Solaris™ 7 8/99 Release Notes Supplement for Sun™ Hardware

Solaris 7 8/99

Includes Additional Release Notes and End-of-Support Statements for Solaris 7 8/99 Running on Sun Hardware Products

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CHAPTER 1

Late Breaking News

This manual provides the following information:

- Late breaking news (this chapter)
- End-of-support statements (chapter 2)
- Open issues (chapter 3)
- Sun Enterprise™ 10000 server issues (chapter 4)
- Sun Enterprise 3x00, 4x00, 5x00, and 6x00 server issues (chapter 5)

This manual supplements the *Solaris™ 7 8/99 Sun™ Hardware Platform Guide* and the *Solaris 7 8/99 Release Notes.*

Service Contract Upgrades to the Solaris 7 8/99 Operating Environment

You may have received a Solaris Server Media Kit to upgrade systems to the Solaris 7 8/99 operating environment. Please note that your service contract entitles you to use only those products that apply to your original Solaris operating environment license.

Unbundled Product Support

If you are upgrading from an existing version of Solaris and have installed unbundled products, either from Sun or from a different company, you must ensure that all those products are supported on Solaris 7 8/99 prior to upgrading. Depending on the status of each unbundled product, you have three options for each unbundled product:

- Verify that the existing version of the unbundled product is supported on the Solaris 7 8/99 operating environment.
- Acquire and install a new version of the unbundled product which is supported on the Solaris 7 8/99 operating environment. Note that in this case you may need to remove the previous version of the unbundled product prior to upgrading to the Solaris 7 8/99 operating environment. See the unbundled product documentation for more details.
- Remove the unbundled product prior to upgrading to the Solaris 7 8/99 operating environment.

For additional information contact the supplier of the unbundled product or your service provider or go to:

`http://sunsolve.sun.com/sunsolve/pubpatches/patches.html`

Documents on the Software Supplement for the Solaris 7 8/99 Operating Environment for Sun Computer Systems CD

Table 1-1 lists the documents available on the Supplement CD:

TABLE 1-1 Documents on the Supplement CD

Path	Comment
`Docs/HWPG/EOS.html`	List of future end-of-support peripheral products
`Docs/HWPG/Hardware.ps`	Supported hardware matrices
`Docs/HWPG/HWPG_en.ps`	*Solaris 7 8/99 Sun Hardware Platform Guide*

TABLE 1-1 Documents on the Supplement CD

Path	Comment
`Docs/ODBC/README.ODBC_en.html`	Readme file for ODBC
`Docs/ShowMeTV1.3/UG_en.ps`	*ShowMe™ TV™ 1.3 User's Guide*
`Docs/README_en.html/`	Readme file for Solaris 7 8/99 Sun Computer Systems Supplement CD

Note – The `_en` indicates an English language document. Other languages may be indicated, depending on locale.

The Supplement CD also contains other documentation in AnswerBook™ packages and in man page packages. The documentation in AnswerBook packages can only be read through the AnswerBook2™ server software provided on the Solaris Documentation CD. Documents in the man page packages can only be read through the `man` command. Refer to the *Solaris 7 8/99 Sun Hardware Platform Guide* for details on installing these packages from the Supplement CD.

Flash PROM Update for 64-bit Operations

Some sun4u systems need to be updated to a higher level of OpenBoot™ firmware in the flash PROM before they can run the 64-bit mode of the Solaris 7 8/99 operating environment. Systems that can only run the 32-bit mode (such as those in the sun4c, sun4d, and sun4m platform groups) do not require updated firmware to run Solaris 7 8/99 software.

The only systems that may require this flash PROM update are the following:

- Ultra™ 1
- Ultra 2
- Ultra 450 and Sun™ Enterprise™ 450
- Sun Enterprise 3000, 4000, 5000, and 6000 systems

See the *Solaris 7 8/99 Sun Hardware Platform Guide* for instructions for determining whether your system needs a flash PROM update and for instructions on performing that update.

For the Ultra and Ultra 2 systems, an antistatic wrist strap may be required for the update. If you need a wriststrap, send e-mail to `strap@eng.sun.com`

Flash PROM Update Multimedia AnswerBook CD

This CD provides video clips that illustrate how to perform steps involving hardware that are part of the procedures for updating the Flash PROM on some sun4u systems.

The video clips on this CD can be accessed several ways. Some software products are present on this CD to facilitate viewing of the videos directly from the CD. Do not use the AnswerBook2 server software or the ShowMe TV software on this CD to install these products permanently on a system. Instead, use the Solaris 7 8/99 Documentation CD to install AnswerBook2 server software and use the Supplement CD to install ShowMe TV software.

Note – The video clips on the Flash PROM Update Multimedia AnswerBook CD have English language audio tracks. The volume level for the audio tracks is set to minimum. If you want to hear the English language audio track, you must adjust the audio level.

CHAPTER 2

End-of-Support Products

This chapter contains a list of the end-of-support products for the Solaris 7 release, including the Solaris 7 8/99 release.

End-of-Support Products

The following hardware and software products are no longer supported in this Solaris 7 8/99 release. For more information, contact your authorized Sun support provider.

Network Devices — BEC Device and `be` Driver

The BEC device and `be` driver are not supported in the Solaris 7 8/99 release.

Graphics Devices—Discontinued Frame Buffers

The following frame buffers are not supported in the Solaris 7 8/99 release.

- MG1 (`bwtwo`)
- MG2 (`bwtwo`)
- CG2 (`cgtwo`)
- CG4 (`cgfour`)
- TC (`cgeight`)
- ZX (`leo`)
- TZX (`leo`)

PEX Graphics Library

The Solaris™ PEX™ graphics library and server extension are no longer supported in this Solaris 7 8/99 release.

Future End-of-Support Products

Support for the following products may be discontinued in future releases. For more information, contact your support provider.

Sun4c-based Systems

The following sun4c architecture systems and servers based on these systems may no longer be supported in future releases:

SPARCstation™ SLC, SPARCstation ELC, SPARCstation IPC, SPARCstation IPX, SPARCstation 1, SPARCstation 1+, and SPARCstation 2

Note – All hardware options (such as SCSI devices) and supported configurations that are dependent upon the sun4c architecture may no longer be supported in future releases. A list of these options is included in the Supplement CD `/docs` directory in the file named `EOS.html`.

SPARCstation Voyager

SPARCstation™ Voyager™ systems may no longer be supported in future releases.

SPARC Xterminal 1

SPARC Xterminal™ 1 systems may no longer be supported in future releases.

CHAPTER 3

Open Issues

Prestoserve 2.4.2 — Patch Required

The Prestoserve™ 2.4.2 release will not function properly with the Solaris 7 8/99 software environment if the workaround below is not implemented. Below is a partial list of some of the platforms and hardware options that may be affected:

- Ultra™ 1 Creator Model 170E
- Ultra 1 Creator3D Model 170E
- Sun™ Enterprise™ 1 Model 170E
- SunSwift™ SBus Adapter Card

If you installed Prestoserve 2.4.2 and are using a platform or hardware option listed above, you must do the following steps to provide compatibility:

1. **Edit the `/etc/system` file and add the following information:**

```
set fas:fas_enable_sbus64 = 0
```

2. **Reboot your system.**

Caution – Failure to reboot your system can corrupt data.

