Hardware Installation Manual

AudioCodes One Voice for Microsoft® Skype for Business

Mediant Server Cloud Connector Edition

Cabling and Initial Configuration

Version 1.0

AudioCodes

MEDIANT SERVER CCE Appliance

Table of Contents

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Notice

This manual describes the hardware installation of AudioCodes Mediant Server Cloud Connector Edition Appliance.

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Date Published: May-8-2016

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Customer Support

Customer technical support and services are provided by AudioCodes or by an authorized AudioCodes Service Partner. For more information on how to buy technical support for AudioCodes products and for contact information, please visit our Web site at www.audiocodes.com/support.

Abbreviations and Terminology

Each abbreviation, unless widely used, is spelled out in full when first used. Throughout this manual and unless otherwise specified, the term *device* refers to Mediant Server CCE.

Related Documentation

Manual Name
HP iLO 4 User Guide

Document Revision Record

LTRT	Description
28060	Initial document release for Version 1.0.

Documentation Feedback

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1 Introduction

This document provides a hardware description and step-by-step cabling procedures for AudioCodes' Mediant Server Cloud Connector Edition (CCE) Appliance.

1.1 Specifications

The table below shows the Mediant Server CCE specifications.

Table 1-1: Mediant Server CCE Specifications

Resource	Specifications
Chassis Type	1RU system
CPU	2 Processors with 12 Cores
Memory	64GB RAM
Network	4 x 1 GbE ports
Disk	4HDD with RAID 5
CD/DVD	SATA CD/DVD R/W
Installation Interface	VGA Monitor and Keyboard

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2 Physical Description

This section provides a physical description of the device.

2.1 Physical Dimensions

The device's physical dimensions are listed in the table below.

Table 2-1: Physical Dimensions

Item	Description
Physical Dimensions	1U x 445 mm x 743 mm (HxWxD)
Weight	27.27 kg (60.00 lbs.)
Environmental	Operational: 10 to 35°C

2.2 Front Panel

The Mediant Server CCE features an 8-SFF (Small Form Factor) cage for standard internal storage hard drives. The device's front panel is shown in the figures below and described in the subsequent table.

Figure 2-1: Front Panel

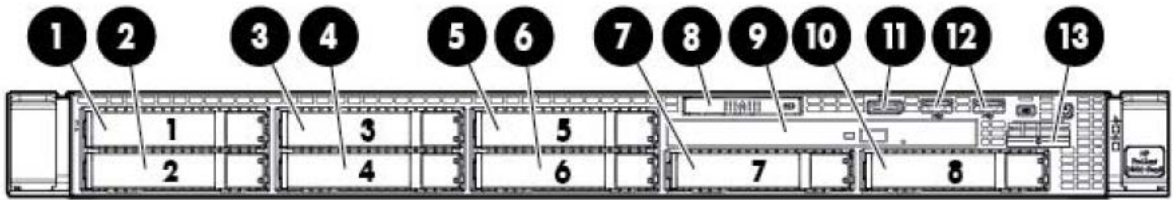


Table 2-2: Front Panel

Item #	Description
1	SAS/SATA/SSD drive bay 1
2	SAS/SATA/SSD drive bay 2
3	SAS/SATA/SSD drive bay 3
4	SAS/SATA/SSD drive bay 4
5	SAS/SATA/SSD drive bay 5
6	SAS/SATA/SSD drive bay 6
7	SAS/SATA/SSD drive bay 7
8	Systems Insight Display
9	DVD-ROM drive (optional)
10	SAS/SATA/SSD drive bay 8 (optional)
11	Front video connector (front video port adapter required)
12	USB connectors (2)
13	Serial number tab

2.2.1 Front Panel LEDs

The front panel LEDs are shown in the figure below and described in the subsequent table.

