



Understanding the Fields In the Cisco TelePresence TX System Administration Interface

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Fields in the Configuration Area

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- [Call Control Settings, page 2-2](#)
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IP Settings

The IP Settings window displays the CTS MAC address and hostname and you can view and manage the following:

- DHCP—Choose **Yes** if your network uses the Dynamic Host Configuration Protocol (DHCP) to dynamically assign a network address for your system. Choose **No** to assign a static address for your system if your network does not use DHCP.
- Domain name
- IP Address
- Default gateway
- DNS servers.

For more information about this field, see the [“IP Settings” section on page 5-8](#).

Network Settings

You can view or configure the following settings in the Network Settings window:

- Operational VLAN ID
- Administrative VLAN ID
- Syslog Address

For more information about this field, see the [“Network Settings” section on page 5-10](#).

Call Control Settings

Use this field to specify TFTP server locations and view a list of available settings for this Cisco TelePresence system. For more information about this field, see the [“Call Control Settings” section on page 5-11](#).

Address Book

The Address Book window displays read-only entries that have been set in Unified CM. You can create listings for up to 40 meeting rooms.

For more information about this field, see the [“Address Book” section on page 5-13](#).

Telephony Settings

The Telephony Settings window displays read-only information about the telephony settings for the Cisco TelePresence System that were set in Unified CM.

For more information about this field, see the [“Telephony Settings” section on page 5-14](#).

SNMP Settings

This field shows your SNMP settings. For more information about this field, see the [“SNMP Settings” section on page 5-16](#).

System Settings

This field allows to view Unified CM configuration settings for your system. For more information, see the [“System Settings” section on page 5-18](#).

Security Settings

To view the MIC or LSC certificates that are used for your system, click the **Download** button to download either the MIC Key or LSC Certificate in this field. A dimmed Download button indicates the lack of an available certificate. For more information, see the [“Security Settings” section on page 5-21](#)

Fields in the Troubleshooting Area

This section describes the fields that are available in the Troubleshooting area and contains the following topics:

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Hardware Setup

Cisco TelePresence System Administration includes a diagnostics interface.

To access all available troubleshooting tasks, go to **Troubleshooting > Hardware Setup**.

If your GUI has tabs visible in this window, select one of the following tabs:

- [Device Test](#): You can use the following Cisco TelePresence system troubleshooting features:
- [CTX Tests \(Not Available on All Systems\)](#): Test reverberation and noise levels for some systems.



Note Not every system has the CTX test available; in this case, the tab is not visible.

Device Test

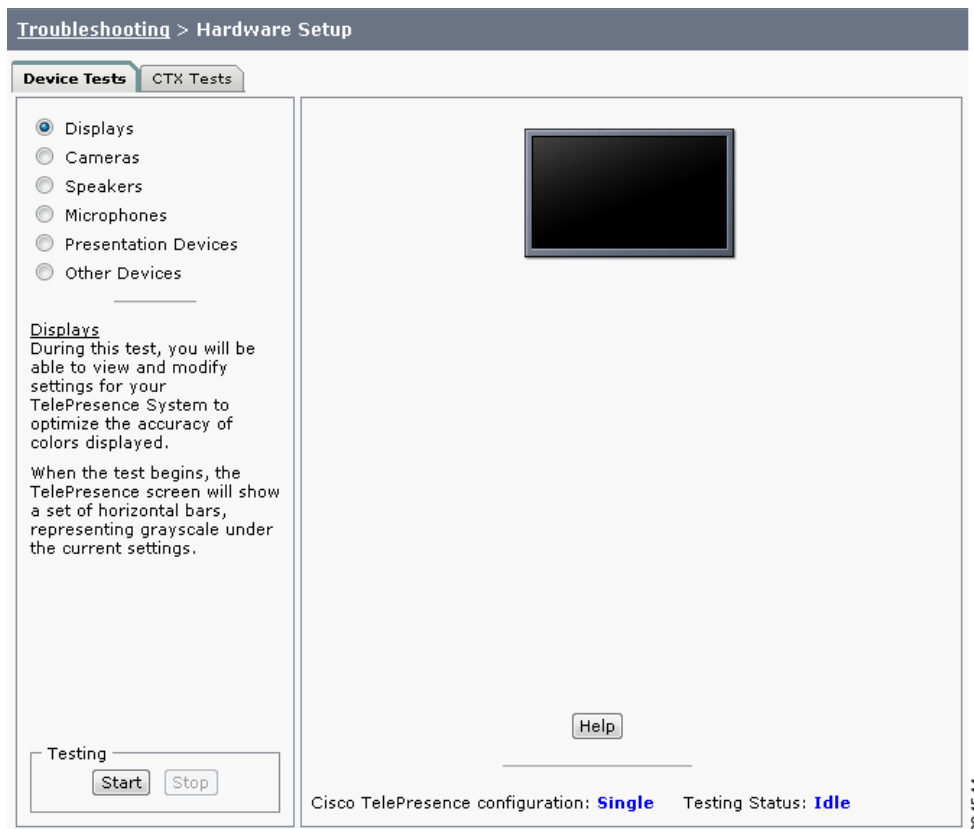
The Device Tests tab provides the traditional Hardware Setup troubleshooting tasks for the following Cisco TelePresence System peripherals:

- Displays
- Cameras

- Speakers
- Microphones
- Presentation Devices
- Other Devices

Figure 2-1 shows the CTS device troubleshooting window.

Figure 2-1 CTS Device Troubleshooting Window



For more information about these tests, refer to the “First-Time Setup” chapter of the assembly guide for your system, listed at the following URLs.

Cisco TelePresence System 500-32 Assembly, Use & Care, and Field-Replaceable Unit Guide:

http://www.cisco.com/en/US/docs/telepresence/cts_500/cts_500_32/assembly/guide/cts_500_32_guide.html

Cisco TelePresence System TX1300 47 Installation, First-Time Setup, and Field-Replaceable Unit Guide:

http://www.cisco.com/en/US/docs/telepresence/cts_1300/cts_1300_47/assembly/guide/1300_47_assembly_guide.html

Cisco TelePresence System TX1310 65 Assembly, First-Time Setup, and Field Replaceable Unit Guide:

http://www.cisco.com/en/US/docs/telepresence/cts_1300/cts_1310/assembly/guide/1310_assembly_guide.html

Cisco TelePresence System TX9000 and TX9200 Assembly, First-Time Setup, and Field-Replaceable Unit Guide:

http://www.cisco.com/en/US/docs/telepresence/tx9000/assembly_guide/tx9000_9200_assembly_guide.html

CTX Tests (Not Available on All Systems)

The CTX Tests tab provides the following troubleshooting tasks for the CTX:

- [Reverberation](#)
- [Noise Level](#)



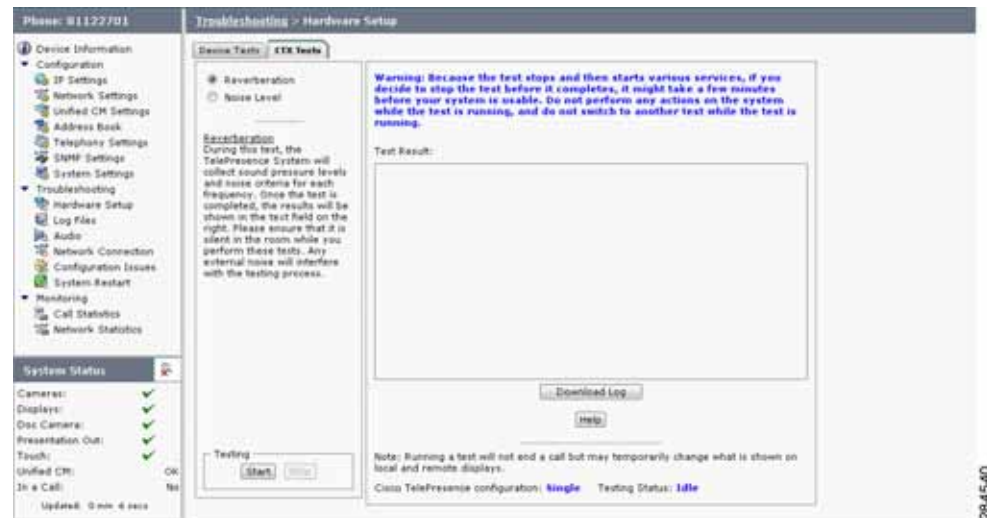
Note

Running a test will not end a call but may temporarily change what is shown on local and remote displays.