A Prestoserve patch (#103043-08) that automatically adds the above information to the `/etc/system` file is available. If you prefer to make this change using the Prestoserve patch, contact your authorized Sun support provider. If you edit the `/etc/system` file as described above, you do not need the Prestoserve patch.

If you installed Prestoserve 2.4.2 and are using an Ultra 2 platform (200MHz or 300MHz), you must do the following steps to provide compatibility:

1. **Edit the** `/etc/system` **file and add the following information**:

```
set fas:fas_enable_sbus64 = 0
```

2. **Reboot your system.**
3. **Use** `pkgadd` **to add the** `SUNWprsto` **package.**
4. **Add the Prestoserve patch (103043-08).**

Note – If the above steps are not followed, your Ultra 2 system may panic.

Booting From Partitions Greater Than 2-Gbytes (1234177)

Due to PROM limitations, all sun4c, sun4d, and sun4m architectures will not boot from partitions greater than 2-Gbytes. These systems will fail with the following message:

```
bootblk: can't find the boot program
```

Note – All sun4u architectures support booting from larger partitions.

One related bug (4023466) reports a problem with `re-preinstall` where the boot image for large disks creates root partitions greater than 2-Gbytes. System Administrators are cautioned not to use `re-preinstall` on sun4c, sun4d, and sun4m systems with large root disks (4-Gbytes and greater).

SunFDDI Adapters Cannot Boot Sun4d Diskless Clients (4144414)

Sun4d diskless clients cannot be booted using SunFDDI™ adapters (FDDI/S 6.0 or FDDI/P 2.0) installed in servers running the Solaris 7 8/99 operating environment. If you intend using a Sun4d as a diskless client, deploy it in an ethernet section of your network.

Serial Parallel Controller Driver Does Not Support Dynamic Reconfiguration (4177805)

ISDN — Supported in 32-bit Mode Only

ISDN does not support the Power Management™ suspend and resume features.

SunScreen SKIP 1.1.1 Not Supported in Solaris 7 8/99 Operating Environment

If you have SunScreen™ SKIP 1.1.1 currently installed on your system, you should remove the SKIP packages before installing or upgrading to Solaris 7. The packages you should remove are:

- `SICGbdcdr`
- `SICGc3des`
- `SICGcdes`
- `SICGcrc2`
- `SICGcrc4`
- `SICGcsafe`

- SICGes
- SICGkdsup
- SICGkeymg
- SICGkisup

Solstice SyMON Not Supported in Solaris 7 8/99 Operating Environment

If you have Solstice SyMON currently installed on your system, you should remove the SyMON packages before installing or upgrading to the Solaris 7 8/99 operating environment. The packages you should remove are:

- SUNWsyc
- SUNWsye
- SUNWsym
- SUNWsyrt
- SUNWsys
- SUNWsyu
- SUNWsyua
- SUNWsyub
- SUNWsyuc
- SUNWsyud
- SUNWsyue
- SUNWsyuf

SunVTS 3.3 Issues

The following issues apply to the SunVTS™ 3.3 product.

New Features for This Release

A new test called `gfxtest` was added to support testing of the PGX frame buffer.

SunVTS OPEN LOOK User Interface Support

The SunVTS OPEN LOOK user interface may not support the latest SunVTS features. For full feature support, use the SunVTS CDE or TTY interface. The SunVTS OPEN LOOK user interface will be sustained, but not enhanced, as long as OPEN LOOK is supported in the Solaris environment.

Running SunVTS Online Diagnostics through Sun Enterprise SyMON

The SunVTS 3.3 online diagnostics feature (`SUNWodu`) is not accessible through the SyMON interface.

Instead, you can start SunVTS so it will run safely in an online environment by using the `vtsui.online` command.

Example:

```
# /opt/SUNWvts/bin/vtsui.online -h hostname
```

For more information about running SunVTS in an online or offline environment, refer to the *SunVTS 3.3 User's Guide*.

StorEdge-A5XXX Device Group Changes

As of SunVTS 3.3, the way that StorEdge-A5XXX devices are grouped in the SunVTS System Map (for logical mapping) changed. Prior to version 3.3, the enclosure was grouped under the `SENA(`*n*`)` group and the disks were grouped under the `SCSI-Devices` group. Now the enclosure and disks are both grouped under the `StorEdge-A5`*XXX_enclosure_name* group.

Disk Test (`disktest`) Mounting Issues

As of SunVTS 3.0, SunVTS `disktest` by default does not mount any mountable partitions. To have SunVTS mount all partitions which contain a file system, set the environment variable `BYPASS_FS_PROBE` to `0` (zero), then start SunVTS. For more details, refer to the `disktest` chapter in the *SunVTS 3.3 Test Reference Manual*.

Disk Test (`disktest`) Option File Note

Loading an option file that was created when BYPASS_FS_PROBE was set to `0` (zero) might not work if the BYPASS_FS_PROBE environment variable is no longer set to `0` (zero). Testing may fail with the following error:

```
SUNWvts.disktest.8088 07/24/98 15:47:22 disktest c0t0d0 FATAL:
“Couldn’t get file system information on /disktest_c0t0d0s0,
statvfs() system call failure error: No such file or directory.
```

This error is caused when SunVTS expects to use the predefined mount point names (`/disktest_c`*`n`*`t`*`n`*`d`*`n`*`s`*`n`*) that are created when BYPASS_FS_PROBE is set to `0` (zero), but these mount points do not exist while BYPASS_FS_PROBE is not set to `0` (zero).

Workaround: Create two separate option files for the two different states of the BYPASS_FS_PROBE environment variable.

Physical Configuration Mapping Support

The Physical Mapping function is only supported on the systems where the `configd` program is supported. The `configd` program only supports Ultra Enterprise machines. The `configd` package must be installed at the default installation base directory.

To display physical mapping, click the physical mapping button in the SunVTS interface. This will result in a re-mapping of the entire set of testable devices and test settings. Changing the logical and physical view during a test session is not recommended because the previous system and test status will be reset.

The SunVTS User Interface Disappears (4122829)

In some cases, the SunVTS user interface disappears during a SunVTS test session. The SunVTS kernel is still active and the test session may continue to run.

Workaround: Restart the SunVTS user interface.

Example (starting the SunVTS *CDE* user interface):

```
# /opt/SUNWvts/bin/vtsui
```

Some Devices Not Displayed Under Physical Mapping (4228489)

Certain devices that appear under logical mapping are not displayed under physical mapping, therefore, these devices are not selectable for testing.

Workaround: Use logical mapping for testing such devices.

The `enatest` and `socaltest` Cannot Run at the Same Time (4065417)

When the SunVTS `enatest` is run concurrently with the `socaltest`, the `enatest` may fail.

Workaround: Do not select `socaltest` when `enatest` is selected and vice-versa.

The `socaltest` FATAL: Failed `ioctl FCIO_DIAG_XRAM` (4065420)

When the SunVTS `socaltest` is run concurrently with `disktest`, the `socaltest` may fail.

