Sun Fire™ V210 and V240 Servers Product Notes

Sun Microsystems, Inc.
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Preface

This document contains late-breaking news that was discovered after the Sun Fire™ V210 and V240 servers documentation was created. It also includes updates from the latest platform releases that were not included in the original platform document set.

Shell Prompts

Shell	Prompt
C shell	*machine-name*%
C shell superuser	*machine-name*#
Bourne shell and Korn shell	$
Bourne shell and Korn shell superuser	#

Typographic Conventions

Typeface*	Meaning	Examples
`AaBbCc123`	The names of commands, files, and directories; on-screen computer output	Edit your `.login` file. Use `ls -a` to list all files. `% You have mail.`
`AaBbCc123`	What you type, when contrasted with on-screen computer output	`% su` `Password:`
AaBbCc123	Book titles, new words or terms, words to be emphasized. Replace command-line variables with real names or values.	Read Chapter 6 in the *User's Guide*. These are called *class* options. You *must* be superuser to do this. To delete a file, type `rm` *filename*.

* The settings on your browser might differ from these settings.

Related Platform Documentation

Application	Title	Part Number
Installation	*Sun Fire V210 and V240 Servers Installation Guide*	816-4825
	Sun Fire V210 Server Fan Module Installation Guide	817-4492
	Sun Fire V240 Server Fan Removal and Replacement Guide	819-1147
	Sun Fire V210 and V240 Servers Quick Start Card	816-4824
Administration	*Sun Fire V210 and V240 Servers Administration Guide*	816-4826
Service	*Sun Fire V210 and V240 Servers Parts Replacement Manual*	817-0743
Software	*Sun Advanced Lights Out Manager Software User's Guide*	817-5481

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Sun Fire V210 and V240 Servers Product Notes, part number 816-4828-16

Sun Fire V210 and V240 Product Notes

The *Sun Fire V210 and V240 Servers Product Notes* (816-4828) contains late-breaking information about changes to the Sun Fire V210/V240 servers and to the documentation supporting the servers that became known after the product documentation set was published.

Server Configurations

For an overview of the available configurations for the Sun Fire V210 and V240 servers, go to:

`http://www.sun.com/servers/`

For detailed information about these servers, go to:

`http://sunsolve.sun.com/`

`See:` *The Sun System Handbook*

Rackmounting the Server

This section gives some additional information about rackmounting the server. This section supports the rackmounting section of the *Sun Fire V210 and V240 Servers Installation Guide*.

The design of the slide assemblies has changed slightly since the platform documentation was written. The operation of the assemblies is the same, but there is a change to the appearance of the sliders. See FIGURE 1.

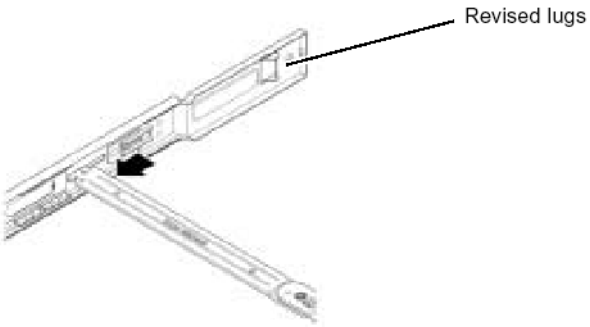

FIGURE 1 Revised Slide Rail Assemblies

Cable Management Arm

This section gives some additional help on attaching the cable management arm into the slide rail assembly (370-5707-03). This section supplements the information contained in the *Sun Fire V210 and V240 Servers Installation Guide*.

Use the steps in FIGURE 2 to attach the cable management arm to the slide rail assemblies.

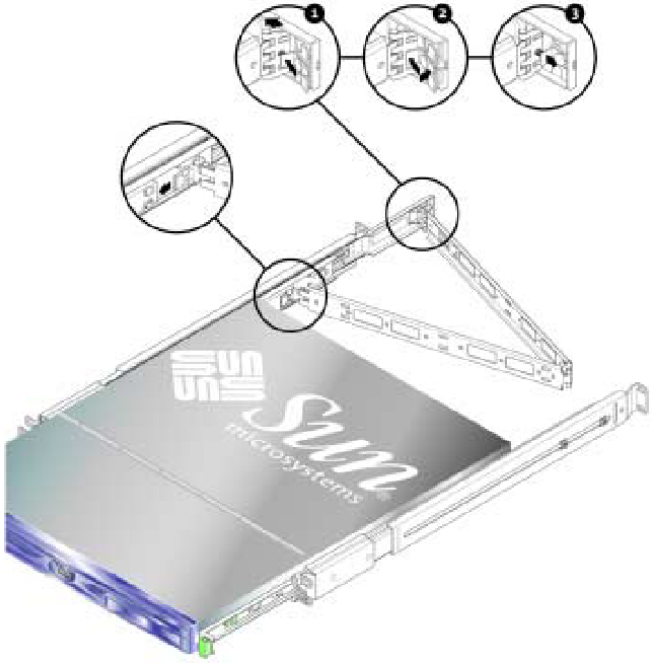

FIGURE 2 Installing the Cable Management Arm

When you attach cabling to the cable management arm, leave enough slack for the cable management arm to extend when the slide rail assemblies are extended. See FIGURE 3.

