Sun SPARC® Enterprise M4000/M5000 Servers Product Notes

For XCP Version 1050

Sun Microsystems, Inc.
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Contents

Preface

These Product Notes contain important and late-breaking information about the Sun SPARC® Enterprise M4000/M5000 servers hardware, software, and documentation that became known after the documentation set was published.

Technical Support

If you have technical questions or issues that are not addressed in the Sun SPARC Enterprise M4000/M5000 servers documentation, contact your local Sun Service representative.

For customers in the U.S. or Canada, call 1-800-USA-4SUN (1-800-872-4786). For customers in the rest of the world, find the World Wide Solution Center nearest you by visiting the following web site:

http://www.sun.com/service/contacting/solution.html/

Software Resources

The Solaris™ Operating System and Sun Java™ Enterprise System software are preinstalled on your Sun SPARC Enterprise M4000/M5000 servers.

Obtaining the Latest Patches

The mandatory Solaris patches for the SPARC Enterprise M4000/M5000 servers should be preinstalled on your system. See "Solaris Patch Information" on page 2 for the list of patches.

Note – Patches 123003-03 and 124171-06 must be installed on your system prior to using Sun Connection Update Manager. These patches can be downloaded from `http://sunsolve.sun.com/` if needed.

The Sun Connection Update Manager can be used to reinstall the patches if necessary or to update the system with the latest set of mandatory patches. Information about the Sun Connection Update Manager is available in the *Sun Update Connection System 1.0.8 Administration Guide*:

`http://docs.sun.com/app/docs/doc/819-4687`

There are two options available to register your system and use the Sun Connection Update Manager to obtain the latest Solaris OS patches. Installation information and README files are included in the patch download.

- "Using the `smpatch` CLI to Obtain Patches" on page viii
- "Using the Update Manager GUI to Obtain Patches" on page x.

Using the `smpatch` CLI to Obtain Patches

1. **Copy the file `/usr/lib/breg/data/RegistrationProfile.properties` to your `/tmp` directory.**
2. **Edit the file `/tmp/RegistrationProfile.properties` to add your user name, password, and if necessary, a network proxy.**
3. **Register your system by typing the command:**

```
# sconadm register -a -r /tmp/RegistrationProfile.properties
```

4. **Obtain the correct patches for your system by typing the command:**

```
# smpatch set patchpro.patchset=sem4k5k8k9k
```

5. **Install the patch, as follows.**

   This patch can be downloaded through the Sun Connection Update Manager.

a. **Download the patch to your** `/var/sadm/spool` **directory by typing:**

```
# smpatch update -i xxxxxx-xx
```

b. **To unzip the patch, type:**

```
# cd /var/sadm/spool
# unzip xxxxxx-xx.jar
```

c. **To install the patch, follow the special installation instructions in the file** `/var/sadm/spool/`*xxxxxx-xx*`/README.`*xxxxxx-xx*.

6. **After installing the patch, you might be required to restart the system.**
   - If no restart is necessary, proceed to Step 7.
   - If it is necessary to restart the system, use either the `init` command or the `shutdown` command.

```
# init 6
```

```
# shutdown -i6
```

Note – The `reboot` command does not complete installations of patches that require a restart.

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7. **Display a list of patches to be installed by typing the command:**

```
# smpatch analyse
```

8. **Download and install the patches by typing the command:**

```
# smpatch update
```

9. **If any of the patches requires a system restart, see** Step 6.

   The patch installation is now complete.

Using the Update Manager GUI to Obtain Patches

1. **Copy the file** `/usr/lib/breg/data/RegistrationProfile.properties` **to your** `/tmp` **directory.**

2. **Edit the file** `/tmp/RegistrationProfile.properties` **to add your user name, password, and if necessary, a network proxy.**

3. **Register your system by typing the command:**

```
# sconadm register -a -r /tmp/RegistrationProfile.properties
```

4. **Launch the Update Manager:**

```
# /usr/bin/updatemanager
```

5. **In the Available tab in the Update Manager, open the dropdown menu and select** *Sun SPARC(R) Enterprise M4000/M5000/M8000/M9000 Servers* **from the Update Collection.**

   Update Manager will analyze your system for any patches that are needed.

6. **If patch** *xxxxxx-xx* **is recommended, select it by clicking the box to the left of the patch ID, then click the** `Install` **button.**

   The patch will be downloaded to `/var/sadm/spool`.

7. **Continue by typing:**

```
# cd /var/sadm/spool
# unzip xxxxxx-xx.jar
```

8. **Follow the installation instructions in the file** `/var/sadm/spool/`*xxxxxx-xx*`/README.`*xxxxxx-xx*.

9. **After installing** *xxxxxx-xx*, **you might be required to restart the system.**

   Follow the instructions in Update Manager for restarting, or use the shutdown or init commands:

```
# init 6
```

```
# shutdown -i6
```

Note – The `reboot` command does not complete installations of patches that require a restart. Use either the Update Manager, the `init` command, or the `shutdown` command instead.

10. **Launch the Update Manager again, and select the Enterprise Server collection.**
11. **If the Update Manager does not automatically start a new analysis, click the `Check for Updates` button.**
12. **Select any patches that are listed by checking the boxes to the left of the patch IDs.**
13. **Click the `Install` button.**

    Update Manager will download and install the patches.
14. **If any of the patches requires a system restart, see** Step 9**.**

    The patch installation is now complete.

Additional Information

For additional information, read the release notes which come with your Solaris documentation, as well as the latest *Solaris 10 Sun Hardware Platform Guide*. Also, check the documentation web page for any additional supplements to this book. The most up-to-date information is posted at:

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

Accessing Documentation

Instructions for installing, administering, and using your servers are provided in the Sun SPARC Enterprise M4000/M5000 servers documentation set. The entire documentation set is available for download from the following web site:

http://www.sun.com/documentation/

Note – Information in these product notes supersedes the information in the Sun SPARC Enterprise M4000/M5000 servers documentation set.

Solaris Operating System (Solaris OS) documentation is located at:

http://www.sun.com/documentation/

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http://www.sun.com/hwdocs/feedback/

Please include the title and part number of your document with your feedback:

Sun SPARC Enterprise M4000/M5000 Servers Product Notes for XCP Version 1050, part number 820-2853-11

Sun SPARC Enterprise M4000/M5000 Servers Product Notes

This document includes these sections:

Supported Firmware and Software Versions

The following firmware and software versions are supported in this release:

- XSCF Control Package (XCP) 1050 or later is preinstalled in your server.
- The first version of the Solaris™ Operating System (OS) to support these servers is the Solaris 10 11/06 OS.

Caution – CR ID 6534471: The system might panic or trap during a normal operation. This bug has been fixed in Solaris 10 8/07. For systems running Solaris 10 11/06, you can upgrade to Solaris 10 8/07 or apply patch 120011-08. This CR is listed in the section, "Solaris Issues and Workarounds" on page 18.

- This XCP release supports the Sun External I/O Expansion Unit.
- This XCP release supports the Capacity On Demand (COD) feature.

Note – All Sun SPARC Enterprise M4000/M5000 servers must be upgraded to XCP 1050 in order to support adding future COD Right To Use (RTU) licenses. Contact your local Service Representative for assistance.

If you plan to boot your Sun SPARC Enterprise M4000/M5000 server from a Solaris WAN boot server on the network, you must upgrade the `wanboot` executable. See "Booting From a WAN Boot Server" on page 28 for details.