Workaround: Do not select `socaltest` when `disktest` is selected and vice-versa.

The `socaltest` Can Fail Under Heavy System Load (4213518)

Running `socaltest` with heavy system load might cause resource limitations that cause this test to fail.

Workaround: Do not run `socaltest` with a large number of instances and concurrency.

ShowMe TV 1.3 Known Problems

Software

ShowMe TV™ 1.3 contains support for MPEG2 movie playback. Support was dropped for the SunMedia Center in ShowMe TV 1.3. Also, ShowMe TV 1.3 contains a number of bug fixes over 1.2.1. Here is a list of some known problems:

- There are various minor problems with playing MPEG1/2 files: zoom does not work on some frame-buffers, the position indicator is not accurate enough, the frame by frame step back function does not work.
- You can not switch between CIF and QCIF H.261 streams (i.e. regular resolution, or 352x288 size frames, and low resolution,or 176x244 size frames) on non_Ultra systems.
- Mixing Asian and ASCII characters in one line of text can confuse the input/output functions in ShowMe TV. In particular, if a user sets up a transmission in which the transmission name and/or the hostname contain Asian characters, then saving/recovering these parameters to/from the .showmetv-programs-<hostname> configuration file might not work correctly.
- The Receiver's buttons and menus contain incorrect text in locales other than English (bug id# 4210702).

PCMCIA Issues

The following bugs have been filed against PCMCIA:

If the PC ATA, `pcata`, module is modunloaded the system will appear to hang (4096137)

Description: If there is a PCMCIA I/O card in a slot that has been accessed and the card driver is unloaded (as occurs during `modunload -i 0` at the end of multi-user boot) the system will appear to hang. Sometimes removing the card will bring the system back.

Workaround: none

The PCMCIA, `pcic nexus`, driver, does not support 3.3Volts PC Card (4098998)

Description: The PCMCIA, `pcic nexus`, driver does not support 3.3V on devices. Cards that are 3.3V and 3.3V/5V will not work properly (seems to hang the system).

Workaround: none

The PC ATA, `pcata`, disk driver crashes and hangs the system and causes a memory leaks (4106401)

Description: Most attempts to insert/remove and use PCMCIA cards will crash or hang the machine. If it does not crash the machine it can cause memory leaks or create situations where other modules will not load.

Workaround: none

When booting Solaris 7 8/99 operating environment initially with 64-bit kernel the device `/dev/term/pc0`, PC card serial driver, may not get created (4162969)

Description: When booting Solaris 7 8/99 operating environment initially with 64-bit kernel, `/dev/term/pc0` hardware device node for PC card serial device may not be created.

Workaround: Boot the system up with 32-bit kernel first, then reboot with 64-bit kernel.

The PC ATA, `pcata`, driver panics the 64-bit kernel (4174177)

Description: Inserting the PC card after system init panics the 64-bit Solaris. Booting the 32-bit Solaris and accessing the card will not panic the system. The PC ATA driver is not a 64-bit driver.

Workaround: none

PC File Viewer Issues

Install in the /opt Directory

The *Solaris 7 8/99 Sun Hardware Platform Guide* provides installation instructions that may indicate that PC file viewer can be installed in a directory other than the default directory. PC file viewer *must* be installed in the default (/opt) directory.

Known Bugs

- Backdrop image is not displayed in PowerPoint97 document (4159447)
- Cannot display non-standard fonts in PowerPoint97 (4159448)
- Excel graph/table in PowerPoint97 document is not displayed (4159449)
- Can not display scaled font, colored text, italic-underlined text in PowerPoint97 (4159450, 4159451, 4159452)
- Copy and Paste of certain files into a text editor results in * (asterisks) instead of actual text (4165089)
- Searching does not work for multi-byte (tch, ko) in PC file viewer (4151774)
- Wrong string is reversed in PC file viewer search on Japanese locales (4171815)
- Cannot display TCH Word95 saved in Word97 or PowerPoint97 formats in zh.TW.BIG5 locale (4150413)

Sun Remote System Control (RSC) Release Notes

What's New in This Version

This version of Sun Remote System Control (RSC) includes bug fixes and a new environment variable, tpe_link_test. In addition, the RSC device Internet address has been added to email and pager alert messages.

If you have already installed a previous version of Remote System Control, back up your RSC configuration before installing this version, following the directions in Chapter 2 of the RSC User's Guide, and then restore them after installation when you run the RSC configuration script.

The tpe_link_test variable enables 10BASE-T Ethernet link integrity tests when set to true, the default. If you are using RSC in a hub that does not support Ethernet link integrity tests or that has them disabled, set this variable to false. Changes to this variable take effect after the next RSC reset. The tpe_link_test variable behaves similarly to the OBP environment variable named "tpe-link-test?", which is available on some SPARC platforms.

RSC and the local hub should have Ethernet link integrity tests enabled or disabled consistently. If this setting is not consistent, communication may not be possible.

The following bugs have been fixed since the November 16, 1998 release:

- 4172574: The CLI reported a DC Power Failure when the host was powered off.
- 4152840: RSC shell commands did not query for confirmation before resetting the host system.
- 4170986: The GUI "Set Date/Time" dialog box displayed 0:00:00 when time changed to noon and midnight. This is an invalid time format.
- 4173022: The escape sequence for exiting from the RSC console did not work if the escape_char variable was set to "^?".
- 4175561: When connected to the server's console through RSC, a paste operation of over 336 characters into the window connected to RSC could hang the console connection. A reset of RSC was required to recover.

Hardware and Software Configurations Supported for RSC

Supported Server:

Sun Enterprise™ 250 server only, running the Solaris 7™ or Solaris 2.6 5/98 operating environment.

The Sun Enterprise 250 flash PROM must be updated to version 3.7.7 or later before installing the RSC software. Failing to do so may cause server and RSC malfunctions. For update instructions and a downloadable image, see the Sun Enterprise 250 Supplement Web page at http://sunsolve2.Sun.COM/sunsolve/E250/flash.html. If you install RSC from the Sun Enterprise 250 Supplement CD, you can update the flash PROM as part of the installation process.

Supported GUI Clients:

Sun JDK version 1.1.6 or a subsequent compatible version is required for GUI support on systems running the Solaris operating environment, and is included in the base Solaris 7 operating environment and the Sun Enterprise 250 Supplement CD.

Supported CLI Clients:

- ASCII character terminals
- Systems running ASCII terminal emulation software
- Systems with telnet client software

Ethernet Support:

RSC is designed to function in a 10BASE-T network, and the RSC Ethernet port should be connected to a hub operating at 10-Mbps. If RSC does not respond to an Ethernet request, the first thing to check is that connection is to a 10BASE-T hub.

Uninterruptible Power Supply (UPS):

An American Power Conversion SmartUPS 1000 with PowerChute plus 4.2.2 software was used for testing.

Paging Support:

RSC paging requires that the customer’s paging service adhere to the TAP protocol. Paging services in the Americas and Europe generally are TAP-compliant, but this is not necessarily so in other locales.

Testing RSC Paging

Due to the many variables associated with paging, Sun strongly recommends that you test the RSC paging mechanism to insure that your configuration options are set correctly.

