



SPARC® Enterprise M4000/M5000 Servers Product Notes

For XCP version 1072

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Preface

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.

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.

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.

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 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/>

Note – Information in these product notes supersedes the information in the SPARC Enterprise M4000/M5000 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 1072

This section describes the general information about XCP 1072.

- [Supported Firmware and Operating System](#)
- [Updating to XCP 1071 or later](#)
- [Functionality Issues and Limitations](#)

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)	1072
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

Note – By using the Solaris 10 8/07 installation DVD, you cannot boot the domain mounted with the SPARC64 VII processors. When you newly install Solaris OS to a domain mounted with the SPARC64 VII processors, use the Solaris 10 5/08 installation DVD to install Solaris 10 5/08.

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 Patch Information

This section lists mandatory patches for the SPARC Enterprise M4000/M5000 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 33](#).

- 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 or later

You can upgrade to XCP 1071 or later 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 or later, 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 or later 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 1061 (inclusive) before updating to XCP 1071 or later. 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.

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 SPARC 64 VII processors into the chassis.

General Functionality Issues and Limitations



Caution – For dynamic reconfiguration (DR) and hot-plug issues, see [TABLE 5](#).

- Domains using the ZFS file system cannot use Dynamic Reconfiguration.
- SPARC Enterprise M4000/M5000 servers are cold service machines. Hot-swapping of the CPU module (CPUM), memory board (MEMB), I/O unit (IOU), or XSCF unit is not supported.
- 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 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 four cards in an External I/O Expansion Unit (two per PCIe I/O boat).
 - No more than four cards in a Sun SPARC Enterprise M4000 server domain.
 - No more than eight cards in a Sun SPARC Enterprise M5000 server domain.
- 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*.

- 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.
- The Firefox 3 is not supported in XSCF Web.
- 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 5](#).

Information about Hardware

This section describes the special instructions and the issues about the SPARC Enterprise M4000/M5000 servers hardware.

- [Notes for Power-On After Power-Off](#)
- [Hardware Issues and Workarounds](#)
- [Cautions for Mounting the Server in the Equipment Rack](#)

Notes for Power-On After Power-Off

Please wait at least 30 seconds before turning on the system power that you turned off, by pulling out the power cable or using the circuit breakers on the distribution panel.

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.

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.

Hardware Documentation Updates

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

[TABLE 3](#) lists known documentation updates.

TABLE 3 Hardware Documentation Updates

Title	Page Number	Update
SPARC Enterprise M4000/M5000 servers Installation Guide	3-13	The step7 in 3.4.2 "Checking the Dual-Power Feed" is changed as follows: After checking that the AC-LED and DC-LED are lit on PSU#0 (M4000 server)/PSU#0/PSU#2 (M5000 server), check that "Power_Status" is "On" by the <code>showhardconf(8)</code> command.

