Sun Blade T6340 Server Module

Product Notes

Part No.: E37210-01
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Contents

CHAPTER 1

Important Information

These product notes provide important and late-breaking information about Oracle's Sun Blade T6340 server module hardware, software, and documentation.

This document is for technicians, system administrators, authorized service providers, and users who have advanced experience troubleshooting and replacing hardware.

This document changes with the latest updates. Always obtain the latest version at:

http://www.oracle.com/pls/topic/lookup?ctx=E19826-01

This chapter provides the following information:

Summary of New Features

As of March 2010, the following latest technologies are supported by the Sun Blade T6340 server module:

- Oracle Solaris 10 19/10 OS
- Integrated Lights Out Manager (ILOM) 3.0 software
- Oracle VM Server for SPARC 2.0 software

New Support for SAS-2 Components

The following SAS-2 components are supported by Sun Blade T6320 server modules and Sun Blade T6320 G2 server modules that are installed in the Sun Blade 6000 modular system:

- Sun Blade 6000 Storage Module M2 – provides SAS-2 storage to server modules in the Sun Blade 6000 modular system and supports storage zoning with the Sun Blade Zone Manager.
- Sun Blade 6000 Virtualized Multi-Fabric 10GbE M2 Network Express Module – Provides two virtualized 10GbE shared uplinks, dedicated 10/100/1000 Mb/s Ethernet ports for each server module, and SAS-2 switching capabilities.
- Sun Blade 6000 Ethernet Switched NEM 24p 10GbE NEM – The Switched NEM supports connections to external devices through 10GbE SFP+ ports and QSFP ports.
- Sun Storage 6 Gb/s SAS REM HBA – Provides eight serial connections to SAS/SATA devices.

You must upgrade the firmware of your SAS-1 components (SAS-1 NEMs and disk modules) to a firmware version that supports SAS-1/SAS-2 coexistence. See "Important Firmware Upgrade Required Prior to Mixing SAS-1 and SAS-2 Components" on page 9.

Note – These SAS-2 components are not supported on server modules that are installed in the Sun Blade 6048 modular system.

Supported Versions of the Oracle Solaris OS, Firmware, and Software

TABLE 1 lists the minimum required and latest versions of software and firmware for use with Sun Blade T6340 server modules.

TABLE 1 Supported Software and Firmware Versions

Software or Firmware	Minimum	Latest
Oracle Solaris Operating System	Oracle Solaris 10 5/08 with required patches	Oracle Solaris 10 9/10
System firmware (patch ID that provides this version)	7.1.6.d (Patch ID 136937-03, or later)	7.3.0c (Patch 145679-02 or later)
Integrated Lights Out Manager (ILOM) software*	ILOM 2.0	ILOM 3.0 Requires: • System Firmware 7.2.2.e or later • Oracle Solaris 10 OS 5/09 or later
Oracle VM Server for SPARC†	1.0.3	2.0
Chassis management module (CMM)	CMM 2.0.3.10	CMM 3.0.3.32 or later

* ILOM is a component of the System Firmware. To upgrade your version of ILOM, you must upgrade your System Firmware.

† Oracle VM Server for SPARC was formerly called Logical Domains (LDoms) software.

▼ Access OS, Patch, and Firmware Updates

For the latest information about the OS, patches, and firmware updates perform the following steps.

1. **log into My Oracle Support:**

   `https://support.oracle.com`

2. **Select the Patches & Updates tab.**
3. **Enter the patch number in the search field.**
4. **Click Search.**
5. **In the search results, click on the patch name.**
6. **Use available links to view the `README` file and to download the patch.**

Required Patches

The following Oracle Solaris patches are required on Sun Blade T6340 server modules.

TABLE 2 Oracle Solaris 10 5/09 OS Patches (Suggested)

Patch ID or Build	Description
141414-02 (or later)	SunOS 5.10: kernel patch for Oracle Solaris 10 05/09
139928-02 (or later)	SunOS 5.10: `ehci`, `uhci`, `scsa2usb` and `hidparser` patch
142259-03 (or later)	Required for the Sun Storage 6 Gb SAS REM HBA.
143523-04 (or later)	Required for the Sun Storage 6 Gb SAS REM HBA.
141870-03 (or later)	Required for the Sun Storage 6 Gb SAS REM HBA.

