Troubleshooting the CTS 3010 and CTS 3210

Contents

You may want to periodically test system components using the hardware and software tests available in the Cisco TelePresence System (CTS) Administration Troubleshooting window. This chapter contains information about troubleshooting hardware and software on the following CTS devices:

• CTS 3010
• CTS 3210

Before You Begin

1. Obtain your IP address in one of the following ways:
   - From the CTS Cisco Unified IP phone touch the following softkeys:
     Manual > more > Info
     
     Note: If you have more options on your phone, touch the more softkey until you reach the end of the selections.
   - From the Cisco TelePresence Touch 12 tap the following:
     More > Status > System Status

2. Make a note of the IP address.
3. Enter the IP address in your laptop’s browser window.
4. Click Yes to accept all security connection messages.

Note: You cannot perform diagnostics during an active Cisco TelePresence system call.

Proceed to the following sections to troubleshoot system components:

• Managing CTS 3010 and CTS 3210 Hardware Setup, page 1-2
• Managing Log Files, page 1-32
• Testing Audio, page 1-37
Managing CTS 3010 and CTS 3210 Hardware Setup

You can manage and test the following Cisco TelePresence System components:

- Managing Displays, page 1-3
- Testing Cameras, page 1-7
- Testing Speakers, page 1-17
- Testing Microphones, page 1-19
- Testing the External Presentation Display, page 1-22
- Testing Presentation Devices, page 1-23
- Testing Other Devices, page 1-29

Before You Begin

Before you begin testing and troubleshooting your system, check the system displays. All of the Cisco TelePresence System Administration interface Hardware Setup features require the use of the displays in the meeting room. Therefore, we recommend the following:

1. Verify that the displays work by using the Hardware Setup > Displays tests in this section.
2. If the displays are showing the correct images, you can proceed to testing the cameras, speakers, and microphones, as needed.

Note

You must test the speakers before testing the microphones because the microphone test depends on speakers that are functioning properly. See the “Testing Speakers” section on page 1-17.

Figure 1-1 shows an example of the Cisco TelePresence System administration tools available to assist you with troubleshooting tasks.
CTS initial setup is also performed using the Hardware Setup fields. For information on how to configure CTS for the first time, see the following documentation:

- Cisco TelePresence System 3010 Assembly, Use & Care, and Field Replacement Unit Guide
- Cisco TelePresence System 3210 Assembly, Use & Care, and Field Replacement Unit Guide

## Managing Displays

A display is set up successfully when the color on the display has been adjusted for the lighting in the meeting room.

*Note*

Each display must be adjusted individually.

Use the information in the following sections to adjust the display for your system:

- Selecting the Light Level, page 1-3
- Adjusting Your Display, page 1-4
- Troubleshooting Displays, page 1-6
- Related Information, page 1-6

### Selecting the Light Level

When adjusting the images on the CTS display screens, you must take the color temperature of the ambient light in the room into consideration.

Sources of light in most rooms are produced by fluorescent fixtures or incandescent light bulbs that use tungsten filaments. Each of these light sources, and the amount of light in terms of lumens or watts, produces a different color temperature. This color temperature is sometimes expressed using terms such *cool*, *warm*, or *daylight*, but can be expressed more precisely in kelvins (K) as a numeric value.

The following temperatures can be selected for adjusting the image on the Cisco TelePresence display screens:

- 3500 K
- 4000/4100 K (recommended)
Managing CTS 3010 and CTS 3210 Hardware Setup

Adjusted Your Display

To adjust a display:

1. Log in to the Cisco TelePresence System Administration interface.
2. Choose Troubleshooting > Hardware Setup.
3. Click the Displays radio button. A test image appears on the screen.
4. Click Start in the Testing box to start the adjustment process. The Current Color Temperature test screen appears, as shown in Figure 1-2.

Note: Each display in the meeting room should be showing a set of horizontal grey bars and that display's relative position. The current color temperature setting is displayed.

Tips

- 5000 K
- 6500 K
- 7500 K

Tip: In many cases, the color temperature is printed on the light bulb. If you are unable to ascertain the type and color temperature of light bulbs in the meeting room, experiment with color temperature settings until the color and images on the display screen look lifelike.

Tip: It is OK to try a few different color temperatures to see what looks best in the room. Remember, the Color Temperature setting only effects how the local participants see the display, it does not effect the way the room looks to remote participants.
Each display in the meeting room should now be showing a set of horizontal grey bars and that display's relative position. The current color temperature setting is displayed under the monitor.

**Step 5**  Select the color temperature of the lighting in the meeting room from the drop-down menu. The Apply button is activated.

**Step 6**  Click **Apply**.

**Step 7**  Click **Stop** to stop the test.
## Troubleshooting Displays

Use the information in Table 1-1 to troubleshoot images on the displays.

### Table 1-1  Troubleshooting Displays

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Action</th>
</tr>
</thead>
</table>
| Power-on test indicates the displays turn on in the wrong sequence.   | • Video cable is not connected to its corresponding codec connector.  
|                                                                         | • Ethernet cable from secondary codec is not plugged into the correct port on the primary codec.  | • Check that the cable from each display is plugged into the correct connector on its corresponding codec.  
|                                                                         |                                                    | • Plug the video-to-video cable into the display connector on the correct codec, as follows.  
|                                                                         |                                                    |   - Plug the center display into the primary codec.  
|                                                                         |                                                    |   - Plug the participant’s left display into the left secondary codec.  
|                                                                         |                                                    |   - Plug the participant’s right display into the right secondary codec.  |
| No image.                                                              | • Power cable is not plugged in.  
|                                                                         | • Power switch on the back of the display is off.  | Check power connections and switches on each display.  |
| The display has no image when you are between calls.                  |                                                    | No image expected. Enable a display test from the Web user interface to place the displays in test mode.  |
| Video cable is not connected.                                          |                                                    | Contact Cisco technical support if you are certain that the cabling is correct and power is applied to the system, but no image is seen on the display.  
|                                                                        |                                                    | See the Routing Power and Signal Cables section in the see the following documentation:  
|                                                                        |                                                    |   - *Cisco TelePresence System 3010 Assembly, Use & Care, and Field Replacement Unit Guide*  
|                                                                        |                                                    |   - *Cisco TelePresence System 3210 Assembly, Use & Care, and Field Replacement Unit Guide*  |

### Related Information

For more information about setting up and testing displays, see the following documentation:

- *Cisco TelePresence System 3010 Assembly, Use & Care, and Field Replacement Unit Guide*
- *Cisco TelePresence System 3210 Assembly, Use & Care, and Field Replacement Unit Guide*
- For more system troubleshooting information, see the *Cisco TelePresence System Troubleshooting Guide* on Cisco.com.
Testing Cameras

The cameras are set up successfully when images are centered and in focus on the display screens and the white balance has been configured. The hardware setup software provides a camera Auto Adjust feature and a way to use targets to fine-tune the camera’s focus.