Figure 2-2: Front Panel LEDs

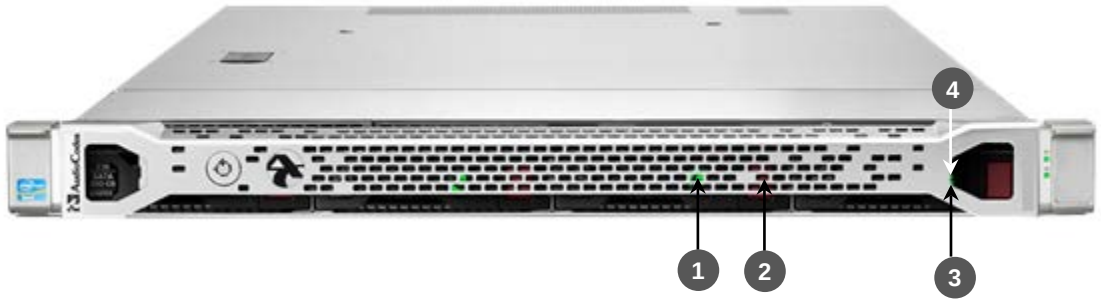


Table 2-3: Front-Panel LEDs

Item #	Description	Status
1	UID LED/button	• Solid blue = Identification is activated. • Flashing blue = System is being managed remotely. • Off = Identification is deactivated.
2	Power On/Standby button/LED	• Solid green = System is On. • Flashing green = Waiting for server power sequence. • Solid amber = System is in standby, but power is still applied. • Off = Power cord is not attached, power supply failure has occurred, no power supplies are installed, facility power is not available, or the power button cable is disconnected
3	Health LED	• Solid green = System health is normal. • Flashing amber = System health is degraded. • Flashing red = System health is critical. • Fast flashing red = Power fault (check system and devices).
4	Aggregate network LED	• Solid green = Link to network. • Flashing green = Network activity. • Off = No network connection.

2.3 Rear Panel

The rear panel is displayed in the figure below and described in the subsequent table.

Figure 2-3: Rear Panel

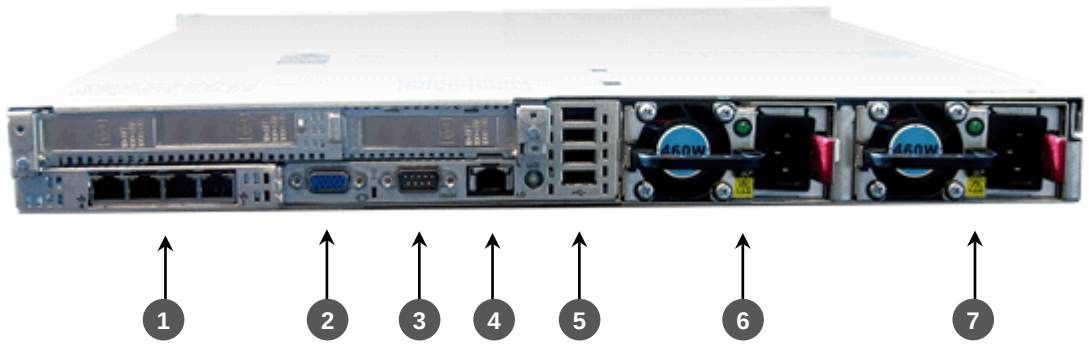


Table 2-4: Rear Panel

Item #	Description
1	4 GbE ports
2	Video connector
3	Serial connector
4	HP iLO port (see http://www8.hp.com/us/en/products/servers/ilo/)
5	USB connectors (4)
6	Power supply bay 1 (primary and redundant power supply supported)
7	Power supply bay 2 (primary and redundant power supply supported)

2.3.1 Rear Panel LEDs

The rear panel LEDs are shown in the figure below and described in the subsequent table.

Figure 2-4: Rear Panel LEDs

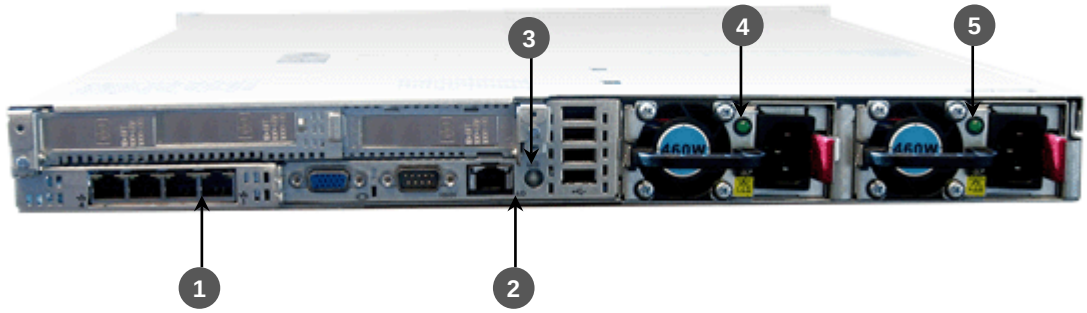


Table 2-5: Rear Panel LEDs

Item #	Description	Status
1	Standard NIC activity LED	• Solid green = Activity exists. • Flashing green = Activity exists. • Off = No activity exists.
2	iLO NIC link LED	• Solid green = Link exists. • Off = No link exists.
3	UID button/LED	• Solid blue = Identification is activated. • Flashing blue = System is being managed remotely. • Off = Identification is deactivated.
4	Power Supply 2 LED	• Solid green = Normal. • Off = One or more of the following conditions exists: ✓ AC power unavailable. ✓ Power supply failed. ✓ Power supply in standby mode. ✓ Power supply exceeded current limit.
5	Power Supply 1 LED	• Solid green = Normal. • Off = One or more of the following conditions exists: ✓ AC power unavailable. ✓ Power supply failed. ✓ Power supply in standby mode. ✓ Power supply exceeded current limit.