Note – For the latest information on supported firmware and software versions, see "Software Resources" on page vii.

Solaris Patch Information

The following patches are mandatory for Sun SPARC Enterprise M4000/M5000 servers running Solaris 10 11/06 OS. These patches are not required for servers running Solaris 10 8/07 OS.

Note – The patches include a revision level, shown as a two-digit suffix. Check SunSolve.Sun.COM for the latest patch revision. See "Software Resources" on page vii for information on how to find the latest patches.

Installing the Solaris Patches

- **Install the patches in the following order:**

1. 118833-36

   After installing patch 118833-36, reboot your domain before proceeding.

2. 125100-08

   Install version 125100-08 at minimum. See the 125100-08 README file for a list of other patch requirements.

3. 123839-07

4. 120068-03

5. 125424-01

6. 118918-24
7. 120222-21
8. 125127-01

   After installing patch 125127-01, reboot your domain before proceeding.

9. 125670-02
10. 125166-05

Known Issues

This section describes known hardware and software issues in this release.

General Functionality Issues and Limitations

Caution – For dynamic reconfiguration (DR) and hot-plug issues, see TABLE 9, "Solaris Issues and Workarounds" on page 18.

- For this XCP release, the XSCF web browser interface, also known as the browser interface (BUI), supports neither the COD nor the External I/O Expansion Unit Manager feature.
- For 1027A-Z/X1027A-Z, PCIe Dual 10 Gigabit Ethernet Fiber XFP cards, these limits apply:
  - Do not use more than two cards per domain.
  - Do not use these cards in an External I/O Expansion Unit.
- For 4447A-Z/X4447A-Z, PCIe Quad-port Gigabit Ethernet Adapter UTP cards, these maximum limits apply:
  - No more than two cards per I/O boat
  - No more than four cards in a Sun SPARC Enterprise M4000 server
  - No more than eight cards in a Sun SPARC Enterprise M5000 server
- You cannot use the following user account names, as they are reserved by the XSCF firmware for system use: `root`, `bin`, `daemon`, `adm`, `operator`, `nobody`, `sshd`, `rpc`, `rpcuser`, `ldap`, `apache`, `ntp`, `admin`, and `default`.

Hardware Installation and Service Issues

This section describes hardware-specific issues and workarounds.

Specific Issues and Workarounds

TABLE 1 lists known issues for which a defect change request ID has been assigned. The table also lists possible workarounds.

TABLE 1 Hardware Issues and Workarounds

CR ID	Description	Workaround
6433420	The domain console might display a Mailbox timeout or IOCB interrupt timeout error during boot.	Issue a `reset-all` command from the OBP (`OK`) prompt and reboot.
6488846	During boot, the domain console might display a checksum error for the SG(X)PCI2SCSIU320-Z SCSI controller I/O card.	Check for the availability of the latest controller card firmware.
6498780	On the Sun SPARC Enterprise M4000/M5000 servers, the OpenBoot™ PROM (OBP) might not detect the on-board disk (HDD) boot device. Performing a `boot disk` results in a console message: `Can't locate boot device`	The PCI or PCI-X plug-in adapter card might not be seated correctly. Reseat the card in slot 0 of the IOU.

U320 PCIe SCSI Card

U320 PCIe SCSI card, part numbers 375-3357-01/02, is not supported in PCI cassettes for Sun SPARC Enterprise M4000/M5000 servers. Customers must use 375-3357-03 or later.

DIMM Replacement

DIMMs are cold FRU replacement components. The entire server must be powered off and the power cords disconnected to replace the DIMMs.

You can mount up to 4 memory boards on the Sun SPARC Enterprise M4000 server and up to 8 memory boards on the Sun SPARC Enterprise M5000 server. The DIMMs on the memory board are grouped into group A and group B.

DIMM mounting rules:

- Four(4) DIMMs per group can be mounted.
- Capacity of the DIMMs in group A must be equal to or larger than the capacity of the DIMMs in group B.
- The capacity of the DIMMs in group B must be equal to or less than the capacity of the DIMMs in group A. DIMMs in group B are optional.
- For both groups, DIMMs must be of the same capacity and rank within a group. DIMMs of different capacity cannot be mixed in a group.

Installing the PCI Cassette

The following changes belong in the *Sun SPARC Enterprise M4000/M5000 Servers Service Manual*.

Caution – *Do not force* the PCI cassette into a slot. Doing so can cause damage to the cassette and server.

1. **Align the PCI cassette on the gray plastic guide and install it into the slot.**
2. **Lock the lever into place to seat the cassette.**

Note – As the lever is moved pressure builds up, then just prior to locking into place, the pressure suddenly releases. If the lever locks in place without the pressure release, the card might not be seated correctly. If this happens, remove and reinstall the card.

Note – When you insert the PCI cassette using hot-swap, the cassette is automatically powered on and configured. Check that the power LED on the cassette is *lit* to be certain the cassette is correctly seated.

3. **Connect all cables to the PCI cassette and reconnect the cable management arm, if necessary.**

Attaching End Caps to the Rails

The following information belongs in the *Sun SPARC Enterprise Equipment Rack Mounting Guide.*

After securing the cable management arm (CMA) to the Sun SPARC Enterprise M4000/M5000 server, attach the provided end caps to the rails.

1. **Secure the CMA to the server.**

   Refer to the *Sun SPARC Enterprise Equipment Rack Mounting Guide* for information on installing the CMA to the server.

2. **Attach the end caps onto the slide rails.**
   - For the Sun SPARC Enterprise M4000 server, an end cap is attached to both the right and left rear rails (FIGURE 1).
   - For the Sun SPARC Enterprise M5000 server, both end caps are attached to the rails on the same side to which the CMA is not attached (FIGURE 2).

Note – If the CMA is not used, attach all end caps to the rails of the server. The SPARC Enterprise M4000 server uses two end caps. The SPARC Enterprise M5000 server uses four end caps.