Use the information in the following sections to test and troubleshoot the camera for your system:

- Testing the CTS 3010 and CTS 3210 Cameras, page 1-7
- Troubleshooting Cameras, page 1-16
- Related Information, page 1-16

Note

The camera hood comes off. It should be removed and left off until these procedures are complete.

Testing the CTS 3010 and CTS 3210 Cameras

The cameras are set up correctly when images are centered and in focus on the display screens and the white balance has been configured. The hardware setup software provides a camera Auto Adjust feature and a way to use targets to fine-tune the camera’s focus.

The following sections describe how to set up the CTS 3010 and CTS 3210 cameras for testing:

- Starting the Software Setup, page 1-7
- Adjusting the Zoom, page 1-9
- Focusing the Camera, page 1-12
- Attaching the Camera Hood Assembly, page 1-14

Starting the Software Setup

To start the software setup, complete the following steps.

Step 1

Assemble the Large Camera Target.

When you slide the Camera target into the frame, make sure the target is centered in the frame between the vertical lines at the top and bottom of the target.
Step 2  Attach the large target to the underside of the center table section by placing the round pads on the underside of the clamps into recesses that are drilled under the table.

Tip  You can feel under the table to find the small round recesses.
Tip

The target pattern should face the camera.

Step 3
In the Cisco TelePresence System Administration interface, navigate to Hardware Setup > Troubleshooting > Cameras.

Step 4
Click Start to begin the camera setup. You should see output from each camera in the appropriate camera display area.

Step 5
Click Setup under the image of the center display screen.

If you need further information about testing or adjusting this device, click Help in the content area or see the troubleshooting charts in this section.

Adjusting the Zoom

Correctly adjusting the zoom ensures that the conference participants appear life-size, and the camera provide a seamless video image of the table area.

To adjust the camera zoom, complete the following steps.

Step 1
Click Show Camera Target.

Step 2
Loosen the thumbscrew on the zoom ring on the camera lens.

The zoom ring is labeled “W-T.”

Step 3
Using the zoom ring, and the left/right, up/down, and rotation adjustment screws on the camera, perform the following adjustments:

Step 4
Make manual adjustments to the camera focused on the target and the zoom ring on the camera to make the following adjustments to the camera:

- Align the red plus sign to the plus sign in the middle of the target.
- Align the red hash marks on the display so that they fit between the table edges.
- Zoom and align the camera so that the curved lines on each side of the target touch the sides of the display as shown in Figure 1-5.

To adjust the camera left and right or up and down, or to make vertical adjustments, use the adjusting screws as shown in Figure 1-4.

Note
If one of the left/right screws is covered by the camera cable, use the other screw to make all left/right adjustments.
Figure 1-4 Camera Adjustment Screws

Figure 1-5 Correct Camera Target Alignment—Center Display

Note curved lines touching screen border
a. Place the small target on the table in front of the large target, and adjust the focus by completing the steps in the “Focusing the Camera” section on page 1-12.

b. Remove the large target from the center part of the table, and attach it to the left part of the table, placing the underside of the clamps into the recessed holes.

c. Make manual adjustments to the camera focused on the target and the zoom ring on the camera to make the following adjustments to the camera:
   • Align the red plus sign to the plus sign in the middle of the target.
   • Align the red hash marks on the display so that they fit between the table edges.
   • Zoom and align the camera so that the curved line on the right side of the display touches the red adjustment line at the right edge of the display as shown in Figure 1-6.

 Tip
To adjust the camera left and right or up and down, or to make vertical adjustments, use the adjusting screws as shown in Figure 1-4.

   If one of the left/right screws is covered by the camera cable, use the other screw to make all left/right adjustments.

Figure 1-6  Correct Camera Target Alignment—Right Display

   d. Place the small target on the table, in front of the large target, and adjust the focus by completing the steps in the “Focusing the Camera” section on page 1-12.

   e. Remove the large target from the center part of the table, and attach it to the right part of the table, placing the underside of the clamps into the recessed holes.

   f. Make manual adjustments to the camera focused on the target and the zoom ring on the camera to make the following adjustments to the camera:
      • Align the red plus sign to the plus sign in the middle of the target.
      • Align the red hash marks on the display so that they fit between the table edges.
      • Zoom and align the camera so that the curved line on the left side of the display touches the red adjustment line at the right edge of the display Figure 1-7.
Tip
To adjust the camera left and right or up and down, or to make vertical adjustments, use the adjusting screws as shown in Figure 1-4.

If one of the left/right screws is covered by the camera cable, use the other screw to make all left/right adjustments.

**Figure 1-7 Correct Camera Target Alignment—Left Display**

To focus the cameras using the large and small targets, complete the following steps:

- **Step 1** Place the small target on center of the table, in front of the center camera.
- **Step 2** Arrange the large target five feet (152 cm) behind the small target.

**Tip**
Use a chair to prop up the large target.

You will see various images and colors on the displays during the adjustment. Auto Adjust takes approximately 1 minute.
Step 3  In the Cisco TelePresence Administration interface, click **Setup**, then click **Show Focus Target**.

Step 4  Adjust the small target so that the red box encloses the upper patterns on the large target and the green box encloses the patterns on the small target.

---

**Figure 1-8  Arranging the Small and Large Targets**

**Figure 1-9  Positioning the Small and Large Targets**

---

Step 5  Adjust the focus on the camera by performing the following steps:

a. Loosen the thumbscrew for the lens focus ring. The ring is labeled “N-8”.
Tip

Use the thumbscrew (or 0.9 mm Allen wrench) to unlock the focus ring.

b. Twist the focus ring clockwise until the red and green horizontal bars on the bottom of the screen are reduced to very short lengths on the left.

c. Twist the focus ring counter-clockwise until the red and green bars extend all the way to the right.

d. Continue to twist the focus ring until the red and green bars are approximately the same length.

e. Make any additional adjustments you need to make to the zoom adjustments. Occasionally, adjusting the focus can slightly change the zoom.

f. Click Hide Focus Targets, then click Done when you complete the adjustment.

Step 6
Remove the targets and place them in front of the left camera.

Step 7
Complete Step 1 through Step 5 for the left camera.

Step 8
Remove the targets and place them in front of the right camera.

Step 9
Complete Step 1 through Step 5 for the right camera.

Attaching the Camera Hood Assembly

After you complete the camera adjustment, attach the camera hood assembly. See Figure 1-11.