The easiest way to test that all the components associated with RSC paging are functioning properly is to use the "rscadm send_event -c" command. This command can be invoked from a UNIX shell and will initiate an RSC alert. If the RSC page_enabled flag is set to true, this alert will send a page to the recipients specified by the page_info1 and page_info2 environment variables.

If RSC fails to send a page, a message similar to the following will be added to the event log:

```
THU AUG 27 22:31:09 1998 sst4828: 00060006: "Failed to send
page alert for recent event"
```

If RSC successfully transmits a page, no error message is added to theevent log.

RSC can fail to send a page notification for the following reasons:

- 1. It failed to communicate with the modem.
- 2. It failed to contact the paging service specified by the page_info1 or page_info2 variable.
- 3. A failure occurred while RSC was communicating with the paging service TAP server.

When a page fails, check the following:

1. That your modem dip switch and software configuration variables are set correctly.
2. That all the RSC page_variables (page_info1 and 2, page_init1 and 2, and page_baud1 and 2) are set correctly and match the settings for your paging service.
3. Insure that your paging service supports the TAP protocol. Check with the paging service to insure that you have the proper phone number and modem configuration parameters.
4. Attempt to connect with the paging service manually. Refer to the "Troubleshooting Modem Problems" section in Appendix B of the *RSC User's Guide* for instructions on manually connecting to a TAP paging service.

Troubleshooting

In some cases, it might be desirable to extend the pause period to allow the modem to recognize the dial tone of the phone line. This can be accomplished on most modems by increasing the value in the S8 register. See documentation that came with your modem for more details.

Known Issues

1. 4151918: The RSC subtests do not provide adequate failure information.
2. 4171924: The RSC GUI occasionally reports invalid exceptions when you Logout or Exit.

3. 4168266: Heavy use of UNIX tcsh shell commands in an RSC console session may stop RSC from responding to requests. Killing the tcsh shell restores RSC to normal behavior.

4. 4167862: A loghistory error is reported when the "index -n" value you specify is greater than the number of lines in the buffer

5. 4171929: RSC sometimes reports a fan failure erroneously after a thermal shutdown.

6. 4145761: An RSC reset is required for changes to the serial_hw_handshake variable (or "Enable Hardware Handshaking" setting in the GUI) to take effect, but should not be required.

7. 4167651: RSC default configuration settings for pagers do not match modem configuration settings suggested in documentation.

8. 4171431: The GUI event log output differs from the CLI loghistory output.

9. 4170988: The RSC GUI Back button for the first instance of Help does not return you to the previous view.

10. 4172337: The error message displayed for an attempted third telnet or fifth user session needs improvement.

11. 4162419: In the Windows operating environment, the RSC GUI goes to the background when you cancel an operation after an error message.

12. 4158400: The message "[Loaded DTD html32 in 142ms]" appears when the RSC Help file is displayed.

13. 4151674: Clicking on "Set RSC Date and Time" sometimes displays a duplicate image of the "Set RSC Date and Time" option just above the option list, and below the "RSC for <hostname>" title.

14. 4159618: A GUI reset request and the resulting reset event are recorded in the incorrect order in the RSC event log.

15. 4159562: The telnet connection resets intermittently when you try to connect to the RSC console from the GUI.

16. 4159564: The Java Runtime Environment (JRE) may crash in the Windows 95 operating environment when you modify an RSC user account.

17. 4172331: In the RSC GUI Serial Port settings, there is a typo in the error message for Invalid IP Address.

18. 4159135: The RSC GUI has no option which shows the information returned by the CLI shownetwork command.

19. 4157854: Sometimes when a thermistor displays a warning in the Environmental Status window and you refresh the screen, the warning is mistakenly displayed for a different thermistor. Another refresh corrects this problem.

20. 4216814: Pressing Return in the GUI login screen fails to advance input focus to the next entry field.

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Documentation Errata

The following errors in various documents have been reported.

Platform Notes: The hme SunFastEthernet Device Driver Guide

The *Platform Notes: The hme SunFastEthernet™ Device Driver Guide* lists the wrong default value for the `adv_10fdx_cap` parameter. The correct default value for this parameter is 1 for 10Mbit/sec full-duplex capable.

See bug Id 4217150 for more information.

SunForum BugID 4234195

In Helpful Information for WebStart installation, a link to the SunForum™ html file is broken. This problem can be seen in German, French, Italian, Spanish, and Swedish languages for the Desktop Configuration.

If it's linked correctly, the following information is displayed:

SunForum 2.0:

SunForum is a suite of collaborative tools based on the International Telecommunications Union (ITU) T.120 standards. SunForum consists of a Share Application program, a Shared Whiteboard application, File Transfer utility and a Chat Utility.

Requirements for SunForum 2.0:

You need to allocate about 11 MB of disk space to this product.

System Service Processor

This section contains late-breaking news about the System Service Processor (SSP) 3.1.1 release.

Known Bugs

This section contains the known bugs in the SSP 3.1.1 release. These bugs are in addition to the known bugs that are documented in the *Sun Enterprise 10000 SSP 3.1.1 Installation and Release Notes* document that was published with the web release of SSP 3.1.1.

4251250 - `ssp_upgrade` script does not handle errors from `pkgadd` in a good way

The `ssp_upgrade` script does not handle errors from `pkgadd`(1M) very well. It does not exit when a `pkgadd`(1M) fails, and it displays an error that can be easily overlooked. This condition is more likely to happen when the SSP does not have enough disk space.

Workaround: Make sure enough disk space exists on the SSP before you attempt to upgrade or install SSP 3.1.1. The total size of the SSP packages is approximately 38.17 megabytes. The majority of the SSP files are installed in the `/opt` directory.

4249098 - `SUNWsspue` post-install gets permissions wrong on `dtwmrc`

`SUNWsspue` post-install script overwrites the `dtwmrc` file, causing it to be owned by `root:other` instead of `ssp:staff`.

Workaround: If you do not change this file, no action is required. However, if you do change the `dtwmrc` file, you must log in to the SSP as superuser and change the owner and group of the `dtwmrc` file to `ssp:staff`, unless you edit this file while you are logged in as superuser.

Fixed Bugs

This section contains a list of fixed bugs. These bugs are in addition to the fixed bugs that are documented in the *Sun Enterprise 10000 SSP 3.1.1 Installation and Release Notes* document that was published with the web release of SSP 3.1.1

4250101 - powering off system boards on domains at OBP causes arbstops on other domains

Patches

This section contains a list of patches for SSP 3.1.1.

Patch-ID 108080-01

Unavailable at publication time, patch 108080-01 is the first version of this patch to fix BugID 4250101. You can obtain this patch at the `http://www.sunsolve.com` site.

Documentation Errata

This section contains general issues with the SSP 3.1.1 documentation. These issues are in addition to the general issues that are documented in the *Sun Enterprise 10000 SSP 3.1.1 Installation and Release Notes* document that was published with the web release of SSP 3.1.1

Printing the SSP 3.1.1 User Guide and Reference Manual

PostScript® files are included with the web version of the SSP 3.1.1 software. Those files are not on the Computer Systems Supplements CD.