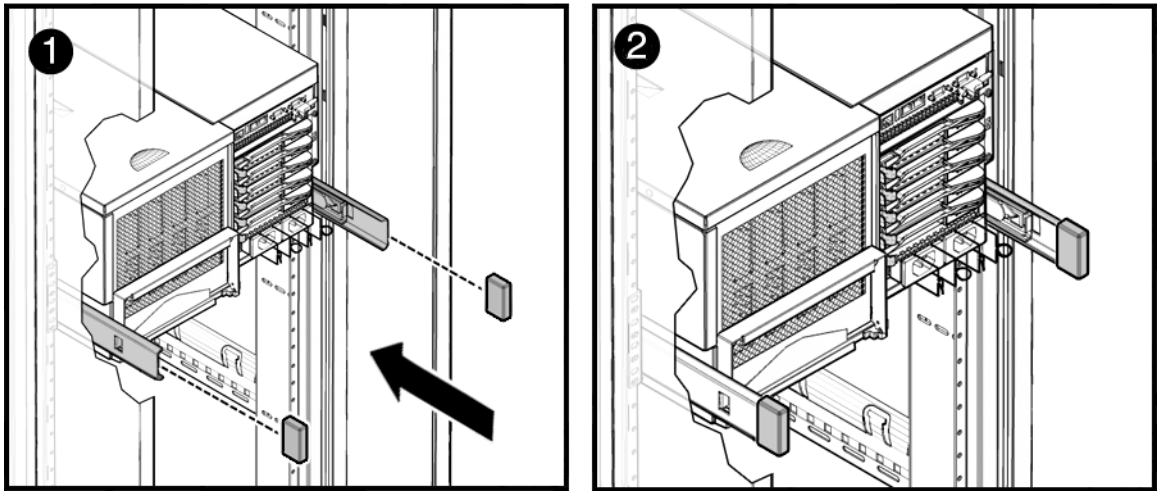

FIGURE 1 Installing End Caps on the Sun SPARC Enterprise M4000 Slide Rails

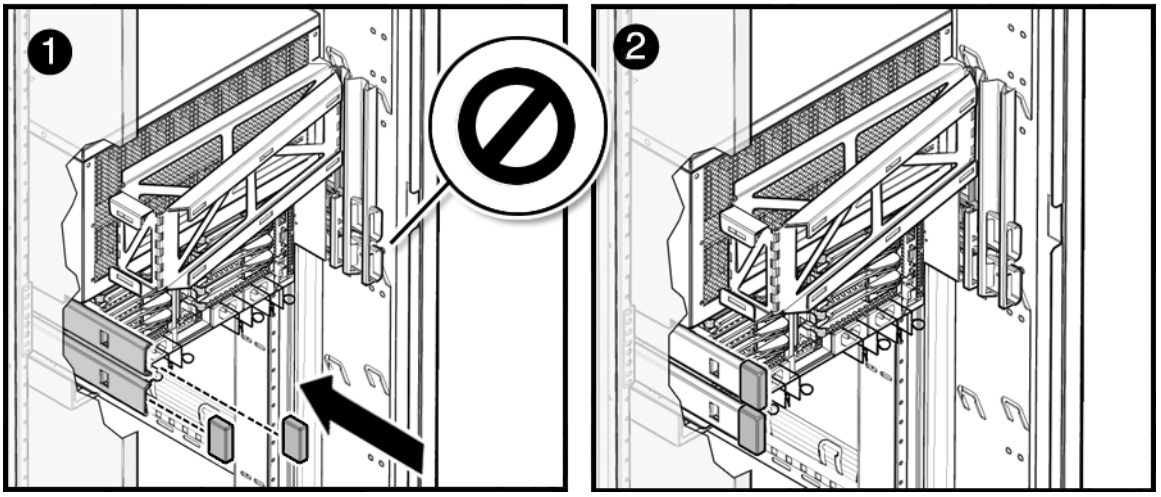

FIGURE 2 Installing End Caps on the Left Rear of the Sun SPARC Enterprise M5000 Slide Rails

3. **Connect the power cables to the rear of the server and secure them with the cable retention clamps.**

Caution – Do not connect the power cables to a power source at this time.

4. **Run the power cables beneath the CMA and secure them in place with tie wraps.**

   The power cables and infiniband cables should hang loosely in a service loop behind the server or the CMA might not be able to fully retract.

Note – If additional attachment points are required to route the cables, install the optional bracket kit. See "Installing the Extra Brackets (Optional)" on page 8.

5. **Ensure that the server can slide in and out of the equipment rack without dislodging the power cables.**

   FIGURE 3 shows how the CMA extends and retracts.

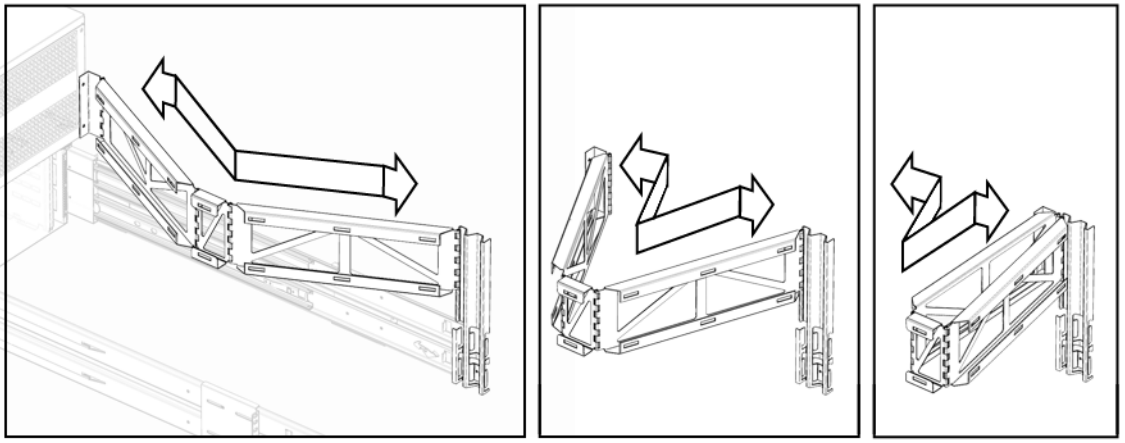

FIGURE 3 CMA Extended and Retracted on the Sun SPARC Enterprise M5000 Server

6. **Slide the server into the equipment rack.**
7. **Tighten the four (4) captive screws at the front of the server to secure the server in the equipment rack.**
8. **Replace the rack stabilizer to its original position.**

Installing the Extra Brackets (Optional)

The following information belongs in the *Sun SPARC Enterprise Equipment Rack Mounting Guide.*

If additional attachment points are required to route the cables, you can install the extra brackets that are in the bracket kit. The bracket kit contains the following:

- Two (2) brackets
- Four (4) m5 screws
- Four (4) cage nuts
- 14 velcro strips

These brackets can be used with or without the CMA for the Sun SPARC Enterprise M4000/M5000 servers.

1. **Extend the rack stabilizer.**
2. **Slide the server out of the rack several inches for access to the rear of the Sun Rack.**
3. **Position the cage nuts behind the threaded ears of the Sun Rack and insert the two (2) screws through the bracket and rack ear (FIGURE 4).**

   Brackets should be positioned near the top level of the server or slightly below it.

   Note – Brackets can be installed one per side, one only (right or left side), or two on one side, as desired for convenience in cable management.

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4. **Twist the cage nuts onto the screws from behind the rack ears.**

   The flat edges of the cage nuts should be aligned with the rack post to prevent the server from scraping against it.

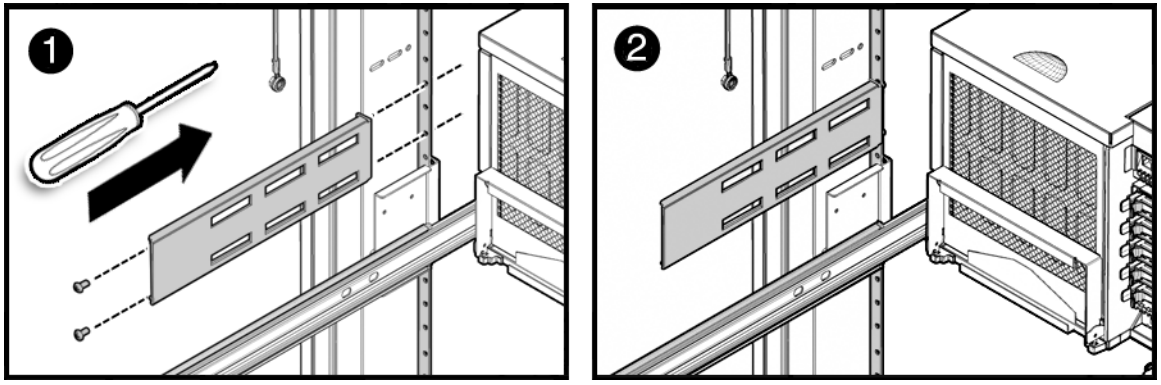

FIGURE 4 Installing the Extra Brackets in a Sun Rack 1000

5. **Insert velcro strips in the desired slots of the bracket to hold back cables.**

   Built-in cutouts along the sides of the Sun Rack can also be used to insert velcro strips to hold back cables, as desired.
6. **Slide the server into the equipment rack.**
7. **Replace the rack stabilizer to its original position.**

Power Wiring Configurations

The following information belongs in the *Sun SPARC Enterprise Equipment Rack Mounting Guide.*

To ensure redundant power sourcing, use the provided wiring configurations for the Sun SPARC Enterprise M4000/M5000 servers in a Sun Rack 1000 38/42.

