



Cisco Physical Security Multi Services Platform User Guide

Models CIVS-MSP-1RU, CIVS-MSP-2RU, and CIVS-MSP-4RU

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Cisco Physical Security Multiservices Platform User Guide

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Preface

Overview

This document describes how to install the Cisco Multi Services Platform devices and how to perform the initial set up of these devices. It provides information for the following Multi Services Platform models:

- CIVS-MSP-1RU—1 rack unit (RU) chassis with motherboard, 300 W power supply, and CPU. (Drives and option cards are available separately.)
- CIVS-MSP-2RU—2 RU chassis with motherboard, RAID controller, 900 W power supply, and CPU. (Drives and option cards are available separately.)
- CIVS-MSP-4RU—4 RU chassis with motherboard, RAID controller, 900 W power supply, and CPU. (Drives and option cards are available separately.)

This document it is intended for experienced system integrators and technicians.

Organization

This document is organized as follows:

Chapter 1, “Overview”	Provides information about the Multi Services Platform features, chassis, and system interface
Chapter 2, “Setting Up the Chassis”	Describes how to perform a variety of set up and hardware maintenance procedures for Multi Services Platform
Chapter 3, “Mounting the Multi Services Platform in a Rack”	Explains how to install the Multi Services Platform in a rack
Appendix A, “System Specifications”	Provides general and power supply specifications for the Multi Services Platform
Appendix B, “Fiber Channel Card”	Provides information about the optional fiber channel card, which enables fibre channel connectivity to external storage arrays
Appendix C, “16 x CIF / 4 x 4CIF Video Capture Card”	Provides information about the optional 16 x CIF / 4 x 4CIF video capture card, which enables capturing and compressing analog video streams

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CHAPTER 1

Overview

The Cisco Multi Services Platform models are high-performance servers designed for use in IP video surveillance environments. The servers provide high quality surveillance recording with embedded storage and are available in a variety of configurations.

This chapter includes these sections:

- [Important Safety Information, page 1-1](#)
- [Multi Services Platform Products, page 1-1](#)
- [System Interface, page 1-2](#)

Important Safety Information

To prevent potential serious injury to yourself and others and to protect your Multi Services Platform device, make sure to read and understand in the compliance, safety, statutory, and related information in *Regulatory Compliance and Safety Information for the Cisco Multi Services Platform* before you set up, install, or operate the device.

Multi Services Platform Products

The Cisco Multi Services Platform comprises a suite of server platforms that offer choices for digital recording and playback of video and audio over an IP network.

The Multi Services Platform includes the following models:

- 1 rack unit (RU) Multi Services Platform, model CIVS-MSP-1RU—An entry-level device that supports up to four 750 GB or 1 TB SATA hard drives and 1 full height, 3/4 length PCI-x or PCI-e card.
- 2 RU Multi Services Platform, model CIVS-MSP-2RU—Supports up to twelve 750 GB or 1 TB SATA hard drives and up to 3 full length, half height PCI-e cards.
- 4 RU Multi Services Platform, model CIVS-MSP-4RU—Supports up to twenty-four 750 GB or 1 TB SATA hard drives and up to 3 full length, full height PCI-e cards or up to 2 full length, full height PCI-x cards.

Key features include:

- 300 W high-efficiency power supply on 1 RU model, and 900 W high-efficiency power supply with redundancy option on 2 RU and 4 RU models

- High-performance fans with built-in redundancy for optimized cooling
- PCI-x and PCI-e expansion slots that support fiber channel interfaces and video encoding cards
- Hot-swappable SATA hard disk drives

System Interface

The Multi Services Platform includes a variety of controls and LED indicators that help you manage and monitor the system. The following sections describe these items in detail:

- [Control Panel Buttons and LEDs, page 1-2](#)
- [Drive Carrier LEDs, page 1-3](#)

Control Panel Buttons and LEDs

Table 1-1 describes the controls and LEDs on the front panel of the Multi Services Platform.

Table 1-1 Multi Services Platform Controls and LEDs

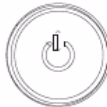
Control	Description
Buttons	
Reset button 	Press this button to reboot the Multi Services Platform. This button is recessed on 2 RU and 4 RU models. Use a pin or paperclip to press it on these devices.
Power button 	Press this button to apply or remove power from the Multi Services Platform. To perform a normal, graceful shutdown of the device, press and release the button quickly. To shut down the device immediately, press and hold the button for 4 seconds. Turning off system power with this button removes the main power but keeps standby power supplied to the system.  Warning Because the device receives standby power even when it is turned off, unplug device from its power source before servicing it.
LEDs	
Power Failure LED 	Flashes to indicate a power failure in a power supply. Glows red if a power supply loses power on a device with two power supplies.

Table 1-1 Multi Services Platform Controls and LEDs (continued)

Control	Description
Overheat/Fan Fail LED 	Flashes to indicate a fan failure. Lights continuously to indicate an overheat condition. An overheat condition can be caused by cables obstructing the airflow in the system or by the ambient room temperature being too warm. If this condition occurs, check the routing of the cables, make sure that all fans are installed and operating normally, make sure that the chassis covers are installed, and verify that the heat sinks are installed properly.
NIC 1 LED 	Flashes to indicate network activity on network interface card (NIC) 1.
NIC 2 LED 	Flashes to indicate network activity on network interface card (NIC) 2.
HDD LED 	Lights to indicate hard disk drive activity.
Power LED 	Lights when the Multi Services Platform power supplies receive power. This LED should be lit during normal system operation.

