



SPARC® Enterprise M8000/M9000 Servers Product Notes

For XCP version 1071

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Preface

These product notes contain late-breaking information about the SPARC® Enterprise M8000/M9000 server hardware, software, or 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 SPARC Enterprise M8000/M9000 servers documentation, contact a sales representative or a certified service engineer.

Software Resources

The Solaris™ Operating System and Sun Java™ Enterprise System software are preinstalled on your SPARC Enterprise M8000/M9000 servers.

Contact a sales representative or a certified service engineer for software resources for your SPARC Enterprise M8000/M9000 servers.

Note – For latest patch information go to:

Global Site

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

Japanese Site

<https://software.fujitsu.com/jp/security/products-others/unix/>

North American Site

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

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

Accessing Documentation

Instructions for installing, administering, and using your SPARC Enterprise M8000/M9000 servers are provided in the SPARC Enterprise M8000/M9000 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/>

Note – Information in these product notes supersedes the information in the SPARC Enterprise M8000/M9000 servers documentation set.

Solaris documentation is available at:

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

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.

General Information about XCP 1071

This section describes the general information about XCP 1071.

- [What's New in XCP 1071](#)
 - [Supported Firmware and Operating System](#)
 - [Updating to XCP 1071](#)
 - [Functionality Issues and Limitations](#)
-

What's New in XCP 1071

In XCP Version 1071, the following new feature is introduced:

- Support for combining SPARC64™ VII and SPARC64™ VI processors on a SPARC® Enterprise M8000/M9000 server domain.

For information about installing SPARC64 VII processors, see [“CPU Upgrade” on page 35](#).

Supported Firmware and Operating System

The following firmware and operating system (OS) are supported in this release.

TABLE 1 Firmware and Operating System Versions

Firmware and Operating System	Version
XSCF Control Package (XCP)	1071
Solaris™ Operating System	
SPARC64 VI processors:	10 8/07 or later 10 11/06, with required patches
SPARC64 VII processors:	10 5/08 or later 10 8/07, with required patches

For XCP, you can download the latest files of firmware at the following websites.

Global Site:

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

Japanese Site:

<http://primeserver.fujitsu.com/sparcenterprise/download/firmware/>

Solaris OS Patch Information

This section lists mandatory patches for the SPARC Enterprise M8000/M9000 servers.

Patches for SPARC64 VI Processors

These patches are required for servers running Solaris 10 11/06.

- 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
- 125670-02 or later

The patches are not required for servers running Solaris 10 8/07 OS or later.

Patches for SPARC64 VII Processors

These patches are required for servers running Solaris 10 8/07 and mounting SPARC64 VII processors.

Note – Apply the patches in the following order. For the procedures of CPU upgrade including the patches, see [“CPU Upgrade” on page 35](#).

- 119254-51 or later
- 125891-01 or later
- 127755-01 or later
- 127127-11

The patches are not required for servers running Solaris 10 5/08 OS or later.

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.

Patches for Emulex PCI-E Cards

The following Emulex cards require drivers supplied in patch 120222-26:

- XSEFC402AF Sun StorageTek Enterprise Class 4Gb Dual-Port Fibre Channel PCI-E HBA
- XSEFC401AF Sun StorageTek Enterprise Class 4Gb Single-Port Fibre Channel PCI-E HBA

Updating to XCP 1071

To update your XCP to XCP 1071, please pay attention to the following points depending on your current XCP version.

You can upgrade to XCP 1071 from XCP version 1050 or higher. Refer to the *SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF User’s Guide* for instructions.

Resetting the XSCF Firmware

After updating the XCP firmware to 1071, do not fail to reset the XSCF by using the `rebootxscf(8)` command.

Updating from a Version Earlier Than XCP 1050

- You cannot update to XCP 1071 directly.
If you are currently running a version earlier than XCP 1050, you must first update to an interim version of XCP between 1050 and 1070 (inclusive) before updating to XCP 1071. Refer to the product notes document for the interim version for instructions.
- Delete any accounts named "admin".
Any accounts named admin must be deleted prior to updating to XCP 1050 or later. This account name is reserved in XCP 1050 and higher. Use the `deleteuser(8)` command to delete the account.

Updating from a Version Earlier Than XCP 1070

On a domain which has been in operation during the XCP update to XCP 1071, when you perform Dynamic Reconfiguration (DR) to add or replace the SPARC64 VII processors, you need to update the OpenBoot™ PROM firmware. The OpenBoot PROM firmware is updated as you update the XCP and restart the domain. For this reason, it is strongly recommended to restart all the domains after you update the firmware to XCP 1071, regardless of whether you added or replaced the SPARC64 VII processors.

Functionality Issues and Limitations

This section describes the known issues and limitations at the time of this release.

Limitations for SPARC64 VII Processors



Caution – You must complete the upgrades to the XCP firmware and to Solaris OS before inserting the CPU/memory board unit of SPARC 64 VII processors into the chassis.

On a SPARC Enterprise M9000 server, if a single domain includes 16 boards containing SPARC64 VII processors, then SunVTS 7.0ps2 software will not start. (CR ID: 6720922)

General Functionality Issues and Limitations



Caution – For dynamic reconfiguration (DR) and hot-plug issues, see [TABLE 4](#).

- Domains using the ZFS file system cannot use Dynamic Reconfiguration.
- The maximum number of IOUA (Base I/O Card) cards per domain is limited to six cards.
- Do not use the internal CD-RW/DVD-RW drive unit and the TAPE drive unit at the same time.
- For this XCP release, the XSCF browser user interface (XSCF Web) does not support the External I/O Expansion Unit Manager feature.
- The XSCF does not support the Log Archiving feature.
- When using XSCF as the NTP server of the domain, configure it so as not to block the ICMP protocol of the DNS server and the NTP server which the XSCF refers to.
- When you use the external power control interface (EPC) of the external power controller, the following notification signals are not supported:
 - the OS panic or the server hardware error signal (*CPUN/RTNU)
 - the server hardware error signal (power fail, temperature error, and fan error) (*ALARM)
- 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 in an External I/O Expansion Unit.
 - No more than eight cards in a SPARC Enterprise M8000/M9000 servers.

- In case that Solaris OS is a single user mode, if you switch from the domain console to the XSCF Shell, Solaris OS might start up in multi-user. When you operate the single user mode for Solaris OS, do not switch from the domain console to the XSCF Shell.
- We recommend the domain to use the XSCF Unit as NTP server. In this case, pay attention to the following points:
 - XSCF must be connected to an external NTP server
 - When you connect one or more NTP servers in addition to XSCF, connect the same NTP server as XSCF is using

For details on NTP server, contact a service engineer. For details on NTP settings, refer to the *SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF User's Guide*.