Because the test stops and then starts various services, if you decide to stop the test before it completes, it might take a few minutes before your system is usable. Do not perform any actions on the system while the test is running, and do not switch to another test while the test is running.

Figure 2-2 shows the CTX Tests window.

Figure 2-2 CTX Tests



Reverberation

During this test, the Cisco TelePresence System collects sound pressure levels and noise criteria for each frequency. Once the test is completed, the results are shown in the Test Results.



Tip

Ensure that the room is silent while you perform these tests. Any external noise will interfere with the testing process.

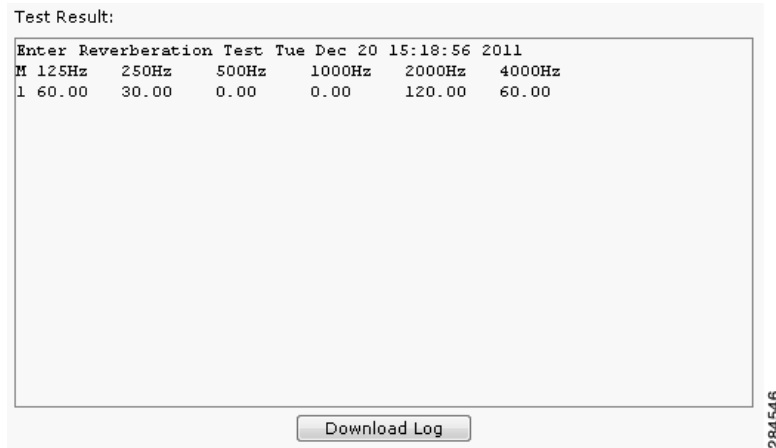
- Step 1** Select the Reverberation radio button and then click **Start**.

The system issues the following information:

“Test Running: Test is running. Please wait until the test completes; if you stop the test, no results will be recorded.”

The test takes a few minutes to complete. When complete, system reverberation information is displayed in the Test Results window, as shown in [Figure 2-3](#).

Figure 2-3 Reverberation Test Results



- Step 2** If desired, click **Download Log**.

The system asks whether you want to open or save the .txt file. This completes the reverberation test.

Noise Level

During this test, the Cisco TelePresence System plays audio chirps and collects the average sound decays for each frequency. Once the test is completed, the results are shown in the text field.



Tip

Ensure that the room is silent while you perform these tests. Any external noise will interfere with the testing process.

- Step 1** Select the Noise Level radio button and then click **Start**.

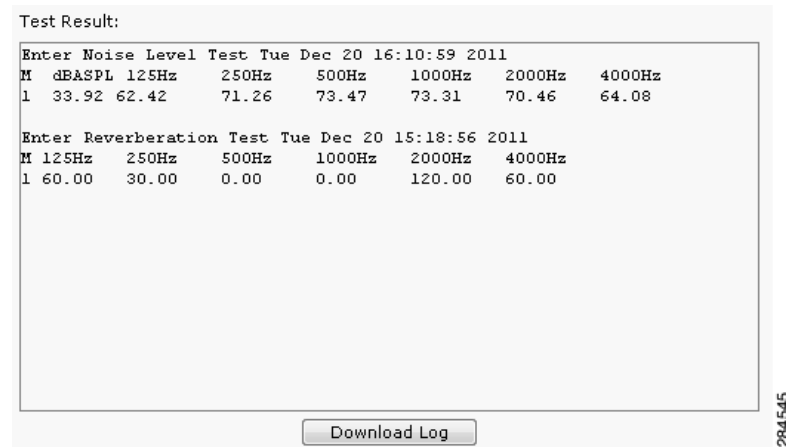
The system asks you if you want to continue with the test.

- Step 2** Click **OK** in the dialog to begin the test.

The system issues the following information:

“Test Running: Test is running. Please wait until the test completes; if you stop the test, no results will be recorded.”

The test takes a few minutes to complete. When complete, system noise level information is displayed in the Test Results window, as shown in [Figure 2-4](#). If you have already run a reverberation test, the noise level test will appear at the top of the window.

Figure 2-4 Noise Level Test Results

Step 3 If desired, click **Download Log**.