3 Deploying the Device

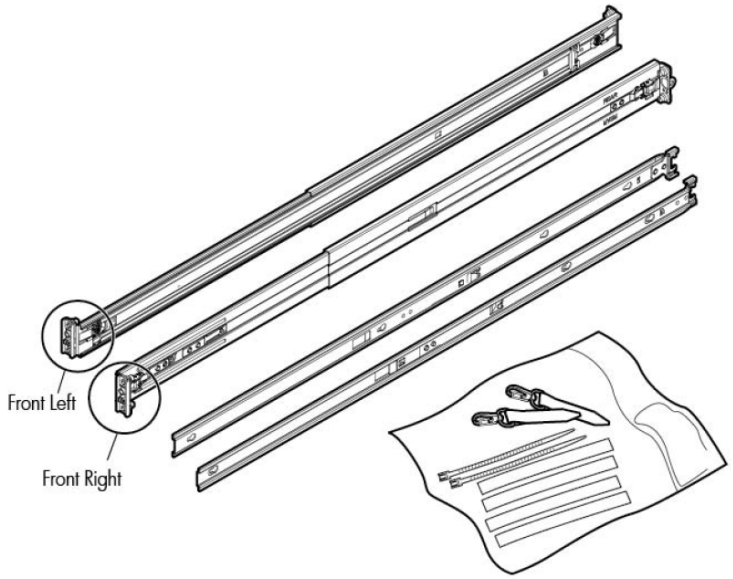
This section shows how to deploy the device in a commercial rack mount kit.

3.1 Hardware Kit Contents

Warning: To reduce the risk of personal injury or damage to the equipment, at least two people are required to lift the server during installation or removal.

Note: When installing the rack rails, be sure they are oriented Front Left and Front Right, as indicated on the rails.

Figure 3-1: Hardware Kit Contents



You must provide:

- Screws to secure the slide mounting bracket assemblies in a threaded-hole rack
- Cage nuts for a round-hole rack
- Screws that fit a threaded-hole rack
- The appropriate screwdriver for the screws

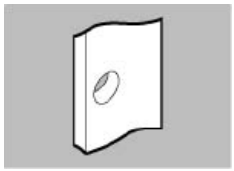
3.2 Overview

This rack hardware kit supports a variety of products in round-, square-, or threaded-hole racks. Use the legend to identify installation steps appropriate to the type of rack.

Note: If you are shipping the server installed in a rack, see the additional instructions located in "Preparing the product for integrated shipping in a rack" before proceeding.

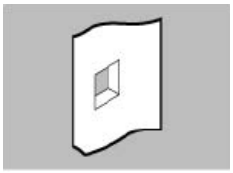
3.3 Rack Identification Legend

Figure 3-2: Rack Identification Legend



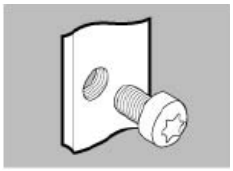
Round-hole racks

No tools required



Square-hole racks

No tools required



Threaded-hole racks

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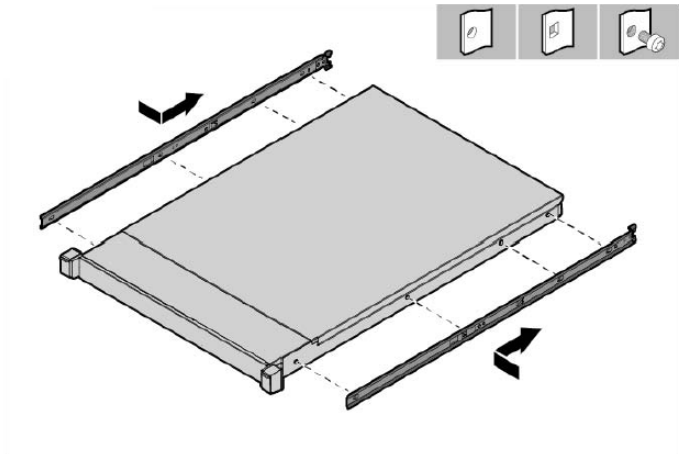
3.4 Installing the Rail Kit into a Rack

