828
** end
```

xStatus Camera [1..7] Position Focus

Shows the current focus position of the camera. The value range depends on camera type.

Value space of the result returned:

<0..65535>

Example:

```
xStatus Camera 1 Position Focus
*s Camera 1 Position Focus: 4597
** end
```

xStatus Camera [1..7] Capabilities Options

Shows the camera capabilities (ptzf = pan, tilt, zoom, focus).

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus Camera 1 Capabilities Options
*s Camera 1 Capabilities Options: "ptzf"
** end
```


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The Conference status

xStatus Conference

Shows the top level overview of the conference status. The identity of the Conference Site can only be read during a call.

Example:

```
xStatus Conference

*s Conference Presentation Mode: Off
*s Conference Presentation Protocol: ""
*s Conference Presentation Resolution Height: 0
*s Conference Presentation Resolution Width: 0
*s Conference Presentation SiteId: 0
*s Conference Presentation LocalSource: 0
*s Conference Site 26 MicrophonesMuted: True

*s Conference Site 26 Capabilities Presentation: False

** end
```

xStatus Conference Presentation Mode

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 Presentation Protocol

Shows the video protocol used when transmitting the presentation.

Value space of the result returned:

<S: 0, 10>

Example:

```
xStatus Conference Presentation Protocol
*s Conference Presentation Protocol: "H264"
** end
```

xStatus Conference Presentation Resolution Height

Shows the height of the the presentation.

Value space of the result returned:

<0..3000>

Example:

```
xStatus Conference Presentation Resolution Height
*s Conference Presentation Resolution Height: 0
** end
```

xStatus Conference Presentation Resolution Width

Shows the width of the the presentation.

Value space of the result returned:

<0..4000>

Example:

```
xStatus Conference Presentation Resolution Width
*s Conference Presentation Resolution Width: 0
** end
```

xStatus Conference Presentation SiteId

Shows the identity of the system that sends the presentation.

Value space of the result returned:

<0..65535>

Example:

```
xStatus Conference Presentation SiteId
*s Conference Presentation SiteId: 0
** end
```

xStatus Conference Presentation LocalSource

Shows the local video input source that is used when the presentation is sent from the local site.

Value space of the result returned:

<1..5>

Example:

```
xStatus Conference Presentation LocalSource
*s Conference Presentation LocalSource: 0
** end
```


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xStatus Conference Site [1..n] MicrophonesMuted

Lists the audio mute status for other participants in the conference.

Value space of the result returned:

<True/False>

Example:

```
xStatus Conference Site 2 MicrophonesMuted
*s Conference Site 2 MicrophonesMuted: True
** end
```

xStatus Conference Site [1..n] Capabilities Presentation

Lists the presentation capabilities for other participants in the conference.

Value space of the result returned:

<True/False>

Example:

```
xStatus Conference Site 2 Capabilities Presentation
*s Conference Site 2 Capabilities Presentation: True
** end
```

The Diagnostics status

xStatus Diagnostics

Shows the top level overview of the diagnostics. The example shows the status for an ongoing call. The identities of the call and channels are used when querying additional information.

Example:

```
xStatus Diagnostics
*s Diagnostics Call 27 Channels IncomingAudioChannel 327 Netstat 1 Jitter: 0
*s Diagnostics Call 27 Channels IncomingAudioChannel 327 Netstat 1 Packets:
132505
*s Diagnostics Call 27 Channels IncomingAudioChannel 327 Netstat 1 Loss: 0
*s Diagnostics Call 27 Channels IncomingAudioChannel 327 Netstat 1
LastIntervalLost: 0
*s Diagnostics Call 27 Channels IncomingAudioChannel 327 Netstat 1
LastIntervalReceived: 84
*s Diagnostics Call 27 Channels IncomingAudioChannel 327 Netstat 1 Drop: 0
*s Diagnostics Call 27 Channels IncomingAudioChannel 327 Netstat 1 Bytes:
21200960
*s Diagnostics Call 27 Channels IncomingAudioChannel 327 Netstat 1
ChannelRate: 64000
*s Diagnostics Call 27 Channels IncomingAudioChannel 327 Netstat 1 MaxJitter: 0
*s Diagnostics Call 27 Channels IncomingVideoChannel 330 Netstat 1 Jitter: 6
*s Diagnostics Call 27 Channels IncomingVideoChannel 330 Netstat 1 Packets:
133166
*s Diagnostics Call 27 Channels IncomingVideoChannel 330 Netstat 1 Loss: 0
*s Diagnostics Call 27 Channels IncomingVideoChannel 330 Netstat 1
LastIntervalLost: 0
*s Diagnostics Call 27 Channels IncomingVideoChannel 330 Netstat 1
LastIntervalReceived: 148
*s Diagnostics Call 27 Channels IncomingVideoChannel 330 Netstat 1 Drop: 0
*s Diagnostics Call 27 Channels IncomingVideoChannel 330 Netstat 1 Bytes:
122301901
*s Diagnostics Call 27 Channels IncomingVideoChannel 330 Netstat 1
ChannelRate: 506000
*s Diagnostics Call 27 Channels IncomingVideoChannel 330 Netstat 1 MaxJitter: 9
*s Diagnostics Call 27 Channels IncomingDataChannel 335 Netstat 1 Jitter: 0
*s Diagnostics Call 27 Channels IncomingDataChannel 335 Netstat 1 Packets: 0
*s Diagnostics Call 27 Channels IncomingDataChannel 335 Netstat 1 Loss: 0
*s Diagnostics Call 27 Channels IncomingDataChannel 335 Netstat 1
LastIntervalLost: 0
*s Diagnostics Call 27 Channels IncomingDataChannel 335 Netstat 1
```


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```
LastIntervalReceived: 0
*s Diagnostics Call 27 Channels IncomingDataChannel 335 Netstat 1 Drop: 0
*s Diagnostics Call 27 Channels IncomingDataChannel 335 Netstat 1 Bytes: 0
*s Diagnostics Call 27 Channels IncomingDataChannel 335 Netstat 1 ChannelRate:
0
*s Diagnostics Call 27 Channels IncomingDataChannel 335 Netstat 1 MaxJitter: 0
*s Diagnostics Call 27 Channels OutgoingAudioChannel 328 Netstat 1 Jitter: 0
*s Diagnostics Call 27 Channels OutgoingAudioChannel 328 Netstat 1 Packets: 0
*s Diagnostics Call 27 Channels OutgoingAudioChannel 328 Netstat 1 Loss: 0
*s Diagnostics Call 27 Channels OutgoingAudioChannel 328 Netstat 1 Drop: 0
*s Diagnostics Call 27 Channels OutgoingAudioChannel 328 Netstat 1 Bytes: 0
*s Diagnostics Call 27 Channels OutgoingAudioChannel 328 Netstat 1
ChannelRate: 0
*s Diagnostics Call 27 Channels OutgoingAudioChannel 328 Netstat 1 MaxJitter: 0
*s Diagnostics Call 27 Channels OutgoingVideoChannel 331 Netstat 1 Jitter: 4
*s Diagnostics Call 27 Channels OutgoingVideoChannel 331 Netstat 1 Packets:
123043
*s Diagnostics Call 27 Channels OutgoingVideoChannel 331 Netstat 1 Loss: 0
*s Diagnostics Call 27 Channels OutgoingVideoChannel 331 Netstat 1 Drop: 0
*s Diagnostics Call 27 Channels OutgoingVideoChannel 331 Netstat 1 Bytes:
94720991
*s Diagnostics Call 27 Channels OutgoingVideoChannel 331 Netstat 1 ChannelRate:
493000
*s Diagnostics Call 27 Channels OutgoingVideoChannel 331 Netstat 1 MaxJitter: 4
*s Diagnostics Call 27 Channels OutgoingDataChannel 336 Netstat 1 Jitter: 0
*s Diagnostics Call 27 Channels OutgoingDataChannel 336 Netstat 1 Packets: 0
*s Diagnostics Call 27 Channels OutgoingDataChannel 336 Netstat 1 Loss: 0
*s Diagnostics Call 27 Channels OutgoingDataChannel 336 Netstat 1 Drop: 0
*s Diagnostics Call 27 Channels OutgoingDataChannel 336 Netstat 1 Bytes: 0
*s Diagnostics Call 27 Channels OutgoingDataChannel 336 Netstat 1 ChannelRate:
0
*s Diagnostics Call 27 Channels OutgoingDataChannel 336 Netstat 1 MaxJitter: 0
** end
```

xStatus Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] Netstat 1 Jitter

xStatus Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] Netstat 1 Jitter

xStatus Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] Netstat 1 Jitter

xStatus Diagnostics Call [1..n] Channels OutgoingAudioChannel [1..n] Netstat 1 Jitter

xStatus Diagnostics Call [1..n] Channels OutgoingVideoChannel [1..n] Netstat 1 Jitter

xStatus Diagnostics Call [1..n] Channels OutgoingDataChannel [1..n] Netstat 1 Jitter

Shows the jitter at the present moment in the incoming/outgoing channel, as specified by RFC 3550.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Diagnostics Call 27 Channels OutgoingDataChannel 327 Netstat 1
Jitter
*s Diagnostics Call 27 Channels OutgoingDataChannel 327 Netstat 1 Jitter: 0
** end
```

xStatus Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] Netstat 1 Packets

xStatus Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] Netstat 1 Packets

xStatus Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] Netstat 1 Packets

xStatus Diagnostics Call [1..n] Channels OutgoingAudioChannel [1..n] Netstat 1 Packets

xStatus Diagnostics Call [1..n] Channels OutgoingVideoChannel [1..n] Netstat 1 Packets

xStatus Diagnostics Call [1..n] Channels OutgoingDataChannel [1..n] Netstat 1 Packets

Shows the number of packets received/sent in the incoming/outgoing channels.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Diagnostics Call 27 Channels OutgoingDataChannel 327 Netstat 1
Packets
*s Diagnostics Call 27 Channels OutgoingDataChannel 327 Netstat 1 Packets:
405
** end
```


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xStatus Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] Netstat 1 Loss

xStatus Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] Netstat 1 Loss

xStatus Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] Netstat 1 Loss

xStatus Diagnostics Call [1..n] Channels OutgoingAudioChannel [1..n] Netstat 1 Loss

xStatus Diagnostics Call [1..n] Channels OutgoingVideoChannel [1..n] Netstat 1 Loss

xStatus Diagnostics Call [1..n] Channels OutgoingDataChannel [1..n] Netstat 1 Loss

Shows the packets lost in the incoming/outgoing channels.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Diagnostics Call 27 Channels OutgoingDataChannel 327 Netstat 1 Loss
*s Diagnostics Call 27 Channels OutgoingDataChannel 327 Netstat 1 Loss: 96
** end
```

xStatus Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] Netstat 1 LastIntervalLost

xStatus Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] Netstat 1 LastIntervalLost

xStatus Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] Netstat 1 LastIntervalLost

Shows the packets lost during the last interval for the incoming channels.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Diagnostics Call 27 Channels IncomingDataChannel 327 Netstat 1
LastIntervalLost
*s Diagnostics Call 27 Channels IncomingDataChannel 327 Netstat 1
LastIntervalLost: 0
** end
```

xStatus Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] Netstat 1 LastIntervalReceived

xStatus Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] Netstat 1 LastIntervalReceived

xStatus Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] Netstat 1 LastIntervalReceived

Shows the packets received during the last interval for the incoming channels.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Diagnostics Call 27 Channels IncomingDataChannel 327 Netstat 1
LastIntervalReceived
*s Diagnostics Call 27 Channels IncomingDataChannel 327 Netstat 1
LastIntervalReceived: 84
** end
```

xStatus Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] Netstat 1 Drop

xStatus Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] Netstat 1 Drop

xStatus Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] Netstat 1 Drop

xStatus Diagnostics Call [1..n] Channels OutgoingAudioChannel [1..n] Netstat 1 Drop

xStatus Diagnostics Call [1..n] Channels OutgoingVideoChannel [1..n] Netstat 1 Drop

xStatus Diagnostics Call [1..n] Channels OutgoingDataChannel [1..n] Netstat 1 Drop