The system asks whether you want to open or save the .txt file. This completes the noise level test.

Diagnostics

The Diagnostics window contains choices to diagnose issues with either your display or camera and contains the following pull-downs:

- **Display:** Contains the following tests:
 - **Display OSD state:** Shows the state of the on-screen display (OSD) service. The OSD service controls the appearance of on-screen icons during meetings.
 - **Display On/Off:** Shows the power status of the display (on or off).
 - **Display Edid:** Provides the Extended Display Identification Data (EDID) for the display.
 - **Display Error Status:** If the system detected an error with the display, this field shows the status of the error and also provides status of the power supply for the display.
 - **Display Diagnostics:** Shows the diagnostic information for all system displays.
 - **Display Information:** Shows the following information about the display. This information is useful in troubleshooting problems:

```
Center Display
Main Tx:
Port Address: 0x72.
VENDOR_ID=0x01
DEV_ID=0x9134
DEV_REV=0x1
Aux Tx:
Port Address: 0x76.
VENDOR_ID=0x01
DEV_ID=0x9134
DEV_REV=0x1
Main Rx:
Port Address: 0x60.
VENDOR_ID=0x01
DEV_ID=0x9135
DEV_REV=0x4
Aux Rx:
Port Address: 0x62.
```

```
VENDOR_ID=0x01
DEV_ID=0x9135
DEV_REV=0x4
```

- **Camera:** you can troubleshoot the camera using any of the following choices:
 - **Camera Cable Connectivity:** This checks the physical cable connections of the power and signal cables for the camera.
 - **Camera Reset:** Resets the cameras.

**Note**

Resetting the cameras does not remove any changes you made to the auto brightness, luminance, auto color brightness, and flicker reduction settings to the cameras.

- **Camera Settings:** Provides you with a list of the current camera settings. You cannot change these settings. The following are output examples:

```
Center Camera
flickerCompensation=false
autoBrightness=false
autoColorBalance=false
focusDistance=4
targetLuminance=35
```

- **Camera Settings File:** Shows the setting as stored in the camera settings file.

**Note**

The luminance values might differ between the settings shown here and the setting shown from the Camera Settings test; this is normal.

```
Center Camera
set gain 2.36205
set gain_red 1.21544
set gain_blue 1.80757
set gain_green 1
set roi_A_start_x 0
set roi_A_start_y 0
set roi_A_width 1919
set roi_A_height 1079
#autoBrightness=false
set autogain off
set autointegration off
#flickerCompensation=false
set integration 100
#targetLuminance=35
set target_luminance 60
#autoColorBalance=false
set whitebalance off
```

- **LCU:** Check the status of the Light Control Unit (LCU), if present on your system.

Log Files

The Log Files window contains three tabs:

- **Sysop logs:** Contains the System Operation (sysop) logs. For detailed explanations of each of the sysop logs, refer to the [Cisco TelePresence System Message Guide](#).

- **Log files:** These are files that are generally used by Cisco Technical support when troubleshooting system issues. Use this choice if directed by your Cisco technical support representative.
- **SIP messages:** These messages are related to SIP negotiation when setting up and ending a call.

Sysop Logs

View system operation (sysop) messages, including call information, call statistics, and call errors for the Cisco TelePresence system from this selection. There can be up to 20 individual files saved on the CTS, and each file can contain up to 100,000 characters.

To download the sysop log files, click the Download Sysop Files button at the bottom of the page. CTS Administration software then prompts you to do one of the following:

- Open to view the sysop log files—The last 100,000 bytes of the log are shown. When you download Sysop files, all available Sysop files will be downloaded.
- Save the sysop log files.

Log Files

Use this selection to retrieve log files from the Cisco TelePresence system. Log files can be retrieved from the CTS or from the CTS Cisco Unified IP phone. You can also retrieve log files from the Cisco TelePresence Touch 12 by tapping **More > Status > Report Problem**.