The Sun Rack 1000-38/42 can fit up to two modular power supplies (MPS). Each MPS is two rack units tall. The MPS must be installed into the bottom of the rack.

Note – The numbering in a Sun Rack reads from bottom to top and right to left.

TABLE 2 Wiring Connections for Six Sun SPARC Enterprise M4000 Servers with One 60A 3-phase MPS

Server	M4000 PSU_1	M4000 PSU_0
M4000_5	MPS_0-A5	MPS_0-B5
M4000_4	MPS_0-A4	MPS_0-B4
M4000_3	MPS_0-A3	MPS_0-B3
M4000_2	MPS_0-A2	MPS_0-B2
M4000_1	MPS_0-A1	MPS_0-B1
M4000_0	MPS_0-A0	MPS_0-B0

TABLE 3 Wiring Connections for Six Sun SPARC Enterprise M4000 Servers with Two 30A 3-phase MPS

Server	M4000 PSU_1	M4000 PSU_0
M4000_5	MPS_1-B5	MPS_1-A5
M4000_4	MPS_0-B4	MPS_0-A4
M4000_3	MPS_1-B3	MPS_1-A3
M4000_2	MPS_0-B2	MPS_0-A2
M4000_1	MPS_1-B1	MPS_1-A1
M4000_0	MPS_0-B0	MPS_0-A0

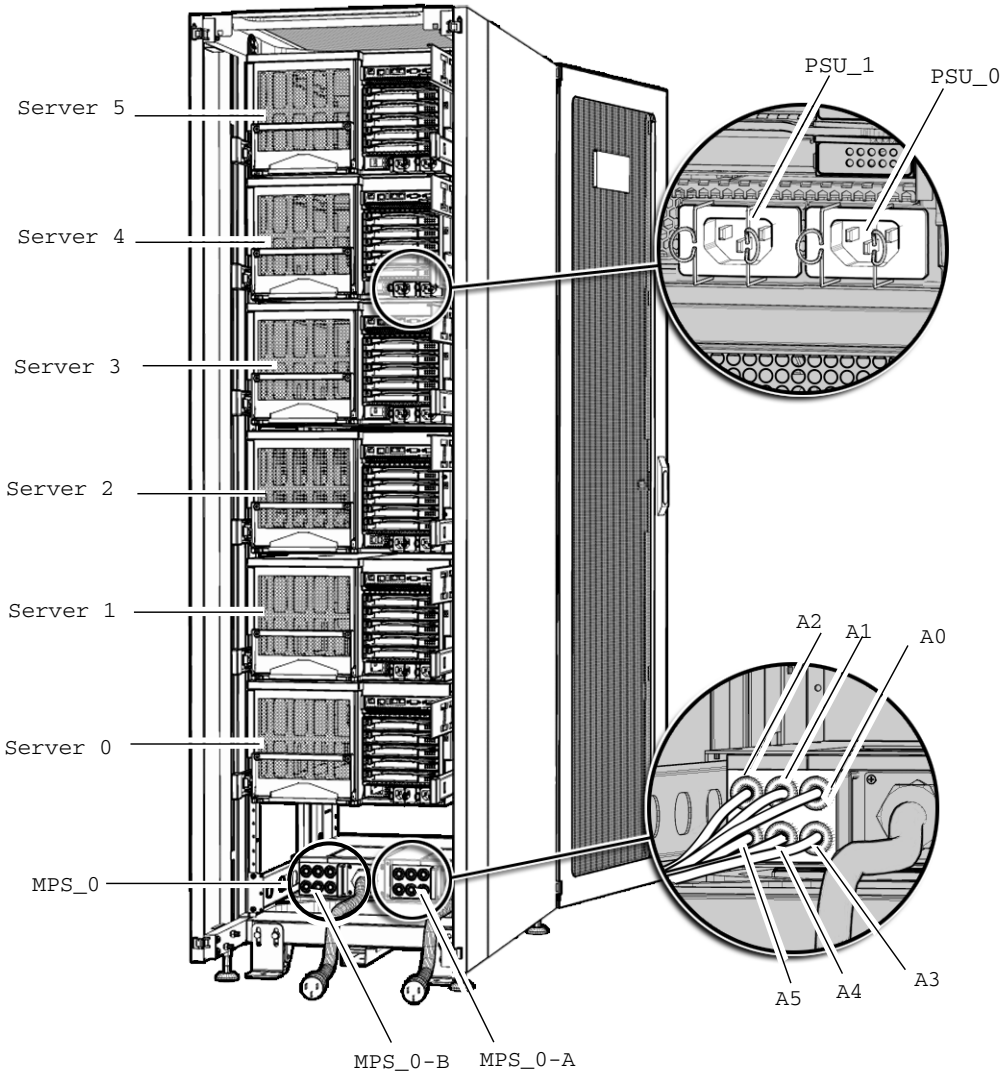

FIGURE 5 Sun Rack 1000 With Six Sun SPARC Enterprise M4000 Servers and One MPS

Note – The numbering in a Sun Rack reads from bottom to top and right to left.

TABLE 4 Wiring Connections for Three Sun SPARC Enterprise M5000 Servers with One 60A 3-phase MPS

Server	M5000 PSU_3	M5000 PSU_2	M5000 PSU_1	M5000 PSU_0
M5000_2	MPS_0-B5	MPS_0-A5	MPS_0-B4	MPS_0-A4
M5000_1	MPS_0-B3	MPS_0-A3	MPS_0-B2	MPS_0-A2
M5000_0	MPS_0-B1	MPS_0-A1	MPS_0-B0	MPS_0-A0

TABLE 5 Wiring Connections for Three Sun SPARC Enterprise M5000 Servers with Two 30A 3-phase MPS

Server	M5000 PSU_3	M5000 PSU_2	M5000 PSU_1	M5000 PSU_0
M5000_2	MPS_1-B2	MPS_1-A2	MPS_0-B2	MPS_0-A2
M5000_1	MPS_1-B1	MPS_1-A1	MPS_0-B1	MPS_0-A1
M5000_0	MPS_1-B0	MPS_1-A0	MPS_0-B0	MPS_0-A0