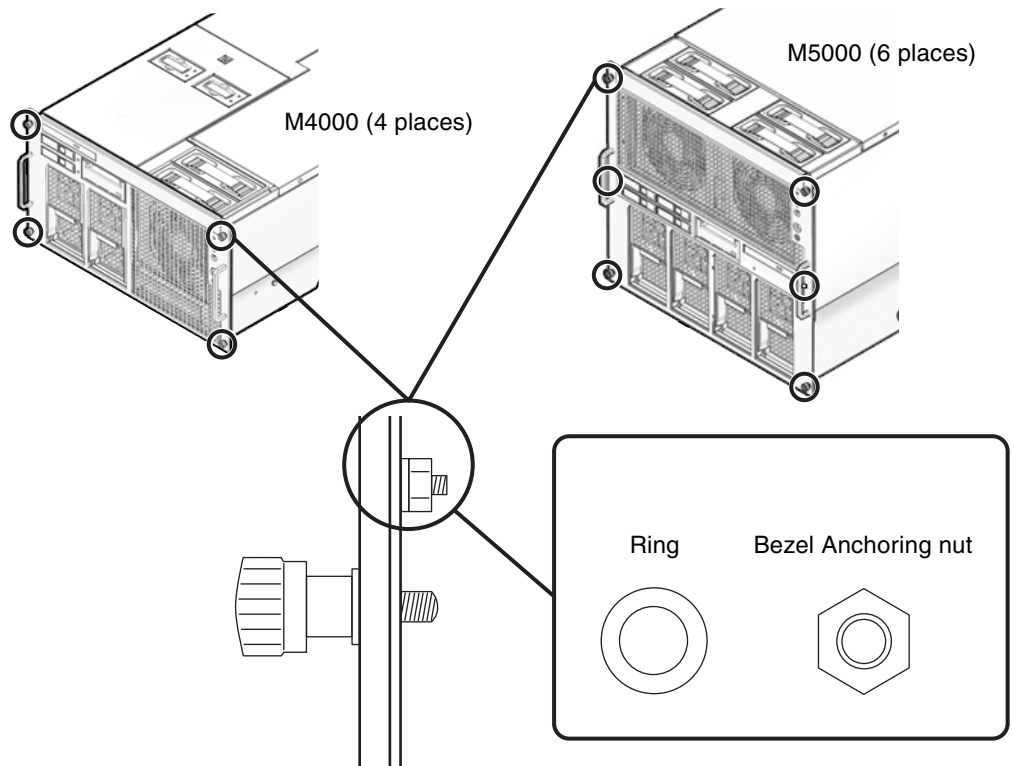
Cautions for Mounting the Server in the Equipment Rack

Note – As of January 2008, cable management arm (CMA) is not supplied with the SPARC Enterprise M4000 server. To mount the SPARC Enterprise M4000 server in the equipment rack, see the *SPARC Enterprise Equipment Rack Mounting Guide* and use the cable bracket to secure the cable.

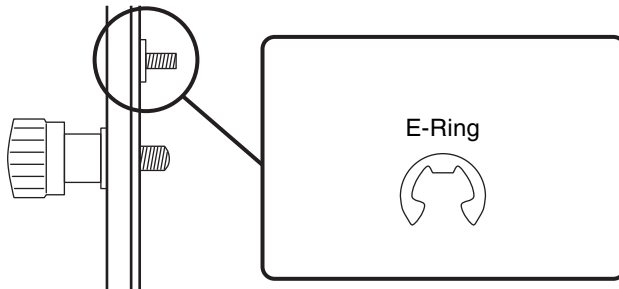
When you mount the SPARC Enterprise M4000 or M5000 server in the equipment rack, as you insert it all the way seated in the rack, the nut anchoring the bezel may interfere with the rack column and the server may fail to be seated correctly.

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.

Information about Software

This section describes the special instructions and the issues about the SPARC Enterprise M4000/M5000 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 4](#) lists known XCP issues and possible workarounds.

TABLE 4 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 4 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.
RTIF1-070904-004	The latest communication field in showarchiving(8) command is not updated regularly.	Disabling and re-enabling archiving refreshes the Latest communication field in showarchiving(8) output.
RTIF1-071102-002	The snmp daemon might quit.	To restart the snmp daemon, issue the command <code>set snmp enable</code> .
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 4 XCP Issues and Workarounds (Continued)