Drive Carrier LEDs

The drive carriers on the Multi Services Platform include these LEDs:

- Green (on 1 RU model) or Blue (on 2 RU and 4 RU models)—Lights to indicate drive activity
- Red—Lights to indicate a drive failure



CHAPTER 2

Setting Up the Chassis

This chapter describes how to perform a variety of set up and hardware maintenance procedures for the Multi Services Platform. It includes these sections:

- [Removing the Chassis Cover, page 2-1](#)
- [Installing Hard Drives, page 2-2](#)
- [Installing a System Fan, page 2-5](#)
- [Replacing a Power Supply, page 2-6](#)
- [Replacing an Option Card, page 2-6](#)
- [Checking Air Flow, page 2-7](#)

Removing the Chassis Cover

You must remove the chassis cover before installing internal hard drives or fans and before performing various maintenance operations.

To remove the chassis cover, see [Figure 2-1](#) and perform the procedure that follows.



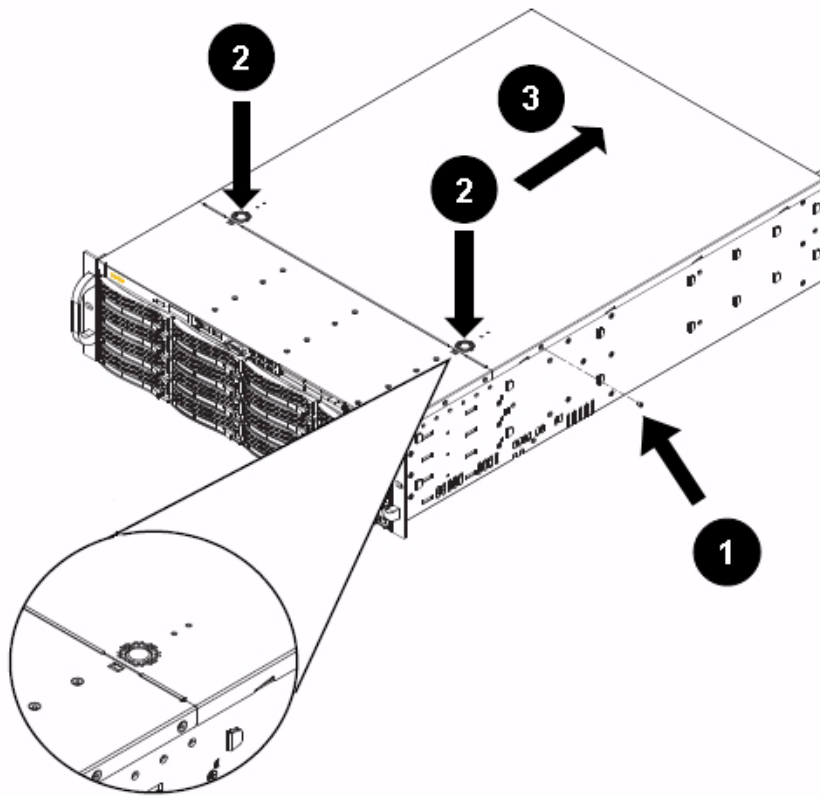
Note

This figure illustrates the 4 RU model. The procedure is similar on 1 RU and 2 RU models.



Caution

Except for a short time, do not operation the Multi Services Platform with the chassis cover removed. The chassis cover must be in place to allow proper air flow and prevent overheating.

Figure 2-1 *Removing the Chassis Cover***Procedure**

-
- Step 1** If necessary, remove the screws that secure the chassis cover to each side of the chassis.
- Step 2** Press and hold each release tab on the top of the chassis cover, slide the chassis cover toward the rear of the device, and lift it off.
-

To replace the chassis cover, slide the chassis cover toward the front of the device until the release tabs engage. If you removed the screws that secure the chassis cover, replace these screws.

Installing Hard Drives

Installing a hard drive is a two-step process:

1. First, remove from the chassis the hard drive tray in which you will install the drive.
2. Next, install a drive in the hard drive tray.

The following sections describe these procedure in detail.

- [Removing a Hard Drive Tray from the Chassis, page 2-3](#)
- [Installing a Hard Drive in the Hard Drive Tray, page 2-4](#)