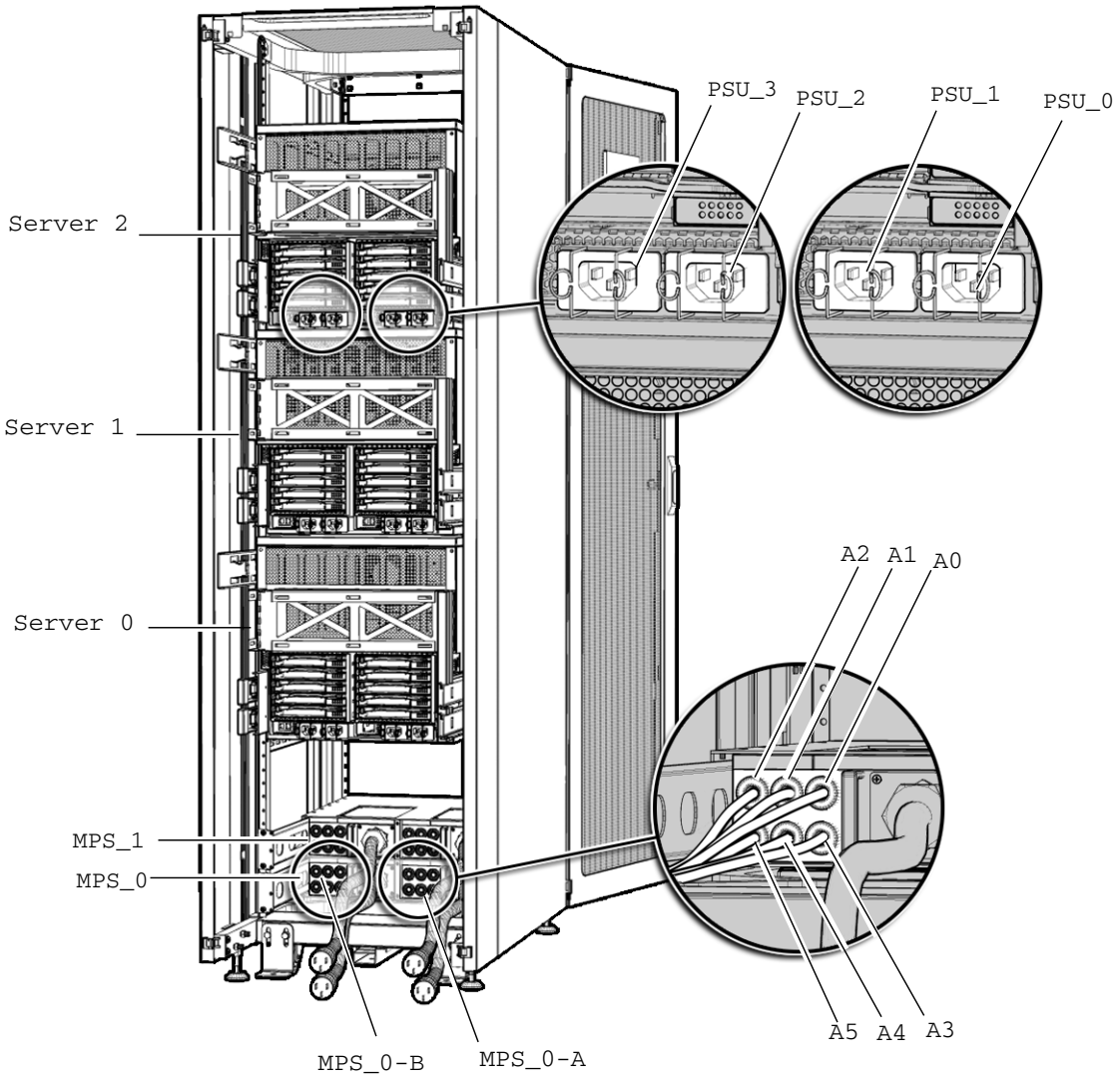

FIGURE 6 Sun Rack 1000 With Three Sun SPARC Enterprise M5000 Servers and Two MPS

Electrical Specifications

The following changes belong in the *Sun SPARC Enterprise M4000/M5000 Servers Site Planning Guide* and the *Sun SPARC Enterprise M4000/M5000 Servers Service Manual*.

TABLE 6 Midrange Servers Electrical Specifications

	SPARC Enterprise M4000	SPARC Enterprise M5000
Volt Ampere	2,058 VA	3,815 VA
Maximum current	24.0A at 100–127 VAC (12A/cord) 12.0A at 200–240 VAC (12A/cord)	48A at 100–127 VAC (12A/cord) 24A at 200–240 VAC (12A/cord)
Heat dissipation	6,879 BTUs/hr (7,258 kJ/hr)	12,754 BTUs/hr (13,457 kJ/hr)
Input voltage	100–127 VAC 200–240 VAC	100–127 VAC 200–240 VAC
Plug type	IEC 60320 C20 IEC 60309 16A 250V (All other locations except Japan, Korea, and Taiwan) NEMA L5-15 125V 15A (Americas and Taiwan) NEMA L6-20 250V 20A (Americas, Japan, Korea, and Taiwan)	IEC 60320 C20 IEC 60309 16A 250V (All other locations except Japan, Korea, Taiwan) NEMA L5-15 125V 15A (Americas and Taiwan) NEMA L6-20 250V 20A, Americas, Japan, Korea, and Taiwan)

Hardware Documentation Updates

This section contains late-breaking hardware information that became known after the documentation set was published.

TABLE 7 lists known documentation updates.

TABLE 7 Hardware Documentation Updates

Title	Page Number	Update
All SPARC Enterprise M4000/M5000 servers documentation		All DVD references are now referred to as CD-RW/DVD-RW.
		Updated glossary terms: ***External I/O Expansion Unit*** — A rackmountable device to add on PCI slots. It is connected to the system's I/O unit through the PCIe connection and contains one or two I/O boats. ***I/O boat*** — An I/O unit in the External I/O Expansion Unit. The I/O boat connects to a PCI-Express (PCIe) slot through a PCIe switch or a PCI-X bridge on the I/O boat and offers either six PCI-X slots or six PCIe slots.
Sun SPARC Enterprise M4000/M5000 Servers Site Planning Guide	1-7	TABLE 1-3 "Midrange Servers Physical Specifications" Correct numerical value of "Depth" is 810mm/31.9 in. for the Sun SPARC Enterprise M4000/M5000 servers.
	2-4	TABLE 2-2 "Midrange Servers Electrical Specifications" See "Electrical Specifications" on page 14 in these Product Notes for the changes.
Sun SPARC Enterprise M4000/M5000 Servers Service Manual	8-6	8.1.3, "Installing the PCI Cassette" See "Installing the PCI Cassette" on page 5 in these Product Notes for the changes.
	11-7	11.2, "DIMM Replacement" See "DIMM Replacement" on page 5 in these Product Notes for the changes.
	C-7	TABLE C-5 "Power Supply Feature" See "Electrical Specifications" on page 14 in these Product Notes for the changes.
Sun SPARC Enterprise M4000/M5000 Servers Installation Manual	8-3	3.3, "Connecting the Administration Console". The RJ-11 connector at the top of Figure 3-1 was not labelled. The RJ-11 connector is not for connection to TNV circuits. Do not use this connector.

TABLE 7 Hardware Documentation Updates

Title	Page Number	Update
Sun SPARC Enterprise M8000/M9000 Servers Overview Guide	Page 1-8	In Table 1-1, "Main Unit Specification" The following information will be added. Architecture: SPARCV9 architecture Platform groups: sun4u Platform names: SunW, SPARC-Enterprise

Software and Firmware Issues

This section describes specific software and firmware issues and workarounds.

XCP Issues and Workarounds

TABLE 8 lists known XCP issues and possible workarounds.