TABLE 3 Oracle Solaris 10 10/08 OS Patches (Suggested)

Patch ID	Description
119254-58 (or later)	SunOS 5.10: Install and patch utilities patch
138866-01 (or later)	SunOS 5.10: `sharetab` patch
137137-09 (or later)	SunOS 5.10: kernel patch
138075-02 (or later)	SunOS 5.10: `mpt` driver patch
138394-01 (or later)	SunOS 5.10: `raidcfg` patch
138128-01 (or later)	SunOS 5.10: `ses` patch
138312-01 (or later)	SunOS 5.10: `usba` and `swapgeneric` patch
138282-01 (or later)	SunOS 5.10: Sun Fire T2000 `libprtdiag_psr` patch
138048-03 (or later)	SunOS 5.10: `nxge` driver patch
138381-01 (or later)	SunOS 5.10: `pcihp` patch
138082-01 (or later)	SunOS 5.10: `platform/sun4v/kernel/drv/sparcv9/ds_snmp` patch
137121-03 (or later)	SunOS 5.10: `e1000g` driver patch

TABLE 4 Oracle Solaris 10 5/08 Required Patches

Patch ID (minimum level)	Description
137111-03 (or later)	SunOS 5.10: kernel patch — Install this kernel patch first.
137291-01 (or later)	SunOS 5.10: n2cp driver patch
138048-01 (or later)	SunOS 5.10: nxge driver patch

Supported Chassis

The following table lists the supported modular system chassis for these server modules:

Modular System Chassis	Supported Features
Sun Blade 6000 modular system with PCIe 2.*x* midplane* Part number: 511-1298-*xx*	The server module supports SAS-1 and SAS-2 modular components. Gen2-capable PCIe EMs and NEMs connected to the SPARC T3-1B server module run at Gen2 speeds. Gen1-capable devices run at Gen1 speeds. **Note -** See "Important Firmware Upgrade Required Prior to Mixing SAS-1 and SAS-2 Components" on page 9.
Sun Blade 6000 modular system with PCIe 1.*x* midplane* Part number: 501-7376-*xx*	The server module functions with the following requirements and limitations: • PCIe EMs and NEMs connected to the SPARC T3-1B server module run at Gen1 speeds regardless of their Gen1 or Gen2 capabilities. • Any SAS-1 NEMs installed in the chassis require a firmware upgrade. See "Important Firmware Upgrade Required Prior to Mixing SAS-1 and SAS-2 Components" on page 9. • Storage devices on the server module that are connected to an on-board SAS-2 REM are supported and operate at SAS-2. • On-board SAS-2 REMs cannot be connected to SAS-1 disk or storage modules.

* See "Identify the Chassis Midplane Version" on page 6.

▼ Identify the Chassis Midplane Version

This procedure identifies the version of the midplane in a Sun Blade 6000 modular system.

1. **Log into CMM ILOM.**
2. **Type:**

```
-> show /CH/MIDPLANE
```

3. **View the** `fru_part_number` **field.**
   - `501-7376-`*xx* identifies a PCIe 1.x type midplane.
   - `511-1298-`*xx* identifies a PCIe 2.x type midplane.
   - `511-1487-`*xx* identifies a PCIe 2.x type midplane that is installed in a next-generation Sun Blade 6000 modular system (*not supported*)

   For further details, refer to the *Sun Blade 6000 Modular System Product Notes*.

Supported Modular Components

TABLE 5 describes hardware features and products that are supported by the Sun Blade T6340 server module.