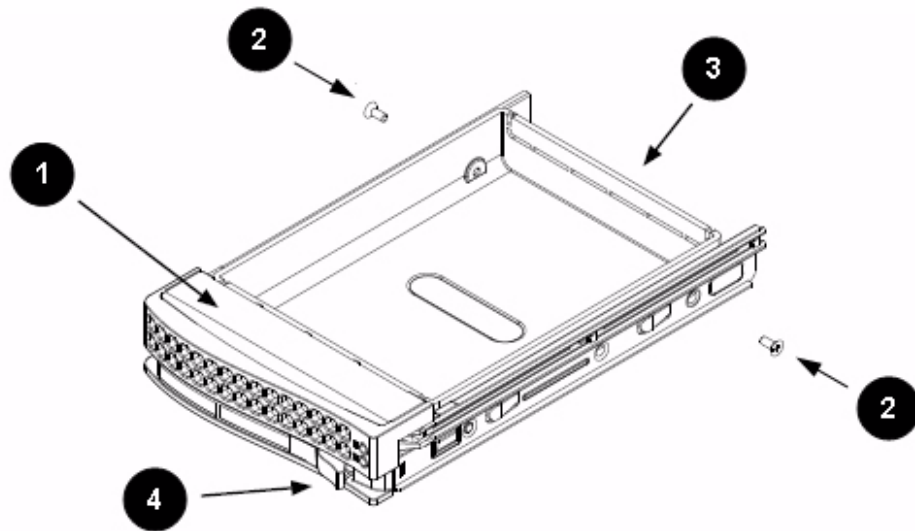
Note

Use only Cisco approved hard drives in the chassis.

Removing a Hard Drive Tray from the Chassis

To remove a hard drive from the chassis, see [Figure 2-2](#) and perform the procedure that follows.

Figure 2-2 Removing a Hard Drive Tray



1	Drive tray
2	Dummy drive retaining screws
3	Dummy drive
4	Release button

Procedure

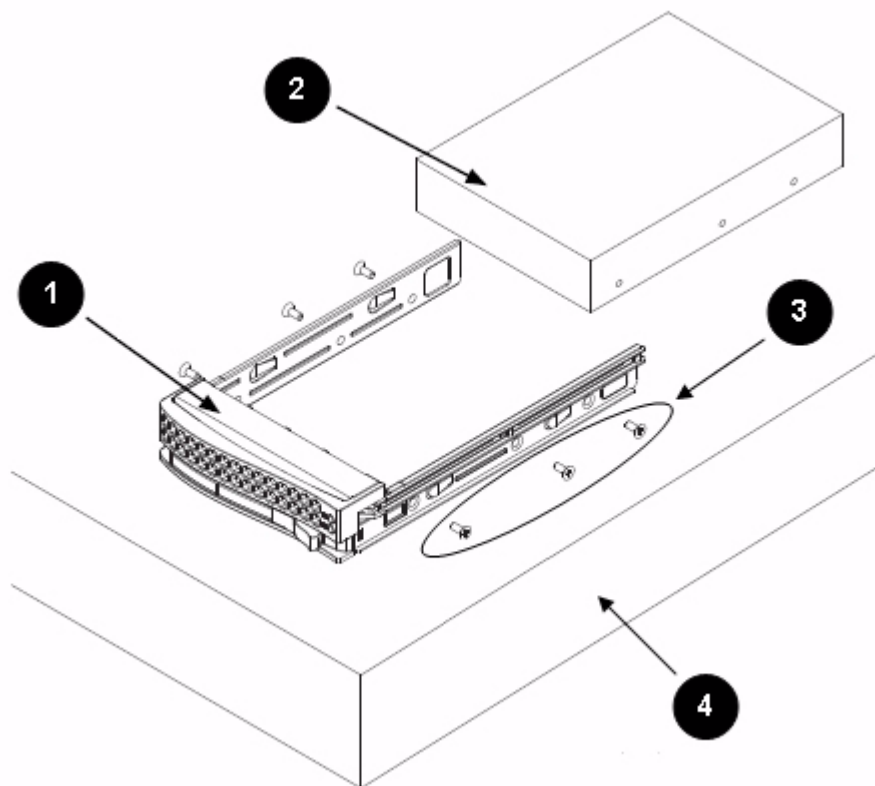
- Step 1** Press the release button on the drive tray.
The drive tray handle extends.
- Step 2** Use the drive tray handle to pull the drive out of the chassis.

To replace the drive tray, push it into the chassis and press the drive tray handle to lock it in place.

Installing a Hard Drive in the Hard Drive Tray

To install a hard drive into a hard drive tray, see [Figure 2-3](#) and perform the procedure that follows.

Figure 2-3 *Installing a Hard Drive*



1	Drive tray
2	Hard drive
3	Hard drive retaining screws
4	Flat, stable surface

Procedure

- Step 1** Remove the two dummy drive retaining screws (see [Figure 2-2](#)) and remove the dummy drive.
- Step 2** Place the hard drive tray on a flat, stable surface such as a desk, table, or workbench.
- Step 3** Slide the hard drive into the hard drive tray.
The printed circuit board side of the hard drive must face down.
- Step 4** Align the mounting holes of the hard drive tray with the hard drive.
Make sure that the bottom of the hard drive and the bottom of the hard drive tray are flush.

- Step 5** Secure the six hard drive retaining screws.
- Step 6** Replace the hard drive tray in the chassis.
- Make sure to secure the drive tray by using the drive tray handle.