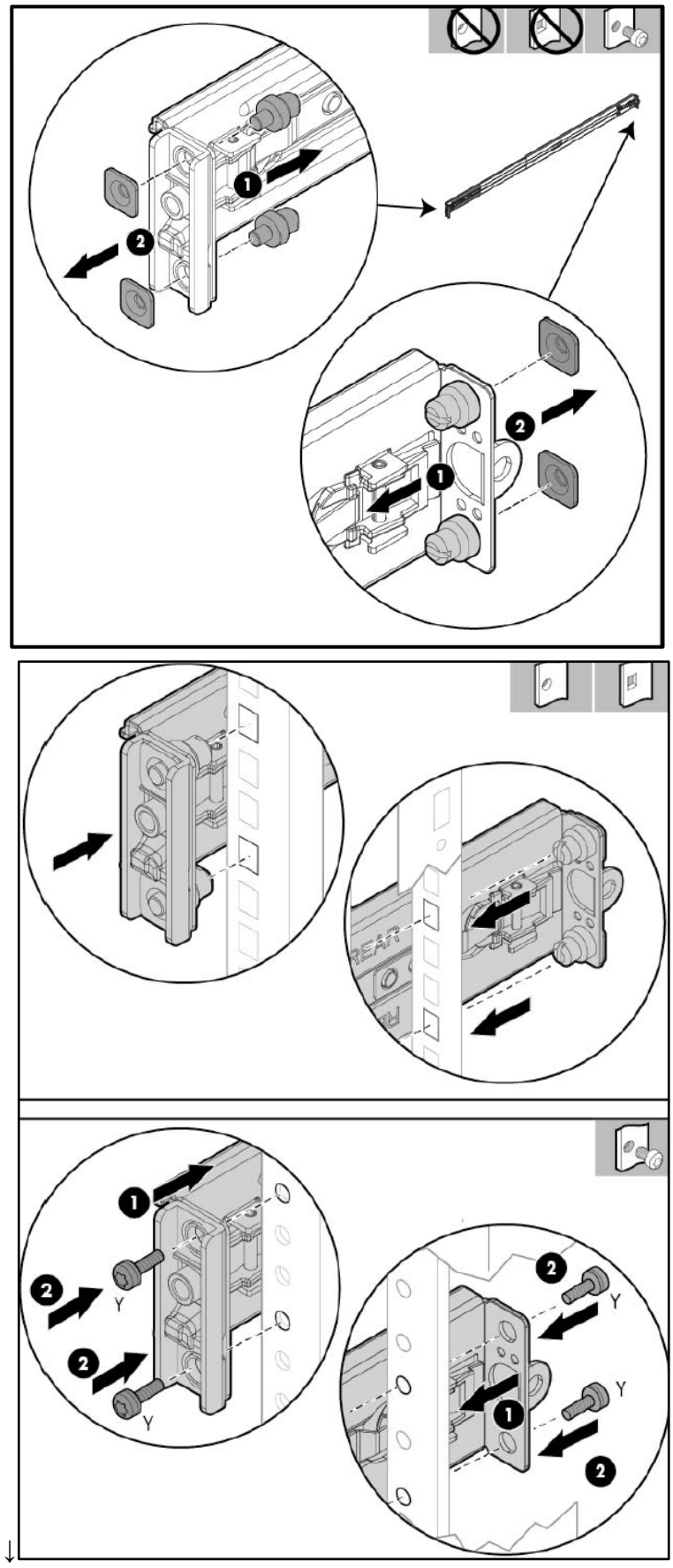
Figure 3-3: Rail Kit



Warning: To avoid risk of personal injury or damage to the equipment, do not stack anything on top of rail-mounted equipment or use it as a work surface when extended from the rack.

Caution: Always plan the rack installation so that the heaviest item is on the bottom of the rack. Install the heaviest item first, and continue to populate the rack from the bottom to the top.