- On the SPARC Enterprise M8000/M9000 servers with XCP 1050 or later, the dual XSCF Unit feature is working. Therefore, you can not downgrade SPARC Enterprise M8000/M9000 servers with XCP 1050 or later to XCP 1040 or XCP 1041, which does not support dual XSCF Unit feature.
- You cannot use the following user account names, as they are reserved for system use: `root`, `bin`, `daemon`, `adm`, `operator`, `nobody`, `sshd`, `rpc`, `rpcuser`, `ldap`, `apache`, `ntp`, `admin`, and `default`.
- Using the XSCF Web, when you import XCP or update the firmware, Session ID error may be displayed on the web browser. And in the Autologout setting, when you specify the timeout period as over 30 minutes, Internal Server Error might be displayed when you perform the firmware update. Please close the current browser and open the new browser to reconnect to XSCF Web.
- When you use the XSCF Web, if a plug-in such as the search tool installed with the browser, remove the plug-in or disable the pop-up blocking.
- XSCF-LAN is compliant with auto-negotiation. When you connect XSCF-LAN and the network device which has been fixed to the full-duplex mode, according to the IEEE 802.3 rule, XSCF-LAN communicates in the half-duplex mode. Due to this, network communication speed may slow down or communication error may occur. Do not fail to set the network device which connects with XSCF-LAN to the auto-negotiation mode.
- While you are performing DR operation to a COD board, do not execute the `addcodlicense(8)/deletecodlicense(8)/setcod(8)` command.
- The `restoredefaults(8)` command is not supported in this release.
- If your domain is running one of the following versions of Solaris OS:
 - Solaris 10 5/08 OS
 - An earlier version of Solaris 10 OS with patch ID 127127-11

Then you must set the following parameter in the system specification file (`/etc/system`):

```
set heaplp_use_stlb=0
```


Then reboot the domain.

For more information, refer to CR 6718173 in [TABLE 4](#).

Information about Hardware

This section describes the special instructions and the issues about the SPARC Enterprise M8000/M9000 servers hardware.

- [Hardware Issues and Workarounds](#)
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Hardware Issues and Workarounds

[TABLE 2](#) lists known hardware issues and possible workarounds.

TABLE 2 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 OpenBoot PROM (OK) prompt and reboot.
6557379	Power cables are not redundant on single power feed servers without the dual power feed option.	On servers that have single power feed, all power cables must be connected and powered on at all times.

Sun Crypto Accelerator 6000 Cards

If you are not using the correct version of the Sun Crypto Accelerator (SCA) 6000 card driver, hot-plug operations on SCA 6000 cards can cause Sun SPARC Enterprise M4000/M5000 servers to panic or hang. Version 1.1 of the SCA6000 driver and firmware supports hot-plug operations after the required bootstrap firmware upgrade has been performed. Version 1.0 of the SCA6000 driver does not support hot-plug and should not be used.

Information about Software

This section describes the special instructions and the issues about the SPARC Enterprise M8000/M9000 servers software.

- [XCP Issues and Workarounds](#)
- [Solaris OS Issues and Workarounds](#)
- [Software Documentation Updates](#)
- [Identifying Degraded Memory in a System](#)
- [Identifying Different Memory Sizes in a System Board](#)
- [Identifying Permanent Memory in a Target Board](#)
- [CPU Upgrade](#)

XCP Issues and Workarounds

[TABLE 3](#) lists known XCP issues and possible workarounds.

TABLE 3 XCP Issues and Workarounds

ID	Description	Workaround
RTIF1-070418-009	While XSCF is running, a process may go down, a watchdog timeout may occur, or a hang-up may occur. After this, XSCF may reset.	Check that XSCF is started. If not started, stop all the domains and then execute the system power off/on (AC OFF/ON). To turn on the system power that you turned off, wait at least 30 seconds before power-on.
RTIF1-070528-002	While XSCF is running, watchdog timeout may occur and XSCF may reboot.	Check that XSCF is started. If not started, stop all the domains and then execute the system power off/on (AC OFF/ON). To turn on the system power that you turned off, wait at least 30 seconds before power-on.

TABLE 3 XCP Issues and Workarounds (Continued)

ID	Description	Workaround
RTIF1-070823-001	Using the XSCF Web, when you selected SSH on the snapshot screen, the maximum number of character input for Host, Directory, ID, and Password doesn't correspond to the maximum number of character input on the XSCF Shell.	To specify the value which exceeds the maximum number of character input for the XSCF Web, use XSCF Shell.
RTIF1-070824-002	On the XSCF Web, when you select Domain Mode Configuration to perform various settings, the pop-up screen may not appear but "Undefined" may be displayed on the screen.	Select Domain Mode Configuration one more time and perform the settings. Or once terminate the XSCF Web and then perform the settings.
RTIF1-070824-005	On the XSCF Web, when you changed the Refresh Interval value of the Monitor Message Frame, the invalid pop-up "Confirmation Domain mode" may appear.	Ignore the pop-up and close the screen.
RTIF1-070824-006	On the tab browser, to the same host, when you perform multiple log-in with the user accounts of different user privileges, the user privilege of the last log-in user account will be applied to those pages which you've already logged in.	When you use the tab browser, do not perform multiple log-in to the same host.
RTIF1-070824-011	While using FireFox2, in the Configuration policy setting on the Domain Configuration screen, when you specify a domain which is in operation, an error display pop-up appears. When you click on the Back button on this error display pop-up and click on the Cancel button on the inquiry screen to re-display the data, the system remains in the error message screen.	From the Menu, select the Domain Configuration page again.
RTIF1-070904-001	CLIs should display "Permission denied" when it is executed in Standby XSCF.	Only the following CLIs can be executed on the Standby XSCF: <code>snapshot(8)</code> , <code>switchscf(8)</code> . Do not attempt to run any other CLI on the Standby. Such attempts will report various errors.
RTIF1-070904-004	The latest communication field in <code>showarchiving(8)</code> command is not updated regularly.	Disabling and re-enabling archiving refreshes the Latest communication field in <code>showarchiving(8)</code> output.
RTIF1-070914-003	When the XSCF switching performed, there may be "SCF: Board control error (DMA timeout)" stored in the error log.	There is no workaround. This message can be safely ignored.

TABLE 3 XCP Issues and Workarounds (Continued)

ID	Description	Workaround
RTIF1-070914-025	When you execute XCP Sync on the Firmware Update page, after 15 minutes, the error message "Another flashupdate is now processing" or "The page cannot be displayed" may appear.	There is no workaround. However, the XCP Sync process has been continuously executed. Check the XSCF update completion message on the monitoring message to confirm the completion of Sync process.
RTIF1-071102-002	The snmp daemon might quit.	To restart the snmp daemon, issue the command <code>setsnmp enable</code> .
RTIF1-071116-001	After using the <code>addfru(8)</code> or <code>replceafru(8)</code> command for active replacement without the diagnostic test in the maintenance menu, further DR operation might fail with a misleading message regarding the board being unavailable for DR.	Do not fail to execute the diagnosis in the maintenance menu of the <code>addfru(8)</code> or <code>replacefru(8)</code> command. In case of missing the diagnostic test in the maintenance menu of the <code>addfru(8)</code> or the <code>replacefru(8)</code> command, execute the <code>testsb(8)</code> command or delete the CPU/memory board unit using the <code>deletefru(8)</code> command and then retry the <code>addfru(8)</code> command.
RTIF1-071116-005	While system power on, when the XSCF switching performed by <code>switchscf(8)</code> command, PANIC might be generated in XSCF before it switches, and "SHUTDOWN timeout" may be stored in the error log.	There is no workaround. This message can be safely ignored.
RTIF1-071126-002	When the server is being installed, and the mainline switch is turned on for the first time, these error messages might be displayed: PSU shortage XSCF watchdog timeout XSCFU hang-up is detected XSCF process down detected	Turn off the system AC power, then turn it on again. When the error log is displayed again, turn off the system AC power, then turn it on again. To turn on the system power that you turned off, wait at least 30 seconds before power-on.
RTIF1-071129-003	An error log cannot be registered in XSCF when the following message is displayed on Solaris OS by the External I/O Expansion Unit error: SUNW-MSG-ID: SUN4-8000-4P, TYPE: Fault	There is no workaround.