Installing a System Fan

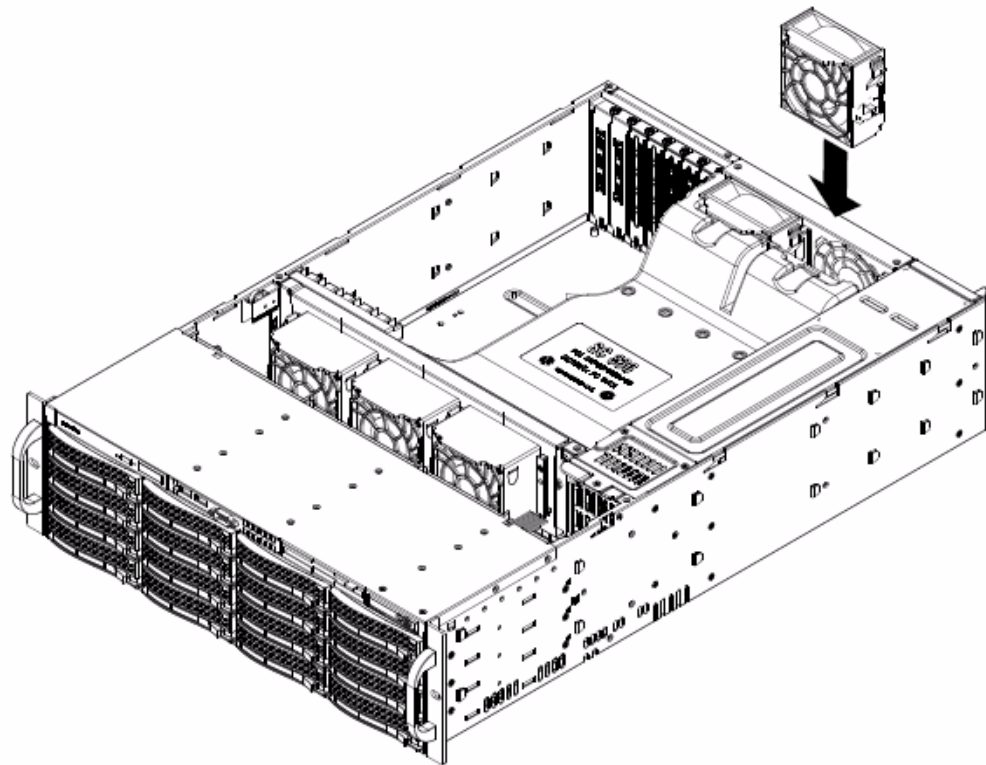
The Multi Services Platform 2 RU and 4 RU models include front fans and rear fans. The 1 RU model includes front fans only. Fans are hot swappable, which allows you to replace one fan at a time while the Multi Services Platform is powered on.

To install fans, see [Figure 2-4](#) and perform the procedure that follows.

**Note**

This figure illustrates the 4 RU model.

Figure 2-4 *Installing a Rear Fan*



Procedure

- Step 1** Remove the chassis cover as described in the [“Removing the Chassis Cover”](#) section on page 2-1.
- Step 2** To remove a fan, press and hold the release tab at the top of the fan and pull the fan straight up.

- Step 3** To install a fan, slide the fan into a fan slot until it locks into place.
The fan fits in only one way.
- Step 4** Replace the chassis cover.
-

Replacing a Power Supply

The Multi Services Platform 2 RU and 4 RU models support a second power supply for redundancy, which allow the devices to continue to operate if one power supplies fails. If a power supply does fail, you should replace it as soon as possible. Power supplies are hot swappable, which allows you to replace one power supply at a time while the Multi Services Platform is powered on.



Note

When you replace a power supply, make sure to replace it with the same model.

To replace a power supply, follow these steps:

Procedure

- Step 1** Remove the AC power cord from the power supply that you are replacing.
- Step 2** Push the release tab on the back of the power supply.
- Step 3** Pull the power supply out using the handle that is provided.
- Step 4** Push the new power supply into the power bay until you hear a click.
- Step 5** Plug the AC power cord back into the supply.
-

Replacing an Option Card

Your Cisco Multi Services Platform device may include one or more options cards, depending on the hardware configuration that you ordered. This section describes the procedure that you should follow if you need to replace a card.

When you replace a card, follow these guidelines:

- Replace the card with the same or equivalent model.
- Put the replacement card in the slot from which you remove the old card.
- Observe appropriate handling procedures to prevent electrostatic discharge (ESD) damage to a card. To prevent static damage, discharge static electricity from your body before you touch a card. You can do so by touching an unpainted metal surface on the chassis. In addition, you can take the following steps to prevent damage from ESD:
 - Wear an ESD-preventive wrist or ankle strap when handling the card. Connect one end of the strap to an ESD jack or an unpainted metal component on the system (such as a captive installation screw).

- Do not remove a card from its antistatic packing material until you are ready to install the card. Just before unwrapping the antistatic packaging, make sure to discharge static electricity from your body. Place the removed component on an antistatic surface or in a static shielding bag.
- Handle a card in a static-safe area. If possible, use antistatic floor pads and workbench pads.
- Avoid contact between a card and clothing. The wrist strap only protects the card from ESD voltages on the body. ESD voltages on clothing can still cause damage.

