Solaris™ 8 HW 12/02 Release Notes Supplement for Sun™ Hardware

Includes Additional Release Notes and End-of-Support Statements for the Solaris 8 HW 12/02 Operating Environment Running on Sun Hardware Products

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Contents

Late-Breaking News

This manual provides the following information:

- Late-breaking news (this chapter)
- End-of-support and future end-of-support statements (Chapter 2)
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- Sun Fire 6800/4810/4800/3800 issues (Chapter 5)
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This manual supplements the *Solaris 8 HW 12/02 Sun Hardware Platform Guide* and the *Solaris 8 2/02 Release Notes.*

Note – Some documents and CDs provided with this release have names based on the Solaris 8 2/02 release. These are included intentionally for use with the Solaris 8 HW 12/02 operating environment. The contents of these documents and CDs have not been changed since the earlier release.

Release Notes Update

New information that becomes available between the time this document goes to press and the release of the Solaris™ 8 HW 12/02 operating environment is available in this section and in Chapter 9.

No OEM Content in This Release

The Solaris 8 HW 12/02 media is intended only for installation on Sun Fire B100s, Sun Fire V210, Sun Fire V240, and Netra 240 systems. It includes no new functionality other than support for these systems. Customers installing the Solaris 8 operating system on systems other than those listed above are advised to use the Solaris 8 2/02 update instead, and may choose to also add standard patches found on the SunSolve website:

http://sunsolve.sun.com/

Patches included in this platform-specific release that are not in the Solaris 8 2/02 update are listed by number in Chapter 9 of these release notes.

Disabled Subtest in SunVTS `env6test` (Bug ID 4797430)

The Fan subtest for `env6test` is currently disabled in SunVTS 5.1 Patch Set 1, and is not supported.

Workaround: There is currently no workaround available.

Possible Error in SunVTS `i2c2test` (Bug ID 4797539)

The `chkfru` option in `i2c2test` might not perform correctly. You might see error messages if this option is enabled.

Workaround: There is no current workaround available.

Failed CPU Fan Shows 0 RPM (BugID 4791240)

On Sun Fire V210 and V240 systems, the `prtdiag` command has no unique alert for a failed CPU fan.

Workaround: When running the `prtdiag` command, look for fans listed as running at 0 rpm. This is the output when `prtdiag` cannot detect a fan or cannot read its speed.

Solaris Identifies Incorrect Memory Banks When Reporting Memory Errors (BugID 4831983)

If a Sun Fire V210, Sun Fire V240, or Netra 240 detects an error in memory, an error message is logged. For certain configurations, the message might sometimes report the wrong memory bank.

Workaround: Install Patch 113681-02, which corrects the error.

Possible Spurious Interrupt Messages (BugID 4761972)

Under conditions of high I/O load on a Sun Fire V210, Sun Fire V240, or Netra 240, occasional spurious interrupt messages might be printed to the console and sent to the system log. These messages have the following format:

```
WARNING: invalid vector intr: number 0x7de, pil 0x0
```

These messages are benign and should be ignored.

Workaround: Load Solaris Kernel Update patch 108528-20 or later.

Unbundled Product Support

Although the Solaris 8 HW 12/02 software is designed and tested to be compatible with previous releases, some applications may not be fully ABI-compliant. Contact the supplier of the unbundled product directly for information about compatibility.

If you are upgrading from an existing version of Solaris software and have installed unbundled products, either from Sun or from a different company, you must ensure that all those products are supported on the Solaris 8 HW 12/02 operating environment 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 8 HW 12/02 operating environment.

- Acquire and install a new version of the unbundled product that is supported on the Solaris 8 HW 12/02 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 8 HW 12/02 operating environment. See the unbundled product documentation for more details.
- Remove the unbundled product prior to upgrading to the Solaris 8 HW 12/02 operating environment.

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

```
http://sunsolve.sun.com/pubpatch
```

Documents on the Solaris 8 HW 12/02 Software Supplement CD

Note – In this document, the CD labeled "Solaris 8 HW 12/02 Software Supplement" is called the "Supplement CD".

TABLE 1-1 lists some documents available on the Supplement CD that are not included in AnswerBook™ or man page collections.

TABLE 1-1 Documents on the Supplement CD

Path	Comment
Docs/README/README_en.html	Readme file for Solaris 8 HW 12/02 Software Supplement CD
Docs/HWPG/HWPG_en.pdf	*Solaris 8 HW 12/02 Sun Hardware Platform Guide* (also available in hardcopy and AnswerBook form)
Docs/SSP_RN/SSP_RN_en.pdf	*Sun Enterprise 10000 SSP 3.5 Installation Guide and Release Notes*
Docs/COD_RN/COD_RN_en.pdf	*Sun Enterprise 10000 Capacity on Demand 1.0 Installation Guide and Release Notes*
Docs/SMS_RN/SMS_RN_en.pdf	*System Management Services (SMS) 1.2 Installation Guide and Release Notes*

TABLE 1-1 Documents on the Supplement CD *(Continued)*

Path	Comment
`Docs/FBH/FBH_en.pdf`	*Solaris Handbook for Sun Frame Buffers* (includes information about the XVR-500 frame buffer)
`Docs/REFMAN_SUPP/REFMAN_SUPP_en.pdf`	*Solaris on Sun Hardware Reference Manual Supplement*
`Docs/DMFE/DMFE_en.ps`	*Platform Notes: The dmfe Fast Ethernet Device Driver*
`Docs/SUN_FIRE_DR_UG/` `SUN_FIRE_DR_UG_en.ps`	*Sun Fire 6800, 4810, 4800, and 3800 Systems Dynamic Configuration User Guide*
`ShowMeTV_1.3/Docs/UserGuide/UG_en.ps`	*ShowMe TV™ 1.3 User's Guide*
`SunForum_3.1/Docs/sunforumUG.ps`	*SunForum™ User's Guide*
`RSC_2.2/Product/SUNWrscd`	*Remote System Control 2.2 User Guide* Note: This document is installed from a package as part of the RSC software installation.
`System_Management_Services_1.2/Docs/` `816-3285-10.pdf`	*Sun Fire 15K Software Overview Guide*
`System_Management_Services_1.2/Docs/` `816-2527-10.pdf`	*System Management Services (SMS) 1.2 Administrator Guide*
`System_Management_Services_1.2/Docs/` `816-2528-10.pdf`	*System Management Services (SMS) 1.2 Reference Manual*

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 8 HW 12/02 Sun Hardware Platform Guide* for details on installing these packages from the Supplement CD.

Man Page Supplement Package

This release provides instructions to use some software on the Solaris Software CD via man page files delivered on the Solaris Software Supplement CD. English language versions of these man pages are provided in the package named SUNWs8hwman in the Man_Page_Supplement/Product directory. Other packages in that directory supply Japanese versions of the man pages.

In this release, the man page supplement includes files that explain scadm (1M) and bge (7d).

These man pages are installed by default in the same /usr/share/man directory as the man pages installed from the SUNWman package on the Solaris Software CD.

Note – Installation of these man page packages might fail if the /usr/share directory on your system is automounted. In that case, ignore error messages related to this man page set during installation. If you wish to install the man pages later, use this command:
pkgadd –d . SUNWs8hwman

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 8 HW 12/02 operating environment. Systems that can only run the 32-bit mode (such as those in the sun4d and sun4m platform groups) do not require updated firmware to run Solaris 8 HW 12/02 software.

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

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

See the *Solaris 8 HW 12/02 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 wrist strap, send e-mail to strap@sun.com.

Flash PROM Update CD No Longer Included

As of Solaris 8 7/01, the Flash PROM multimedia AnswerBook CD is no longer available. Up-to-date instructions for updating flash PROM are still available in the *Solaris 8 HW 12/02 Sun Hardware Platform Guide*.

Removable Media Manager Issues

The Removable Media Manager replaces the "Open Floppy" and "Open CD-ROM" options formerly found in the CDE menus and front panel. For related bug descriptions and workarounds, refer to the "Common Desktop Environment Bugs" section of "Solaris Runtime Issues" in the *Solaris 8 (SPARC Platform Edition) 10/00 Release Notes Update* on http://docs.sun.com.

Patch Enables Booting From DVD-ROM Media

The Supplement CD contains a patch that enables some DVD-ROM drives installed on Sun hardware to boot from DVD-ROM media. This patch may need to be applied to your hardware before you can boot a software product supplied on DVD-ROM.

This patch updates firmware in the Toshiba 1401 DVD-ROM drive. You can find Patch 111649 on the Supplement CD in this directory:

```
DVD_Firmware/Patches
```

See the README file in this directory for instructions on installing the patch. Be sure to read and follow all the cautions and warnings in this README file before you install the patch.

Patch 111649 is associated with Bug ID 4467424.

Patches Enable StarOffice 6.0

To install and run StarOffice 6.0 with Solaris 8 HW 12/02, make sure that the following patches are installed on your system:

- 108434-09 or later
- 108435-09 or later

DVD-ROM/CD-ROM Drives on Headless Systems (BugID 4365497)

Power management of interactive devices such as removable media is linked with power management of your monitor and the graphics card that drives your monitor. If your screen is active, devices such as the CD-ROM drive and floppy disk are kept at full-power mode. This means that if you are running a system without a monitor, these devices may go into low-power mode. If you want to restore power to the CD or floppy, simply type `volcheck` to cause the OS to get the latest status from each removable device.

Alternatively, you can disable power management on your system by using the dtpower GUI. Then the devices are not put into low-power mode even when on a headless system, but run at full power all the time. This is not a bug, but is the intended behavior.

Maintenance Update CD

Future updates to the Solaris operating environment might no longer include the Maintenance Update (MU) CD. The preferred mechanism for updating a Solaris release—for example, to update from the Solaris 8 6/00 operating environment to the Solaris 8 1/01 operating environment—is to use the "upgrade" mechanism (see *Solaris 8 Advanced Installation Guide, SPARC Platform Edition*, Chapter 3). The MU CD does not include all of what comprises a Solaris update, and takes longer to install than an upgrade.

In cases where the MU method is still considered necessary, the MU image can be obtained from the web at:

`http://sunsolve.sun.com`

Installing Supplement CD Products From DVD

If you are installing Solaris using a DVD and want to install any products from the Supplement CD, select the "custom installation" option in the "Select Type of Install" window.

End-of-Support Products

Products Not Supported in the Solaris 8 Operating Environment

Support for the following products has been discontinued. For more information, contact your support provider.

Sun4c Systems

The following sun4c architecture systems and servers based on these systems are not supported by this Solaris release:

- SPARCstation™ SLC
- SPARCstation ELC
- SPARCstation IPC
- SPARCstation IPX
- SPARCstation 1
- SPARCstation 1+
- SPARCstation 2

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

SPARCstation Voyager

SPARCstation Voyager™ systems are not supported by this Solaris release.

SPARC Xterminal 1

SPARC Xterminal 1™ systems are not supported by this Solaris release.

Future End-of-Support Products

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

sun4d Servers (32-bit only)

The following sun4d architecture servers may no longer be supported in a future release:

- SPARCserver™ 1000 systems
- SPARCcenter 2000 systems

Hardware options that are dependent on the sun4d architecture may no longer be supported in a future release.

Ethernet Quad Drivers `qe` and `qec`

Ethernet Quad drivers `qe` and `qec` may no longer be supported in a future release.

PC File Viewer

PC file viewer may no longer be supported in a future release.

ShowMe TV

ShowMe TV™ may no longer be supported in a future release.