Note
Attach the top hood before attaching the bottom hood.
Caution

Do not overtighten the screws, or use a power screwdriver to tighten the screws. The recommended torque for the screws is 0.8N.m (7 inch-pounds).

In addition, make sure that you use screws of the correct length (20 mm). Overtightening the screws, or using a screw that is too long, can cause the plastic hoods to break.

Figure 1-11   Attaching the Camera Hood Assembly
## Troubleshooting Cameras

Use the information in Table 1-2 to troubleshoot cameras.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camera image appears on the wrong display.</td>
<td>Cables are plugged into the wrong connector ports.</td>
<td>• Check that the cables from each camera are plugged into the correct connector on its respective codec.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Two connections are made for the camera, an RJ-45 cable plugs into the large connector and a video-to-DVI-I cable plugs into the small connector. Connect them as follows:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Plug the center camera into the primary codec.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Plug the participant’s left camera into the left secondary codec.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Plug the participant’s right camera into the right secondary codec.</td>
</tr>
<tr>
<td>Image not positioned correctly.</td>
<td>Camera is not aligned correctly.</td>
<td>Adjust and focus the camera using the targets.</td>
</tr>
<tr>
<td>Image colors are incorrect.</td>
<td>• Video cable is only partially connected.</td>
<td>• Tug on the plug to see if it is fully plugged in.</td>
</tr>
<tr>
<td></td>
<td>• Color settings are not correct.</td>
<td>• See the Routing Power and Signal Cables section in the following documents:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- <a href="#">Cisco TelePresence System 3010 Assembly, Use &amp; Care, and Field Replacement Unit Guide</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- <a href="#">Cisco TelePresence System 3210 Assembly, Use &amp; Care, and Field Replacement Unit Guide</a></td>
</tr>
<tr>
<td>No image.</td>
<td>• Lens cap is in place.</td>
<td>Remove the lens cap.</td>
</tr>
<tr>
<td></td>
<td>• Camera is not plugged in or is plugged in incorrectly.</td>
<td>• Check power connections and switches on each display.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Verify that the video and Ethernet cables from each camera are plugged into the correct connectors on their respective codecs.</td>
</tr>
<tr>
<td>Camera or display is broken.</td>
<td></td>
<td>Contact Cisco technical support if you are certain that the cabling is correct, power is applied, and a display and camera test has been run, but no image is seen on the display.</td>
</tr>
<tr>
<td>Camera top-to-bottom switching discontinuity.</td>
<td>Image may take up to 1 second to normalize when the camera switches to the active speaker.</td>
<td>This is normal DSP behavior. Can also occur during audio addin. Contact Cisco technical support.</td>
</tr>
</tbody>
</table>

### Related Information

For more information about setting up and testing cameras, see the following documentation:

- [Cisco TelePresence System 3010 Assembly, Use & Care, and Field Replacement Unit Guide](#)
- [Cisco TelePresence System 3210 Assembly, Use & Care, and Field Replacement Unit Guide](#)
Testing Speakers

The speakers are set up successfully when sound can be heard clearly from each one. When running a test, you can choose whether to cycle through the speakers automatically or manually.

Use the information in the following sections to test the speakers for your system:
- Testing the Speakers, page 1-17
- Troubleshooting Speakers, page 1-18
- Related Information, page 1-18

Testing the Speakers

To test the speakers:

Step 1 Log in to the Cisco TelePresence System Administration interface.
Step 2 Choose Troubleshooting > Hardware Setup
Step 3 Click the Speakers radio button.
Step 4 Click Start to begin the speaker test.
Step 5 Click Cycle Through Speakers to have sound cycled automatically for 5 seconds on each speaker.
Step 6 Click Manually Step Through Speakers to test sound on each speaker.
Step 7 Click Next Speaker to progress to the next speaker.
Step 8 Click Stop to end testing.
Troubleshooting Speakers

Use the information in Table 1-3 to troubleshoot speakers.

Table 1-3 Troubleshooting Speakers

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Possible Solution</th>
</tr>
</thead>
</table>
| No sound is heard.                     | Speaker cable is not connected or is only partially connected. | • Check that the red and black pronged ends of the speaker cable are securely fastened under their corresponding connectors on the speaker.  
• Check that the speaker cable is plugged into the correct receptor on the primary codec.  
• Tug on the plug to see if it is fully plugged in. Push the plug in firmly until a click is heard. |
| Sound heard at wrong speaker.          | Speaker cable is not connected in the correct connector. | • Check that the speaker cable is plugged into the correct receptor on the primary codec.  
• Plug all speakers into the primary codec. |
| Sound is not synchronized with video.  | —                                                    | Contact Cisco technical support.                                                  |
| Choppy audio during double-talk (when both sides are talking simultaneously). | Audio Echo Canceller (AEC) very briefly mistakes one of the speech patterns for noise and cancels it, resulting in choppy audio.  
• The audio from the remote side is slightly attenuated before it is played out the of the speaker.  
• The echo cancellation feature removes some of the sound from the talkers during the double talk. | Check whether there has been a change in the echo path (someone has moved the speaker or microphone, or maybe a laptop directly in front of a mic). Otherwise, this is expected behavior. The existing filter parameters should be enough to cancel out the sound from the speaker. However, during double-talk, echo cancellation will always remove some sound from the talker. |

Related Information

For more information about setting up and testing speakers, see the following documentation:

• Cisco TelePresence System 3010 Assembly, Use & Care, and Field Replacement Unit Guide  
• Cisco TelePresence System 3210 Assembly, Use & Care, and Field Replacement Unit Guide  
• For more system troubleshooting information, see the Cisco TelePresence System Troubleshooting Guide on Cisco.com.
Testing Microphones

The microphones are set up successfully when each microphone registers sound. You must supply sound at each microphone to complete this test. The number of audio meters that are shown on the test screen is determined by the number of microphones that have been configured in Unified CM and the version of Unified CM that you are running.

The Microphone Troubleshooting screen displays the number of microphones available for testing:

- CTS 3010—3 microphones. 1 audio meter is displayed per microphone, one on each of 3 test screens.
- CTS 3210—6 to 9 microphones, depending on your configuration. 2 or 3 audio meters are displayed on each of 3 test screens:
  - The top microphone icons represent the microphone in the front row of participants seated in the room.
  - The bottom microphone icons represent the microphones in the back row of participants seated in the room.

