



# SPARC® Enterprise M4000/M5000 Servers Product Notes

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For XCP version 1041

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# Contents

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**Preface** vii

Technical Support vii

Software Resources vii

Accessing Documentation viii

Fujitsu Welcomes Your Comments ix

Revision History ix

**SPARC Enterprise M4000/M5000 Servers Product Notes** 1

Supported Versions of Firmware and Software 1

Patch Information 2

    Solaris Patch Information 2

Known Issues 3

    General Functionality Issues and Limitations 3

Hardware Installation and Service Issues 4

    Specific Issues and Workarounds 4

    About the interference of nut 5

Hardware Documentation Updates 7

    Electrical Specifications 9

    Cable Connections 10

    Updates of the SPARC Enterprise M4000/M5000 Servers Service Manual 11

Installing the PCI Cassette	11
DIMM Replacement	11
Software Issues	13
XCP Issues and Workarounds	13
Solaris Issues and Workarounds	16
Identifying Permanent Memory in a Target Board	26
Software Documentation Updates	27

# Preface

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These product notes contain late-breaking information about the SPARC® Enterprise M4000/M5000 server hardware, software, or documentation that became known after the documentation set was published.

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## Technical Support

If you have technical questions or issues that are not addressed in the SPARC Enterprise M4000/M5000 servers documentation, contact a sales representative or a certified service engineer.

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## Software Resources

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

Contact a sales representative or a certified service engineer for software resources for your SPARC Enterprise M4000/M5000 servers.

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**Note** – For latest patch information go to:

**Global Site**

<http://www.fujitsu.com/global/support/software/security/products-s/patch-info/>

**Japanese Site**

<http://software.fujitsu.com/jp/security/products-others/unix/index.html>

**North American Site**

<https://download.computers.us.fujitsu.com/>

Installation information and README files are included in the patch download.

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## Accessing Documentation

Instructions for installing, administering, and using your SPARC Enterprise M4000/M5000 servers are provided in the SPARC Enterprise M4000/M5000 servers documentation set.

The documentation set is available for download from the following website:

**Global Site**

<http://www.fujitsu.com/sparcenterprise/manual/>

**Japanese Site**

<http://primeserver.fujitsu.com/sparcenterprise/manual/>

**North American Site**

<https://download.computers.us.fujitsu.com/>

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

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Solaris documentation is available at:

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



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# Fujitsu Welcomes Your Comments

If you have any comments or requests regarding this manual, or if you find any unclear statements in the manual, please state your points specifically, and forward it to a sales representative or a certified service engineer.

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

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## Revision History

<b>Edition</b>	<b>Revised Section</b>	<b>Details</b>
02	Supported Versions of Firmware and Software	Modification of description about the support of Capacity on Demand function.
	Specific Issues and Workarounds	Modification and addition of issues and workarounds which found after the 01 version release.
	Documentation Updates	Addition of articles about the documentation updates.
03	Specific Issues and Workarounds	Modification and addition of issues and workarounds which found after the 02 version release.
	Documentation Updates	Addition of articles about the documentation updates.
04	Specific Issues and Workarounds	Modification and addition of issues and workarounds which found after the 03 version release.
	Documentation Updates	Addition of articles about the documentation updates.

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# SPARC Enterprise M4000/M5000 Servers Product Notes

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These product notes contain late-breaking information about the SPARC® Enterprise M4000/M5000 server hardware, software, or documentation that became known after the documentation set was published.

- [Supported Versions of Firmware and Software](#)
  - [Patch Information](#)
  - [Known Issues](#)
  - [Hardware Installation and Service Issues](#)
  - [Hardware Documentation Updates](#)
  - [Software Issues](#)
  - [Software Documentation Updates](#)
- 

## Supported Versions of Firmware and Software

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

- XSCF Control Package (XCP) 1041 or later

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**Note** – When the XCP version preinstalled in your server is under XCP 1041, you must upgrade to XSCF Control Package(XCP) 1041 or later. Use the web browser interface, also known as the browser user interface (BUI), to import XCP firmware and then execute the `flashupdate` command to upgrade the XCP firmware with the XSCF Shell.

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**Caution** – CR ID #6534471: Improper handling of large page in kernel memory may cause random panics. Implement the workaround for CR ID #6534471 or check for the availability of a patch and install it immediately. This bug has been fixed by 125100-06.

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- The first version of the Solaris™ Operating System (OS) to support these servers is the Solaris 10 11/06 OS.
  - XCP 1041 supports the External I/O Expansion Unit.
  - This XCP release does not support the Capacity-On-Demand (COD) feature.
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**Note** – For the offering schedule of COD product and External I/O Expansion Unit, please contact your sales representative.

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## Patch Information

### Solaris Patch Information

The following patches are mandatory for Sun SPARC Enterprise M4000/M5000 servers running Solaris 10 11/06 OS.

- 118833-36 (Install 118833-36 before 125100-04.)
  - 125100-04 or later
  - 120068-03 or later
  - 123839-07 or later
  - 125424-01 or later
  - 125075-01 or later
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**Note** – See [“Software Resources” on page vii](#) for information on how to find the latest patches. Installation information and README files are included in the patch download.

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# Known Issues

This section describes known issues in this release.

## General Functionality Issues and Limitations

- Because the term, `admin`, will be reserved for the system use in next version of XCP, please avoid using it to user account name. If you use the term, `admin`, to user account name, you have to delete it before upgrading the XCP.
- Dynamic Reconfiguration (DR) is not recommended in cases below, due to the following restrictions on the `DR addboard(8)`, `deleteboard(8)`, and `moveboard(8)` commands. Please contact your Sales representative or Technical Support for additional information and software support.
  - The target board (SB/XSB) with optional I/O cards because of some restrictions on specific cards.



