SPARC S7-2 Server Installation Guide

Part No: E72375-03
June 2017

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Référence: E72375-03

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Contents

Using This Documentation

- **Overview** – Describes how to install the SPARC S7-2 server
- **Audience** – Technicians, system administrators, and authorized service providers
- **Required knowledge** – Experience with the Oracle Solaris Operating System, troubleshooting, and replacing hardware

Product Documentation Library

Documentation and resources for this product and related products are available at http://www.oracle.com/goto/S7-2/docs.

Feedback

Provide feedback about this documentation at http://www.oracle.com/goto/docfeedback.

Understanding the Server

These topics list the installation tasks, provide an overview of the server, and highlight the key components.

Related Information

- "Installing the Server" on page 25
- "Cabling the Server" on page 51
- "Powering On the Server for the First Time" on page 57

Conceptual Overview

The SPARC S7-2 servers provide enterprise class performance and Software in Silicon features in significantly lower-cost form factors. Newly designed microprocessors and hardware provides high level of system integration, excellent throughput, low memory latency, and high bandwidth IO interconnect. These servers deliver uncompromising price and performance for horizontal scale database, middleware, and cloud computing workloads.

Oracle Software in Silicon Features

The microprocessors for the SPARC S7 series servers offer co-engineered hardware and software capabilities that enable applications to run with the highest levels of security, reliability, and speed. This functionality is called Oracle Software in Silicon. These features

include: Silicon Secured Memory – These APIs can be used, for example, to enable the detection of memory corruption issues, thereby enhancing applications data integrity (ADI) when an application uses its own custom memory allocator. With this feature enabled, an error is likely to be raised if an application tries to access memory to which it should not have access. For more information, refer to the `adi(3C)`, `adi(2)`, `memcntl(2)`, `mmap(2)`, and `siginfo(3HEAD)` man pages.

Data Analytics Accelerator (DAX) – Coprocessors perform query-related operations directly through the hardware, which improves Oracle Database performance. You can use DAX hardware acceleration for Oracle Database 12c in-memory database operations. For more information about Oracle Software in Silicon functionality, refer to: `https://www.oracle.com/servers/sparc/software-in-silicon.html`. For more details on ADI, refer to the Oracle Solaris 11.3 documentation. To use DAX, you must configure the Oracle Database 12c in-memory feature. For instructions, refer to "Using the In-Memory Column Store" at: `http://docs.oracle.com/database/121/ADMIN/memory.htm#ADMIN14257`

Related Information

- "Server Overview" on page 11

Installation Task Overview

Steps	Description	Links
1.	Review the *SPARC S7-2 Server Product Notes* for any late-breaking news about the server.	*SPARC S7-2 Server Product Notes*
2.	Review the server features, specifications, and site requirements.	"Server Overview" on page 11 "Confirming Specifications" on page 15
3.	Confirm that you received all of the items you ordered.	"Shipping Kit" on page 21
4.	Learn the server features, controls, and LEDs required for installation.	"Front Panel Components (Installation)" on page 12 "Rear Panel Components (Installation)" on page 13
5.	Take safety and ESD precautions and assemble the required tools.	"Handling Precautions" on page 22 "ESD Precautions" on page 23 "Tools Needed for Installation" on page 23
6.	Install any optional components into the server.	"Optional Components" on page 26
7.	Install the server into a rack.	"Installing the Server" on page 25
8.	Attach data and management cables to the server.	"Cabling the Server" on page 51

Steps	Description	Links
9.	Connect the power cords to the server, configure the Oracle ILOM on the SP, power on the server for the first time, and set up the operating system.	"Powering On the Server for the First Time" on page 57

Related Information

- *SPARC S7-2 Server Product Notes*
- *SPARC S7-2 Server Safety and Compliance Guide*
- *Servers Administration*
- *Server Service*

Server Overview

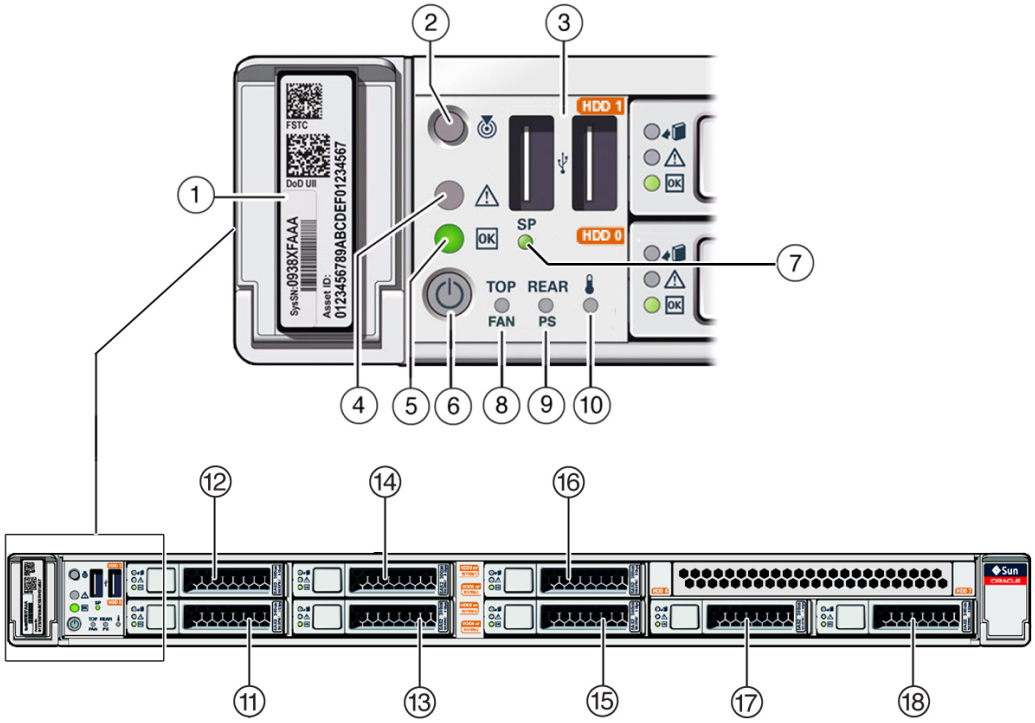
This topic provides a high-level introduction to the main components and capabilities of the server.

Component	Description
Chassis	Rack-mountable server.
CPU	One or two processors are supported: 8-core, 4.267GHz, 130W each, installed on the motherboard assembly.
Memory	16 DDR4 DIMM slots are supported: ■ Each processor module supports either 4 or 8 DIMMs for a total of 8 or 16 DIMMs in two processor systems. ■ Mixing of memory types or sizes is not supported.
I/O expansion	Three low profiles x8 PCIe Gen3 slots. All slots support x8 PCIe cards, two slots support x16 PCIe cards mechanically.
Storage devices	For internal storage, the server provides: ■ Eight 2.5-inch drive bays accessible through the front panel, support SFF SAS/SATA drives with 4 slots NVMe enabled. ■ Internal SAS HBA card. ■ Support for non-RAID LSISAS3008 HBA.
USB ports	Two external USB 2.0 ports (front panel).
Ethernet ports	Four 10GbE 100/1000/10000 Mbps, RJ-45-based ports on the rear panel.
Power supplies	Two hot-swappable A266 1.2kW (N+1).
Cooling fans	Four hot-swappable, redundant fans at chassis front (top-loading).
SP	Oracle Integrated Lights Out Manager (Oracle ILOM) on motherboard.

Related Information

- *Server Service*
- Oracle ILOM documentation
- “Front Panel Components (Installation)” on page 12
- “Rear Panel Components (Installation)” on page 13

Front Panel Components (Installation)



No.	Description	No.	Description
1	Serial number	10	Server Overtemp LED (amber)
2	Locator LED (white)	11	Drive 0 (HDD/SDD)
3	Two USB 2.0 connectors	12	Drive 1 (HDD/SDD)

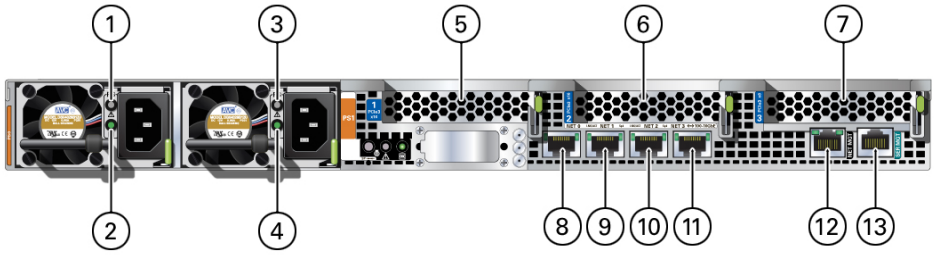
No.	Description	No.	Description
4	Service Action Required LED (amber)	13	Drive 2 (HDD/SDD) or NVMe 0
5	Power/OK LED (green)	14	Drive 3 (HDD/SDD) or NVMe 1
6	Power button	15	Drive 4 (HDD/SDD) or NVMe 2
7	SP OK/Fault LED (green or amber)	16	Drive 5 (HDD/SDD) or NVMe 3
8	Fan Service Action Required LED (amber)	17	Drive 6 (HDD/SDD)
9	PS Service Action Required LED (amber)	18	Drive 7 (HDD/SDD)

Related Information

- “Server Overview” on page 11
- “Rear Panel Components (Installation)” on page 13

Rear Panel Components (Installation)

Note - You must follow the proper sequence when connecting cables to the server. Do not connect the power cords until all data cables have been connected.



No.	Description	No.	Description
1	Power supply 0 Fault LED	8	NET 0 100/1000/10000 port
2	Power supply 0 OK LED	9	NET 1 100/1000/10000 port

No.	Description	No.	Description
3	Power supply 1 Fault LED	10	NET 2 100/1000/10000 port
4	Power supply 1 OK LED	11	NET 3 100/1000/10000 port
5	PCIe card slot 1	12	NET MGT port
6	PCIe card slot 2	13	SER MGT/RJ-45 serial port
7	PCIe card slot 3		

Related Information

- “Front Panel Components (Installation)” on page 12
- “Rear Cable Connections and Ports” on page 51
- “Connect Server Cables” on page 55
- “Install the Cable Management Arm” on page 39

Confirming Specifications

These topics provide the technical information and airflow precautions you need to install the server.