To manage log files:

-
- Step 1** Navigate to **Troubleshooting > Log Files**.
- Step 2** Select the Log Files tab. The following fields are displayed:
- Log Status—Shows the status of the log capture, including the percentage completed.
 - Time Generated—Shows the time of the most recent log file capture.
 - Problem—Problem Type can be one of the following:
 - Audio (Speakers, Microphones)
 - Video (Displays, Cameras)
 - Projector, LCD, document camera
 - Phone
 - Recording
 - Other/Unknown
- Step 3** Choose from one of the following file download options:
- Download existing log files
 - Capture and download new log files—The system will capture but not download the log files if your have pop-up blockers enabled for your system; to fix this problem, either disable pop-up blocker for your browser, or select **Capture and download new log files** and then selecting **download existing log files**.
 - None —Default. No log files will be captured unless a download option is selected.
- Step 4** From the Select Problem Type drop-down menu, choose the type of problem you are experiencing:
- Audio (speakers, microphones)

- Video (displays, cameras)
- Projector, LCD, document camera
- Phone
- Recording
- Other/Unknown

Step 5 Click the **Get Log Files** button. The following message appears:

A WinZip download will start within several minutes. Please wait...

Or

Collecting Cisco TelePresence system log files. This may take several minutes. Please wait...



Tip

The Get Log Files button is deactivated while the system captures the requested log files and is reactivated when complete.

The File Download window appears prompting you to open or save the file. Click Save to send the gzip file to Cisco technicians to help solve the problem.

SIP Messages

Session Initiation Protocol (SIP) request and response methods are used to establish communications between components in the network and ultimately to establish a call or session between two or more endpoints. Table 4-7 and Table 4-8 describe the SIP requests and message types.

To manage SIP messages:

-
- Step 1** Navigate to **Troubleshooting > Log Files** and click the Select the **SIP Messages** tab. The SIP Messages window appears.
- Step 2** View a specific type of message in the SIP log file by performing one of the following actions:
- Enter the filter where the SIP Message Type is by typing the name in the field provided. The Filter button is activated.
 - Select the message type from the drop-down menu and click the Filter button to view the SIP messages of the type you specified.
- Step 3** Choose the number of messages to view at one time from the Rows Per Page drop-down menu. Use the First, Previous, Next, and Last buttons to navigate through the message list with the Navigating Long Lists option. You can also Generate Detailed Message Reports.
- Step 4** To see additional details associated with a SIP message, perform one of the following actions:
- Double-click on a SIP message from the list to open the SIP Message Details dialog box. The SIP Message Details dialog box opens containing the message details and Related SIP Messages.
 - Highlight the SIP message and click the Details button. The SIP Message Details dialog box opens containing the message details and Related SIP Messages.

Related SIP Messages

The bottom portion of the SIP Message Details window lists SIP messages that are related to the SIP message that was selected at the top of the window.

To view related SIP message details, Double-click a message in the Related SIP Messages window to see details for that message. SIP Requests and Methods and SIP Response Categories are explained in the following table.

Click **Close** to dismiss this window.

Use the information in the following sections to understand and navigate SIP requests and responses:

[SIP Requests and Methods](#)

[SIP Response Categories](#)

SIP Requests and Methods

[Table 2-1](#) summarizes the SIP requests and methods supported by the Cisco TelePresence System Administration software. The first column lists the RFC that describes the SIP request messages or method.

Table 2-1 *Supported SIP Requests and Methods*

RFC	Request/Method	Description
3261	ACK	Confirms that the client has received a final response to an INVITE request.
3261	BYE	Terminates a call. Can be sent by either the caller or the called party.
3261	CANCEL	Cancels any pending searches but does not terminate any call currently in progress.
2976	INFO	Allows session-related control information generated during a session to be carried along the SIP signaling path.
3261	INVITE	Indicates that a user or service is being invited to participate in a call session.
3265	NOTIFY	Immediately upon successful accepting or refreshing of a subscription, a NOTIFY message is sent to communicate the current resource state to the subscriber. This NOTIFY message is sent in the same dialog as that created by the SUBSCRIBE message.
3261	OPTIONS	Queries the capabilities of servers.
3262	PRACK	Provides reliability for 1xx type messages. See Table 2-2 .
3515	REFER	Provides a mechanism allowing the party sending the REFER message to be notified of the outcome of the referenced request.
3261	REGISTER	Registers the address listed in the To header field with a SIP server.
3265	SUBSCRIBE	Requests current state and state updates from a remote node.
3311	UPDATE	Allows a client to update parameters of a session, but has no impact on the state of a dialog. This request can be sent before the initial INVITE has been completed, thereby making it useful for updating session parameters within early dialogs.