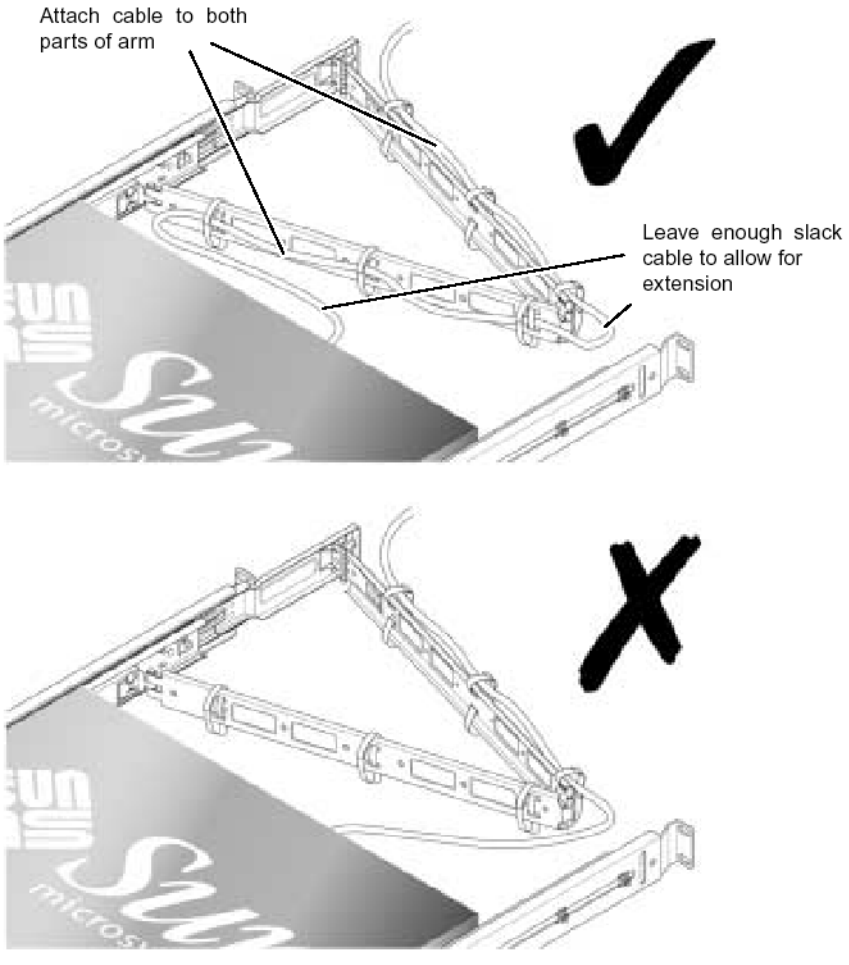

FIGURE 3 Attaching cables to the cable management arm

Rackmounting Screws

The rackmounting kit (370-5707-04) supplied with the Sun Fire V210 and V240 servers contains four sets of screws with nuts for mounting the rails in various cabinets. The screw and nut sets are as follows:

- M5x12.7 (GJ3C6003DI-PZS)
- M6x13 (GJ3C6005DI-ZZS)
- Nuts (GG3C6007DI-ZZS)
- M4x5 (GJ3C002DI-NZS)

These screws are not compatible with the Sun 72-inch rack, which requires 10-32x0.5 inch screws.

Caution – Attempting to use the screws supplied with the rackmount kit on the Sun 72-inch rack will result in the screw thread being stripped.

Currently there is a plan to modify the rackmount kit to include four 10-32x0.5 screws. In the meantime, if you need to install a Sun Fire V210 or V240 server in a Sun 72-inch rack, obtain the screws locally from a hardware store or from the non-FRU parts process.

To order the non-FRU part, use the following vendor part number and description: 452710500006 screw kit; no. 10-32, 10 in 1 bag, for rack, ENXS.

Replacing the CPU and System Board

The CPU and heatsink can no longer be replaced separately. They must be replaced as part of the system board. For instructions on how to replace the system board, refer to the *Sun Fire V210 and V240 Servers Parts Replacement Manual* (817-0743).

Cooling Fans in the V240 Server

The cooling fans have changed in the Sun Fire V240 server. The fans are now a single unit. The older cooling fans cannot be replaced individually. For more information, refer to the *Sun Fire V240 Fan Removal and Replacement Guide* (819-1147).

PCI Riser Card

If you replace the PCI riser card, you must ensure that it is properly seated to prevent problems with thermal events. Sun service personnel can refer to FIN I1075-1 for details.

PCI Cards

The following note refers to page 36 of the *Sun Fire V210 and V240 Server Parts Replacement Manual* (817-0743-10).

Note – A 66 MHz PCI card performs at 33 MHz only when it is inserted into slots PCI-1 or PCI-2.