TABLE 5 Supported Hardware

Product	Support Information
Network Express Modules (NEMs)	
NEM X2073A-N – Sun Blade 6000 Ethernet Switched NEM 24p 10GbE	Requires: • For SAS-2 functionality, the server module and NEM X2073A-N must be installed in a chassis with a PCIe 2.*x* midplane. See "Supported Chassis" on page 5. • CMM Software Release 3.3 (CMM ILOM 3.0.12), or later • For 10GbE network connectivity – FEM 4871A-Z. • For storage connectivity – SG-SAS6-REM-Z. **Note -** For more details about requirements for this NEM, refer to the *Sun Blade 6000 Ethernet Switched NEM 24p 10Gb Product Notes*.

TABLE 5 Supported Hardware

NEM X4238 – Sun Blade 6000 Virtualized NEM 10-port 1GbE, 4-port SAS, 2-port 10GbE	Supported and requires: • (For storage connectivity) REM X4607A • (For network connectivity) FEM X4835A
NEM X4236A – Sun Blade 6000 Network Express Module (10x 1GbE pass-through ports, 4 miniSAS x4 ports, 10x 10GbE SFP+ ports)	Supported and requires: • (For storage connectivity) REM X4607A • (For network connectivity) FEM X1029A (Sun Dual 10GbE Fabric Expansion module)
NEM X4212A – Sun Blade 6000 Multi-Fabric Network Express Module (10x 1GbE pass-through ports, 4 miniSAS x4 ports)	Supported and requires: • Oracle Solaris 10 5/08 OS (minimum) • (For storage connectivity) REM X4607A
NEM X4250A – Gigabit Ethernet (CU) 10-port Passthru Network Express Module	Supported
Storage Modules	
Sun Blade 6000 Storage Module M2	Supported and requires: • REM SG- or SGX-SAS6-REM-Z • NEM X4338A • CMM Software Release 3.2.1 (CMM ILOM 3.0.10.15a), or later
Sun Blade 6000 disk module	Supported and requires one of the following REMs: REM X4607A Also requires one of the following NEMs: • NEM X4238A • NEM X4236A • NEM X4212A
RAID Expansion Modules (REMs)	
REM SGX-SAS6-REM-Z, REM SG-SAS6-REM-Z – Sun Storage 6 Gb SAS REM HBA	Supported and requires: • Oracle Solaris 10 10/09 OS (or later) • Oracle Solaris 10 Patches; 142259-03 (or later), 143523-04 (or later), 141870-03 (or later) • Prior to installation, update firmware on SAS1 components. See "Important Firmware Upgrade Required Prior to Mixing SAS-1 and SAS-2 Components" on page 9
REM X4607A – Sun Blade G2 RAID 0/1 Expansion Module	Supported and requires: • LSI HBA FW 1.24.94* (Patch ID 139419-02 or later) • Patch ID 142259-03, or later

TABLE 5 Supported Hardware

Fabric Expansion Modules (FEMs)	
FEM X4835A – PCIe Pass-through Fabric Expansion Module	Supported There are revision dependencies for the server module SP System Firmware, motherboard firmware, and OS. Refer to the *Sun Blade T63X0 PCIe Pass-Through Fabric Expansion Module User's Guide*.
X4871A-Z – Dual 10GbE PCIe 2.0 FEM	Supported

* REM X4607A requires a minimum LSI HBA firmware version of 1.24.94 to support SATA hard drives and for connectivity to the Sun Blade 6000 disk module.

Note – For the latest information on hardware component requirements, refer to the product notes for your component.

TABLE 6 Online Documentation for Modular Components

Documented Hardware Components	URL
Oracle Product Documentation	http://docs.oracle.com
Sun Blade T6320 and Sun Blade T6320 G2 Server Modules	http://www.oracle.com/pls/topic/lookup?ctx=E19745
Sun Blade 6000 Modular System chassis	http://www.oracle.com/pls/topic/lookup?ctx=E19938
Sun Blade 6048 Modular System chassis	http://www.oracle.com/pls/topic/lookup?ctx=E19926
Network Express Modules (NEMs)	http://www.oracle.com/technetwork/documentation/oracle-blade-sys-190001.html
Storage Modules	http://www.oracle.com/technetwork/documentation/oracle-blade-sys-190001.html
RAID Expansion Modules (REMs)	http://www.oracle.com/technetwork/documentation/oracle-storage-networking-190061.html