Shows the packets dropped in the incoming/outgoing channel.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Diagnostics Call 27 Channels OutgoingDataChannel 327 Netstat 1 Drop
*s Diagnostics Call 27 Channels OutgoingDataChannel 327 Netstat 1 Drop: 0
** end
```


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xStatus Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] Netstat 1 Bytes

xStatus Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] Netstat 1 Bytes

xStatus Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] Netstat 1 Bytes

xStatus Diagnostics Call [1..n] Channels OutgoingAudioChannel [1..n] Netstat 1 Bytes

xStatus Diagnostics Call [1..n] Channels OutgoingVideoChannel [1..n] Netstat 1 Bytes

xStatus Diagnostics Call [1..n] Channels OutgoingDataChannel [1..n] Netstat 1 Bytes

Shows the number of bytes received/sent in the incoming/outgoing channel.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Diagnostics Call 27 Channels OutgoingDataChannel 327 Netstat 1 Bytes
*s Diagnostics Call 27 Channels OutgoingDataChannel 327 Netstat 1 Bytes: 129920
** end
```

xStatus Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] Netstat 1 ChannelRate

xStatus Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] Netstat 1 ChannelRate

xStatus Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] Netstat 1 ChannelRate

xStatus Diagnostics Call [1..n] Channels OutgoingAudioChannel [1..n] Netstat 1 ChannelRate

xStatus Diagnostics Call [1..n] Channels OutgoingVideoChannel [1..n] Netstat 1 ChannelRate

xStatus Diagnostics Call [1..n] Channels OutgoingDataChannel [1..n] Netstat 1 ChannelRate

Shows the bandwidth for the incoming/outgoing channel.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Diagnostics Call 27 Channels OutgoingDataChannel 327 Netstat 1 ChannelRate
*s Diagnostics Call 27 Channels OutgoingDataChannel 327 Netstat 1 ChannelRate: 128000
** end
```


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xStatus Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] Netstat 1 MaxJitter

xStatus Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] Netstat 1 MaxJitter

xStatus Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] Netstat 1 MaxJitter

xStatus Diagnostics Call [1..n] Channels OutgoingAudioChannel [1..n] Netstat 1 MaxJitter

xStatus Diagnostics Call [1..n] Channels OutgoingVideoChannel [1..n] Netstat 1 MaxJitter

xStatus Diagnostics Call [1..n] Channels OutgoingDataChannel [1..n] Netstat 1 MaxJitter

Shows the maximum jitter that has been measured during last time interval (5 seconds).

Value space of the result returned:

<Integer value>

Example:

```
xStatus Diagnostics Call 27 Channels OutgoingDataChannel 327 Netstat 1
MaxJitter
*s Diagnostics Call 27 Channels OutgoingDataChannel 327 Netstat 1 MaxJitter:
0
** end
```

The H323 status

xStatus H323

Shows the top level overview of the H323 status.

Example:

```
xStatus H323
*s H323 Gatekeeper Status: Registered
*s H323 Gatekeeper Address: "192.0.1.20"
*s H323 Gatekeeper Port: 1719
*s H323 Gatekeeper Reason: ""
** end
```

xStatus H323 Gatekeeper Status

Shows the gatekeeper registration status.

Value space of the result returned:

<Registered/Inactive/Rejected>

Example:

```
xStatus H323 Gatekeeper Status
*s H323 Gatekeeper Status: Registered
** end
```

xStatus H323 Gatekeeper Address

Displays the IP address of the gatekeeper where the system is registered.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus H323 Gatekeeper Address
*s H323 Gatekeeper Address: "192.0.1.20"
** end
```

xStatus H323 Gatekeeper Port

Shows the port which is used when connecting to on the gatekeeper.

Value space of the result returned:

<Integer value>

Example:

```
xStatus H323 Gatekeeper Port
*s H323 Gatekeeper Port: 1719
** end
```


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xStatus H323 Gatekeeper Reason

Shows the reason for rejected registration.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus H323 Gatekeeper Reason
*s H323 Gatekeeper Reason: ""
** end
```

The HttpFeedback status

xStatus HttpFeedback

Shows the top level overview of the HTTP status.

Example:

```
xStatus HttpFeedback
*s HttpFeedback 1 URL: "http://tms.group.company.com/tms/public/feedback/
code.aspx"
*s HttpFeedback 1 Expression: "/History/CallLog/History"
*s HttpFeedback 1 Expression: "/Status/Call[Status='connected']"
*s HttpFeedback 1 Expression: "/Status/H323/Gatekeeper"
*s HttpFeedback 1 Expression: "/Status/Ethernet"
*s HttpFeedback 1 Expression: "/Event/CallSuccessful"
*s HttpFeedback 1 Expression: ""
*s HttpFeedback 1 Expression: ""
*s HttpFeedback 1 Expression: ""
*s HttpFeedback 1 Expression: ""
*s HttpFeedback 1 Expression: ""
*s HttpFeedback 1 Expression: ""
*s HttpFeedback 1 Expression: ""
*s HttpFeedback 1 Expression: ""
*s HttpFeedback 1 Expression: ""
*s HttpFeedback 1 Expression: ""
 -
 - continues with HttpFeedback 2-4.
** end
```

xStatus HttpFeedback [1..4] URL

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:

<S: 0, 100>

Example:

```
xStatus HttpFeedback 1 URL
*s HttpFeedback 1 URL: "http://tms.company.com/tms/public/feedback/code.aspx"
** end
```


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xStatus HttpFeedback [1..4] Expression

Shows the feedback from the HTTP server. There can be up to 15 expressions for each URL. See the xCommand HttpFeedback commands for more information.

Value space of the result returned:

<S: 0..256>

Example:

```
xStatus HttpFeedback 1 Expression
*s HttpFeedback 1 Expression: "/History/CallLog/History"
*s HttpFeedback 1 Expression: "/Status/Call[Status='connected']"
*s HttpFeedback 1 Expression: "/Status/H323/Gatekeeper"
*s HttpFeedback 1 Expression: "/Status/Ethernet"
*s HttpFeedback 1 Expression: "/Event/CallSuccessful"
*s HttpFeedback 1 Expression: ""
*s HttpFeedback 1 Expression: ""
*s HttpFeedback 1 Expression: ""
*s HttpFeedback 1 Expression: ""
*s HttpFeedback 1 Expression: ""
*s HttpFeedback 1 Expression: ""
*s HttpFeedback 1 Expression: ""
*s HttpFeedback 1 Expression: ""
*s HttpFeedback 1 Expression: ""
*s HttpFeedback 1 Expression: ""
** end
```

The MediaChannels status

xStatus MediaChannels

Shows the top level overview of the media channel status. The example shows the status for an ongoing call. The identities of the call and channels are used when querying additional information.

Example:

```
xStatus MediaChannels
*s MediaChannels Call 4 IncomingAudioChannel 41 Encryption Status: Off
*s MediaChannels Call 4 IncomingAudioChannel 41 Audio Protocol: AACLD
*s MediaChannels Call 4 IncomingAudioChannel 41 Audio Mute: False
*s MediaChannels Call 4 IncomingAudioChannel 41 Audio Channels: 1
*s MediaChannels Call 4 IncomingAudioChannel 41 Transport RTP Local IpAddress:
"10.54.86.241"
*s MediaChannels Call 4 IncomingAudioChannel 41 Transport RTP Local Port:
16402
*s MediaChannels Call 4 IncomingAudioChannel 41 Transport RTP Remote
IpAddress: "10.54.86.240"
*s MediaChannels Call 4 IncomingAudioChannel 41 Transport RTP Remote Port:
2334
*s MediaChannels Call 4 IncomingAudioChannel 41 Transport RTCP Local
IpAddress: "10.54.86.241"
*s MediaChannels Call 4 IncomingAudioChannel 41 Transport RTCP Local Port:
16403
*s MediaChannels Call 4 IncomingAudioChannel 41 Transport RTCP Remote
IpAddress: "10.54.86.240"
*s MediaChannels Call 4 IncomingAudioChannel 41 Transport RTCP Remote Port:
2335
*s MediaChannels Call 4 IncomingVideoChannel 44 Encryption Status: Off
*s MediaChannels Call 4 IncomingVideoChannel 44 ChannelRole: Main
*s MediaChannels Call 4 IncomingVideoChannel 44 Video Protocol: H264
*s MediaChannels Call 4 IncomingVideoChannel 44 Video FrameRate: 30
*s MediaChannels Call 4 IncomingVideoChannel 44 Video ResolutionX: 1920
*s MediaChannels Call 4 IncomingVideoChannel 44 Video ResolutionY: 1080
*s MediaChannels Call 4 IncomingVideoChannel 44 Transport RTP Local IpAddress:
"10.54.86.241"
*s MediaChannels Call 4 IncomingVideoChannel 44 Transport RTP Local Port:
16404
*s MediaChannels Call 4 IncomingVideoChannel 44 Transport RTP Remote
IpAddress: "10.54.86.240"
*s MediaChannels Call 4 IncomingVideoChannel 44 Transport RTP Remote Port:
2336
*s MediaChannels Call 4 IncomingVideoChannel 44 Transport RTCP Local
```


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```
IpAddress: "10.54.86.241"
*s MediaChannels Call 4 IncomingVideoChannel 44 Transport RTCP Local Port:
16405
*s MediaChannels Call 4 IncomingVideoChannel 44 Transport RTCP Remote
IpAddress: "10.54.86.240"
*s MediaChannels Call 4 IncomingVideoChannel 44 Transport RTCP Remote Port:
2337
*s MediaChannels Call 4 IncomingVideoChannel 47 Encryption Status: Off
*s MediaChannels Call 4 IncomingVideoChannel 47 ChannelRole: Presentation
*s MediaChannels Call 4 IncomingVideoChannel 47 Video Protocol: Off
*s MediaChannels Call 4 IncomingVideoChannel 47 Video FrameRate: 0
*s MediaChannels Call 4 IncomingVideoChannel 47 Video ResolutionX: 0
*s MediaChannels Call 4 IncomingVideoChannel 47 Video ResolutionY: 0
*s MediaChannels Call 4 IncomingVideoChannel 47 Transport RTP Local IpAddress:
"10.54.86.241"
*s MediaChannels Call 4 IncomingVideoChannel 47 Transport RTP Local Port: 16406
*s MediaChannels Call 4 IncomingVideoChannel 47 Transport RTP Remote
IpAddress: ""
*s MediaChannels Call 4 IncomingVideoChannel 47 Transport RTP Remote Port: 0
*s MediaChannels Call 4 IncomingVideoChannel 47 Transport RTCP Local
IpAddress: "10.54.86.241"
*s MediaChannels Call 4 IncomingVideoChannel 47 Transport RTCP Local Port:
16407
*s MediaChannels Call 4 IncomingVideoChannel 47 Transport RTCP Remote
IpAddress: ""
*s MediaChannels Call 4 IncomingVideoChannel 47 Transport RTCP Remote Port: 0
*s MediaChannels Call 4 IncomingVideoChannel 51 Encryption Status: Off
*s MediaChannels Call 4 IncomingVideoChannel 51 ChannelRole: Legacy
*s MediaChannels Call 4 IncomingVideoChannel 51 Video Protocol: Off
*s MediaChannels Call 4 IncomingVideoChannel 51 Video FrameRate: 0
*s MediaChannels Call 4 IncomingVideoChannel 51 Video ResolutionX: 0
*s MediaChannels Call 4 IncomingVideoChannel 51 Video ResolutionY: 0
*s MediaChannels Call 4 IncomingVideoChannel 51 Transport RTP Local IpAddress:
"10.54.86.241"
*s MediaChannels Call 4 IncomingVideoChannel 51 Transport RTP Local Port: 16410
*s MediaChannels Call 4 IncomingVideoChannel 51 Transport RTP Remote
IpAddress: ""
*s MediaChannels Call 4 IncomingVideoChannel 51 Transport RTP Remote Port: 0
*s MediaChannels Call 4 IncomingVideoChannel 51 Transport RTCP Local
IpAddress: "10.54.86.241"
*s MediaChannels Call 4 IncomingVideoChannel 51 Transport RTCP Local Port:
16411
*s MediaChannels Call 4 IncomingVideoChannel 51 Transport RTCP Remote
IpAddress: ""
*s MediaChannels Call 4 IncomingVideoChannel 51 Transport RTCP Remote Port: 0
*s MediaChannels Call 4 OutgoingAudioChannel 42 Encryption Status: Off
*s MediaChannels Call 4 OutgoingAudioChannel 42 Audio Protocol: AACLD
*s MediaChannels Call 4 OutgoingAudioChannel 42 Audio Channels: 1
*s MediaChannels Call 4 OutgoingAudioChannel 42 Transport RTP Local IpAddress:
"10.54.86.241"
*s MediaChannels Call 4 OutgoingAudioChannel 42 Transport RTP Local Port:
16402
*s MediaChannels Call 4 OutgoingAudioChannel 42 Transport RTP Remote
IpAddress: "10.54.86.240"
*s MediaChannels Call 4 OutgoingAudioChannel 42 Transport RTP Remote Port:
2334
*s MediaChannels Call 4 OutgoingAudioChannel 42 Transport RTCP Local
IpAddress: "10.54.86.241"
*s MediaChannels Call 4 OutgoingAudioChannel 42 Transport RTCP Local Port:
16403
*s MediaChannels Call 4 OutgoingAudioChannel 42 Transport RTCP Remote
IpAddress: "10.54.86.240"
*s MediaChannels Call 4 OutgoingAudioChannel 42 Transport RTCP Remote Port:
2335
*s MediaChannels Call 4 OutgoingVideoChannel 45 Encryption Status: Off
*s MediaChannels Call 4 OutgoingVideoChannel 45 ChannelRole: Main
*s MediaChannels Call 4 OutgoingVideoChannel 45 Video Protocol: H264NIL
*s MediaChannels Call 4 OutgoingVideoChannel 45 Video FrameRate: 60
*s MediaChannels Call 4 OutgoingVideoChannel 45 Video ResolutionX: 1280
*s MediaChannels Call 4 OutgoingVideoChannel 45 Video ResolutionY: 720
*s MediaChannels Call 4 OutgoingVideoChannel 45 Transport RTP Local IpAddress:
"10.54.86.241"
*s MediaChannels Call 4 OutgoingVideoChannel 45 Transport RTP Local Port: 16404
*s MediaChannels Call 4 OutgoingVideoChannel 45 Transport RTP Remote
IpAddress: "10.54.86.240"
*s MediaChannels Call 4 OutgoingVideoChannel 45 Transport RTP Remote Port:
2336
*s MediaChannels Call 4 OutgoingVideoChannel 45 Transport RTCP Local
IpAddress: "10.54.86.241"
*s MediaChannels Call 4 OutgoingVideoChannel 45 Transport RTCP Local Port:
16405
*s MediaChannels Call 4 OutgoingVideoChannel 45 Transport RTCP Remote
IpAddress: "10.54.86.240"
*s MediaChannels Call 4 OutgoingVideoChannel 45 Transport RTCP Remote Port:
```