To replace an option card, follow these steps:

Procedure

-
- | | |
|---------------|---|
| Step 1 | Press the Power button on the front panel of the Multi Services Platform to power down the device, then remove the AC power cord from the power supply. |
| Step 2 | Remove the chassis cover as described in the “Removing the Chassis Cover” section on page 2-1. |
| Step 3 | Remove the screw that secures the option card to the chassis. |
| Step 4 | Remove the option card from the chassis. |
| Step 5 | Carefully place the replacement card into the slot from which you removed the old card.
Make sure that the replacement card is fully seated in the slot. |
| Step 6 | Secure the replacement card to the chassis using the screw that you removed in Step 3 . |
| Step 7 | Replace the chassis cover. |
-

Checking Air Flow

It is important to maintain proper air flow in and around the Multi Services Platform so that the device operates properly and does not overheat. To ensure proper air flow, follow these guidelines:

- Make sure that no objects obstruct the air flow into and out of the device. If necessary, route cables through the cable rack.
- Do not operate the device without hard drives or drive trays in the drive bays.
- Make sure that no wires or foreign objects obstruct air flow through the chassis. Pull excess cabling out of the air flow path or use shorter cables.
- Do not operate the device for extended periods without the air shroud in place.
- Use only recommended server parts.



CHAPTER 3

Mounting the Multi Services Platform in a Rack

The Multi Services Platform is designed to be installed in a standard 19-inch rack. The server ships with one set of rail assemblies and the mounting screws that you need to secure the server in a rack.

This chapter describes how to rack mount the Multi Services Platform. It includes these sections:

- [Preparing for Installation, page 3-1](#)
- [Rack Mounting, page 3-2](#)

Preparing for Installation

Before you install the Multi Services Platform in a rack, review the following guidelines:

Choosing a Location

- Leave enough clearance in front of the rack to enable you to open its front door completely (approximately 25 inches).
- Leave approximately 30 inches of clearance in back of the rack to allow for sufficient air flow and ease of servicing.
- The Multi Services Platform is intended for installation in a restricted access location, such as a dedicated equipment room or service closet.

Rack Precautions

- Ensure that the leveling jacks on the bottom of the rack are extended to the floor with the full weight of the rack resting on them.
- In a single rack installation, attach stabilizers to the rack.
- In a multiple rack installation, couple the racks to each other.
- Make sure that the rack is stable before extending a component from the rack.
- Extend only one component from a rack at a time. Extending two or more components may cause the rack to become unstable.

General Precautions

- Review the electrical and general safety precautions that come with the components that you add to your chassis.
- Determine the placement of each component in the rack before you install the rails.
- Install the heaviest components on the bottom of the rack first, then work up.

- Use a regulating uninterruptible power supply (UPS) to protect a device from power surges, and voltage spikes and to keep the device operating if a power failure occurs.
- Close the front door of the rack and all panels and components on the servers when not servicing them to maintain proper cooling.

Rack Mounting Considerations

- Make sure to install the Multi Services Platform in an environment that is within the rated operating temperature and humidity range (see [Table A-1 on page A-1](#)). If the Multi Services Platform is installed in a closed or multi-unit rack assembly, be aware that the ambient operating temperature of the rack environment may be greater than the ambient temperature of the room.
- Make sure that there is sufficient air flow for safe operation of the Multi Services Platform.
- The Multi Services Platform should be mounted in a rack so that a hazardous condition does not arise due to uneven mechanical loading.
- Consider the connection of equipment to the power supply circuitry and the effect that possible overloading of circuits may have on overcurrent protection and power supply wiring. Consider equipment nameplate ratings when addressing this issue.
- Maintain a reliable ground. The rack itself should be grounded. Pay particular to power supply connections other than direct connections to the branch circuit (for example, power strips).

Rack Mounting

Installing the Multi Services Platform in a rack is a three-step process. The following section describe each step in detail.

- [Attaching the Inner Rack Rails to the Multi Services Platform, page 3-2](#)
- [Attaching the Outer Rack Rails to the Rack, page 3-3](#)
- [Placing the Multi Services Platform in the Rack, page 3-4](#)

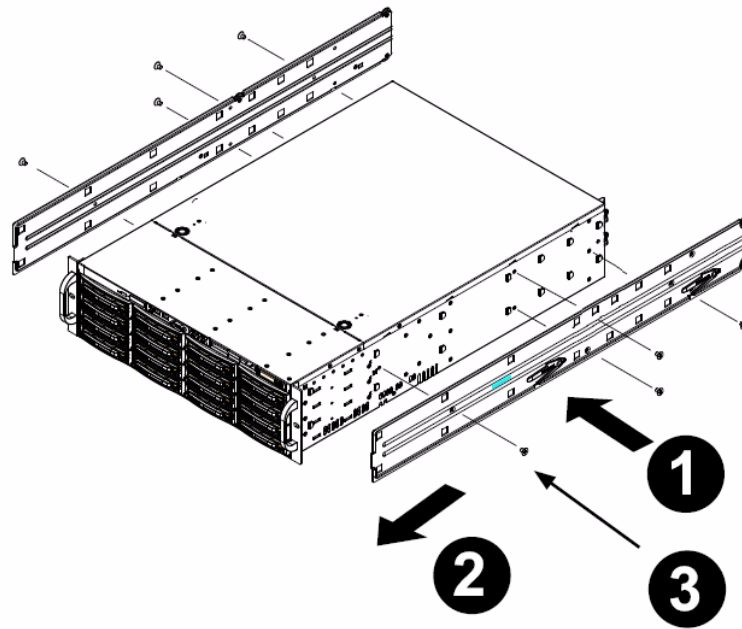


Note

- There are a variety of racks available. The procedure for your rack may be slightly different than the following instructions. Refer to the installation instructions for your rack for additional information.
- The figures in these sections illustrate the 4 RU model. The procedures are similar for 1 RU and 2 RU models.