Figure 3-4: Installing Rail Kit

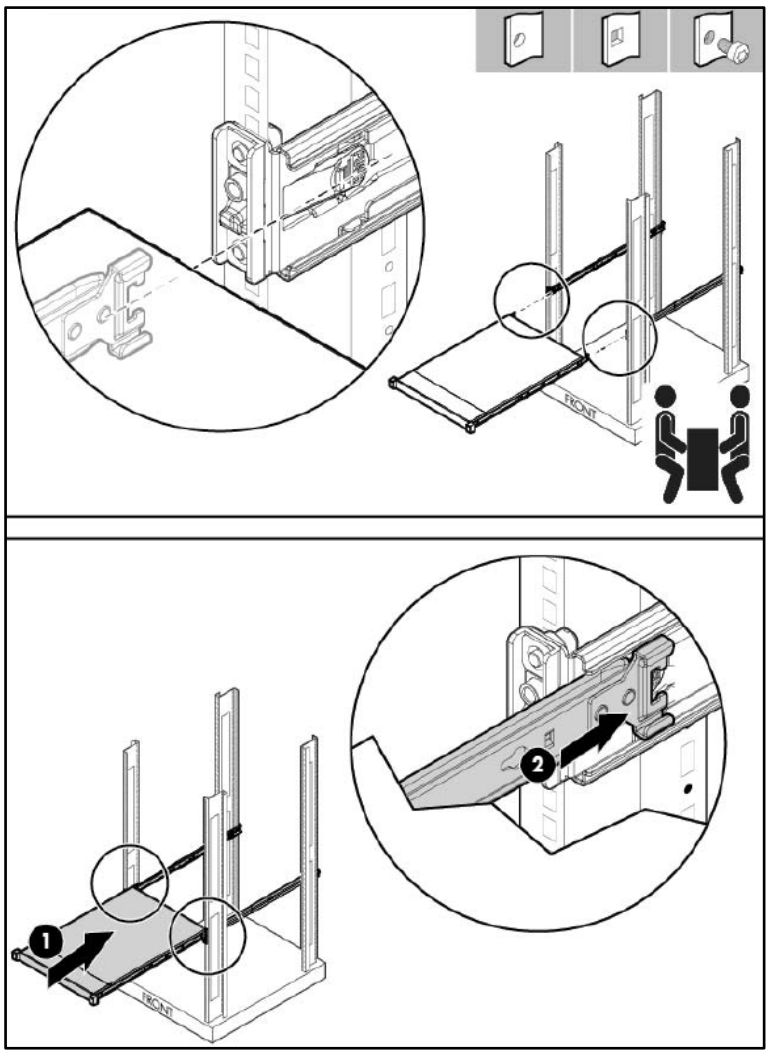


Warning: To reduce the risk of personal injury or equipment damage, be sure that the rack is adequately stabilized before sliding the inner slides into the slide mounting bracket assemblies.

Warning: To reduce the risk of personal injury or damage to the equipment, at least two people are required to lift the server during installation or removal.

Caution: Be sure to keep the product parallel to the floor when sliding the inner slides into the slide mounting bracket. Tilting the product up or down could result in damage to the slides.