Alternate Pathing Multipath I/O

Alternate Pathing (AP) multipath I/O technology may no longer be supported in a future release. See Chapter 4 for further details.

SunHSI/S, SunFDDI/S, SunFDDI/P, `le` Drivers

SunHSI™/S, `le`, SunFDDI™/S, and SunFDDI/P drivers may no longer be supported in a future release.

Token Ring Network Drivers

SBus Token Ring and PCI bus Token Ring network drivers may no longer be supported in a future release.

SPC Driver

The SPC S-Bus interface card driver may no longer be supported in a future release. The SPC card is a serial parallel controller (S-Bus, 8-port serial, 1 parallel).

Sun4m Platform Group

The sun4m platform group may no longer be supported in a future release. This would affect the following platforms:

- SPARCclassic
- SPARCstation™ LX / LX+
- SPARCstation 4
- SPARCstation 5
- SPARCstation 10
- SPARCstation 20

Open Issues

StarOffice Support

The Sun StarOffice™ Knowledge Database is the current customer support resource for StarOffice 5.2. For more information, refer to:

```
http://wwws.sun.com/software/product_categories/
desktop_applications.html
```

Booting From Partitions Greater Than 2 Gbytes (BugID 1234177)

Due to PROM limitations, no sun4d and sun4m architectures boot from partitions greater than 2 Gbytes. These systems 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 sun4d or on sun4m systems with large root disks (4 Gbytes and greater).

Network Drivers Installed by Default

The Computer Systems Installer CD automatically installs the Network Drivers from the Supplement CD. Drivers for the SunATM™, SunHSI/S, SunHSI/P, SunFDDI/S, and SunFDDI/P cards are now installed by default when the Solaris 8 HW 12/02 operating environment is installed. Error messages might be displayed if you do not have some of the corresponding hardware installed. You can ignore these error messages.

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

This `spc` driver does not support Dynamic Reconfiguration features in the Solaris 8 operating environment.

Booting a Sun Enterprise 10000 System in 32-Bit Mode (BugID 4348354)

Sun Enterprise 10000 systems with 64 Gbytes of memory cannot boot the Solaris 8 2/02 operating environment in 32-bit mode.

Some DVD and CD-ROM Drives Fail to Boot Solaris (BugID 4397457)

The default timeout value for the SCSI portion of the SunSwift PCI Ethernet/SCSI host adapter (X1032A) card does not meet the timeout requirements of the Sun SCSI DVDROM drive (X6168A). With marginal media, the DVD-ROM occasionally experiences timeout errors. The only exceptions are Sun Fire 6800, 4810, 4800, and 3800 systems, which overwrite the SCSI timeout value via OBP.

Workaround for other platforms: use the on-board SCSI interfaces or DVD-ROM compatible SCSI adapters, such as X1018A (SBus: F501-2739-xx) or X6540A (PCI: F375-0005-xx).

FDDI May Hang During Heavy Load (BugIDs 4485758, 4174861, 4486543)

The PCI FDDI card has known hardware problems related to `DTXSUSP` (DMA TX process suspend interrupt) and `DRXSUSP` (DMA RX process suspend interrupt) bits in the `MAIN_CONTROL` and `MAIN_STATUS` registers. These hardware bugs minimally affect FDDI functionality under normal conditions. However, under a *very* heavy TX or RX load, the card posts an unexpected interrupt. The system posts the error message, "Interrupt level 6 is not serviced". After 20 such errors, the `pcipsy` driver shuts down interrupt processing for the FDDI and hangs FDDI.

DR Commands Hang Waiting for `rcm_daemon` While Running `ipc`, `vm`, and `ism` Stress (BugID 4508927)

In rare cases when a quiesce of the Solaris operating environment fails to stop certain user threads, other user threads may not be restarted and remain in a stopped state. Depending on the threads affected, applications running on the domain may stop running and other DR operations may not be possible until the domain is rebooted.

Workaround: To avoid this problem, do not use DR to remove a board that contains permanent memory.

Monitor Goes Blank When Stop-A Is Pressed During Screen Lock (BugID 4519346)

The monitor may go blank if all of the following conditions occur:

- Your frame buffer card is a Creator3D or an Elite3D.
- The "Blank Screen" screen saver is used.
- Stop-A is pressed while in the blank screen mode.

Workaround: If your screen saver is enabled, choose any pattern other than "Blank Screen."

U-Code Does Not Reload After IFB Driver Unloaded (BugID 4532844)

At the command line login, systems with Expert3D or Expert3D-Lite cards may be unable to start a window system or dtlogin.

Workaround:

1. **Remotely log into the troubled system as superuser.**

2. **Stop all** `ifbdaemon` **processes:**

```
# sh /etc/init.d/ifbinit stop
```

3. **Start all** `ifbdaemon` **processes:**

```
# sh /etc/init.d/ifbinit start
```

QFE May Panic the System During Heavy Load (BugIDs 4510631, 4517740)

In rare cases, Sun Fire 6800, 4810, 4800, or 3800 systems configured with multiple network interfaces may panic under a heavy traffic load. Also in rare cases, Sun Enterprise 10000 systems may panic under an extremely heavy network load.

SunScreen SKIP 1.1.1 Not Supported in Solaris 8 HW 12/02 Operating Environment

If you have SunScreen™ SKIP 1.1.1 software currently installed on your system, you should remove the SKIP packages before installing or upgrading to the Solaris 8 HW 12/02 operating environment. The packages you should remove are: `SICGbdcdr`, `SICGc3des`, `SICGcdes`, `SICGcrc2`, `SICGcrc4`, `SICGcsafe`, `SICGes`, `SICGkdsup`, `SICGkeymg`, `SICGkisup`.

ISDN — Supported in 32-bit Mode Only

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

SunVTS 5.1 Patch Set 1 (PS1) Issues

The following issues apply to the SunVTS™ 5.1 PS1 product.

New Features for This Release

The SunVTS 5.1 PS1 software is compatible with Solaris 8 2/02, Solaris 8 HW 12/02, Solaris 9, Solaris 9 9/02, and Solaris 9 12/02 operating environments. The following test has been added to the SunVTS 5.1 PS1 release:

- Blade Support Chip Test (`bsctest`)—A new test that exercises the Blade Support Chip and supporting hardware used in Sun Fire™ B100s blade systems.
- Environmental Test (`env6test`) – A new test that exercises and validates environmental subsytems. This test contains subtests to exercise a system's fans, keyswitch, LEDs, power supplies, and temperature sensors.
- I2C Inter-Integrated Circuit Test (`i2c2test`) – A new test that verifies the proper placement, operation, and data integrity on the various I2C devices.

Note – All new tests and test enhancements that are released in SunVTS Patch Set releases are documented in a new document titled *SunVTS x.x Patch Set x Test Reference Manual Supplement*. This document is included on the Solaris Software Supplement CD and is available at `http://docs.sun.com`.

Refer to the *SunVTS 5.1 Patch Set 1 Test Reference Manual Supplement* for details about the new tests offered in this release.

Note – The name of the Remote System Control test (`rsctest`) has been changed to System Service Processor test (`ssptest`) in SunVTS 5.1 PS1. The reason for this change is that `ssptest` tests the Advanced Lights-Out Management (ALOM) hardware in addition to both Remote System Control 1.0 and 2.0 hardware.

Online Help Documentation

The online help documentation available with the SunVTS 5.1 software includes a chapter describing the RAM test (`ramtest`). This test is not supported in SunVTS 5.1.

SunVTS 5.1 Test Reference Manual Errata

This section lists corrections to errors in the Supported Test Modes tables of the following test chapters in the SunVTS 5.1 Test Reference Manual:

- Compact Disk Test (`cdtest`)

Online test mode is supported in SunVTS 5.1.

- CPU Test (`cputest`)

Online test mode is supported in SunVTS 5.1.
- Disk and Floppy Drives Test (`disktest`)

Online test mode is supported in SunVTS 5.1.
- DVD Test (`dvdtest`)

Online test mode is supported in SunVTS 5.1.
- ECP 1284 Parallel Port Printer Test (`ecpptest`)

Online test mode is not supported in SunVTS 5.1.
- Sun StorEdge A5x00 Test (`enatest`)

Functional and Online test modes are supported in SunVTS 5.1.
- Sun StorEdge 1000 Enclosure Test (`enctest`)

Online test mode is supported in SunVTS 5.1.
- Environmental Test (`env2test`)

Online and Exclusive test modes are not supported in SunVTS 5.1.
- Environmental Test (`env4test`)

Connection test mode is supported in SunVTS 5.1
- Floating Point Unit Test (`fputest`)

Online and Exclusive test modes are supported in SunVTS 5.1.
- Cache Consistency Test (`mpconstest`)

Only Exclusive test mode is supported in SunVTS 5.1.
- Multiprocessor Test (`mptest`)

Only Exclusive test mode is supported in SunVTS 5.1.
- Remote System Control (`rsctest`)

Online test mode is not supported in SunVTS 5.1.
- Serial Ports Test (`sptest`)

Online test mode is not supported in SunVTS 5.1.
- SunHSI Board Test (`sunlink`)

Online test mode is not supported in SunVTS 5.1.
- System Test (`systest`)

Connection test mode is not supported in SunVTS 5.1.
- Tape Drive Test (`tapetest`)

Online test mode is not supported in SunVTS 5.1.
- S24 Frame Buffer Test (`tcxtest`)

Connection test mode is supported in SunVTS 5.1.

Possible Installation Problems

You might encounter an installation problem when you attempt to install SunVTS with an installation program other than the `pkgadd` command as described in the following paragraphs.

Installation Problem:
32-bit Only Systems and Web Start 2.0 (Bug ID 4257539)

Web Start 2.0 may not install SunVTS on systems that do not have the Solaris 64-bit environment installed. Web Start 2.0 removes the SunVTS 32-bit packages when the SunVTS 64-bit packages cause the installation to suspend.

Workaround: Use the `pkgadd` command to install the 32-bit SunVTS packages as described in the *SunVTS 5.1 User's Guide*.

Installation Problem:
Security and Web Start 2.0 (Bug ID 4362563)

When you install SunVTS using Web Start 2.0, you are not prompted to enable the Sun Enterprise Authentication Mechanism™ (SEAM) Kerberos v5, SunVTS security feature. The installation defaults in a way that installs SunVTS without this high level of security. If you do not want the high-level security, there is no problem.

Workaround: To enable the high-level SEAM security, use the `pkgadd` command to install SunVTS packages as described in the *SunVTS 5.1 User's Guide*.

Installation Problem:
The Installation Directory With Web Start 2.0 Is Not User-Definable (Bug ID 4243921)

When you attempt to install SunVTS using Web Start 2.0, you are unable to change the directory where SunVTS is installed. SunVTS will be installed in `/opt`.

Workaround: Use the `pkgadd -a none` command to install SunVTS in the directory of your choice as described in the *SunVTS 5.1 User's Guide*.

Installation Recommendation:
Perform Installations and Uninstallations Using the Same Program

Use the same tool or utility for installation and removal of the SunVTS software. If you use `pkgadd` for installation, use `pkgrm` to uninstall; if you use Web Start for installation, use the Product Registry to uninstall.

Possible Runtime Problems

Using `sc2test`: Restriction for Using SmartCard Applications (Bug ID 4677510)

The `sc2test` may fail if `ocfserv` (or any third-party SmartCard application) has exclusive usage of the `/dev/scmi2c0` device.