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**Caution** – Use of DR in an unsupported configuration might result in a domain panic or might hang the system.

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- Domains using the ZFS file system can not use Reconfiguration.
- PCI Hotplug feature is not available for this release.  
Please contact your sales representative or technical support for additional information and software support.
- SPARC Enterprise M4000/M5000 servers are cold service machines. Hot-swapping of the CPU/Memory board unit (CMU), I/O Unit (IOU), or any eXtended System Control Facility (XSCF) unit is not supported.
- The XSCF web browser interface, also known as the browser user interface (BUI), has limited availability in this release. It can be used for importing the XSCF firmware and it supports the `snapshot(8)` command Full log set collection function. Use the command-line interface (CLI) instead on the Service Processor and the domains for other activities.
- Power off all domains before upgrading the XCP firmware.
- In this release, to conduct the maintenance work of COD board, it is necessary to power off the system.
- 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 SPARC Enterprise M4000 server
  - No more than eight cards in a SPARC Enterprise M5000 server

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## Hardware Installation and Service Issues

This section describes hardware specific issues and workarounds.

### Specific Issues and Workarounds

[TABLE 1](#) lists known hardware issues and possible workarounds.

**TABLE 1** Hardware Issues and Workarounds

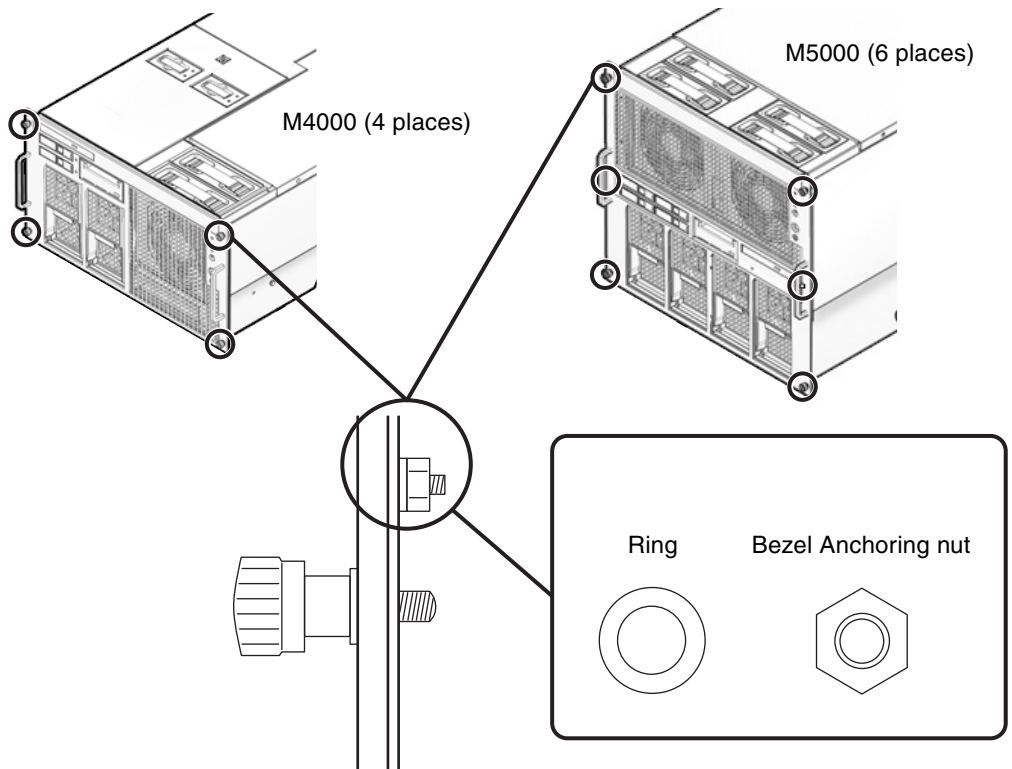
CR ID	Description	Workaround
6433420	The domain console might display a Mailbox timeout or IOCB interrupt timeout error during boot.	Issue a <code>reset-all</code> command from the OBP (OK) prompt and reboot.
6488846	During boot, the domain console might display a checksum error for the SG(X)PCI2SCSIU320-Z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

# About the interference of nut

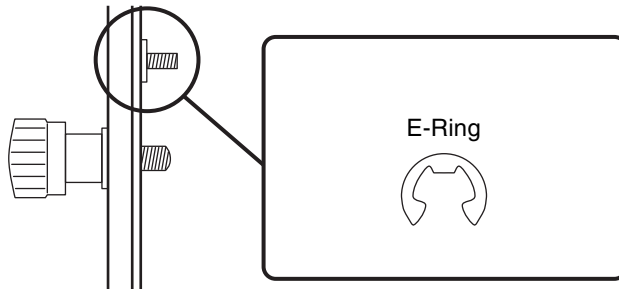
When you mount the SPARC Enterprise M4000 or M5000 server on the 19-inch rack, as you insert it all the way seated in the rack, the nut anchoring the bezel may interfere with the rack column and the server may fail to be seated correctly.

In such a case, please replace the bezel anchoring nut and ring with the E-Ring.

## 1. Remove the interfering bezel anchoring nut and ring.



2. In place of the removed nut and ring, attach the E-Ring, included in the rack mount kit.



3. Insert the server all the way seated in the rack, to lock it in place.



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# Hardware Documentation Updates

TABLE 2 lists known documentation updates.