Solaris Web Start and the Supplement CD

For the Desktop configuration for Korean, Simplified Chinese, and Traditional Chinese, some Web Start help and mouse-over help files have the wrong version information for the current product.

Specifically, help files for the following products have the wrong version information: AnswerBook, ShowMe TV, Sun VTS, and PC file viewer.

Also, for the Server and Desktop configurations for European languages, the help files for PC launcher have the wrong version information:

Specifically, in the Desktop configuration, Spanish, French, Italian, Swedish, and German have the wrong version information for PC launcher.

In the Server configuration, German has the wrong version information for PC launcher.

Workaround: The label on the physical CD has the correct version information.

CHAPTER 4

Sun Enterprise 10000 Release Notes

Sun Enterprise 10000

This section contains general issues, known bugs, patches, and notes about the Solaris 7 8/99 release on the Sun Enterprise™ 10000.

General Issues

Alternate Pathing (AP) 2.2 and Dynamic Reconfiguration (DR) are supported in the Solaris 7 8/99 release. Inter-Domain Networks (IDN) is not supported. Upgrades from Solaris 2.3 or Solaris 2.4 to Solaris 7 8/99 are not supported.

Note – Before beginning the fresh install or upgrade procedures, you must install the SSP patches described in “Solaris 7 8/99 and the SSP” on page 31, unless you have upgraded the SSP operating environment to SSP 3.1.1.

Solaris 7 8/99 and Boot-Disk Partition Sizes

If you are upgrading the operating environment from Solaris 2.6 to Solaris 7 8/99 and you used the partition layout suggested in the *SMCC Hardware Platform Guide Solaris 2.6*, the partitions may not be large enough for the upgrade. For instance, the `/usr` partition must be at least 653 megabytes. If `/usr` is smaller than the size needed to perform the upgrade, `suninstall` uses the Dynamic Space Reallocation (DSR) mode to reallocate the space of the disk partitions.

DSR may calculate a partition layout which is not acceptable for some systems. For instance, DSR may select partitions that appear to DSR as being unused (non-UFS partitions which may contain raw data or other types of file systems). If DSR selects a used partition, data loss may occur. Therefore, you must know the current status of the partitions DSR wants to use before you allow DSR to continue with the reallocation of the disk partitions.

After DSR presents an acceptable layout and you choose to proceed with the reallocation, DSR will adjust the affected file systems, and the upgrade will continue. However, if you cannot constrain the layout so that it is acceptable for your needs, then you may need to manually repartition the boot device, or you may have to perform a fresh install.

Solaris 7 8/99 and Driver Variables

For Solaris 7 8/99, you must enable the `soc` and `pln` drivers in `/etc/system` before you attempt to detach a system board that hosts these drivers. Use the following syntax to enable the drivers:

```
set pln:pln_enable_detach_suspend=1
set soc:soc_enable_detach_suspend=1
```

Operating Mode

On the Sun Enterprise 10000, you can check whether a domain is running in 32-bit or 64-bit mode by using the following command:

```
domain_name# isainfo -k
sparcv9
```

The returned value, `sparcv9`, indicates that the domain is running in the 64-bit operating mode; otherwise, the domain is running in 32-bit mode.

You can also use another command, `isalist`, to check the operating mode; however, the return value, `sparcv9+vis`, differs from the return value of the `isainfo -k` command. The values are synonymous. They both indicate that the domain is running in 64-bit mode.

Solaris 7 8/99 and the SSP

Note – For additional information on SSP bugs and patches, see “System Service Processor” on page 24.

SSP 3.1 is the first SSP release to support Solaris 7 8/99. If you are installing Solaris 7 8/99 on a domain or upgrading the existing Solaris operating environment on a domain, you must have SSP 3.1 or SSP 3.1.1 installed on the SSP. SSP 3.0 does not support Solaris 7 8/99. In addition, before you perform the Solaris 7 8/99 upgrade on a Sun Enterprise 10000 domain, the SSP must have Patch-ID 105684-04 installed, unless you have upgraded the SSP operating environment to SSP 3.1.1. The following patches are available at `http://www.sunsolve.com`.

Note – If the SunSolve site contains versions of the patch that are higher than the version numbers listed in this section, use those patches instead of the patch numbers indicated in this section.

Patch-ID 105684-04

Description: `OBP/download_helper needs to support 2.7`

BugIDs fixed with this patch: 4078459 4083870 4084325 4097230 4102171 4118746 4137422 4146592

Patch-ID 106281-01

Description: `SSP 3.1 sys_id -m doesn't work in year 2000 or after (Y2K bug)`

BugIDs fixed with this patch: 4105569

Patch-ID 106282-01

Description: `SSP 3.1 Hostview suppresses trap messages after 1999`

BugIDs fixed with this patch: 4108443

SunFDDI

SunFDDI™ is not supported on the Sun Enterprise 10000 server.

SunATM 4.0 Update 1

SunATM™ 4.0 Update 1 is not supported on the Sun Enterprise 10000 server.

Known Bugs

This section contains the bugs known to exist in the Solaris 7 5/99 release of DR.

4231845 – Cannot Detach System Board if the `in.rarpd` Daemon is Running and `/rplboot` Exists

For Solaris 7 8/99, the `qec` and `qe` drivers are not compatible with DR or AP 2.2.

Workaround: None

Fixed Bugs

This section lists important bugs that have been fixed. Minor bugs are not included. Each entry includes a 7-digit BugID assigned by Sun to aid in bug-tracking and a one-line description of the bug.

4110199 – `/etc/init.d/cvc` Implementation, Packaging Inconsistent

Documentation Errata

This section contains errors in the documentation that pertains to the Solaris operating environment on the Sun Enterprise 10000 server.

OBP Variables

Before you perform the `boot net` command from the OBP prompt (`ok`), you must verify that the `local-mac-address?` variable is set to *false*, which is the factory default. If it is set to *true*, you must ensure that this value is an appropriate local configuration.

Caution – If `local-mac-address?` is set to true, it may prevent the domain from successfully booting over the network.

In a `netcon`(1M) window, you can use the following command at the OBP prompt to display the values of the OBP variables:

```
ok printenv
```

▼ To Set the `local-mac-address?` Variable

- **If the variable is set to true, use the `setenv` command to set it to false.**

```
ok setenv local-mac-address? false
```

CHAPTER 5

Sun Enterprise 6x00, 5x00, 4x00, and 3x00 Systems Open Issues

AP on Sun Enterprise Servers

This section contains the release notes for Alternate Pathing (AP) 2.2 on all Sun Enterprise servers, except the Sun Enterprise™ 10000 server. See “AP on the Sun Enterprise 10000” for information about the Sun Enterprise 10000 server.

Note – AP 2.2 is the first release of AP that supports Solaris 7 8/99.

AP enables you to define and control alternate physical paths to peripheral devices, adding increased availability and a level of fault recovery to your server. If a physical path to a device becomes unavailable, an alternate path can be used. For more information, see the *Sun Enterprise Server AP User’s Guide* in the Solaris 7 8/99 on Sun Hardware Collection AnswerBook2™.