TABLE 8 XCP Issues and Workarounds

CR ID	Description	Workaround
6529635	The `showdomainstatus -a command` shows domain status as Powered Off, but the `showboards -a command` shows the domain is testing.	Use the `showboards` command to check the status of domain power. The `showdomainstatus` command takes a longer time to show the correct status.
6565422	The `Latest communication` field in `showarchiving` is not updated regularly.	Disabling and re-enabling archiving refreshes the `Latest communication` field in `showarchiving` output.
6573729	When the `snapshot` CLI attempts to write to a USB stick that has write-protect set, this results in many I/O errors on the console.	Do not attempt to use write-protected USB devices for collecting `snapshot`.
6577801	An incorrect domain state is reported. After the command `sendbreak` is issued to a domain, `showdomainstatus` shows the state as "Running" when the domain is at the "ok" prompt.	There is no workaround. This is a side effect of the `sendbreak` operation.
6588650	On occasion, the system is unable to DR after an XSCF failure-and-reboot.	There is no workaround. Check for the availability of a patch for this defect.

TABLE 8 XCP Issues and Workarounds *(Continued)*

CR ID	Description	Workaround
6595501	If an invalid SMTP server is configured, a subsequent attempt to disable email service (using the `setemailreport` CLI) might block for up to 30 minutes.	Wait for the CLI to complete. The rest of the system functions normally during this time. • The CLI can also be aborted by ^C. Note that the operation (disabling `emailreport`) is completed, even if ^C is used. • `showemailreport` can be used to confirm that the service has been disabled.
6598444	The XSCF firmware monitors itself and if it detects any inconsistencies, it forces an XSCF reboot.	There is no workaround. Allow the XSCF Unit to finish rebooting. It returns to normal operation within approximately five minutes.
6600060	The XSCFU cannot act as a reliable NTP source for domains.	All domains should be configured to use an NTP source other than the XSCFU.

Solaris Issues and Workarounds

TABLE 9 lists Solaris issues and possible workarounds.

TABLE 9 Solaris Issues and Workarounds

CR ID	Description	Workaround
6348554	Using the `cfgadm -c disconnect` command on the following cards might hang the command: • SG-XPCIE2FC-QF4 Sun StorageTek Enterprise Class 4Gb Dual-Port Fibre Channel PCI-E HBA • SG-XPCIE1FC-QF4 Sun StorageTek Enterprise Class 4Gb Single-Port Fibre Channel PCI-E HBA • SG-XPCI2FC-QF4 Sun StorageTek Enterprise Class 4Gb Dual-Port Fibre Channel PCI-X HBA • SG-XPCI1FC-QF4 Sun StorageTek Enterprise Class 4Gb Single-Port Fibre Channel PCI-X HBA	Do not perform `cfgadm -c disconnect` operation on the affected cards.

6459540	The DAT72 internal tape drive might time out during tape operations.
	The device might also be identified by the system as a QIC drive.
		Add the following definition to `/kernel/drv/st.conf`:
		
		`tape-config-list=`
		`"SEAGATE DAT DAT72-000",`
		`"SEAGATE_DAT____DAT72-000",`
		`"SEAGATE_DAT____DAT72-000";`
		`SEAGATE_DAT____DAT72-000=`
		`1,0x34,0,0x9639,4,0x00,0x8c,0x8c,`
		`0x8c,3;`
		
		There are four spaces between “SEAGATE DAT and DAT72-00.

6472153	If you create a Solaris Flash archive on a non-Sun SPARC Enterprise M4000/M5000 sun4u server and install it on a Sun SPARC Enterprise M4000/M5000 sun4u server, the console’s TTY flags will not be set correctly. This can cause the console to lose characters during stress.	Just after installing Solaris OS from a Solaris Flash archive, telnet into the Sun SPARC Enterprise M4000/M5000 server to reset the console’s TTY flags as follows: **# sttydefs -r console** **# sttydefs -a console -i "9600 hupcl opost onlcr crtscts" -f "9600"** This procedure is required only once.

TABLE 9 Solaris Issues and Workarounds *(Continued)*

CR ID	Description	Workaround
6485555	On-board Gigabit Ethernet NVRAM corruption could occur due to a race condition.	If the NVRAM is corrupted, the device is not recognized as a network device. Contact your service representative to replace the FRU.
6495303	The use of a PCIe Dual-Port Ultra320 SCSI controller card (SG-(X)PCIE2SCSIU320Z) in IOU Slot 1 on a Sun SPARC Enterprise M4000/M5000 server might result in a system panic.	Do not use this card in IOU Slot 1 on a Sun SPARC Enterprise M4000/M5000 server. This bug has been fixed in Solaris 10 8/07.
6498283	Using the DR `deleteboard` command while `psradm` operations are running on a domain might cause a system panic.	There is no workaround. Check for the availability of a patch for this defect. This bug has been fixed in Solaris 10 8/07.
6508432	A large number of spurious PCIe correctable errors can be recorded in the FMA error log.	To mask these errors, add the following entry to the `/etc/system` file and reboot the system: `set pcie:pcie_aer_ce_mask = 0x2001` This bug has been fixed in Solaris 10 8/07.
6510861	When using the PCIe Dual-Port Ultra320 SCSI controller card (SG-(X)PCIE2SCSIU320Z), a PCIe correctable error causes a Solaris panic.	Add the following entry to `/etc/system` to prevent the problem: `set pcie:pcie_aer_ce_mask = 0x31c1` This bug has been fixed in Solaris 10 8/07.
6522017	Domains using the ZFS file system cannot use DR.	Set the maximum size of the ZFS ARC lower. For detailed assistance contact Sun Service.
6527811	The `showhardconf`(8) command on the XSCF cannot display PCI card information that is installed in the External I/O Expansion Unit, if the External I/O Expansion Unit is configured using PCI hot-plug.	There is no workaround. When each PCI card in the External I/O Expansion Unit is configured using PCI hotplug, the PCI card information is displayed correctly.
6530178	DR `addboard` command can hang. Once problem is observed, further DR operations are blocked. Recovery requires reboot of the domain.	There is no workaround. Check for the availability of a patch for this defect. This bug has been fixed in Solaris 10 8/07.
6531036	The error message `network initialization failed` can appear repeatedly after boot net installation.	There is no workaround.

TABLE 9 Solaris Issues and Workarounds *(Continued)*

CR ID	Description	Workaround
6534471	Systems might panic/trap during normal operation.	Make sure you have the correct /etc/system parameter and reboot the system: `set heaplp_use_stlb=0` This bug has been fixed in Solaris 10 8/07.
6539084	There is a low probability of a domain panic during reboot when the Sun Quad GbE UTP x8 PCIe (X4447A-Z) card is present in a domain. This defect only applies to Solaris 10 11/06.	There is no workaround. Check for the availability of a patch for this defect.
6539909	Do not use the following I/O cards for network access when you are using the `boot net install` command to install the Solaris OS: • X4447A-Z/X4447A-Z, PCIe Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z/X1027A-Z, PCIe Dual 10 Gigabit Ethernet Fiber XFP	When running Solaris 10 11/06, use an alternate type of network card or onboard network device to install the Solaris OS via the network. This defect does not exist in Solaris 10 8/07.
6542632	Memory leak in PCIe module if driver attach fails.	There is no workaround. Check for the availability of a patch for this defect. This bug has been fixed in Solaris 10 8/07.
6545685	If the system has detected Correctible Memory Errors (CE) at power-on self-test (POST), the domains might incorrectly degrade 4 or 8 DIMMs.	Increase the memory patrol timeout values used via the following setting in `/etc/system` and reboot the system: `set mc-opl:mc_max_rewrite_loop = 20000`
6546188	The system panics when running hot-plug (`cfgadm`) and DR operations (`addboard` and `deleteboard`) on: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter	There is no workaround. Check for the availability of a patch for this defect.