On page 2, the *Sun Fire V210 and V240 Servers PCI Riser Card FCO Kit, PCI Riser Card Installation Supplement* (Part No. 819-1171-10), December 2004, Revision 01, contains the following system board part numbers:

- 375-3149-04
- 375-3150-04
- 375-3120-02

For the February 2005 update of the platform, a new part number has been added to this list: 375-3281-01

USB Circuit Breakers

ALOM does not monitor the USB circuit breakers.

Hard Disk Drive Status Indicators

This section corrects page 9 of the *Sun Fire V210 and V240 Servers Administration Guide* (816-4826). The hard disk drive indicators are arranged as shown in FIGURE 4.

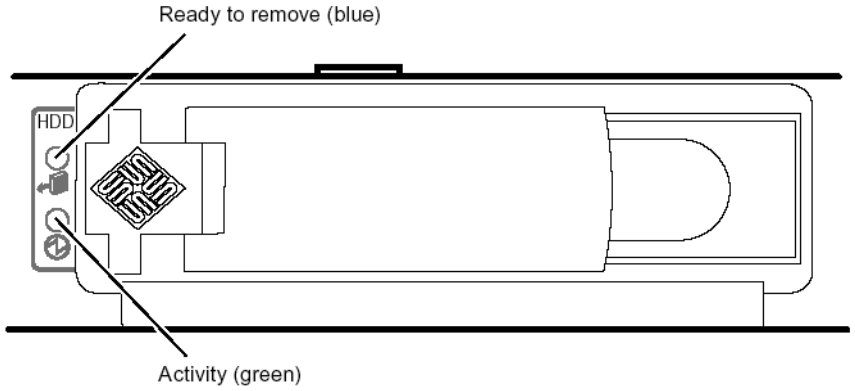

FIGURE 4 Location of Hard Disk Drive Indicators

Memory Configuration Rules

Page 24 of the *Sun Fire V210 and V240 Servers Parts Replacement Manual* (817-0743) describes memory configuration rules for the V2x0 servers. These rules should be updated to acknowledge that it is acceptable, but not optimal, to configure different total memory sizes between the CPUs.

For example, a dual processor 4 gigabyte server can be upgraded to 6 gigabytes by adding two additional one-gigabyte DIMMs (subject to the standard rules on bank sizes and vendor types).

The memory configuration rules have been updated as follows:

- A minimum of two matched DIMMs are required for the system. The matched DIMMs must be the same size, manufacturer, and part number.
- DIMMs must be installed in identical pairs with each CPU having separate pairs. Both size and manufacturer must be the same per pair, but you can mix manufacturers and size between pairs.

Note – OBP will still boot with a vendor (manufacturer) variance in the pair but will issue a warning message to the console.

Note – OBP 4.13.2 requires that all DIMMs for a given CPU to are speed matched but allows the CPU0 DIMM group to be a different speed than the CPU1 DIMM group.

Note – OBP 4.16.x and subsequently compatible versions of OBP provide an additional check by comparing DIMM speed and CAS latency to ensure that the DIMM can run in the system.

Sun Fire V240 Server—Power Supply Unit Removal

Power supply units on the Sun Fire V240 server cannot be removed from the server until the power cable has been disconnected from the PSU's AC power socket.

When disconnecting a power cable from a PSU socket, ensure that you are disconnecting from the PSU you intend to remove from the server.

Air Duct

The design of the air duct inside the server has changed since the platform documentation went to print.

The air duct no longer screws into place, as described in the *Sun Fire V210 and V240 Servers Parts Replacement Manual*. Instead, it clips into the chassis. Use the handle on top of the duct to position it correctly and clip it into the chassis.

Replacing the Battery

When replacing the batter, FRU part number (F371-0090-01), only use an identical replacement part.

High-Speed Serial Interface Adapter

The Sun high-speed serial interface adapter (X-option number X1155A) does not fit into slot 0 of the Sun Fire V240 server or the PCI slot of the Sun Fire V210 server.

Note – The high-speed serial interface adapter does fit into slots 1 and 2 of the Sun Fire V240 server, but you cannot use it in a Sun Fire V210 server.

Acoustic Noise Generated

The ambient temperature threshold shown in Table 2-11 on page 31 of the *Sun Fire V210 and V240 Servers Installation Guide* is incorrect. The correct figure is given in TABLE 1.

TABLE 1 Updated Acoustic Noise Generated

Server	Noise Generated
Sun Fire V210 server	Less than 6.7 Bel sound power in ambient temperature of up to 24˚C, measured on a standalone system to ISO 9296 requirements
Sun Fire V240 server	Less than 7.1 Bel sound power in ambient temperature of up to 24˚C, measured on a standalone system to ISO 9296 requirements

Powering On the Server From the Keyboard

There is an error in Chapter 4 of the *Sun Fire V210 and V240 Servers Installation Guide*. In the subsection, “To Power On From the Keyboard” (pages 42-45), there is another step that you need to perform after typing the `poweron` command in Step 5. The final step is as follows:

6. **At the console `sc>` prompt, type the following to access the server:**

```
sc> console
```

Installing a SCSI Hard Disk Drive

Page 29 of the *Sun Fire V210 and V240 Servers Administration Guide* (816-4826-10) documents the procedure for installing a SCSI hard disk drive while the Solaris Operating System is running. Steps 3 and 4 are not needed. The following note applies:

Note – The output text provided is example text only. In the example outputs, the disk identified is not consistent across examples. However, the format of the output is correct. When you type the commands, the disk name is consistent in the output you see.