TABLE 6 Online Documentation for Modular Components *(Continued)*

Fabric Expansion Modules (FEMs)	http://www.oracle.com/pls/topic/lookup?ctx=E19826 http://www.oracle.com/pls/topic/lookup?ctx=E19134
PCIe Express Modules (PEMs)	Ethernet: http://www.oracle.com/technetwork/documentation/oracle-net-sec-hw-190016.html HBAs: http://www.oracle.com/technetwork/documentation/oracle-storage-networking-190061.html
RAID Documentation	Refer to the *Sun SPARC Enterprise T5120 and T5220 Servers Administration Guide* at: http://www.oracle.com/pls/topic/lookup?ctx=E19839

Important Firmware Upgrade Required Prior to Mixing SAS-1 and SAS-2 Components

You must upgrade the firmware of your SAS-1 components (SAS-1 NEMs and disk modules) to a firmware version that supports SAS-1/SAS-2 coexistence.

This upgrade must be done before you insert a SAS-2 component into the chassis.

At a minimum, all SAS expanders for SAS-1 NEMs and Sun Blade 6000 Disk Modules must be upgraded to firmware revision 5.04.03 (or later). This firmware revision enables SAS-1/SAS-2 devices to coexist in the Sun Blade 6000 modular system chassis. Using older firmware revisions might result in SAS2 devices hanging.

Refer to the *SAS-1/SAS-2 Compatibility Upgrade Guide* for details on which devices require the upgrade, obtaining the firmware, and performing the upgrade. This guide is available at:

http://www.oracle.com/pls/topic/lookup?ctx=E19826

CHAPTER 2

Late-Breaking Issues

This chapter provides the following information:

Storms of Events Might Impact Logging of Telemetry Data (CR 6983799)

Modular systems might experience issues when handling error events, where error telemetry might not be processed or logged by the service processor to the host upon processing a stream of error events. This problem can occur when the server module is running system firmware 7.2.10.a and earlier.

Workaround: Upgrade system firmware to 7.3.0 (or later). See "Supported Versions of the Oracle Solaris OS, Firmware, and Software" on page 3.

System May Hang, Panic, Reset, or Power Off While Handling Correctable Events (6983478)

This problem only occurs on multi-socket Sun4v systems that are running system firmware 7.2.10.a or earlier.

When processing fault events under certain conditions the server module might reset, panic, or hang. This occurs when the system is handling events that require data from a remote CPU node.

Workaround: Upgrade the system firmware to 7.3.0 (or later). See "Supported Versions of the Oracle Solaris OS, Firmware, and Software" on page 3.

Drive OK-to-Remove LED Might Not Work When Using the `cfgadm -c unconfigure` Command (CR 6946124)

When a SAS2 capable REM is installed in the server module, using the `cfgadm -c unconfigure` command fails to illuminate the drives OK-to-Remove LED making it difficult to identify which drive to remove.

Workaround: If you are still uncertain about the location of the drive, perform the following procedure.

▼ Manually Locate a Drive

1. **Run** `format` **utility and select the device that you need to locate.**

   Example:

```
# format
Searching for disks...done
AVAILABLE DISK SELECTIONS:
       0. c0t5000C5000F8AD1FFd0 <SUN300G cyl 46873 alt 2 hd 20 sec
625>
           /scsi_vhci/disk@g5000c5000f8ad1ff
       1. c0t5000C5000F8BB997d0 <SUN300G cyl 46873 alt 2 hd 20 sec
625>
           /scsi_vhci/disk@g5000c5000f8bb997
        2. c0t5000C50003D3D85Bd0 <SUN72G cyl 14087 alt 2 hd 24 sec
424>
           /scsi_vhci/disk@g5000c50003d3d85b
       3. c0t5000C50012EEE447d0 <SUN146G cyl 14087 alt 2 hd 24 sec
848>
           /scsi_vhci/disk@g5000c50012eee447
        4. c0t5000C5000258C457d0 <SUN72G cyl 14087 alt 2 hd 24 sec
424>
           /scsi_vhci/disk@g5000c5000258c457
       5. c0t5000CCA00A4A924Cd0 <SUN300G cyl 46873 alt 2 hd 20 sec
625>
           /scsi_vhci/disk@g5000cca00a4a924c

Specify disk (enter its number): 4
selecting c0t5000C5000258C457d0      <<==
```

2. **Make note of the** *cntndn* **number associated with the drive.**

   For example, in the previous output example, the string to note is `c0t5000C5000258C457d0`.

