Cisco TelePresence
Media 310/320
Installation Guide

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General information

About the Cisco Multiparty Media 310/320

The Cisco Multiparty Media 310 and Media 320 (referred to as Media 3x0) are technologically advanced media processing platforms. The Media 3x0 is shipped with the Cisco TelePresence Server software. The platforms, combined with the TelePresence Server software application, provide ActivePresence high definition video conferencing and the highest possible voice quality.

Cisco TelePresence Conductor is required to manage the Media 3x0 appliances.

Package contents

The following items are included with the Media 3x0. Verify that you have these items, in addition to the Media 3x0 itself, before installing the device:

- Console cable (blue)
- Power cable
- Rack mounting kit

If you intend to cluster Media 3x0s, a Cisco TelePresence MCU 5300 Series Stacking Cable must be ordered separately. Please contact your reseller or go to www.cisco.com.

Port and LED location

The following diagrams show the positions of ports and LEDs on the Media 3x0.

Figure 1: Media 3x0 front panel

Figure 2: Media 3x0 rear panel

Front panel LED behavior

The following table describes the behavior of the front panel LEDs.

Table 1: Media 3x0 front panel LED behavior

<table>
<thead>
<tr>
<th>LED</th>
<th>Color</th>
<th>Indicates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>Green</td>
<td>The Media 3x0 is operating normally</td>
</tr>
</tbody>
</table>
Table 1: Media 3x0 front panel LED behavior (continued)

<table>
<thead>
<tr>
<th>LED</th>
<th>Color</th>
<th>Indicates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alarm</td>
<td>Red</td>
<td>The Media 3x0 is booting or has developed a fault, for example:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- temperature is outside normal limits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- fan failure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- battery failure of the internal clock</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Refer to the web interface for more information about the problem (go to Status &gt; Health Status)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power</th>
<th>Blue</th>
<th>The Media 3x0 is receiving power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Link</td>
<td>Green</td>
<td>Illuminated when the link between stacked Media 3x0s is active</td>
</tr>
<tr>
<td>Net A</td>
<td>Green</td>
<td>Illuminated when there is activity on network Port A</td>
</tr>
<tr>
<td>Net B</td>
<td></td>
<td>Not used by the TelePresence Server</td>
</tr>
</tbody>
</table>

Rear panel LED behavior

The following table describes the behavior of the rear panel LEDs.

Table 2: Media 3x0 rear panel LED behavior

<table>
<thead>
<tr>
<th>LED</th>
<th>Color</th>
<th>Indicates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Link</td>
<td>Green</td>
<td>Illuminated when the link between stacked Media 3x0s is active</td>
</tr>
<tr>
<td>Net A</td>
<td>Green/Orange</td>
<td>Left LED illuminated green when the interface has established a link</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Right LED illuminated orange when there is activity on the interface</td>
</tr>
<tr>
<td>Net B</td>
<td></td>
<td>Not used by the TelePresence Server</td>
</tr>
</tbody>
</table>
Connecting the Media 3x0

Before you start

IMPORTANT: Before installing the Media 3x0, you must read the safety information at

Task 1: Connect power

Connect the power connector on the rear of the unit to the power supply using the supplied power cable.
(There is no On/Off switch.)

Task 2: Connect to Ethernet Port A

Connect an Ethernet cable from Ethernet Port A to an Ethernet switch.

Failing to configure both sides of the Ethernet connection in the same way can result in packet loss,
leading to poor audio and video quality.

Ethernet Port B is not used by the TelePresence Server application.
Configuring the Media 3x0

Task 3: Connect to the console port

1. Ensure power is connected to the Media 3x0 and the Status LED is green.
2. Connect the console port of the unit to the serial port of your PC using the RJ45 to DB9 cable supplied.
3. Use a serial terminal program, such as Secure CRT or HyperTerminal, to connect to the unit. Set your terminal software to the following settings:
   - Baud rate: 38400
   - Data bits: 8
   - Parity: none
   - Stop bits: 1
   - Flow control: none
4. Press Enter and the following command prompt appears on the terminal:
   `TS:>`

Task 4: Configure Ethernet Port A settings

The default setting for the Media 3x0 Ethernet ports is auto-sensing mode. If the switch port to which you connect the Media 3x0 is not also set to auto-sensing mode, then you need to configure the device’s Ethernet port to use the same speed and duplex mode.