TABLE 3 XCP Issues and Workarounds (Continued)

ID	Description	Workaround
RTIF1-080404-001	<p>Following a dynamic reconfiguration operation using the XSCF commands <code>deleteboard(8)</code> and <code>addboard(8)</code>, you might see I/O channel degradation, resulting in error messages and entries in the corresponding report.</p> <p>If you run into this problem, the <code>fmddump(8)</code> command will report the following error by mistake:</p> <pre>ereport.chassis.SPARCEnterprise. asic.ioc.ch.leaf.fe</pre>	<p>The MSG-ID assigned to the error displayed and the actual behavior may not be consistent, and reset or degradation may not occur. Contact a certified service engineer and give the error code that displayed by using the <code>showlogs</code> error command.</p>
RTIF1-080404-002	<p>When you use the command <code>setsnmpusm passwd</code> to set a password, if you set a password of fewer than eight characters, a segmentation fault occurs.</p>	<p>Always set a password of at least eight characters.</p>
RTIF1-080512-001	<p>When you specify "localhost" to the <code>hostname</code> of the <code>sethostname(8)</code> command and reset XSCF by using the <code>applynetwork(8)</code> and the <code>rebootxscf(8)</code> commands, a process goes down in XSCF.</p>	<p>Do not specify "localhost" to the <code>hostname</code> of the <code>sethostname(8)</code> command.</p>
RTIF1-080512-002	<p>When the NTP setting are enabled, a message as follows may appear on the XSCF console.</p> <p>Output sample:</p> <pre>-xx.xxx.xxx.xxx mode 4 code 1 auth 0 clock_filter: n 8 off -0.000310 del 0.001300 dsp 0.001158 jit 0.000172, age 0 clock_update: at 637535 assoc 2 local_clock: assocID 54190 offset -0.000309657 freq -9.765 state 4 ...</pre>	<p>This message can be safely ignored. There is no workaround.</p>
RTIF1-080512-003	<p>To a domain which is in Quad-XSB configuration, when you perform active addition of PCI cards and then restart the domain, active addition of PCI cards may become unavailable afterwards.</p>	<p>Do not perform active addition of PCI cards. When you failed in active addition of PCI cards, stop the domain to add on the cards.</p>
RTIF1-080520-001	<p>BUI Domain Operation page mistakes the operation demand for Domain 8 or 9, and it issues it to DID#00 wrongly.</p>	<p>Do not perform active addition of PCI cards. When you failed in active addition of PCI cards, stop the domain to add on the cards.</p>

TABLE 3 XCP Issues and Workarounds (*Continued*)

ID	Description	Workaround
RTIF1-080526-001	When the system is stressed with many faults, the <code>fmd</code> process on the service processor might hang. Once this happens, <code>fma</code> commands on the service processor can fail or hang.	Reboot the service processor using the XSCF command <code>rebootxscf(8)</code> .
RTIF1-080620-001	The SNMP-trap not notified in the event that the power cable of the server got unplugged accidentally.	There is no workaround.

Solaris OS Issues and Workarounds

TABLE 4 lists known Solaris OS issues and possible workarounds

TABLE 4 Solaris OS Issues and Workarounds

CR ID	Description	Workaround
5076574	A PCIe error can lead to an invalid fault diagnosis on a large M8000/M9000 domain.	This bug has been fixed in Solaris 10 5/08. For Solaris 10 8/07 or earlier, this has been fixed in patch 127127-11. <i>[Workaround]</i> Create a file <code>/etc/fm/fmd/fmd.conf</code> containing the following lines; <code>setprop client. buflim 40m</code> <code>setprop client. memlim 40m</code>
6303418	A SPARC Enterprise M9000 server with a single domain and 11 or more fully populated system boards might hang under heavy stress.	This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 120011-01. <i>[Workaround]</i> Do not exceed 170 CPU threads. Limit the number of CPU threads to one per CPU core by using the Solaris <code>psradm</code> command to disable the excess CPU threads. For example, disable all odd-numbered CPU threads.
6416224	System performance can degrade using a single NIC card with more than 5,000 connections.	This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 120011-08. <i>[Workaround]</i> 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.

TABLE 4 Solaris OS Issues and Workarounds (*Continued*)

CR ID	Description	Workaround
6441349	The system may hang if there is an I/O error in the system.	This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 120011-07. There is no workaround.
6449315	The Solaris OS <code>cfgadm(1M)</code> command does not unconfigure a DVD drive from a domain on a SPARC Enterprise M8000/M9000 server.	Disable the Volume Management Daemon (<code>vold</code>) before unconfiguring a DVD drive with the <code>cfgadm(1M)</code> command. To disable <code>vold</code> , stop the daemon by issuing the command <code>/etc/init.d/volmgt stop</code> . After the device has been removed or inserted, restart the daemon by issuing the command <code>/etc/init.d/volmgt start</code> .
6459540	The DAT72 internal tape drive on SPARC Enterprise M8000/M9000 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 DAT72-000.
6466617	Performing a hot plug operation with the PCI-Express slot too quickly interrupts a PCI leaf reset and occurs the following error: <code>cfgadm: Component system is busy</code> error	Pause a few seconds between the issue of each <code>cfgadm -c</code> command.

TABLE 4 Solaris OS Issues and Workarounds (Continued)

CR ID	Description	Workaround
6472153	If you create a Solaris OS 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.	<p>This bug has been fixed in Solaris 10 5/08. For Solaris 10 8/07 or earlier, this has been fixed in patch 137046-01.</p> <p>[Workaround]</p> <p>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 a follows:</p> <pre># sttydefs -r console # sttydefs -a console -i "9600 hupcl opost onlcr crtscts" -f "9600"</pre> <p>This procedure is required only once.</p>
6481002	Installing the Solaris OS from the network using certain PCI-Express cards may cause a panic.	<p>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.</p>
6485555	On-board Gigabit Ethernet NVRAM corruption could occur due to a race condition. The window of opportunity for this race condition is very small.	<p>This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 120011-08.</p> <p>There is no workaround.</p>

TABLE 4 Solaris OS Issues and Workarounds (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> <pre>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</pre>	<p>This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 125369-05.</p> <p>[Workaround]</p> <p>If problem occurred, implement the following workaround:</p> <ol style="list-style-type: none"> 1. Remove the following file. <pre># rm /var/fm/fmd/ckpt/cpumem-diagnosis/cpumem-diagnosis</pre> 2. Restart fmd service. <pre># svcadm restart fmd</pre> <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>This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 120011-07.</p> <p>There is no workaround.</p>

TABLE 4 Solaris OS Issues and Workarounds (*Continued*)