Note – At the time of this printing, AP 2.2 Beta is not compatible with any version of Sun Enterprise Volume Manager™ (SEVM).

Installation Issues

If you are upgrading from Solaris 2.6 to Solaris 7 8/99 and have AP 2.1 and Solstice™ DiskSuite™ 4.0 or 4.1 (SDS) on your system, you must upgrade to AP 2.2 and SDS 4.2. This section contains an overview of the entire process, which requires you to use several sections from different publications. You should ensure that you have the following publications before you start the upgrade:

- Solaris 7 8/99 *Beta Release Notes Supplement for Sun Hardware* (available in printed form in your Solaris 7 8/99 Media Kit)
- *Solaris 7 8/99 Sun Hardware Platform Guide*, (available in printed form in your Solaris 7 8/99 Media Kit or in AnswerBook2 format on the Sun Hardware Supplements CD)
- *Sun Enterprise Server Alternate Pathing User's Guide* (available in AnswerBook2 format on the Sun Hardware Supplements CD in your Solaris 7 8/99 Media Kit)
- *Solstice DiskSuite 4.2 User's Guide* (available in AnswerBook2 format from `http://docs.sun.com` or from your SDS Media Kit)
- *Solstice DiskSuite 4.2 Installation and Product Notes* (available in AnswerBook2 format from `http://docs.sun.com` or from your SDS Media Kit)

Caution – You must follow the sequence given here to successfully complete the upgrade.

In general, you will perform the following tasks:

- Unconfigure SDS 4.0 or 4.1.
- Remove AP 2.1.
- Upgrade to Solaris 7 8/99.
- Install AP 2.2.
- Install and reconfigure SDS 4.2.

Specifically, you must perform the following tasks:

1. Read "Performing an Upgrade of AP" in the *Solaris 7 5/99 Sun Hardware Platform Guide*.

2. Commit any uncommitted AP metadevices (see Step 1 in "To Upgrade AP" in the *Solaris 7 5/99 Sun Hardware Platform Guide*).

3. Deconfigure SDS (see steps 1 through 8 in "How to Convert to DiskSuite 4.2 on SPARC Systems Running DiskSuite 4.0 or 4.1" in the *Solstice DiskSuite 4.2 Installation and Product Notes*).

Caution – Do not install Solaris 7 8/99 at this time.

4. Remove the current AP configuration (see Step 3 in "To Upgrade AP" in the *Solaris 7 5/99 Sun Hardware Platform Guide*).

5. Upgrade to Solaris 7 8/99 (see Step 4 in "To Upgrade AP" in the *Solaris 7 5/99 Sun Hardware Platform Guide*).

6. Upgrade to AP 2.2 (see Step 5 in "To Upgrade AP" in the *Solaris 7 5/99 Sun Hardware Platform Guide*).

7. Install SDS 4.2, then restore it (see Step 6 in "To Upgrade AP" in the *Solaris 7 5/99 Sun Hardware Platform Guide* and steps 10 through 16 in "How to Convert to DiskSuite 4.2 on SPARC Systems Running DiskSuite 4.0 or 4.1" in Chapter 1 of the *Solstice DiskSuite 4.2 Installation and Product Notes*).

General Issues

This section contains general issues that involve AP on Sun Enterprise servers. Read this section before you attempt to install or configure AP.

Supported Devices

The following devices are supported by the AP software on Sun Enterprise servers:

- SPARCstorage™ Arrays recognized by AP using the `pln`,`soc`, and `ssd` ports
- Sun™ StorEdge™ A5000 recognized by AP using `sf`, `socal`, and `ssd` ports
- SunFastEthernet™ 2.0 (`hme`)
- SunFDDI™ 5.0 (`nf`) SAS (Single-Attach Station) and DAS (Dual-Attach Station)
- SCSI-2/Buffered Ethernet FSBE/S and DSBE/S (`le`)
- Quad Ethernet (`qe`)
- Sun™ Quad FastEthernet™ (`qfe`)
- Sun GigabitEthernet 2.0 (`ge`)

The following table lists which devices are supported in which releases:

TABLE 5-1 Supported Network Devices

	AP 2.0	AP 2.1	AP 2.2
Solaris 2.5.1	`hme`, `le`, `nf`, `bf`, `hi`, `qe`, `qfe`	N/A	N/A
Solaris 2.6 (5/98)	N/A	`ge`, `hme`, `le`, `nf`, `qe`, `qfe`, `vge`	N/A
Solaris 7 5/99	N/A	N/A	`ge`, `hme`, `le`, `nf`, `qe`, `qfe`

SunFDDI and GigabitEthernet Devices

AP 2.2 validation tests were performed on SunFDDI (revision 6.0) and GigabitEthernet (revision 2.0). If you install either of these devices, you must use the revision level that was tested, unless a higher revision level exists. In addition, you must install all of the available patches for these devices. Refer to `http://www.sunsolve.sun.com` for more information about the patches.

Sun StorEdge A3000

The Sun StorEdge A3000 supports failover capabilities that are similar to those provided by AP. Because of this, AP does not support the Sun StorEdge A3000. See that product's documentation for more information about its failover support.

Sun StorEdge A5000

AP supports the Sun StorEdge A5000 for this release.

Sun StorEdge A7000

AP 2.2 does not support the Sun StorEdge A7000 for this release.

Software Compatibility

The following list includes the possible combinations of AP and Solaris software you can install on a Sun Enterprise server.

- Solaris 2.6 5/98 with AP 2.1 and DR
- Solaris 7 with AP 2.2 and DR
- Solaris 7 5/99 with AP 2.2 and DR

Fixed Bugs

This section contains the synopses and Sun BugID number of the more important bugs that have been fixed since the AP 2.1 release (Solaris 2.6 5/98). This list does not include all of the fixed bugs.

4126743 – AP disk autofailover hangs on simultaneous multi-pathgroup failures (this bug was fixed by BugID 4136249).

4126897 – Domain panics when there are no AP database and metadevice entry in `/etc/vfstab`.

4136249 – I/O's to SEVM RAID volumes hang after AP autofailover.

4141438 – `mhme` interface hangs under heavy use of network.

4143514 – FDDI with AP hangs with heavy use of network.

4147674 – AP causes `ifconfig` to hang on a mutex.

4153152 – `apconfig` works as an ordinary user.

4161396 – AP 2.x needs capability to work with GEM.

4163270 – `netstat` of network ap network meta interface shows no tallies.

4166620 – `snoop` of AP meta network interface stops snooping after switch.

4170818 – If you run the $<callouts nadb macro, or fm2's "callout ts" command, you see thousands of qenable timeouts in the timeshare callout table.

4180055 – Accessing an AP'd metadisk with a failed active alternate panics.

4180702 – Messages from `swap.c` are not internationalized.

4183581 – `apboot` *disk* causes coredump when *disk* is the same as the current boot disk.

4185154 – AP GigabitEthernet stress test hands.

4188418 – It is possible for a hard disk error to go undetected by Veritas [SEVM].

4195441 – AP2.0 `ap_daemon` doesn't communicate with AP2.2.

4228731 – Non-existent network interfaces not marked as detached after reboot.