Go to the following sections to test microphones:

- Testing Microphones on the CTS 3010 and CTS 3210, page 1-19
- Troubleshooting Microphones, page 1-21
- Related Information, page 1-22

Testing Microphones on the CTS 3010 and CTS 3210

To test microphones on the CTS 3010 and CTS 3210:

**Step 1** Log in to the Cisco TelePresence System Administration interface.

**Step 2** Choose Troubleshooting > Hardware Setup.

**Step 3** Click the Microphones radio button.

**Step 4** Click Start in the Testing box to begin the test. The Microphone Calibration button is activated and three virtual screens appear, each with an audio meter displayed.

**Step 5** Lightly tap or scratch each microphone and watch the audio meter on the corresponding display screen to see that sound registers.

**Step 6** Click the Microphone Calibration button (CTS 3010 only). A dialog box appears:

“Microphone Calibration will last approximately two minutes. Please ensure the room remains quiet during the test. Proceed?”

**Note** The room must be completely quiet to calibrate microphones.

**Tip** You may want to leave the room and close the door to carry out the calibration process to ensure complete silence in the room.

**Step 7** Click Ok to proceed with the calibration.
Step 8  Click **Stop** to end the test.

Figure 1-12 shows an example CTS 3200 Series microphone troubleshooting screen with the Refresh Microphone Status window activated.

**Figure 1-12  Troubleshooting Microphones on the CTS 3200 Series**
## Troubleshooting Microphones

Use the information in **Table 1-4** to troubleshoot microphones.

### Table 1-4  Troubleshooting Microphones

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Possible Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sound is muffled.</td>
<td>Something near or on the microphone is distorting the</td>
<td>Move objects away from the microphone.</td>
</tr>
<tr>
<td></td>
<td>sound.</td>
<td></td>
</tr>
<tr>
<td>No sound registers.</td>
<td>Microphone cable is not connected or is only partially</td>
<td>• Check that the system is plugged in and power is on.</td>
</tr>
<tr>
<td></td>
<td>connected.</td>
<td>• Check that the microphone plug is firmly seated in the correct connector on the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>primary codec.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Check that the mute light on each microphone is lit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>An unlit light indicates that the microphone is not plugged in.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Lightly tap the microphone to see if sound registers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Contact Cisco technical support if you are certain that the cabling is correct</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and power is applied to the system, but no sound registers on the microphone.</td>
</tr>
<tr>
<td>Microphone icon with red pipe</td>
<td>Microphone is not connected.</td>
<td>Check that the microphone is properly plugged in.</td>
</tr>
<tr>
<td>displays.</td>
<td>One of the microphones is unplugged.</td>
<td></td>
</tr>
<tr>
<td>Microphone icon with question</td>
<td>One of the microphones is unplugged.</td>
<td>Check that the microphone is properly plugged in.</td>
</tr>
<tr>
<td>mark display.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sound registers at the wrong</td>
<td>Microphone cable is not connected to its corresponding</td>
<td>• Check that the cable from the microphone is plugged into the correct receptor on</td>
</tr>
<tr>
<td>microphone.</td>
<td>codec.</td>
<td>the codec.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Plug all microphones into the primary codec.</td>
</tr>
</tbody>
</table>
Table 1-4  Troubleshooting Microphones (continued)

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Possible Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microphone switches to a segment that has no one talking.</td>
<td>Phantom switching; microphone is not calibrated properly.</td>
<td>Run the microphone calibration procedure in the “Testing Microphones” section on page 1-19.</td>
</tr>
<tr>
<td>Choppy audio during double-talk (when both sides are talking simultaneously).</td>
<td>Audio Echo Canceller (AEC) very briefly mistakes one of the speech patterns for noise and cancels it, resulting in choppy audio.</td>
<td>Check whether there has been a change in the echo path (someone has moved the speaker or microphone, or maybe a laptop directly in front of a mic). Otherwise, this is expected behavior. The existing filter parameters should be enough to cancel out the sound from the speaker. However, during double-talk, echo cancellation will always remove some sound from the talker.</td>
</tr>
</tbody>
</table>

Related Information

For more information about setting up and testing displays, see the following documentation:

- *Cisco TelePresence System 3010 Assembly, Use & Care, and Field Replacement Unit Guide*
- *Cisco TelePresence System 3210 Assembly, Use & Care, and Field Replacement Unit Guide*
- For more system troubleshooting information, see the *Cisco TelePresence System Troubleshooting Guide* on Cisco.com.

Testing the External Presentation Display

By default, presentations are displayed as presentation-in-picture (PiP) on the center screen of multi-screen main display systems. You can optionally add an external presentation display screen that displays the presentation instead of displaying it as PiP on the main display screen. This display is attached to the External Presentation Display HD video connection on the codec. See the following documentation for more information:

- *Cisco TelePresence System 3010 Assembly, Use & Care, and Field Replacement Unit Guide*
- *Cisco TelePresence System 3210 Assembly, Use & Care, and Field Replacement Unit Guide*

Note

If the video works for a few minutes and then stops working, your presentation device might use an unsupported video protocol. To see the list of displays that the CTS 3010 and CTS 3210 supports, see the release notes for your CTS software version on Cisco.com.

A PiP softkey will be displayed on the phone only if a PiP is active. PiP is not available for audio-only calls.

To test an external presentation device:
Step 1 Log in to the Cisco TelePresence System.
Step 2 Navigate to Troubleshooting > Hardware Setup > Presentation Devices.
Step 3 Click the Test Pattern radio button.
Step 4 Click Start to begin the test.
The test pattern should display on the external presentation display.
Step 5 Click Stop to end the testing.

Testing Presentation Devices

The output for presentations is handled by projectors or auxiliary LCD displays. Input to the projector can be delivered through a Video Graphics Array (VGA) input device (such as a laptop computer) or through a document camera.

Note Manageability has been added to the CTS Administration interface for the Cisco LCD-100-PRO-40N 40-inch auxiliary display on the CTS 3010 and CTS 3210.

If your system has an Auxiliary Control Unit to test the display.

Step 1 Make sure that a serial cable is connected from your display to the Serial 1 output of the auxiliary control unit. See the “Options for the Cisco TelePresence System 3000 Series” chapter of the Cisco TelePresence Hardware Options and Upgrade Guide for information about cabling your system with an Auxiliary Control Unit.

Step 2 Start a test pattern display for the display by completing the following steps:
   a. Open a browser that is connected to the network.
   b. Enter the IP address of the primary codec to log in to Cisco TelePresence System Administration.
   c. Select Troubleshooting > Hardware Setup, then click the Presentation Devices radio button.
   d. Select the Test Pattern radio button.
   e. Click Start to begin the test.

Step 3 Turn on the display.
If the display does not show a test pattern, see the “Testing Presentation Devices” section on page 1-23 to attempt to fix the problem.

Step 4 From Cisco TelePresence System Administration interface, click Set LCD Defaults to automatically configure the display for use with the Cisco TelePresence system.