CR ID	Description	Workaround
6499304	<p>CPU isn't offlined and unexpected message is displayed on console when many correctable error(CE) occurs.</p> <p>Example:</p> <pre>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</pre>	<p>This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 125369-05.</p> <p>[<i>Workaround</i>] Check CPU status on XSCF.</p>
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>This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 125369-05.</p> <p>[<i>Workaround</i>] 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>This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 120011-08.</p> <p>There is no workaround.</p>
6505921	<p>Correctable error on the system PCIe bus controller generates an invalid fault.</p>	<p>This bug has been fixed in Solaris 10 5/08. For Solaris 10 8/07 or earlier, this has been fixed in 120011-14 and 125369-05.</p> <p>[<i>Workaround</i>] Create a file <code>/etc/fm/fmd/fmd.conf</code> containing the following lines; <code>setprop client.buflim 40m</code> <code>setprop client.memlim 40m</code></p>

TABLE 4 Solaris OS Issues and Workarounds (Continued)

CR ID	Description	Workaround
6508432	Many correctable errors (CE) may occur, and despite these are the correctable errors, domain may panic.	This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 120011-08. [Workaround] Set the following to <code>/etc/system</code> and then reboot the domain: <pre>set pcie:pcie_aer_ce_mask = 0x2001</pre>
6508434	The domain may panic when an additional PCI-X card is installed or a PCI-X card is replaced by using PCI hot plug.	This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 120011-08. [Workaround] Do not insert a different type of PCI-X card on the same PCI slot by using PCI hot plug.
6509337	s10s_u3 wanboot fails - The server returned 416: Requested Range Not Satisfiable.	This bug has been fixed in Solaris 10 8/07.
6510861	When Dual-Channel Ultra320 SCSI Card (SE0X7SC2F, SE0X7SC2X) is mounted, correctable errors(CE) occur and system may panic.	This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 120011-08. [Workaround] Add the following entry to the <code>/etc/system</code> file and then reboot the system: <pre>set pcie:pcie_aer_ce_mask = 0x31c1</pre>
6511374	Unexpected error messages may be displayed on console after changing the system configuration. Example: WARNING: Translation error source /LSB0/B0/0, PA 3c000000000, target /LSB0/B0/20000000	This message can be safely ignored.

TABLE 4 Solaris OS Issues and Workarounds (*Continued*)

CR ID	Description	Workaround
6515648	"Replumb Failed" error appears when <code>dr@0:SB1::memory</code> fails.	<p>Once the DR operation is complete, it can be plumbed up manually.</p> <p>Example steps to re-plumb the interface manually:</p> <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> <p>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.<interface></code> file.</p>
6516135	<code>Ap_Id</code> format and devices may not be shown correctly by <code>cfgadm(1M)</code> .	<p>Use the following operations to display all of the PCI slots.</p> <ol style="list-style-type: none">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 overwhelming 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.	<p>Set the following to <code>/etc/system</code> and then reboot the domain:</p> <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).	<p>This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 120011-08.</p> <p>[Workaround]</p> <p>To mask this error, add the following entry to the <code>/etc/system</code> file.</p> <pre>set drmach:fmem_timeout = 30</pre>
6522017	DR and ZFS may not be used in the same domain.	<p>Reduce the amount of kernel memory that ZFS can allocate by setting the <code>zfs_arc_max</code> parameter in the <code>/etc/system</code> file. The following example sets the maximum size to 512 Mbytes.</p> <pre>set zfs_arc_max = 0x20000000</pre>

TABLE 4 Solaris OS Issues and Workarounds (Continued)

CR ID	Description	Workaround
6522433	After the CPU hardware error occurred, the <code>fmDump(1M)</code> command on the domain may display an incorrect faulty component.	This bug has been fixed in Solaris 10 5/08. For Solaris 10 8/07 or earlier, this has been fixed in patch 127127-11. [Workaround] Check system status on XSCF.
6527781	The <code>cfgadm</code> command fails while moving the DVD/DAT drive between two domains.	This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 125081-06. There is no workaround. To reconfigure DVD/Tape drive, execute <code>reboot -r</code> from the domain exhibiting the problem.
6527811	The <code>showhardconf(8)</code> command on the XSCF cannot 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.	This bug has been fixed in Solaris 10 5/08. For Solaris 10 8/07 or earlier, this has been fixed in patch 128346-01. There is no workaround.
6529714	Warning messages occur while trying to configure more than four X4447A-Z or X1027A-Z1 cards into one I/O Boat.	There is no workaround.
6530178	DR <code>addboard(8)</code> command can hang. Once problem is observed, further DR operations are blocked. Recovery requires reboot of the domain.	This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 120011-07. There is no workaround.
6530288	<code>Ap_Id</code> format may not be shown correctly by <code>cfgadm(1M)</code> command.	This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 120011-07. There is no workaround.
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"> • <code>boot -r</code> (at open boot prompt) • <code>devfsadm -C</code> (at Solaris prompt) • <code>cfgadm</code> (twice at Solaris prompt)
6531036	The error message <code>network initialization failed</code> appears repeatedly after a boot net installation.	There is no workaround. This message can be safely ignored.

TABLE 4 Solaris OS Issues and Workarounds (*Continued*)

CR ID	Description	Workaround
6531668	System hangs when executing parallel hot plug operation with SP DR in suspend phase.	There is no workaround.
6532215	volfs or dscp service may fail when domain is booted. <pre>svc:/platform/sun4u/dscp:default: Method "/lib/svc/method/svc-dscp start" failed with exit status 95.</pre> <pre>svc:/system/filesystem/volfs:default: Method or service exit timed out. Killing contract 59.</pre>	Restart the service if the failure is observed. To avoid the problem, issue the following commands. <pre># svccfg -s dscp setprop start/timeout_seconds=count: 300 # svccfg -s volfs setprop start/timeout_seconds=count: 300 # svcadm refresh dscp # svcadm refresh volfs</pre>
6533686	DR deleteboard(8) and moveboard(8) operations might fail if the target board includes permanent memory. Example for messages on domain: <pre>drmach: WARNING: DR parellel copy timeout</pre> <pre>dcs: <xxxx> config_change_state: Hardware specific failure: unconfigure SB1: DR parellel copy timeout</pre>	Try DR operations again. To avoid this issue, before performing DR operations using deleteboard(8) and moveboard(8) commands on a board that includes permanent memory, follow these steps: <ol style="list-style-type: none"> 1. Add the following line to the System Configuration file (/etc/system): <pre>set drmach:drmach_disable_mcopy = 1</pre> 2. Reboot the domain.
6534471	Domains might panic.	This bug has been fixed in Solaris 10 8/07.
6535018	In Solaris domains that include SPARC64 VII processors, workloads that make heavy use of the Solaris kernel might not scale as expected when you increase the thread count to a value greater than 256.	This has been fixed in patch 137111-01. <p>[Workaround]</p> For Solaris domains that include SPARC64 VII processors, limit domains to a maximum of 256 threads.
6535564	PCI hot plug to PCI slot #0, #1 or External I/O Expansion Unit may fail on XSB added by DR.	This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 120011-08. <p>[Workaround]</p> Use DR instead of PCI hot plug if need to add or remove PCI card on the XSB.