Workaround: Terminate `ocfserv` or any other third party SmartCard applications before starting `sc2test`.

Using `iutest`: Restriction for Test Depth Parameter (BugID 4713531)

The `iutest` may cause a core dump when the test depth is set to a high value.

Using `fwcamtest`: Restriction When Performed With Graphics Tests (BugID 4712386)

The `fwcamtest` may fail when performed with graphics tests without recording any errors.

Using `pkginfo -c sunvts` Command

The command `pkginfo -c sunvts` does not produce any output in SunVTS 5.1. This is to correctly implement the semantics of the `-c` option of the `pkginfo` command.

Workaround: Use the following command to receive SunVTS 5.1 package information:

```
# pkginfo -l SUNWvts SUNWvtsx SUNWvtsmn
```

You can also use the following command to receive additional SunVTS 5.1 package information:

```
# pkginfo -c system | grep vts
```

ShowMe TV 1.3 Known Problems

ShowMe TV 1.3 software contains support for MPEG2 movie playback. Support was dropped for the Sun MediaCenter™ in ShowMe TV 1.3. Also, ShowMe TV 1.3 software contains a number of bug fixes over ShowMe TV 1.2.1. Here are 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 cannot switch between CIF and QCIF H.261 streams (that is, regular resolution, or 352x288 size frames, and low resolution, or 176x244 size frames) on systems that are not Ultras.
- Mixing Asian and ASCII characters in one line of text can confuse the input/ output functions in ShowMe TV software. In particular, if a user sets up a transmission in which the transmission name or the hostname contains Asian characters, then saving or recovering these parameters to or 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 (bugID 4210702).

PCMCIA Issues

The following bugs have been filed against PCMCIA device support in this Solaris release.

Known Bugs

System Appears to Hang When the PC ATA (`pcata`) Module Is `modunloaded` (BugID 4096137)

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 appears to hang.

Workaround: Removing the card may bring the system back.

Booting the Solaris 8 Operating Environment Initially With a 64-bit Kernel May Not Create the Device `/dev/term/pc0`, PC Card Serial Driver (BugID 4162969)

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

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

PC File Viewer Issues

Install in the `/opt` Directory

The *Solaris 8 HW 12/02 Sun Hardware Platform Guide* provides installation instructions that might indicate that PC file viewer can be installed in a directory other than the default directory. The instructions are misleading. PC file viewer *must* be installed in the default (`/opt`) directory.

Known Bugs

- Backdrop image is not displayed in PowerPoint97 document (BugID 4159447).
- Cannot display nonstandard fonts in PowerPoint97 (BugID 4159448).
- Excel graph/table in PowerPoint97 document is not displayed (BugID 4159449).

- Cannot display scaled font, colored text, italic-underlined text in PowerPoint97 (BugID 4159450, 4159451, 4159452).
- Copy and paste of certain files into a text editor results in asterisks (*) instead of actual text (BugID 4165089).
- Searching does not work for multibyte (tch, ko) in PC file viewer (BugID 4151774).
- Wrong string is reversed in PC file viewer search on Japanese locales (BugID 4171815).
- Cannot display TCH Word95 saved in Word97 or PowerPoint97 formats in zh.TW.BIG5 locale (BugID 4150413).

Documentation Errata

The following documentation errors have been found in the Solaris 8 HW 12/02 documents.

Note – Some documents and CDs provided with this release have names based on the Solaris 8 2/02 release. These are included intentionally for use with the Solaris 8 HW 12/02 operating environment. The contents of these documents and CDs have not been changed since the earlier release.

References to MPxIO Documentation

The *Sun Enterprise 10000 SSP 3.5 User Guide*, *Sun Enterprise 10000 Dynamic Reconfiguration User Guide*, and the *Sun Enterprise 10000 DR Configuration Guide* contain references to a document that is not available, namely the *MPxIO Installation and Configuration Guide*.

The MPxIO product is now called the Sun StorEdge™ Traffic Manager. Information on installing and configuring the Sun StorEdge Traffic Manager is provided in the *Sun StorEdge™ Traffic Manager Software Installation and Configuration Guide*, available on the Sun Network Storage Solutions website:

http://www.sun.com/storage/san

To access this document:

1. **Go to** http://www.sun.com/storage/san **and click the "Sun StorEdge™ SAN3.0 release Software/Firmware Upgrades and Documentation" link.**

2. **Sign on or register.**

3. **Click the "Download STMS Install/Config Guide, Solaris/SPARC (.35 MB)" link.**

SSP 3.5 Installation Guide and Release Notes

Page 8: In the description of the `snmpd` memory leaks (Bug ID 4486454), you must be superuser on the main SSP to stop and start SSP daemons, not user `ssp` as indicated in the text.

Pages 75 and 99: The references to the *Solaris 8 Installation Supplement* are incorrect. Refer to the *Solaris 8 Advanced Installation Guide* for details.

`eri(7d)` Man Page

The `eri(7d)` man page incorrectly states that the `eri.conf` file is in the `/kernel/drv/sparcv9/eri.conf` file

The correct location is: `/kernel/drv/eri.conf`

Solaris 8 HW 12/02 Sun Hardware Platform Guide

The following errors were found in this document:

- In languages other than Japanese, Appendix A is missing entries in Table A-1 for Japanese-language manual pages. The table should also include the following entries:
  - `SUNWjes8hwman` Japanese (EUC) Manual Page Supplement
  - `SUNWjps8hwman` Japanese (PCK) Manual Page Supplement
  - `SUNWjus8hwman` Japanese (UTF-8) Manual Page Supplement

Netra T4/Netra T20 Issues

System Incorrectly Reports Removed Device Links (BugID 4418718)

When calling `luxadm remove_device /dev/rdsk/c1t1d0s2`, the system asks for confirmation and reports that the disk is spinning down and being taken offline. When the disk is removed, pressing Return causes the system to report that the device links are removed.

However, the device links are not removed. The disk can then be re-inserted and used without running the `luxadm insert_device` command. When the command is subsequently run, the system reports that no new devices were added and the following message is produced at the console:

```
bash-2.03# luxadm remove_device /dev/rdsk/c1t1d0s2

 WARNING!!! Please ensure that no filesystems are mounted on these device(s).
 All data on these devices should have been backed up.

The list of devices which will be removed is:
  1: Device name: /dev/rdsk/c1t1d0s2
     Node WWN:    2000002037e367e4
     Device Type:Disk device
     Device Paths:
      /dev/rdsk/c1t1d0s2

Please verify the above list of devices and
then enter 'c' or <CR> to Continue or 'q' to Quit. [Default: c]:
stopping:  /dev/rdsk/c1t1d0s2....Done
offlining: /dev/rdsk/c1t1d0s2....Done

Hit <Return> after removing the device(s)

Device: /dev/rdsk/c1t1d0s2
  Logical Nodes being removed under /dev/dsk/ and /dev/rdsk:
        c1t1d0s0
        c1t1d0s1
        c1t1d0s2
        c1t1d0s3
        c1t1d0s4
        c1t1d0s5
        c1t1d0s6
        c1t1d0s7

Device: /dev/rdsk/c1t1d0s2
  Logical Nodes being removed under /dev/dsk/ and /dev/rdsk:
        c1t1d0s0
        c1t1d0s1
        c1t1d0s2
        c1t1d0s3
        c1t1d0s4
        c1t1d0s5
        c1t1d0s6
        c1t1d0s7

 bash-2.03# ls -l /dev/dsk/c1t1*
lrwxrwxrwx   1 root     root            70 May  4 19:07 /dev/dsk/c1t1d0s0 -> ../
../devices/pci@8,600000/SUNW,qlc@4/fp@0,0/ssd@w2100002037e367e4,0:a
```

```
lrwxrwxrwx  1 root     root            70 May  4 19:07 /dev/dsk/c1t1d0s1 -> ../
../devices/pci@8,600000/SUNW,qlc@4/fp@0,0/ssd@w2100002037e367e4,0:b

bash-2.03# ls -l /dev/rdsk/c1t1*
lrwxrwxrwx  1 root     root            74 May  4 19:07 /dev/rdsk/c1t1d0s0 -> ../
../devices/pci@8,600000/SUNW,qlc@4/fp@0,0/ssd@w2100002037e367e4,0:a,raw
lrwxrwxrwx  1 root     root            74 May  4 19:07 /dev/rdsk/c1t1d0s7 -> ../
../devices/pci@8,600000/SUNW,qlc@4/fp@0,0/ssd@w2100002037e367e4,0:h,raw
.
.
/* the following errors are caused by SUNWvts reprobe looking for said disk */

bash-2.03#
8012   05/22/01 14:05:07 Failed on iotcl DKIOCGMEDIAINFO: 6: No such device or
address

8012   05/22/01 14:05:41 Failed on iotcl DKIOCGMEDIAINFO: 6: No such device or
address

8012   05/22/01 14:07:25 Failed on iotcl DKIOCGMEDIAINFO: 6: No such device or
address

bash-2.03# luxadm insert_device
Please hit <RETURN> when you have finished adding Fibre Channel Enclosure(s)/
Device(s):

Waiting for Loop Initialization to complete...
 No new device(s) were added!!
```

To work around, enter the following when luxadm remove_device claims to have completed successfully:

```
# devfsadm -C -c disk
```

Not All USB Zip Drives Found (BugID 4453787)

If four USB Iomega zip drives are attached, prtconf indicates that no driver is loaded after the system has booted. drvconf starts a system probe that finds only two of the four USB zip drives.

Running cat on the /dev/usb/hub0 file causes the system to add the two zip drives.

Workaround: Do not use more than two zip drives in the current release.

LOMlite2 `reset-x` Does Not Reset CPUs (BugID 4462131)

The LOMlite2 `reset-x` command does not currently reset the CPUs. Look for this functionality in a later revision of the OpenBoot PROM.

LOMlite 2 Lights Out Management Software Release Notes

This release of the Lights Out Management (LOM) software is currently supported on Sun Fire V100, Sun Fire V120, Netra T1, Netra X1, Netra t1, Netra t1400/1405 servers. For configuration and operation instructions for Lights Out Management software, see the relevant chapter in the User Manual that came with the supported server platforms.

Adding the LOMlite2 Software

1. **Insert the Supplemental CD and change to the LOMlite 2.0 software directory:**

```
# cd /cdrom/cdrom0/Lights_Out_Management_2.0/Product
```

2. **Add the LOMlite 2.0 packages, responding** y **to all questions:**

```
# pkgadd -d . SUNWlomm SUNWlomr SUNWlomu
```

3. **Verify that the LOMlite 2.0 packages were installed:**

```
# pkgchk -v SUNWlomm SUNWlomr SUNWlomu
```

The LOMlite2 software is now installed. Continue by adding LOMlite2 Patch 110208 as described in the next section.

Adding LOMlite2 Patch 110208

Ensure you have the latest revision of Patch 110208 from SunSolve (revision -13 or later).

Note – The LOMlite2 software does not function unless this patch is added.

---

1. **Confirm the base LOMlite2 firmware version.**

   Type #. to change to the lom> prompt, then run version.

   ```
   #.
   lom>version

   LOM version:        v4.4-LW2+
   LOM checksum:       387e
   LOM firmware part#  258-7939-12
   Microcontroller:    H8S/2148
   LOM firmware build  Aug 30 2001 18:02:40
   Configuration rev.  v1.2

   lom>console
   ```

   The LOM firmware version must not be earlier than 4.5.