Related Information

- “Server Overview” on page 11
- “Shipping Kit” on page 21

Physical Specifications

Description	U.S.	Metric
Rack units	1U	1U
Height	1.68 in.	4.26 cm
Width	17.185 in.	43.65 cm
Depth	29 in.	73.7 cm
Weight (without rackmount kit)	43 lb	19.5 kg
Minimum service clearance (front)	36 in.	91.44 cm
Minimum service clearance (rear)	36 in.	91.44 cm
Minimum airflow clearance (front)	2 in.	5.08 cm
Minimum airflow clearance (rear)	3 in.	7.62 cm
Shipping carton height	10.25 in.	26.04 cm

Description	U.S.	Metric
Shipping carton width	23.87 in.	60.64 cm
Shipping carton length	39.00 in	99.06 cm

Related Information

- “Server Overview” on page 11
- “Handling Precautions” on page 22
- “Installing the Server” on page 25
- “Electrical Specifications” on page 16
- “Environmental Specifications” on page 17
- “Airflow Precautions” on page 18

Electrical Specifications

Description	Value
Operating Input Range	100 to 120 VAC; 200 to 240 VAC; 50-60 Hz
Max Operating Input Current per cord at 100VAC	8.6 A
Max Operating Input Current per cord at 200VAC	4.1 A
Max operating input power at 100VAC	851 W
Max operating input power at 200VAC	819 W
Maximum heat dissipation	2904 BTU/hr
	3064 KJ/hr
Maximum standby power	23.4 W
Maximum server configuration specification under nominal temperature and voltage conditions	
(SPARC S7-2, Two 4.267GHz S7 Processors, 16 64GB DDR4 DIMMS, 4 SAS + 4 NVMe-SFF drives , 1 Internal HBA card, 3 PCIe cards)	
Idle AC input power	412 W
Peak AC input power running MGRID	749 W
Minimum server configuration specification under nominal temperature and voltage conditions	
(SPARC S7-2-1S, One 4.267GHz S7 Processors, 4 16GB DDR4 DIMMS, 0 drives, 1 Internal HBA card, 0 PCIe cards)	
Idle AC input power	190 W
Peak AC input power running MGRID	352 W

For information on power specifications, use the power calculator at:

http://www.oracle.com/us/products/servers-storage/sun-power-calculators

Related Information

- “Powering On the Server for the First Time” on page 57
- “Physical Specifications” on page 15
- “Environmental Specifications” on page 17
- “Airflow Precautions” on page 18

Environmental Specifications

TABLE 1 Temperature, Humidity, Acoustic, and Elevation Specifications

Specification	Operating	Nonoperating
Ambient temperature	■ Maximum range: 41°F to 95°F (5°C to 35°C) up to 2,953 feet (900 meters) ■ Optimal: 69.8°F to 73.4°F (21°C to 23°C) **Note -** Maximum ambient operating temperature is derated by 1 degree C per 300 meters of elevation beyond 900 meters, up to a maximum altitude of 3,000 meters.	–40°F to 154°F (–40°C to 68°C)
Relative humidity	■ 10% to 90% noncondensing, short term 23°F to 113°F (–5°C to 55°C) ■ 5% to 90% noncondensing, but not to exceed 0.024 kg of water per kg of dry air (0.053 lbs water/2.205 lbs dry air)	Up to 93% noncondensing 95°F (35°C) maximum wet bulb
Altitude	Up to 9,840 feet (3,000 meters) **Note -** In China markets, regulations may limit installations to a maximum altitude of 6,562 feet (2,000 meters).	Maximum 39,370 feet (12,000 meters)
Acoustic noise	■ Maximum condition: 7.1 Bels A weighted ■ Idle condition: 7.0 Bels A weighted	Not applicable

TABLE 2 Shock and Vibration Specifications

Description	Operating	Nonoperating
Shock	3.5 Gs, 11 ms half-sine	Roll-off: 1.25-inch roll-off free fall, front to back rolling directions Threshold: 13-mm threshold height at 0.65 m/s impact velocity

Description	Operating	Nonoperating
Vibration	0.15 G (z-axis), 0.10 G (x-, y-axes), 5-500Hz swept sine	0.5 G (z-axis), 0.25 G (x-, y-axes), 5-500Hz swept sine

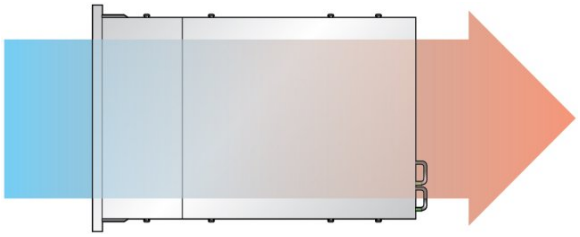
Related Information

- *SPARC S7-2 Server Safety and Compliance Guide*
- “Physical Specifications” on page 15
- “Electrical Specifications” on page 16
- “Environmental Specifications” on page 17
- “Airflow Precautions” on page 18

Airflow Precautions

Caution - Proper airflow is essential for keeping the server's internal temperatures within a safe operating range.

Air flows from the front to the rear of the server.



Follow these guidelines to ensure unrestricted airflow in the server:

- Adhere to the minimum airflow clearance specifications. See “Physical Specifications” on page 15.
- Install the server so that the front faces the cool aisle and the rear faces the warm aisle.
- Do not direct warm air into the server.
- Prevent recirculation of air within a rack or cabinet.

- When servicing server internal components, ensure that air ducts, baffles, and filler panels are properly installed.
- Route cables so that they do not interfere with airflow.

Related Information

- “Rack Cautions” on page 27
- “Physical Specifications” on page 15
- “Electrical Specifications” on page 16
- “Environmental Specifications” on page 17

Preparing for Installation

These topics detail the precautions to follow, the tools to assemble, and the tasks to perform prior to installing the server.

Step	Description	Links
1.	Confirm that you received all the items you ordered.	“Shipping Kit” on page 21
2.	Review safety and ESD precautions	“Handling Precautions” on page 22 “ESD Precautions” on page 23
3.	Verify that you have the correct tools.	“Tools Needed for Installation” on page 23

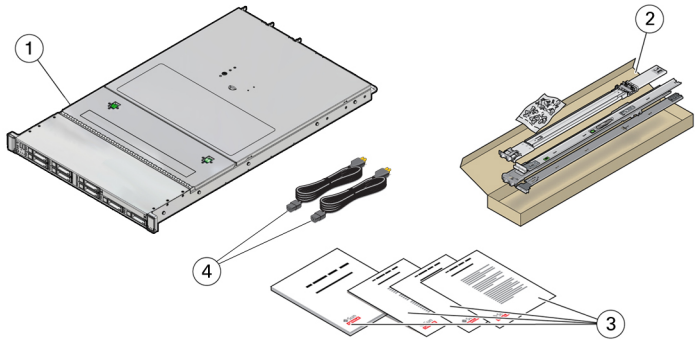
Related Information

- “Installing the Server” on page 25
- “Cabling the Server” on page 51
- “Powering On the Server for the First Time” on page 57

Shipping Kit

Note - When you receive your server, place it in the environment where you will install it. Leave it in its shipping crate at its final destination for 24 hours. This resting period prevents thermal shock and condensation.

Verify that you have received all of the components that ship with your server.



No.	Description
1	Server
2	Rackmount kit
3	Antistatic wrist strap
4	Printed documents
5	2 AC power cords

Note - The shipping kit might also contain PCIe slot fillers that were removed from the server when PCIe cards were installed in the factory. Save these fillers and use them to cover PCIe slots when cards are removed from the server.

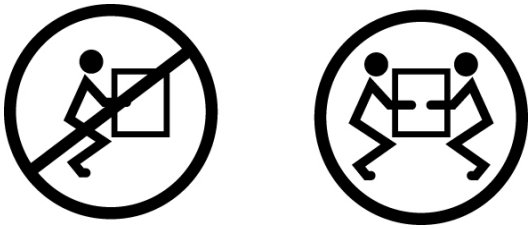
Related Information

- “Server Overview” on page 11
- “Preparing for Installation” on page 21

Handling Precautions

Caution - Deploy the anti-tilt bar on the equipment rack before beginning an installation.

Caution - The server weighs approximately 43 lb (19.5 kg). Two people are required to lift and mount this server into a rack enclosure when using the procedures in this document.



Caution - When completing a two-person procedure, always communicate your intentions clearly before, during, and after each step to minimize confusion.

Related Information

- “Physical Specifications” on page 15
- “Installing the Server” on page 25
- *SPARC S7-2 Server Getting Started Guide*

ESD Precautions

Electronic equipment is susceptible to damage by static electricity. Use a grounded antistatic wrist strap, foot strap, or equivalent safety equipment to prevent electrostatic damage when you install or service the servers.

Caution - To protect electronic components from electrostatic damage, which can permanently disable the system or require repair by service technicians, place components on an antistatic surface, such as an antistatic discharge mat, an antistatic bag, or a disposable antistatic mat. Wear an antistatic grounding strap connected to a metal surface on the chassis when you work on system components.

Related Information

- “Handling Precautions” on page 22

Tools Needed for Installation

- No. 2 Phillips screwdriver

- ESD mat and grounding strap

In addition, you must provide a system console device, such as one of the following:

- ASCII terminal
- Workstation
- Terminal server
- Patch panel connected to a terminal server

Related Information

- “Handling Precautions” on page 22
- “ESD Precautions” on page 23
- *Server Service*

Installing the Server

These topics describe how to install the server into a rack using the rail assembly in the rackmount kit. Perform these procedures if you purchased the rail assembly.

Note - In this guide, the term rack means either an open rack or a closed cabinet.

Step	Description	Links
1.	Install optional components.	“Optional Components” on page 26
2.	Ensure that your rack is compatible with the server requirements.	“Rack Compatibility” on page 26
3.	Review the cautions for working with racks.	“Rack Cautions” on page 27
4.	Use anti-tilt mechanisms to ensure that the rack does not tip when the server is installed.	“Stabilize the Rack” on page 29
5.	Prepare the slide rails, mounting brackets, and slide rail assemblies for server installation.	“Install Mounting Brackets Onto the Server” on page 30 “Mark the Rackmount Location” on page 31 “Install AC Power Cables and Slide-Rails” on page 33 “Attach Tool-less Slide-Rail Assemblies” on page 34
6.	Install the server in the rack.	“Install the Server Into the Slide-Rail Assemblies” on page 37
7.	(Optional) Install the CMA.	“Install the Cable Management Arm” on page 39
8.	Review cabling requirements and port information. Attach data and management cables to the server.	“Cabling the Server” on page 51
9.	Prepare to power on the server for the first time.	“Powering On the Server for the First Time” on page 57

Related Information

- “Preparing for Installation” on page 21
- “Cabling the Server” on page 51

Optional Components

Optional components, such as additional memory or PCIe cards that were ordered as part of the system, are installed in the server at the factory before the server is shipped. Any options not ordered with the system are shipped separately. If possible, install these components prior to installing the server in a rack.

Except for the rackmount kits, if you ordered any options that are not factory-installed, refer to the service manual for the server and the component's documentation for installation instructions.

Related Information

- Optional component documentation
- *Server Service*

Rack Compatibility

Check that your rack is compatible with the slide rail and cable management assembly options. The optional slide rails are compatible with a wide range of equipment racks that meet the following standards.

Item	Requirement
Structure	Four-post rack (mounting at both front and rear). Supported rack types: square hole (9.5 mm) and round hole (M6 or 1/4-20 threaded only. Two-post racks are not compatible.
Rack horizontal opening and unit vertical pitch	Conforms to ANSI/EIA 310-D-1992 or IEC 60927 standards.
Distance between front and rear mounting planes	Minimum 61 cm and maximum 91.5 cm (24 inches to 36 inches).
Clearance depth in front of front mounting plane	Distance to front cabinet door is at least 2.54 cm (1 inch).
Clearance depth behind front mounting plane	Distance to rear cabinet door is at least 90 cm (35.43 inches) with the cable management arm, or 80 cm (31.5 inches) without the cable management arm.
Clearance width between front and rear mounting planes	Distance between structural supports and cable troughs is at least 45.6 cm (18 inches).

Item	Requirement
Minimum clearance for service access	■ Clearance, front of server: 123.2 cm (48.5 inches) ■ Clearance, rear of server: 91.4 cm (36 inches)

Related Information

- “Physical Specifications” on page 15
- “Handling Precautions” on page 22
- “Rack Cautions” on page 27

Rack Cautions

Caution - Equipment Loading: Always load equipment into a rack from the bottom up so that the rack does not become top-heavy and tip over. Deploy the rack's anti-tilt bar to prevent the rack from tipping during equipment installation.

Caution - Elevated Operating Ambient Temperature: If the server is installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment might be greater than room ambient temperature. Therefore, install the equipment only in an environment compatible with the maximum ambient temperature (Tma) specified for the server.

Caution - Reduced Air Flow: Install the equipment in a rack so that the amount of air flow is adequate for the safe operation of the equipment.

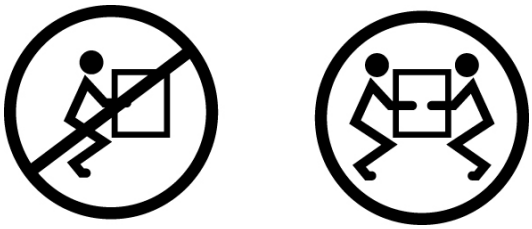
Caution - Mechanical Loading: Mount the equipment in the rack so that the weight is distributed evenly. A hazardous condition can exist with uneven mechanical loading.

Caution - Circuit Overloading: Do not overload the power supply circuits. Before connecting the server to the supply circuit, review the equipment nameplate power ratings and consider the effect that circuit overloading might have on overcurrent protection and supply wiring.