**Note:** To establish a 1000 Mbps connection, both ends of the link must be configured as auto-sensing.

- To configure Ethernet Port A, enter the following for auto-sensing mode:
  ```
  ethertype auto
  ```
  or to configure a speed and duplex, use the following command:
  ```
  ethertype <10 | 100> <half | full>
  ```
  For example, to configure a full-duplex 100 Mbps link, enter:
  ```
  ethertype 100 full
  ```
- To display the current configuration and status of the Ethernet ports, enter:
  ```
  status
  ```

Task 5: (Optional) Assign an IP address to the Media 3x0

The default setting for the Media 3x0 is to use DHCP to obtain an IP address. You can assign a static IP address if you prefer, or if a DHCP server is not available. If you want the IP address of the Media 3x0 to be assigned by your DHCP server, omit this step.

The Media 3x0 supports IPv4 and IPv6 addressing. The default configuration for Port A is:
- Port A will acquire an IPv4 address using DHCP; IPv6 is disabled.
- To assign a static IPv4 address to Port A, use the following command:
  ```
  static A <IP address> <netmask> [default gateway address]
  ```
  For example, to assign an address of 192.168.1.2 where the default gateway is at 192.168.1.1, enter:
  ```
  static A 192.168.1.2 255.255.255.0 192.168.1.1
  ```
- To manually specify a DNS server, use this command:
  ```
  dns <DNS server address> [secondary DNS server] [domain]
  ```
To revert to using DHCP after setting a static IPv4 address, use the following command:

```
dhcp -4
```

For information on assigning a static IPv6 address type `help static`. For information on assigning an automatic IPv6 address type `help dhcp` or else see the online help.

---

**Task 6: Discover the IP address of the Media 3x0**

1. To display the current status of the IP address, enter: `status`
   
   If you have DHCP enabled on your network and you are allowing the Media 3x0 to acquire its address using DHCP, the IP address that has been acquired by Ethernet Port A will be shown; if you have assigned a static IP address, that is the address that will be shown.

2. Make a note of the IP address. You will use this to access the web interface of the unit.

**Note:** When your Media 3x0 has an IP address, you can add an entry for it on your DNS server and use a hostname to access the device’s web interface.

---

**Task 7: Log in to the Media 3x0**

To log in to the web interface of the device:

1. Use your browser to navigate to the IP address or hostname of the unit.

2. Enter the user name `admin` with no password, and click `Log in`.
   
   The Status page is displayed.

**Note:** We recommend that you change the admin account to use a password as soon as possible. To do that, go to `Configuration > Change password`. 

---
(Optional) Clustering Media 3x0s

Before you start

Up to two Media 3x0s can be clustered to increase capacity. One of the Media 3x0s acts as the master unit and the second as a slave, and the cluster will provide the sum of the conferencing capacity of the individual units.

For example, if you cluster two Media 320s, which each support up to twelve screen licenses, your cluster will support up to twenty-four 1080p screens. For more details of screen licenses and associated conferencing capacity, see the software release notes or online help.

You may combine a Media 310 with a Media 320 in the cluster, provided that they are running identical software versions. In this case, the Media 320 must be configured as the master.

You will also need a Cisco TelePresence MCU 5300 Series Stacking Cable which must be ordered separately. Please contact your reseller or go to www.cisco.com.

Task 1: Connect the devices using the stacking cable

1. If your stacking cable has protective tapes or caps on the ends, remove them so that the metal conductors are visible within the plug.
2. Plug the ends of the stacking cable into the Link sockets on the rear of the Media 3x0s. Check the orientation of the plug when inserting it into the Link socket.
3. To remove the cable, pull the release mechanism to detach the plug. Do not pull directly on the plug.

Task 2: Configure the master device

One of the Media 3x0s must be configured as the master device and the other as a slave.

1. Log in to the web interface of the device you have selected as the master.
   In a mixed cluster, you must use the Media 320 as the master.
2. Go to Configuration > Cluster configuration.
3. Select Master from the Cluster mode drop down menu.
4. Click Apply changes.
5. Click OK to restart the device and apply the changes.
6. Go to Status > Cluster to confirm that the device has been correctly configured as the master.

Task 3: Configure the slave device

1. Log in to the web interface of the other device.
2. Go to Configuration > Cluster configuration.
3. Select Slave from the Cluster mode drop down menu.
4. Click Apply changes.
5. Click OK to restart the device and apply the changes.
6. Go to Status > Cluster to confirm that the device has been correctly configured as the slave.
When you have configured the units as master and slave, do not use the web interface of the slave unit for normal operations. The slave web interface is only used for upgrading software and for network configuration.
Next steps

Media 3x0s running the Cisco TelePresence Server application operate in the remotely managed mode and are administered through the TelePresence Conductor.