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```
2337
*s MediaChannels Call 4 OutgoingVideoChannel 48 Encryption Status: Off
*s MediaChannels Call 4 OutgoingVideoChannel 48 ChannelRole: Presentation
*s MediaChannels Call 4 OutgoingVideoChannel 48 Video Protocol: Off
*s MediaChannels Call 4 OutgoingVideoChannel 48 Video FrameRate: 0
*s MediaChannels Call 4 OutgoingVideoChannel 48 Video ResolutionX: 0
*s MediaChannels Call 4 OutgoingVideoChannel 48 Video ResolutionY: 0
*s MediaChannels Call 4 OutgoingVideoChannel 48 Transport RTP Local IpAddress:
""
*s MediaChannels Call 4 OutgoingVideoChannel 48 Transport RTP Local Port: 0
*s MediaChannels Call 4 OutgoingVideoChannel 48 Transport RTP Remote
IpAddress: ""
*s MediaChannels Call 4 OutgoingVideoChannel 48 Transport RTP Remote Port: 0
*s MediaChannels Call 4 OutgoingVideoChannel 48 Transport RTCP Local
IpAddress: ""
*s MediaChannels Call 4 OutgoingVideoChannel 48 Transport RTCP Local Port: 0
*s MediaChannels Call 4 OutgoingVideoChannel 48 Transport RTCP Remote
IpAddress: ""
*s MediaChannels Call 4 OutgoingVideoChannel 48 Transport RTCP Remote Port: 0
*s MediaChannels Call 4 OutgoingVideoChannel 52 Encryption Status: Off
*s MediaChannels Call 4 OutgoingVideoChannel 52 ChannelRole: Legacy
*s MediaChannels Call 4 OutgoingVideoChannel 52 Video Protocol: Off
*s MediaChannels Call 4 OutgoingVideoChannel 52 Video FrameRate: 0
*s MediaChannels Call 4 OutgoingVideoChannel 52 Video ResolutionX: 0
*s MediaChannels Call 4 OutgoingVideoChannel 52 Video ResolutionY: 0
*s MediaChannels Call 4 OutgoingVideoChannel 52 Transport RTP Local IpAddress:
""
*s MediaChannels Call 4 OutgoingVideoChannel 52 Transport RTP Local Port: 0
*s MediaChannels Call 4 OutgoingVideoChannel 52 Transport RTP Remote
IpAddress: ""
*s MediaChannels Call 4 OutgoingVideoChannel 52 Transport RTP Remote Port: 0
*s MediaChannels Call 4 OutgoingVideoChannel 52 Transport RTCP Local
IpAddress: ""
*s MediaChannels Call 4 OutgoingVideoChannel 52 Transport RTCP Local Port: 0
*s MediaChannels Call 4 OutgoingVideoChannel 52 Transport RTCP Remote
IpAddress: ""
*s MediaChannels Call 4 OutgoingVideoChannel 52 Transport RTCP Remote Port: 0
** end
```

xStatus MediaChannels Call [1..n] IncomingAudioChannel [1..n] Encryption Status

Shows the encryption status on the incoming channel.

Value space of the result returned:

<On/off>

Example:

```
xStatus MediaChannels Call 27 IncomingAudioChannel 327 Encryption Status
*s MediaChannels Call 27 IncomingAudioChannel 327 Encryption Status: Off
** end
```

xStatus MediaChannels Call [1..n] IncomingAudioChannel [1..n] Audio Protocol

Shows the audio algorithm for the incoming audio channel.

AACLD: The AAC-LD is a MPEG-4 Low Delay Audio Coder audio compression format.

G722: The G.722 algorithm is an ITU standard.

G7221: The G.722.1 algorithm is a licensed royalty-free ITU-T standard.

G711Mu: The G.711 Mu-law compression algorithm is used in North America and Japan.

G711A: The G.711 A-law compression algorithm is used in Europe and the rest of the world

Value space of the result returned:

<AACLD/G722/G7221/G711Mu/G711A>

Example:

```
xStatus MediaChannels Call 27 IncomingAudioChannel 327 Audio Protocol
*s MediaChannels Call 27 IncomingAudioChannel 327 Audio Protocol: AACLD
** end
```

xStatus MediaChannels Call [1..n] IncomingAudioChannel [1..n] Audio Mute

Audio mute status of incoming audio.

Value space of the result returned:

<True/False>

Example:

```
xStatus MediaChannels Call 27 IncomingAudioChannel 327 Audio Mute
*s MediaChannels Call 27 IncomingAudioChannel 327 Audio Mute: True
** end
```


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xStatus MediaChannels Call [1..n] IncomingAudioChannel [1..n] Audio Channels

Shows the number of incoming audio channels.

Value space of the result returned:

<Integer value>

Example:

```
xStatus MediaChannels Call 27 IncomingAudioChannel 327 Audio Channels
*s MediaChannels Call 27 IncomingAudioChannel 327 Audio Channels: 1
** end
```

xStatus MediaChannels Call [1..n] IncomingAudioChannel [1..n] Transport RTP Local IpAddress

Shows the local IP address of the Real-time Transport Protocol (RTP) port for the incoming audio in the media channel.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus MediaChannels Call 27 IncomingAudioChannel 327 Transport RTP Local
IpAddress
*s MediaChannels Call 27 IncomingAudioChannel 327 Transport RTP Local
IpAddress: "192.168.24.190"
** end
```

xStatus MediaChannels Call [1..n] IncomingAudioChannel [1..n] Transport RTP Local Port

Shows the local UDP port number of the Real-time Transport Protocol (RTP) port for the incoming audio in the media channel.

Value space of the result returned:

<1..n>

Example:

```
xStatus MediaChannels Call 27 IncomingAudioChannel 327 Transport RTP Local
Port
*s MediaChannels Call 27 IncomingAudioChannel 327 Transport RTP Local Port:
16404
** end
```

xStatus MediaChannels Call [1..n] IncomingAudioChannel [1..n] Transport RTP Remote IpAddress

Shows the remote IP address of the Real-time Transport Protocol (RTP) port for the incoming audio in the media channel.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus MediaChannels Call 27 IncomingAudioChannel 327 Transport RTP Remote
IpAddress
*s MediaChannels Call 27 IncomingAudioChannel 327 Transport RTP Remote
IpAddress: "192.168.136.130"
** end
```

xStatus MediaChannels Call [1..n] IncomingAudioChannel [1..n] Transport RTP Remote Port

Shows the remote UDP port number of the Real-time Transport Protocol (RTP) port for the incoming audio in the media channel.

Value space of the result returned:

<1..n>

Example:

```
xStatus MediaChannels Call 27 IncomingAudioChannel 327 Transport RTP Remote
Port
*s MediaChannels Call 27 IncomingAudioChannel 327 Transport RTP Remote Port:
50932
** end
```

xStatus MediaChannels Call [1..n] IncomingAudioChannel [1..n] Transport RTCP Local IpAddress

Shows the local IP address of the Real-time Transport Control Protocol (RTCP) port for the incoming audio in the media channel.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus MediaChannels Call 27 IncomingAudioChannel 327 Transport RTCP Local
IpAddress
*s MediaChannels Call 27 IncomingAudioChannel 327 Transport RTCP Local
IpAddress: "192.168.24.190"
** end
```


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xStatus MediaChannels Call [1..n] IncomingAudioChannel [1..n] Transport RTCP Local Port

Shows the local UDP port number of the Real-time Transport Control Protocol (RTCP) port for the incoming audio in the media channel.

Value space of the result returned:

<1..n>

Example:

```
xStatus MediaChannels Call 27 IncomingAudioChannel 327 Transport RTCP Local Port
*s MediaChannels Call 27 IncomingAudioChannel 327 Transport RTCP Local Port: 16405
** end
```

xStatus MediaChannels Call [1..n] IncomingAudioChannel [1..n] Transport RTCP Remote IpAddress

Shows the remote IP address of the Real-time Transport Control Protocol (RTCP) port for the incoming audio in the media channel.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus MediaChannels Call 27 IncomingAudioChannel 327 Transport RTCP Remote IpAddress
*s MediaChannels Call 27 IncomingAudioChannel 327 Transport RTCP Remote IpAddress: "192.168.136.130"
** end
```

xStatus MediaChannels Call [1..n] IncomingAudioChannel [1..n] Transport RCTP Remote Port

Shows the remote UDP port number of the Real-time Transport Control Protocol (RTCP) port for the incoming audio in the media channel.

Value space of the result returned:

<1..n>

Example:

```
xStatus MediaChannels Call 27 IncomingAudioChannel 327 Transport RTCP Remote Port
*s MediaChannels Call 27 IncomingAudioChannel 327 Transport RTCP Remote Port: 50933
** end
```

xStatus MediaChannels Call [1..n] IncomingVideoChannel [1..n] Encryption Status

Shows the encryption status on the incoming channel.

Value space of the result returned:

<On/Off>

Example:

```
xStatus MediaChannels Call 27 IncomingVideoChannel 330 Encryption Status
*s MediaChannels Call 27 IncomingVideoChannel 330 Encryption Status: Off
** end
```

xStatus MediaChannels Call [1..n] IncomingVideoChannel [1..n] ChannelRole

Shows if the incoming channel is the main video channel or presentation channel.

Value space of the result returned:

<Main/Presentation>

Example:

```
xStatus MediaChannels Call 27 IncomingVideoChannel 330 ChannelRole
*s MediaChannels Call 27 IncomingVideoChannel 330 ChannelRole: Main
** end
```

xStatus MediaChannels Call [1..n] IncomingVideoChannel [1..n] Video Protocol

Shows the video algorithm for the incoming video channel.

H264: The H.264 algorithm is an ITU-T standard for video compression.

H263pp: The H.263pp algorithm is an ITU-T standard for video compression.

H263: The H.263 algorithm is an ITU-T standard for video compression.

H261: The H.261 algorithm is an ITU-T standard for video compression.

Value space of the result returned:

<H264/H263pp/H263/H261>

Example:

```
xStatus MediaChannels Call 27 IncomingVideoChannel 330 Video Protocol
*s MediaChannels Call 27 IncomingVideoChannel 330 Video Protocol: H264
** end
```

xStatus MediaChannels Call [1..n] IncomingVideoChannel [1..n] Video FrameRate

Shows the video frame rate of the incoming channel.

Value space of the result returned:

<Integer value>

Example:

```
xStatus MediaChannels Call 27 IncomingVideoChannel 330 Video FrameRate
*s MediaChannels Call 27 IncomingVideoChannel 330 Video FrameRate: 25
** end
```


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xStatus MediaChannels Call [1..n] IncomingVideoChannel [1..n] Video ResolutionX

Shows the width (resolution in direction X) of the incoming video.

Value space of the result returned:

<Integer value>

Example:

```
xStatus MediaChannels Call 27 IncomingVideoChannel 330 Video ResolutionX
*s MediaChannels Call 27 IncomingVideoChannel 330 Video ResolutionX: 768
** end
```

xStatus MediaChannels Call [1..n] IncomingVideoChannel [1..n] Video ResolutionY

Shows the height (resolution in direction Y) of the incoming video.

Value space of the result returned:

<Integer value>

Example:

```
xStatus MediaChannels Call 27 IncomingVideoChannel 330 Video ResolutionY
*s MediaChannels Call 27 IncomingVideoChannel 330 Video ResolutionY: 448
** end
```

xStatus MediaChannels Call [1..n] IncomingVideoChannel [1..n] Transport RTP Local IpAddress

Shows the local IP address of the Real-time Transport Protocol (RTP) port for the incoming video in the media channel.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus MediaChannels Call 27 IncomingVideoChannel 330 Transport RTP Local
IpAddress
*s MediaChannels Call 27 IncomingVideoChannel 330 Transport RTP Local
IpAddress: "192.168.24.190"
** end
```

xStatus MediaChannels Call [1..n] IncomingVideoChannel [1..n] Transport RTP Local Port

Shows the local UDP port number of the Real-time Transport Protocol (RTP) port for the incoming video in the media channel.