Caution - Reliable Grounding: Maintain reliable grounding of rackmounted equipment. Give particular attention to supply connections other than direct connections to the branch circuit (for example, use of power strips).

Caution - Do not use slide rail mounted equipment as a shelf or a work space.

Caution - The server weighs approximately 43 lb (19.5 kg). Two people are required to lift and mount this server into a rack enclosure when using the procedures in this document.



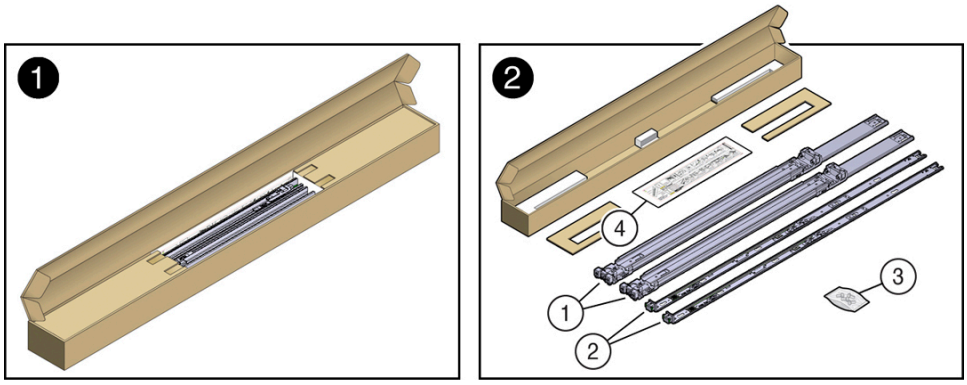
Related Information

- “Physical Specifications” on page 15
- “Handling Precautions” on page 22
- “Stabilize the Rack” on page 29

Rackmount Kit Contents

The rackmount kit contains two slide-rails, two mounting brackets, and optional securing screws.

Note - Refer to the rackmount kit installation card for instructions on how to install your server into a four-post rack, using the slide-rail and cable management arm options.



No.	Description
1	Slide-rails
2	Mounting brackets
3	Four M4 x 5 fine-pitch mounting bracket securing screws (optional)
4	Installation card

Related Information

- “Rack Compatibility” on page 26

▼ Stabilize the Rack

Caution - To reduce the risk of personal injury, stabilize the rack by extending all anti-tilt devices before installing the server.

Refer to the rack documentation for detailed instructions for the following steps.

1. **Read the rack cautions and stabilize the rack.**
   See “Rack Cautions” on page 27.
2. **Open and remove the front and rear doors from the rack.**
3. **To prevent the rack cabinet from tipping during the installation, stabilize the cabinet using all antitilt mechanisms provided.**

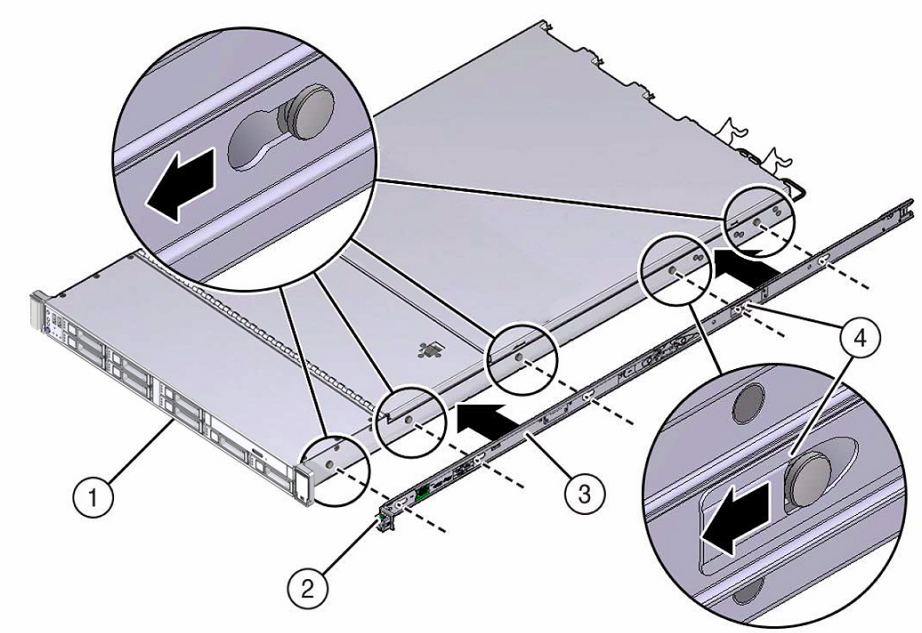
4. **If there are leveling feet beneath the rack to prevent it from rolling, extend these leveling feet fully downward to the floor.**

Related Information

- Rack documentation
- *SPARC S7-2 Server Safety and Compliance Guide*
- “Rack Compatibility” on page 26
- “Rack Cautions” on page 27

▼ Install Mounting Brackets Onto the Server

1. **Position a mounting bracket against the chassis so that the slide-rail lock is at the server front, and the five keyhole openings on the mounting bracket are aligned with the five locating pins on the side of the chassis.**



No.	Description
1	Chassis front
2	Slide-rail lock
3	Mounting bracket
4	Mounting bracket clip

2. **With the heads of the five chassis locating pins protruding through the five keyhole openings in the mounting bracket, pull the mounting bracket toward the front of the chassis until the mounting bracket clip locks into place with an audible click.**

3. **Verify that the rear locating pin has engaged the mounting bracket clip.**

4. **Repeat Step 1 through Step 3 to install the remaining mounting bracket on the other side of the server.**

Related Information

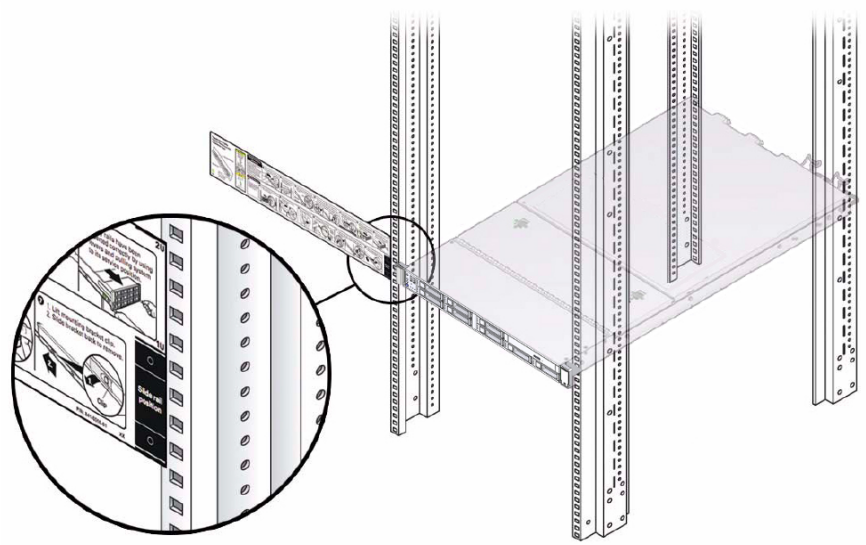
- “Mark the Rackmount Location” on page 31
- “Attach Tool-less Slide-Rail Assemblies” on page 34

▼ Mark the Rackmount Location

1. **Ensure that there is at least 1 rack unit (1U) of vertical space in the rack cabinet to install the server.**

2. **Place the rackmount installation card against the front rails.**

The bottom edge of the card corresponds to the bottom edge of the server. Measure up from the bottom of the installation card.



3. **Mark the mounting holes for the front slide-rails.**

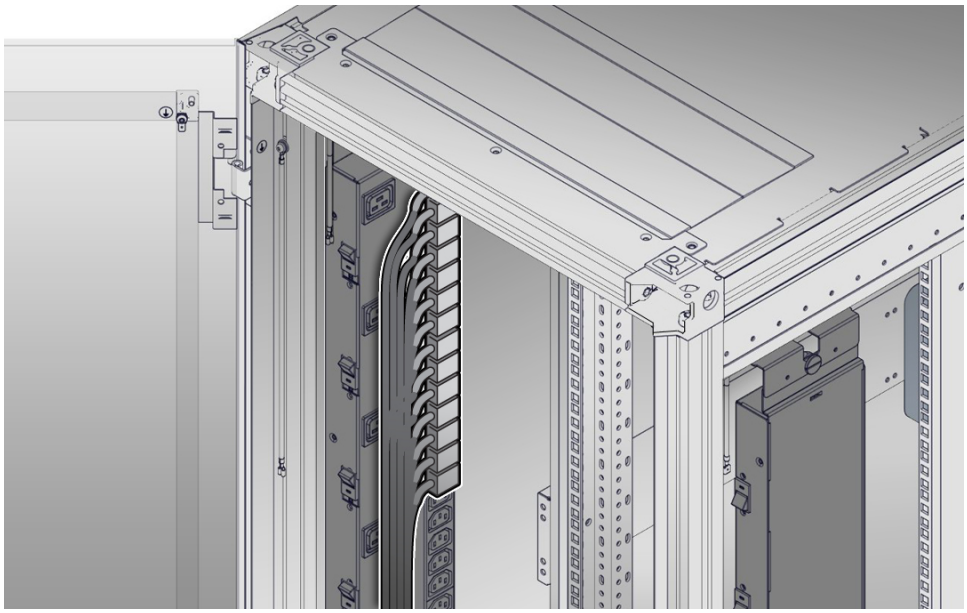
4. **Mark the mounting holes for the rear slide-rails.**

Related Information

- “Rack Compatibility” on page 26
- “Install Mounting Brackets Onto the Server” on page 30
- “Attach Tool-less Slide-Rail Assemblies” on page 34

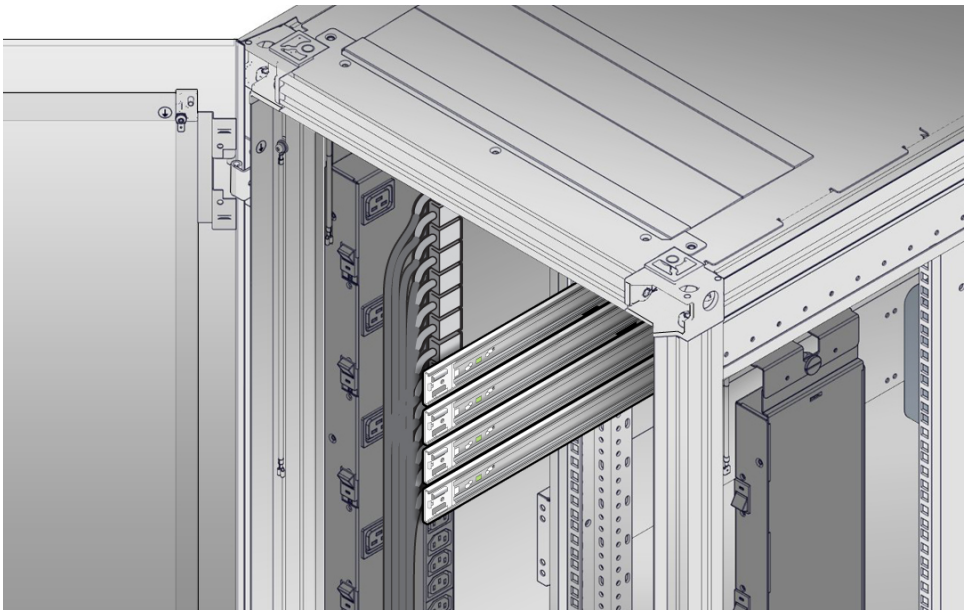
Install AC Power Cables and Slide-Rails

1. **Prior to installing the slide-rails into the rack, install right-angle AC power cables into the left-side and right-side PDU electrical sockets for the servers you are going to rack mount.**