TABLE 9 Solaris Issues and Workarounds *(Continued)*

CR ID	Description	Workaround
6551356	The system panics when running hot-plug (`cfgadm`) to configure a previously unconfigured card. The message "WARNING: PCI Expansion ROM is not accessible" will be seen on the console shortly before the system panic. The following cards are affected by this defect: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter	DO NOT use `cfgadm -c unconfigure` to disconnect the I/O card. Perform `cfgadm -c disconnect` to completely remove the card. After waiting at least 10 seconds, the card might be configured back into the domain using the `cfgadm -c configure` command.
6559504	Messages of the form `nxge: NOTICE: nxge_ipp_eccue_valid_check: rd_ptr = nnn wr_ptr = nnn` will be observed on the console with the following cards: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter.	These messages can be safely ignored.
6556742	The system panics when DiskSuite cannot read the `metadb` during DR. This bug affects the following cards: • SG-XPCIE2FC-QF4, 4Gb PCI-e Dual-Port Fibre Channel HBA • SG-XPCIE1FC-QF4, 4Gb PCI-e Single-Port Fibre Channel HBA • SG-XPCI2FC-QF4, 4Gb PCI-X Dual-Port Fibre Channel HBA • SG-XPCI1FC-QF4, 4Gb PCI-X Single-Port Fibre Channel HBA	Panic can be avoided when a duplicated copy of the `metadb` is accessible via another Host Bus Adaptor. Or you can apply patch 125166-06.
6563785	Hot-plug operation with the following cards might fail during back-to-back disconnect and connect operations: • SG-XPCIE2SCSIU320Z Sun StorageTek PCI-E Dual-Port Ultra320 SCSI HBA • SGXPCI2SCSILM320-Z Sun StorageTek PCI Dual-Port Ultra320 SCSI HBA	After disconnecting a card, wait for a few seconds before re-connecting.
6564332	Hot-plug operations on Sun Crypto Accelerator (SCA) 6000 cards can cause Sun SPARC Enterprise M4000/M5000 servers to panic or hang.	Hot-plug does not work for the SCA6000 when running version 1.0 of the SCA6000 driver and should not be attempted. Version 1.1 of the SCA6000 driver and firmware supports hot-plug operations after the required bootstrap firmware upgrade has been performed.

TABLE 9 Solaris Issues and Workarounds *(Continued)*

CR ID	Description	Workaround
6564934	Performing a DR `deleteboard` operation on a board which includes Permanent Memory when using the following network cards results in broken connections: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter	Re-configure the affected network interfaces after the completion of the DR operation. For basic network configuration procedures, refer to the `ifconfig` man page for more information.
6568417	After a successful CPU DR `deleteboard` operation, the system panics when the following network interfaces are in use: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter	Add the following line to `/etc/system` and reboot the system: `set ip:ip_soft_rings_cnt=0`
6571370	Use of the following cards have been observed to cause data corruption in stress test under laboratory conditions: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter	Add the following line in `/etc/system` and reboot the system: `set nxge:nxge_rx_threshold_hi=0`
6575970	DR and XSCF failover are not compatible.	Do not start an XSCF failover while a DR operation is running. Wait for a DR operation to finish before starting the failover. If you start the failover first, wait for the failover to finish before starting the DR operation.
6583035	After using the `addfru` or `replacefru` command to hotplug a CMU, further DR operations might fail with a misleading message regarding the board being unavailable for DR.	When performing the `addfru` and `replacefru` commands, it is mandatory to run diagnostic tests. If you forget to run the diagnostic tests during `addfru/addfru` then either run `testsb` to test the CMU or remove the CMU/IOU with the `deletefru` command and then use the `addfru` command with the diagnostic tests.

TABLE 9 Solaris Issues and Workarounds *(Continued)*

CR ID	Description	Workaround
6589833	The DR `addboard` command might cause a system hang if you are adding a Sun StorageTek Enterprise Class 4Gb Dual-Port Fibre Channel PCI-E HBA card (SG-XPCIE2FC-QF4) at the same time that an SAP process is attempting to access storage devices attached to this card. The chance of a system hang is increased if the following cards are used for heavy network traffic: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter	There is no workaround. Check for the availability of a patch for this defect.
6592302	Unsuccessful DR operation leaves memory partially configured.	To recover, add the board back to the domain with an `addboard -d` command and then retry the `deleteboard` command.

Preparing to Upgrade to XCP 1050

The following step must be completed prior to upgrading:

- **Delete any accounts named *admin*.**

  Use the `showuser -lu` command to list all XSCF accounts. Any accounts named *admin* must be deleted prior to upgrading to XCP 1050. This account name is reserved in XCP 1050 and higher. Use the `deleteuser` command to delete the account.

Note – For more information on *admin* accounts, see TABLE 10, "Software Documentation Updates" on page 29.

Upgrading to XCP 1050

Note – LAN connections are disconnected when the XSCF resets. Use the XSCF serial connection to simplify the XCP upgrade procedure.

---

1. **Log in to the XSCF on an account with platform administrative privileges.**
2. **Verify that there are no faulted or deconfigured components by using the `showstatus` command.**

```
XSCF> showstatus
```

   The `showstatus` prompt will return if there are no failures found in the System Initialization. If anything is listed, contact your authorized service representative before proceeding.

3. **Power off all domains.**

```
XSCF> poweroff -a
```

4. **Confirm that all domains are stopped:**

```
XSCF> showlogs power
```

5. **Move the key position on the operator panel from Locked to Service.**

6. **Collect an XSCF snapshot to archive the system status for future reference.**

```
XSCF> snapshot -t user@host:directory
```

7. **Upload the XCP 1050 upgrade image by using the command line** `getflashimage`**.**

```
XSCF> getflashimage http://server.domain.com/XCP1050/images/FFXCP1050.tar.gz
```

The BUI on the XSCFU can also be used to upload the XCP 1050 upgrade image.

8. **Update the firmware by using the** `flashupdate` **(8) command.**

Caution – `Flashupdate` will update one bank, reset the XSCF, and commence update of the second bank. Verify that the current and reserve banks are both updated. If both banks indicate XCP revision 1050, proceed to the next step.

```
XSCF> flashupdate -c update -m xcp -s 1050
```

Specify the XCP version to be updated. In this example, it is 1050.

9. **Confirm completion of the update.**

```
XSCF> showlogs event
```

Confirm no abnormality happens while updating the XSCF.

10. **Confirm that both the current and reserve banks of the XSCFU display the updated XCP versions**.

```
XSCF> version -c xcp
XSCF#0 (Active )
XCP0 (Reserve): 1050
XCP1 (Current): 1050
XSCF>
```

If the Current and Reserve banks on the XSCF do not indicate XCP revision 1050, contact your authorized service representative.

11. **Confirm the newly introduced 'servicetag' facility is enabled.**

    When a system is upgraded from XCP 104x to XCP 1050, the newly introduced 'servicetag' facility is not automatically enabled.

a. Check the 'servicetag' facility status by using the `showservicetag` **CLI.**

```
XSCF> showservicetag
Disabled
```

b. If it is currently disabled, you must enable it.

```
XSCF> setservicetag -c enable
Settings will take effect the next time the XSCF is rebooted.
```

c. An XSCF reboot is required for the 'servicetag' facility to be enabled.

```
XSCF> rebootxscf
The XSCF will be reset. Continue? [y|n] :y
```

Note – Service tags are used by Sun Service. Fujitsu customers cannot enable service tags.