Value space of the result returned:

<1..n>

Example:

```
xStatus MediaChannels Call 27 IncomingVideoChannel 330 Transport RTP Local
Port
*s MediaChannels Call 27 IncomingVideoChannel 330 Transport RTP Local Port:
16404
** end
```

xStatus MediaChannels Call [1..n] IncomingVideoChannel [1..n] Transport RTP Remote IpAddress

Shows the remote IP address of the Real-time Transport Protocol (RTP) port for the incoming video in the media channel.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus MediaChannels Call 27 IncomingVideoChannel 330 Transport RTP Remote
IpAddress
*s MediaChannels Call 27 IncomingVideoChannel 330 Transport RTP Remote
IpAddress: "192.168.136.130"
** end
```

xStatus MediaChannels Call [1..n] IncomingVideoChannel [1..n] Transport RTP Remote Port

Shows the remote UDP port number of the Real-time Transport Protocol (RTP) port for the incoming video in the media channel.

Value space of the result returned:

<1..n>

Example:

```
xStatus MediaChannels Call 27 IncomingVideoChannel 330 Transport RTP Remote
Port
*s MediaChannels Call 27 IncomingVideoChannel 330 Transport RTP Remote Port:
50932
** end
```

xStatus MediaChannels Call [1..n] IncomingVideoChannel [1..n] Transport RTCP Local IpAddress

Shows the local IP address of the Real-time Transport Control Protocol (RTCP) port for the incoming video in the media channel.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus MediaChannels Call 27 IncomingVideoChannel 330 Transport RTCP Local
IpAddress
*s MediaChannels Call 27 IncomingVideoChannel 330 Transport RTCP Local
IpAddress: "192.168.24.190"
** end
```


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xStatus MediaChannels Call [1..n] IncomingVideoChannel [1..n] Transport RTCP Local Port

Shows the local UDP port number of the Real-time Transport Control Protocol (RTCP) port for the incoming video in the media channel.

Value space of the result returned:

<1..n>

Example:

```
xStatus MediaChannels Call 27 IncomingVideoChannel 330 Transport RTCP Local
Port
*s MediaChannels Call 27 IncomingVideoChannel 330 Transport RTCP Local Port:
16405
** end
```

xStatus MediaChannels Call [1..n] IncomingVideoChannel [1..n] Transport RTCP Remote IpAddress

Shows the remote IP address of the Real-time Transport Control Protocol (RTCP) port for the incoming video in the media channel..

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus MediaChannels Call 27 IncomingVideoChannel 330 Transport RTCP
Remote IpAddress
*s MediaChannels Call 27 IncomingVideoChannel 330 Transport RTCP Remote
IpAddress: "192.168.136.130"
** end
```

xStatus MediaChannels Call [1..n] IncomingVideoChannel [1..n] Transport RCTP Remote Port

Shows the remote UDP port number of the Real-time Transport Control Protocol (RTCP) port for the incoming video in the media channel.

Value space of the result returned:

<1..n>

Example:

```
xStatus MediaChannels Call 27 IncomingVideoChannel 330 Transport RTCP
Remote Port
*s MediaChannels Call 27 IncomingVideoChannel 330 Transport RTCP Remote
Port: 50933
** end
```

xStatus MediaChannels Call [1..n] OutgoingAudioChannel [1..n] Encryption Status

Shows the encryption status on the outgoing channel.

Value space of the result returned:

<On/Off>

Example:

```
xStatus MediaChannels Call 27 OutgoingAudioChannel 328 Encryption Status
*s MediaChannels Call 27 OutgoingAudioChannel 328 Encryption Status: Off
** end
```

xStatus MediaChannels Call [1..n] OutgoingAudioChannel [1..n] Audio Protocol

Shows the audio algorithm for the outgoing audio channel.

AACLD: The AAC-LD is a MPEG-4 Low Delay Audio Coder audio compression format.

G722: The G.722 algorithm is an ITU standard.

G7221: The G.722.1 algorithm is a licensed royalty-free ITU-T standard.

G711Mu: The G.711 Mu-law compression algorithm is used in North America and Japan.

G711A: The G.711 A-law compression algorithm is used in Europe and the rest of the world

Value space of the result returned:

<AACLD/G722/G7221/G711Mu/G711A>

Example:

```
xStatus MediaChannels Call 27 OutgoingAudioChannel 328 Audio Protocol
*s MediaChannels Call 27 OutgoingAudioChannel 328 Audio Protocol: AACLD
** end
```

xStatus MediaChannels Call [1..n] OutgoingAudioChannel [1..n] Audio Channels

Shows the number of outgoing audio channels.

Value space of the result returned:

<Integer value>

Example:

```
xStatus MediaChannels Call 27 OutgoingAudioChannel 328 Audio Channels
*s MediaChannels Call 27 OutgoingAudioChannel 328 Audio Channels: 1
** end
```


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xStatus MediaChannels Call [1..n] OutgoingAudioChannel [1..n] Transport RTP Local IpAddress

Shows the local IP address of the Real-time Transport Protocol (RTP) port for the outgoing audio in the media channel.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus MediaChannels Call 27 OutgoingAudioChannel 328 Transport RTP Local
IpAddress
*s MediaChannels Call 27 OutgoingAudioChannel 328 Transport RTP Local
IpAddress: "192.168.24.190"
** end
```

xStatus MediaChannels Call [1..n] OutgoingAudioChannel [1..n] Transport RTP Local Port

Shows the local UDP port number of the Real-time Transport Protocol (RTP) port for the outgoing audio in the media channel.

Value space of the result returned:

<1..n>

Example:

```
xStatus MediaChannels Call 27 OutgoingAudioChannel 328 Transport RTP Local
Port
*s MediaChannels Call 27 OutgoingAudioChannel 328 Transport RTP Local Port:
16404
** end
```

xStatus MediaChannels Call [1..n] OutgoingAudioChannel [1..n] Transport RTP Remote IpAddress

Shows the remote IP address of the Real-time Transport Protocol (RTP) port for the outgoing audio in the media channel.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus MediaChannels Call 27 OutgoingAudioChannel 328 Transport RTP Remote
IpAddress
*s MediaChannels Call 27 OutgoingAudioChannel 328 Transport RTP Remote
IpAddress: "192.168.136.130"
** end
```

xStatus MediaChannels Call [1..n] OutgoingAudioChannel [1..n] Transport RTP Remote Port

Shows the remote UDP port number of the Real-time Transport Protocol (RTP) port for the outgoing audio in the media channel.

Value space of the result returned:

<1..n>

Example:

```
xStatus MediaChannels Call 27 OutgoingAudioChannel 328 Transport RTP Remote
Port
*s MediaChannels Call 27 OutgoingAudioChannel 328 Transport RTP Remote Port:
50932
** end
```

xStatus MediaChannels Call [1..n] OutgoingAudioChannel [1..n] Transport RTCP Local IpAddress

Shows the local IP address of the Real-time Transport Control Protocol (RTCP) port for the outgoing audio in the media channel.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus MediaChannels Call 27 OutgoingAudioChannel 328 Transport RTCP Local
IpAddress
*s MediaChannels Call 27 OutgoingAudioChannel 328 Transport RTCP Local
IpAddress: "192.168.24.190"
** end
```

xStatus MediaChannels Call [1..n] OutgoingAudioChannel [1..n] Transport RTCP Local Port

Shows the local UDP port number of the Real-time Transport Control Protocol (RTCP) port for the outgoing audio in the media channel.

Value space of the result returned:

<1..n>

Example:

```
xStatus MediaChannels Call 27 OutgoingAudioChannel 328 Transport RTCP Local
Port
*s MediaChannels Call 27 OutgoingAudioChannel 328 Transport RTCP Local Port:
16405
** end
```


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xStatus MediaChannels Call [1..n] OutgoingAudioChannel [1..n] Transport RTCP Remote IpAddress

Shows the remote IP address of the Real-time Transport Control Protocol (RTCP) port for the outgoing audio in the media channel.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus MediaChannels Call 27 OutgoingAudioChannel 328 Transport RTCP
Remote IpAddress
*s MediaChannels Call 27 OutgoingAudioChannel 328 Transport RTCP Remote
IpAddress: "192.168.136.130"
** end
```

xStatus MediaChannels Call [1..n] OutgoingAudioChannel [1..n] Transport RCTP Remote Port

Shows the remote UDP port number of the Real-time Transport Control Protocol (RTCP) port for the outgoing audio in the media channel.

Value space of the result returned:

<1..n>

Example:

```
xStatus MediaChannels Call 27 OutgoingAudioChannel 328 Transport RTCP
Remote Port
*s MediaChannels Call 27 OutgoingAudioChannel 328 Transport RTCP Remote
Port: 50933
** end
```

xStatus MediaChannels Call [1..n] OutgoingVideoChannel [1..n] Encryption Status

Shows the encryption status on the outgoing channel.

Value space of the result returned:

<On/Off>

Example:

```
xStatus MediaChannels Call 27 OutgoingVideoChannel 331 Encryption Status
*s MediaChannels Call 27 OutgoingVideoChannel 331 Encryption Status: Off
** end
```

xStatus MediaChannels Call [1..n] OutgoingVideoChannel [1..n] ChannelRole

Shows if the outgoing channel is the main video channel or presentation channel.

Value space of the result returned:

<Main/Presentation>

Example:

```
xStatus MediaChannels Call 27 OutgoingVideoChannel 331 ChannelRole
*s MediaChannels Call 27 OutgoingVideoChannel 331 ChannelRole: Main
** end
```

xStatus MediaChannels Call [1..n] OutgoingVideoChannel [1..n] Video Protocol

Shows the video algorithm for the outgoing video channel.

H264: The H.264 algorithm is an ITU-T standard for video compression.

H263pp: The H.263pp algorithm is an ITU-T standard for video compression.

H263: The H.263 algorithm is an ITU-T standard for video compression.

H261: The H.261 algorithm is an ITU-T standard for video compression.

Value space of the result returned:

<H264/H263pp/H263/H261>

Example:

```
xStatus MediaChannels Call 27 OutgoingVideoChannel 331 Video Protocol
*s MediaChannels Call 27 OutgoingVideoChannel 331 Video Protocol: "H264"
** end
```

xStatus MediaChannels Call [1..n] OutgoingVideoChannel [1..n] Video FrameRate

Shows the video frame rate of the outgoing channel.

Value space of the result returned:

<Integer value>

Example:

```
xStatus MediaChannels Call 27 OutgoingVideoChannel 331 Video FrameRate
*s MediaChannels Call 27 OutgoingVideoChannel 331 Video FrameRate: 30
** end
```

xStatus MediaChannels Call [1..n] OutgoingVideoChannel [1..n] Video ResolutionX

Shows the width (resolution in direction X) of the outgoing video.

Value space of the result returned:

<Integer value.>

Example:

```
xStatus MediaChannels Call 27 OutgoingVideoChannel 331 Video ResolutionX
*s MediaChannels Call 27 OutgoingVideoChannel 331 Video ResolutionX: 768
** end
```


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xStatus MediaChannels Call [1..n] OutgoingVideoChannel [1..n] Video ResolutionY

Shows the height (resolution in direction Y) of the outgoing video.

Value space of the result returned:

<Integer value.>

Example:

```
xStatus MediaChannels Call 27 OutgoingVideoChannel 331 Video ResolutionY
*s MediaChannels Call 27 OutgoingVideoChannel 331 Video ResolutionY: 448
** end
```

xStatus MediaChannels Call [1..n] OutgoingVideoChannel [1..n] Transport RTP Local IpAddress

Shows the local IP address of the Real-time Transport Protocol (RTP) port for the outgoing video in the media channel.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus MediaChannels Call 27 OutgoingVideoChannel 331 Transport RTP Local
IpAddress
*s MediaChannels Call 27 OutgoingVideoChannel 331 Transport RTP Local
IpAddress: "192.168.24.190"
** end
```

xStatus MediaChannels Call [1..n] OutgoingVideoChannel [1..n] Transport RTP Local Port

Shows the local UDP port number of the Real-time Transport Protocol (RTP) port for the outgoing video in the media channel.