Note Although the 40-inch display ships with a remote control, Cisco strongly recommends that you not make any adjustments or changes from the factory default settings. The CTS restores the display to its factory default settings each night and any overrides to the default settings will not persist.

See the Cisco TelePresence System Administration Release Notes for a list of supported presentation devices.
Use the information in the following sections to test presentation devices:

- Checking the Test Pattern, page 1-25
- Troubleshooting the Presentation Display, page 1-25
- Checking the VGA, page 1-27
- Troubleshooting Presentation Devices, page 1-27
- Related Information, page 1-29
Checking the Test Pattern

To check the test pattern on the CTS 3010 and CTS 3210:

**Step 1**
Log in to the Cisco TelePresence System Administration interface.

**Step 2**
Choose **Troubleshooting > Hardware Setup**.

**Step 3**
Click the **Presentation Devices** radio button.

**Step 4**
Click **Start** in the Testing box. The Presentation Source buttons are activated.

**Step 5**
Select **Test Pattern** and click **Test**.

**Step 6**
Turn on the display.

If the display does not show a test pattern, see the “Troubleshooting the Presentation Display” section on page 1-25 to attempt to fix the problem.

**Step 7**
From Cisco TelePresence System Administration, click **Set LCD Defaults** to automatically configure the display for use with the Cisco TelePresence system.

**Note**
Although the 40-inch display ships with a remote control, Cisco strongly recommends that you not make any adjustments or changes from the factory default settings. The TelePresence system restores the display to its factory default settings each night and any overrides to the default settings will not persist.

Troubleshooting the Presentation Display

Use Table 1-6 to troubleshoot problems with the presentation display.

**Table 1-5**
*Troubleshooting Chart for Presentation Display Problems*

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Possible Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test pattern is not displayed.</td>
<td>Display power switch is off.</td>
<td>Check presentation display power switch. Switch the presentation display on/off rocker switch to the ON position.</td>
</tr>
<tr>
<td>Test pattern is not displayed.</td>
<td>Power cable is not connected.</td>
<td>Check to see if the LED on the top of the presentation display is illuminated; it can be either green or yellow. If the LED light is not illuminated, make sure that the power cable is plugged in.</td>
</tr>
</tbody>
</table>
Table 1-5  Troubleshooting Chart for Presentation Display Problems (continued)

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Possible Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test pattern is not displayed.</td>
<td>Video cable connector is not connected to the presentation display or to the primary codec.</td>
<td>Check that the video cable connector is plugged into the presentation display and into the correct connector on the primary codec. Contact Cisco technical support if you are certain that the cabling is correct and power is applied to the system but no image is displayed.</td>
</tr>
<tr>
<td>Test pattern is not displayed.</td>
<td>Presentation display is set up to receive PC input instead of input from its video cable connector.</td>
<td>Use the presentation display remote control to configure the presentation display for HD video input. If your system includes an Auxiliary Control Unit, click <strong>Set LCD Defaults</strong>.</td>
</tr>
<tr>
<td>Test pattern is not displayed.</td>
<td>Video cable connector is not securely seated in the presentation display.</td>
<td>Seat the video cable connector securely.</td>
</tr>
<tr>
<td>Test pattern is not displayed.</td>
<td>Video cable connector is not securely seated in the primary codec.</td>
<td>Seat the video cable connector securely.</td>
</tr>
<tr>
<td>Test pattern is not displayed.</td>
<td>Video cable connector is not inserted in the correct port on the primary codec.</td>
<td>The video cable connector should be connected to auxiliary video out. Check the cabling diagrams in “Routing Power and Signal Cables” section in the <em>Cisco TelePresence System 3210 Assembly, Use &amp; Care, and Field-Replaceable Unit Guide</em>.</td>
</tr>
</tbody>
</table>

The Cisco TelePresence System can display information from multiple input devices during a meeting; if multiple input devices are sending information, the display shows the input from the last presentation display sending information. If you do not see an input device image, try the following: for VGA devices, unplug the device from the VGA cable, wait 5 seconds, and then plug the device back in; for document cameras: turn the camera off, wait 5 seconds, and then restart the device.
Chapter 1      Troubleshooting the CTS 3010 and CTS 3210

Managing CTS 3010 and CTS 3210 Hardware Setup

Checking the VGA

To check the VGA on the CTS 3010 or CTS 3210:

**Step 1** Log in to the Cisco TelePresence System Administration interface.

**Step 2** Choose Troubleshooting > Hardware Setup.

**Step 3** Click the Presentation Devices radio button.

**Step 4** Click Start in the Testing box. The Presentation Source buttons are activated.

**Step 5** Select VGA and click Test. It may take up to 15 seconds before you begin to see an image on the projection surface. The image should be fully formed after approximately 45 seconds.

If the input image is displaying correctly, you should see an image projected on the projection surface. If the image is out of focus, use the projector focus ring to focus the image.

**Step 6** Click Stop Test to end the test.

**Step 7** Click Set Projector Defaults to reset the projector to the default settings.

**Step 8** Click Stop in the Testing box to end all testing.

Troubleshooting Presentation Devices

Use the information in the following sections to troubleshoot presentation devices:

- Multiple Input Devices, page 1-27
- Presentation Devices, page 1-27

Multiple Input Devices

The Cisco TelePresence System can display information from multiple input devices during a meeting. If multiple input devices are sending information, the projector displays the input from the last presentation device sending information. If an input device image is not being seen on the projector screen, try the following:

- VGA devices—Unplug the device from the VGA cable, wait 5 seconds, and then plug the device back in.
- Document cameras—Turn the camera off, wait 5 seconds, and restart the device.

Presentation Devices

Use the information in Table 1-6 to troubleshoot presentation devices.
### Table 1-6 Troubleshooting Presentation Devices