TABLE 2 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: <i>External I/O Expansion Unit</i> – A rack mountable 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>I/O boat</i> – 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.
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 SPARC Enterprise M4000/M5000 servers.
SPARC Enterprise M4000/M5000 Servers Installation Guide	2-8	TABLE 2-3 "Powercords" See " <a href="#">Cable Connections</a> " on page 10 for the changes.
SPARC Enterprise M4000/M5000 Servers Installation Guide	3-3	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.
SPARC Enterprise M4000/M5000 Servers Service Manual	1-4	1.3.4, "Handling Components" The following caution will be added.




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**Caution** – In the PCI cassette part, when removing cables such as LAN cable, if your finger can't reach the latch lock of the connector, press the latch with a flathead screwdriver to remove the cable. Forcing your finger into the clearance can cause damage to the PCI card.

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**TABLE 2** Documentation Updates (*Continued*)

Title	Page Number	Update
SPARC Enterprise M4000/M5000 Servers Service Manual	4-11	4.4.3, "Powering the Server Off Manually" Step 4 "Verify the state of the status XSCF STANDBY LED on the operator panel is off" should be replaced with the following description: "Verify the state of the status Power LED on the operator panel is off."
SPARC Enterprise M4000/M5000 Servers Service Manual	8-5	8.1.2, "Removing the PCI Cassette" The cable management arm of the SPARC Enterprise M4000 server will not be supported. The following note will be deleted accordingly. Note - The cable management arm of the SPARC Enterprise M4000 server might obstruct access to the PCI cassettes. Do not force the arm out of the way of the cassettes, because it will become permanently bent. Pull the quick release button and disconnect the slide end of the arm. Once disconnected, the arm can be safely held out of the way when removing the cassettes. Instead, the following caution will be added.
 <b>Caution</b> – When removing cables such as LAN cable, if your finger can't reach the latch lock of the connector, press the latch with a flathead screwdriver to remove the cable. Forcing your finger into the clearance can cause damage to the PCI card.		
SPARC Enterprise M4000/M5000 Servers Service Manual	8-6	8.1.3, "Installing the PCI Cassette" See <a href="#">"Installing the PCI Cassette"</a> on page 11 for the changes.
SPARC Enterprise M4000/M5000 Servers Service Manual		"1. Power off the server." "This step includes turning the keyswitch to the Service position, verifying the state of the LEDs and disconnecting power cables" should be substituted with the following description: "This step includes turning the keyswitch to the Service position, verifying that the Power LED is turned off and disconnecting power cables."

**TABLE 2** Documentation Updates (*Continued*)

Title	Page Number	Update
SPARC Enterprise M4000/M5000 Servers Service Manual	9-1 15-1	CHAPTER 9, "XSCF Unit Replacement" CHAPTER 15, "Operator Panel Replacement" The following important message will be added.
<hr/> <p><b>Note</b> – If you replace the XSCF unit and the operator panel simultaneously, system will not operate normally. Execute the <code>showhardconf</code> command or the <code>showstatus</code> command to confirm that the component replaced earlier is operating normally, before replacing the subsequent FRU.</p> <hr/>		
SPARC Enterprise M4000/M5000 Servers Service Manual	11-7	11.2, "DIMM Replacement" See <a href="#">"DIMM Replacement" on page 11</a> for the changes.
SPARC Enterprise M4000/M5000 Servers Service Manual	C-7	TABLE C-5 "Power Supply Feature" See <a href="#">"Electrical Specifications" on page 9</a> for the changes.

## Electrical Specifications

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

**TABLE 3** Power Supply Features

	SPARC Enterprise M4000	SPARC Enterprise M5000
<b>Power draw (maximum)</b>	2016W	3738W
<b>Volt Ampere</b>	2058 VA	3815 VA
<b>Heat</b>	6879 BTUs/hr (7258 kJ/hr)	12754 BTUs/hr (13457 kJ/hr)

## Cable Connections

The following changes belong in the SPARC Enterprise M4000/M5000 Servers Installation Guide.

**TABLE 4** Powercords

<b>System</b>	<b>Location</b>	<b>Powercord Type</b>
SPARC Enterprise M4000 Server	Americas, Taiwan	NEMA L5-15 125V 15A
	Japan, Korea	NEMA L6-20 250V 20A
	RoTW	IEC60309 16A 250V, 3PIN with IEC320 C20
SPARC Enterprise M5000 Server	Americas, Taiwan	NEMA L5-15 125V 15A
	Japan, Korea	NEMA L6-20 250V 20A
	RoTW	IEC60309 16A 250V, 3PIN with IEC320 C20

# Updates of the SPARC Enterprise M4000/M5000 Servers Service Manual

The following information supersedes the information in the *SPARC Enterprise M4000/M5000 Servers Service Manual*.

## Installing the PCI Cassette



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

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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.**

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**Note** – As the lever is moved pressure will build up, then just prior to locking into place the pressure will suddenly release. If the lever locks in place without the pressure release, the card may not be seated correctly. If this happens the card should be removed and reinstalled.

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**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.

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

## DIMM Replacement

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

Here are the DIMM mount conditions:

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.

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# Software Issues

This section describes software specific issues and workarounds.

## XCP Issues and Workarounds

[TABLE 5](#) lists known XCP issues and possible workarounds.