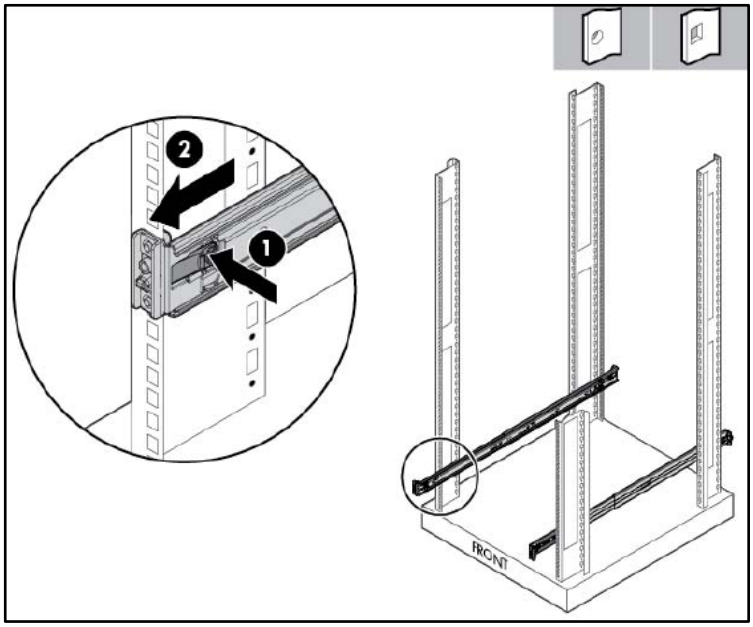
Figure 3-5: Installing Rail Kit Cont'd



3.5 Removing the Rail

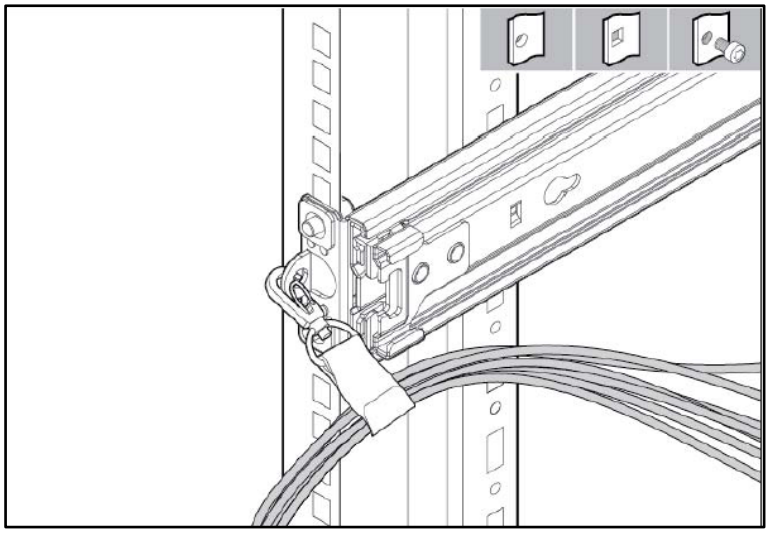
When removing the rail from the rack, always remove the front of the rail first.

Figure 3-6: Removing the Rail



3.6 Securing the Cables

Figure 3-7: Securing the Cables



3.7 Connecting the Power Cords

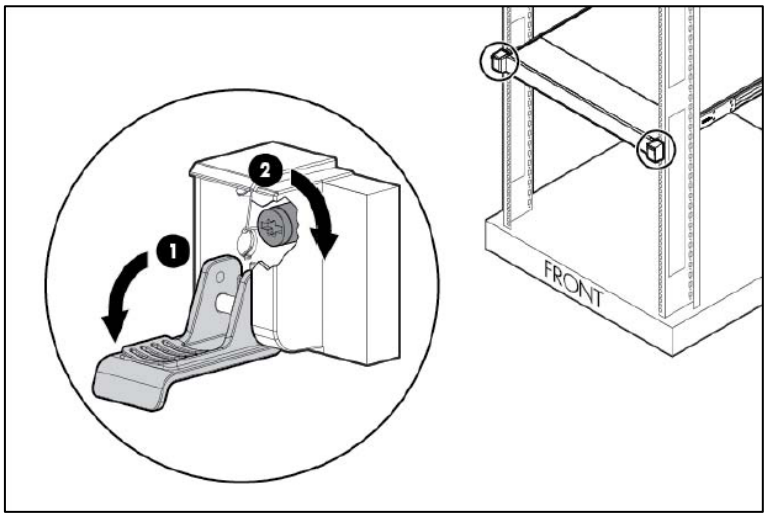
After completing all installation and cable management procedures, you can connect the power cords to the facility power source. See Section 4.2 on page 22 for detailed information. The installation is complete.

3.8 Preparing the Product for Integrated Shipping in a Rack

Note: You must provide screws to secure the slide mounting bracket assemblies in a threaded-hole rack.

Note: Use the integrated shipping hardware included with this kit to prepare a square-hole rack for integrated shipping.

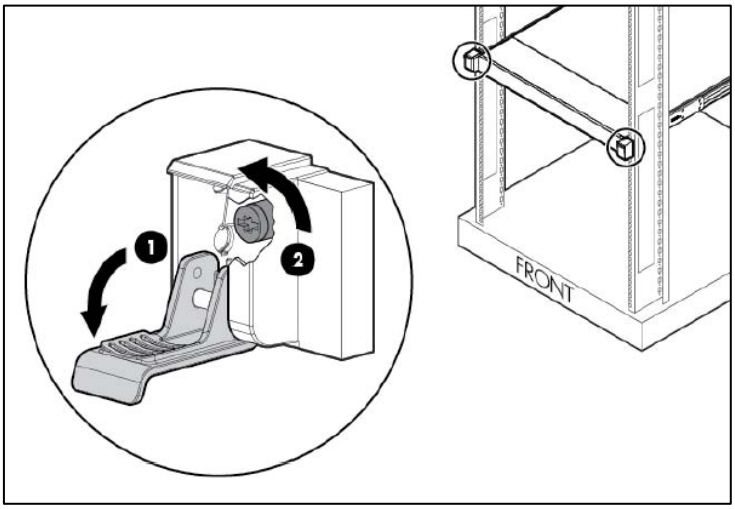
Figure 3-8: Preparing Product for Integrated Shipping in Rack



3.9 Loosening the Shipping Screws

To slide the server out of the rack, open the latches and loosen the shipping screws.

Figure 3-9: Loosening Shipping Screws



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4 Cabling

This section shows how to cable the device. Intra-building connections of the device require the use of shielded cables grounded at both ends.