Sun Management Center

The Sun Management Center section of the *Sun Fire V210 and V240 Servers Administration Guide* (816-4826) refers to the *Sun Management Center Software User's Guide*. Additional information is available in the *Sun Management Center 3.0 Supplement for Sun Fire, Sun Blade, and Netra Systems* (817-1007).

OpenBoot PROM Diagnostics

With the upgrade to OpenBoot™ PROM 4.16.2 or a subsequently compatible version of the OpenBoot PROM, diagnostics are enabled by default. This ensures complete diagnostic test coverage on the initial boot and after error reset events. This change results in increased boot time.

To change the system defaults and diagnostic settings after the initial boot, refer to the *OpenBoot PROM Enhancements for Diagnostic Operation* (817-6957) document in the shipping kit. You can also view or print this document at:

http://www.sun.com/documentation

show-obdiag-results Not Supported

Page 76 of the *Sun Fire V210 and V240 Servers Administration Guide* (816-4826) lists the `show-obdiag-results` command. This command is not implemented or supported.

Advanced Lights Out Manager Updates

This section contains pertinent information about ALOM on the Sun Fire V210 and 240 servers.

ALOM Documentation Update

This release includes Advanced Lights Out Manager (ALOM) version 1.5.1 or a subsequently compatible version of software. The documentation for the 1.5 release is available online only. Go to:

http://docs.sun.com

Search ALOM for the ALOM 1.5 documentation.

Compliance and Safety Manual

The part number given in the preface of the *Sun Fire V210 and V240 Servers Parts Replacement Manual* (816-4827) is incorrect.

The correct part number of the *Sun Fire V210 and V240 Servers Compliance and Safety Manual* is 817-1462.

Installing Rackmount Hardware for Sun Fire V210 and V240 Server

This section describes how to mount the Sun Fire V210 and V240 servers into a rack.

Note – This section replaces *Rackmounting the Server,* pages 10-21, in Chapter 2 of the *Sun Fire V210 and V240 Servers Installation Guide* (816-4825).

Rackmounting the Server

The rackmount kit for a 19-inch 4-post rack consists of (FIGURE 5):

- Slide rail assembly (2)
- Cable management arm
- Alignment tool
- Rackmount screw kit (bag of screws-not shown-see TABLE 2)