**TABLE 5** XCP Issues and Workarounds

ID	Description	Workaround
RTIF1-070418-004	All domains must be powered off before upgrading the XCP firmware.	Power off domains before using the <code>flashupdate(8)</code> command to upgrade XCP firmware.
RTIF1-070418-005	If you log in to the XSCF while it is still booting, you may get a <code>bash\$</code> prompt instead of the <code>XSCF&gt;</code> prompt, and be unable to perform most operations.	Log out of the <code>bash\$</code> prompt and wait for the XSCF to finish booting.
RTIF1-070418-009	While XSCF is running, error message of "OOM kill" might be displayed to XSCF console, and process may go down and/or watchdog timeout may occur and XSCF may reboot.	Check that XSCF is started. If not started, use the <code>rebootxscf(8)</code> command to restart XSCF, or stop all the domains and then execute the system power off/on ( <code>AC OFF/ON</code> ).
RTIF1-070418-010	The <code>showdomainstatus -a</code> command shows domain status as Powered Off, but the <code>showboards -a</code> command shows the domain is testing.	Use the <code>showboards</code> command to check the status of domain power. The <code>showdomainstatus</code> command takes a longer time to show the correct status.
RTIF1-070418-011	Some commands that update configuration data take a relatively long time to execute.	Do not cancel <code>set *</code> commands. They appear to hang, but eventually complete in about 30 seconds.
RTIF1-070418-012	The fault ( <code>memory.block.ue</code> ) is encountered and reported periodically.	An uncorrectable error exists in a DIMM and the DIMM should be replaced.
RTIF1-070418-020	When using the XSCF Web to import a firmware image, if the image is corrupted, the <code>flashupdate</code> command might later report an internal error.	Import again a firmware image. Reboot the XSCF Unit, then use the <code>flashupdate</code> command again to clear the internal error.

**TABLE 5** XCP Issues and Workarounds (Continued)

ID	Description	Workaround
RTIF1-070418-023	Using the <code>rebootxscf(8)</code> command may result in a process down error, and possibly an FMA event with MSG ID SCF-8005-NE.	Ignore this event.
RTIF1-070418-025	<code>showaudit all</code> shows a long list of defaults in the policy section after the database is cleared.	Update the database with the following: <code>setaudit -a opl=enable</code> <code>setaudit -a opl=default</code>
RTIF1-070528-001	When you have updated the <code>/etc/ttydefs</code> file of Solaris to disable the console flow control, you cannot disable the console flow control on the telnet via a server.	None available at this time.
RTIF1-070528-002	While XSCF is running, watchdog timeout may occur and XSCF may reboot.	Check that XSCF is started. If not started, use the <code>rebootxscf(8)</code> command to restart XSCF, or stop all the domains and then execute the system power off/on (AC OFF/ON).
RTIF1-070802-001	When connected to telnet, the login or the password prompt doesn't appear.	Disconnect the telnet session and try again.
RTIF1-070824-001	When remote power control mode of interlocking mechanism for power supply to domain, is enabled, after XSCF Unit is replaced, the interlocking for power supply by RCI cannot work.	After XSCF Unit is replaced, configures the RCI again and sets the remote power control mode.
RTIF1-070904-002	When the snapshot CLI attempts to write to a USB stick that has write protect set results in an I/O error.	Do not attempt to use write-protected USB devices for collecting snapshot.
RTIF1-070904-003	An incorrect domain state is reported. After the command <code>sendbreak</code> to domain is issued, <code>showdomainstatus</code> continues to show the state as "Running" when the domain is actually at "ok" prompt.	There is no workaround. This is expected behavior of the <code>sendbreak</code> operation.
RTIF1-070904-004	The latest communication field in <code>showarchiving</code> is not updated regularly.	Disabling and re-enabling archiving refreshes the Latest communication field in <code>showarchiving</code> output.



**TABLE 5** XCP Issues and Workarounds (*Continued*)

<b>ID</b>	<b>Description</b>	<b>Workaround</b>
RTIF1-070904-005	Time can't be synchronized with the NTP server.	<p>Check the stratum value of the NTP server. The stratum value of XSCF is "5." The NTP server which the XSCF refers to must be a server on which the stratum value is smaller than 5. When you changed the NTP server to refer to, reboot the XSCF.</p> <p>When the stratum value has been set correctly and the time can't be synchronized, use the <code>showntp(8)</code> command to check the jitter value to be displayed.</p> <p>If this value is large, please reboot the XSCF.</p>
RTIF1-070904-006	While executing the domain power-on, domain reset or DR, in case the XSCF reboot occurred, the process may be aborted in some or all of the XSB.	Execute the domain reset one more time, or power off the domain and then power on again.
RTIF1-070912-001	If an invalid SMTP server is configured, a subsequent attempt to disable email service (using the <code>setemailreport</code> CLI) may block for up to 30 minutes.	<p>Wait for the CLI to complete. The rest of the system will function normally during this time.</p> <ul style="list-style-type: none"><li>• The CLI can also be aborted by <code>^C</code>. Note that the operation (disabling <code>emailreport</code>) is completed, even if <code>^C</code> is used.</li><li>• <code>showemailreport</code> can be used to confirm that the service has been disabled.</li></ul>

# Solaris Issues and Workarounds

TABLE 6 lists known issues and possible workarounds.

**TABLE 6** Specific Issues and Workarounds Concerning Solaris

CR ID	Description	Workaround
6348554	Using the <code>cfgadm -c disconnect</code> command on the following cards might hang the command during <code>i_mdi_pi_offline</code> : <ul style="list-style-type: none"><li>• SG-XPCIE2FC-QF4 Sun StorageTek Enterprise Class 4Gb Dual-Port Fibre Channel PCI-E HBA</li><li>• SG-XPCIE1FC-QF4 Sun StorageTek Enterprise Class 4Gb Single-Port Fibre Channel PCI-E HBA</li><li>• SG-XPCI2FC-QF4 Sun StorageTek Enterprise Class 4Gb Dual-Port Fibre Channel PCI-X HBA</li><li>• SG-XPCI1FC-QF4 Sun StorageTek Enterprise Class 4Gb Single-Port Fibre Channel PCI-X HBA</li></ul>	There is no workaround. Check for the availability of a patch for this defect.
6416224	System performance can degrade using a single NIC card with more than 5,000 connections.	Use multiple NIC cards to split network connections.
6440061	The domain console may display this message: <code>ipsec_check_inbound_policy: Policy Failure for the incoming packet (not secure)</code>	This message can be safely ignored.
6441349	The system may hang if there is an I/O error in the system.	None available at this time.
6459540	The DAT72 internal tape drive on SPARC Enterprise M4000/M5000 may time out during tape operations.	Add the following definition to <code>/kernel/drv/st.conf</code> :  <pre>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;</pre> There are four spaces between SEAGATE DAT and DAT72-00.