SIP Response Categories

SIP replies to the requests in [Table 2-1](#) using the response categories described in [Table 2-2](#).

Table 2-2 SIP Response Categories

Response Category	Response Type
1xx	Informational messages
2xx	Successful responses
3xx	Redirection responses
4xx	Request failure responses
5xx	Server failure responses
6xx	General failure responses

Navigating Long Lists

The log file can hold up to 2 MB worth of SIP messages. To navigate long lists:

-
- Step 1** Choose the number of rows that you wish to see on one page from the Rows Per Page drop-down menu.
 - Step 2** Double click to select and open single message details. The SIP Message Details window appears.
 - Step 3** If there are multiple pages listing log files, click the **First**, **Previous**, **Next**, or **Last** button to navigate to the desired page.
 - Step 4** Click the radio button to the left of the table entry, and then click **Clear** to delete a single error message.
 - Step 5** Click **Clear All** to delete all error messages displayed.
-

Related Information

For more information, refer to the following documentation:

- The Session [Initiation Protocol \(SIP\) home page on Cisco.com](#).
- The [Cisco TelePresence System Message Guide](#)

Touch Screenshot

To take a screenshot of the current image on your CTS Touch device, navigate to **Troubleshooting > Touch Screenshot** and click **Capture New Touch Screenshot**. A screenshot of what is currently displaying on the Touch device for your system appears in the CTS administration GUI.

You can view this image or save it.

Audio

To take an audio recording of your CTS conference, navigate to **Troubleshooting > Audio** and click **Start Recording Audio**. The audio records for a maximum of two minutes or until you click **Stop Audio Recording**.

The recording is saved as a .tar file that contains an .mp4 file that can retrieve, unzip, open, and play.

This option is useful to troubleshoot audio issues with your system.

Network Connection

To change the Ethernet parameters of your network connection, navigate to **Troubleshooting > Network Connection**. This window contains the following choices:

- **Auto Negotiation:** Enables or disables auto negotiation by clicking the **On** or **Off** radio button. Turning off auto negotiation might require you to specify the speed of your connection manually.
- **Duplex:** Changes the duplex method from full-duplex to half-duplex, or vice versa, by clicking the **Full** or **Half** radio button. Only active is Audio Negotiation is set to Off.
- **Speed:** Changes the speed of your Ethernet connection by choosing any of the radio buttons that appear.

Configuration Issues

Use this window to check the software images that are stored and running on your codec(s). You can also restart the system from the factory software image from this window.:

This window contains the following information:

- **Unit** (only for systems with more than one codec): Shows the codec position (left, center, or right) as viewed from the table side of the system.
- **Hardware version:** shows the hardware version of the codec(s).
- **Slot 1 image:** Shows the image that is stored on slot 1 of the system.
The active image for the system is shown in bold, with an asterisk next to it.
- **Slot 2 image:** Shows the image that is stored on slot 2 of the codec(s).
- **Factory image:** Shows the image that was preloaded on the codec(s) from the factory.

To reload the codec from the factory image and restart the system, click the **Revert to Factory Configuration and use Cisco TelePresence image specified in Cisco Unified CallManager...and Restart TelePresence System...** button.

After the image reboots, it loads the system from the image that is in slot 0.

While the system is booting, an IP address display on the main display screen (the center display screen for three-screen systems). Make a note of the IP address to log into your system. After you log in to your system, you need to re-register to your Unified CM by navigating to **Configuration > Call Control Settings**, specifying the IP address of the Unified CM server, and clicking **Apply**.

System Restart

This If you reboot your system, the codec reboots from the active image.

To restart your system, click the **Restart Cisco TelePresence System...** button. Clicking this button reloads the codec from the image that is specified as the default image in Cisco Unified CM and restart the system. If there is no image specified in Unified CM, the system boots from the active image.

To see the active image, navigate to **Troubleshooting > Configuration Issues**. The active image displays in bold with an asterisk next to it.

Fields in the Monitoring Area

This sections describes the fields that are available in the Monitoring area and includes the following topics:

- [Call Statistics, page 2-14](#)
- [Network Statistics, page 2-16](#)
- [Services Statuses, page 2-17](#)

Call Statistics

Use Call Statistics to view audio and video statistics collected by the codecs. The reports include descriptions to help you understand the type of information being collected.