2. **Type console at the lom> prompt to return to the # prompt.**

3. **Confirm that the device node is present (via PROM 4.2.4):**

   ```
   # prtconf -V
   OBP 4.2.4 2001/06/13 10:10
   # prtconf | grep SUNW,lomv
                   SUNW,lomv (driver not attached)
   ```

4. **Copy the patch to a temporary directory (/var/tmp).**

   Confirm that the patch is present:

   ```
   # cd /var/tmp
   # ls
   110208-13.zip
   ```

5. **Extract the patch:**

```
# unzip 110208-13.zip
```

6. **Apply the patch:**

```
# patchadd 110208-13
# reboot
```

7. **Confirm that the patch has been loaded:**

```
# modinfo | grep lomv
```

8. **To upgrade the firmware, type:**

```
# lom -G default
```

When prompted, type **c** to continue.

Note – This process takes several minutes. Do not turn off the system while the update is progressing.

---

9. **Press Return to redisplay the UNIX prompt.**

Note – If the system displays the ok prompt, type **go** to return to the UNIX prompt.

---

10. Check the functionality by running the `lom -a` **command:**

```
# lom -a
PSUs:
1 OK

Fans:
1 OK speed 90%
2 OK speed 86%
3 OK speed 75%

LOMlite configuration settings:
serial escape character=#
serial event reporting=default
Event reporting level=fatal, warning & information

Serial security=enabled
Disable watchdog on break=enabled
Automatic return to console=disabled
alarm3 mode=user controlled
firmware version=4.5
firmware checksum=1164
product revision=1.4
product ID=Netra T4
.
<truncated>
.
LOMlite led states:
1       on              Power
2       off             Fault
3       off             Supply A
4       off             Supply B
5       on              PSU ok
6       off             PSU fail
#
```

The software is now installed and the system is ready for use.

Sun Remote System Control 2.2 Release Notes

This document deals with Sun Remote System Control (RSC) 2.2 hardware and software issues. For complete information about using RSC, see the *Sun Remote System Control (RSC) 2.2 User's Guide.*

What's New in RSC 2.2

Several new features are available in RSC 2.2:

- The RSC GUI requires an updated version of the Java™ Runtime Environment, Java 2 Standard Edition (J2SE) Runtime Environment Version 1.3.0_02 or greater. You can download the appropriate version from one of these Web sites:
  - Solaris—`http://www.sun.com/solaris/java`
  - Windows—`http://java.sun.com/j2se/1.3/`
- Client support has been added for the Microsoft Windows 2000 operating environment. RSC 2.2 does not support Windows 95.
- Sun Fire V480 servers include a new hardware feature, a Locator LED on the system's front and rear panels. RSC software allows you to toggle the state of these LEDs to help identify a particular system that may be located in a rack with other servers.
- Support for a maximum of 16 RSC user accounts has been added. A maximum of 10 users can be logged in at one time. However, the increased number of user accounts does not affect the limitation of five concurrent `telnet` or GUI login sessions per server.

Before Installing Sun Remote System Control Software

RSC software is included as part of the default installation set for this Solaris Supplement CD. You should install RSC server components on a compatible Solaris server only; you can install the client software on any computer that meets the Solaris or Windows operating environment requirement. You must install and configure the RSC software before you can use RSC.

Important: Before upgrading from a previous version of RSC server software or reinstalling the software, log in to the server as superuser and back up your configuration data using the following commands:

```
# rscadm show > remote_filename
# rscadm usershow >> remote_filename
```

Use a meaningful file name that includes the name of the server that RSC controls. After installation, you can refer to this file to restore your configuration settings if necessary. Reverting to a previous version of RSC server software after installing version 2.2 is not recommended. However, if you do revert, you will need to restore your configuration information and also power cycle the server.

You can install the RSC 2.2 server software package, SUNWrsc, on:

- A Sun Fire V480 server running the Solaris 8 2/02 or Solalris 8 HW 12/02 operating environment
- A Sun Fire V880 server running the Solaris 8 7/01 operating environment or another Solaris version that supports the RSC 2.2 product
- A Sun Fire 280R server running the Solaris 8 1/01 operating environment or another Solaris version that supports the RSC 2.2 product
- A Sun Enterprise 250 server running one of the following operating environments:
  - Solaris 2.6
  - Solaris 7
  - Solaris 8

You can install the RSC 2.2 client software packages on:

- Any other computer running the Solaris 2.6, Solaris 7, or Solaris 8 operating environment. The packages are SUNWrscj (GUI) and SUNWrscd (documentation).
- Any computer running one of the following Microsoft Windows operating environments:
  - Windows 98
  - Windows 2000
  - Windows NT 4.0

  The file used to install the RSC GUI and documentation for the Microsoft Windows operating environments is SunRsc.exe.

- Client computers require Java 2 Standard Edition (J2SE) Runtime Environment Version 1.3.0_02 or a subsequent 1.3.x version to run RSC 2.2 software. RSC 2.2 software does not run using J2SE Runtime Environment Version 1.2.x. You can download the appropriate version from one of these Web sites:
  - Solaris—http://www.sun.com/solaris/java

- Windows—`http://java.sun.com/j2se/1.3/`

Installation on the Solaris operating environment places the *Sun Remote System Control (RSC) 2.2 User's Guide* in the location `/opt/rsc/doc/`*locale*`/pdf/ user_guide.pdf`. Installation on the Windows operating environment places the User's Guide in the location `C:\Program Files\Sun Microsystems\Remote System Control\doc\`*locale*`\pdf\user_guide.pdf`.

The following sections describe Sun Remote System Control (RSC) 2.2 issues.

RSC General Issues

This section describes issues that affect RSC running on all platforms (Sun Enterprise 250, Sun Fire 280R, Sun Fire V880, and Sun Fire V480 servers):

Alert Messages May Be Delayed (BugID 4474273)

If the RSC variables `page_enabled` and `mail_enabled` are set to `true` and multiple alert messages are generated within a short interval, the first message is delivered in a timely fashion but each subsequent message issued during the interval is delayed by 3-4 minutes.

Keyswitch Position in RSC GUI Is Unknown When RSC Is on Battery Power (BugID 4492888)

When the RSC card is running on battery power, the keyswitch slot in the RSC GUI displays as a gray dot, and the mouse-over text on the keyswitch reads Current Keyswitch Position Unknown.

Wrong Information Provided on `alerts.html` (BugID 4522646)

When configuring the `page_info1` or `page_info2` fields, you may use any digit or the alphanumeric characters `#`, `@`, and `,` (comma) when specifying a pager phone number, but the PIN area may only contain digits (0-9). In the RSC GUI, the online help for this function is incorrect. For more information about how to configure RSC to work with a pager, refer to the *Sun Remote System Control (RSC) 2.2 User's Guide*.

rsc-console Will Switch to Tip Connection During Boot if diag-switch? Is Set to true (BugID 4523025)

If `diag-switch?` is set to true and you use the `bootmode -u` command to reboot your workstation, `rsc-console` will revert to the serial (tip) connection after Solaris restarts, even if you have previously redirected the console to RSC.

If this occurs, manually redirect the console ouput to RSC again after the reboot operation has completed. *Refer to the Sun Remote System Control (RSC) 2.2 User's Guide* for more information.

Power On From GUI/CLI Is Allowed, Yet Doesn't Work, With Keyswitch Turned to Off (BugID 4524277)

If the system's state changes from battery power to standby power and the keyswitch is in the off position, the RSC software should generate a warning that you cannot turn the system power back on when you issue a `poweron` command from either the CLI or the GUI. The RSC software should issue this warning. You need to move the keyswitch back into the on position.

If this happens, use the `resetrsc` command.

RSC `bootmode -u` Command Fails to Toggle the Console (BugID 4525310)

This intermittent problem has been observed on Sun Fire V880 servers running OpenBoot PROM version 4.4.6. Occasionally, the `bootmode -u` command fails to redirect the console to RSC. If this happens, use the `resetrsc` command.

OBP 4.4.3 Displays `ERROR: RSC-Initiated Reset` Instead of a Warning Message (BugID 4514863)

On servers running OpenBoot PROM software version 4.4.3, an RSC-initiated system reset produces the following message:

```
ERROR: RSC-initiated Reset
```

This message serves as a warning-level message only; no action is required.

RSC Restart Error on Japanese Windows 98 Systems

If you install the RSC client on the Japanese version of Microsoft Windows 98, RSC does not start again once you exit from the client and the `javaw stack error` appears, unless you reboot the system. This situation occurs only on the initial version of Windows 98, and does not happen on other versions of Microsoft Windows (95, 98 Second Edition, NT).

Workaround: Download and install the Microsoft IME98 Service Release 1 (IME98-SR1) from the Microsoft Website. The crash does not occur after IME98-SR1 has been installed.

RSC Issues for Sun Fire 280R, Sun Fire V880, and Sun Fire V480 Servers

This section describes issues that affect RSC running on Sun Fire 280R, Sun Fire V880, and Sun Fire V480 servers.

Removing and Installing the RSC Card

Caution – Removing or installing the RSC card while the system has the AC power cord connected could damage your system *or* your RSC card. Only qualified service personnel should remove or replace the RSC card. Contact your qualified service representative to perform this service operation.

Before you follow the procedures in the *Sun Fire 280R Server Service Manual* or *Sun Fire 880 Server Service Manual* to remove or install the RSC card, perform this procedure to ensure that there is *no AC power present* in the system.

1. **Shut down and halt the system.**

2. **With the system at the** `ok` **prompt, turn the keyswitch to the Off position.**

   Standby power is still present in the system at this point.

3. **Disconnect all AC power cords from their back panel receptacles.**

   This ensures that there is no standby power voltage present in the system.

4. **Follow the procedure you require in your service manual.**

Additional RSC Alerts

RSC generates the following alerts on a Sun Fire 280R or Sun Fire V880 server when the RSC card begins battery use after a power interruption:

```
00060012: "RSC operating on battery power."
```

RSC generates the following alerts when the host system has shut down from RSC. The messages appear in the log history.

```
00040000: "RSC Request to power off host."
```

```
00040029: "Host system has shut down."
```

If you shut down the system using the keyswitch, or by using the OpenBoot PROM `poweroff` command, the above alert 00040029 is the only alert displayed.

These alerts are not documented in the *Sun Remote System Control (RSC) 2.2 User's Guide.*

Going from Battery to Standby, the Locator LED Will Turn On in the GUI (BugID 4524272; Sun Fire V480 Servers Only)

When the RSC hardware changes state from battery power to standby power, the Locator LED on the Sun Fire V480 appears illuminated in the GUI only. It does not illuminate on the system.

If this situation happens, use the `resetrsc` command.

RSC Issues for Sun Fire 280R Servers Only

This section describes issues that affect RSC running on Sun Fire 280R servers only. See the *Sun Fire 280R Server Product Notes* for other Sun Fire 280R server issues.

Soft Reset With `xir` Does Not Work Correctly (BugID 4361396, 4411330)

The `xir` command does not bring the server to the `ok` prompt as expected. This issue may have been resolved for your server type; see your hardware platform release notes.

Boot Sequence Sometimes Bypasses RSC (BugID 4387587)

In rare instances, the system may bypass the RSC card during startup. To check whether the system booted and is online, use the ping command to see if the card is alive, or log in using telnet or rlogin. If the system is not connected to the network, establish a tip connection to the system. (Be sure that console I/O is not directed to the RSC card.) Use the tip connection to view boot messages on the troubled system, or reboot the system. For help in diagnosing the problem, see your hardware Owner's Guide.