**TABLE 6** Specific Issues and Workarounds Concerning Solaris (Continued)

CR ID	Description	Workaround
6466617	Performing a hot plug operation with the PCI-Express slot too quickly interrupts a PCI leaf reset and fails, creating a <code>cfgadm: Component system is busy</code> error.	Pause a few seconds between the issue of each <code>cfgadm -c</code> command.
6472153	If you create a Solaris Flash archive on a non-SPARC Enterprise M4000/M5000 sun4u server and install it on a 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 SPARC Enterprise M4000/M5000 server to reset the console's TTY flags as follows: <pre># sttydefs -r console # sttydefs -a console -i "9600 hupcl opost onlcr crtscts" -f "9600"</pre>
6481002	Installing the Solaris from the network using certain PCI-Express cards may cause a panic.	This procedure is required only once. If you are using a Sun PCI-E Dual Gigabit Ethernet Adapter MMF card or a Sun PCI-E Dual Gigabit Ethernet Adapter UTP card, do not install the Solaris using either of these cards. Instead, use other network devices, such as the onboard Gigabit Ethernet or another network device.
6485555	On the SPARC Enterprise M4000/M5000 servers, On-board Gigabit Ethernet NVRAM corruption could occur due to a race condition. The window of opportunity for this race condition is very small.	None available at this time.
6495303	The use of a PCIe Dual-Port Ultra320 SCSI controller card (SG-(X)PCIE2SCSIU320Z) in IOU Slot 1 on a SPARC Enterprise M4000/M5000 server may result in a system panic.	Do not use this card in IOU Slot 1 on a SPARC Enterprise M4000/M5000 server.

**TABLE 6** Specific Issues and Workarounds Concerning Solaris (Continued)

CR ID	Description	Workaround
6496337	<p>The "cpumem-diagnosis" module may fail to load after uncorrectable error(UE) panic. Systems will function correctly but events normally automatically diagnosed by FMA using this module will require manual diagnosis.</p> <p>Example:</p> <p>SUNW-MSG-ID: FMD-8000-2K, TYPE: Defect, VER: 1, SEVERITY: Minor EVENT-TIME: Thu Feb 15 15:46:57 JST 2007 PLATFORM: SUNW, SPARC-Enterprise, CSN: BE80601007, HOSTNAME: col2-ff-em7-d0</p>	<p>If problem occurred, implement the following workaround:</p> <ol style="list-style-type: none"> <li>1. Remove the following file. <pre># rm /var/fm/fmd/ckpt/cpumem-diagnosis/cpumem-diagnosis</pre> </li> <li>2. Restart fmd service. <pre># svcadm restart fmd</pre> </li> </ol> <p>To avoid this problem in advance, add "rm -f /var/fm/fmd/ckpt/cpumem-diagnosis/cpumem-diagnosis" in /lib/svc/method/svc-dumpadm file as below.</p> <pre># # We haven't run savecore on a dump device yet # savedev=none  rm -f /var/fm/fmd/ckpt/cpumem- diagnosis/cpumem-diagnosis  #</pre>
6498283	<p>Using the DR deleteboard(8) command while psradm operations are running on a domain might cause a system panic.</p>	<p>There is no workaround. Check for the availability of a patch for this defect.</p>
6499304	<p>CPU isn't offlined and unexpected message is displayed on console when many correctable error(CE) occurs.</p> <p>Example:</p> <p>SUNW-MSG-ID: FMD-8000-11, TYPE: Defect, VER: 1, SEVERITY: Minor EVENT-TIME: Fri Feb 2 18:31:07 JST 2007 PLATFORM: SPARC-Enterprise, CSN: BE80601035, HOSTNAME: FF2-35-0</p>	<p>Check CPU status on XSCF.</p>

**TABLE 6** Specific Issues and Workarounds Concerning Solaris (Continued)

CR ID	Description	Workaround
6502204	<p>Unexpected error messages may be displayed on console on booting after CPU UE panic.</p> <p>Example:</p> <pre>SUNW-MSG-ID: FMD-8000-11, TYPE: Defect, VER: 1, SEVERITY: Minor EVENT-TIME: Tue Jan 9 20:45:08 JST 2007 PLATFORM: SUNW,SPARC-Enterprise, CSN: 2030636002, HOSTNAME: P2-DC1- 16-d0</pre>	<p>If you see unexpected messages, use the XSCF command <code>showdomainstatus(8)</code> to check system status on XSCF.</p>
6502750	<p>Notification message for inserted or removed card by PCI hot plug may not output.</p>	<p>None available at this time.</p>
6508432	<p>Many correctable errors (CE) may occur, and despite these are the correctable errors, domain may panic.</p>	<p>Set the following to <code>/etc/system</code> and then reboot the domain:</p> <pre>set pcie:pcie_aer_ce_mask = 0x2001</pre>
6508434	<p>The domain may panic when an additional PCI-X card is installed or a PCI-X card is replaced by using PCI hot plug.</p>	<p>Do not insert a different type of PCI-X card on the same PCI slot card by using PCI hot plug.</p>
6509337	<p><code>s10s_u3</code> wanboot fails - The server returned 416: Requested Range Not Satisfiable.</p>	<p>None available at this time.</p>
6510779	<p>On a large single domain configuration, the system may incorrectly report very high load average at times.</p>	<p>There is no workaround. Check for the availability of a patch for this defect.</p>
6510861	<p>When Dual-Channel Ultra320 SCSI Card (SE0X7SC2F, SE0X7SC2X) is mounted, correctable errors(CE) occur and system may panic.</p>	<p>To mask these errors with Dual-Channel Ultra320 SCSI Card (SE0X7SC2F, SE0X7SC2X), add the following entry to the <code>/etc/system</code> file and then reboot the system:</p> <pre>set pcie:pcie_aer_ce_mask = 0x31c1</pre>
6511374	<p>Unexpected error messages may be displayed on console after changing the system configuration.</p> <p>Example:</p> <pre>WARNING: Translation error source /LSB0/B0/0, PA 3c000000000, target /LSB0/B0/20000000</pre>	<p>This message can be safely ignored.</p>