3. **Type** `q` **to exit the** `format` **utility.**

4. **Find the serial number for the device:**

   a. **Redirect the output of the** `iostat` **command to a file.**

      Example:

```
# iostat -En > iostat_output
```

b. In the file, search for the string you noted in Step 2.

You can use an editor and search for the string. In the following example, we are searching for `c0t5000C5000258C457d0`.

```
c0t5000C50003D3D85Bd0 Soft Errors: 0 Hard Errors: 0 Transport Errors: 0
Vendor: SEAGATE  Product: ST973402SSUN72G  Revision: 0603 Serial No: 0715215EVK
Size: 73.41GB <73407865856 bytes>
Media Error: 0 Device Not Ready: 0 No Device: 0 Recoverable: 0
Illegal Request: 0 Predictive Failure Analysis: 0
c0t5000C5000258C457d0 Soft Errors: 0 Hard Errors: 0 Transport Errors: 0
Vendor: SEAGATE Product:ST973451SSUN72G Revision: 0302 Serial No:0802V16VTE <<==
Size: 73.41GB <73407865856 bytes>
Media Error: 0 Device Not Ready: 0 No Device: 0 Recoverable: 0
Illegal Request: 0 Predictive Failure Analysis: 0
c1t0d0           Soft Errors: 4 Hard Errors: 2 Transport Errors: 0
Vendor: AMI      Product: Virtual CDROM    Revision: 1.00 Serial No:
Size: 0.00GB <0 bytes>
Media Error: 0 Device Not Ready: 0 No Device: 2 Recoverable: 0
Illegal Request: 4 Predictive Failure Analysis: 0
c0t5000CCA00A4A924Cd0 Soft Errors: 0 Hard Errors: 0 Transport Errors: 0
Vendor: HITACHI  Product: H103030SCSUN300G Revision: A2A8 Serial No: 0950GA0B7E
Size: 300.00GB <300000000000 bytes>
Media Error: 0 Device Not Ready: 0 No Device: 0 Recoverable: 0
Illegal Request: 0 Predictive Failure Analysis: 0
c0t5000C50012EEE447d0 Soft Errors: 0 Hard Errors: 0 Transport Errors: 0
Vendor: SEAGATE  Product: ST914603SSUN146G Revision: 0768 Serial No: 092180GMM6
Size: 146.81GB <146810536448 bytes>
/c0t5000C5000258C457d0
```

c. Identify the serial number associated with the string.

In the previous example, `0802V16VTE` is the serial number.

5. Change to the directory where you installed the `SAS2IRCU` utility.

For information on downloading and installing the SAS2IRCU utility, refer to the *Sun Storage 6 Gb SAS REM HBA Installation Guide*.

6. Find the SAS2 controller number (shown under Index) using the `sas2ircu LIST` command.

Example:

```
# ./sas2ircu LIST
LSI Corporation SAS2 IR Configuration Utility.
Version 3.250.02.00 (2009.09.29)
Copyright (c) 2009 LSI Corporation. All rights reserved.


        Adapter      Vendor  Device                       SubSys  SubSys
```

```
Index    Type           ID      ID    Pci Address           Ven ID  Dev ID
-----  ------------  ------  ------  -----------------    ------  ------
  0     SAS2008     1000h    72h   00h:700h:00h:00h      1000h   3180h
SAS2IRCU: Utility Completed Successfully.
```

7. **Redirect the output of the** `sas2ircu` *n* `display` **command to a file, where** *n* **is the controller number from** Step 6**.**