False Drive Fault Reported at Power On (BugID 4343998, 4316483)

When you power on the system, it may report a false internal drive fault that is recorded in the Sun Remote System Control (RSC) log history.

If the error is reported by RSC, you should disregard the report if the system boots successfully to the Solaris operating environment. In most cases the erroneous fault does not reappear. You can verify the disk after the boot process by using the fsck utility.

Note – Any disk drive error message reported by the Solaris operating environment is a real disk drive error.

If a disk fault is reported at the ok prompt and the system fails to boot to the Solaris operating environment, there may be a problem with the disk drive. Test the disk drive with the OpenBoot Diagnostics tests documented in the "Diagnostics, Monitoring, and Troubleshooting" chapter in the *Sun Fire 280R Server Service Manual.*

Command rscadm resetrsc Fails (BugID 4374090)

After a cold restart or after powering on the system, the RSC command rscadm resetrsc fails; this is a known condition. You need to reset the host system for the command to function correctly.

There are three ways you can reset the host. Use one of the following commands:

- At the ok prompt, execute the reset-all command.
- At the RSC command-line interface (CLI) prompt, issue the reset command.
- At the Solaris CLI prompt, issue the reboot command.

The RSC rscadm resetrsc command will now function correctly.

RSC Issue for Sun Fire V880 Servers Only

This section describes an issue that affects RSC running on Sun Fire V880 servers only.

Soft Reset With `xir` Does Not Work Correctly (BugID 4361396, 4411330)

The `xir` command does not bring the server to the `ok` prompt as expected. This issue may have been resolved for your server type; see your hardware platform release notes.

RSC Issues for Sun Enterprise 250 Servers Only

This section describes issues that affect RSC running on Sun Enterprise 250 servers only. See the *Sun Enterprise 250 Server Product Notes* for other Sun Enterprise 250 server issues.

Increased Number of RSC User Accounts Not Supported

Support for a maximum of 16 RSC user accounts has been added for RSC 2.2. However, Sun Enterprise 250 servers continue to be limited to four RSC user accounts because of hardware limitations.

Do Not Run OpenBoot PROM `fsck` Command From the RSC Console (BugID 4409169)

Do not issue the `fsck` command from the redirected RSC console.

Reset the system's `input-device` and `output-device` settings to `ttya`. Then reboot the system and access the system through its local console or terminal and execute the OpenBoot PROM `fsck` command directly.

Do Not Run OpenBoot PROM `boot -s` Command From the RSC Console (BugID 4409169)

The command `boot -s` does not work from the RSC console.

Reset the system's `input-device` and `output-device` settings to `ttya`. Then reboot the system and access the system through its local console or terminal and execute the `boot -s` command directly.

Change to the `serial_hw_handshake` Variable Requires a System Reboot (BugID 4145761)

In order for changes to the RSC configuration variable `serial_hw_handshake` to take effect, the server must be rebooted. This also affects the Enable Hardware Handshaking check box in the RSC graphical user interface. This limitation is not stated in the documentation.

Power Supply Alerts Display Incorrect Index in the GUI (BugID 4521932)

In the Sun Enterprise 250, the power supplies are numbered 0 and 1, but the RSC GUI refers to them as Power Supply 1 and Power Supply 2 in the event log and in alerts.

Solstice DiskSuite and Alternate Pathing (BugID 4367639)

A segmentation fault error occurs when invoking the Solstice DiskSuite™ 4.1.2 metatool on a Sun Enterprise 6000 system with Alternate Pathing 2.3 or 2.3.1 already installed and configured on a SPARCstorage™ Array 100 or SPARCstorage Array 200.

After invoking the metatool, the following message is displayed:

```
root@[/]>metatool &
[1]    2569
root@[/]>Initializing metatool... Done.
Discovering drives and slices... metatool: Segmentation Fault
```

Workaround: Move `/usr/lib/libssd.so.1` and `/usr/lib/libap_dmd.so.1` to `/usr/sadm/lib/lvm`.

SunFDDI and Diskless Booting (BugID 4390228)

The SunFDDI PCI board (FDDI/P) does not support diskless booting. The SunFDDI SBus board (FDDI/S) supports diskless booting on sun4m and sun4u platforms only.

Multiple Sun GigaSwift Ethernet Cards May Hang System (BugID 4336400, 4365263, 4431409)

Your system may experience heavy CPU usage or may hang if more than two Sun GigaSwift Ethernet cards are installed.

System May Hang When the `cpr` Module Runs (BugID 4466393)

If you are running any version of the Solaris 8 software with an Expert3D or Expert3D-Lite card, you may experience problems after `cpr` runs.

Workaround: Install Patch 108576-15 or greater.

`librt` Objects Do Not Transition to Multi-User Mode (BugID 4479719)

SunVTS may fail in multi-user mode when semaphores are created improperly.

Workaround: Kill and restart `picld` after the machine reaches multiuser mode, but before running SunVTS:

```
# /etc/init.d/picld stop
# /etc/init.d/picld start
```

Vulnerability in the ToolTalk Database Server Allows Root Access (BugID 4499995)

When the ToolTalk Database Server (`/usr/openwin/bin/rpc.ttdbserverd`) is enabled, remote and local attacks are possible. These attacks can potentially give root access to the system. Attacked systems can be identified by the presence of garbage files in the root directory that begin with an A.

Workaround: Remove the `rpc.ttdbserverd` line from the `inetd.conf` file. Disable the service by using the `chmod a-x` command on `/usr/openwin/bin/rpc.ttdbserverd`. Check with your Sun representative about future patches.

Invalid Warning During System Boot (BugID 4519441)

A warning message may appear when booting a Netra ct 800 or Sun Blade™ 100 system which reads:

```
invalid vector intr: number 0x7de, pil 0x0
```

This message is benign and can be ignored.

AP 2.3.1 on Sun Enterprise Servers

AP 2.3.1 on Sun Enterprise Servers

This section contains the release notes for Alternate Pathing (AP) 2.3.1 on Sun Enterprise 3*x*00, 4*x*00, 5*x*00, 6*x*00, and 10000 servers.

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 2.3.1 User Guide* in the AnswerBook2 Alternate Pathing 2.3.1 Collection.

Future AP Support

AP multipath I/O technology is being retired in favor of the newer, more scalable technologies presented by Sun StorEdge Traffic Manager and IPMP.

These modern technologies present better overall multipath solutions, with refined, user-friendly interfaces that are well integrated with Solaris. IPMP also provides true automatic switching for networks upon error detection.

If you use AP for its I/O multipath capabilities, you are encouraged to unconfigure your AP installations, and begin utilizing these newer technologies for I/O multipath control.

All 3 technologies are available during the Solaris 8 timeframe. However, be advised that AP will no longer be available in Solaris 9.

Installation Issues

If you are upgrading from Solaris 2.6 or Solaris 7 software to Solaris 8 software and have AP 2.1 or AP 2.2 on your system, you must upgrade to AP 2.3 or AP 2.3.1. The following sections include references to a volume manager because most systems have one installed.

Note – AP 2.3.1 installation is Solaris operating environment specific. If you have already installed AP 2.3.1 on your system and choose to upgrade your operating system at a later date, you must follow the upgrade procedure to remove the AP 2.3.1 software using `pkgrm` and re-install AP 2.3.1.

This section contains an overview of the entire upgrade 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 8 HW 12/02 Release Notes Supplement for Sun Hardware* (available in printed form in your Solaris 8 HW 12/02 Media Kit)
- *Solaris 8 HW 12/02 Sun Hardware Platform Guide* (available in printed form in your Solaris 8 Media Kit or in AnswerBook2 format on the Sun Hardware Supplements CD)
- *Sun Enterprise Server Alternate Pathing 2.3.1 User Guide* (available in AnswerBook2 format on the Sun Hardware Supplements CD in your Solaris 8 Media Kit)
- Your Volume Manager User's Guide
- Your Volume Manager Installation and Product Notes

Note – Before attempting an upgrade, verify that your volume manager supports the Solaris 8 software.

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

In general, you will perform the following tasks:

- Unconfigure your volume manager.
- Remove the previous version of AP.
- Upgrade to the Solaris 8 operating environment.
- Install AP 2.3.1.
- Install and reconfigure your volume manager.

Specifically, you must perform the following tasks:

1. Read "Performing an Upgrade of AP" in the *Solaris 8 HW 12/02 Sun Hardware Platform Guide*.

2. Commit any uncommitted AP metadevices (see Step 1 in "To Upgrade to AP 2.3.1" in the *Solaris 8 HW 12/02 Sun Hardware Platform Guide*).

3. Unconfigure your volume manager using the documentation provided by the specific vendor.

Note – With regard to AP, no additional steps need to be taken to do this other than those recommended by the manufacturer to unconfigure the volume manager.

Caution – When the volume manager has been unconfigured and you are instructed to install the new operating environment, stop at that point and remove your previous version of AP. Do *not* install Solaris 8 software at this time.

4. Remove the current AP configuration using "Remove the current AP configuration." of the *Solaris 8 HW 12/02 Sun Hardware Platform Guide*.

5. Upgrade to Solaris 8 using "Upgrade the Solaris operating environment (if applicable) now" in the *Solaris 8 HW 12/02 Sun Hardware Platform Guide*.

6. Upgrade to AP 2.3.1 using instructions in the *Solaris 8 HW 12/02 Sun Hardware Platform Guide*.

7. Install your volume manager according to your manufacturer's instructions.

When upgrading AP 2.3.1, unless both paths are accessible when you run `ap_upgrade_begin`, `ap_upgrade_finish` completes but is unable to recreate your path groups. No error message appears.

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.

Note – If you are upgrading to AP 2.3.1 on *all* Sun Enterprise 10000 domains, then you can safely remove the `SUNWapssp` package software from the SSP workstation using `pkgrm`. If, however, any domain will remain at an earlier version of AP, then you must *not* remove the AP software on the SSP workstation. In either case, leaving AP software on SSP workstations has *no* effect on AP 2.3.1.

Supported Devices

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

- Sun SPARCstorage™ Arrays recognized by AP using the `pln(soc)` controllers
- Sun StorEdge A5000 recognized by AP using `sf(socal)` or `fp(qlc)` controllers
- Sun StorEdge T3 recognized by AP using `sf(socal)` or `fp(qlc)` controllers
- Sun Enterprise E3500 internal drives recognized by using `sf(socal)` or `fp(qlc)` controllers
- SunFastEthernet™ 2.0 (`hme`)
- SunFDDI/S 6.0 (`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 Gigabit Ethernet 2.0 (`ge`)

The following table lists the devices supported in each release:

TABLE 4-1　　AP Support Matrix

AP Version	Solaris Release	NICs									Disk Controllers	Storage Products
		ge	hme	le	nf	bf	hi	qe	qfe	vge		
2.0	2.5.1		X	X	X	X	X	X	X		pln/soc	SSA
2.0.1	2.5.1		X	X	X	X	X	X	X		pln/soc, sf/socal	SSA, A5000
2.1	2.6	X	X	X	X			X	X	X	pln/soc, sf/soc	SSA, A5000
2.2	7	X	X	X	X			X	X		pln/soc, sf/socal, fp/qlc*	SSA, A5000
		* - fp/qlc support for AP 2.2 requires a patch for Solaris 7 (included in Solaris 7 11/99) and for AP 2.2. Refer to `http://www.sunsolve.com` for more information.											
		† - fp/qlc support requires Solaris 7 11/99 or Solaris 8.											
		§ - AP 2.3 has not been optimized for Sun StorEdge T3 support.											