TABLE 4 Solaris OS Issues and Workarounds (Continued)

CR ID	Description	Workaround
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.	<p>This bug has been fixed in Solaris 10 5/08. For Solaris 10 8/07 or earlier, this has been fixed in patch 125369-05.</p> <p>[Workaround]</p> <p>To avoid this problem, issue the following commands on the domain.</p> <pre># cd /usr/platform/SUNW,SPARC-Enterprise/lib/fm/topo/plugins # mv ioboard.so ioboard.so.orig # svcadm restart fmd</pre> <p>If the following messages are displayed on the domain, contact a service engineer.</p> <p>Example:</p> <pre>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</pre>
6537511	Bluetooth partner is hung during security tests execution.	Restart application server.
6539084	Under Solaris 10 11/06, 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.	<p>This bug has been fixed in Solaris 10 7/08.</p> <p>There is no workaround.</p>
6539909	Under Solaris 10 11/06, do not use the following I/O cards for network access when you are using the <code>boot net install</code> command to install the Solaris OS:	Use an alternate type of network card or onboard network device to install the Solaris OS via the network.
	<ul style="list-style-type: none"> • X4447A-Z/X4447A-Z, PCIe Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z/X1027A-Z, PCIe Dual 10 Gigabit Ethernet Fiber XFP 	

TABLE 4 Solaris OS Issues and Workarounds (*Continued*)

CR ID	Description	Workaround
6542632	Memory leak in PCIe module if driver attach fails.	This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 120011-09. There is no workaround.
6545143	When kcage daemon is expanding the kcage area, if the user stack exists in the expanded area, its area is demapped and might cause a <code>ptl_1</code> panic during the flushw handler execution.	This bug has been fixed in Solaris 10 5/08. For Solaris 10 8/07 or earlier, this has been fixed in patch 127111-08. There is no workaround.
6545685	If the following message displayed on the OS console, memory degradation or XSB deconfiguration may occur in the subsequent reboot. Example: <code>mc-opl: WARNING: mc-opl rewrite timeout on /LSB0/B0</code>	This bug has been fixed in Solaris 10 5/08. For Solaris 10 8/07 or earlier, this has been fixed in patch 127111-08. [Workaround] Add the following to <code>/etc/system</code> and then reboot the domain: <code>set mc-opl: mc_max_rewrite_loop = 20000</code>
6546188	The system panics when running hotplug (<code>cfgadm(1M)</code>) and DR operations (<code>addboard(8)</code> and <code>deleteboard(8)</code>) on the following cards: <ul style="list-style-type: none"> • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter 	This bug has been fixed in Solaris 10 5/08. For Solaris 10 8/07, this has been fixed in patch 127741-01. There is no workaround.
6551356	The system panics when running hotplug (<code>cfgadm(1M)</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"> • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter 	This bug has been fixed in Solaris 10 5/08. For Solaris 10 8/07, this has been fixed in patch 127741-01. [Workaround] 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.

TABLE 4 Solaris OS Issues and Workarounds (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"> • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter 	<p>This bug has been fixed in Solaris 10 5/08. For Solaris 10 8/07, this has been fixed in patch 127741-01.</p> <p>[Workaround] These messages can be safely ignored.</p>
6564934	<p>Performing a <code>DR deleteboard(8)</code> operation on a board which includes Permanent Memory when using the following network cards results in broken connections:</p> <ul style="list-style-type: none"> • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter 	<p>This bug has been fixed in Solaris 10 5/08. For Solaris 10 8/07, this has been fixed in patch 127741-01.</p> <p>[Workaround] Re-configure the affected network interfaces after the completion of the DR operation. For basic network configuration procedures, refer to the <code>ifconfig</code> man page for more information.</p>
6568417	<p>After a successful CPU <code>DR deleteboard(8)</code> operation, the system panics when the following network interfaces are in use:</p> <ul style="list-style-type: none"> • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter 	<p>This bug has been fixed in Solaris 10 5/08. For Solaris 10 8/07 or earlier, this has been fixed in patch 127111-02.</p> <p>[Workaround] Add the following line to <code>/etc/system</code> and reboot the system: <code>set ip:ip_soft_rings_cnt=0</code></p>
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"> • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter 	<p>This bug has been fixed in Solaris 10 5/08. For Solaris 10 8/07, this has been fixed in patch 127741-01.</p> <p>[Workaround] Add the following line in <code>/etc/system</code> and reboot the system: <code>set nxge:nxge_rx_threshold_hi=0</code></p>
6572827	<p>On SPARC Enterprise M8000/M9000 servers, one of the columns in the IO Devices section of the output from <code>prtdiag -v</code> is "Type". This reports "PCIe", "PCIx", "PCI" or "UNKN" for each device.</p> <p>The algorithm used to compute this value is incorrect. It reports "PCI" for PCI-X leaf devices and "UNKN" for legacy PCI devices.</p>	<p>There is no workaround.</p>

TABLE 4 Solaris OS Issues and Workarounds (*Continued*)

CR ID	Description	Workaround
6584984	On SPARC Enterprise M8000/M9000 servers, <code>busstat(1M)</code> command may cause rebooting of domains.	<p>This bug has been fixed in Solaris 10 5/08. For Solaris 10 8/07 or earlier, this has been fixed in patch 127127-11.</p> <p>There is no workaround. Do not use <code>busstat(1M)</code> command.</p> <p>Check for the availability of a patch for this defect.</p>
6588555	XSCF failover during DR operation to the permanent memory might cause domain panic.	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.
6588650	On occasion, the system is unable to DR after an XSCF failover or XSCF reboot.	There is no workaround.
6589546	<code>prtdiag(8)</code> command does not show all I/O devices of the following cards: <ul style="list-style-type: none">• XSEFC402AF Sun StorageTek Enterprise Class 4Gb Dual-Port Fibre Channel PCI-E HBA• XSEFC401AF Sun StorageTek Enterprise Class 4Gb Single-Port Fibre Channel PCI-E HBA	<p>This bug has been fixed in Solaris 10 5/08. For Solaris 10 8/07 or earlier, this has been fixed in patch 127127-11.</p> <p>[<i>Workaround</i>]</p> <p>Use <code>prtdiag -v</code> for full output.</p>
6589644	After added the system board by DR, when the switching occurred on the redundant XSCF Units, the domain console may hang up.	The console can be recovered by pressing <code>ctrl-q</code> (the "Ctrl" key and the "q" key).
6592302	Unsuccessful DR operation leaves memory partially configured.	Try <code>deleteboard(8)</code> again.

TABLE 4 Solaris OS Issues and Workarounds (Continued)

CR ID	Description	Workaround
6614737	<p>The DR <code>deleteboard(8)</code> and <code>moveboard(8)</code> operations might hang if any of the following conditions exist:</p> <ul style="list-style-type: none"> • A DIMM has been degraded. • The domain contains system boards with different memory size. 	<p>This has been fixed in patch 137111-01.</p> <p>[Workaround]</p> <p>Avoid performing DR operations if any of the listed conditions exist.</p> <p>To determine whether the system contains degraded memory, use the XSCF <code>showstatus(8)</code> command. For sample output, see “Identifying Degraded Memory in a System” on page 32.</p> <p>To determine whether the domain contains system boards with different memory sizes, display the list of memory sizes using the XSCF <code>showdevices(8)</code> command or the <code>prtdiag(8)</code> command on the domain. For sample of output, see “Identifying Different Memory Sizes in a System Board” on page 32</p> <p>If a DR command hangs, reboot the domain to recover.</p>
6619224	<p>For Solaris domains that include SPARC 64 VII processors, a single domain of 256 threads (128 cores) or more might hang for an extended period of time under certain unusual situations. Upon recovery, the <code>uptime</code> command will show extremely high load averages.</p>	<p>For Solaris domains that include SPARC 64 VII processors, do not exceed a domain size of 256 virtual CPUs in a single Solaris domain. This means a maximum of 32 CPU chips in a single domain configuration (maximum configuration for an M8000 server).</p>
6623226	<p>The Solaris command <code>lockstat(1M)</code> or the <code>dtrace lockstat</code> provider might cause a system panic.</p>	<p>Do not use the Solaris <code>lockstat(1M)</code> command or the <code>dtrace lockstat</code> provider.</p>
6625734	<p>Systems with large number of processors in a single domain environment may have suboptimal performance with certain workloads.</p>	<p>Use processor sets to bind application processes or LWPs to groups of processors. Refer to the <code>psrset(1M)</code> man page for more information.</p>
6632549	<p><code>fmd</code> service on domain might fail to maintenance mode after DR operations.</p>	<p>This has been fixed in patch 138050-01.</p> <p>[Workaround]</p> <p>If <code>fmd</code> service fails, issue the following commands on the domain to recover:</p> <pre># svcadm clear fmd</pre>