Value space of the result returned:

<1..n>

Example:

```
xStatus MediaChannels Call 27 OutgoingVideoChannel 331 Transport RTP Local
Port
*s MediaChannels Call 27 OutgoingVideoChannel 331 Transport RTP Local Port:
16404
** end
```

xStatus MediaChannels Call [1..n] OutgoingVideoChannel [1..n] Transport RTP Remote IpAddress

Shows the remote IP address of the Real-time Transport Protocol (RTP) port for the outgoing video in the media channel.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus MediaChannels Call 27 OutgoingVideoChannel 331 Transport RTP Remote
IpAddress
*s MediaChannels Call 27 OutgoingVideoChannel 331 Transport RTP Remote
IpAddress: "192.168.136.130"
** end
```

xStatus MediaChannels Call [1..n] OutgoingVideoChannel [1..n] Transport RTP Remote Port

Shows the remote UDP port number of the Real-time Transport Protocol (RTP) port for the outgoing video in the media channel.

Value space of the result returned:

<1..n>

Example:

```
xStatus MediaChannels Call 27 OutgoingVideoChannel 331 Transport RTP Remote
Port
*s MediaChannels Call 27 OutgoingVideoChannel 331 Transport RTP Remote Port:
50932
** end
```

xStatus MediaChannels Call [1..n] OutgoingVideoChannel [1..n] Transport RTCP Local IpAddress

Shows the local IP address of the Real-time Transport Control Protocol (RTCP) port for the outgoing video in the media channel.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus MediaChannels Call 27 OutgoingVideoChannel 331 Transport RTCP Local
IpAddress
*s MediaChannels Call 27 OutgoingVideoChannel 331 Transport RTCP Local
IpAddress: "192.168.24.190"
** end
```


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xStatus MediaChannels Call [1..n] OutgoingVideoChannel [1..n] Transport RTCP Local Port

Shows the local UDP port number of the Real-time Transport Control Protocol (RTCP) port for the outgoing video in the media channel.

Value space of the result returned:

<1..n>

Example:

```
xStatus MediaChannels Call 27 OutgoingVideoChannel 331 Transport RTCP Local Port
*s MediaChannels Call 27 OutgoingVideoChannel 331 Transport RTCP Local Port: 16405
** end
```

xStatus MediaChannels Call [1..n] OutgoingVideoChannel [1..n] Transport RTCP Remote IpAddress

Shows the remote IP address of the Real-time Transport Control Protocol (RTCP) port for the outgoing video in the media channel.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus MediaChannels Call 27 OutgoingVideoChannel 331 Transport RTCP Remote IpAddress
*s MediaChannels Call 27 OutgoingVideoChannel 331 Transport RTCP Remote IpAddress: "192.168.136.130"
** end
```

xStatus MediaChannels Call [1..n] OutgoingVideoChannel [1..n] Transport RCTP Remote Port

Shows the remote UDP port number of the Real-time Transport Control Protocol (RTCP) port for the outgoing video in the media channel.

Value space of the result returned:

<1..n>

Example:

```
xStatus MediaChannels Call 27 OutgoingVideoChannel 331 Transport RTCP Remote Port
*s MediaChannels Call 27 OutgoingVideoChannel 331 Transport RTCP Remote Port: 50933
** end
```

The Network status

xStatus Network

Shows the top level overview of the network status.

Example:

```
xStatus Network
*s Network 1 Ethernet MacAddress: "00:50:60:02:E7:D3"
*s Network 1 Ethernet Speed: "1000full"
*s Network 1 IPv4 Address: "192.0.2.149"
*s Network 1 IPv4 SubnetMask: "255.255.255.0"
*s Network 1 IPv4 Gateway: "192.0.2.10"
*s Network 1 IPv4 DNS Domain Name: "www.example.com www.example.int"
*s Network 1 IPv4 DNS Server 1 Address: "192.0.2.60"
*s Network 1 IPv4 DNS Server 2 Address: "192.0.2.61"
*s Network 1 IPv4 DNS Server 3 Address: ""
*s Network 1 IPv4 DNS Server 4 Address: ""
*s Network 1 IPv4 DNS Server 5 Address: ""
*s Network 1 IPv6 Address: ""
*s Network 1 IPv6 Gateway: ""
*s Network 1 IPv4 MTU: 1500
** end
```

xStatus Network 1 Ethernet MacAddress

Shows the MAC (Media Access Control) address for the ethernet interface.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus Network 1 Ethernet MacAddress
*s Network 1 Ethernet MacAddress: "00:50:60:02:FD:C7"
** end
```

xStatus Network 1 Ethernet Speed

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>

Example:

```
xStatus Network 1 Ethernet Speed
*s Network 1 Ethernet Speed: "100full"
** end
```


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xStatus Network 1 IPv4 Address

Shows the IPv4 address that uniquely identifies this system.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus Network 1 IPv4 Address
*s Network 1 IPv4 Address: "192.0.2.149"
** end
```

xStatus Network 1 IPv4 SubnetMask

Shows the subnet mask which determines which subnet an IPv4 address belongs to.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus Network 1 IPv4 SubnetMask
*s Network 1 IPv4 SubnetMask: "255.255.255.0"
** end
```

xStatus Network 1 IPv4 Gateway

Shows the address of the IPv4 gateway.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus Network 1 IPv4 Gateway
*s Network 1 IPv4 Gateway: "192.0.2.10"
** end
```

xStatus Network 1 IPv4 DNS Domain Name

Shows the domain name.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus Network 1 IPv4 DNS Domain Name
*s Network 1 IPv4 DNS Domain Name: "www.example.com www.example.int"
** end
```

xStatus Network 1 IPv4 DNS Server [1..5] Address

Shows the IP address of the DNS server.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus Network 1 IPv4 DNS Server 1. Address
*s Network 1 IPv4 DNS Server 1 Address: "192.0.2.60"
** end
```

xStatus Network 1 IPv6 Address

Shows the IPv6 address that uniquely identifies this system.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus Network 1 IPv6 Address
*s Network 1 IPv6 Address: ""
** end
```

xStatus Network 1 IPv6 Gateway

Shows the address of the IPv6 gateway.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus Network 1 IPv6 Gateway
*s Network 1 IPv6 Gateway: ""
** end
```

xStatus Network 1 MTU

Shows the MTU (Maximum Transmission Unit) size for the network.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Network 1 MTU
*s Network 1 MTU: 1500
** end
```


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The Preset status

xStatus Preset

Shows the top level overview of the camera presets status.

Example:

```
xStatus Preset
*s Preset 1 Defined: True
*s Preset 1 Type: All
*s Preset 1 Description: "Zoom in"
*s Preset 2 Defined: True
*s Preset 2 Type: All
*s Preset 2 Description: "Zoom out"
 -
 - //continues with Preset 3-15.//
** end
```

xStatus Preset [1..15] Defined

Shows if a camera preset is stored at this position.

Value space of the result returned:

<True/False>

Example:

```
xStatus Preset 1 Defined
*s Preset 1 Defined: True
** end
```

xStatus Preset [1..15] Type

Shows the camera preset type.

Value space of the result returned:

<All/Camera>

Example:

```
xStatus Preset 1 Type
*s Preset 1 Type: All
** end
```

xStatus Preset [1..15] Description

Lists the configured name for the specific preset.

Value space of the result returned:

<S: 0..100>

Example:

```
xStatus Preset 1 Description
*s Preset 1 Description: "Zoom in"
** end
```


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The Provisioning status

xStatus Provisioning

Shows the top level overview of the provisioning status.

Example:

```
xStatus Provisioning
*s Provisioning Status: Provisioned
*s Provisioning Reason: ""
*s Provisioning Software UpgradeStatus SessionId: ""
*s Provisioning Software UpgradeStatus LastChange: "2011-06-07T07:20:03Z"
*s Provisioning Software UpgradeStatus Status: None
*s Provisioning Software UpgradeStatus Phase: None
*s Provisioning Software UpgradeStatus Message: ""
*s Provisioning Software UpgradeStatus VersionId: ""
*s Provisioning Software UpgradeStatus URL: ""
*s Provisioning Software Current VersionId: ""
*s Provisioning Software Current URL: ""
*s Provisioning Software Current CompletedAt: "2011-06-07T07:20:03Z"
** end
```

xStatus Provisioning Status

Shows the status of the provisioning.

Failed: The provisioning failed.

AuthenticationFailed: The authentication failed.

Provisioned: The endpoint is provisioned.

Idle: The provisioning is not active.

NeedConfig: The endpoint needs to be configured.

Value space of the result returned:

<Failed/AuthenticationFailed/Provisioned/Idle/NeedConfig>

Example:

```
xStatus Provisioning Status
*s Provisioning Status: Provisioned
** end
```

xStatus Provisioning Reason

Shows the cause when provisioning has failed.

Value space of the result returned:

<S: 0, 80>

Example:

```
xStatus Provisioning Reason
*s Provisioning Reason: ""
** end
```

xStatus Provisioning Software UpgradeStatus SessionId

Shows the ID of the session for the software upgrade.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus Provisioning Software UpgradeStatus SessionId
*s Provisioning Software UpgradeStatus SessionId: ""
** end
```

xStatus Provisioning Software UpgradeStatus LastChange

Shows the date and time for the latest software upgrade.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus Provisioning Software UpgradeStatus LastChange
*s Provisioning Software UpgradeStatus LastChange: "2011-06-07T07:20:03Z"
** end
```

xStatus Provisioning Software UpgradeStatus Status

Shows the status of the software upgrade.

Value space of the result returned:

<None/InProgress/Failed/Succeeded>

Example:

```
xStatus Provisioning Software UpgradeStatus Status
*s Provisioning Software UpgradeStatus Status: None
** end
```


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xStatus Provisioning Software UpgradeStatus Phase

Shows the phase of the software upgrade.

Value space of the result returned:

<None/DownloadPending/Downloading/Installing>

Example:

```
xStatus Provisioning Software UpgradeStatus Phase
*s Provisioning Software UpgradeStatus Phase: None
** end
```

xStatus Provisioning Software UpgradeStatus Message

Shows the system message for the software upgrade.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus Provisioning Software UpgradeStatus Message
*s Provisioning Software UpgradeStatus Message: ""
** end
```

xStatus Provisioning Software Current VersionId

Shows the version ID of the current software upgrade.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus Provisioning Software Current VersionId
*s Provisioning Software Current VersionId: ""
** end
```

xStatus Provisioning Software Current URL

Shows the URL from where the current software upgrade is uploaded.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus Provisioning Software Current URL
*s Provisioning Software Current URL: ""
** end
```

xStatus Provisioning Software Current CompletedAt

Shows date and time for when the current software upgrade was completed.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus Provisioning Software Current CompletedAt
*s Provisioning Software Current CompletedAt: "2011-06-07T07:20:03Z"
** end
```


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The SIP status

xStatus SIP

Shows the top level overview of the SIP status.

Example:

```
xStatus SIP
*s SIP Proxy 1 Status: Active
*s SIP Proxy 1 Address: "192.0.2.50"
*s SIP Proxy 1 Secure: True
*s SIP Proxy 1 Verified: False
*s SIP Registration 1 Status: Registered
*s SIP Registration 1 Reason: ""
*s SIP Registration 1 URI: "anyname@company.com"
*s SIP Registration 1 Authentication: Off
*s SIP Profile 1 Proxy 1 Status: Active
*s SIP Profile 1 Proxy 1 Address: "192.0.1.50"
*s SIP Profile 1 Secure: True
*s SIP Profile 1 Verified: False
*s SIP Profile 1 Authentication: Off
*s SIP Profile 1 Registration 1 Status: Registered
*s SIP Profile 1 Registration 1 Reason: ""
*s SIP Profile 1 Registration 1 URI: "anyname@company.com"
** end
```

xStatus SIP Proxy [1] Status

Shows the status of the communication between the endpoint and the SIP Proxy server.