TABLE 4-1   AP Support Matrix

AP Version	Solaris Release	NICs									Disk Controllers	Storage Products
		ge	hme	le	nf	bf	hi	qe	qfe	vge		
2.3	2.6	X	X	X	X			X	X	X	pln/soc, sf/socal	SSA, A5000,
	7	X	X	X	X			X	X		pln/soc, sf/socal, fp/qlc†	SSA, A5000, T3§
	8	X	X	X	X				X		pln/soc, sf/socal, fp/qlc	SSA, A5000, T3§
2.3.1	8	X	X	X	X				X		pln/soc, sf/socal, fp/qlc	SSA, A5000, T3
* - fp/qlc support for AP 2.2 requires a patch for Solaris 7 (included in Solaris 7 11/99) and for AP 2.2. Refer to `http://www.sunsolve.com` for more information.												
† - fp/qlc support requires Solaris 7 11/99 or Solaris 8.												
§ - AP 2.3 has not been optimized for Sun StorEdge T3 support.												

SunFDDI and Gigabit Ethernet Devices

AP 2.3.1 validation tests were performed on SunFDDI/S (revision 7.0) and Gigabit Ethernet (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 2.3.1. Because of this, AP 2.3.1 does not support the Sun StorEdge A3000. See that product's documentation for more information about its failover support.

Sun StorEdge A5000

AP 2.3.1 supports the Sun StorEdge A5000 for this release.

Sun StorEdge A7000

AP 2.3.1 does not support the Sun StorEdge A7000 for this release.

Sun StorEdge T3

AP 2.3.1 supports the Sun StorEdge T3 in a path optimized AP configuration with this release. Path optimization refers to the efficient distribution of I/O traffic for the T3.

Software Compatibility

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

- Solaris 8 with AP 2.3.1 and DR
- Solaris 8 with AP 2.3 and DR
- Solaris 7 with AP 2.3.1 and DR
- Solaris 7 with AP 2.3 and DR
- Solaris 7 with AP 2.2 and DR
- Solaris 2.6 with AP 2.3.1 and DR
- Solaris 2.6 with AP 2.3 and DR
- Solaris 2.6 with AP 2.1 and DR
- Solaris 2.5.1 with AP 2.0.1 and DR (Sun Enterprise 10000 server only)
- Solaris 2.5.1 with AP 2.0 and DR (Sun Enterprise 10000 server only)

Note – AP does not support DR model 3.0, which runs on Sun Enterprise 10000 domains running the Solaris 8 2/02 operating environment. AP does support DR model 2.0 on Sun Enterprise 10000 domains. For details on the multipathing software compatible with DR model 3.0, refer to the *SSP 3.5 Installation Guide and Release Notes*.

AP Patches

Check the SunSolve website on a regular basis for any AP patches that may be available, and apply the recommended patches:

```
http://sunsolve.Sun.com
```

Dynamic Reconfiguration (DR) Issues

The DR Attach operation can complete without the controller being immediately accessible to AP. You must verify that the physical device is present before switching to the new controller using apconfig.

A Sun Enterprise 10000 server running the Solaris 2.6 operating environment requires Patch 106284-02 for AP 2.3.1 to run correctly with the dr_daemon.

Boot Disk Issues

AP 2.3.1 provides support for only one alternately pathed boot disk plus a mirror disk per domain.

In order to fix inconsistencies in boot recovery behavior, device aliases for the boot disk are not supported.

Boot recovery is architecture generic in AP 2.3.1. Boot recovery works on Sun Fire as well as Starfire platforms.

IPMP Issues

IPMP/AP path groups are not supported for this release.

Sun Fibre Channel Port Driver (qlc/fp) Issues

A SENA device that uses the qlc/fp drivers is considered a different physical device than a SENA device that uses the socal/sf stack. SENA devices do not support mixed configurations where qlc/fp and socal/sf drivers service a single SENA device. Therefore, the two devices cannot be combined in an AP metadevice.

Revising the firmware on a physical SENA device using socal/sf drivers to use qlc/fp drivers for your Fibre Channel controllers is the same as replacing the hardware with a different type of controller. (The converse is also true.) You must unconfigure Alternate Pathing on such controllers *before* you revise the firmware. For example:

```
# apdisk -d sf:0
# apdb -C
```

Revise the SENA firmware.

After you have performed the revision, recreate your pathgroups using the new device names, for example:

```
# apdisk -c -pfp:0 -a fp:1
# apdb -C
```

⚠ **Caution –** If you change firmware without unconfiguring AP, file systems available from the new alternately-pathed controllers may not be accessible. If those file systems are required during boot, your system can become unbootable.

AP Documentation Locations

Documentation for AP 2.0 and 2.0.1 can be found in their respective collections under Hardware -> Enterprise Servers at docs.sun.com.

AP 2.1 and 2.2, however, are in the Hardware -> Solaris on Sun Hardware AnswerBook collection at docs.sun.com.

AP 2.3 and 2.3.1 are in their own collections under Hardware -> Enterprise Servers.

Known Bugs/RFEs

Panic while switching unplumbed metanetwork. (BugID 4361968)

Fixed Bugs

This section contains the synopses and Sun BugID number of the more important bugs that have been fixed since the AP 2.3 release (Solaris 8). This list does not include all of the fixed bugs.

(RFE) An immediate switch of path using AP after DR configure forces it into a 'T' state. (BugID 4265982)

(RFE) AP handling for individual target failure, FC hubs/fabric, and daisy chaining. (BugID 4276330)

(RFE) Hang on Sun Enterprise 3500 with mirrored internal disk pull out with AP and sds. (BugID 4297492)

Read/write errors during ctrl failover with Sun StorEdge T3 Array partner group or 2x2 expansion. (BugID 4342963)

Multiple ".probe" execution causes LUNs on UNIX host to fail with ENODEV. (BugID 4347014)

ENXIO from Sun StorEdge T3 ONLINE Master immediately after .probe initiated ctlr failure. (BugID 4347016)

Other Bugs

This section contains the synopses and Sun BugID number of the more important bugs that have been discovered regarding AP 2.3.1 and the Solaris 8 operating environment. This list does not include all bugs.

Other Fixed Bugs

ssd: Serial Number Should Be Obtained From the Unit Serial Number Page (Bug ID 4295457)

Description: AP depends on Sun Device ID functions; specifically `ddi_devid_compare()`. Any device that AP supports must adequately interface with the Sun Device ID. This leads to a direct dependency on the resolution of Sun BugID 4295457. Thus, there is a dependency on three separate patches:

- Patch 105356-15 for Solaris 2.6
- Patch 107458-09 for Solaris 7
- Patch 109524-01 for Solaris 8

Solution: You can obtain these patches from SunSolve at:
`http://sunsolve.sun.com`

qfe Driver Does Not Respond With DL_OK_ACK To a DL_ENABMULTI_REQ Primitive (Bug ID 4241749)

Systems running the Solaris 7 operating environment using `qfe` controllers should install patch 107743-06, to prevent system hangs when switching pathgroups with `qfe` controllers in them.

Solution: You can obtain Patch 107743-06 from SunSolve at:
`http://sunsolve.sun.com`

Open Issues for Sun Fire 6800/4810/4800/3800 Systems

This chapter describes open issues related to the use of the Solaris operating environment on Sun Fire 6800/4810/4800/3800 systems.

Sun Fire 6800/4810/4800/3800 Systems

This section provides information on using the Solaris operating environment.

Displaying System Configuration Information

The `prtdiag` command is one of the Solaris operating environment commands that displays system configuration parameters. The information on this command in the *Sun Hardware Platform Guide* for this operating system release is incorrect. Following is the corrected information.

The Solaris operating environment `prtdiag` (1M) command displays the following information to the domain of your Sun Fire 6800/4810/4800/3800 system:

- Configuration
- Diagnostic
- Total amount of memory (similar to the `prtconf` command)

Dynamic Reconfiguration on Sun Fire 6800/4810/4800/3800 Systems

Dynamic reconfiguration (DR) is supported for Solaris 8 HW 12/02. This section includes open issues for DR on the Sun Fire 6800/4810/4800/3800 systems at the time of this release.

Note – For information on the system controller firmware that contains DR functionality, refer to the *Sun Fire 6800/4810/4800/3800 Systems Software Release Notes* included with the 5.12.6 firmware release. This firmware and related documentation is included in SunSolve patch 112127-02, which is available on the SunSolve web site (`http://sunsolve.Sun.com`).

These release notes for dynamic reconfiguration (DR) on Sun Fire 6800, 4810, 4800, and 3800 systems cover the following topics:

- "Dynamic Reconfiguration Software Installation Instructions" on page 59
- "Known DR Limitations" on page 62
- "Dynamic Reconfiguration Software Bugs" on page 66

System-Specific DR Support

System-specific DR support on the 6800/4810/4800/3800 systems is shown by the `cfgadm` command. System boards are indicated as class "sbd." CompactPCI (cPCI) cards are shown as class "pci." Users of DR through the `cfgadm` interface will see other DR classes as well.

For more information about system-specific problems with DR, see "Known Dynamic Reconfiguration Bugs" on page 66.

To view the classes that are associated with attachment points, run the following command as superuser:

```
# cfgadm -s "cols=ap_id:class"
```

Dynamic attachment points may also be listed by using the `cfgadm` command with the `-a` option. To determine the class of a specific attachment point, add the point as an argument to the above command.

Dynamic Reconfiguration Software Installation Instructions

The following software supports DR on a Sun Fire system: version 8 HW 12/02 of the Solaris operating environment, and version 5.12.6 of the system firmware.

In addition, you have the option of installing the Sun Management Center (SunMC). Refer to the *SunMC 3.0 Software Supplement for Sun Fire 6800/4810/4800/3800 Systems* for complete instructions.

Upgrading the System Firmware

An upgrade of the Sun Fire system firmware takes place via an FTP or HTTP connection from an FTP or HTTP server where the firmware image is stored. Refer to the *Sun Fire 6800/4810/4800/3800 Systems Platform Administration Manual* for more information.

Note – Additional information about installing the firmware patch is available in the README and Install.info files that accompany the patch.

Caution – Do not update the system controller firmware without updating the firmware for all your CPU/Memory boards and I/O assemblies. If the firmware for your CPU/Memory boards and I/O assemblies is different from the system controller firmware, you may not be able to boot your domains.

▼ To Upgrade the System Firmware:

1. **Set up the FTP or HTTP server.**

   For more information, see Appendix B of the *Sun Fire 6800/4810/4800/3800 Systems Platform Administration Manual* (part number 805-7373-13).

2. **Download the 5.12.6 firmware.**

   This firmware and related documentation is included in SunSolve patch 112127-02, which is available on the SunSolve Web site located at:

   ```
   http://sunsolve.Sun.COM/pub-cgi/show.pl?target=patches/patch-
   access
   ```

3. **Copy the patch onto the FTP or HTTP server using a command such as the following:**

```
# cp /patch_location/* /export/ftp/pub/5.12.6
```

4. **Connect to the system controller console (serial port) to monitor the system when you upgrade the firmware (Step 6).**

   The prompt for the system controller is:

```
schostname:SC>
```

5. **Shut down all the domains by halting the Solaris operating environment.**

   The keyswitch remains in the on position in these domains.