TABLE 4 Solaris OS Issues and Workarounds (Continued)

CR ID	Description	Workaround
6660168	<p>If a <code>ubc.piowbeue-cpu</code> error occurs on a domain, the Solaris Fault Management <code>cpumem-diagnosis</code> module might fail, causing an interruption in FMA service.</p> <p>If this happens, you will see the following output in the console log:</p> <pre>SUNW-MSG-ID: FMD-8000-2K, TYPE: Defect, VER: 1, SEVERITY: Minor EVENT-TIME: Fri Apr 4 21:41:57 PDT 2008 PLATFORM: SUNW,SPARC-Enterprise, CSN: 2020642002, HOSTNAME: <hostname> SOURCE: fmd-self-diagnosis, REV: 1.0 EVENT-ID: 6b2e15d7-aa65-6bcc-bcb1- cb03a7dd77e3 DESC: A Solaris Fault Manager component has experienced an error that required the module to be disabled. Refer to http://sun.com/msg/FMD-8000-2K for more information. AUTO-RESPONSE: The module has been disabled. Events destined for the module will be saved for manual diagnosis. IMPACT: Automated diagnosis and response for subsequent events associated with this module will not occur. REC-ACTION: Use <code>fmdump -v -u <EVENT-ID></code> to locate the module. Use <code>fmadm reset <module></code> to reset the module.</pre>	<p>If FMA service fails, issue the following command on the domain to recover:</p> <pre># svcadm clear fmd</pre> <p>Then restart <code>cpumem-diagnosis</code>:</p> <pre># fmadm restart cpumem-diagnosis</pre>
6660197	<p>DR might cause the domain to hang if either of the following conditions exist:</p> <ul style="list-style-type: none"> • A domain contains 256 or more CPUs. • Memory error occurred and the DIMM has been degraded. 	<ol style="list-style-type: none"> 1. Set the following parameter in the system specification file (<code>/etc/system</code>): <pre>set drmach:drmach_disable_mcopy = 1</pre> 2. Reboot the domain.

TABLE 4 Solaris OS Issues and Workarounds (*Continued*)

CR ID	Description	Workaround
6679370	<p>The following message may be output on the console during the system booting, the External I/O Expansion Unit adding by hotplug, or the FMEMA operating by DR.</p> <pre>SUNW-MSG-ID: SUN4-8000-75, TYPE: Fault, VER: 1, SEVERITY: Critical ... DESC: A problem was detected in the PCI- Express subsystem. Refer to http://sun.com/msg/SUN4-8000-75 for more information. ...</pre>	<p>Add the following to <code>/etc/system</code> and then reboot the domain.</p> <pre>set pcie_expected_ce_mask = 0x2001</pre>
6565553 6674266	<p>DR deleteboard(8) and moveboard(8) operations might fail.</p> <p>Example for messages on domain:</p> <pre>drmach: WARNING: Device driver failure: /pci dcs: <xxxx> config_change_state: Hardware specific failure: unconfigure SB1: Device driver failure: /pci</pre>	<p>There is no workaround. Try DR operations again.</p>
6718173	<p>If your domain is running one of the following versions of Solaris OS, the system might panic/trap during normal operation:</p> <ul style="list-style-type: none"> • Solaris 10 5/08 OS • An earlier version of Solaris 10 OS with patch ID 127127-11 	<p>Set the following parameter in the system specification file (<code>/etc/system</code>):</p> <pre>set heaplp_use_stlb=0</pre> <p>Then reboot the domain.</p>

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 M8000/M9000 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 5](#) lists known documentation updates.

TABLE 5 Documentation Updates

Title	Page Number	Update
All SPARC Enterprise M8000/M9000 servers documentation		When there is the section "SPARC Enterprise M8000/M9000 Servers Documentation" in the Preface, the following document will be added. <i>SPARC Enterprise/PRIMEQUEST Common Installation Planning Manual (C120-H007)</i>
SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF User's Guide	Page 2-30	The maximum length of the user name is 31 characters. Table 2-4 User Accounts Administration erroneously documents a maximum user name length of 32 characters.
	Page 2-91	Table 2-22 DCL Information, Configuration policy's "System : Removal of a domain (domain deactivated)" is now referred to as below: "Hardware is degraded in units of domains or the relevant domain is stopped without degradation.
	Page 8-18	First paragraph in 8.1.11 is now referred to as below: If the system hangs or any of the messages shown below is output during the firmware update, retry the firmware update. It might be completed successfully.
SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF Reference Manual	adduser(8) command	The maximum length of the user name is 31 characters. The OPERANDS of the adduser(8) command erroneously documents a maximum user name length of 32 characters.
SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF Reference Manual	console(8) command	The note in DESCRIPTION is changed as follows: When you return to XSCF shell console without logging out from the domain, the return causes automatically logging out from the domain.

TABLE 5 Documentation Updates (*Continued*)

Title	Page Number	Update
	sendbreak(8) command	The sendbreak(8) command will not work when the secure mode is set to on while the mode switch on the operator panel is set to locked. Refer to the setdomainmode(8) for more information.
	setdscp(8) commands	The references to <i>site planning guide</i> of the caution in EXAMPLES are now referenced to as <i>administration guide</i> .
	viewaudit(8) command	The viewaudit(8) man pages show incorrect output for Example 5 and Example 6.
SPARC Enterprise M4000/M5000/M8000/ M9000 Servers XSCF Reference Manual and XSCF manpages	setdcl(8) command	The action when <i>option</i> is set to <i>policy</i> and when <i>value</i> is set to <i>system</i> will be changed as below: Deactivates the target system for an error detected by a diagnosis.