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Possible Solution</th>
</tr>
</thead>
</table>
| Test pattern is not displayed. | Projector power switch is off. | • Check projector power switch.  
• Switch the projector on/off rocker switch to the ON position. |
| Power cable is not connected. | | • Check to see if the LED on the top of the projector is illuminated. It can be either green or yellow.  
• If the LED light is not illuminated, make sure that the power cable is plugged in. |
| Video cable is not connected to the projector or to the CTS primary unit. | | • Check that the video cable is plugged into the projector and into the correct connector on the CTS primary unit.  
• Contact Cisco technical support if you are certain that the cabling is correct and power is applied to the system but no image is displayed. |
| Projector is set up to receive PC input instead of input from its video cable connector. | | • Use the projector remote control to configure the projector for HD Video input.  
• If your system includes an Auxiliary Control Unit, click Set Projector Defaults. |
| Object is blocking the path of the projector. | | Remove any objects blocking the projector lens. |
| HD Video connector is not securely seated in the projector. | | Seat the HD Video connector securely. |
| HD Video connector is not securely seated in the CTS primary codec. | | Seat the HD Video connector securely. |
| HD Video connector is not inserted in the correct port on the CTS primary codec. | | The HD Video cable connector should be connected to auxiliary video out. Check the cabling diagrams in the Routing Power and Signal Cables section in the following documentation:  
• [Cisco TelePresence System 3010 Assembly, Use & Care, and Field Replacement Unit Guide](#)  
• [Cisco TelePresence System 3210 Assembly, Use & Care, and Field Replacement Unit Guide](#) |
| Projector image is dim. | Lamp iris needs to be set to open. | See the Setting Up the Camera section in the following documentation:  
• [Cisco TelePresence System 3010 Assembly, Use & Care, and Field Replacement Unit Guide](#)  
• [Cisco TelePresence System 3210 Assembly, Use & Care, and Field Replacement Unit Guide](#) |
Table 1-6  Troubleshooting Presentation Devices

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Possible Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Status window shows unexpected Document Camera status.</td>
<td>Document camera settings may need to be adjusted in Unified CM.</td>
<td>Cisco recommends setting the Digital Visual Interface (DVI) resolution to XGA/60 at 1024 x 768/60 Hz. See the Optional Hardware section of the Cisco Unified Communications Manager Configuration Guide for the Cisco TelePresence System for more information.</td>
</tr>
<tr>
<td>There is no image and a Bulb icon appears on the CTS main display.</td>
<td>The projector bulb has burned out.</td>
<td>Replace the projector bulb.</td>
</tr>
</tbody>
</table>

Tip: Presentation devices automatically shut off when there is no longer a video signal to that presentation device. An on-screen timer counts down the remaining time to shut-down. The amount of time that it takes a device to shut down depends on your Unified CM configuration. Most CTS devices that support PiP shut down in 10 to 15 seconds after the video signal is removed. Devices on the CTS 3010 and CTS 3210 that have black boxes associated with the auxiliary control take 5 minutes to shut down. See the Product Specific Configuration Layout section of the Cisco Unified Communications Manager Configuration Guide for the Cisco TelePresence System for more information about controlling presentation devices and associated displays.

Related Information

For more information about setting up and testing presentation devices, see the following documentation:

- Cisco TelePresence System 3010 Assembly, Use & Care, and Field Replacement Unit Guide
- Cisco TelePresence System 3210 Assembly, Use & Care, and Field Replacement Unit Guide
- For more system troubleshooting information, see the Cisco TelePresence System Troubleshooting Guide on Cisco.com.

Testing Other Devices

Use the Other Devices Tab to check the following additional devices:

- Auxiliary Control Unit, page 1-30
- Digital Media Player, page 1-30
- Troubleshooting Other Devices, page 1-31
- Related Information, page 1-32
Auxiliary Control Unit

The auxiliary control unit (ACU) controls the individual light units surrounding the displays in CTS conference rooms and enables the CTS to get more complete projector status information and to restores projector defaults.

To test the ACU:

**Step 1** Log in to the Cisco TelePresence System Administration interface.

**Step 2** Choose **Troubleshooting > Hardware Setup**.

**Step 3** Click the **Other Devices** radio button.

**Step 4** Click **Start** in the Testing box. The Auxiliary Control Unit (Current Status) is displayed. Individual light units correspond to the five port numbers of the Auxiliary Control Unit, Ports 1 through 5.

   a. Check a box to select a specific port number.
   Or
   b. Click **Select All** to select all ports (and all light units) or **Select None**.
   c. Click the **Refresh On/Off Status** button to update the on/off status of each port.
   d. Click the **Turn Selected Lights On/Off** to test the selected light unit(s).
   e. Click the **Reset Auxiliary Control Unit** to power cycle the Auxiliary Control Unit.

**Step 5** Click **Stop** to end the test.

Digital Media Player

The Digital Media Player (DMP) feature lets you select a secondary audio input source when you are not in a TelePresence call.

For more information about the DMP, see the Cisco Digital Media Players home page on Cisco.com.

To test the DMP:

**Step 1** Log in to the Cisco TelePresence System Administration interface.

**Step 2** Choose **Troubleshooting > Hardware Setup**.

**Step 3** Click the **DMP** tab.

**Step 4** Click **Start** in the Testing box to begin testing the secondary audio input.

- If you have a PC attached, the **Secondary Audio Input Source PC** button is highlighted. When **Secondary Audio Input Source** is set to **PC**, the audio input is active while the presentation source is active, both in and out of a call.
- If you have a DMP attached, the **Secondary Audio Input Source DMP** button is highlighted. When set to **DMP**, audio input is only active outside of a call if DMP is active (during business hours defined by Unified CM).

**Note** The DMP settings should match how the secondary auxiliary audio input is physically connected to the codec.
Step 5  Click Stop to end the test.

Troubleshooting Other Devices

Use the information in Table 1-7 to troubleshoot problems in Other Devices.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Possible Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Media Player</td>
<td>DMP audio is playing during a call.</td>
<td>Secondary Audio Input Source setting may be wrong.</td>
</tr>
<tr>
<td>Presentation Devices</td>
<td>Local presentation audio is not playing during a call.</td>
<td>The Secondary Audio Input Source setting may be wrong.</td>
</tr>
<tr>
<td></td>
<td>Presentation fails to display in some resume scenarios.</td>
<td>This is expected behavior.</td>
</tr>
<tr>
<td></td>
<td>Administration login can be slow when presenting during point-to-point secure calls.</td>
<td>This is expected behavior.</td>
</tr>
</tbody>
</table>

Tip  Other devices automatically shut off when there is no longer a video signal to that device. An on-screen timer counts down the remaining time to shut-down. The amount of time that it takes a device to shut down depends on your Unified CM configuration. Most CTS devices that support PiP shut down in 10 to 15 seconds after the video signal is removed. Devices on the CTS 3010 and CTS 3210 that have black boxes associated with the auxiliary control take 5 minutes to shut down. See the Product Specific Configuration Layout section of the Cisco Unified Communications Manager Configuration Guide for the Cisco TelePresence System for more information about controlling presentation devices and associated displays.
Related Information

For more information about setting up and testing other devices, see the following documentation:

- *Cisco TelePresence System 3010 Assembly, Use & Care, and Field Replacement Unit Guide*
- *Cisco TelePresence System 3210 Assembly, Use & Care, and Field Replacement Unit Guide*
- For more system troubleshooting information, see the *Cisco TelePresence System Troubleshooting Guide* on Cisco.com.