6. **In each domain that you shut down in step 5, set the keyswitch position to** standby**:**

```
schostname:A> setkeyswitch standby
```

7. **Verify that all the CPU/Memory boards and I/O assemblies are powered on by running the** showboards **command on the system controller in the platform shell:**

```
schostname:SC> showboards
```

8. **If any CPU/Memory boards or I/O assemblies are not powered on, use the** poweron **command on the system controller in the platform shell to power on those components:**

```
schostname:SC> poweron component_names
```

9. **Upgrade the firmware by using the** flashupdate **command on the system controller in the platform shell.**

Caution – Do not power down the system or reset the system while performing this step.

Use the command syntax appropriate to the URL protocol:

```
schostname:SC> flashupdate -f URL all
```

The flashupdate command reboots the system controller and upgrades the CPU/Memory boards and I/O assemblies, scapp, and RTOS.

Note – When running scapp 5.12.5 or higher and RTOS 18 or higher, the upgrade procedure updates scapp and RTOS only when the image to be installed is different from the image currently installed.

10. **After the system controller reboots successfully, connect to each domain console and power off all the CPU/Memory boards and I/O assemblies by setting the keyswitch position to** off**:**

```
schostname:A> setkeyswitch off
```

11. **Verify that all the CPU/Memory boards and I/O assemblies are powered off by running the** showboards **command on the system controller in the platform shell:**

```
schostname:SC> showboards
```

12. **If any CPU/Memory boards or I/O assemblies are not powered off, use the** poweroff **command on the system controller in the platform shell to power off those components:**

```
schostname:SC> poweroff component_names
```

13. **Bring up each domain by setting the keyswitch position to** on**:**

```
schostname:A> setkeyswitch on
```

14. **After all the domains have been brought up, update the configuration backup of the system controller by using the** `dumpconfig` **command:**

```
schostname:SC> dumpconfig -f URL
```

where *URL* specifies the ftp protocol.

Known DR Limitations

This section contains known DR software limitations of the Sun Fire 6800, 4810, 4800, and 3800 systems.

General DR Limitations

■ If you add a system board to a domain without using DR procedures, such as by running the `addboard` command-line interface (CLI) command on the system controller (SC), you must run the `setkeyswitch off` command and then the `setkeyswitch on` command to bring the board into the system.

■ This release of the DR software does not support Sun StorEdge Traffic Manager.

■ Before performing any DR operation on an I/O (IBx) board, enter the following command to stop the vold daemon:

```
# sh /etc/init.d/volmgt stop
```

After the DR operation has successfully completed, enter the following command to re-start the vold daemon:

```
# sh /etc/init.d/volmgt start
```

■ On Sun Fire 6800, 4810, 4800, and 3800 systems, DR does not support HIPPI/P, nor SAI/P (bug 4466378), nor the SunHSI/P driver (bug 4496362).

■ You must execute the `devfsadm(1M)` command to see any changes that have been made, especially in regard to changes from PCI to cPCI.

■ Do not reboot nor reset the system controller (SC) during DR operations. In addition, do not perform a flashupdate, which requires a reboot upon completion.

Limitations Specific to CompactPCI

■ You can unconfigure a CompactPCI (cPCI) I/O assembly only if all the cards in the board are in an unconfigured state. If any cPCI card is busy (such as with a plumbed/up interface or a mounted disk), the board unconfigure operation fails with the status "busy." All cPCI cards should be unconfigured before attempting to unconfigure the cPCI I/O assembly.

■ When a multipath disk is connected to two cPCI cards, it is possible to see disk activity across the cards when none is expected. For this reason, make sure that there is no activity on the local side of the resource. This is more likely to occur when attempting to perform DR operations on a cPCI card that shows a busy status, even when there is no activity on the local side of the resource. A subsequent DR attempt may be required.

■ When a user lists attachment points using the `cfgadm`(1M) command with the `-a` option, cPCI slots and PCI buses are all listed as attachment points. The `cfgadm -a` command displays an attachment point for a PCI bus as `N0.IB8::pci0`. There are four such attachment points for each cPCI board. The user should not perform DR operations on these, nor on the `sghsc` attachment point (which the `cfgadm -a` command displays as `N0.IB8::sghsc4`), because DR is not actually performed, and some internal resources are removed. However, there is no harm in doing so.

■ In order for DR to function properly with cPCI cards, the levers on all cPCI cards that are inserted at Solaris boot time must be fully engaged.

Procedures for Bringing a cPCI Network Interface (IPMP) Online or Offline

▼ To Take a cPCI Network Interface (IPMP) Offline and Remove It

1. **Retrieve the group name, test address, and interface index by typing the following command.**

```
# ifconfig interface
```

For example, `ifconfig hme0`

2. **Use the** `if_mpadm(1M)` **command as follows:**

   ```
   # if_mpadm -d interface
   ```

   This takes the interface offline and causes the failover addresses to be failed over to another active interface in the group. If the interface is already in a failed state, then this step simply marks and ensures that the interface is offline.

3. **(Optional) Unplumb the interface.**

   This step is required only if you want to use DR to reconfigure the interface automatically at a later time.

4. **Remove the physical interface.**

   Refer to the `cfgadm(1M)` man page and the *Sun Fire 6800, 4810, 4800 and 3800 Systems Dynamic Reconfiguration User Guide* for more information.

▼ To Attach and Bring Online a cPCI Network Interface (IPMP)

● **Attach the physical interface.**

   Refer to the `cfgadm(1M)` man page and the *Sun Fire 6800, 4810, 4800 and 3800 Systems Dynamic Reconfiguration User Guide* for more information.

   After you attach the physical interface, it is automatically configured using settings in the hostname configuration file (`/etc/hostname.`*interface*, where *interface* is a value such as `hme1` or `qfe2`).

   This triggers the `in.mpathd` daemon to resume probing and detect repairs. Consequently, `in.mpathd` causes original IP addresses to failback to this interface. The interface should now be online and ready for use under IPMP.

   Note – If the interface had not been unplumbed and set to the OFFLINE status prior to a previous detach, then the attach operation described here would not automatically configure it. To set the interface back to the ONLINE status and failback its IP address after the physical attach is complete, enter the following command: `if_mpadm -r` *interface*

Operating System Quiescence

This section discusses permanent memory, and the requirement to quiesce the operating system when unconfiguring a system board that has permanent memory.

A quick way to determine whether a board has permanent memory is to run the following command as superuser:

```
# cfgadm -av | grep permanent
```

The system responds with output such as the following, which describes system board 0 (zero):

```
N0.SB0::memory connected configured ok base address 0x0, 4194304
KBytes total, 668072 KBytes permanent
```

Permanent memory is where the Solaris kernel and its data reside. The kernel cannot be released from memory in the same way that user processes residing in other boards can release memory by paging out to the swap device. Instead, cfgadm uses the copy-rename technique to release the memory.

The first step in a copy-rename operation is to stop all memory activity on the system by pausing all I/O operations and thread activity; this is known as *quiescence*. During quiescence, the system is frozen and does not respond to external events such as network packets. The duration of the quiescence depends on two factors: how many I/O devices and threads need to be stopped; and how much memory needs to be copied. Typically the number of I/O devices determines the required quiescent time, because I/O devices must be paused and unpaused. Typically, a quiescent state lasts longer than two minutes.

Because quiescence has a noticeable impact, cfgadm requests confirmation before effecting quiescence. If you enter:

```
# cfgadm -c unconfigure N0.SB0
```

The system responds with a prompt for confirmation:

```
System may be temporarily suspended, proceed (yes/no)?
```

If you are using SunMC to perform the DR operation, a pop-up window displays this prompt.

Enter **yes** to confirm that the impact of the quiesce is acceptable, and to proceed.

Dynamic Reconfiguration Software Bugs

This section contains the synopses and Sun BugID numbers of the more important bugs that have been discovered during testing of DR. This list does not include all bugs.

Known Dynamic Reconfiguration Bugs

`cryptorand` Exited After Removing CPU Board With Dynamic Reconfiguration (BugID 4456095)

Description: If a system is running the `cryptorand` process, which is found in the SUNWski package, an unconfigure of memory, such as part of a CPU/Memory (SB) board disconnect, causes `cryptorand` to close with messages recorded in `/var/adm/messages`. This action denies random number services to secure sub-systems, and any memory present when `cryptorand` is started should not be unconfigured.

The `cryptorand` process supplies a random number for `/dev/random`. After `cryptorand` is started, the amount of time before `/dev/random` becomes available depends on the amount of memory in the system. It takes about two minutes per GB of memory. Applications that use `/dev/random` to get random numbers may experience temporary blockage. It is not necessary to restart `cryptorand` if a CPU/memory board is added to a domain.

Workaround: If a CPU/memory board is removed from the domain, restart `cryptorand` by entering the following command as superuser:

```
# sh /etc/init.d/cryptorand start
```

SBM Sometimes Causes System Panic During DR Operations (BugID 4506562)

Description: A panic may occur when a system board that contains CPUs is removed from the system while Solaris Bandwidth Manager (SBM) is in use.

Workaround: Do not install SBM on systems that will be used for DR trials, and do not perform CPU system board DR operations on systems with SBM installed.

DR Hangs During Configure Operation With IB Board With `vxdmpadm policy=check_all` (BugID 4509462)

Description: A DR configure operation hangs with an `IB`*x* (I/O) board after a few successful iterations. This situation occurs when the DR operation is executed concurrently with the DMP daemon that is implementing the policy `check_all` with a time interval.

Workaround: To avoid the deadlock between the DMP daemon and system board DR, enter the following command before performing DR operations. This command stops and re-starts the DMP daemon.

```
# /usr/sbin/vxdmpadm stop restore
```

Unable to Disconnect SCSI Controllers Using DR (BugID 4446253)

Description: When a SCSI controller is configured but not busy, it cannot be disconnected using the DR `cfgadm(1M)` command.

Workaround: None.

`cfgadm_sbd` Plugin in Multi-Threaded Environment Is Broken (BugID 4498600)

Description: When a multi-threaded client of the `cfgadm` library issues concurrent `sbd` requests, the system may hang.

Workaround: None. Currently there are no existing applications implementing multithreaded usage of the `cfgadm` library.

DR Operations Hang After a Few Loops When CPU Power Control Is Also Running (BugID 4114317)

Description: When multiple concurrent DR operations occur, or when `psradm` is run at the same time as a DR operation, the system can hang because of a mutex deadly embrace.

Workaround: Perform DR operations serially (one DR operation at a time); and allow each to complete successfully before running `psradm`, or before beginning another DR operation.

SC Console Bus ERROR Seen While SNMP Enabled and Running DR Suite (BugID 4485505)

Description: A console bus error message is occasionally generated during SNMP `get` operations on the `cpuModDescr` object. This occurs infrequently, and only when SunMC is monitoring a system. When the message does occur, `unknown` is returned to SunMC as the value of the `cpuModDescr` object.

Workaround: The only workaround is to not use SunMC. However, the message is harmless, and the problem occurs rarely, so it is safe simply to ignore it. The only risk is that the SunMC GUI may occasionally display the wrong value for `cpuModDescr`.

System May Panic When `send_mondo_set` Times Out (BugID 4518324)

A Sun Fire system may panic if one or more of the CPU boards are sync paused during a DR operation. Sync pause is required to attach or detach boards. If there are outstanding `mondo` interrupts, and for any reason the SC is not able to complete sync pause within the one-second `send_mondo timeout` limit, the system panics.