2. **Install the slide-rails into the rack.**

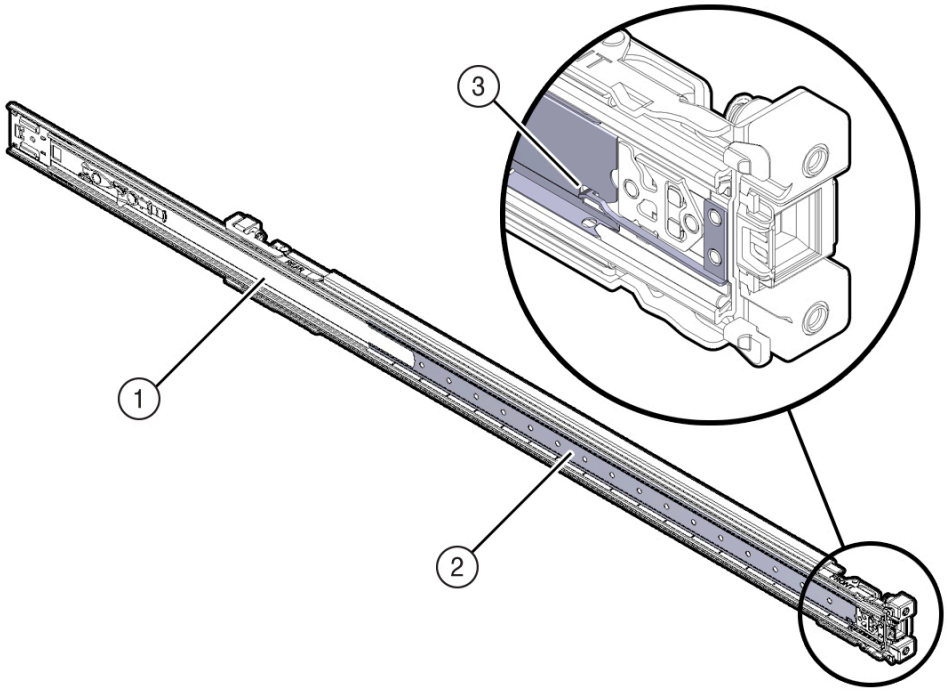
See “Attach Tool-less Slide-Rail Assemblies” on page 34.



▼ Attach Tool-less Slide-Rail Assemblies

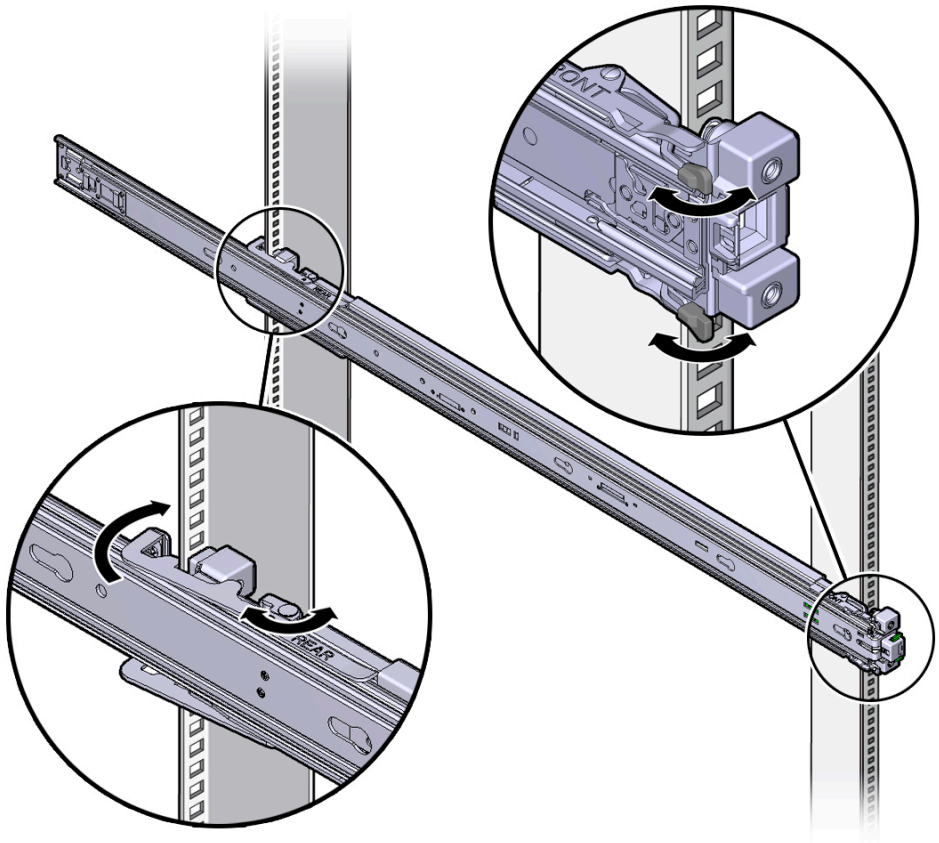
Use this procedure to attach tool-less slide-rail assemblies to the rack.

1. **Orient the slide-rail assembly so that the ball-bearing track is forward and locked in place.**



No.	Description
1	Slide-rail
2	Ball-bearing track
3	Locking mechanism

2. **Starting with either the left or right side of the rack, align the rear of the slide-rail assembly against the inside of the rear rack rail, and push until the assembly locks into place with an audible click.**



3. **Align the front of the slide-rail assembly against the outside of the front rack rail, and push until the assembly locks into place with an audible click.**

4. **Repeat Step 1 through Step 3 to attach the slide-rail assembly to the other side of the rack.**

Related Information

- “Install Mounting Brackets Onto the Server” on page 30

- “Mark the Rackmount Location” on page 31
- “Install the Server Into the Slide-Rail Assemblies” on page 37

Install the Server Into the Slide-Rail Assemblies

Use this procedure to install the server chassis, with mounting brackets, into the slide-rail assemblies that are mounted to the rack.

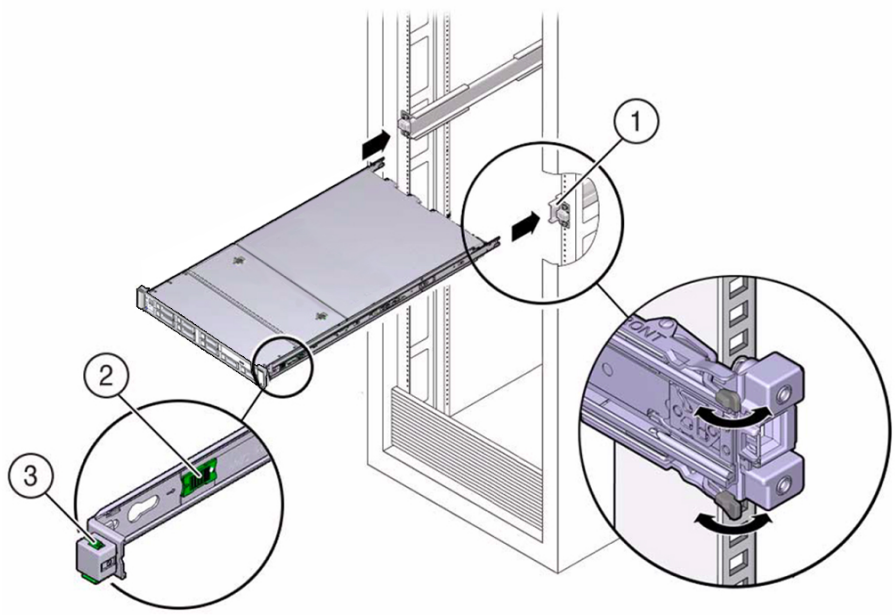
Caution - This procedure requires a minimum of two people because of the weight of the server. Attempting this procedure alone could result in equipment damage or personal injury.

Caution - Always load equipment into a rack from the bottom up so that the rack will not become top-heavy and tip over. Extend your rack's anti-tilt bar to prevent the rack from tipping during equipment installation.

1. **Push the slide-rails as far as possible into the slide-rail assemblies in the rack.**

2. **Position the server so that the rear ends of the mounting brackets are aligned with the slide-rail assemblies that are mounted in the rack.**

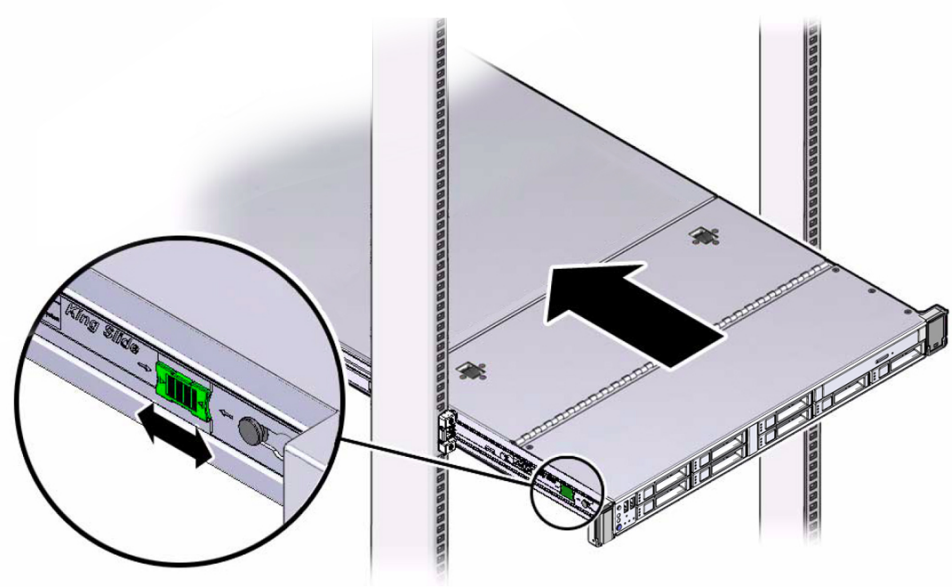
3. **Insert the mounting brackets into the slide-rails, and then push the server into the rack until the mounting brackets encounter the slide-rail stops (approximately 30 cm, or 12 inches).**



No.	Description
1	Inserting mounting bracket into slide-rail
2	Slide-rail release button
3	Slide-rail lock

4. **Simultaneously push and hold the green slide-rail release buttons on each mounting bracket while you push the server into the rack. Continue pushing the server into the rack until the slide-rail locks (on the front of the mounting brackets) engage the slide-rail assemblies.**

You will hear an audible click.



Caution - Verify that the server is securely mounted in the rack and that the slide-rail locks are engaged with the mounting brackets before you install the optional cable management arm.

Related Information

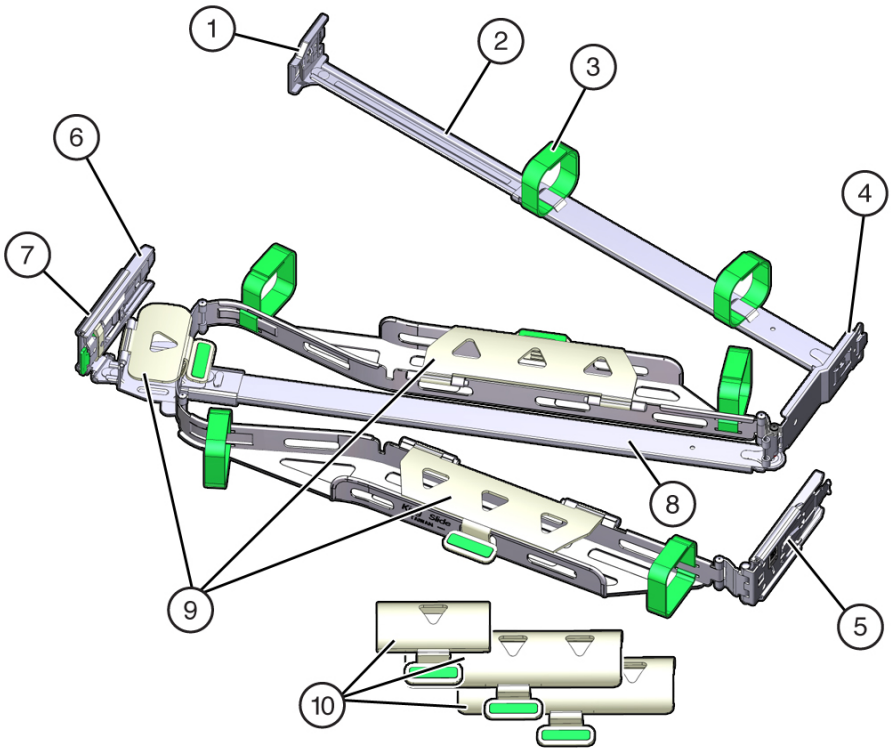
- “Install the Cable Management Arm” on page 39

▼ Install the Cable Management Arm

Follow this procedure to install the cable management arm (CMA), which you can use to manage cables connected to the rear of the server.