Active: The communication between the endpoint and the SIP Proxy is active.

DNSFailed: The attempt to establish communication to the DNS server failed.

Off: There is no communication between the endpoint and the SIP Proxy.

Timeout: The attempt to establish communication to the SIP Proxy timed out.

UnableTCP: The system is unable to use TCP as the transport method.

UnableTLS: The system is unable to use TLS as the transport method.

Unknown: The status of the communication is not known.

Value space of the result returned:

<Active/DNSFailed/Off/Timeout/UnableTCP/UnableTLS/Unknown>

Example:

```
xStatus SIP Proxy 1 Status
*s SIP Proxy 1 Status: Active
** end
```

xStatus SIP Proxy [1] Address

Shows the address of the SIP Proxy that the system communicates with.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus SIP Proxy 1 Address
*s SIP Proxy 1 Address: "192.0.2.50"
** end
```

xStatus SIP Proxy [1] Secure

Shows the encryption status of the signalling with the SIP Proxy server.

Value space of the result returned:

<True/False>

Example:

```
xStatus SIP Proxy 1 Secure
*s SIP Proxy 1 Secure: True
** end
```

xStatus SIP Proxy [1] Verified

Not supported in this software version.

Value space of the result returned:

<True/False>

Example:

```
xStatus SIP Proxy 1 Verified
*s SIP Proxy 1 Verified: False
** end
```


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xStatus SIP Registration [1..n] Status

Shows the status of the registration to the SIP Proxy Server.

Deregister: The system is in the process of de-registering to the SIP Proxy.

Failed: The system failed to register to the SIP Proxy.

Inactive: The system is not registered to any SIP Proxy.

Registered: The system is registered to the SIP Proxy.

Registering: The system is in the process of registering to the SIP Proxy.

Value space of the result returned:

<Deregister/Failed/Inactive/Registered/Registering>

Example:

```
xStatus SIP Registration 1 Status
*s SIP Registration 1 Status: Registered
** end
```

xStatus SIP Registration [1..n] Reason

Shows a message to explain the reason why the SIP registration failed.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SIP Registration 1 Reason
*s SIP Registration 1 Reason: "404 Not Found"
** end
```

xStatus SIP Registration [1..n] URI

Shows the URI used for registration to the SIP Proxy server.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SIP Registration 1 URI
*s SIP Registration 1 URI: "firstname.lastname@company.com"
** end
```

xStatus SIP Registration [1..n] Authentication

Shows which authentication mechanism is used when registering to the SIP Proxy Server.

Digest: Uses the Digest access authentication method, as specified by RFC 2069.

NTLM: Uses the NTLM athentication method, which is a Microsoft athentication protocol.

Off: No authentication mechanism is used.

Value space of the result returned:

<Digest/NTLM/Off>

Example:

```
xStatus SIP Registration 1 Authentication
*s SIP Registration 1 Authentication: Off
** end
```

xStatus SIP Profile 1 Proxy [1] Status

Shows the status of the communication between the endpoint and the SIP Proxy server.

Active: The communication between the endpoint and the SIP Proxy is active.

DNSFailed: The attempt to establish communication to the DNS server failed.

Off: There is no communication between the endpoint and the SIP Proxy.

Timeout: The attempt to establish communication to the SIP Proxy timed out.

UnableTCP: The system is unable to use TCP as the transport method.

UnableTLS: The system is unable to use TLS as the transport method.

Unknown: The status of the communication is not known.

Value space of the result returned:

<Active/DNSFailed/Off/Timeout/UnableTCP/UnableTLS/Unknown>

Example:

```
xStatus SIP Profile 1 Proxy 1 Status
*s SIP Profile 1 Proxy 1 Status: Active
** end
```

xStatus SIP Profile 1 Proxy [1] Address

Shows the address of the SIP Proxy that the system communicates with.

Value space of the result returned:

<S: 0, 255>

Example:

```
xStatus SIP Profile 1 Proxy 1 Address
*s SIP Profile 1 Proxy 1 Address: "192.0.2.50"
** end
```


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xStatus SIP Profile 1 Secure

Shows the encryption status of the signalling with the SIP Proxy server.

Value space of the result returned:

<True/False>

Example:

```
xStatus SIP Profile 1 Secure
*s SIP Profile 1 Secure: True
** end
```

xStatus SIP Profile 1 Verified

Not supported in this software version.

Value space of the result returned:

<True/False>

Example:

```
xStatus SIP Profile 1 Verified
*s SIP Profile 1 Verified: False
** end
```

xStatus SIP Profile 1 Authentication

Shows which authentication mechanism is used when registering to the SIP Proxy Server.

Digest: Uses the Digest access authentication method, as specified by RFC 2069.

NTLM: Uses the NTLM athentication method, which is a Microsoft athentication protocol.

Off: No authentication mechanism is used.

Value space of the result returned:

<Digest/NTLM/Off>

Example:

```
xStatus SIP Profile 1 Authentication
*s SIP Profile 1 Authentication: Off
** end
```

xStatus SIP Profile 1 Registration [1..n] Status

Shows the status of the registration to the SIP Proxy Server.

Deregister: The system is in the process of de-registering to the SIP Proxy.

Failed: The system failed to register to the SIP Proxy.

Inactive: The system is not registered to any SIP Proxy.

Registered: The system is registered to the SIP Proxy.

Registering: The system is in the process of registering to the SIP Proxy.

Value space of the result returned:

<Deregister/Failed/Inactive/Registered/Registering>

Example:

```
xStatus SIP Profile 1 Registration 1 Status
*s SIP Profile 1 Registration 1 Status: Registered
** end
```

xStatus SIP Profile 1 Registration [1..n] Reason

Shows a message to explain the reason why the SIP registration failed.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SIP Profile 1 Registration 1 Reason
*s SIP Profile 1 Registration 1 Reason: "404 Not Found"
** end
```

xStatus SIP Profile 1 Registration [1..n] URI

Shows the URI used for registration to the SIP Proxy server.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SIP Profile 1 Registration 1 URI
*s SIP Profile 1 Registration 1 URI: "firstname.lastname@company.com"
** end
```


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The Standby status

xStatus Standby Active

Shows if the system is in standby or not.

Value space of the result returned:

<On/Off>

Example:

```
xStatus Standby Active
*s Standby Active: Off
** end
```

The SystemUnit status

xStatus SystemUnit

Shows the top level overview of the system unit status.

Example:

```
xstatus SystemUnit
*s SystemUnit ProductType: "Cisco TelePresence Codec"
*s SystemUnit ProductId: "Cisco TelePresence Codec C20"
*s SystemUnit ProductPlatform: "C20"
*s SystemUnit Uptime: 788940
*s SystemUnit Software Version: "TC4.2.0"
*s SystemUnit Software Name: "s52000"
*s SystemUnit Software ReleaseDate: "2011-06-03"
*s SystemUnit Software MaxVideoCalls: 1
*s SystemUnit Software MaxAudioCalls: 2
*s SystemUnit Software ReleaseKey: "true"
*s SystemUnit Software OptionKeys NaturalPresenter: "true"
*s SystemUnit Software OptionKeys PremiumResolution: "true"
*s SystemUnit Software OptionKeys HighDefinition: "true"
*s SystemUnit Software OptionKeys DualDisplay: "true"
*s SystemUnit Hardware Module SerialNumber: "F9AA99A00090"
*s SystemUnit Hardware Module Identifier: "0"
*s SystemUnit Hardware MainBoard SerialNumber: "PH0999999"
*s SystemUnit Hardware MainBoard Identifier: "101551-2 [02]"
*s SystemUnit Hardware BootSoftware: "U-Boot 2010.06-81"
*s SystemUnit State System: InCall
*s SystemUnit State MaxNumberOfCalls: 1
*s SystemUnit State MaxNumberOfActiveCalls: 1
*s SystemUnit State NumberOfActiveCalls: 1
*s SystemUnit State NumberOfSuspendedCalls: 0
*s SystemUnit State NumberOfInProgressCalls: 0
*s SystemUnit State Subsystem Application: Initialized
*s SystemUnit ContactInfo: "anyname@company.com"
** end
```


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xStatus SystemUnit ProductType

Shows the product type.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SystemUnit ProductType
*s SystemUnit ProductType: "Cisco TelePresence Codec"
** end
```

xStatus SystemUnit ProductId

Shows the product identity.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SystemUnit ProductId
*s SystemUnit ProductId: "Cisco TelePresence Codec C90"
** end
```

xStatus SystemUnit ProductPlatform

Shows the product platform.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SystemUnit ProductPlatform
*s SystemUnit ProductPlatform: "C90"
** end
```

xStatus SystemUnit Uptime

Shows the number of seconds since the last restart of the codec.

Value space of the result returned:

<Integer value>

Example:

```
xStatus SystemUnit Uptime
*s SystemUnit Uptime: 597095
** end
```

xStatus SystemUnit Software Application

Shows which software application is running on the codec.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SystemUnit Software Application
*s SystemUnit Software Application: "Endpoint"
** end
```

xStatus SystemUnit Software Version

Shows the software version installed on the codec.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SystemUnit Software Version
*s SystemUnit Software Version: "TC4.2.0"
** end
```

xStatus SystemUnit Software Name

Shows the name of the software that is installed on the codec.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SystemUnit Software Name
*s SystemUnit Software Name: "s52000"
** end
```

xStatus SystemUnit Software ReleaseDate

Shows the release date of the software installed on the codec.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SystemUnit Software ReleaseDate
*s SystemUnit Software ReleaseDate: "2011-07-19"
** end
```


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xStatus SystemUnit Software MaxVideoCalls

Shows the the maximum number of simultaneous video calls that is supported.

Value space of the result returned:

<Integer value>

Example:

```
xStatus SystemUnit Software MaxVideoCalls
*s SystemUnit Software MaxVideoCalls: 1
** end
```

xStatus SystemUnit Software MaxAudioCalls

Shows the the maximum number of simultaneous audio calls that is supported.

Value space of the result returned:

<Integer value>

Example:

```
xStatus SystemUnit Software MaxAudioCalls
*s SystemUnit Software MaxAudioCalls: 2
** end
```

xStatus SystemUnit Software ReleaseKey

Shows if there is a valid releasekey for the software version that is installed on the codec.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SystemUnit Software ReleaseKey
*s SystemUnit Software ReleaseKey: "true"
** end
```

xStatus SystemUnit Software OptionKeys NaturalPresenter

Shows if the system has the option key installed that supports the NaturalPresenter functionality.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SystemUnit Software OptionKeys NaturalPresenter
*s SystemUnit Software OptionKeys NaturalPresenter: "true"
** end
```

xStatus SystemUnit Software OptionKeys PremiumResolution

Shows if the system has the option key installed that supports the PremiumResolution functionality.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SystemUnit Software OptionKeys PremiumResolution
*s SystemUnit Software OptionKeys PremiumResolution: "true"
** end
```

xStatus SystemUnit Software OptionKeys HighDefinition

Shows if the system has the option key installed that supports the HighDefinition functionality.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SystemUnit Software OptionKeys HighDefinition
*s SystemUnit Software OptionKeys HighDefinition: "true"
** end
```

xStatus SystemUnit Software OptionKeys DualDisplay

Shows if the system has the option key installed that supports the DualDisplay functionality.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SystemUnit Software OptionKeys DualDisplay
*s SystemUnit Software OptionKeys DualDisplay: "true"
** end
```

xStatus SystemUnit Hardware Module SerialNumber

Shows the serial number of the hardware module in the codec.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SystemUnit Hardware Module SerialNumber
*s SystemUnit Hardware Module SerialNumber: "F9AA99A00090"
** end
```


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xStatus SystemUnit Hardware Module Identifier

Shows the revision of the hardware module in the codec.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SystemUnit Hardware Module Identifier
*s SystemUnit Hardware Module Identifier: "1"
** end
```

xStatus SystemUnit Hardware MainBoard SerialNumber

Shows the serial number of the main board in the codec.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SystemUnit Hardware MainBoard SerialNumber
*s SystemUnit Hardware MainBoard SerialNumber: "PH0999989"
** end
```

xStatus SystemUnit Hardware MainBoard Identifier

Shows the revision of the main board in the codec.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SystemUnit Hardware MainBoard Identifier
*s SystemUnit Hardware MainBoard Identifier: "101400-5 [06]"
** end
```

xStatus SystemUnit Hardware VideoBoard

Shows if there is a video board in the codec.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SystemUnit Hardware VideoBoard
*s SystemUnit Hardware VideoBoard: "None"
** end
```

xStatus SystemUnit Hardware AudioBoard

Shows if there is an audio board in the codec.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SystemUnit Hardware AudioBoard
*s SystemUnit Hardware AudioBoard: "None"
** end
```

xStatus SystemUnit Hardware BootSoftware

Shows the version of the boot software that is installed on the codec.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SystemUnit Hardware BootSoftware
*s SystemUnit Hardware BootSoftware: "U-Boot 2010.04-30"
** end
```

xStatus SystemUnit State System

Shows what state the system is in.