Identifying Degraded Memory in a System

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

```
XSCF> showstatus
```

The following example identifies DIMM number 00A on CMU#3 has degraded memory..

```
XSCF> showstatus
    CMU#3 Status:Normal;
*    MEM#00A Status:Degraded;
```

Identifying Different Memory Sizes in a System Board

To identify if the domain contains system boards with different memory sizes, you can use either of the following commands to display the list of memory sizes:

- `showdevices(8)` command on the XSCF
- `prtdiag(1M)` command on the domain

Using the `showdevices` Command

1. Log in to XSCF.

2. Type the following command:

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

The following example displays 00-0 has 64GB of memory while the other system boards have 16GB.

```
XSCF> showdevices -d 1
Memory:
-----

```

DID	XSB	board mem MB	perm mem MB	base address	domain mem MB	target XSB	deleted mem MB	remaining mem MB
01	00-0	63680	0	0x0000004000000000	260288			
01	03-0	16384	7384	0x0000034000000000	260288			
01	03-1	16384	0	0x0000030000000000	260288			
01	03-2	16384	0	0x000002c000000000	260288			
01	03-3	16384	0	0x0000028000000000	260288			

Using the prtdiag Command to Identify Memory Size

- On the domain, execute the prtdiag command.

```
# prtdiag
```

The following example displays different memory sizes.

```
# prtdiag
===== Memory Configuration =====

```

LSB	Memory Group	Available Size	Memory Status	DIMM Size	# of DIMMs	Mirror Mode	Interleave Factor
00	A	32768MB	okay	2048MB	16	no	8-way
00	B	32768MB	okay	2048MB	16	no	8-way
03	A	8192MB	okay	2048MB	4	no	2-way
03	B	8192MB	okay	2048MB	4	no	2-way
04	A	8192MB	okay	2048MB	4	no	2-way
04	B	8192MB	okay	2048MB	4	no	2-way
05	A	8192MB	okay	2048MB	4	no	2-way
05	B	8192MB	okay	2048MB	4	no	2-way
06	A	8192MB	okay	2048MB	4	no	2-way

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(8)` command or the `moveboard(8)` command, the following notice appears:

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

CPU Upgrade

This section describes the procedure to mount the SPARC64 VII processor on the SPARC Enterprise M8000/M9000 server.

- [Adding a New CMU Equipped with SPARC64 VII as a New Domain](#)
- [Upgrading an On-CMU SPARC64 VI to SPARC64 VII, or Adding SPARC64 VII to an Existing CMU, to an Existing Domain Configured with SPARC64 VI](#)
- [Adding a New CMU Equipped with SPARC64 VII to an Existing Domain Configured with SPARC64 VI](#)

Installation Notes

Note – Before upgrading firmware to XCP 1071, refer to [“Updating to XCP 1071” on page 3](#).



Caution – You must complete the upgrades to the XCP firmware and to Solaris before inserting SPARC 64 VII processors into the chassis.

Updating the OpenBoot PROM Firmware With Processor Upgrade

If you have added SPARC64 VII processors to a domain and upgraded from an XCP version earlier than 1070, you must restart the domain to complete the update to the OpenBoot PROM firmware in the target domain.

Adding SPARC64 VII Processors to a Domain Using DR

Before adding SPARC64 VII CPUs to a domain using dynamic configuration (DR) for the first time, you must already have performed the following steps:

1. **Upgrade to XCP 1071 and a compatible version of Solaris.**
2. **Reboot the domain.**

Adding a New CMU Equipped with SPARC64 VII as a New Domain

1. Log in to the XSCF on an account with platform administrative privileges.
2. Use the `showstatus(8)` command to confirm that a component in Faulted or Deconfigured status doesn't exist.

```
XSCF> showstatus
```

If no failures found, the following message appears: "No failures found in System Initialization." In case of other messages, contact a service engineer before proceeding to the next step.

3. Change the key position on the operator panel from Locked to Service.
4. Collect an XSCF snapshot to archive system status prior to upgrade.

This will be help in case any problem occurred in this procedure.

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

5. Update the XCP version to 1071.

Before updating the XCP, be sure to see ["Updating to XCP 1071" on page 3](#). For the XCP updating procedures, see the *SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF User's Guide*.

6. After updating the XCP, reset the XSCF.

```
XSCF> rebootxscf
```

7. After resetting the XSCF, log in to the XSCF again.
8. Mount the CPU module (CPUM) on the CMU for add-on.

For the procedure, see the description about the CPU module installation in Section 6.4.1, "Replacing a CPU module" in the *SPARC Enterprise M8000/M9000 Servers Service Manual*.

9. Mount the CMU, described in step 8, on the server.
 - a. Executing the `addfru(8)` command and select "CMU/IOU" from the maintenance menu.

```
XSCF> addfru
```

- b. Perform the operation according to the instructions displayed in the maintenance menu, referring to "6.2 Active Replacement and Hot Replacement" in *SPARC Enterprise M8000/M9000 Servers Service Manual*.

Note – Do not fail to execute the diagnosis of newly mounted CMU in the maintenance menu of `addfru(8)` command.

10. Confirm that the mounted CPU module has been recognized by the server, and the error indicator asterisk (*) is not displayed.

```
XSCF> showhardconf -M
```

11. Confirm no abnormality occurred by using `showlogs error -v` and `showstatus(8)` commands.

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

If you encounter any hardware abnormality of the XSCF contact a -service engineer.

12. Move the key position on the operator panel from Service to Locked.
13. Sets the following for the CMU.

- Set up XSB.
- Set up the domain
- Set up the CPU operational mode of the domain.

For each setting, see the *SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF User's Guide*.

14. Use the `setdomainmode(8)` command, disable the autoboot function of the domain.

For detail, see the *SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF User's Guide*.

15. Power on the domains.

```
XSCF> poweron -d domain_id
```

16. Confirm that the target domain has been correctly started.

```
XSCF> showlogs power
```

17. Confirm no abnormality occurred by using `showlogs error -v` and `showstatus(8)` commands.

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

If you encounter any hardware abnormality of the XSCF contact a -service engineer.

18. Install Solaris 10 5/08.

19. Use the `setdomainmode(8)` command, enable the autoboot function of the domain.

For detail, see the *SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF User's Guide*. The autoboot function is applied by a domain reboot.

Upgrading an On-CMU SPARC64 VI to SPARC64 VII, or Adding SPARC64 VII to an Existing CMU, to an Existing Domain Configured with SPARC64 VI

1. When the Solaris OS version is Solaris 10 8/07, upgrade it to Solaris 10 5/08 or apply the mandatory patches described in ["Solaris OS Patch Information" on page 2](#).
2. To use SPARC64 VII processors, apply the relevant patches to the software in use, if necessary.
3. Log in to the XSCF on an account with platform administrative privileges.
4. Use the `showstatus(8)` command to confirm that a component in Faulted or Deconfigured status doesn't exist.

```
XSCF> showstatus
```

If no failures found, the following message appears: "No failures found in System Initialization." In case of other messages, contact a -service engineer before proceeding to the next step.

5. Turn off the power to a domain assigned the CMU of which you upgrade or add the CPU.

```
XSCF> poweroff -d domain_id
```

6. Confirm that the target domain stopped.

```
XSCF> showlogs power
```

7. Change the key position on the operator panel from Locked to Service.

8. Collect an XSCF snapshot to archive system status prior to upgrade.

This will be help in case any problem occurred in this procedure.

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

9. Update the XCP version to 1071.

Before updating the XCP, be sure to see [“Updating to XCP 1071” on page 3.](#)

For the XCP updating procedures, see the *SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF User’s Guide*.

10. After updating the XCP, reset the XSCF.

```
XSCF> rebootxscf
```

11. After resetting the XSCF, log in to the XSCF again.

12. Power on the target domain, and apply OpenBoot PROM firmware.

```
XSCF> poweron -d domain_id
```

It stops at ok prompt. It is not necessary to start Solaris OS.