---

d. Wait until XSCF firmware reaches the ready state.

This can be confirmed when the READY LED of the XSCF remains lit, or the message 'XSCF Initialize complete' appears on the serial console.

12. **Turn off all of the server's power switches for 30 seconds.**
13. **After 30 seconds, turn the power switches back on.**
14. **Wait until the XSCF firmware reaches the ready state.**

    This can be confirmed when the READY LED of the XSCF remains lit.

15. **Log in on to the XSCFU using a serial connection or LAN connection.**
16. **Confirm no abnormality occurred by using** showlogs error -v **and** showstatus **commands.**

```
XSCF> showlogs error -v
XSCF> showstatus
```

If you encounter any hardware abnormality of the XSCF contact your authorized service representative.

17. **Power on all domains.**

```
XSCF> poweron -a
```

18. **Log in to the XSCFU and confirm all domains start up properly.**

```
XSCF> showlogs power
```

19. **Check that there are no new errors.**

```
XSCF> showlogs error
```

- In case an abnormality is encountered, contact your authorized service representative.
- If no abnormality is found, proceed to Step 20.

20. **Move position of the key switch on the operator panel from Service to Lock.**

Identifying Permanent Memory in a Target Board

1. **Log in to XSCF.**
2. **Type the following command:**

```
XSCF> showdevices -d domain_id
```

The following example shows a display of the `showdevices -d` command where 0 is the *domain_id*.

```
XSCF> showdevices -d 0

...

Memory:
-------
           board    perm      base              domain   target deleted remaining
DID XSB    mem MB   mem MB    address           mem MB   XSB    mem MB   mem MB
00  00-0     8192        0   0x0000000000000000   24576
00  00-2     8192     1674   0x000003c000000000   24576
00  00-3     8192        0   0x0000034000000000   24576

...
```

The entry for column 4 `perm mem MB` indicates the presence of permanent memory if the value is non-zero.

The example shows permanent memory on 00-2, with 1674 MB.

If the board includes permanent memory and executes the `deleteboard` command or `moveboard` command, the following notification is displayed:

```
System may be temporarily suspended, proceed? [y|n]:
```

Booting From a WAN Boot Server

To support booting the Sun SPARC Enterprise M4000/M5000 server from a WAN boot server:

1. **Install the Solaris 10 11/06 OS on the WAN boot server.**
2. **Copy the `wanboot` executable from that release to the appropriate location on the install server. If you need further instructions, refer to the** *Solaris 10 Installation Guide: Network-Based Installations* **or refer to:**

   `http://docs.sun.com/app/docs/doc/817-5504/6mkv4nh65?a=view`
3. **Create a WAN boot miniroot from the Solaris 10 11/06 OS. If you need further instructions, refer to:**

   `http://docs.sun.com/app/docs/doc/817-5504/6mkv4nh63?a=view`

   If you do not upgrade the `wanboot` executable, the Sun SPARC Enterprise M4000/M5000 server will panic, with messages similar to the following:

   ```
   krtld: load_exec: fail to expand cpu/$CPU
   krtld: error during initial load/link phase
   panic - boot: exitto64 returned from client program
   ```

   See `http://docs.sun.com/app/docs/doc/817-5504/6mkv4nh5i?a=view` for more information on WAN boot.

Abbreviated Man Page for `getflashimage`

In XCP 105*x*, the command `getflashimage` is available, which can be used to download firmware images in place of the XSCF Web.

Software Documentation Updates

This section contains late-breaking information on the software documentation that became known after the documentation set was published.

TABLE 10 Software Documentation Updates

Document	Page Number	Change
All Sun SPARC Enterprise M4000/M5000/M8000/ M9000 servers documentation		All DVD references are now referred to as CD-RW/DVD-RW.
Sun SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF User's Guide	Page 9-5	The list of web browsers supported by the XSCF Web include: • Microsoft Internet Explorer 6.0 or later • Firefox 2.0 or later • Mozilla 1.7 or later • Netscape Navigator 7.1 or later
Sun SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF User's Guide	Page 2-2	Setup Summary by the XSCF Shell section. Add the following Note: Note: In addition to the standard *default* login, Sun SPARC Enterprise M4000/M5000/M8000/M9000 servers are delivered with a temporary login called *admin* to enable remote initial login, through a serial port. Its privileges are fixed to useradmin and cannot be changed. You cannot log in as temporary admin using the standard UNIX user name and password authentication or SSH public key authentication. It has no password, and one cannot be added for it. The temporary admin account is disabled after someone logs in as the default user, or after someone logged in as temporary admin has successfully added the first user with valid password and privileges. If, before the default login is used, you cannot log in as temporary admin, you can determine if someone else has done so by executing the following command: `showuser -l`

TABLE 10 Software Documentation Updates *(Continued)*

Document	Page Number	Change
SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF User's Guide	Page D-5	Frequently Asked Questions (FAQ) in "Troubleshooting XSCF and FAQ" The option for OS dump is not "request" but "panic". Correction: 1. First, execute the `reset`(8) command with the panic option from the XSCF Shell.
SPARC Enterprise M4000/M5000/M8000/M9000 Servers Administration Guide	Page 2	Solaris OS Software section. The following Note has been added: Note: The XSCF firmware requires that all domains have the SUNWsckmr and SUNWsckmu.u packages. Since the Core System, Reduced Network, and Minimal System versions of the Solaris OS do not automatically install these packages, you must do so on any domains that do not already have them.
SPARC Enterprise M4000/M5000/M8000/M9000 Servers Administration Guide	Page 8	Logging in to the System section. Add the following Note: Note: In addition to the standard *default* login, Sun SPARC Enterprise M4000/M5000/M8000/M9000 servers are delivered with a temporary login called *admin* to enable remote initial login, through a serial port. Its privileges are fixed to useradmin and cannot be changed. You cannot log in as temporary admin using the standard UNIX user name and password authentication or SSH public key authentication. It has no password, and one cannot be added for it. The temporary admin account is disabled after someone logs in as the default user, or after someone logged in as temporary admin has successfully added the first user with valid password and privileges. If, before the default login is used, you cannot log in as temporary admin, you can determine if someone else has done so by executing the following command: `showuser -l`

TABLE 10 Software Documentation Updates *(Continued)*

Document	Page Number	Change
SPARC Enterprise M4000/M5000/M8000/M9000 Servers Administration Guide	Page 66	Audit Configuration, add Note at the end of Audit File Tools: Note: This chapter describes how to set up archived log files. The SP Security (SUNWspec) Package gives administrators and service providers a means to view those files. To display the XSCF audit log files archived to your server, use the `viewauditapp`(8) and `mergeaudit`(8) off-platform audit file viewers.

Sun SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF Reference Manual	`switchscf`(8) manpage	The `switchscf`(8) command now supports the `-n/-q/-y` options. As a result of this support, the SYNOPSIS is changed as follows:
		`switchscf [[-q] -{y|n}] -t {Active | Standby} [-f]`
		`switchscf -h`
		Each meaning of new options is as follows:
		`-n`: Automatically answers 'n' (no) to all prompts.
		`-q`: Suppresses all messages to stdout, including prompts.
		`-y`: Automatically answers 'y' (yes) to all prompts.