Caution: The intra-building ports of the equipment are suitable for connection to intra-building or unexposed wiring or cabling only. The intra-building ports of the equipment must not be metallically connected to interfaces that connect to the Outside Plant (OSP) or its wiring. These interfaces are designed for use as intra-building interfaces only (Type 2 or Type 4 ports, as described in GR-1089–CORE, Issue 4) and require isolation from the exposed OSP cabling. The addition of primary protectors is not sufficient protection to connect these interfaces metallically to OSP wiring.

4.1 Grounding

The device is intended for use in both common bonding networks and isolated bonding networks. Grounding must comply with local, national, and other applicable government codes and regulations. Dedicated safety grounds are implemented on the product. The product uses a standard three wire cord that includes a safety ground for each power supply.

Warning: To ensure the safety ground, at least one power supply with an appropriately terminated ground lead must be installed at all times.

Tip: To ensure the safety ground, at least one power supply with an appropriately terminated ground lead must be installed at all times.

4.2 Connecting to Power

This section shows how to connect the device to the power supply. The device can be connected to an AC power source.

You can connect both Power Supply modules (1 and 2), for 1+1 power load-sharing and redundancy. Each module provides a power socket on the device's rear panel. If both power modules are used, make sure that you connect each one to a different power supply socket.

Note: When connecting both Power Supply modules, the two AC power sources must have the same ground potential.

Warning: The device must be connected (by service personnel) to a socket-outlet with a protective earthing connection.

4.2.1 Connecting to AC Power Source

The AC power supply specifications are listed in the table below.

Table 4-1: AC Power Supply Specifications

Specification	Value
Input requirements	-
Rated input voltage	100 V AC–240 V AC
Rated input frequency	50 Hz or 60 Hz
Rated input current	3.5 - 8.5A
Rated input power	▪ 843 W at 100 V AC input ▪ 811 W at 200 V AC input
Btus per hour	▪ 2878 at 100 V AC input ▪ 2769 at 200 V AC input
Power supply output	-
Rated steady-state power	▪ 750 W at 100 V to 120 V AC input ▪ 750W at 200 V to 240 V AC input
Maximum peak power	▪ 750W at 100 V to 120 V AC input ▪ 750W at 200 V to 240 V AC input

Warning: Use only the AC power cord supplied with the device.

Caution: To reduce the risk of electric shock or damage to the equipment:

- Do not disable the power cord grounding plug. The grounding plug is an important safety feature.
- Plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.
- Unplug the power cord from the power supply to disconnect power to the equipment.
- Do not route the power cord where it can be walked on or pinched by items placed against it. Pay particular attention to the plug, electrical outlet, and the point where the cord extends from the server.

Note:

- This equipment is intended for installation where the NEC (National Electrical Code) applies.
- The safety ground of the AC power cord must terminate the chassis to the interior equipment grounding system.

➢ **To connect the device to the AC power supply:**

1. Connect the AC power cord (supplied) to one of the power sockets located on the rear panel.

Figure 4-1: Connecting AC Power Cords to AC Electrical Outlets

2. Connect the other end of the power cord to a standard AC electrical outlet (100-240V~50-60 Hz).
3. For load sharing and power redundancy, repeat steps 1 through 2, but using the power socket of the second Power Supply module and connecting this to a different supply circuit.
4. Turn on the power at the power source (if required).
5. Check that the **POWER** LED on each Power Supply module (front panel) is lit green. This indicates that the device is receiving power.

4.3 Connecting Display and Keyboard

To perform initial configuration, display and keyboard are required.

- Connect the display to the 15-pin HD D-Sub (HD-15) VGA port on the Mediant Server CCE.
- Connect the keyboard to the USB port.

4.4 Connecting the Device to the IP Network

This section shows how to connect the device to the IP network.

➢ **To connect the device to the IP network:**

- Use an Ethernet cable to connect an RJ-45 network port on the server's rear panel to the LAN.

Figure 4-2: Connecting the Device to the IP Network

Notes:

- The first port used for OAM&P is located on the lowermost right of the Mediant Server CCE chassis.
- The HP iLO port is not used for management of the Mediant Server CCE application; it's used only for hardware management.
  For more information, see also http://www8.hp.com/us/en/products/servers/ilo/.

5 Initial Configuration

See the *AudioCodes Mediant Server Cloud Connector Edition Appliance - Quick Guide*.

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6 Setting up iLO

The Mediant Server CCE server is equipped with the HP Integrated Lights-Out (iLO) interface and is shipped with the 'iLO Advanced' license key.