Dynamic Reconfiguration of Sun Enterprise 6x00, 5x00, 4x00, and 3x00 Systems

These release notes provide the latest information on Dynamic Reconfiguration (DR) functionality for Sun Enterprise 6x00, 5x00, 4x00, and 3x00 systems running update version 8/99 of the Solaris 7 product line from Sun Microsystems. For more information on Sun Enterprise Server Dynamic Reconfiguration, refer to the *Dynamic Reconfiguration User's Guide for Sun Enterprise 3x00/4x00/5x00/6x00 Systems*.

The 8/99 update includes support for CPU/Memory boards on Sun Enterprise 6x00, 5x00, 4x00, and 3x00 systems.

Supported Hardware

Before proceeding, ensure the system supports dynamic reconfiguration. If you see the following message on your console or in your console logs, the hardware is of an older design and not suitable for dynamic reconfiguration.

```
Hot Plug not supported in this system
```

Supported I/O boards are listed in the "Solaris 7 8/99" section on the web site

`http://sunsolve5.sun.com/sunsolve/Enterprise-dr/`

I/O board type 2 (graphics), type 3 (PCI), and type 5 (graphics and SOC+) are not currently supported.

Firmware Notes

FC-AL Disk Arrays or Internal Drives

For Sun StorEdge A5000 disk arrays or for internal FC-AL disks in the Sun Enterprise 3500 system, the firmware version must be ST19171FC 0413 or later. For more information, refer to the "Solaris 7 8/99" section at the web site:

`http://sunsolve5.sun.com/sunsolve/Enterprise-dr/`

PROM Updates for CPU and I/O Boards

Users of Solaris 7 8/99 software who wish to use dynamic reconfiguration must be running CPU PROM version 3.2.22 (firmware patch ID 103346-xx) or later. This firmware is available from the web site. See "How To Obtain Firmware" on page 41.

Older versions of the CPU PROM may display the following message during boot:

```
Firmware does not support Dynamic Reconfiguration
```

Caution – CPU PROM 3.2.16 and earlier versions do not display this message, although they do not support dynamic reconfiguration of CPU/memory boards.

- **To see your current PROM revision, enter** `.version` **and** `banner` **at the** `ok` **prompt. Your display will be similar to the following:**

```
ok .version
Slot  0 - I/O Type 1 FCODE 1.8.22 1999/xx/xx 19:26  iPOST 3.4.22 1999/xx/xx 19:31
Slot  1 - I/O Type 1 FCODE 1.8.22 1999/xx/xx 19:26  iPOST 3.4.22 1999/xx/xx 19:31
Slot  2 - CPU/Memory OBP   3.2.22 1999/xx/xx 19:27  POST  3.9.22 1999/xx/xx 19:31
Slot  3 - I/O Type 4 FCODE 1.8.22 1999/xx/xx 19:27  iPOST 3.4.22 1999/xx/xx 19:31
Slot  4 - CPU/Memory OBP   3.2.22 1999/xx/xx 19:27  POST  3.9.22 1999/xx/xx 19:31
Slot  5 - CPU/Memory OBP   3.2.22 1999/xx/xx 19:27  POST  3.9.22 1999/xx/xx 19:31
Slot  6 - CPU/Memory OBP   3.2.22 1999/xx/xx 19:27  POST  3.9.22 1999/xx/xx 19:31
Slot  7 - CPU/Memory OBP   3.2.22 1999/xx/xx 19:27  POST  3.9.22 1999/xx/xx 19:31
Slot  9 - CPU/Memory OBP   3.2.22 1999/xx/xx 19:27  POST  3.9.22 1999/xx/xx 19:31
Slot 11 - CPU/Memory OBP   3.2.22 1999/xx/xx 19:27  POST  3.9.22 1999/xx/xx 19:31
Slot 12 - CPU/Memory OBP   3.2.22 1999/xx/xx 19:27  POST  3.9.22 1999/xx/xx 19:31
Slot 14 - CPU/Memory OBP   3.2.22 1999/xx/xx 19:27  POST  3.9.22 1999/xx/xx 19:31
ok banner
16-slot Sun Enterprise E6500
OpenBoot 3.2.22, 4672 MB memory installed, Serial #xxxxxxxx.
Ethernet address 8:0:xx:xx:xx:xx, Host ID: xxxxxxxx.
```

How To Obtain Firmware

For information about updating your firmware, refer to the “Solaris 7 8/99” section at the web site.

`http://sunsolve5.sun.com/sunsolve/Enterprise-dr/`

At this site, you will find information on how to:

- Download the DR-capable PROM firmware
- Upgrade the PROM

If you cannot use the web site, contact your Sun support service provider for assistance.

Software Notes

Enabling Dynamic Reconfiguration

In the `/etc/system` file, two variables must be set to enable dynamic reconfiguration and an additional variable must be set to enable the removal of CPU/memory boards.

1. **Log in as root.**
2. **To enable dynamic reconfiguration, edit the `/etc/system` file and add the following lines to the `/etc/system` file:**

```
set pln:pln_enable_detach_suspend=1
set soc:soc_enable_detach_suspend=1
```

3. **To enable the removal of a CPU/memory board, add this line to the `/etc/system` file:**

```
set kernel_cage_enable=1
```

   Setting this variable enables the memory unconfiguration operation.

4. **Reboot the system to put the changes into effect.**

Quiesce Test

On a large system, the `quiesce-test` command (`cfgadm -x quiesce-test sysctrl0:slot`*number*) may run as long as a minute or so. During this time no messages are displayed if `cfgadm` does not find incompatible drivers. This is normal behavior.

Disabled Board List

If a board is on the disabled board list, an attempt to connect the board may produce an error message:

```
# cfgadm -c connect sysctrl0:slotnumber
cfgadm: Hardware specific failure: connect failed: board is
disabled: must override with [-f][-o enable-at-boot]
```

- **To override the disabled condition, use the force flag (`-f`) or the enable option (`-o enable-at-boot`) with the `cfgadm` command:**

```
# cfgadm -f -c connect sysctrl0:slotnumber
```

```
# cfgadm -o enable-at-boot -c connect sysctrl0:slotnumber
```

- **To remove all boards from the disabled board list, set the disabled-board-list variable to a null set with the system command:**

```
# eeprom disabled-board-list=
```

- **If you are at the OpenBoot prompt, use this OBP command instead to remove all boards from the disabled board list:**

```
OK set-default disabled-board-list
```

For further information about the `disabled-board-list` setting, refer to the section "Specific NVRAM Variables" in the *Platform Notes: Sun Enterprise 3x00, 4x00, 5x00, and 6x00 Systems,* part number 805-4454.

Disabled Memory List

For information about the OBP `disabled-memory-list` setting, refer to the section "Specific NVRAM Variables" in the *Platform Notes: Sun Enterprise 3x00, 4x00, 5x00, and 6x00 Systems,* part number 805-4454.

Unloading Detach-Unsafe Drivers

If it is necessary to unload detach-unsafe drivers, use the `modinfo(1M)` line command to find the module IDs of the drivers. You can then use the module IDs in the `modunload(1M)` command to unload detach-unsafe drivers.