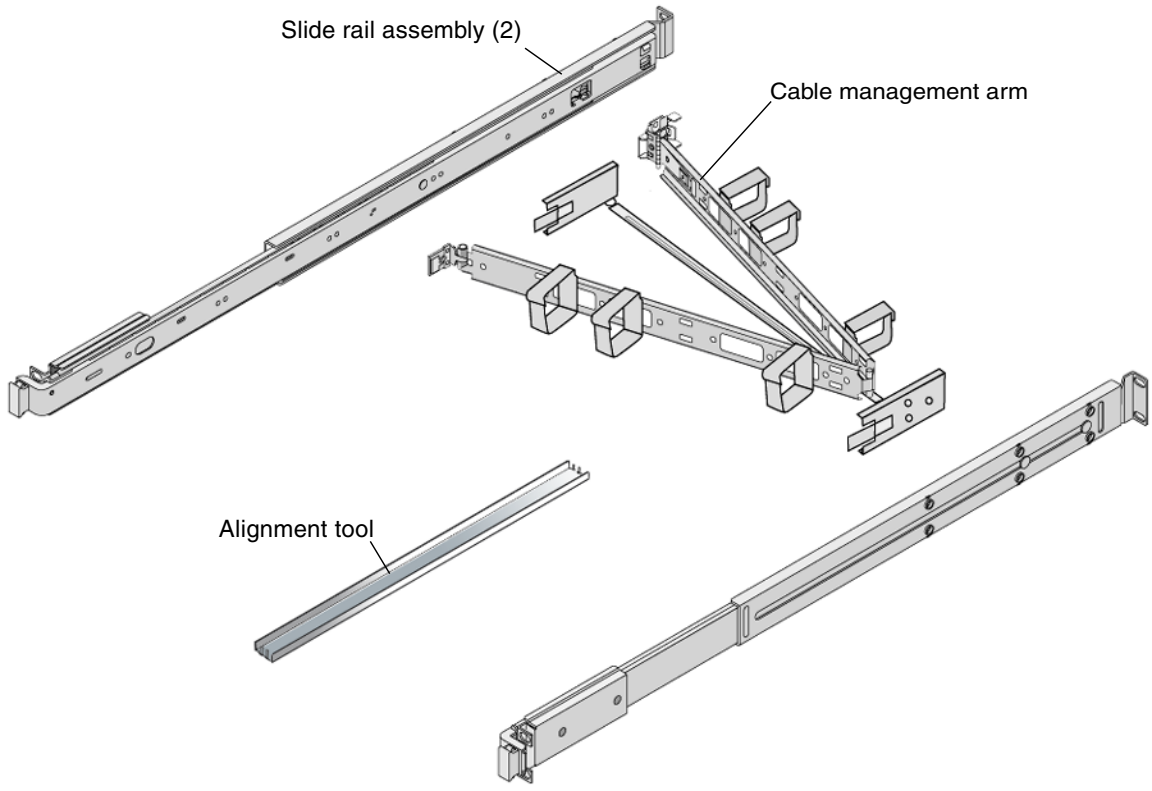

FIGURE 5 Contents of the Rackmount 19-inch 4-Post Kit

TABLE 2 19-inch 4-Post Rackmount Screw Kit Contents

Number	Description	Where Used
10	M4 x 5 mm Phillips flathead screws	10 for slide rail assembly brackets
10	M5 x 12 mm screws	10 for slide rail assembly brackets, if appropriate
10	M6 x 13 mm screws	10 for server mounting brackets, if appropriate
9	M6 square clip nuts	9 for slide rail assembly brackets, if appropriate
12	10-32 x 0.5 in. combo head screws	12 for slide rail assembly brackets, if appropriate

You must ensure that you have all of the parts in the rackmount kit before you begin the installation of the server.

▼ Disassembling the Slide Rail Assemblies

1. **Unpack the two slide rail assemblies (371-0066) from the accessory box.**
2. **Locate the slide rail lock at the front of one of the slide rail assemblies (**FIGURE 6**).**

FIGURE 6 Slide Rail Lock

3. **Squeeze and hold the green tabs at the top and bottom of the slide rail lock (**FIGURE 7**).**

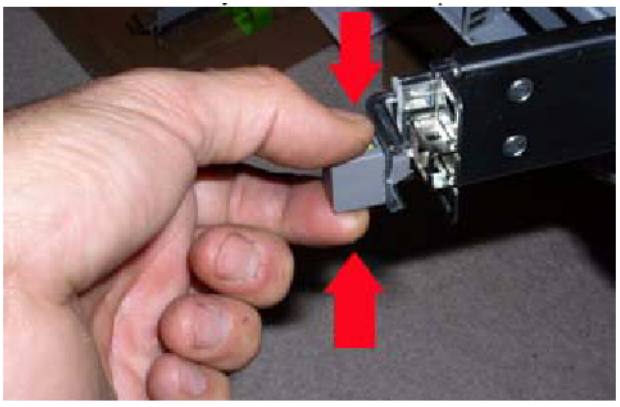

FIGURE 7 Squeezing the Green Tabs on the Slide Rail Lock

4. **Pull the server mounting bracket out of the slide rail assembly until it reaches the stop (**FIGURE 8**).**

FIGURE 8 Extended Rail Slide

5. **Pull the server mounting bracket release button toward the front of the mounting bracket (**FIGURE 9**), while simultaneously withdrawing the server mounting bracket from the slide rail assembly.**