ID	Description	Workaround
RTIF1-080404-002	When you use the command <code>setsnmpsm passwd</code> to set a password, if you set a password of fewer than eight characters, a segmentation fault occurs.	Always set a password of at least eight characters.
RTIF1-080512-001	When you specify "localhost" to the <i>hostname</i> 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.	Do not specify "localhost" to the <i>hostname</i> of the <code>sethostname(8)</code> command.
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> .
RTIF1-080725-001	In <code>setsnmp adv3traphost</code> , when the authentication failed due to the reasons such as the trap host not working, or the wrong user name or password, the subsequent SNMP traps will not be notified.	There is no workaround. Confirm that the SNMP trap host is working and re-execute the <code>setsnmp(8)</code> command using the correct user name.
RTIF1-080725-002	When the SNMPv3 trap has been set, after the watchdog timeout occurred in XSCF and XSCF reset, the subsequent SNMP traps will not be notified.	There is no workaround.
RTIF1-080725-003	The initial value that set with the <code>setdomparam set-defaults</code> option differs from the initial value of OpenBoot PROM. parameters current value expected value <code>diag-level</code> <code>none(0x00)</code> <code>min(0x20)</code> <code>auto-boot?</code> <code>false(0x00)</code> <code>true(0xff)</code>	In the OpenBoot PROM prompt (<code>ok></code>), execute the <code>set-defaults</code> command to restore the OpenBootPROM environmental variables to the initial value.
RTIF1-080725-004	After set the Daylight Saving Time by using the XSCF shell, XSCF Web does not show the correct time in the Logs menu.	There is no workaround. Use the <code>showlogs(8)</code> command of the XSCF shell.
RTIF1-080808-001	On the cluster system using the PRIMECLUSTER software, when there are 10 or more RCI units, the RCI busy status may be temporarily unreleased and output the following syslog message: <code>SA_pprcir.so to test host host_name failed</code>	Refer to the manual of the PRIMECLUSTER software to check the cluster status. If no problem found on the status, this message can be safely ignored. If any problem, follow the instructions on the manual to solve the problem.

Solaris OS Issues and Workarounds

TABLE 5 lists known Solaris issues and possible workarounds.

TABLE 5 Solaris OS Issues and Workarounds

CR ID	Description	Workaround
6416224	System performance can degrade using a single NIC card with more than 5,000 connections.	<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] Use multiple NIC cards to split network connections.</p>
6441349	The system may hang if there is an I/O error in the system.	<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>
6459540	The DAT72 internal tape drive on SPARC Enterprise M4000/M5000 may time out during tape operations.	<p>Add the following definition to <code>/kernel/drv/st.conf</code>:</p> <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> <p>There are four spaces between SEAGATE DAT and DAT72-000.</p>
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 error</code>	<p>Pause a few seconds between the issue of each <code>cfgadm -c</code> command.</p>

TABLE 5 Solaris OS Issues and Workarounds (Continued)

CR ID	Description	Workaround
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.	<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 from the network using certain PCI-Express cards may cause a panic.	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-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 5 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>
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>[Workaround]</p> <p>Check CPU status on XSCF.</p>

TABLE 5 Solaris OS Issues and Workarounds (*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>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 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>
6508432	<p>Many correctable errors (CE) may occur, and despite these are the correctable errors, domain may panic.</p>	<p>This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 120011-08.</p> <p>[Workaround]</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>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>Do not insert a different type of PCI-X card on the same PCI slot by using PCI hot plug.</p>
6509337	<p>s10s_u3 wanboot fails - The server returned 416: Requested Range Not Satisfiable.</p>	<p>This bug has been fixed in Solaris 10 8/07.</p>
6510861	<p>When Dual-Channel Ultra320 SCSI Card (SE0X7SC2F, SE0X7SC2X) is mounted, correctable errors(CE) occur and system may panic.</p>	<p>This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 120011-08.</p> <p>[Workaround]</p> <p>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>

TABLE 5 Solaris OS Issues and Workarounds (*Continued*)

CR ID	Description	Workaround
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.
6515648	"Replumb Failed" error appears when dr@0:SB1::memory fails.	Once the DR operation is complete, it can be plumbed up manually. Example steps to re-plumb the interface manually: # 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 This workaround assumes that the /etc/hostname.interface 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 /etc/hostname.<interface> file.
6516135	Ap_Id format and devices may not be shown correctly by cfgadm(1M).	Use the following operations to display all of the PCI slots. 1) devfsadm (at Solaris prompt) 2) cfgadm
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 /tmp etc.	Set the following to /etc/system and then reboot the domain: set maxfastscan=0x2000
6520990	Domain may cause a panic when deleteboard(8) command for kernel board by using Dynamic Reconfiguration (DR).	This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 120011-08. [Workaround] To mask this error, add the following entry to the /etc/system file. set drmach:fmem_timeout = 30

TABLE 5 Solaris OS Issues and Workarounds (Continued)

CR ID	Description	Workaround
6522017	DR and ZFS may not be used in the same domain.	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. <pre>set zfs_arc_max = 0x20000000</pre>
6522433	After the CPU hardware error occurred, the <code>fmddump(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.
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.
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	Ap_Id format may not be shown correctly by <code>cfgadm(1M)</code> command.	There is no workaround. This bug has been fixed in Solaris 10 8/07. For Solaris 10 11/06, this has been fixed in patch 120011-07.
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> can appear repeatedly after boot net installation.	There is no workaround. This message can be safely ignored.
6531668	System hangs when executing parallel hot plug operation with SP DR in suspend phase.	There is no workaround.