13. Check the updated OpenBoot PROM version.

The OpenBoot PROM version of XCP 1071 is 02.03.0000.

```
XSCF> version -c cmu -v

DomainID 00 : 02.02.0000
DomainID 01 : 02.02.0000
DomainID 02 : 02.03.0000
DomainID 03 : 02.03.0000
...
DomainID 15 : 02.02.0000

XSB#00-0 : 02.02.0000 (Current), 01.01.0000 (Reserve)
XSB#00-1 : 02.02.0000 (Current), 01.01.0000 (Reserve)
XSB#00-2 : 02.02.0000 (Current), 01.01.0000 (Reserve)
XSB#00-3 : 02.02.0000 (Current), 02.01.0000 (Reserve)
XSB#01-0 : 02.02.0000 (Reserve), 02.03.0000 (Current)
XSB#01-1 : 02.02.0000 (Reserve), 02.03.0000 (Current)
XSB#01-2 : 02.02.0000 (Reserve), 02.03.0000 (Current)
XSB#01-3 : 02.02.0000 (Reserve), 02.03.0000 (Current)
...
```

In case that the OpenBoot PROM version of the XSB to which the resource of the target CMU has been assigned is not displayed as 02.03.0000, contact a -service engineer.

14. Turn off the power to the target domain.

```
XSCF> poweroff -d domain_id
```

15. Upgrade an on-CMU SPARC64 VI processors to SPARC64 VII processors, or add SPARC64 VII processors to an existing CMU.

- For upgrading the CPU, operate by hot replacement, referring to "6.2 Active Replacement and Hot Replacement" in *SPARC Enterprise M8000/M9000 Servers Service Manual*.
- For adding the CPU, operate by hot replacement, referring to "6.2 Active Replacement and Hot Replacement" in *SPARC Enterprise M8000/M9000 Servers Service Manual*.

Note – Do not fail to execute the diagnosis of newly mounted CMU in the maintenance menu of `replacefru(8)` command.

16. Confirm that the mounted CPU module has been recognized by the server, and the error indicator asterisk (*) is not displayed.

```
XSCF> showhardconf -M
```

17. Confirm no abnormality occurred by using `showlogs error -v` and `showstatus(8)` commands.

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

If you encounter any hardware abnormality of the XSCF contact a -service engineer.

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

19. In case of addition, sets the following for the CMU.

- Set up XSB.
- Set up the LSB.
- Add the XSB to the domain.

For each setting, see the *SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF User's Guide*.

20. Set up and confirm the CPU operational mode of the domain.

For detail, see the *SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF User's Guide*.

21. Power on the target domains.

```
XSCF> poweron -d domain_id
```

22. Confirm that the target domain has been correctly started.

```
XSCF> showlogs power
```

23. Confirm no abnormality occurred by using `showlogs error -v` and `showstatus(8)` commands.

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

If you encounter any hardware abnormality of the XSCF contact a -service engineer.

Adding a New CMU Equipped with SPARC64 VII to an Existing Domain Configured with SPARC64 VI

1. When the Solaris OS version is Solaris 10 8/07, upgrade it to Solaris 10 5/08 or apply the mandatory patches described in [“Solaris OS Patch Information” on page 2](#).
2. To use SPARC64 VII processors, apply the relevant patches to the software in use, if necessary.
3. Log in to the XSCF on an account with platform administrative privileges.
4. Use the `showstatus(8)` command to confirm that a component in **Faulted** or **Deconfigured** status doesn't exist.

```
XSCF> showstatus
```

If no failures found, the following message appears: "No failures found in System Initialization." In case of other messages, contact a -service engineer before proceeding to the next step.

5. Turn off the power to a domain assigned the CMU of which you add the CPU.

```
XSCF> poweroff -d domain_id
```

6. Confirm that the target domain stopped.

```
XSCF> showlogs power
```

7. Change the key position on the operator panel from Locked to Service.
8. Collect an XSCF snapshot to archive system status prior to upgrade.

This will help in case any problem occurred in this procedure.

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

9. Update the XCP version to 1071.

Before updating the XCP, be sure to see ["Updating to XCP 1071" on page 3](#).

For the XCP updating procedures, see the *SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF User's Guide*.

10. After updating the XCP, reset the XSCF.

```
XSCF> rebootxscf
```

11. After resetting the XSCF, log in to the XSCF again.

12. Power on the target domain, and update OpenBoot PROM firmware.

```
XSCF> poweron -d domain_id
```

It stops at ok prompt. It is not necessary to start Solaris OS.

13. Check the updated OpenBoot PROM version.

The OpenBoot PROM version of XCP 1071 is 02.03.0000.

```
XSCF> version -c cmu -v

DomainID 00 : 02.02.0000
DomainID 01 : 02.02.0000
DomainID 02 : 02.03.0000
DomainID 03 : 02.03.0000
...
DomainID 15 : 02.02.0000

XSB#00-0 : 02.02.0000 (Current), 01.01.0000 (Reserve)
XSB#00-1 : 02.02.0000 (Current), 01.01.0000 (Reserve)
XSB#00-2 : 02.02.0000 (Current), 01.01.0000 (Reserve)
XSB#00-3 : 02.02.0000 (Current), 01.01.0000 (Reserve)
XSB#01-0 : 02.02.0000 (Reserve), 02.03.0000 (Current)
XSB#01-1 : 02.02.0000 (Reserve), 02.03.0000 (Current)
XSB#01-2 : 02.02.0000 (Reserve), 02.03.0000 (Current)
XSB#01-3 : 02.02.0000 (Reserve), 02.03.0000 (Current)
...
```

In case that the OpenBoot PROM version of the XSB to which the resource of the target CMU has been assigned is not displayed as 02.03.0000, contact a -service engineer.

14. Turn off the target domain.

```
XSCF> poweroff -d domain_id
```

15. Mount the CPU module (CPUM) on the CMU for add-on.

For the procedure, see the description about the CPU module installation in Section 6.4.1, "Replacing a CPU module" in the *SPARC Enterprise M8000/M9000 Servers Service Manual*.

16. Mount the CMU, described in step 15, on the server. .

- a. Executing the addfru(8) command and select "CMU/IOU" from the maintenance menu.**

```
XSCF> addfru
```

- b. Perform the operation according to the instructions displayed in the maintenance menu, referring to "6.2 Active Replacement and Hot Replacement" in *SPARC Enterprise M8000/M9000 Servers Service Manual*.**

Note – Do not fail to execute the diagnosis of newly mounted CMU in the maintenance menu of addfru(8) command.

17. Confirm that the mounted CPU module has been recognized by the server, and the error indicator asterisk (*) is not displayed.

```
XSCF> showhardconf -M
```

18. Confirm no abnormality occurred by using showlogs error -v and showstatus(8) commands.

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

If you encounter any hardware abnormality of the XSCF contact a -service engineer.

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

20. Sets the following for the CMU.

- Set up XSB.
- Set up the LSB.
- Add the XSB to the domain.

- Set up the CPU operational mode of the domain.

For each setting, see the *SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF User's Guide*.

21. Power on the target domains.

```
XSCF> poweron -d domain_id
```

22. Confirm that the target domain has been correctly started.

```
XSCF> showlogs power
```

23. Confirm no abnormality occurred by using `showlogs error -v` and `showstatus(8)` commands.

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

If you encounter any hardware abnormality of the XSCF contact a service engineer.