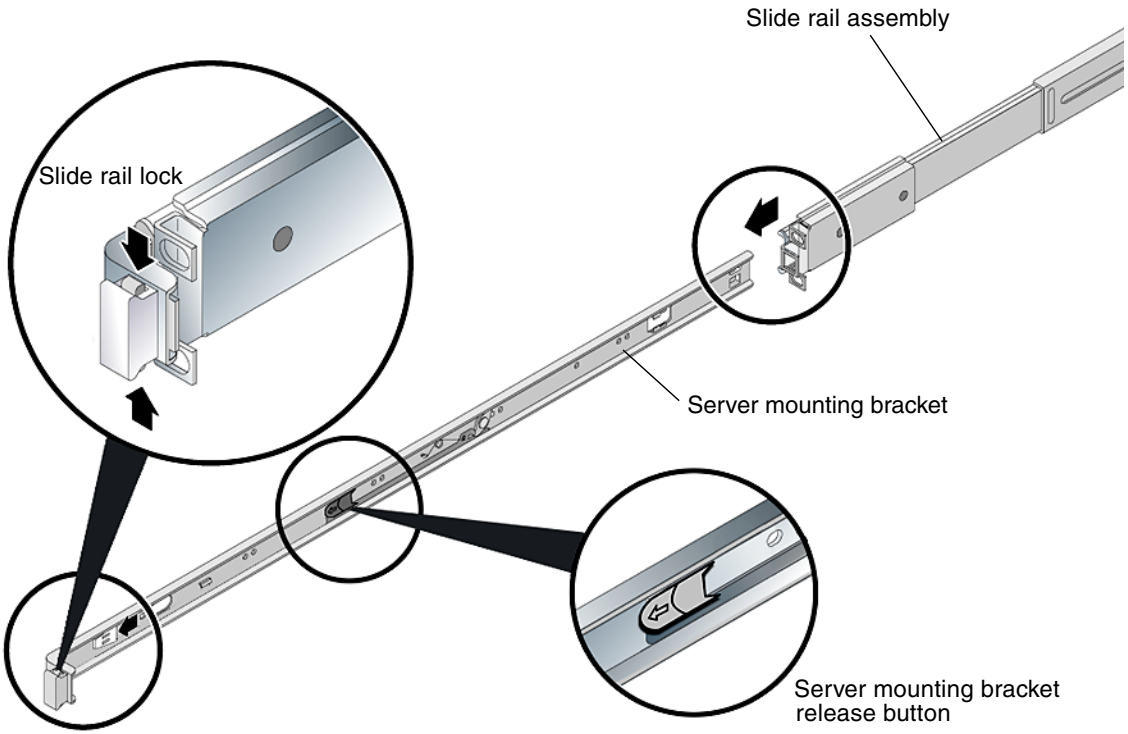

FIGURE 9 Server Mounting Bracket Release Button

6. **Repeat for the remaining slide rail assembly.**

▼ Installing the Server Mounting Brackets Onto the Server

1. **Attach the server mounting brackets to the server using the screws from the rackmount screw kit (**FIGURE 10**).**

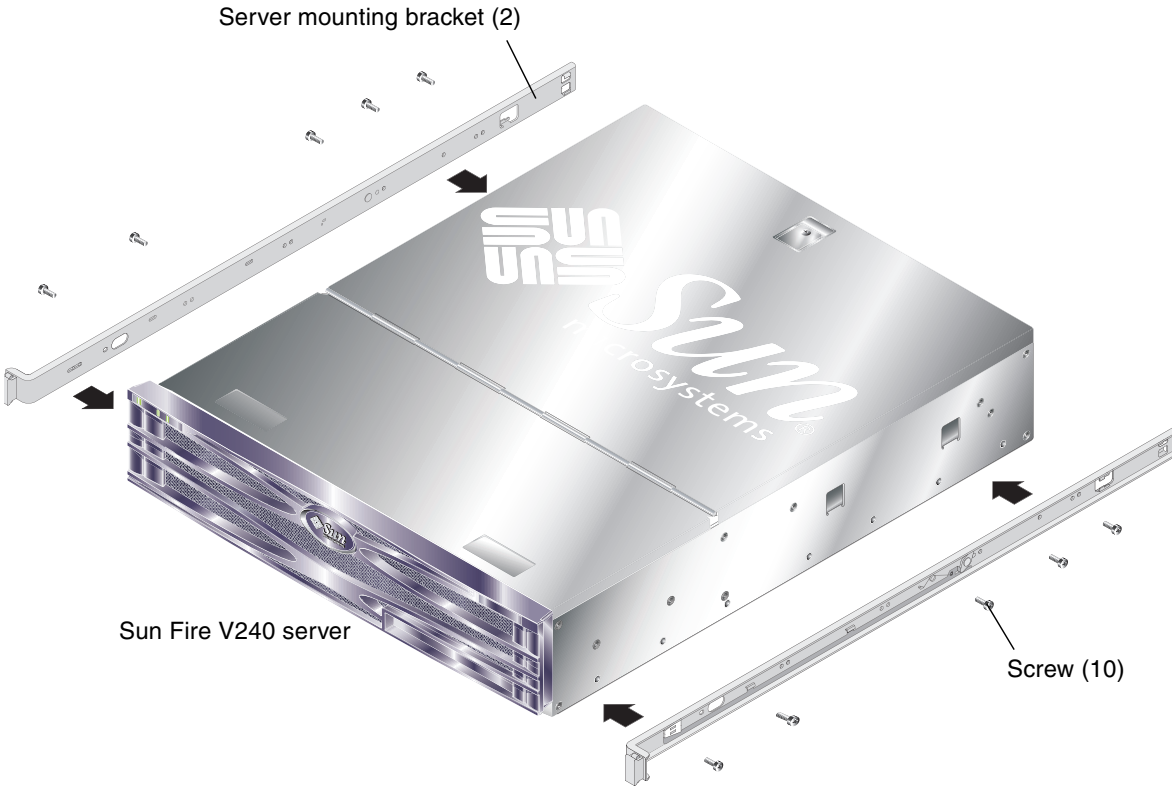

FIGURE 10 Installation of the Server Mounting Brackets

▼ Installing the Slide Rail Assemblies into the Equipment Rack

1. **Position a slide rail assembly in the rack so that the brackets at each end of the slide rail assembly are on the outside of the rack posts.**

2. **Fasten the slide rail assembly to the rack posts.**

   Use the appropriate screws from the rackmount screw kit.

   The method used to attach the slide rails assembly varies depending on the type of rack.

   - If your rack has threaded mounting holes in the rack posts, first determine whether the threads are metric or standard. Insert the correct mounting screws through the slide rail brackets and into the threaded holes.
   - If your rack does not have threaded mounting holes, insert the mounting screws through both the slide rail brackets and rack posts, and secure them with the caged nuts.

3. **Repeat for the remaining slide rail assembly.**

▼ Attaching the Server to the Slide Rail Assembly

Caution – This procedure requires a minimum of two people. Attempting this procedure alone could result in equipment damage or personal injury.