Attaching the Inner Rack Rails to the Multi Services Platform

There are two inner rack rails. One attaches to each side of the Multi Services Platform. To attach the inner rack rails, see [Figure 3-1](#) and perform the procedure that follows.

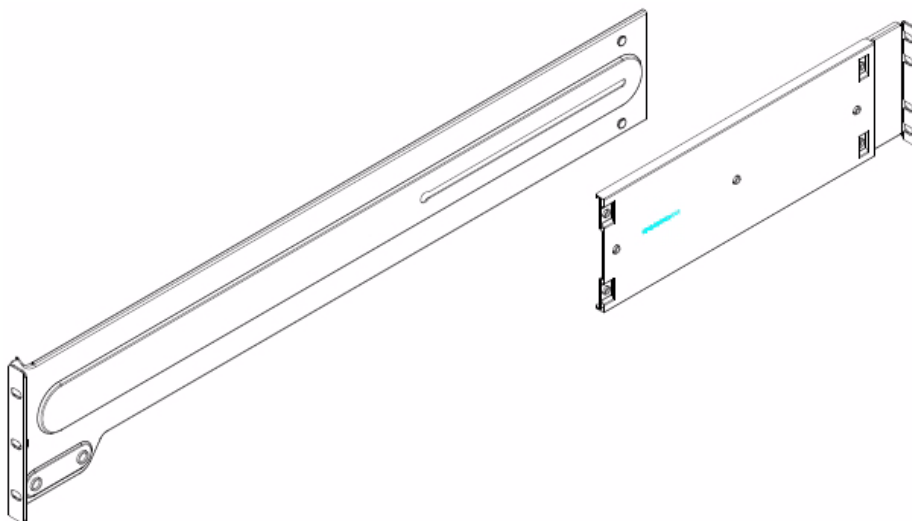
Figure 3-1 Attaching Inner Rack Rails**Procedure**

-
- Step 1** Place the inner rack rail on one side of the chassis, aligning the hooks of the chassis with the holes in the rail.
- The rail marked R to the right of the chassis as you face the front of the chassis. The rail marked L attaches to the left. The wheels on the rails should face away from the chassis and the locking tabs on the rails should face the bottom of the chassis.
- Step 2** Slide the rail toward to front of the chassis.
- Step 3** Secure the rail to the chassis with four screws.
- Step 4** Repeat [Step 1](#) through [Step 3](#) for the other inner rack rail.
-

Attaching the Outer Rack Rails to the Rack

There are two outer rack rails. One attaches to each side of the rack and connect to the inner rack rails to hold the Multi Services Platform in place. Each outer rack rail consists of two brackets. The brackets allow the rails to extend between 30 inches and 33 inches so that they can fit racks of various sizes.

To attach the outer rack rails to a rack, see [Figure 3-2](#) and perform the procedure that follows.

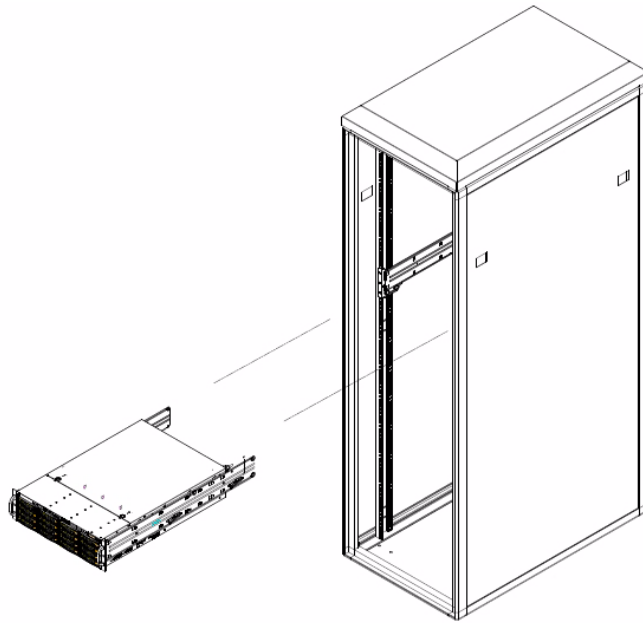
Figure 3-2 Attaching Outer Rack Rails**Procedure**

-
- Step 1** Make sure that the right short and long outer rack rail brackets are connected to each other and that the left short and long outer rack rail brackets are connected to each other.
- The brackets are marked R and L. To connect the brackets, align the pin on the small bracket with the slot on the corresponding large bracket, align the two pins on the large bracket with the slots on the small bracket, and slide the brackets together.
- Step 2** Attach the outer rack rails to the rack, following these guidelines:
- The outer rack rail marked R attaches to the right of the rack as you face the front of the rack. The one marked L attaches to the left of the rack.
 - The long outer bracket faces the front of the rack and the short bracket faces the rear of the rack.
 - The bracket flanges overlap the outer edge of the rack mounting rail.
 - Secure the long bracket to the front of the rack with two M4 screws, and secure the short bracket to the rear of the rack with three M4 screws.
-

Placing the Multi Services Platform in the Rack

To place the Multi Services Platform in a rack, see [Figure 3-3](#) and perform the procedure that follows.