   Example:

```
# ./sas2ircu 0 display > sas2ircu_output
```

8. **In the output file, search for the serial number obtained from** Step 4**.**

```
# cat sas2ircu_output

Device is a Hard disk
 Enclosure #                             : 1                    <<==
 Slot #                                        : 1             <<==
 State                                          : Ready (RDY)
 Size (in MB)/(in sectors)                 : 70007/143374737
 Manufacturer                              : SEAGATE
 Model Number                             : ST973451SSUN72G
 Firmware Revision                         : 0302
 Serial No                                 : 0802V16VTE
 Protocol                                  : SAS
 Drive Type                                : SAS_HDD
```

9. **In the output, look for the** `enclosure #` **and** `slot #` **that correspond to this device.**

   - If the `Enclosure #` is 1:

     The drive is in a server module. The Slot # refers to slot number on the server module. In the previous example, Slot # 1 corresponds to HDD1 on the front panel of the server module.

     Locate the drive and do not complete the remaining steps in this procedure.

   - If the `Enclosure #` is any number other than 1:

     The drive is in a storage module. The Slot # refers to the slot number on the storage module.

     Perform the remaining steps in this procedure.

10. **To locate the drive in storage module, use the** `sas2ircu LOCATE` **command.**

    The locate ID on the drive will start blinking (amber).

    Example specifying a drive in enclosure # 6, slot # 7:

```
# ./sas2ircu 0 LOCATE 6:7 ON
```

11. **After replacing the drive, turn off the locate LED.**

    Example specifying a drive in enclosure # 6, slot # 7:

```
# ./sas2ircu 0 LOCATE 6:7 OFF
```

`cfgadm` Does Not Unconfigure the Path When Multipathing Software Is Enabled (6948701)

The `cfgadm -c unconfigure` command fails if the path specified is an mpxio enabled device.

Workaround: This issue is fixed in the Oracle Solaris 9/10 OS and in kernel patch 14909-13 (or later). If you are unable to install Oracle Solaris 9/10 OS or patch 14909-13, perform the following procedure.

▼ Manually Unconfiguring Multipath-Enabled Drives

1. **Start the `format` utility to see the drives and to obtain the drive numbers (such as `c0t5000C5000F0E5AFFd0`) for the drive you plan to unconfigure.**

```
# format
Searching for disks...done
AVAILABLE DISK SELECTIONS:
0. c0t5000C5000F0E5AFFd0 <SUN72G cyl 14087 alt 2 hd 24 sec 424>
/scsi_vhci/disk@g5000c5000f0e5aff
1. c0t5000C5000F0FE227d0 <SUN72G cyl 14087 alt 2 hd 24 sec 424>
 /scsi_vhci/disk@g5000c5000f0fe227
```

2. **To exit the format utility, select one of the drives and type `q`.**

```
Specify disk (enter its number): 1
selecting c0t5000C5000F0FE227d0
```

3. **Use the `mount` command to identify whether the device is mounted or if it is a boot drive.**

- The following example shows the output when the drive is mounted:

```
# mount | grep c0t5000C5000F0E5AFFd0
/mnt on /dev/dsk/c0t5000C5000F0E5AFFd0s6
read/write/setuid/devices/intr/largefiles/logging/xattr/onerror=
panic/dev=600016 on Fri Jun  4 10:37:08 2010
```

- The following example shows the output when the drive is a boot drive:

```
# mount | grep c0t5000C5000F0FE227d0
/ on /dev/dsk/c0t5000C5000F0FE227d0s0
read/write/setuid/devices/intr/largefiles/logging/xattr/onerror=
panic/dev=800010 on Wed Jun 9 09:58:24 2010
/export/home on /dev/dsk/c0t5000C5000F0FE227d0s7
read/write/setuid/devices/intr/largefiles/logging/xattr/onerror=
panic/dev=800017 on Wed Jun 9 09:59:13 2010
```