1. **Push both slide rail assemblies as far into the rack as possible.**
2. **Raise the server so that the rear edges of the server mounting brackets are aligned with the slide rails mounted in the equipment rack.**
3. **Insert the server mounting brackets into the slide rail assemblies and push the server into the rack until the mounting brackets encounter the slide rail stops (approximately 12 inches, 30.48 cm) (**FIGURE 11**).**

FIGURE 11 Inserting the Server Mounting Brackets Into the Slide Rail Assemblies

4. **Simultaneously pull and hold the slide rail release buttons on each server mounting bracket.**

FIGURE 12 Server Slide Rail Release Button

5. **While continuing to hold the buttons, push the server into the rack until the locks on the front of the server mounting brackets engage the slide rail assemblies.**

Caution – Verify that the server is securely mounted in the rack, and that the slide rail assemblies are locked to the server mounting brackets, before continuing.

▼ Installing the Cable Management Assembly

1. **If applicable, unpack the cable management assembly (CMA).**
2. **Take the CMA to the rear of the equipment rack and ensure that you have adequate room to work around the rear of the server.**

Note – References to *left* and *right* assume that you are standing at the rear of the equipment rack.

3. **Remove the tape that covers the left and right rail extensions.**
4. **Locate the rail extension and insert it into the left slide rail until the extension locks into place with an audible *click* (**FIGURE 13**).**

Note – For power supply access, the left slide rail has a cable management assembly quick release lever.

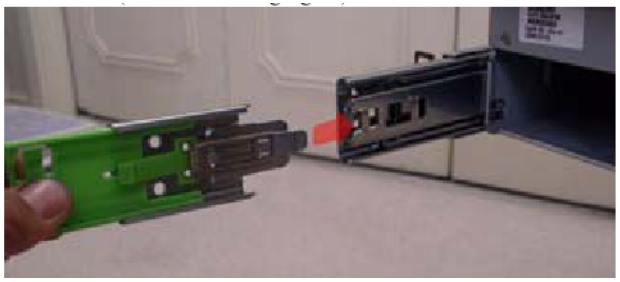

FIGURE 13 Rail Extension

5. **Verify that the rail extension engages the slide rail, as shown in** FIGURE 14**.**

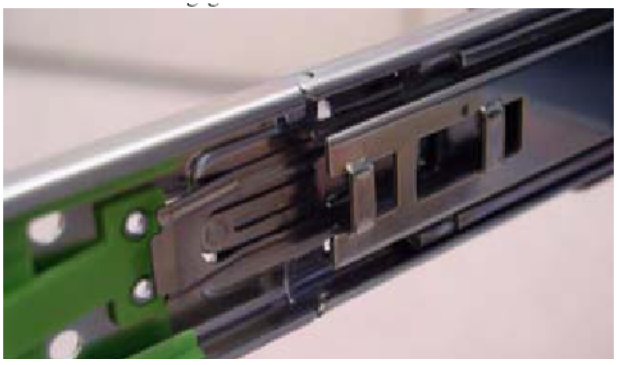

FIGURE 14 Rail Extension Engagement With the Slide Rail

Caution – Support the cable management assembly while performing the remaining installation steps. Do not allow the assembly to hang by its own weight until it is secured by all three of the attachment points.

6. **Insert the CMA's mounting bracket connector into the right mounting bracket until the connector locks into place with an audible *click* (**FIGURE 15**).**

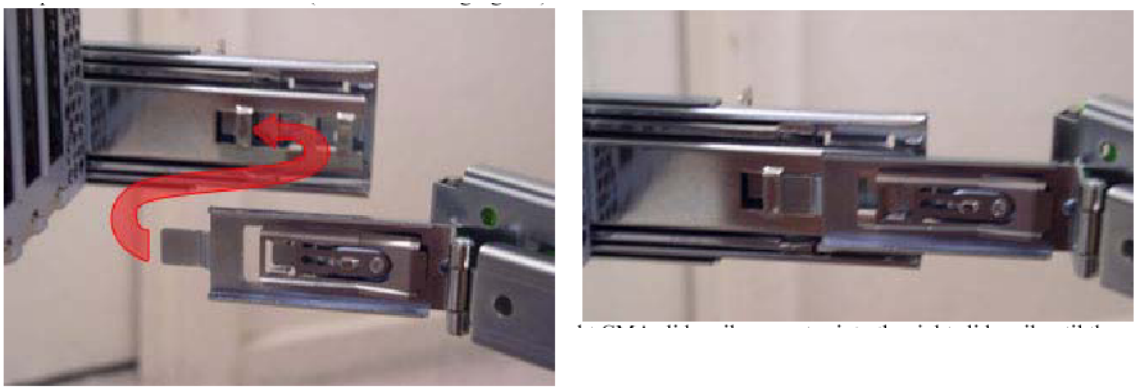

FIGURE 15 CMA Mounting Bracket

7. **Insert the right CMA slide rail connector into the right slide rail until the connector locks into place with an audible *click* (**FIGURE 16**).**