InCall: The system is in a call.

Initialized: The system is ready for use.

Initializing: The system is initializing.

Multisite: The system is in a Multisite conference.

Sleeping: The system is in sleep mode.

Value space of the result returned:

<InCall/Initialized/Initializing/Multisite/Sleeping>

Example:

```
xStatus SystemUnit State System
*s SystemUnit State System: Initialized
** end
```


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xStatus SystemUnit State MaxNumberOfCalls

Shows the the maximum number of simultanious calls.

Value space of the result returned:

<0..5>

Example:

```
xStatus SystemUnit State MaxNumberOfCalls
*s SystemUnit State MaxNumberOfCalls: 3
** end
```

xStatus SystemUnit State MaxNumberOfActiveCalls

Shows the the maximum number of simultanious active calls. Calls that are set on hold/transfer are not counted as active.

Value space of the result returned:

<0..5>

Example:

```
xStatus SystemUnit State MaxNumberOfActiveCalls
*s SystemUnit State MaxNumberOfActiveCalls: 3
** end
```

xStatus SystemUnit State NumberOfActiveCalls

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 NumberOfSuspendedCalls

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 State NumberOfInProgressCalls

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 Subsystem Application

Shows the status of the sub system application.

Initialized: The sub-system application is initialized.

Initializing: The sub-system application is initializing.

Value space of the result returned:

<Initialized/Initializing>

Example:

```
xStatus SystemUnit State Subsystem Application
*s SystemUnit State Subsystem Application: Initialized
** end
```

xStatus SystemUnit ContactInfo

Shows the address which another system can dial to reach this system.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus SystemUnit ContactInfo
*s SystemUnit ContactInfo: "firstname.lastname@company.com"
** end
```


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The Time status

xStatus Time ZoneOlson

Shows the current time zone on Olson format.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus Time ZoneOlson
*s Time ZoneOlson: Europe/Berlin
** end
```

The Video status

xStatus Video Input

Shows the top level overview of the video input status.

Example:

```
xStatus Video Input
*s Video Input LastConnectedSource: 0
*s Video Input Source 1 Resolution Height: 1080
*s Video Input Source 1 Resolution Width: 1920
*s Video Input Source 1 Resolution RefreshRate: 60
*s Video Input Source 1 Resolution FormatType: Digital
*s Video Input Source 1 Resolution FormatStatus: Ok
*s Video Input Source 2 Resolution Height: 0
*s Video Input Source 2 Resolution Width: 0
*s Video Input Source 2 Resolution RefreshRate: 0
*s Video Input Source 2 Resolution FormatType: Unknown
*s Video Input Source 2 Resolution FormatStatus: Error
*s Video Input HDMI 1 Connected: True
*s Video Input HDMI 1 SignalState: OK
*s Video Input DVI 2 Connected: False
*s Video Input DVI 2 SignalState: Unknown
** end
```

xStatus Video Input LastConnectedSource

Shows the last connected video input source.

Value space of the result returned:

<1..1>

Example:

```
xStatus Video Input LastConnectedSource
*s Video Input LastConnectedSource: 0
** end
```


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xStatus Video Input Source [1..2] Resolution Height

Shows the resolution height (in pixels) for the video input source.

Value space of the result returned:

<0..3000>

Example:

```
xStatus Video Input Source 1 Resolution Height
*s Video Input Source 1 Resolution Height: 1080
** end
```

xStatus Video Input Source [1..2] Resolution Width

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 Input Source [1..2] Resolution RefreshRate

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 [1..2] Resolution FormatType

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:

```
xStatus Video Input Source 1 Resolution FormatType
*s Video Input Source 1 Resolution FormatType: Digital
** end
```

xStatus Video Input Source [1..2] Resolution FormatStatus

Shows the resolution format status for the video input source.

Value space of the result returned:

<Ok/AnalogOutOfRange/AnalogNotFound/Interlaced/Error/Unknown>

Example:

```
xStatus Video Input Source 1 Resolution FormatStatus
*s Video Input Source 1 Resolution FormatStatus: Ok
** end
```

xStatus Video Input HDMI [1] Connected

Shows if there is something connected to the HDMI connector. Not all connections can be detected.

Value space of the result returned:

<True/False>

Example:

```
xStatus Video Input HDMI 1 Connected
*s Video Input HDMI 1 Connected: True
** end
```

xStatus Video Input HDMI [1] SignalState

Shows the signal state for the HDMI input.

Unknown: The signal format is unknown.

OK: A signal is detected and the signal format is supported.

Unsupported: A signal is detected, but the signal format is not supported.

Value space of the result returned:

<Unknown/OK/Unsupported>

Example:

```
xStatus Video Input HDMI 1 SignalState
*s Video Input HDMI 1 SignalState: OK
** end
```

xStatus Video Input DVI [2] Connected

Shows if there is something connected to the DVI connector. Not all connections can be detected.

Value space of the result returned:

<True/False>

Example:

```
xStatus Video Input DVI 2 Connected
*s Video Input DVI 2 Connected: False
** end
```


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xStatus Video Input DVI [2] SignalState

Shows the signal state for the DVI-I input.

Unknown: The signal format is unknown.

OK: A signal is detected and the signal format is supported.

Unsupported: A signal is detected, but the signal format is not supported.

Value space of the result returned:

<Unknown/OK/Unsupported>

Example:

```
xStatus Video Input DVI 2 SignalState
*s Video Input DVI 2 SignalState: OK
** end
```

xStatus Video Output

Shows the top level overview of the video output status.

Example:

```
xStatus Video Output
*s Video Output HDMI 1 Resolution Height: 768
*s Video Output HDMI 1 Resolution Width: 1024
*s Video Output HDMI 1 Resolution RefreshRate: 60
*s Video Output HDMI 2 Resolution Height: 720
*s Video Output HDMI 2 Resolution Width: 1280
*s Video Output HDMI 2 Resolution RefreshRate: 60
** end
```

xStatus Video Output HDMI [1, 2] Resolution Height

Shows the resolution height (in pixels) for the video output HDMI.

Value space of the result returned:

<120..3000>

Example:

```
xStatus Video Output HDMI 1 Resolution Height
*s Video Output HDMI 1 Resolution Height: 720
** end
```

xStatus Video Output HDMI [1, 2] Resolution Width

Shows the resolution width (in pixels) for the video output HDMI.

Value space of the result returned:

<176..4000>

Example:

```
xStatus Video Output HDMI 1 Resolution Width
*s Video Output HDMI 1 Resolution Width: 1280
** end
```

xStatus Video Output HDMI [1, 2] Resolution RefreshRate

Shows the resolution refresh rate (Hz) for the video output HDMI.

Value space of the result returned:

<1..300>

Example:

```
xStatus Video Output HDMI 1 Resolution RefreshRate
*s Video Output HDMI 1 Resolution RefreshRate: 60
** end
```


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xStatus Video Layout

Shows the top level overview of the video status.

Example:

```
xStatus Video Layout
*s Video Layout PresentationView: "full"
*s Video Layout Site 1 Output 1 FamilyName: "speaker"
*s Video Layout Site 1 Output 1 FullFamilyName: "speaker-sv-on"
*s Video Layout Site 1 Output 1 FamilyNumber: 1027
*s Video Layout Site 1 Output 1 GraphicName: "1top-1small"
*s Video Layout Site 1 Output 1 GraphicNumber: 1017
*s Video Layout Site 1 Output 1 Descriptor: 4
*s Video Layout Site 1 Output 1 DescriptorOutput: 1
*s Video Layout Site 1 Output 1 Frame 1 PositionX: 1333
*s Video Layout Site 1 Output 1 Frame 1 PositionY: 59
*s Video Layout Site 1 Output 1 Frame 1 Width: 7334
*s Video Layout Site 1 Output 1 Frame 1 Height: 7334
*s Video Layout Site 1 Output 1 Frame 1 Layer: 1
*s Video Layout Site 1 Output 1 Frame 1 VideoSourceType: "site"
*s Video Layout Site 1 Output 1 Frame 1 VideoSourceId: 27
*s Video Layout Site 1 Output 1 Frame 1 InputNumber: 1
*s Video Layout Site 1 Output 1 Frame 1 Filename: ""
 -
 - continues with the video layout status for the Sites [1..n], Outputs [1..n]
and Frames [1..n].
** end
```

xStatus Video Layout PresentationView

Returns information about the presentation view mode.

Value space of the result returned:

<Default/Maximized/Minimized>

Example:

```
xStatus Video Layout PresentationView
*s Video Layout PresentationView: "Default"
** end
```

xStatus Video Layout Site [1..n] Output [1..2] FamilyName

Shows the name of the video layout family.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus Video Layout Site 1 Output 1 FamilyName
*s Video Layout Site 1 Output 1 FamilyName: "fullscreen"
** end
```

xStatus Video Layout Site [1..n] Output [1..2] FullFamilyName

Shows the name, included information about selfview on/off, for the video layout family.

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus Video Layout Site 1 Output 1 FullFamilyName
*s Video Layout Site 1 Output 1 FullFamilyName: "fullscreen-local-single-
camctrl"
** end
```

xStatus Video Layout Site [1..n] Output [1..2] FamilyNumber

Shows the number of the video layout family. The number identifies the layout family of the specified output.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Video Layout Site 1 Output 1 FamilyNumber
*s Video Layout Site 1 Output 1 FamilyNumber: 1014
** end
```


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xStatus Video Layout Site [1..n] Output [1..2] GraphicName

Shows the name of the graphic layout. The name identifies the layout used right now at the specified output.

NOTE: Note that while the FamilyName is constant as the long as the configurations on the system does not change, the GraphicName varies depending on system state (the number of participants for instance).

Value space of the result returned:

<S: 0, 100>

Example:

```
xStatus Video Layout Site 1 Output 1 GraphicName
*s Video Layout Site 1 Output 1 GraphicName: "full-pip"
** end
```

xStatus Video Layout Site [1..n] Output [1..2] GraphicNumber

Shows the number of the graphic layout. The number identifies the layout used right now at the specified output.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Video Layout Site 1 Output 1 GraphicNumber
*s Video Layout Site 1 Output 1 GraphicNumber: 1037
** end
```

xStatus Video Layout Site [1..n] Output [1..2] Descriptor

Shows the descriptor of the layout.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Video Layout Site 1 Output 1 Descriptor
*s Video Layout Site 1 Output 1 Descriptor: 3
** end
```

xStatus Video Layout Site [1..n] Output [1..2] DescriptorOutput

Shows the descriptor output of the layout.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Video Layout Site 1 Output 1 DescriptorOutput
*s Video Layout Site 1 Output 1 DescriptorOutput: 1
** end
```

xStatus Video Layout Site [1..n] Output [1..2] Frame [1..6] PositionX

Shows the horizontal position of the upper left corner of the frame.

Value space of the result returned:

<0..10000>

Example:

```
xStatus Video Layout Site 1 Output 1 Frame 1 PositionX
*s Video Layout Site 1 Output 1 Frame 1 PositionX: 0
** end
```

xStatus Video Layout Site [1..n] Output [1..2] Frame [1..6] PositionY

Shows the vertical position of the upper left corner of the frame.

Value space of the result returned:

<0..10000>

Example:

```
xStatus Video Layout Site 1 Output 1 Frame 1 PositionY
*s Video Layout Site 1 Output 1 Frame 1 PositionY: 0
** end
```

xStatus Video Layout Site [1..n] Output [1..2] Frame [1..6] Width

Shows the width of the frame.

Value space of the result returned:

<0..10000>

Example:

```
xStatus Video Layout Site 1 Output 1 Frame 1 Width
*s Video Layout Site 1 Output 1 Frame 1 Width: 10000
** end
```

xStatus Video Layout Site [1..n] Output [1..2] Frame [1..6] Height

Shows the height of the frame.

Value space of the result returned:

<0..10000>

Example:

```
xStatus Video Layout Site 1 Output 1 Frame 1 Height
*s Video Layout Site 1 Output 1 Frame 1 Height: 10000
** end
```


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xStatus Video Layout Site [1..n] Output [1..2] Frame [1..6] Layer

Shows the layer of the frame.