TABLE 5 Solaris OS Issues and Workarounds (*Continued*)

CR ID	Description	Workaround
6532215	<p>volfs or dscp service may fail when domain is booted.</p> <pre> svc:/platform/sun4u/dscp:default: Method "/lib/svc/method/svc-dscp start" failed with exit status 95. svc:/system/filesystem/volfs:default: Method or service exit timed out. Killing contract 59.</pre>	<p>Restart the service if the failure is observed. To avoid the problem, issue the following commands.</p> <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	<p>DR deleteboard(8) and moveboard(8) operations might fail if the target board includes permanent memory.</p> <p>Example for messages on domain:</p> <pre> drmach: WARNING: DR parellel copy timeout dcs: <xxxx> config_change_state: Hardware specific failure: unconfigure SB1: DR parellel copy timeout</pre>	<p>This has been fixed in patch 138397-01.</p> <p>[Workaround]</p> <p>Try DR operations again.</p> <p>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:</p> <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.
6535564	PCI hot plug to PCI slot #0, #1 or External I/O Expansion Unit may fail on XSB added by 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>Use DR instead of PCI hot plug if need to add or remove PCI card on the XSB.</p>

TABLE 5 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>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> <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>
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 8/07.</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 5 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 kcase thread is expanding the kcase 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-op1: WARNING: mc-op1 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-op1: 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. Note: See CR ID 6608404 regarding issues with hot-plug of these cards in slot 1.
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 5 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 DR <code>deleteboard(8)</code> operation on a board which includes Permanent Memory when using the following network cards results in broken PCI 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>
6565553 6674266	<p>DR <code>deleteboard(8)</code> and <code>moveboard(8)</code> 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>
6568417	<p>After a successful CPU DR <code>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:</p> <pre>set ip:ip_soft_rings_cnt=0</pre>

TABLE 5 Solaris OS Issues and Workarounds (Continued)

CR ID	Description	Workaround
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]</p> <p>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 M4000/M5000 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>
6588555	<p>XSCF reset during DR operation to the permanent memory might cause domain panic.</p>	<p>Do not start an XSCF reset while a DR operation is running. Wait for a DR operation to finish before starting the reset.</p>
6589546	<p><code>prtdiag(8)</code> command does not show all I/O devices of the following cards:</p> <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>[Workaround]</p> <p>Use <code>prtdiag -v</code> for full output.</p>
6592302	<p>Unsuccessful DR operation leaves memory partially configured.</p>	<p>Try <code>deleteboard(8)</code> again.</p>
6600730	<p>Extra characters appear in a boot message string.</p>	<p>The extraneous characters can be safely ignored.</p>
6608404	<p>Hot-plug of the X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP card in slot 1 might cause other network devices to fail.</p>	<p>To avoid the defect, do not install this card in slot 1.</p>

TABLE 5 Solaris OS Issues and Workarounds (Continued)

CR ID	Description	Workaround
6614737	<p>The DR deleteboard(8) and moveboard(8) 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 showstatus(8) command. For sample output, see “Identifying Permanent Memory in a Target Board” 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 showdevices(8) command or the prtdiag(8) command on the domain. For sample of output, see “Identifying Degraded Memory in a System” on page 30</p> <p>If a DR command hangs, reboot the domain to recover.</p>
6619344	The Sun Crypto Accelerator (SCA) 6000 card might not work if hot-plug configured into slot 1.	To avoid the defect, do not hot-plug this card in slot 1.
6623226	The Solaris command lockstat(1M) or the dtrace lockstat provider might cause a system panic.	Do not use the Solaris lockstat(1M) command or the dtrace lockstat provider.
6625734	Systems with large number of processors in a single domain environment may have suboptimal performance with certain workloads.	Use processor sets to bind application processes or LWPs to groups of processors. Refer to the pset(1M) man page for more information.
6632549	fmd service on domain might fail to maintenance mode after DR operations.	<p>This has been fixed in patch 138050-01.</p> <p>[Workaround]</p> <p>If fmd service fails, issue the following commands on the domain to recover:</p> <pre># svcadm clear fmd</pre>