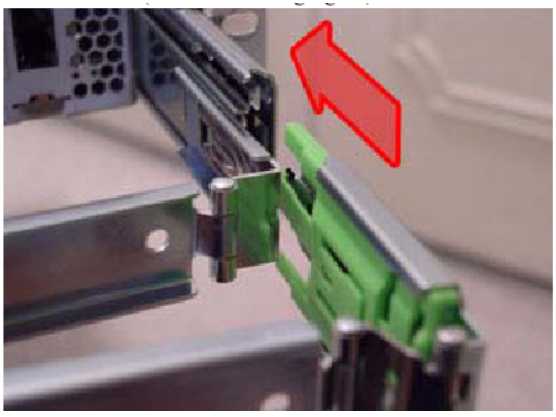

FIGURE 16 Right-Side CMA Slide Rail Connector

8. **Insert the remaining CMA connector into the plastic cutout at the rear of the left slide rail extension (**FIGURE 17**).**

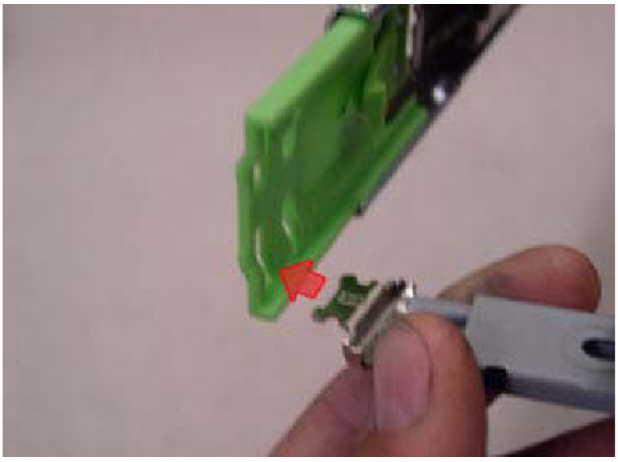

FIGURE 17 Plastic Cutout on Left Slide Rail Extension

9. **Gently press the finger in the direction indicated by the arrow to open the cutout enough to insert the connector.**
10. **After you have passed the connector through the cutout, release the finger to lock the connector in place.**

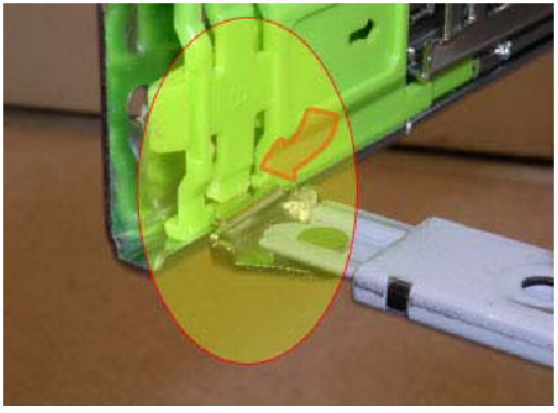

FIGURE 18 Close Up of Locking Mechanism on the Left Slide Rail Extension

11. **Position the cable hangers in the appropriate mounting holes in the CMA and snap them into place.**

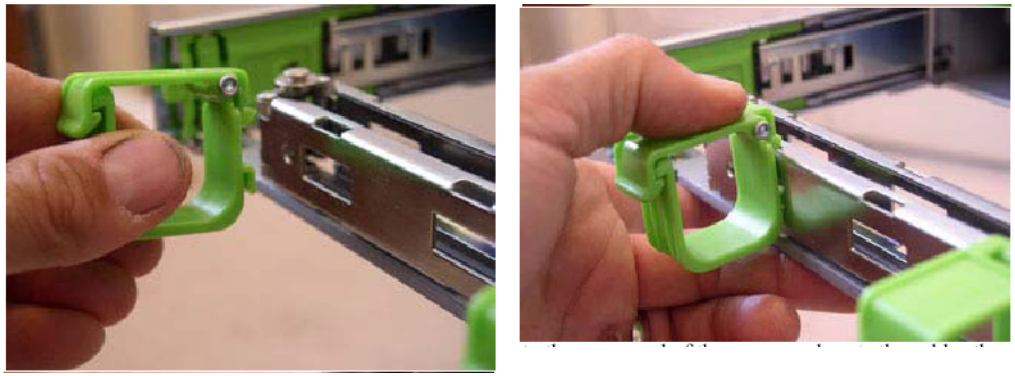

FIGURE 19 CMA Cable Hangers

12. **Attach the cables to the rear panel of the server and route the cables through the cable hangers.**

▼ Verifying the Operation of the Slide Rails and CMA

Caution – Two people are recommended for this procedure: one to move the server in and out of the rack and one to observe the cables and CMA.

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1. **Slowly pull the server out of the rack until the slide rails reach their stops.**
2. **Inspect the attached cables for any binding or kinks.**
3. **Verify that the CMA extends fully and does not bind in the slide rails.**
4. **When the server is fully extended out, release the slide rail lever stops.**

   The stops are located on the inside of each slide rail, just behind the rear panel of the server. These levers are labeled “PUSH”. Push in both levers simultaneously and slide the server toward the rack.

5. **Simultaneously push or pull both of the slide rail release buttons (**FIGURE 20**), and push the server completely into the rack.**

FIGURE 20 Slide Rail Release Button