4. **Based on your results, do one of the following:**
   - If the disk is a not boot drive, go to Step 5.
   - If the disk is a boot drive, go to Step 6.
5. **Identify the processes running on the drive:**
   a. **Run the `fuser` command to identify the processes accessing the disk.**
   - The following example shows there are no processes using the disk:

```
# fuser -d /dev/dsk/c0t5000C5000F0E5AFFd0s2
  /dev/dsk/c0t5000C5000F0FE227d0s2:
```

   - The following example shows a process accessing the disk, followed by the process ID (PID):

```
# fuser -d /dev/dsk/c0t5000C5000F0FE227d0s2
/dev/dsk/c0t5000C5000F0FE227d0s2: 1036o
```

   b. **If you identify a process, use the `ps` command to further identify the process.**

   Example:

```
# ps -ef | grep 1036
root 1036 982 0 11:56:34 pts/2 0:02 dd if=/dev/dsk/c0t5000C5000F0E5AFFd0s2 of=
/dev/dsk/c0t5000C5000F0FE227d0s7
```

   c. **Kill processes identified in Step b using `kill -9` *PID*.**

d. Use the `umount` command to unmount any mount points and then run `sync` command to synchronize the disk.

Example:

```
# umount /mnt

# mount | grep c0t5000C5000F0E5AFFd0

# sync
```

e. Remove the disk, and do not continue with subsequent steps in this procedure.

6. If the drive is a boot drive, run the following commands to synchronize the drive and shutdown the system:

```
# sync

# init 0
```

False Power Failure Faults Might Be Reported During POST or SunVTS Memory Testing (CR 6895793)

On some Sun Blade T6340 Modular Servers, the following intermittent error message is displayed during POST or SunVTS testing:

```
Fault   |  critical: "SP detected fault at time Tue Oct 27 18:17:32
2009. Host Power Failure: MB_DC_POK Fault"
```

Fix: Update the modular server System Firmware to version 7.2.4.f or higher.

Remote Console Does Not Launch When Using Web Interface Connection to CMM (CR 6740614)

This issue occurs on Sun Blade T6340 server modules that are in a modular system chassis with CMM firmware 3.0.3.32.

When you launch the web interface by connecting to the CMM in the chassis where your server module is installed, you can then select the server module within the web interface to connect to it. If you connect this way, however, the ILOM Remote Console does not launch for the Sun Blade T6340 server module.

Workaround*:* Use the web interface to connect directly to the Sun Blade T6340 server module, not to the CMM.

Memory Configuration Issues at Power On (CR 6730610)

This issue is fixed in System Firmware 7.1.8.a and later versions.

When powering on a Sun Blade T6340 server module, you might encounter the following error messages:

```
Chassis | major: Jul 27 16:40:17 ERROR: dt_allocprop: prop == NULL:
Not enough memory to expand MD for new property fwd

Chassis | major: Jul 27 16:40:17 ERROR: dt_allocnode: Not enough
memory to expand MD for new node mblock

Chassis | critical: Jul 27 16:41:55 FATAL: The Service Processor
software has taken a FATAL configuration error,

Chassis | critical: the HOST Process cannot be started.
Chassis | critical: Please examine the logs to determine the reason
for failure and then
Chassis | critical: reset the Service Processor
```

Workaround*:* Update the System Firmware version to 7.1.8.a or later.

Other Workarounds*:* This error is encountered when there is a large difference between the amount of memory on the different CMP and MEM modules. For example, it could happen if the memory on `CMP0+MEM0` added up to 128 Gbytes, but the memory on `CMP1+MEM1` added up to only 16 Gbytes. This situation can happen in two different situations. Each situation has its own recovery procedure.

- *Situation 1:* You have added new FB-DIMM modules to your server module and have configured one of the `CMP+MEM` modules with significantly more memory than the other modules.

  Recovery: Reallocate the FB-DIMMs across the CMP and MEM modules to keep the total number and types of FB-DIMMs the same on each CMP and MEM module.

- *Situation 2:* POST has determined that multiple FB-DIMMS have failed with 64 8-Gbyte FB-DIMMS. If POST takes an FB-DIMM offline, you must take one of the following two steps.

  Recovery: Take one of the following two steps:

  - Replace it immediately.