Setting up the TelePresence Server for administration by TelePresence Conductor

In order for the TelePresence Server to be administered through TelePresence Conductor, you need to:

- Log in to the TelePresence Server's web interface as an administrator.
- Create a user identity that the TelePresence Conductor can assume to administer the device, and give it API level access.
- Configure the device so that it can be administered by TelePresence Conductor.

Note: In a cluster of Media 3x0s, only the master device is registered to the TelePresence Conductor.

For information on creating the user for TelePresence Conductor, and configuring the device to enable TelePresence Conductor to administer the device, refer to the steps provided in the appropriate TelePresence Conductor deployment guide.

- In networks where the TelePresence Conductor is trunked to Cisco Unified CM, refer to Cisco TelePresence Conductor with Cisco Unified Communications Manager Deployment Guide, XC2.4, Unified CM 10.x.
- In networks where the TelePresence Conductor is trunked to Cisco VCS refer to Cisco TelePresence Conductor with Cisco TelePresence Video Communication Server Deployment Guide, XC2.0, X6.0 and later.
Checking for updates

It is a good idea to regularly check for updates to the device's main software image on the Cisco web site. This section describes how to upgrade the device using the web interface.

To check for, and download, updates:

1. Log in to the web interface and go to Status > Status.
2. Make a note of the software version that is currently installed.
3. Go to the support section of the web site and check if a more recent release is available.
4. If a more recent release is available, download it and save it locally.

To upgrade the software application:

1. Unzip the software release file that you downloaded.
2. In the web interface, go to Configuration > Upgrade.
3. In the Main software image section, browse to and locate the unzipped file.
4. Click Upload software image.
   The browser begins uploading the file to the device, and a new browser window opens to indicate the progress of the upload. When finished, the browser window refreshes and indicates that the software upgrade is complete.
5. Go to Configuration > Shutdown to shut down and restart the device.

Note: Shutting down the device will disconnect all participants.
Troubleshooting and technical support information

Using the event log to help solve a problem

You can use the event log to produce debugging information to assist technical support in solving any problems. Event logging capture filter topics are set by default to **Errors, warnings and information**. Do not change the capture filter topic level without the guidance of technical support.

Getting more help

If you experience any problems when configuring or using the Media 3x0, consult the online help available from the user interface.

If you cannot find the answer you need in the documentation, check the web site at http://www.cisco.com/cisco/web/support/index.html where you will be able to:

- Make sure that you are running the most up-to-date software.
- Get help from the Cisco Technical Support team.

Make sure you have the following information ready before raising a case:

- Identifying information for your product, such as model number, firmware version, and software version (where applicable).
- Your contact email address or telephone number.
- A full description of the problem.

To view a list of Cisco TelePresence products that are no longer being sold and might not be supported, visit http://www.cisco.com/en/US/products/prod_end_of_life.html and scroll down to the TelePresence section.
Technical specifications

Power requirements

Table 3: Media 3x0 ratings

<table>
<thead>
<tr>
<th>Rating</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current rating</td>
<td>6A Maximum</td>
</tr>
<tr>
<td>Supply voltage range</td>
<td>100 to 240V 50/60 Hz</td>
</tr>
</tbody>
</table>

Over-current protection

Ensure the supply to this unit is protected by a branch circuit protector rated by a maximum of 20A.

**CAUTION:** Over-current devices must meet applicable national and local electrical safety codes and be approved for the intended application.

Operating environment

The device must only be used within the following environmental conditions:

Table 4: Operating environment

<table>
<thead>
<tr>
<th>Environment</th>
<th>Temperature</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating environment</td>
<td>0°C to 35°C</td>
<td>10% to 95% (non-condensing)</td>
</tr>
<tr>
<td>Non-operating environment</td>
<td>-10°C to 60°C</td>
<td>10% to 95% (non-condensing)</td>
</tr>
<tr>
<td>Optimum operating environment</td>
<td>21°C to 23°C</td>
<td>45% to 50% (non-condensing)</td>
</tr>
</tbody>
</table>

Anti-static precautions

When servicing or removing components or connections, first attach an anti-static wrist strap to an appropriate earth point.
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