Figure 3-3 *Placing the Server in a Rack*



Procedure

-
- Step 1** Confirm that the inner and outer rack rails are installed on the Multi Services Platform and on the rack.
- Step 2** Align the chassis inner rack rails with the front of the outer rack rails.
- Step 3** Slide the chassis inner rack rails into the outer rack rails, keeping even pressure on both sides.
You may have to depress the locking tabs on the inner rack rail when inserting the device.
- Step 4** (Optional) Insert and tighten the thumbscrews that hold the front of the server to the rack.
-

To remove the Multi Services Platform from the rack, depress the locking tabs on the inner rack rail and slide the chassis out of the rack.



APPENDIX A

System Specifications

The following sections provide specifications for the Multi Services Platform:

- [General Specifications, page A-1](#)
- [Power Supply Specifications, page A-2](#)

General Specifications

[Table A-1](#) provides general specifications for the Multi Services Platform models.

Table A-1 **Multi Services Platform General Specifications**

Item	1 RU Multi Services Platform	2 RU Multi Services Platform	4 RU Multi Services Platform
Connectors			
USB2.0	2 ports standard; up to 4 ports optional		
10/100/1000M Ethernet	2 ports standard		
Baseband video	8 to 32, depending on platform and video card options		
Serial—RS-232	1 port standard, up to 3 ports optional		
Fiber channel	1 port optional		
Mechanical			
Housing	1 RU x 19 inch 4 SATA drive bays	2 RU x 19 inch 12 SATA drive bays	4 RU x 19 inch 24 SATA drive bays
Motherboard	Intel Core 2 Duo Processor E4300 1.80 GHz, 2 GB DDR2 SDRAM, 1 universal (x 8) PCI-Express or 1 64 bit PCI-X 133MHz s lot	Single Quad Core Intel Xeon Harpertown E5410 Processor, 2 GB DDR2 SDRAM, 3 (x 8) PCI-e slots (2 with Gen 2.0) 1 (x4) PCI-e slot (using x 8 slot)	Single Quad Core Intel Xeon Harpertown E5410 Processor, 2 GB DDR2 SDRAM, 3 (x 8) PCI-e slots (2 with Gen 2.0) 1 (x 4) PCI-e slot (using x 8 slot)
LEDs	Power, hard drive activity, network activity, system overheat/fan fail		
Weight	38 lbs (17.2 Kg)	52 lbs (23.6 Kg)	75 lbs (34 Kg)
Dimensions	H: 1.7 inch (43 mm) W: 17.2 inch (437 mm) D: 19.8 inch (503 mm)	H: 3.5 inch (89 mm) W: 17.2 inch (437 mm) D: 25.5 inch (648 mm)	H: 7.0 inch (178 mm) W: 17.2 inch (437 mm) D: 26.0 inch (660 mm)
Power supply	300 W	900 W, optional second power supply for redundancy	900 W, optional second power supply for redundancy

Table A-1 Multi Services Platform General Specifications (continued)

Item	1 RU Multi Services Platform	2 RU Multi Services Platform	4 RU Multi Services Platform
Operating temperature	50 to 95 °F (10 to 35 °C)		
Non-operating temperature	–40 to 158 °F (–40 to 70 °C)		
Operating humidity	8 to 90% non-condensing		
Non-operating humidity	5 to 95% non-condensing		

Power Supply Specifications

The following tables provide specifications for the about Multi Services Platform power supplies:

- [Table A-2](#) provides power supply specifications for the 1 RU Multi Services Platform
- [Table A-3](#) provides power supply specifications for the 2 RU Multi Services Platform
- [Table A-4](#) provides power supply specifications for the 4 RU Multi Services Platform

Table A-2 1 RU Multi Services Platform Power Supply Specifications

	Power	Power Factor	VA	V	I
110 V/60 Hz					
Idle	131.90	0.9500	138.84	110.00	1.26
Spin up surge	217.80	0.9640	226.40	110.00	2.06
220 V/60 Hz					
Idle	129.30	0.8670	149.65	220.00	0.69
Spin up surge	212.40	0.8970	236.79	220.00	1.07

Table A-3 2 RU Multi Services Platform Power Supply Specifications

	Power	Power Factor	VA	V	I
110 V/60 Hz					
Idle	327.40	0.9480	345.36	110.00	3.04
Spin up surge	586.00	0.9830	596.13	110.00	5.44
220 V/60 Hz					
Idle	335.30	0.9410	356.32	220.00	1.62
Spin up surge	584.50	0.9730	600.72	220.00	2.72

Table A-4 4 RU Multi Services Platform Power Supply Specifications

	Power	Power Factor	VA	V	I
110 V/60 Hz					
Idle	452.20	0.9950	454.47	110.00	4.11
Spin up surge	978.00	0.9960	981.93	110.00	8.86

Table A-4 4 RU Multi Services Platform Power Supply Specifications (continued)

	Power	Power Factor	VA	V	I
220 V/60 Hz					
Idle	443.30	0.9840	450.51	220.00	2.05
Spin up surge	917.90	0.9910	926.24	220.00	4.34



APPENDIX **B**

Fiber Channel Card

The fiber channel card enables fibre channel connectivity to external storage arrays. This card is available as an option for the Multi Services Platform.