Managing Log Files

**Tip**

If you are using Internet Explorer, remember to turn off Pop-up Blocker or configure Pop-up Blocker to allow the IP address before capturing system log files.

Use Log Files to view system operation (sysop) log files, Session Initiation Protocol (SIP) messages and log files from the Cisco TelePresence system. Click the appropriate tab at the top of the window to view the following information:

- Sysop Log, page 1-32
- Log Files, page 1-33
- SIP Messages, page 1-34

Sysop Log

To manage sysop messages:

**Step 1** Choose **Troubleshooting > Log Files**.

**Step 2** Select the **Sysop Files** tab to view system operation (sysop) messages, including call information, call statistics, and call errors for the Cisco TelePresence system. There can be up to 20 individual files saved on the CTS, and each file can contain up to 100,000 characters.

**Step 3** Click the **Download Sysop Files** button at the bottom of the page to download the sysop log files. CTS Administration software then prompts you to do one of the following:

a. 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.

Or

b. Save the sysop log files.
Log Files

Use Log Files to retrieve log files from the Cisco TelePresence system. Log files can be retrieved from the CTS or from the phone.

To manage log files:

**Step 1** Choose 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 drop-down menu contains the following:
  - Audio (speakers, microphones)
  - Video (displays, cameras)
  - Projector, LCD, document camera
  - Phone
  - Recording
  - Other/Unknown

Figure 1-13 shows the problem types that you can select when downloading log files.

**Figure 1-13 Select Problem Type Drop-Down Menu**

![Select Problem Type Drop-Down Menu]

**Step 3** Choose from one of the following options:

- **None** — Default. No log files will be captured unless a download option is selected. Figure 1-14 shows the log download radio button options.

- **Download existing log files**—You must select this radio button to download logs.

- **Capture New Log Files**—The system will capture but not download the log files.

**Note** You must disable Internet Explorer Pop-up Blocker to capture new log files with the Capture New Log Files button.
Step 4  Select the “Download existing log files” radio button and then select a problem from the Select Problem Type drop-down menu:

- Audio (speakers, microphones)
- Video (displays, cameras)
- Projector, alternate display, LCD, document camera
- Phone
- Recording
- Other/Unknown

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

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

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.

Or

Step 6  Select the “Capture new log files” radio button and then click the **Capture New Log Files** button. The following message appears:

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

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**

Use SIP Messages to view the current Session Initiation Protocol (SIP) messages log file. 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 1-8 and Table 1-9 describe the SIP requests and message types.

To manage SIP messages:
Step 1  Choose **Troubleshooting > Log Files**.

Step 2  Select the **SIP Messages** tab. The SIP Messages window appears.

Step 3  View a specific type of message in the SIP log file by doing the following:

  a. Enter the filter where the SIP Message Type is by typing the name in the field provided. The Filter button is activated.

  Or

  b. Select the message type from the drop-down menu. The Filter button is activated.

  c. Click the **Filter** button to view the SIP messages of the type you specified.

Step 4  Choose the number of messages to view at one time from the Rows Per Page drop-down menu. You can 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**.

---

**Generate Detailed Message Reports**

To see additional details associated with a SIP message:

Step 1  Double-click 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**.

Or

Step 2  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:

Step 1  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 below.

Step 2  Click **Close** to dismiss this window.

---

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

- **SIP Requests and Methods, page 1-35**
- **SIP Response Categories, page 1-36**

**SIP Requests and Methods**

Table 1-8 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.
Chapter 1  Troubleshooting the CTS 3010 and CTS 3210

Managing Log Files

SIP Response Categories
SIP replies to the requests in Table 1-8 using the response categories described in Table 1-9.

<table>
<thead>
<tr>
<th>RFC</th>
<th>Request/Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3261</td>
<td>ACK</td>
<td>Confirms that the client has received a final response to an INVITE request.</td>
</tr>
<tr>
<td>3261</td>
<td>BYE</td>
<td>Terminates a call. Can be sent by either the caller or the called party.</td>
</tr>
<tr>
<td>3261</td>
<td>CANCEL</td>
<td>Cancels any pending searches but does not terminate any call currently in progress.</td>
</tr>
<tr>
<td>2976</td>
<td>INFO</td>
<td>Allows session-related control information generated during a session to be carried along the SIP signaling path.</td>
</tr>
<tr>
<td>3261</td>
<td>INVITE</td>
<td>Indicates that a user or service is being invited to participate in a call session.</td>
</tr>
<tr>
<td>3265</td>
<td>NOTIFY</td>
<td>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.</td>
</tr>
<tr>
<td>3261</td>
<td>OPTIONS</td>
<td>Queries the capabilities of servers.</td>
</tr>
<tr>
<td>3262</td>
<td>PRACK</td>
<td>Provides reliability for 1xx type messages; see Table 1-8.</td>
</tr>
<tr>
<td>3515</td>
<td>REFER</td>
<td>Provides a mechanism allowing the party sending the REFER message to be notified of the outcome of the referenced request.</td>
</tr>
<tr>
<td>3261</td>
<td>REGISTER</td>
<td>Registers the address listed in the To header field with a SIP server.</td>
</tr>
<tr>
<td>3265</td>
<td>SUBSCRIBE</td>
<td>Requests current state and state updates from a remote node.</td>
</tr>
<tr>
<td>3311</td>
<td>UPDATE</td>
<td>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.</td>
</tr>
</tbody>
</table>

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.
Testing Audio

You can test the system audio in your meeting room and send the results to Cisco Systems technical support for analysis.

**Note**

Audio recordings can be made only while the CTS system is in a call.

To record audio:

**Step 1** Choose Troubleshooting > Audio.

**Step 2** Click Start Recording Audio to start recording all audio in the local meeting room including audio from remote meeting rooms. Recording will continue up to a maximum of two minutes unless you manually stop recording.

**Note**

Both endpoints will beep periodically during the recording process and when audio add-in participants join the call.

**Step 3** Click Stop Audio Recording to stop recording.

**Step 4** After you complete the recording and download the results, send the results to Cisco Systems technical support.

Related Information

For more system troubleshooting information, see the Cisco TelePresence System Troubleshooting Guide on Cisco.com.
Testing the Network Connection

Use the Network Connection window to view and modify the duplex and automatic negotiation settings for the Cisco TelePresence system Ethernet connection. Auto negotiation is set to Off by default.

You can change the following network connection settings:

- Auto Negotiation on
- Auto Negotiation off

To manage Auto Negotiation:

Step 1: Choose **Troubleshooting > Network Connection**.

Step 2: Click the **On** or **Off** radio button to enable or disable auto negotiation. The Apply and Reset buttons are activated, as shown in **Figure 1-15**.