1. **Unpack the CMA.**

The following figure shows the CMA components.



No.	Description	No.	Description
1	Connector A	6	Connector D
2	Front slide bar	7	Slide-rail latching bracket (used with connector D)
3	Velcro straps (6)	8	Rear slide bar
4	Connector B	9	SPARC S7-2 cable covers
5	Connector C	10	SPARC S7-2L cable covers

2. **Ensure that the correct cable covers for your server are installed on the CMA.**

   The SPARC S7-2 uses the flat cable covers.

3. **Ensure that the six Velcro straps are threaded into the CMA.**

Note - Ensure that the two Velcro straps located on the front slide bar are threaded through the opening in the top of the slide bar. This prevents the Velcro straps from interfering with the expansion and contraction of the slide bar when the server is extended out of the rack and returned into the rack.

4. **To make it easier to install the CMA, extend the server approximately 13 cm (5 inches) out of the front of the rack.**

5. **Take the CMA to the back of the equipment rack, and ensure that you have adequate room to work at the back of the server.**

Note - References to “left” or “right” in this procedure assume that you are facing the back of the equipment rack.

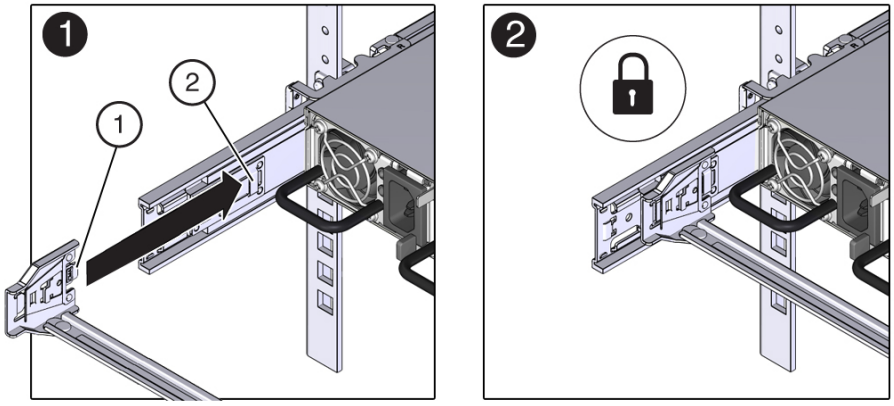
Note - Throughout this installation procedure, support the CMA and do not allow it to hang under its own weight until it is secured at all four attachment points.

6. **Install the CMA's connector A into the left slide rail.**

   a. **Insert the CMA's connector A into the front slot on the left slide-rail until it locks into place with an audible click (frames 1 and 2).**

      The connector A tab (callout 1) goes into the slide-rail's front slot (callout 2).

b. Gently tug on the left side of the front slide bar to verify that connector A is properly seated.

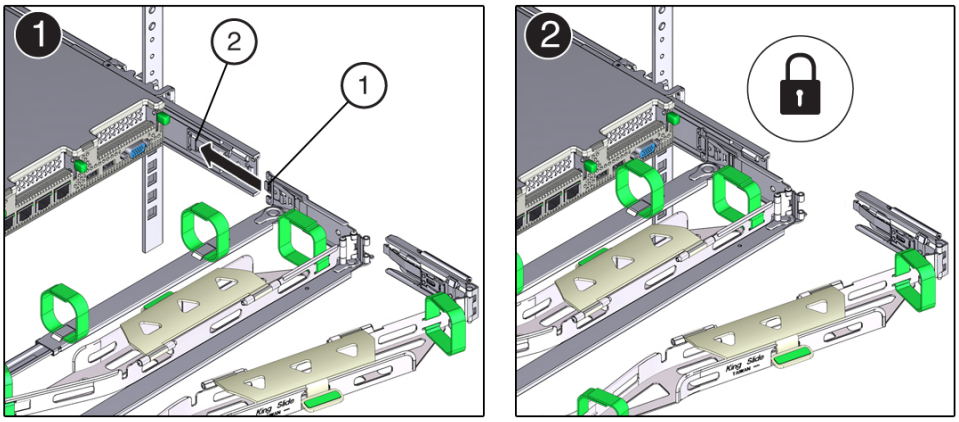


7. Install the CMA's connector B into the right slide-rail.

a. Insert the CMA's connector B into the front slot on the right slide-rail until it locks into place with an audible click (frames 1 and 2).

The connector B tab (callout 1) goes into the slide-rail front slot (callout 2).

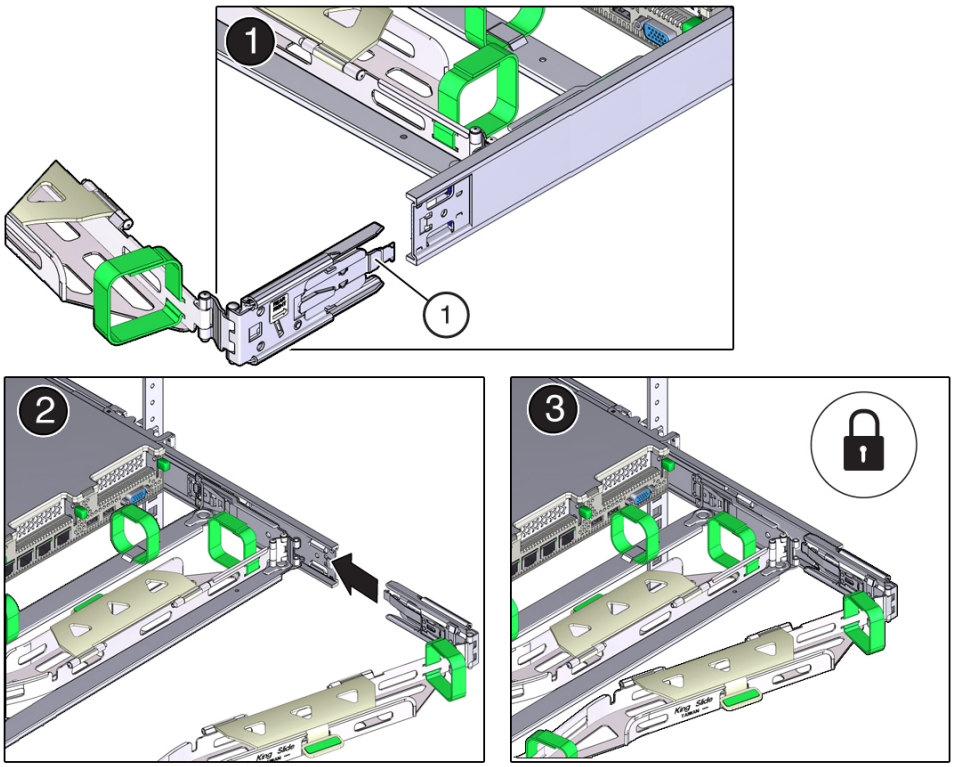
b. Gently tug on the right side of the front slide bar to verify that connector B is properly seated.



No.	Description
1	Connector B tab
2	Right slide-rail front slot

8. Install the CMA's connector C into the right slide-rail.

a. **Align connector C with the slide-rail so that the locking spring (callout 1) is positioned inside (server side) of the right slide-rail (frame 1).**

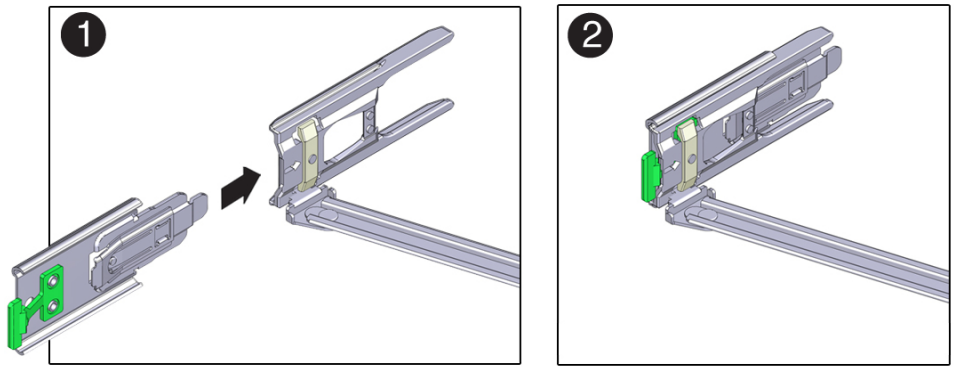


b. **Insert connector C into the right slide-rail until it locks into place with an audible click (frames 2 and 3).**

c. **Gently tug on the right side of the CMA's rear slide bar to verify that connector C is properly seated.**

9. **To prepare the CMA's connector D for installation, remove the tape that secures the slide-rail latching bracket to connector D and ensure that the latching bracket is properly aligned with connector D (frames 1 and 2).**

Note - The CMA is shipped with the slide-rail latching bracket taped to connector D. You must remove the tape before you install this connector.



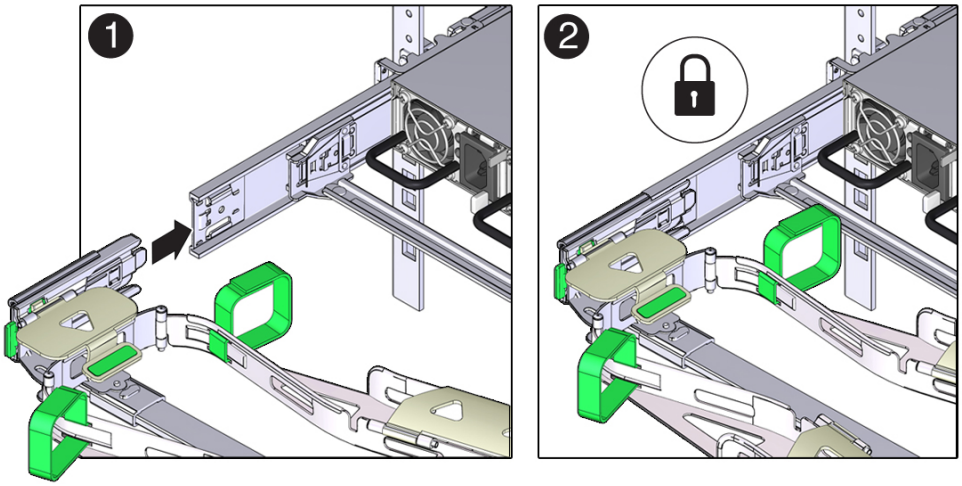
10. **Install the CMA's connector D into the left slide-rail.**

    a. **While holding the slide-rail latching bracket in place, insert connector D and its associated slide-rail latching bracket into the left slide-rail until connector D locks into place with an audible click (frames 1 and 2).**

Note - When inserting connector D into the slide-rail, the preferred and easier method is to install connector D and the latching bracket as one assembly into the slide-rail.

    b. **Gently tug on the left side of the CMA's rear slide bar to verify that connector D is properly seated.**

Note - The slide-rail latching bracket has a green release tab. This tab is used to release and remove the latching bracket so that you can remove connector D.