To replace a fiber channel card, see the [“Replacing an Option Card”](#) section on page 2-6.

Key features of the fiber channel card include:

- Adherence to ANSI fibre channel specification
- Support for fibre channel class 2 and 3
- Hot swappable fiber connections

[Figure B-1](#) shows the rear of the Cisco Multi Services Platform model CIVS-MSP-1RU with the fiber channel card installed. The circled area shows the IO connectors on the fiber channel card.

Figure B-1 *CIVS-MSP-1RU with Optional Fiber Channel Card Installed*

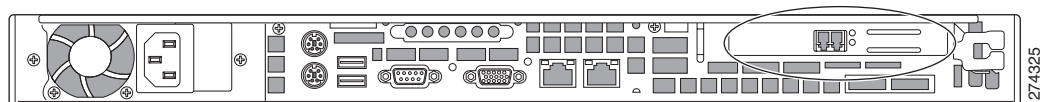


Table B-1 *Specifications*

Item	Description
Architecture	
Channel	Single channel
Log ins	Up to 16 port log ins
Link speed detection	4 Gbs, 2 Gbs, or 1 Gbs fibre channel link speeds detected automatically
Connectivity	Adheres to PCI Express base specification 1.0a
Optical	
Data rates	1.0625 Gbps, 2.125 Gbps, and 4.25 Gbps, auto-detected
Optics	Short-wave lasers with LC type connector
Physical	
Form factor	Short, low-profile MD2 form factor
Length	67.64 mm (6.60 in.)

Table B-1 **Specifications (continued)**

Item	Description
Height	64.42 mm (2.54 in.)
Bracket	Standard bracket (low profile available)
Power and environmental requirements	
Volts	+3.3 V
Operating temperature	0 to 55C (32 to 131F)
Operating relative humidity	5% to 95% non condensing
Storage temperature	–40 to 70C (–40 to 158F)



APPENDIX C

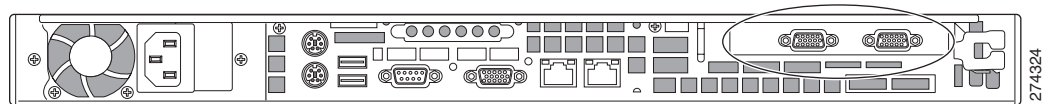
16 x CIF / 4 x 4CIF Video Capture Card

The 16 x CIF / 4 x 4CIF video capture card enables capturing and compressing analog video streams. This card is available as an option for the Cisco Multi Services Platform 1 RU and 4 RU models only.

To replace a video capture card, see the [“Replacing an Option Card”](#) section on page 2-6.

Figure C-1 shows the rear of the Cisco Multi Services Platform model CIVS-MSP-1RU with the video capture card installed. The circled area shows the IO connectors on the video capture card.

Figure C-1 CIVS-MSP-1RU with Optional Video Capture Card Installed



Key features of the video capture card include the following:

- Supports MJPEG / MPEG-4 compression.
- Adjustable frame rate (30 to <1 fps) per camera.
- Adjustable image resolution including 4CIF, 2CIF, CIF, and variable.
- Compression throughput examples with 16 video channels:
 - CIF (352 x 240) = 480 fps (16 x 30 fps).
 - 2CIF (720 x 240) = 240 fps (16 x 15 fps).
 - 4CIF (720 x 460) = 120 fps (16 x 7.5 fps).
- Frame allocation according to channel importance.
- Video motion detection (VMD) with definable mask per camera.
- Includes two video squid/breakout cables.

Video Inputs

- The 1 RU Multi Services Platform supports up to 16 analog video inputs (one video capture card).
- The 4 RU Multi Services Platform supports up to 32 analog video inputs (two video capture cards).
- The video card supports up to 16 video inputs per card.

- Each video card has two DB-15 connectors, each of which allows the connection of a video cable that contains nine individual coaxial cables with BNC connectors. Eight of the BNC connectors are for video input and one is for video output. Video output is not supported.
- When installed in the Cisco Multi Services Platform 1 RU model (see [Figure C-1](#)), the DB-15 connector on the left supports video inputs 1 through 8. The DB-15 connector on the right supports video inputs 9 through 16.
- When one video capture card is installed in the Cisco Multi Services Platform 4 RU model, the bottom DB-15 connector supports video inputs 1 through 8. The top DB-15 connector supports video inputs 9 through 16.
- When two video capture cards are installed in the Cisco Multi Services Platform 4 RU model:
 - The bottom-right DB-15 connector supports video inputs 1 through 8
 - The top-right DB-15 connector supports video inputs 9 through 16
 - The bottom-left DB-15 connector supports video inputs 17 through 24
 - The top-left DB-15 connector supports video inputs 25 through 32

Power and System Requirements

1.9A at 5V, 2.6A at 3.3V, 18W total.



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