Interleaved Memory

A memory board or CPU/memory board that contains interleaved memory cannot be dynamically unconfigured.

To determine if memory is interleaved, use the `prtdiag` command or the `cfgadm` command.

To permit DR operations on CPU / memory boards, set the NVRAM `memory-interleave` property to `min`.

For related information about interleaved memory, see “Memory Interleaving Set Incorrectly After a Fatal Reset, Bug-ID 4156075” on page 45 and “DR: Cannot Unconfigure a CPU / Memory Board That Has Interleaved Memory, Bug ID 4210234” on page 46.

Self-test Failure During a Connect Sequence

If the error “cfgadm: Hardware specific failure: connect failed: firmware operation error” is displayed during a DR connect sequence, remove the board from the system as soon as possible. The board has failed self-test, and removing the board avoids possible reconfiguration errors that can occur during the next reboot.

If you want to immediately retry the failed operation, you must first remove and reinsert the board, because the board status does not allow further operations.

Dynamic Reconfiguration Feature in Sun Enterprise SyMON Software

As noted in the *Dynamic Reconfiguration User’s Guide for Sun Enterprise 3x00/4x00/ 5x00/6x00 Systems*, Sun Enterprise SyMON system monitoring and management software supports dynamic reconfiguration. However, the user’s guide listed the wrong reference. The correct reference is *Sun Enterprise SyMON 2.0.1 Supplement for Sun Enterprise Midrange Servers*, part number 806-0649.

Known Bugs

For the latest bug and patch information, refer to:
`http://sunsolve5.sun.com/sunsolve/Enterprise-dr`.

`cfgadm -v` Not Working Properly, bug-ID 4149371

Category: RFE

The memory test should give occasional indications that it is still running. During a long test, the user cannot easily determine that the system is not hanging.

Workaround: Monitor system progress in another shell or window, using `vmstat(1M)`, `ps(1)`, or similar shell commands.

Memory Interleaving Set Incorrectly After a Fatal Reset, Bug-ID 4156075

Category: Bug

Memory interleaving is left in an incorrect state after a Sun Enterprise *X*500 server encounters a Fatal Reset. Subsequent DR operations fail. The problem only occurs on systems with memory interleaving set to `min`.

Workarounds: Two choices are listed below.

- To clear the problem after it occurs, manually reset the system at the `OK` prompt.
- To avoid the problem before it occurs, set the NVRAM `memory-interleave` property to `max`. This causes memory to be interleaved whenever the system is booted. However, you may find this option to be unacceptable, as a memory board containing interleaved memory cannot be dynamically unconfigured. See "DR: Cannot Unconfigure a CPU/Memory Board That Has Interleaved Memory, Bug ID 4210234" on page 46.

`vmstat` Output Is Incorrect After Configuring Processors, Bug-ID 4159024

Category: Bug

`vmstat` shows an unusually high number of interrupts after configuring CPUs. With `vmstat` in the background, the interrupt field becomes abnormally large (but this does not indicate a problem exists). In the last row in the example below, the interrupts (`in`) column has a value of 4294967216:

```
#  procs     memory            page            disk          faults      cpu
 r b w   swap  free  re  mf pi po fr de sr s6 s9 s1 --   in   sy   cs us sy id
 0 0 0 437208 146424  0   1  4  0  0  0  0  0  1  0  0   50   65   79  0  1 99
 0 0 0 413864 111056  0   0  0  0  0  0  0  0  0  0  0  198  137  214  0  3 97
 0 0 0 413864 111056  0   0  0  0  0  0  0  0  0  0  0  286  101  200  0  3 97
 0 0 0 413864 111072  0  11  0  0  0  0  0  0  1  0  0 4294967216 43 68 0 0 100
```

Workaround: Restart `vmstat`.

POST System Board Status Displays Only 1 of the 2 Failing CPUs, Bug-ID 4200513

Category: Bug

If two CPUs on a single board fail before reporting to the master CPU, the POST system status display lists one CPU as failing, but the second CPU may not be listed at all.

Workaround: None.

DR: Cannot Unconfigure a CPU/Memory Board That Has Interleaved Memory, Bug ID 4210234

Category: RFE

Cannot unconfigure a CPU/Memory board that has interleaved memory.

To unconfigure and subsequently disconnect a CPU board with memory or a memory-only board, it is necessary to first unconfigure the memory. However, if the memory on the board is interleaved with memory on other boards, the memory cannot currently be unconfigured dynamically.

Memory interleaving can be displayed using the `prtdiag` or the `cfgadm` commands.

Workaround: Shut down the system before servicing the board, then reboot afterward. To permit future DR operations on the CPU/memory board, set the NVRAM `memory-interleave` property to `min`. See also “Memory Interleaving Set Incorrectly After a Fatal Reset, Bug-ID 4156075” on page 45 for a related discussion on interleaved memory.

DR: Cannot Unconfigure a CPU/Memory Board That Has Permanent Memory, Bug ID 4210280

Category: RFE

To unconfigure and subsequently disconnect a CPU board with memory or a memory-only board, it is necessary to first unconfigure the memory. However, some memory is not currently relocatable. This memory is considered permanent.

Permanent memory on a board is marked “permanent” in the `cfgadm` status display:

```
# cfgadm -s cols=ap_id:type:info
Ap_Id Type Information
ac0:bank0 memory slot3 64Mb base 0x0 permanent
ac0:bank1 memory slot3 empty
ac1:bank0 memory slot5 empty
ac1:bank1 memory slot5 64Mb base 0x40000000
```

In this example, the board in slot3 has permanent memory and so cannot be removed.

Workaround: Shut down the system before servicing the board, then reboot afterward.

`cfgadm` Disconnect Fails When Running Concurrent `cfgadm` Commands, Bug-ID 4220105

Category: Bug

If a `cfgadm` process is running on one board, an attempt to simultaneously disconnect a second board fails.

A `cfgadm` disconnect operation fails if another `cfgadm` process is already running on a different board. The message is:

```
cfgadm: Hardware specific failure: disconnect failed: nexus error
during detach: address
```

Workaround: Do only one `cfgadm` operation at a time. If a `cfgadm` operation is running on one board, wait for it to finish before you start a `cfgadm` disconnect operation on a second board.

Fatal Reset on `init 5` After DR Operations, Bug-ID 4220852

Category: Bug

After DR operations have been run, an attempt to power down a system with the `init 5` command may cause a fatal reset.

Workaround: Reset the system, then power it off by entering the command `power-off` at the ok prompt.

Cannot Drain And/or Detach Sun Enterprise Server Boards That Host QFE Cards, Bug-ID 4231845

When a server is configured as a boot server for Solaris 2.5.1-based x86 clients, it has several `rpld` jobs running, whether or not such devices are in use. These active references prevent DR operations from detaching these devices.

Workaround: To perform a DR detach operation:

1. **Remove or rename the `/rplboot` directory.**
2. **Shut down NFS services with this command:**

```
# sh /etc/init.d/nfs.server stop
```

3. **Perform the DR detach operation.**
4. **Restart NFS services with this command:**

```
# sh /etc/init.d/nfs.server start
```