*Note* When Auto Negotiation is enabled, the Duplex and Speed settings are read-only.

**Figure 1-15** Auto Negotiate On

![Auto Negotiate On](image)

**Step 3** Click **Apply** to save your settings or click **Reset** to restore the original settings.

**Related Information**

For more system troubleshooting information, see the *Cisco TelePresence System Troubleshooting Guide* on Cisco.com.

Managing Configuration Issues

Use the Configuration Issues window to view hardware and software versions and to reset the system to use the factory default software image and the default configuration.

To view hardware and software versions and active images, choose **Troubleshooting > Configuration Issues**. The Hardware/Software Versions page appears listing the current hardware and software versions and active images.
Chapter 1  Troubleshooting the CTS 3010 and CTS 3210

Initiating System Restart

Resetting the System

Caution

Once the system is reset, you will have to reconfigure the system. You will be asked twice to confirm your choice to revert to the factory image before software will carry out this request.

Resetting the system can take over two hours to complete.

A system reset results in the following:

- The CTS is reset to the software image as originally shipped.
- All configuration settings are reset to the factory defaults.

If you select to reset the system to use factory defaults, check the Cisco IP telephone for messages during the reset procedure:

- Data in bold blue text indicates where the current system image is located for each codec in the system.
- Locations of the factory image are listed.

To reset the system image to the factory default:

Step 1  Choose Troubleshooting > Configuration Issues. The Hardware/Software Versions page appears listing the current hardware and software versions and active images.

Step 2  Click the Reset to Factory Image and Factory Configuration...and Restart Cisco TelePresence System... button. The system image location is changed and the system restarted.

Note

If a Cisco TelePresence call is in progress, the changes will be made after the call ends.

Related Information

For more system troubleshooting information, see the Cisco TelePresence System Troubleshooting Guide on Cisco.com.

Initiating System Restart

Caution

The system will restart immediately, even when a Cisco TelePresence call is in progress.

To restart the system:

Step 1  Choose Troubleshooting > System Restart. The System Restart page appears and the current call status is displayed.

Step 2  Click the Restart Cisco TelePresence System button. The system immediately restarts.
Troubleshooting Video Quality Settings

Use the information in Table 1-10 to troubleshoot the video picture on the displays.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Action</th>
</tr>
</thead>
</table>
| Video picture is good but experiences repeated interruptions. | Video quality setting is set too high. | 1. Log into the Cisco Unified CM Administration interface.  
2. Verify that the required settings have been made for configuring the video quality. See the Cisco Unified Communications Manager Configuration Guide for the Cisco TelePresence System.  
Note: Higher bandwidth increases video quality, but may also cause packets to be dropped and video to be interrupted. |

Note: See the Cisco TelePresence Network Systems 2.0 Design Guide for more information about CTS video quality.

For more system troubleshooting information, see the Cisco TelePresence System Troubleshooting Guide on Cisco.com.

Troubleshooting Network Cabling

For all Cisco TelePresence systems, the Cisco Unified IP phone is connected to the primary codec using an Ethernet cable (RJ-45 connector). An RJ-45 connector is also required for the following additional network connections:

- CTS 3010 and the CTS 3210—The following codecs are connected to the primary unit:
  - Left
  - Right secondary
  - Presentation
- An Ethernet cable (RJ-45) connects the primary codec to the user network.

For detailed cabling information, see the Routing Power and Signal Cables section in the following documentation:

- Cisco TelePresence System 3010 Assembly, Use & Care, and Field Replacement Unit Guide
- Cisco TelePresence System 3210 Assembly, Use & Care, and Field Replacement Unit Guide

Table 1-11 contains problem scenarios and troubleshooting solutions for network cabling.
### Table 1-11 Troubleshooting Cisco TelePresence Network Cabling

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Actions</th>
</tr>
</thead>
</table>
| Cisco Unified IP Phone is off. | • Power to the primary unit is off.  
• Phone is not connected to the phone port on the primary unit.  
• The system does not recognize the phone or it is unregistered.  
• The network is down. | • Check the power connection to the Cisco TelePresence System, and verify that the system is turned on.  
• Check the cable connection from the primary unit to the Cisco Unified IP Phone. See the assembly guide for your Cisco TelePresence system for correct cabling:  
  – *Cisco TelePresence System 3010 Assembly, Use & Care, and Field Replacement Unit Guide*  
  – *Cisco TelePresence System 3210 Assembly, Use & Care, and Field Replacement Unit Guide*  
• Log into the Cisco Unified Communications Manager administration interface. Click the IP address and verify phone registration. See the *Cisco Unified Communications Manager Configuration Guide for the Cisco TelePresence System* for more information. |
| Cisco IP Phone does not register with the IP network. | • The network cable is not connected to the primary unit.  
• The network configuration has not been done or has been done incorrectly. | • Log into the Cisco Unified Communications Manager administration interface and verify that the required settings have been made for configuring the Cisco TelePresence system and Cisco Unified IP Phone. |
| Cisco IP Phone does not register with the IP network. | • Cisco Unified Communications Manager is down or disabled.  
• The network is down. | • Check the cable connection from the primary unit to the network. See the assembly guide for your Cisco TelePresence system for correct cabling:  
  – *Cisco TelePresence System 3010 Assembly, Use & Care, and Field Replacement Unit Guide*  
  – *Cisco TelePresence System 3210 Assembly, Use & Care, and Field Replacement Unit Guide*  
• Restart Cisco Unified Communications Manager. See the *Cisco Unified Communications Manager Configuration Guide for the Cisco TelePresence System* for Cisco Unified Communications Manager configuration instructions.  
• Restart the network. |
| Cisco Telepresence phone idle screen does not appear. | Device configuration has not been done or has been done incorrectly. | • Log into the Cisco Unified Communications Manager administration interface.  
• Verify that the required settings have been made for configuring the Cisco TelePresence system and Cisco Unified IP Phone. See the *Cisco Unified Communications Manager Configuration Guide for the Cisco TelePresence System.* |

**Note** For more system troubleshooting information, see the *Cisco TelePresence System Troubleshooting Guide* on Cisco.com.
Where to Go Next

See Chapter 1, “Monitoring the Cisco TelePresence System.”

- For information about system messages that may appear on the Cisco TelePresence system, see the *Cisco TelePresence System Message Guide* on the Cisco TelePresence Administration Software Error and System Messages home page on Cisco.com.

- For information about upgrading hardware in an existing CTS 3000 Series installation, including removing the projector and adding new speakers, speaker covers, and LCD display, see the *Removing the Projector and Adding a Presentation Display for CTS 3000 and CTS 3200 Systems* Guide on Cisco.com.