TABLE 5 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>

TABLE 5 Solaris OS Issues and Workarounds (*Continued*)

CR ID	Description	Workaround
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. 	<p>This has been fixed in patch 138397-01.</p> <p>[Workaround]</p> <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> <ol style="list-style-type: none"> 2. Reboot the domain.
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>
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 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 6](#) lists known documentation updates.

TABLE 6 Software Documentation Updates

Title	Page Number	Update
All SPARC Enterprise M4000/M5000 servers documentation		When there is the section "SPARC Enterprise M4000/M5000 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 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	<code>adduser(8)</code> command	The maximum length of the user name is 31 characters. The OPERANDS of the <code>adduser(8)</code> command erroneously documents a maximum user name length of 32 characters.
SPARC Enterprise M4000/M5000/M8000/M9000 Servers XSCF Reference Manual	<code>console(8)</code> 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 6 Software 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.
	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.
	setaudit(8) command	By using the <i>-t</i> option, at most four values may be set, instead of two.

Identifying Degraded Memory in a System

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

```
XSCF> showstatus
```

The following example identifies DIMM number 0A on Memory Board #5 has degraded memory.

```
XSCF> showstatus
    MBU_B Status:Normal;
      MEMB#5 Status:Normal;
*      MEM#0A 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	01-0	16384	7384	0x0000003400000000	260288			
01	01-1	16384	0	0x0000003000000000	260288			
01	01-2	16384	0	0x0000002c00000000	260288			
01	01-3	16384	0	0x0000002800000000	260288			
...								

Using the prtdiag Command

- 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	8192MB	okay	2048MB	4	no	2-way
00	B	8192MB	okay	2048MB	4	no	2-way
01	A	8192MB	okay	2048MB	4	no	2-way
01	B	8192MB	okay	2048MB	4	no	2-way
03	A	8192MB	okay	2048MB	4	no	2-way
03	B	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 M4000/M5000 server.

- [Adding a New SPARC64 VII CPUM as a New Domain](#)
- [Upgrading SPARC64 VI CPU Module to SPARC64 VII CPU Module](#)
- [Adding a New CPUM Equipped with SPARC64 VII to an Existing Domain Equipped with SPARC64 VI](#)

Note – Before upgrading firmware to XCP 1071 or later, refer to [“Updating to XCP 1071 or later” 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.

Adding a New SPARC64 VII CPUM 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. Turn off the power to all domains.

```
XSCF> poweroff -a
```

4. Confirm that all domains stopped.

```
XSCF> showlogs power
```

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

6. 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
```

7. Update the XCP version to 1071 or later.

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

8. Mount the SPARC64 VII CPU module (CPUM) to the system.

For the procedure, see the description about the CPU module installation in Section 12, "Replacing a CPU module" in the *SPARC Enterprise M4000/M5000 Servers Service Manual*.



Caution – After mounted the CPU module, get the power cable connected to the power supply.

9. Log in to the XSCF.

10. Execute the diagnosis of newly mounted CPU module by using the `testsb(8)` command and confirm that the mounted CPU module has been normal condition.

Example: In case of adding PSB#01 in SPARC Enterprise M5000 Server.

```
XSCF> testsb 01
Initial diagnosis is about to start. Continue? [y|n] : y
Initial diagnosis is executing.
Initial diagnosis has completed.
XSB  Test      Fault
-----
01   Passed   Normal
```

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

```
XSCF> showhardconf -M
```

12. 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.

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

14. Power on existing domains.

```
XSCF> poweron -a
```

15. Sets the following for the added CPU module.

- Set up XSB for the added CPU module.
- 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*.