**TABLE 6** Specific Issues and Workarounds Concerning Solaris (Continued)

CR ID	Description	Workaround
6515648	"Replumb Failed" error appears when <code>dr@0:SB1::memory</code> fails.	Once the DR operation is complete, it can be plumbed up manually. Example steps to re-plumb the interface manually: <pre># ifconfig interface plumb xxx.xxx.xxx.xxx netmask + broadcast + up # ifconfig interface group group-name # ifconfig interface addif xxx.xxx.xxx.xxx -failover deprecated up</pre> This workaround assumes that the <code>/etc/hostname.interface</code> file is correctly configured for the IPMP group and does not need any modification. The IP addresses used in the example above should match what was previously used and what matches the <code>/etc/hostname.&lt;interface&gt;</code> file.
6516135	Ap_Id format and devices may not be shown correctly by <code>cfgadm(1M)</code> .	Use the following operations to display all of the PCI slots. 1) <code>devfsadm</code> (at Solaris prompt) 2) <code>cfgadm</code>
6519290	Large amounts of I/O on swap devices can cause the system to appear hung by overwelling the I/O system. The amount of I/O required can be generated through a number of ways, eg memory shortage, heavy use of <code>/tmp</code> etc.	Set the following to <code>/etc/system</code> and then reboot the domain: <pre>set maxfastscan=0x2000</pre>
6520990	Domain may cause a panic when <code>deleteboard(8)</code> command for kernel board by using Dynamic Reconfiguration (DR).	To mask this error, add the following entry to the <code>/etc/system</code> file. <pre>set drmach:fmem_timeout = 30</pre>
6522017	DR and ZFS may not be used in the same domain.	Set the maximum size of the ZFS ARC lower.
6522433	After the CPU hardware error occurred, the <code>fmddump(1M)</code> command on the domain may display an incorrect faulty component.	Check system status on XSCF.
6525010	PCIe correctable errors can be recorded in the FMA error log.	Add the following entry to <code>/etc/system</code> to prevent the problem: <pre>set pci:pci_aer_ce_mask = 0x2001</pre>

**TABLE 6** Specific Issues and Workarounds Concerning Solaris (Continued)

CR ID	Description	Workaround
6527811	showhardconf(8) on XSCF can not display PCI card information that is installed in External I/O Expansion Unit, if the External I/O Expansion Unit is configured using PCI hotplug.	No workaround is available at this time. In case of each PCI card in the External I/O Expansion Unit is configured using PCI hotplug, the PCI card information is displayed correctly.
6529479	ereport.io.ddi.fm-capability error messages may be logged in ereport during system reboot.	None available at this time. Ignore the messages.
6529714	Warning messages occur while trying to configure more than four X4447A-Z or X1027A-Z1 cards into one I/O Boat.	No workaround available at this time.
6530178	DR addboard(8) command can hang. Once problem is observed, further DR operations are blocked. Recovery requires reboot of the domain.	There is no workaround. Check availability of a patch for this bug.
6530288	Ap_Id format may not be shown correctly by cfgadm(1M) command.	None available at this time.
6530753	Some of the PCI slots in the External I/O Expansion Unit PCI slots are not displayed during a normal boot operation.	Use one of the following operations to display all of the PCI slots. <ul style="list-style-type: none"> <li>• boot -r (at open boot prompt)</li> <li>• devfsadm -C (at Solaris prompt)</li> <li>• cfgadm (twice at Solaris prompt)</li> </ul>
6531036	The error message network initialization failed appears repeatedly after a boot net installation.	There is no workaround.
6531668	System hangs when executing parallel hot plug operation with SP DR in suspend phase.	No workaround available at this time.
6532215	volfs or dscp service may fail when domain is booted.	Restart the service if the failure is observed. To avoid the problem, issue the following commands.
	<pre> svc:/platform/sun4u/dscp:default: Method "/lib/svc/method/svc-dscp start" failed with exit status 95. </pre>	<pre> # svccfg -s dscp setprop start/timeout_seconds=count: 300 # svccfg -s volfs setprop start/timeout_seconds=count: 300 </pre>
	<pre> svc:/system/filesystem/volfs:default: Method or service exit timed out. Killing contract 59. </pre>	<pre> # svcadm refresh dscp # svcadm refresh volfs </pre>