11. **Gently tug on the four CMA connection points to ensure that the CMA connectors are fully seated before you allow the CMA to hang by its own weight.**

12. **Verify that the slide-rails and the CMA are operating properly before routing cables through the CMA.**

    a. **Extend all rack anti-tilt devices to prevent the rack from tipping forward when the server is extended.**

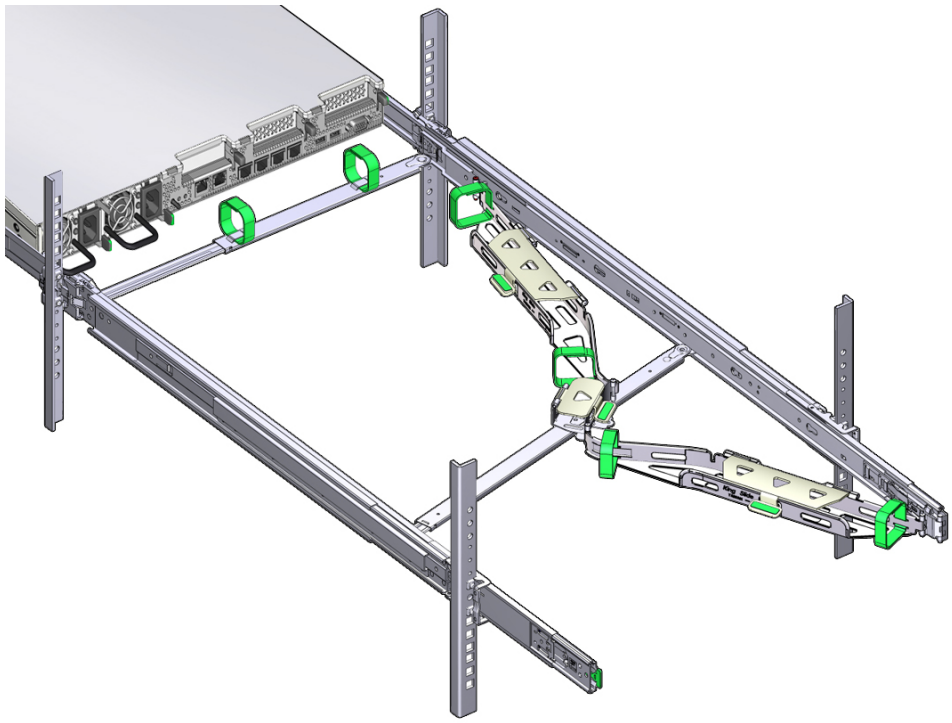
Caution - To reduce the risk of personal injury, stabilize the expansion rack cabinet and extend all anti-tilt devices before extending the server from the rack.

For instructions for stabilizing the rack, see “Stabilize the Rack” on page 29.

    b. **Slowly pull the server out of the rack until the slide-rails reach their stops.**

    c. **Inspect the attached cables for any binding or kinks.**

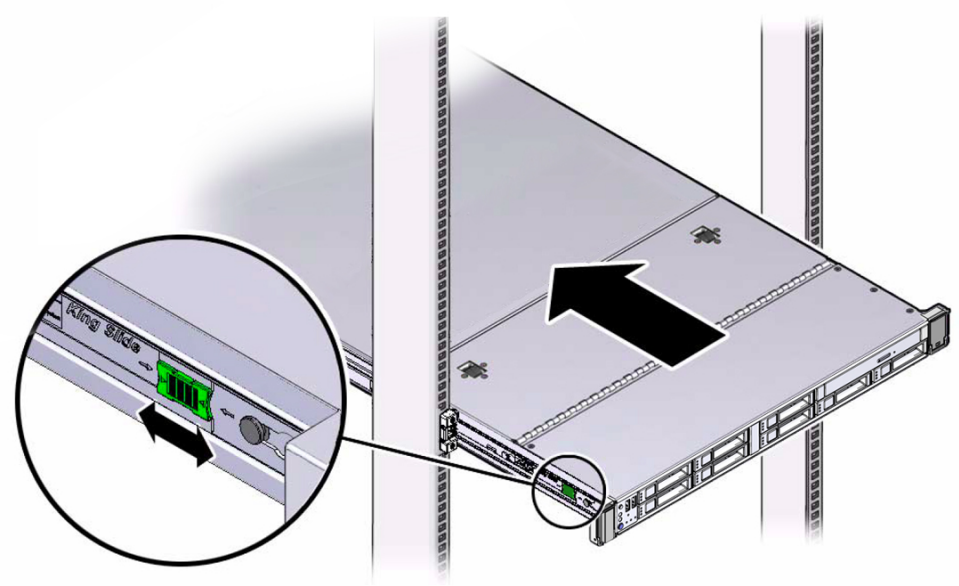
d. **Verify that the CMA extends fully with the slide-rails.**



13. **Return the server to the rack.**

    a. **Simultaneously pull and hold the two green release tabs (one on each side of the server) toward the front of the server while you push the server into the rack. As you push the server into the rack, verify that the CMA retracts without binding.**

Note - To pull the green release tabs, place your finger in the center of each tab, not on the end, and apply pressure as you pull the tab toward the front of the server.



b. Continue pushing the server into the rack until the slide-rail locks (on the front of the server) engage the slide-rail assemblies.

You will hear an audible click when the server is in the normal rack position.

14. Connect cables to the server, as required.

Instructions for connecting the server cables are provided in "Cabling the Server" on page 51.

15. Open the CMA cable covers, route server cables through the CMA's cable troughs, close the cable covers, and secure the cables with the six Velcro straps.

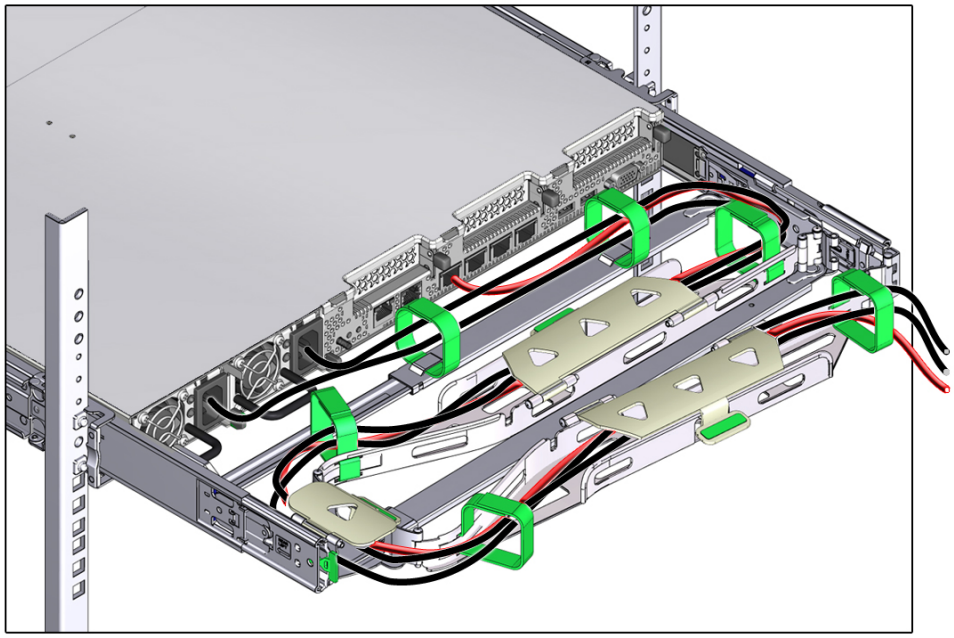
Route the cables through the cable troughs in this order:

a. First through the front-most cable trough

b. Then through the small cable trough

c. Then through the rear-most cable trough

Note - When securing the cables with the Velcro straps located on the front slide bar, ensure that the Velcro straps do not wrap around the bottom of the slide bar, otherwise, expansion and contraction of the slide bar might be hindered when the server is extended from the rack and returned to the rack.



16. Ensure that the secured cables do not extend above the top or below the bottom of the server to which they are attached, otherwise, the cables might snag on other equipment installed in the rack when the server is extended from the rack or returned to the rack.

Note - If necessary, bundle the cables with additional Velcro straps to ensure that they stay clear of other equipment. If you need to install additional Velcro straps, wrap the straps around the cables only, not around any of the CMA components, otherwise, expansion and contraction of the CMA slide bars might be hindered when the server is extended from the rack and returned to the rack.

Cabling the Server

These tasks describe how to connect and configure the network and serial ports before you attempt to boot the server.

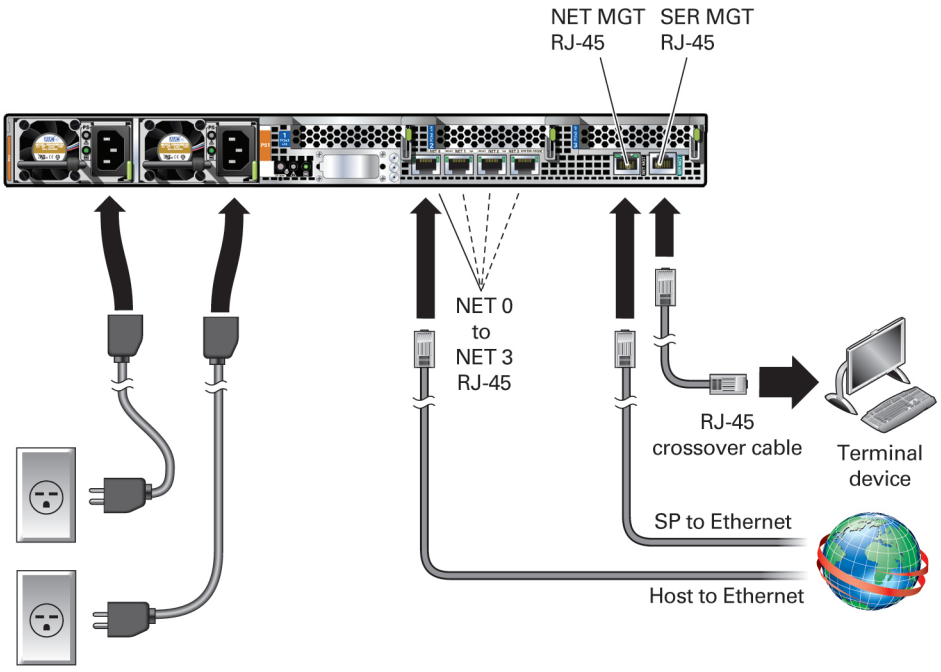
Description	Links
Review connector port locations and cable information.	“Rear Cable Connections and Ports” on page 51
Use this information to create a crossover connection to the SER MGT port.	“SER MGT Port Pinout” on page 53
Connect data cables and power cords to the server.	“Connect Server Cables” on page 55

Related Information

- “Installing the Server” on page 25
- “Powering On the Server for the First Time” on page 57

Rear Cable Connections and Ports

The following figure shows the locations of cable connectors and ports on the back of the SPARC S7-2 and the cables and devices that you would typically connect to them.



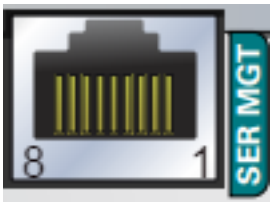
Cable Port or Expansion Slot	Description
Power supply 0 input power	The server has two power supply connectors, one for each power supply.
Power supply 1 input power	Do not attach power cables to any installed power supplies until you have finished connecting the data cables to the server. The server goes into standby power mode and the Oracle ILOM service processor initializes when the AC power cables are connected to the power source. Important system messages may be lost if AC power cables are connected and the server has not yet been connected to a terminal, PC, or workstation. **Note -** Oracle ILOM will signal a fault on any installed power supply that is not connected to an AC power source, since it might indicate a loss of redundancy.
Ethernet ports (0-3)	The four 10-Gigabit Ethernet ports enable you to connect the system to the network. To achieve 10-GbE network speeds, use Category 6A (or better) cables and network devices that support 10GBASE-T networks.
Network management port (NET MGT)	The service processor NET MGT port is the optional connection to the Oracle ILOM service processor. The NET MGT port is configured by default to use Dynamic Host Configuration Protocol (DHCP). The service processor NET MGT port uses an RJ-45 cable for a 10/100/1000BASE-T connection.
Serial management port (SER MGT)	The service processor SER MGT port uses an RJ-45 cable and is the default connection to the Oracle ILOM service processor. This port supports local connections to the server and only recognizes Oracle ILOM command-line interface (CLI) commands. Typically you connect a terminal or a terminal emulator to this port. See “SER MGT Port Pinout” on page 53 to use a crossover cable or adapter for this connection.