To view call statistics, follow these steps:

Step 1 Choose **Monitoring > Call Statistics**.

You can view the following Cisco TelePresence system statistics:

- **Real Time Call Statistics**—Lists details of an in-progress call, including the following:
 - Connection status
 - Registered to Cisco Unified CM
 - Local meeting number
- **Audio/Video Call**—Lists details about the audio and video of an in-progress call, including the following:
 - Call Start Time
 - Call Duration
 - Call Type
 - Remote meeting number
 - Call State
 - Actual Bit Rate
 - Negotiated Bit Rate
- **Historical Call Statistics (not including current call, if any)**—Lists historical information about calls including the following:
 - Call Statistics Clear Time
 - Last Call Start Time
 - Last Call Duration
 - Number of Calls Since System Setup
 - Time in Calls Since System Setup (seconds)
 - Number of Calls Since Last Reboot
 - Time in Calls Since Last Reboot (seconds)
 - Registered to Cisco Unified Communications Manager

- Configured Bit Rate

Step 2 For more specific audio and video statistics, click the check-box next to the following selections:

Audio/Video Call: Audio Stream Statistics

- Click once to select. Additional statistics fields appear.
- Click once to de-select. Additional fields are hidden.

Audio/Video Call: Video Stream Statistics

- Click once to select. Additional statistics fields appear.
- Click once to de-select. Additional fields are hidden.

Audio-Only Call: Stream Statistics

- Click once to select. Additional statistics fields appear.
- Click once to de-select. Additional fields are hidden.

Statistics are listed in columns labeled as if you were looking at the front of the system sitting at the conference table. For example, on a CTS 3000 or CTS 3200, the labels would indicate statistics from the left, center, and right codecs (and presentation codec, if installed), and from auxiliary devices (when connected).

When the additional statistics fields appear, the following status information is listed:

- Local
- Remote
- Average Latency (Call)
- Average Latency (Period)

Additional statistics are listed for the following:

Transmit

- Is Active
- Media Type
- Total Bytes
- Total Packets

Receive

- Is Active
- Media Type
- Total Bytes
- Total Packets
- Lost Packets
- Lost Packets % (Call)
- Lost Packets % (Period)
- Duplicate Packets
- Late Packets
- Failed SRTP Authentication Packets

- Average Jitter (Call)
- Average Jitter (Period)

**Note**

For more information about jitter and packet loss, see the “[Understanding Jitter and Packet Loss Reporting](#)” section of the *Cisco TelePresence System Message Guide* on Cisco.com.

- Step 3** Set an interval for updating these reports by choosing the time in minutes from the **Refresh** drop-down menu. Choices, in minutes, include the following:
- None (default)
 - 1
 - 2
 - 5
 - 10
 - 13
 - 60
- Step 4** Click **Refresh** to update the statistics immediately.

Network Statistics

Use Network Statistics to view packet transmission statistics collected from the network. Statistics are listed in columns labeled as if you were looking at the back of the system. For example, on a CTS 3000 or CTS 3200, the labels would indicate statistics from the left, center, and right codecs.

To detect problems in network statistics, follow these steps:

- Step 1** Choose **Monitoring > Network Statistics**.
- Step 2** Look for error counters that have been incremented since the last time you viewed these statistics. Statistic types include the following:
- False Carrier Sensor Errors
 - Receiver Not Okay Errors
 - Number of TxOctets
 - Number of TxBroadcastPkts
 - Number of TxMulticastPkts
 - Number of TxUnicastPkts
- Step 3** Set an interval for updating these reports by choosing the time from the Refresh drop-down menu. Choices, in minutes, include the following:
- None (default)
 - 1
 - 2
 - 5

- 10
- 13
- 60

Step 4 Click **Refresh** to update the statistics immediately.

Services Statuses

To check and, in some cases, restart network services, navigate to **Monitoring > Services Statuses**. You can restart the following services; to do so, click the **Restart** button next to the service to restart it:

- Dynamic Host Control Protocol (DHCP) server
- Simple Network Management Protocol (SNMP) server
- Calling Services
- The telephone server

Where to Go Next

Proceed to [Chapter 3, “Device Information”](#) to access the Cisco TelePresence System Administration interface.

