



Cisco TelePresence MCU 5300 Series

Installation Guide

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General information

About the Cisco TelePresence MCU 5300 Series

The Cisco TelePresence MCU 5300 Series is a range of technologically advanced and powerful Multipoint Control Units (MCU). They are designed to combine continuous presence at high definition and the highest possible voice quality.

Package contents

The following items are included with the MCU 53x0. Verify that you have these items, in addition to the MCU 53x0 itself, before installing the device:

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

If you intend to cluster MCU 53x0s, 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 MCU 53x0.

Figure 1: MCU 53x0 front panel

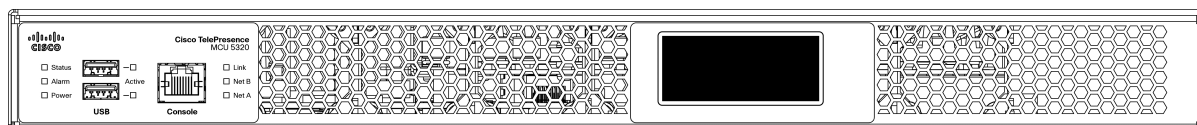
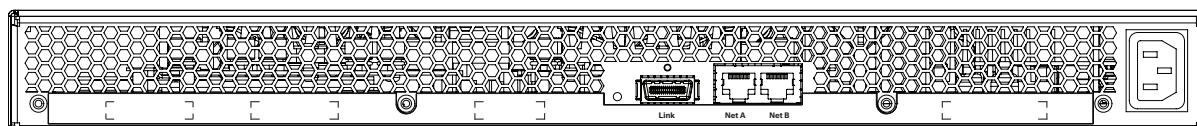


Figure 2: MCU 53x0 rear panel



Front panel LED behavior

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

Table 1: MCU 53x0 front panel LED behavior

LED	Color	Indicates
Status	Green	The MCU 53x0 is operating normally

LED	Color	Indicates
Alarm	Red	The MCU 53x0 is booting or has developed a fault, for example: <ul style="list-style-type: none"> ■ temperature is outside normal limits ■ fan failure ■ battery failure of the internal clock Refer to the web interface for more information about the problem (go to Status > Health)
Power	Blue	The MCU 53x0 is receiving power
Link	Green	Illuminated when the link between stacked MCU 53x0s is active
Net A	Green	Illuminated when there is activity on network Port A
Net B	Green	Illuminated when there is activity on network Port B

Rear panel LED behavior

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

Table 2: MCU 53x0 rear panel LED behavior

LED	Color	Indicates
Link	Green	Illuminated when the link between stacked MCU 53x0s is active
Net A	Green/Orange	Left LED illuminated green when the interface has established a link Right LED illuminated orange when there is activity on the interface
Net B	Green/Orange	Left LED illuminated green when the interface has established a link Right LED illuminated orange when there is activity on the interface

Connecting the MCU 53x0

Before you start



IMPORTANT: Before installing the MCU 53x0, you must read the safety information at <http://www.cisco.com/go/telepresence/safety>.

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.

Only connect to Ethernet Port B if you need to connect the MCU to a second subnet.

Configuring the MCU 53x0

Task 3: Connect to the console port

1. Ensure power is connected to the MCU 53x0 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:
`MCU : >`

Task 4: Configure Ethernet Port A settings

The default setting for the MCU 53x0 Ethernet ports is auto-sensing mode. If the switch port to which you connect the MCU 53x0 is not also set to auto-sensing mode, then you need to configure the device's Ethernet ports to use the same speed and duplex mode.



Only connect to Ethernet Port B if you need to connect the MCU 53x0 to a second subnet.



Both ends of the Ethernet connection must be configured in the same way. For example, either configure both ends of the link to be auto-sensing or configure both ends to operate at the same speed and duplex.

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

Task 5: (Optional) Assign an IP address to the MCU 53x0

The default setting for the MCU 53x0 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 MCU 53x0 to be assigned by your DHCP server, omit this step.

- 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 A



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 MCU 53x0

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 MCU 53x0 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 MCU 53x0 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 MCU 53x0

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 **Home** 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 **Home** and click **Change password**.

(Optional) Clustering MCU 53x0s

Before you start

Up to two MCU 53x0s can be clustered to increase capacity. One of the MCU 53x0s 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 MCU 5320s, which each support up to ten 1080p participants, your cluster will support up to twenty 1080p participants.

You may combine an MCU 5310 with an MCU 5320 in the cluster, provided that they are running identical software versions. In this case, the MCU 5320 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 MCU 53x0s. 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 MCU 53x0s 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 MCU 5320 as the master.
2. Go to **Settings > Media ports**.
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 **Settings > Media ports**.
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.

Task 4: (Optional) Register the master with Cisco VCS Control

You can use a cluster of MCUs with a Cisco TelePresence Video Communication Server (Cisco VCS Control), just as you would use a single MCU. To do this you must register the master MCU with the Cisco VCS Control.

The Cisco VCS will not indicate that the MCU is part of a cluster; the device type will continue to show as *MCU*.

To display the status of registered devices on the Cisco VCS Control, go to **Status > Registrations > By device**.

Task 5: (Optional) Configure Cisco TMS to recognize the cluster

You can manage a cluster of MCUs through the Cisco TelePresence Management Suite (Cisco TMS) as you would manage a single MCU. To do this, only the master needs to be added to Cisco TMS.

Note: There are some issues with managing slave MCUs in Cisco TMS. To prevent these issues:

- Do not add new slave MCUs to Cisco TMS.
 - Completely remove from Cisco TMS any MCU that you wish to configure as a slave. You will need to reconfigure any conferences that were scheduled to run on that device to run on the master instead.
-

Remove a slave from Cisco TMS

For any MCU that is or will be configured as a slave:

1. Log in to Cisco TMS.
2. Go to **Systems > Purge Systems**.
3. Select the devices you want to delete.
4. Click **Purge Systems**.

Add the master to Cisco TMS

There is no specific configuration needed to add a new master MCU to Cisco TMS; you can add it as you would do for a single MCU.

However, if you reconfigure an MCU that Cisco TMS already manages, to become the master in a cluster, then Cisco TMS will not recognize the increased conferencing capacity until you force a refresh on Cisco TMS.

1. Log in to Cisco TMS.
2. Go to **Systems > Navigator**.
3. Click on your MCU in the left hand pane.
4. Go to **Settings**.

5. Click **Force Refresh**.

Cisco TMS refreshes its details of the device and the **Max Number of Video Calls** will increase to show the increased port count.

Note: Refreshing an MCU that has been configured as a slave will not cause Cisco TMS to decrease its record of that device's port count. You must remove the slave from Cisco TMS and refresh the master.

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 > General**.
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 **Settings > 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 **Settings > 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 MCU 53x0, 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: MCU 53x0 ratings

Rating	Value
Current rating	6A Maximum
Supply voltage range	100 to 240V 50/60 Hz

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

Environment	Temperature	Humidity
Operating environment	0°C to 35°C	10% to 95% (non-condensing)
Non-operating environment	-10°C to 60°C	10% to 95% (non-condensing)
Optimum operating environment	21°C to 23°C	45% to 50% (non-condensing)

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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