**TABLE 6** Specific Issues and Workarounds Concerning Solaris (Continued)

CR ID	Description	Workaround
6534471	Domain may panic.	Add the following line to /etc/system and reboot the domain. <pre>set heaplp_use_stlb=0</pre> This bug has been fixed by 125100-06.
6535564	PCI hot plug to PCI slot #0, #1 or External IO Expansion Unit may fail on XSB added by DR.	There is no workaround. Use DR instead of PCI hot plug if need to add or remove PCI card on the XSB.
6536564	showlogs(8) and showstatus(8) command on XSCF might report wrong I/O component due to wrong diagnosis by Solaris Fault management Architecture when faults in I/O devices occur.	To avoid this problem, issue the following commands on the domain.  <pre># cd /usr/platform/SUNW,SPARC-Enterprise/lib/fm/topo/plugins # mv ioboard.so ioboard.so.orig # svcadm restart fmd</pre> If the following messages are displayed on the domain, contact a sales representative or a certified service engineer.  Example:  SUNW-MSG-ID: SUNOS-8000-1L, TYPE: Defect, VER: 1, SEVERITY: Minor EVENT-TIME: Sun May 6 18:22:24 PDT 2007 PLATFORM: SUNW,SPARC-Enterprise, CSN: BE80601007, HOSTNAME: sparc This bug has been fixed in 125369-05.
6537511	Bluetooth partner is hung during security tests execution	Restart application server
6539084	Sun PCIe Quad-port Gigabit Ethernet Adapter UTP card(X4447A-Z) might panic during a reboot.	There is no workaround. Check for the availability of a patch for this defect. This bug has been fixed in 125670-01.
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: <ul style="list-style-type: none"> <li>• X4447A-Z/X4447A-Z, PCIe Quad-port Gigabit Ethernet Adapter UTP</li> <li>• X1027A-Z/X1027A-Z, PCIe Dual 10 Gigabit Ethernet Fiber XFP</li> </ul>	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.



**TABLE 6** Specific Issues and Workarounds Concerning Solaris (Continued)

CR ID	Description	Workaround
6542632	Memory leak in PCIe module if driver attach fails.	There is no workaround. Check for the availability of a patch for this defect.
6545685	If the system has detected Correctable 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 <code>/etc/system</code> : <pre>set mc-opl:mc_max_rewrite_loop = 20000</pre>
6546188	The system panics when running hotplug ( <code>cfgadm</code> ) and DR operations ( <code>addboard</code> and <code>deleteboard</code> ) on the following cards: <ul style="list-style-type: none"> <li>• X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP</li> <li>• X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter</li> </ul>	There is no workaround. Check for the availability of a patch for this defect.
6551356	The system panics when running hotplug ( <code>cfgadm</code> ) 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: <ul style="list-style-type: none"> <li>• X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP</li> <li>• X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter</li> </ul>	Perform <code>cfgadm -c disconnect</code> to completely remove the card. After waiting at least 10 seconds, the card may be configured back into the domain using the <code>cfgadm -c configure</code> command.
6556742	The system panics when DiskSuite can not read the <code>metadb</code> during DR. This bug affects the following cards: <ul style="list-style-type: none"> <li>• SG-XPCIE2FC-QF4, 4Gb PCI-e Dual-Port Fibre Channel HBA</li> <li>• SG-XPCIE1FC-QF4, 4Gb PCI-e Single-Port Fibre Channel HBA</li> <li>• SG-XPCI2FC-QF4, 4Gb PCI-X Dual-Port Fibre Channel HBA</li> <li>• SG-XPCI1FC-QF4, 4Gb PCI-X Single-Port Fibre Channel HBA</li> </ul>	Panic can be avoided when a duplicated copy of the <code>metadb</code> is accessible via another Host Bus Adaptor. Or you can apply patch 125166-06.

**TABLE 6** Specific Issues and Workarounds Concerning Solaris (Continued)

CR ID	Description	Workaround
6559504	<p>Messages of the form <code>nxge: NOTICE: nxge_ipp_eccue_valid_check: rd_ptr = nnn wr_ptr = nnn</code> will be observed on the console with the following cards:</p> <ul style="list-style-type: none"> <li>• X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP</li> <li>• X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter</li> </ul>	These messages can be safely ignored.
6563785	<p>Hot-plug operation with the following cards might fail if a card is disconnected and then immediately reconnected:</p> <ul style="list-style-type: none"> <li>• SG-XPCIE2SCSIU320Z Sun StorageTek PCI-E Dual-Port Ultra320 SCSI HBA</li> <li>• SGXPCI2SCSILM320-Z Sun StorageTek PCI Dual-Port Ultra320 SCSI HBA</li> </ul>	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 SPARC Enterprise M4000/M5000 servers to panic or hang.	Version1.0 of the SCA6000 driver does not support hot-plug and should not be attempted. Version1.1 of the SCA6000 driver and firmware will support hot-plug operations after the required bootstrap firmware upgrade has been performed.
6564934	<p>Performing a DR <code>deleteboard</code> operation on a board which includes Permanent Memory when using the following network cards will result in broken connections:</p> <ul style="list-style-type: none"> <li>• X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP</li> <li>• X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter</li> </ul>	Re-configure the affected network interfaces after the completion of the DR operation. For basic network configuration procedures, refer to the <code>if manpage</code> for more information.
6568417	<p>After a successful CPU DR <code>deleteboard</code> operation, the system panics when the following network interfaces are in use:</p> <ul style="list-style-type: none"> <li>• X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP</li> <li>• X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter</li> </ul>	<p>Add the following line to <code>/etc/system</code> and reboot the system:</p> <pre>set ip:ip_soft_rings_cnt=0</pre>
6571370	<p>Use of the following cards have been observed to cause data corruption in stress test under laboratory conditions:</p> <ul style="list-style-type: none"> <li>• X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP</li> <li>• X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter</li> </ul>	<p>Add the following line in <code>/etc/system</code> and reboot:</p> <pre>set nxge:nxge_rx_threshold_hi=0</pre>

**TABLE 6** Specific Issues and Workarounds Concerning Solaris (Continued)

CR ID	Description	Workaround
6572593	fmdump(1M) may show wrong faulty component when IOU hardware error occurs.	Check system status on XSCF.
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 (SGXPCIE2FC-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: <ul style="list-style-type: none"><li>• X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP</li><li>• X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter</li></ul>	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 the addboard command, then retry the deleteboard command.