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

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

17. Power on the new domain.

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

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

```
XSCF> showlogs power
```

19. 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.

20. Install Solaris 10.

21. Use the `setdomainmode(8)` command, enable the autoboot function of the target 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 SPARC64 VI CPU Module to SPARC64 VII CPU Module

1. When the Solaris OS version is Solaris 10 8/07, update it to Solaris 10 5/08 or apply the mandatory patches described in [“Solaris 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 all domains..

```
XSCF> poweroff -a
```

6. Confirm that all domains 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 or later.

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

10. Log in to the XSCF.
11. Power on all domains, and apply OpenBoot PROM firmware.

```
XSCF> poweron -a
```

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

12. Check the applied OpenBoot PROM version.

The OpenBoot PROM version of XCP 1071 is 02.03.0000.

```
XSCF> version -c cmu -v

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

XSB#00-0 : 02.02.0000 (Reserve), 02.03.0000 (Current)
XSB#00-1 : 02.02.0000 (Reserve), 02.03.0000 (Current)
XSB#00-2 : 02.02.0000 (Reserve), 02.03.0000 (Current)
XSB#00-3 : 02.02.0000 (Reserve), 02.03.0000 (Current)
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 all domains and XSBs are not displayed as 02.03.0000, contact a service engineer.

13. Turn off all domains.

```
XSCF> poweroff -a
```

14. Upgrade SPARC64 VI processors to SPARC64 VII processors to an existing domain.

For the procedure, see the description about the CPU module installation in Section 12, "Replacing a CPU module" in the *SPARC Enterprise M4000/M5000 Servers Service Manual*.



Caution – After mounted the CPU module, get the power cable connected to the power supply.

15. Log in to the XSCF.

16. Execute the diagnosis of newly mounted CPU module by using the `testsb(8)` command and confirm that the mounted CPU module has been normal condition.

Example: In case of adding PSB#01 in SPARC Enterprise M5000 Server.

```
XSCF> testsb 01
Initial diagnosis is about to start. Continue? [y|n] : y
Initial diagnosis is executing.
Initial diagnosis has completed.
XSB  Test      Fault
-----
01   Passed   Normal
```

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. 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 all domains.

```
XSCF> poweron -a
```

22. Confirm that all domains 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 CPUM Equipped with SPARC64 VII to an Existing Domain Equipped 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 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 all domains.

```
XSCF> poweroff -a
```

6. Confirm that all domains 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 or later.

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

10. Log in to the XSCF.

11. Power on all domains, and apply OpenBoot PROM firmware.

```
XSCF> poweron -a
```

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

12. Check the applied OpenBoot PROM version.

The OpenBoot PROM version of XCP 1071 is 02.03.0000.

```
XSCF> version -c cmu -v

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

XSB#00-0 : 02.02.0000 (Reserve), 02.03.0000 (Current)
XSB#00-1 : 02.02.0000 (Reserve), 02.03.0000 (Current)
XSB#00-2 : 02.02.0000 (Reserve), 02.03.0000 (Current)
XSB#00-3 : 02.02.0000 (Reserve), 02.03.0000 (Current)
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 all domains and XSBs are not displayed as 02.03.0000, contact a service engineer.

13. Turn off all domains.

```
XSCF> poweroff -a
```

14. Mount the CPU module (CPUM) on the server.

For the procedure, see Section 12, "Replacing a CPU module" in the *SPARC Enterprise M4000/M5000 Servers Service Manual*.



Caution – After mounted the CPU module, get the power cable connected to the power supply.

15. Log in to the XSCF.

16. Execute the diagnosis of newly mounted CPU module by using the `testsb(8)` command and confirm that the mounted CPU module has been normal condition.

Example: In case of adding PSB#01 in SPARC Enterprise M5000 Server.

```
XSCF> testsb 01
Initial diagnosis is about to start. Continue? [y|n] : y
Initial diagnosis is executing.
Initial diagnosis has completed.
XSB Test      Fault
-----
01  Passed Normal
```

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 CPU module.

- 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 all domains.

```
XSCF> poweron -a
```

22. Confirm that all domains 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.