- Disable the corresponding FB-DIMMs on the corresponding memory branches of the other CMP, to guarantee a contiguous memory configuration.

  You must take this step if replacing the failed FB-DIMM is not immediately possible or desired.

  i. View a list of enabled and disabled devices.

     In ILOM: `show components`

     In ALOM compatibility shell: `showcomponent`

  ii. Identify the FB-DIMM devices to be disabled.

     For each FB-DIMM device that is disabled, you will disable the corresponding FB-DIMM associated with the other CMP/MEM units. For example, if the following device is disabled:

     `/SYS/MB/MEM0/CMP0/BR0/CH0/D1`

     Then you must disable the following devices:

     `/SYS/MB/MEM1/CMP1/BR0/CH0/D1`

     `/SYS/MB/MEM2/CMP2/BR0/CH0/D1`

     `/SYS/MB/MEM3/CMP3/BR0/CH0/D1`

  iii. Disable the target FB-DIMM devices.

     In ILOM: `set /SYS/`*component* `component_state=disabled`

     In ALOM CMT compatibility shell: `disablecomponent` *component*

Procedure for Resetting Root Password to Factory Default Ineffective (CR 6749470)

This issue is fixed in System Firmware 7.1.8.a and later.

The service procedure "To Reset the Root Password to the Factory Default" described in the *Sun Blade T6340 Server Module Service Manual* does not reset the root password.

Workaround*:* If possible, update the System Firmware to 7.1.8.a or later.

Command `prtdiag -v` Might Appear to Hang (CR 6588550)

The `prtdiag -v` command is slow and could appear to hang. The command might take up to five minutes to complete.

Fix: Update the OS to Oracle Solaris 10 5/09 or install the Solar55is 10 kernel patch 139555-08 (or later).

ALOM Compatibility Shell Command `setdate` Issue (CR 6586305)

This issue is fixed in System Firmware 7.2.0.

Using the SP `setdate` command (ALOM compatibility shell) after having configured nondefault logical domains can cause the date on nondefault domains to change.

Workaround*:* Update the System Firmware to 7.2.0 or later.

Another workaround: Use the `setdate` command to configure the date on the SP before configuring and saving logical domain configurations.

If you use `setdate` after nondefault logical domain configurations have been saved, each nondefault domain must be booted to Oracle Solaris and the date corrected. (Refer to the `date`(1) or `ntpdate`(1M) man page.)

SunVTS `xnetlbtest` Might Fail During XAUI Loopback Testing (CR 6603354)

SunVTS `xnetlbtest` can fail during XAUI loopback testing. Failures occur with this error message:

```
Excessive packets dropped
```

Workaround*:* Do not run SunVTS `xnetlbtest` on XAUI interfaces.

Fix: Update the OS to Oracle Solaris 10/08 or install the Oracle Solaris 10 OS kernel patch 137137-09 or later.

CHAPTER 3

Documentation Errata

This chapter provides the following information about Oracle's Sun Blade T6340 server module documentation:

Correction to the Service Manual

The following erratum applies to *Sun Blade T6340 Server Module Service Manual.*

Replace section 2.6.4.3 "Clearing Faults Manually with ILOM" in the service manual with the following text:

The ILOM . . .

```
set /SYS/component clear_fault_action=enabled
```

. . . command allows you to manually clear certain types of faults without replacing a FRU. It also allows you to clear a fault if ILOM was unable to automatically detect the FRU replacement.

A kernel panic can occur under any of four rare hardware error conditions:

- IngressHeaderBuffer (IHB) parity error
- EgressHeaderBuffer (EHB) parity error
- EgressDataBuffer (EDB) parity error
- Link-down transition

If any of these errors occur, then a software initiated reboot of the domain will fail.

The failure symptom will be no that there is no PCI device in the OpenBoot PROM device tree. OpenBoot software will not be able to boot the domain automatically.

Workaround*:* Power the system off then power it on again from the service processor. This action permits the automated reboot to proceed normally. A diagnostic process will run, identifying any faulty hardware.