Related Information

- “SER MGT Port Pinout” on page 53
- “Connect Server Cables” on page 55

SER MGT Port Pinout

The SER MGT RJ-45 port, located on the rear panel, provides an TIA/EIA-232 serial Oracle/Cisco standard connection to the SP. This port is the default connection to the Oracle ILOM system controller. For DTE to DTE communications, use an RJ-45 cable that is set up for a null modem configuration, in which the transmit and receive signals cross over. You can use a crossover adapter with a standard RJ-45 cable to achieve the required null modem configuration. See “Rear Panel Components (Installation)” on page 13.

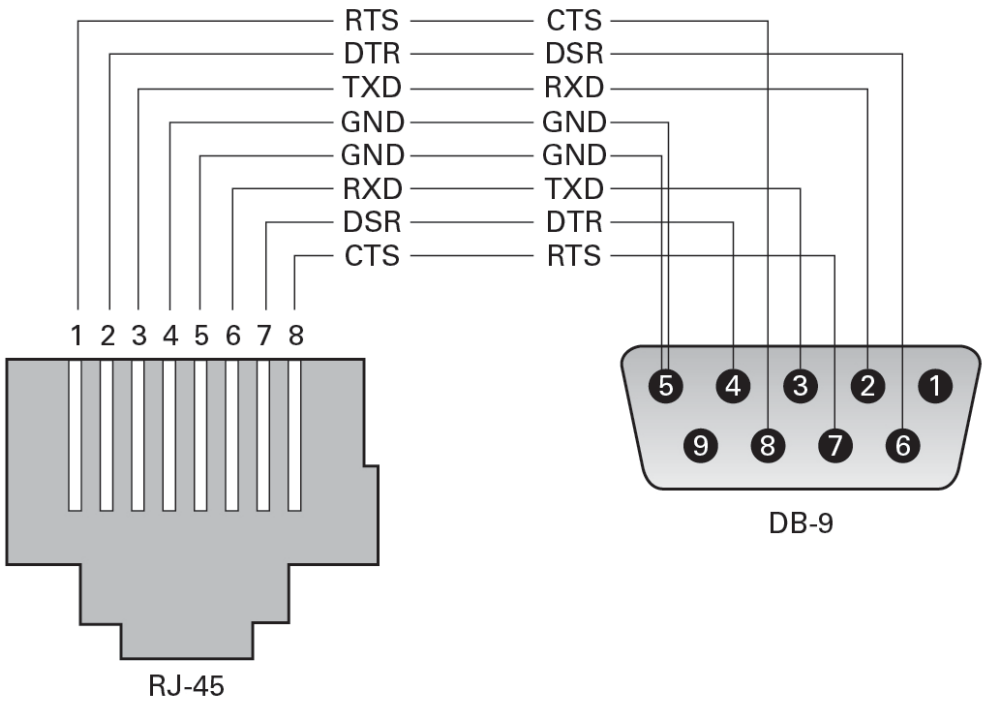


RJ-45 Crossover Pinouts

Use this table to identify the appropriate crossover cable or adapter. In this table, the RJ-45 column represents the connector on the system and the DB-9 and DB-25 columns refer to the connector on the terminal side.

	Server Side	Terminal Side		
Signal	**Console Port (DTE) RJ-45**	**Adapter DB-9 Pin**	**Adapter DB-25 Pin**	**Signal**
RTS	1	8	5	CTS
DTR	2	6	6	DSR
TxD	3	2	3	RxD
Ground	4	5	7	Ground
Ground	5	5	7	Ground
RxD	6	3	2	TxD
DSR	7	4	20	DTR
CTS	8	7	4	RTS

This example shows a diagram of an RJ-45 to DB-9 conversion.



Related Information

- “Rear Cable Connections and Ports” on page 51
- “Connect Server Cables” on page 55

▼ Connect Server Cables

1. **Observe all safety requirements and prepare for installation.**
   See “Preparing for Installation” on page 21.
2. **Gather required network information.**
   - Netmask
   - IP address for the SP
   - Gateway IP address

3. **Connect a terminal or a terminal emulator (PC or workstation) to the server SER MGT port.**

   A null modem configuration is needed, meaning the transmit and receive signals are reversed (crossed over) for DTE to DTE communications. You can use an RJ-45 crossover adapter with a standard RJ-45 cable to achieve the null modem configuration. See "SER MGT Port Pinout" on page 53.

4. **Configure a terminal or terminal emulator with these settings:**

   - 9600 baud
   - 8 bits
   - No parity
   - 1 Stop bit
   - No handshake

5. **(Optional) Connect an Ethernet cable between the server's NET MGT port and the network to which future connections to the SP and host will be made.**

   Configure the system for the first time through the SER MGT port. After the initial configuration, you can set up communication between the SP and host through this Ethernet interface.

6. **Connect an Ethernet cable between one of the server's NET ports and the network to which the server will communicate.**

7. **Connect the power cords to the power supplies and to separate power sources.**

   Note - Make a serial connection to the SP prior to plugging in the power cords. After making this serial connection, you will be able to view the system messages when you connect the power cords.

   When the power cords are connected, the SP initializes and the power supply LEDs illuminate. After a few minutes, the SP login prompt is displayed on the terminal device. At this time, the host is not initialized or powered on.

8. **Continue with the installation by powering on the server for the first time.**

   See "Power on the Server for the First Time" on page 57.

Related Information

- "Configure the Preinstalled Oracle Solaris OS" on page 60
- "Reach a State to Install a Fresh OS (Oracle ILOM CLI)" on page 61
- "Reach a State to Install a Fresh OS (Oracle ILOM Web Interface)" on page 63

Powering On the Server for the First Time

These sections include instructions for powering on the server for the first time and configuring the OS.

Step	Description	Links
1.	Power on the server and start the Oracle ILOM system console.	"Power on the Server for the First Time" on page 57 or "Configure the Preinstalled Oracle Solaris OS" on page 60
2.	Configure the preinstalled OS, or install a fresh OS.	"Configure the Preinstalled Oracle Solaris OS" on page 60 or "Reach a State to Install a Fresh OS (Oracle ILOM Web Interface)" on page 63
3. (Optional)	Configure the NET MGT port to use a static IP address.	"Assign a Static IP Address to the NET MGT Port" on page 67

Related Information

- "Preparing for Installation" on page 21
- "Installing the Server" on page 25
- "Cabling the Server" on page 51

▼ Power on the Server for the First Time

1. **At the terminal device, log in to the SP as `root` with a password of `changeme`.**

```
login: root
Password: changeme
. . .
->
```

After a brief delay, the Oracle ILOM prompt is displayed (`->`).

Note - The server is provided with a default Administrator account (`root`) and a default password (`changeme`) to enable first-time login and access to Oracle ILOM. To build a secure environment, you must change the default password of the default Administrator account as soon as possible after your initial login to Oracle ILOM. If you find this default Administrator account has already been changed, contact your system administrator to obtain an Oracle ILOM user account with Administrator privileges.

For more information about the administration tasks such as changing passwords, adding accounts, and setting account privileges, refer to the Oracle ILOM documentation.

Note - By default, the SP is configured to use DHCP to obtain an IP address. If you plan to assign a static IP address to the SP, see "Assign a Static IP Address to the NET MGT Port" on page 67 for more instructions.

2. **Power on the server using one of the following methods:**

   - **Press the power button.**
   - **At the Oracle ILOM prompt, type:**

```
-> start /System
Are you sure you want to start /System (y/n)? y
```

The server initialization might take several minutes to complete.

Note - In Oracle ILOM 3.1 and later, the name space for `/SYS` was replaced with `/System`. You can use the legacy name in a command at any time, but to expose the legacy name in the output, you must enable it with `-> set /SP/cli legacy_targets=enabled`. For more information, see the Oracle ILOM documentation.

3. **(Optional) Redirect the host output to display on the serial terminal device.**

```
-> start /HOST/console
Are you sure you want to start /HOST/console (y/n)? y
Serial console started.
. . .
```

4. **(Optional) You can execute other Oracle ILOM commands while the server initializes.**

a. **To display the Oracle ILOM prompt, press the #. (Hash+Dot) keys.**

b. **To see information about available Oracle ILOM commands, type:** `help`
To see information about a specific command, type help command-name

c. **To return to displaying host output from the server initialization, type:**

```
-> start /HOST/console
```

5. **Continue with the installation by installing the OS.**
See “Configure the Preinstalled Oracle Solaris OS” on page 60.

Related Information

- “Connect Server Cables” on page 55
- “Oracle ILOM System Console” on page 59
- “Configure the Preinstalled Oracle Solaris OS” on page 60
- “Reach a State to Install a Fresh OS (Oracle ILOM CLI)” on page 61
- “Reach a State to Install a Fresh OS (Oracle ILOM Web Interface)” on page 63

Oracle ILOM System Console

When you power on the system, the boot process begins under the control of the Oracle ILOM system console. The system console displays status and error messages generated by firmware-based tests that are run during system startup.

Note - To see these status and error messages, connect a terminal or terminal emulator to the SER MGT before applying power to the server.

After the system console finishes its low-level system diagnostics, the SP initializes and runs a suite of higher level diagnostics. When you access the SP using a device connected to the SER MGT port, you see the output of the Oracle ILOM diagnostics.

By default, the SP configures the NET MGT port automatically, retrieving network configuration settings using DHCP and allowing connections using SSH.

For a more detailed discussion on configuring the system console and connecting terminals, refer to the administration guide for your server.

Related Information

- Oracle ILOM documentation
- “Configure the Preinstalled Oracle Solaris OS” on page 60
- “Reach a State to Install a Fresh OS (Oracle ILOM CLI)” on page 61
- “Reach a State to Install a Fresh OS (Oracle ILOM Web Interface)” on page 63
- “Assign a Static IP Address to the NET MGT Port” on page 67

Installing the OS

Use these topics to either configure the preinstalled OS or use an alternative OS. To use another method to install Oracle Solaris, see *Installing Oracle Solaris 11.3 Systems* at: `https://docs.oracle.com/cd/E53394_01/html/E54756/index.html`.

- “Configure the Preinstalled Oracle Solaris OS” on page 60
- “Reach a State to Install a Fresh OS (Oracle ILOM CLI)” on page 61
- “Reach a State to Install a Fresh OS (Oracle ILOM Web Interface)” on page 63

▼ Configure the Preinstalled Oracle Solaris OS

1. **When prompted, follow the onscreen instructions for configuring the Oracle Solaris OS on your host.**

   When configuring the Oracle Solaris OS, you will be prompted for the following configuration parameters. If you are not sure how to respond to a particular value, you can accept the default, and make future changes when the Oracle Solaris OS is running. For more information about these settings, refer to the Oracle Solaris documentation.

Parameter	Description
Language	Select a number from the displayed language list.
Locale	Select a number from the displayed locale list.
Terminal Type	Select a terminal type that corresponds with your terminal device.
Network?	Select Yes.
Multiple Network Interfaces	Select the network interfaces that you plan to configure. If you are not sure, select the first one in the list.
DHCP?	Select Yes or No according to your network environment.
Host Name	Type the host name for the server.

Parameter	Description
IP Address	Type the IP address for this Ethernet interface.
Subnet?	Select Yes or No according to your network environment.
Subnet Netmask	If your answer to Subnet? was Yes, type the netmask for the subnet for your network environment.
IPv6?	Specify whether or not to use IPv6. If you are not sure, select No to configure the Ethernet interface for IPv4.
Security Policy	Select either standard UNIX security (No) or Kerberos Security (Yes). If you are not sure, select No.
Confirm	Review the onscreen information and change it if needed. Otherwise, continue.
Name Service	Select the name service according to your network environment. If you select a name service other than None, you will be prompted for additional name service configuration information.
NFSv4 Domain Name	Select the type of domain name configuration according to your environment. If you are not sure, select `Use the NFSv4 domain derived by the system`.
Time Zone (Continent)	Select your continent.
Time Zone (Country or Region)	Select your country or region.
Time Zone	Select the time zone.
Date and Time	Accept the default date and time, or change the values.
root Password	Type the `root` password twice. This password is for the superuser account for the Oracle Solaris OS on this server. This password is not the SP password.