The iLO subsystem is a standard component of HP ProLiant servers that simplifies initial server setup, server health monitoring, power and thermal optimization, and remote server administration. The iLO subsystem includes an intelligent microprocessor, secure memory, and a dedicated network interface. This design makes iLO independent of the host server and its operating system.

iLO monitors all key internal subsystems. When enabled, SNMP alerts are sent directly by iLO, regardless of the host operating system or whether a host operating system is installed. Embedded remote support software is available on HP ProLiant servers with iLO 4, regardless of the operating system software and without installing OS agents on the server.

For more information on how to set up and use the iLO advanced capabilities, see the *HP iLO User Guide* available at http://h10032.www1.hp.com/ctg/Manual/c03334051.

➢ **To use the HP iLO interface, take these steps:**

- Connect to the iLO interface; see section *Connecting iLO to the network* in the *HP iLO User Guide*.
- Log in to the iLO web interface; see section *Setting up iLO by using the iLO web interface* in the *HP iLO User Guide*.
- Activate the iLO advanced license; see section *Activating iLO licensed features* in the *HP iLO User Guide*. Use the iLO advanced license key shipped with the Mediant Server CCE servers.

Note: The Mediant Server CCE servers may be shipped with the iLO advanced license already activated and therefor there is no need to manually activate it.

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7 Hardware Maintenance

The device is designed as a modular chassis and allows you to order any module as a Field Replacement Unit (FRU). This section describes the procedures for installing or replacing modules.

Warning: Maintenance service of this device must be made only by qualified service personnel in restricted access locations and connected to an earthed power socket.

Note: Make sure all unoccupied module chassis slots are covered with blank panels. This allows optimal internal airflow pressure within the chassis.

7.1 Prerequisites

Before performing any maintenance procedures, read this section.

7.1.1 Grounding the Device

Before performing any maintenance procedures, ensure that your device is properly grounded.

7.1.2 Preventing Electrostatic Discharge Damage

Electrostatic discharge (ESD) due to improper handling of the device's modules and components can cause irreversible damage to the equipment. Adhere to the following guidelines for preventing ESD:

- When handling modules, always wear a grounded ESD wrist strap or ankle strap at a grounded work area to prevent ESD. Connect the equipment end of the strap to a grounded workstation or computer chassis.
- To prevent static electrical damage to the module, do not touch the electrical components of the module. Instead, hold the module only on the edges where no electrical components are located.
- Ensure that the modules are securely installed in the chassis.

➢ **To attach an ESD wrist strap to the chassis:**

1. Attach the ESD wrist strap to your body (typically, the wrist) so that it is in direct contact with your skin.
2. Attach the other end of the wrist strap (e.g., an alligator clip) to a grounded workstation or computer chassis.

7.2 Replacing Power Supply Modules

This section shows how to replace the power supply modules.

7.2.1 Replacing AC Power Supply

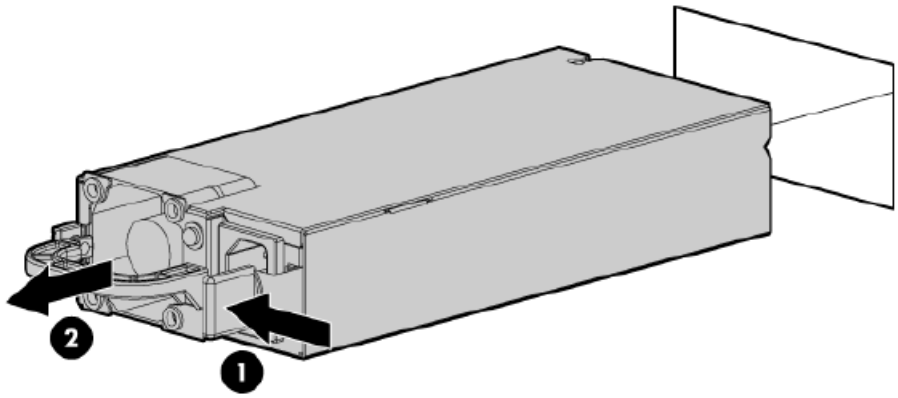
Caution: To prevent improper cooling and thermal damage, do not operate the server unless all bays are populated with either a component or a blank.

➢ **To remove the component:**

1. Power down the server.
2. Remove all power:
   a. Disconnect each power cord from the power source.
   b. Disconnect each power cord from the server.
3. Access the product rear panel.
4. Remove the power supply.

Warning: To reduce the risk of personal injury from hot surfaces, allow the power supply or power supply blank to cool before touching it.

Figure 7-1: Removing Component



To replace the component, reverse the removal procedure.

7.3 Troubleshooting Device Failures

Contact AudioCodes RMA at www.audiocodes.com/support to troubleshoot device failures (such as fan alarms).

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