# Identifying Permanent Memory in a Target Board

1. Log in to XSCF.
2. Execute 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:
-----

```

DID	XSB	board mem MB	perm mem MB	base address	domain mem MB	target XSB	deleted mem MB	remaining 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, when you execute the `deleteboard` command or the `moveboard` command, the following notice appears:

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

# Software Documentation Updates

This section contains late-breaking software information that became known after the documentation set was published and corrections in the SPARC Enterprise M4000/M5000 Servers Software documentation.

The corrections for SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF Reference Manual, if not otherwise specified, also apply to the man pages which XSCF provides. And they supersede the information on the man pages.

[TABLE 7](#) lists known documentation updates.

**TABLE 7** 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.																		
ioxadm(8) man page		The required privileges for the <code>ioxadm(8)</code> command are as follows: <table border="1"><thead><tr><th>Required Privileges</th><th>Commands</th></tr></thead><tbody><tr><td>platop</td><td>env, list</td></tr><tr><td>platadm</td><td>env, list, locator, poweroff, poweron</td></tr><tr><td>fieldend</td><td>env, list, locator, poweroff, poweron, reset, settled</td></tr></tbody></table>	Required Privileges	Commands	platop	env, list	platadm	env, list, locator, poweroff, poweron	fieldend	env, list, locator, poweroff, poweron, reset, settled										
Required Privileges	Commands																			
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showldap(8) man page showlookup(8) man page showemailreport(8) man page		The man pages for <code>showldap(8)</code> , <code>showlookup(8)</code> and <code>showemailreport(8)</code> do not state that these commands are available with the <code>fieldeng</code> privilege.																		
setaudit(8) man page showaudit(8) man page		The <code>setaudit(8)</code> and <code>showaudit(8)</code> man pages are incorrect with respect to audit class information. The following are the audit classes and their values: <table border="1"><tbody><tr><td>ACS_SYSTEM</td><td>1</td></tr><tr><td>ACS_WRITE</td><td>2</td></tr><tr><td>ACS_READ</td><td>4</td></tr><tr><td>ACS_LOGIN</td><td>8</td></tr><tr><td>ACS_AUDIT</td><td>16</td></tr><tr><td>ACS_DOMAIN</td><td>32</td></tr><tr><td>ACS_USER</td><td>64</td></tr><tr><td>ACS_PLATFORM</td><td>128</td></tr><tr><td>ACS_MODES</td><td>256</td></tr></tbody></table>	ACS_SYSTEM	1	ACS_WRITE	2	ACS_READ	4	ACS_LOGIN	8	ACS_AUDIT	16	ACS_DOMAIN	32	ACS_USER	64	ACS_PLATFORM	128	ACS_MODES	256
ACS_SYSTEM	1																			
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**TABLE 7** Documentation Updates (*Continued*)

Title	Page Number	Update
SPARC Enterprise M4000/M5000/M8000/M9000 Servers Dynamic Reconfiguration (DR) User's Guide	2-27	<p data-bbox="569 241 865 262">2.5 "Operation Management"</p> <p data-bbox="569 272 955 293">The following sections will be added:</p> <p data-bbox="569 303 791 324">2.5.6, "XSCF Failover"</p> <p data-bbox="569 335 1219 418">An XSCF failover might prevent a DR operation from completing. To check, log in to the active XSCF, check the status of the system board and, if necessary, repeat the DR operation.</p> <p data-bbox="569 463 968 484">2.5.7, "Kernel Memory Board Deletion"</p> <p data-bbox="569 494 1200 578">If an XSCF failure or failover occurs during the Copy-rename phase of a <code>deleteboard(8)</code> or <code>moveboard(8)</code> operation, the Solaris OS may panic and display the following message:</p> <div data-bbox="592 612 1240 651" style="border: 1px solid black; padding: 5px;"><pre data-bbox="605 621 1086 642">Irrecoverable FMEM error <b>error_code</b></pre></div> <p data-bbox="569 687 1219 795">If you see this message, log in to the XSCF again to check status. You may have to reboot the Solaris OS and, on the XSCF, check system board status, specify the kernel memory board, and repeat the DR operation.</p> <p data-bbox="569 840 1001 861">2.5.8, "Deletion of Board with DVD Drive"</p> <p data-bbox="569 871 1208 923">To delete the system board to which the server's DVD drive is connected, execute the following steps:</p> <ol data-bbox="569 933 1179 954" style="list-style-type: none"><li data-bbox="569 933 1179 954">1. Stop the <code>vold(1M)</code> daemon by disabling the <code>volfs</code> service.</li></ol> <div data-bbox="592 994 1240 1032" style="border: 1px solid black; padding: 5px;"><pre data-bbox="605 1003 1029 1024"># /usr/sbin/svcadm disable volfs</pre></div> <ol data-bbox="569 1069 1200 1124" style="list-style-type: none"><li data-bbox="569 1069 862 1090">2. Execute the DR operation.</li><li data-bbox="569 1100 1200 1121">3. Restart the <code>vold(1M)</code> daemon by enabling the <code>volfs</code> service.</li></ol> <div data-bbox="592 1164 1240 1203" style="border: 1px solid black; padding: 5px;"><pre data-bbox="605 1173 1019 1194"># /usr/sbin/svcadm enable volfs</pre></div> <p data-bbox="569 1234 1051 1255">For details, see the <code>vold(1M)</code> Solaris man page.</p>