2. **Log in to the server.**

   You can now enter Oracle Solaris OS commands at the prompt. For more details, refer to the Oracle Solaris 11 OS man pages and documentation at:

   `http://www.oracle.com/goto/solaris11/docs`

Related Information

- "Power on the Server for the First Time" on page 57

▼ Reach a State to Install a Fresh OS (Oracle ILOM CLI)

If you do not plan to use the preinstalled OS, use this procedure to prevent the server from booting from the preinstalled OS.

1. **Prepare the appropriate boot media according to your installation method.**

   There are many methods by which you can install the OS. For example, you can boot and install the OS from USB media or from another server on the network.

For more information about the methods, refer to these Oracle Solaris document sections:

- *Installing Oracle Solaris 11 Systems*, comparing installation options at:

  `http://www.oracle.com/goto/solaris11/docs`
- *Oracle Solaris 10 Installation Guide: Planning for Installation and Upgrade*, choosing an Oracle Solaris installation method at:

  `http://www.oracle.com/goto/solaris10/docs`

2. **From Oracle ILOM, set the OpenBoot `auto-boot?` parameter to `false`.**

```
-> set /HOST/bootmode script="setenv auto-boot? false"
```

This setting prevents the server from booting from the preinstalled OS. When you use `bootmode`, the change applies only to a single boot and expires in 10 minutes if the power on the host is not reset.

3. **When you are ready to initiate the OS installation, reset the host.**

```
-> reset /System
Are you sure you want to reset /System (y/n)? y
Performing reset on /System
```

Note - In Oracle ILOM 3.1, the name space for `/SYS` was replaced with `/System`. You can use the legacy name in a command at any time, but to expose the legacy name in the output, you must enable it with `-> set /SP/cli legacy_targets=enabled`. For more information, see the Oracle ILOM 3.1 documentation.

4. **Switch communication to the server host.**

```
-> start /HOST/console
Are you sure you want to start /HOST/console (y/n)? y
Serial console started. To stop, type #.
```

The server might take several minutes to complete POST, and then the OpenBoot prompt (`ok`) is displayed.

5. **Boot from the appropriate boot media for your installation method.**

For more information, refer to the Oracle Solaris installation guide that corresponds to your desired release and installation method.

Installing Oracle Solaris 11 Systems, comparing installation options at:

http://www.oracle.com/goto/solaris11/docs

For a list of valid boot commands that you can enter at the OpenBoot prompt, type:

```
{0} ok help boot
boot <specifier>  ( -- )    boot kernel ( default ) or other file
  Examples:
    boot                    - boot kernel from default device.
                              Factory default is to boot
                              from DISK if present, otherwise from NET.
    boot net                - boot kernel from network
    boot cdrom              - boot kernel from CD-ROM
    boot disk1:h            - boot from disk1 partition h
    boot tape               - boot default file from tape
    boot disk myunix -as    - boot myunix from disk with flags "-as"
dload <filename>  ( addr -- )     debug load of file over network at address
  Examples:
     4000 dload /export/root/foo/test
     ?go        - if executable program, execute it
                  or if Forth program, compile it
```

Related Information

- “Configure the Preinstalled Oracle Solaris OS” on page 60
- “Reach a State to Install a Fresh OS (Oracle ILOM CLI)” on page 61
- “Reach a State to Install a Fresh OS (Oracle ILOM Web Interface)” on page 63
- “Assign a Static IP Address to the NET MGT Port” on page 67

▼ Reach a State to Install a Fresh OS (Oracle ILOM Web Interface)

If you do not plan to use the preinstalled OS, use this procedure to prevent the server from booting from the preinstalled OS.

1. **Prepare the appropriate boot media according to your installation method.**
   There are many methods by which you can install the OS. For example, you can boot and install the OS from USB media or from another server on the network.
   For more information about the methods, refer to *Installing Oracle Solaris 11 Systems*, comparing installation options at:
   http://www.oracle.com/goto/solaris11/docs

2. **If you have not done so, perform these tasks to access the Oracle ILOM web interface on the server:**

   a. **In a browser on the same network as the system, type the IP address.**

   b. **Log in to Oracle ILOM by typing your user name and password.**

3. **In the Oracle ILOM web interface, in the left navigation pane, choose Host Management > Host Boot Mode.**

   The Host Boot Mode page is displayed.

4. **Apply these changes to the Host Boot Mode Settings:**

   a. **For State, select: Reset NVRAM.**

      This setting applies a one-time NVRAM (OpenBoot) resulting in all of the OpenBoot variables being reset to their default values after the next host reset. Setting state to `reset_nvram` has a ten minute expiration time, if the HOST is not reset within 10 minutes after setting state to NVRAM, the setting will expire and return to normal.

   b. **For Script, type:** `setenv auto-boot? false`

      This setting configures the host to stop at the `ok` prompt instead of automatically booting the preinstalled OS.

   c. **Click Save.**

   Note - You have 10 minutes to perform the next step. After 10 minutes, the state is automatically returned to normal.

5. **In the left navigation panel, click on Host Management > Power Control.**

6. **Select Reset from the pull-down menu, and click Save.**

7. **In the left navigation panel, click on Remote Control > Redirection.**

8. **Click Launch Remote Console.**

   As the host resets, messages are displayed in the serial console. The reset activity takes a few minutes to complete. When the `ok` prompt is displayed, continue to the next step.

9. **At the `ok` prompt, boot from the appropriate boot media for your installation method.**

For more information, refer to the Oracle Solaris installation guide that corresponds to your desired release and installation method.

Installing Oracle Solaris 11 Systems, comparing installation options at:

http://www.oracle.com/goto/solaris11/docs

For a list of valid boot commands that you can enter at the OpenBoot prompt, type:

```
{0} ok help boot
boot <specifier>  ( -- )    boot kernel ( default ) or other file
  Examples:
    boot                    - boot kernel from default device.
                              Factory default is to boot
                              from DISK if present, otherwise from NET.
    boot net                - boot kernel from network
    boot cdrom              - boot kernel from CD-ROM
    boot disk1:h            - boot from disk1 partition h
    boot tape               - boot default file from tape
    boot disk myunix -as    - boot myunix from disk with flags "-as"
dload <filename>  ( addr -- )     debug load of file over network at address
  Examples:
     4000 dload /export/root/foo/test
     ?go        - if executable program, execute it
                  or if Forth program, compile it
```

Related Information

- “Configure the Preinstalled Oracle Solaris OS” on page 60
- “Reach a State to Install a Fresh OS (Oracle ILOM CLI)” on page 61
- “Reach a State to Install a Fresh OS (Oracle ILOM Web Interface)” on page 63
- “Assign a Static IP Address to the NET MGT Port” on page 67

Assigning a Static IP Address to the SP

If your network does *not* use DHCP, the NET MGT port is not operational until you configure network settings for the service processor.

Note - If you are unable to use DHCP on your network, you must connect to the Oracle ILOM on the SP using the SER MGT port to configure the NET MGT port for your network. See “Assign a Static IP Address to the NET MGT Port” on page 67.

- “Log In to the SP (SER MGT Port)” on page 66

- “Assign a Static IP Address to the NET MGT Port” on page 67

Related Information

- “Oracle ILOM System Console” on page 59
- “Log In to the SP (SER MGT Port)” on page 66

▼ Log In to the SP (SER MGT Port)

After the SP boots, access the Oracle ILOM CLI to configure and manage the server. The Oracle ILOM CLI prompt (`->`) is displayed the first time the SP is booted. The default configuration provides an Oracle ILOM CLI `root` user account. The default `root` password is `changeme`. Change the password using the Oracle ILOM CLI password command.

Note - The server is provided with a default Administrator account (`root`) and a default password (`changeme`) to enable first-time login and access to Oracle ILOM. To build a secure environment, you must change the default password of the default Administrator account as soon as possible after your initial login to Oracle ILOM. If you find this default Administrator account has already been changed, contact your system administrator to obtain an Oracle ILOM user account with Administrator privileges.

---

1. **If this is the first time the server has been powered on, use the `password` command to change the `root` password.**

```
hostname login: root
Password:
Last login: Mon Feb 18 16:53:14 GMT 2016 on ttyS0
Detecting screen size; please wait...done

Oracle(R) Integrated Lights Out Manager

Version 3.2.x.x rxxxxx

Copyright (c) 2016, Oracle and/or its affiliates. All rights reserved.
Warning: password is set to factory default.

-> set /SP/users/root password
Enter new password: ********
Enter new password again: ********

->
```

Note - After the `root` password has been set, on subsequent reboots, the Oracle ILOM CLI login prompt is displayed.

2. **Use the new password for all subsequent `root` log ins.**

Related Information

- *Server Administration*
- Oracle ILOM documentation

▼ Assign a Static IP Address to the NET MGT Port

If you plan to connect to the SP through its NET MGT port, the SP must have a valid IP address.

By default, the server is configured to obtain an IP address from DHCP services in your network. If the network your server is connected to does not support DHCP for IP addressing, perform this procedure.

Note - To configure the server to support DHCP, refer to the Oracle ILOM documentation.

1. **Set the SP to accept a static IP address.**

```
->set /SP/network pendingipdiscovery=static
Set 'pendingipdiscovery' to 'static'
```

2. **Set the IP address for the SP.**

   a. **To change the default IPv4 DHCP property and set property values for a static IPv4 address, type:**

```
->set /SP/network pendingipaddress=IPv4-address
Set 'pendingipaddress' to 'IPv4-address'
```

   b. **To change the default IPv6 DHCP property and set property values for a static IPv6 address, type:**

```
->set /SP/network/ipv6 pending_static_ipaddress=IPv6-IP-address
Set 'pendingipaddress' to 'IPv6-IP-address'
```

3. **Commit the changes to the IP address.**

```
-> set /SP/network commitpending=true
Set 'commitpending' to 'true'
```

4. **Set the netmask for the SP.**

```
-> set /SP/network pendingipnetmask=255.255.255.0
Set 'pendingipnetmask' to '255.255.255.0'
```

This example uses **255.255.255.0** to set the netmask. Your network environment subnet might require a different netmask. Use a netmask number most appropriate to your environment.

5. **Verify that the parameters were set correctly.**

This example shows parameters that have been set to convert a SP from a DHCP configuration to a static configuration.

```
-> show /SP/network -display properties
  /SP/network
     Targets:
     Properties:
        commitpending = (Cannot show property)
        dhcp_clientid = xxx.xxx.xxx.xxx
        dhcp_server_ip = xxx.xxx.xxx.xxx
       ipaddress = xxx.xxx.xxx.xxx
       ipdiscovery = dhcp
       ipgateway = xxx.xxx.xxx.xxx
       ipnetmask = 255.255.255.0
       macaddress = xx:xx:xx:xx:xx:xx
       managementport = MGMT
       outofbandmacaddress = xx:xx:xx:xx:xx:xx
       pendingipaddress = service-processor-IPaddr
       pendingipdiscovery = static
       pendingipgateway = gateway-IPaddr
       pendingipnetmask = 255.255.255.0
       pendingmanagementport = MGMT
       sidebandmacaddress = xx:xx:xx:xx:xx:xx
       state = enabled
->
```

6. **Set the changes to the SP network parameters.**

```
-> set /SP/network commitpending=true
Set 'commitpending' to 'true'
```

Note - You can type the `show /SP/network` command again to verify that the parameters have been updated.

7. **Set the static IP address when you configure the Oracle Solaris OS.**

   See "Configure the Preinstalled Oracle Solaris OS" on page 60.

Related Information

- *Server Administration*
- "Configure the Preinstalled Oracle Solaris OS" on page 60
- "Reach a State to Install a Fresh OS (Oracle ILOM CLI)" on page 61
- "Reach a State to Install a Fresh OS (Oracle ILOM Web Interface)" on page 63
- Oracle ILOM documentation

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