Value space of the result returned:

<1..6>

Example:

```
xStatus Video Layout Site 1 Output 1 Frame 1 Layer
*s Video Layout Site 1 Output 1 Frame 1 Layer: 1
** end
```

xStatus Video Layout Site [1..n] Output [1..2] Frame [1..6] VideoSourceType

Describes the video source type in the frame.

Value space of the result returned:

<S:0,.100>

Example:

```
xStatus Video Layout Site 1 Output 1 Frame 1 VideoSourceType
*s Video Layout Site 1 Output 1 Frame 1 VideoSourceType: "graphic"
** end
```

xStatus Video Layout Site [1..n] Output [1..2] Frame [1..6] VideoSourceId

Shows the video source Id which is used when adding or updating frames. See the xCommand Video Layout Frame Add and xCommand Video Layout Frame Update.

Value space of the result returned:

<1..2>

Example:

```
xStatus Video Layout Site 1 Output 1 Frame 1 VideoSourceId
*s Video Layout Site 1 Output 1 Frame 1 VideoSourceId: 0
** end
```

xStatus Video Layout Site [1..n] Output [1..2] Frame [1..6] InputNumber

Shows the layout input number.

Value space of the result returned:

<1..2>

Example:

```
xStatus Video Layout Site 1 Output 1 Frame 1 InputNumber
*s Video Layout Site 1 Output 1 Frame 1 InputNumber: 0
** end
```

xStatus Video Layout Site [1..n] Output [1..2] Frame [1..6] Filename

Shows the filename of the layout frame.

Value space of the result returned:

<S: 0, 200>

Example:

```
xStatus Video Layout Site 1 Output 1 Frame 1 Filename
*s Video Layout Site 1 Output 1 Frame 1 Filename: "/user/posters/wallpaper.
png"
** end
```


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The Experimental status

The Experimental commands are beta preview features and can be used 'as is'. They are not fully documented.

NOTE: The Experimental commands are likely to change without further notice.

xStatus Experimental Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] PacketRecovery ProtectionPackets MediaPacketsCovered

xStatus Experimental Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] PacketRecovery ProtectionPackets MediaPacketsCovered

xStatus Experimental Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] PacketRecovery ProtectionPackets MediaPacketsCovered

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery ProtectionPackets MediaPacketsCovered
*s Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery ProtectionPackets MediaPacketsCovered: 0
** end
```

xStatus Experimental Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] PacketRecovery ProtectionPackets Received

xStatus Experimental Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] PacketRecovery ProtectionPackets Received

xStatus Experimental Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] PacketRecovery ProtectionPackets Received

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery ProtectionPackets Received
*s Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery ProtectionPackets Received: 0
** end
```

xStatus Experimental Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] PacketRecovery ProtectionPackets Lost

xStatus Experimental Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] PacketRecovery ProtectionPackets Lost

xStatus Experimental Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] PacketRecovery ProtectionPackets Lost

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery ProtectionPackets Lost
*s Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery ProtectionPackets Lost: 0
** end
```

xStatus Experimental Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] PacketRecovery ProtectionPackets OutOfOrder

xStatus Experimental Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] PacketRecovery ProtectionPackets OutOfOrder

xStatus Experimental Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] PacketRecovery ProtectionPackets OutOfOrder

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery ProtectionPackets OutOfOrder
*s Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery ProtectionPackets OutOfOrder: 0
** end
```


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xStatus Experimental Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] PacketRecovery MediaPackets Received

xStatus Experimental Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] PacketRecovery MediaPackets Received

xStatus Experimental Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] PacketRecovery MediaPackets Received

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets Received
*s Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets Received: 0
** end
```

xStatus Experimental Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] PacketRecovery MediaPackets Lost

xStatus Experimental Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] PacketRecovery MediaPackets Lost

xStatus Experimental Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] PacketRecovery MediaPackets Lost

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets Lost
*s Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets Lost: 0
** end
```

xStatus Experimental Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] PacketRecovery MediaPackets OutOfOrder

xStatus Experimental Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] PacketRecovery MediaPackets OutOfOrder

xStatus Experimental Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] PacketRecovery MediaPackets OutOfOrder

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets OutOfOrder
*s Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets OutOfOrder: 0
** end
```

xStatus Experimental Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] PacketRecovery MediaPackets Recovered

xStatus Experimental Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] PacketRecovery MediaPackets Recovered

xStatus Experimental Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] PacketRecovery MediaPackets Recovered

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets Recovered
*s Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets Recovered: 0
** end
```


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xStatus Experimental Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] PacketRecovery MediaPackets ConsecutiveLost

xStatus Experimental Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] PacketRecovery MediaPackets ConsecutiveLost

xStatus Experimental Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] PacketRecovery MediaPackets ConsecutiveLost

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets ConsecutiveLost
*s Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets ConsecutiveLost: 0
** end
```

xStatus Experimental Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] PacketRecovery MediaPackets Statistics ZeroLost

xStatus Experimental Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] PacketRecovery MediaPackets Statistics ZeroLost

xStatus Experimental Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] PacketRecovery MediaPackets Statistics ZeroLost

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets Statistics ZeroLost
*s Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets Statistics ZeroLost: 0
** end
```

xStatus Experimental Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] PacketRecovery MediaPackets Statistics OneLost

xStatus Experimental Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] PacketRecovery MediaPackets Statistics OneLost

xStatus Experimental Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] PacketRecovery MediaPackets Statistics OneLost

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets Statistics OneLost
*s Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets Statistics OneLost: 0
** end
```

xStatus Experimental Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] PacketRecovery MediaPackets Statistics TwoLost

xStatus Experimental Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] PacketRecovery MediaPackets Statistics TwoLost

xStatus Experimental Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] PacketRecovery MediaPackets Statistics TwoLost

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets Statistics TwoLost
*s Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets Statistics TwoLost: 0
** end
```


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xStatus Experimental Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] PacketRecovery MediaPackets Statistics ThreeLost

xStatus Experimental Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] PacketRecovery MediaPackets Statistics ThreeLost

xStatus Experimental Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] PacketRecovery MediaPackets Statistics ThreeLost

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets Statistics ThreeLost
*s Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets Statistics ThreeLost: 0
** end
```

xStatus Experimental Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] PacketRecovery MediaPackets Statistics FourLost

xStatus Experimental Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] PacketRecovery MediaPackets Statistics FourLost

xStatus Experimental Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] PacketRecovery MediaPackets Statistics FourLost

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets Statistics FourLost
*s Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets Statistics FourLost: 0
** end
```

xStatus Experimental Diagnostics Call [1..n] Channels IncomingAudioChannel [1..n] PacketRecovery MediaPackets Statistics MoreThanFourLost

xStatus Experimental Diagnostics Call [1..n] Channels IncomingVideoChannel [1..n] PacketRecovery MediaPackets Statistics MoreThanFourLost

xStatus Experimental Diagnostics Call [1..n] Channels IncomingDataChannel [1..n] PacketRecovery MediaPackets Statistics MoreThanFourLost

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Value space of the result returned:

<Integer value>

Example:

```
xStatus Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets Statistics MoreThanFourLost
*s Experimental Diagnostics Call 27 Channels IncomingDataChannel 327
PacketRecovery MediaPackets Statistics MoreThanFourLost: 0
** end
```

xStatus Experimental Audio Input Connectors Microphone [1..2] Activity

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Shows if there is a signal on the connector.

Value space of the result returned:

<True/False>

Example:

```
xStatus Experimental Audio Input Connectors Microphone 1 Activity
*s Experimental Audio Input Connectors Microphone 1 Activity: True
** end
```

xStatus Experimental Audio Input Connectors Line [1..2] Activity

NOTE: This Experimental command can be used 'as is' and will not be further documented. The Experimental settings WILL change.

Shows if there is a signal on the connector.

Value space of the result returned:

<True/False>

Example:

```
xStatus Experimental Audio Input Connectors Line 1 Activity
*s Experimental Audio Input Connectors Line 1 Activity: False
** end
```


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Chapter 6

Appendices

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Startup script

You can add a startup script on the codec to execute certain commands from the API during boot up.

Adding a startup script

The startup script can be used to execute certain commands from the API during boot up. To enable this feature one must log in to the codec as root and follow the below points.

Login to the codec

1. Connect to the codec through the network, using a command line interface (ssh, telnet or scp) and login as `root`
2. Make a user directory using the following command: "`mkdir /user/scripts.d`"
3. Put an executable file (permission must be changed to executable) in this directory.

Example of the text in such a file:

```
#!/usr/bin/env tsh
xCommand Audio LocalInput Update InputId: 1 MixerMode:Fixed
```

The startup script file

- The file must start with the following sequence:
  `#!/usr/bin/env tsh`
- The file can contain any xCommand or xConfiguration command
- The system will execute the commands/configurations in sequence.
- The file can have any name as long as it is placed in this directory.
- For multiple commands you must use Unix end of line (LF). Windows end of line will not work.

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Cisco TelePresence Remote Control

Function keys: Represents shortcuts and advanced functions. Each key reflects a soft key on screen.

Microphone: Press the key to toggle the microphones on/off.

Volume: Press the + or – on the key to adjust the codec volume.

Mute: Press the – on the key to mute the volume during an incoming call.

OK/Select: Press the ✓ key to confirm your choice or selection.

Phone book: Press the key to display the local Phone book.

Home: Press the key to key to show the menu on screen.

Call: Using the key:

INITIATE A CALL: Select a name from the Phone book or enter the name, number or URI and press the Call key to initiate the call.

SHORTCUT TO RECENT CALLS: Use the Call key as a shortcut to Recent Calls when the Call menu is not visible.

Clear: Press the C key to remove characters in a text field.

Waking up the system

Grab the remote control and make sure your hand touches the rubber line sensors going along both sides of the remote control.

or: Touch any key on the remote control.

Presentation: Press the key to show/hide a presentation.

Zoom: Press the + or – on the key to zoom the camera in and out.

Arrows:

- Up/Down: Use the ▲ and ▼ arrow keys to navigate in the menu.
- Arrow Right: Press the ▶ arrow key to expand the selected menu item or to move to the right in a text field.
- Arrow Left: Press the ◀ arrow key to go one step back in the menu or to move to the left in a text field.

Layout: Press the key to display the Layout menu, then select a view in the menu.

End call/Standby: Press the key to end a call, or when idle, press and hold the key to go into standby mode.

Alphanumeric keypad: Use the keypad in the same way as you would use a cellular phone.

- 0-9, a-z, period (.), @, space, *: Press a key repeatedly to toggle between the options displayed on each key.
- abc/123 #: Press the # key to toggle between touch tones mode (long press), lower case characters and numbers.

IR transmitter range (DIP switch setting)

The IR transmitter has a short and long range. Open the battery cover and remove the batteries to set the DIP switch.

- Short range (1 m): Move the DIP switch down.
- Longer range: Move the DIP switch up.

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Remote control key map

The Cisco TelePresence Remote Control 5 has the following button codes and IR signal parameters.

You will find a one page overview of the remote control on the next page.

Button codes - Remote control 5			
Dec	*Hex*	*Address*	*Button name*
0	0		
1	1	0	Number 1
2	2	0	Number 2
3	3	0	Number 3
4	4	0	Number 4
5	5	0	Number 5
6	6	0	Number 6
7	7	0	Number 7
8	8	0	Number 8
9	9	0	Number 9
10	0A	0	Number 0
11	0B	0	*
12	0C	0	#
13	0D		
14	0E		
15	0F		
16	10		
17	11	0	Presenter
18	12		
19	13		
20	14		
21	15		
22	16	0	Zoom out
23	17	0	Zoom in
24	18		
25	19	0	Volume down
26	1A	0	Volume up
27	1B	0	Microphone off
28	1C		
29	1D	0	Arrow up
30	1E	0	Arrow down
31	1F	0	Arrow left

Button codes - Remote control 5			
Dec	*Hex*	*Address*	*Button name*
32	20	0	Arrow right
33	21	0	Ok
34	22	0	Call
35	23	0	End call
36	24	0	Phone book
37	25	0	Layout
38	26	0	Clear
39	27		
–	–		
41	29		
42	2A	0	Soft key 1
43	2B	0	Soft key 2
44	2C	0	Soft key 3
45	2D	0	Soft key 4
46	2E	0	Soft key 5
–	–		
–	–		
–	–		
–	–		
51	33	0	Home

IR Signal parameters	
Name	*Description*
Protocol	Siemens SDA2208
Reference frequency	485 kHz
Address	4 and 7
IR wavelength	940 nm
IR carrier frequency	30 kHz

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Overview of the xConfiguration commands

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