Sun Midrange Systems Open Issues

This chapter contains the latest information for the Sun Enterprise systems running the Solaris 8 operating environment. These include the Sun Enterprise 6500, 6000, 5500, 5000, 4500, 4000, 3500, and 3000 systems.

The Solaris 8 operating environment includes support for the CPU/memory boards and most I/O boards in the systems mentioned above.

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 the Solaris 8 HW 12/02 operating environment 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 Solaris 8 HW 12/02 operating environment includes support for CPU/memory boards and most I/O boards in 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 8" section on the following 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 a subsequently compatible version. For more information, refer to the "Solaris 8" section at the following web site:

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

PROM Updates for CPU and I/O Boards

Users of Solaris 8 HW 12/02 software who wish to use Dynamic Reconfiguration must be running CPU PROM version 3.2.22 (firmware patch ID 103346-xx) or a subsequently compatible version. This firmware is available from the Web site. See "How to Obtain Firmware" on page 71.

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: xxxxxxx.
```

How to Obtain Firmware

For information about updating your firmware, refer to the "Solaris 8" section at the
following Web site:

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

At this site, there is 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 superuser.**

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 command instead of the above 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* manual in the Solaris on Sun Hardware Collection AnswerBook set in this release.

Disabled Memory List

For information about the OpenBoot PROM `disabled-memory-list` setting, refer to the section "Specific NVRAM Variables" in the *Platform Notes: Sun Enterprise 3x00, 4x00, 5x00, and 6x00 Systems* in the Solaris on Sun Hardware Collection AnswerBook set in this release.

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 (BugID 4156075)" on page 75 and "DR: Cannot Unconfigure a CPU/Memory Board That Has Interleaved Memory (BugID 4210234)" on page 75.

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.

Known Bugs

The following list is subject to change at any time. For the latest bug and patch information, refer to:

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

`cfgadm -v` Not Working Properly (BugID 4149371)

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 (BugID 4156075)

Memory interleaving is left in an incorrect state when a Sun Enterprise *x*500 server is rebooted after 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 (BugID 4210234)" on page 75.

`vmstat` Output Is Incorrect After Configuring Processors (Bug ID 4159024)

`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  1  0  0   50   65   79  0  1 99
 0 0 0 413864 111056   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  286  101  200  0  3 97
 0 0 0 413864 111072   0  11  0  0  0  0  0  1  0  0 4294967216 43 68 0 0 100
```

Workaround: Restart `vmstat`.

DR: Cannot Unconfigure a CPU/Memory Board That Has Interleaved Memory (BugID 4210234)

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 (BugID 4156075)" on page 75 for a related discussion on interleaved memory.

DR: Cannot Unconfigure a CPU/Memory Board That Has Permanent Memory (BugID 4210280)

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 (BugID 4220105)

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.

Cannot Drain and/or Detach Sun Enterprise Server Boards That Host QFE Cards (BugID 4231845)

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

Workaround: 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
```

Sun Enterprise 10000 Release Notes

This chapter contains the release notes for the following features on the Sun Enterprise 10000 server: SSP 3.5, dynamic reconfiguration (DR), InterDomain Networks (IDNs), and the Solaris operating environment on Sun Enterprise 10000 domains.

SSP 3.5 Open Issues

For an overview of updated functionality in SSP 3.5, including open and fixed bugs, refer to the *SSP 3.5 Installation Guide and Release Notes*.

Check the SunSolve website on a regular basis for the SSP patches available for SSP 3.5:

```
http://sunsolve.Sun.com
```

If you need to install SSP software patches, be sure to install the patches on both the main and spare SSP, as explained in the *SSP 3.5 Installation Guide and Release Notes*.

Note – For the Solaris 8 HW 12/02 release, be aware that SSP Patch 112178-01 has been applied to the SSP 3.5 software. This patch fixes bug 4505031, which involves the repeated display of a prompt that asks whether the system is to be configured as an SSP for the Sun Enterprise 10000 server. This prompt appears after the installation of the Solaris operating environment. The patch does not affect basic SSP 3.5 software functionality.

`machine_server` Memory Leaks during multiple `hpost` Operations (Bug ID 4493987)

Memory leaks related to the `machine_server` daemon can occur after multiple `hpost` processes.

Workaround: If SSP performance is affected by this memory leak, stop and start SSP daemons. As superuser on the main SSP, type:

```
ssp# /etc/init.d/ssp stop
ssp# /etc/init.d/ssp start
```

`showdevices` Does Not Display Base Memory Address for System Board (Bug ID 4495747)

This bug causes the `showdevices` command to display incorrect memory base address information. See also BugID 4497243.

Workaround: Use `rcfgadm` along with the `-av` options to display memory base address information.

Dynamic Reconfiguration

Release notes and other technical information in this section apply only to the Solaris 8 2/02 version of the Sun Enterprise 10000 dynamic reconfiguration (DR) feature.

General Issues

This section contains general issues that involve DR on the Sun Enterprise 10000 server. You should read this section before you attempt to install or configure DR.

DR and Bound User Processes

For Solaris 8 HW 12/02, DR no longer automatically unbinds user processes from CPUs that are being detached. Users are now required to perform this operation themselves before initiating a detach sequence. The drain operation fails if CPUs are found with bound processes.

Problem with `oprom_checknodeid()` during DR (4474330)

A panic can occur under certain circumstances when the `/dev/openprom` interface accesses the PROM device tree after a DR disconnect. The `openprom` driver caches node information that can become invalid after a DR disconnect. As a result, OpenBoot PROM can be passed a bad node address.

Workaround: To minimize the possibility of encountering this situation, discontinue using applications, such as `prtconf`, that use the `/dev/openprom` interface during or immediately before or after a DR disconnect operation. Note that `picld`(1M) uses the `/dev/openprom` driver.

QFE Fails to Resume After DR Detach (4499428)

After the qfe driver is suspended during a DR operation quiesce of the Solaris operating environment, the qfe driver might not resume correctly. This results in a loss of network connectivity. If this condition occurs, the domain will still be accessible through the network console from the SSP.

Workaround: Reset the qfe device by executing the following sequence of commands from the network console:

```
# ifconfig qfe_device down
# ifconfig qfe_device up
```

Where *qfe_device* is the affected qfe device, e.g. `qfe0`.

Enabling DR 3.0 Requires an Extra Step in Certain Situations (Bug ID 4507010)

If you upgrade or perform a fresh install of the Solaris operating environment on a domain before you upgrade the SSP to SSP 3.5, the domain will not be properly configured for DR 3.0.

Workaround: Run the following command as superuser on the domain, after the SSP has been upgraded to SSP 3.5. This workaround is not necessary until DR 3.0 is enabled on the domain.

```
# devfsadm -i ngdr
```

InterDomain Networks (IDN)

General Issues

For a domain to become part of an IDN, all boards in that domain that have active memory must have at least one active CPU.

Solaris Operating Environment

This section contains general issues, known bugs, patches, and notes about the Solaris 8 HW 12/02 operating environment on the Sun Enterprise 10000 server.

General Issues

Alternate Pathing (AP), dynamic reconfiguration (DR), and InterDomain Networks are supported in the Solaris 8 HW 12/02 release.

Note – If you intend to use DR model 3.0 on a Sun Enterprise 10000 domain, you must install SSP 3.5 on your System Service Processor before you begin the fresh install or upgrade of the Solaris 8 HW 12/02 operating environment on that domain. SSP 3.5 supports the Solaris 8 HW 12/02 operating environment on Sun Enterprise 10000 domains.

⚠ Caution – Do not use the Solaris 8 HW 12/02 Installation CD to install or upgrade the Solaris operating environment on Sun Enterprise 10000 domains. Begin installation from the Solaris 8 HW 12/02 Software 1 of 2 CD, as explained in the *SSP 3.5 Installation Guide and Release Notes*.

Solaris 8 HW 12/02 and Boot-Disk Partition Sizes

If you are upgrading the operating environment from Solaris 2.6 to Solaris 8 HW 12/02 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 adjusts the affected file systems, and the upgrade continues. 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.

OpenBoot PROM Variables

Before you perform the boot net command from the OpenBoot PROM prompt (ok), you must verify that the local-mac-address? variable is set to *false*, which is the factory default. If the variable 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 OpenBoot PROM prompt to display the values of the OpenBoot PROM 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
```

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For inquiries please contact: Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, California 95054. (LFI#113569/Form ID#011801)

Released Patches Integrated into the Solaris 8 HW 12/02 Release

This is a list of officially released Solaris patches whose fixes are included in the Solaris 8 HW 12/02 release.

Solaris 8 HW 12/02 Patches

Patch-ID   : 108825-01
Keywords   : cfsadmin nsr cache cachefs
Synopsis   :
Obsoleted by: 110896-02 SunOS 5.8: /usr/lib/fs/cachefs/cfsadmin patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4207874

Patch-ID   : 108972-04
Keywords   : FAT32 create partition removable media fdisk zip eject remount
Synopsis   : SunOS 5.8: /sbin/fdisk patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4347145

Patch-ID   : 108977-01
Keywords   : libsmedia removable media Jaz vtoc
Synopsis   : SunOS 5.8: libsmedia patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4292214 4308431 4311553

Patch-ID   : 109027-01
Keywords   : tasks projects extended accounting wracct
Synopsis   : SunOS 5.8: /usr/bin/wracct patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4312278

Patch-ID   : 109037-01
Keywords   : tasks projects extended accounting ypnicknames
Synopsis   : SunOS 5.8: /var/yp/Makefile and /var/yp/nicknames patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4312278

Patch-ID   : 109043-02
Keywords   : TPI M_PROTO connect T_DISCON_IND T_CONN_REQ
ECONNREFUSED
Synopsis   : SunOS 5.8: sonode adb macro patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4322741

Patch-ID   : 109068-01
Keywords   : CDE japanese help update
Synopsis   : CDE 1.4: Update Japanese help files
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4302904

Patch-ID   : 109087-01
Keywords   : atok8 libXm terminate
Synopsis   : SunOS 5.8: atok8 terminates "Shell widget modeShell has zero..."
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4297016 4301750

Patch-ID   : 109094-01
Keywords   : localization update
Synopsis   : SunOS 5.8: localization updates for dhcpmgr, SEAM & disksuite
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4332978

Patch-ID   : 109128-01
Keywords   : arabic encoding 1256 iso8859-6
Synopsis   : SunOS 5.8: Provide conversion between codepages 1256 and
ISO8859-6

SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4301870

Patch-ID   : 109145-01
Keywords   : in.routed logical interfaces loopback
Synopsis   : SunOS 5.8: /usr/sbin/in.routed patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4319852

Patch-ID   : 109152-01
Keywords   : svctcp_create core malloc
Synopsis   : SunOS 5.8: /usr/4lib/libc.so.1.9 and /usr/4lib/libc.so.2.9 patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4128267

Patch-ID   : 109159-01
Keywords   : Mapping, converting
Synopsis   : SunOS 5.8: the mapping of zh_CN.euc%UTF-8 is consistent
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4337362 4334099

Patch-ID   : 109167-01
Keywords   : window list workspace manager removable media desktop help
Synopsis   : CDE 1.4: Desktop Help Updates Patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4307183 4319636

Patch-ID   : 109200-02
Keywords   : localization updates
Synopsis   : SunOS 5.8: l10n updates: Rem. Media, Window Mgr & Pam Proj
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4333002

Patch-ID   : 109255-01
Keywords   : dhcpmgr unlocalized buttons French
Synopsis   : SunOS 5.8: Unlocalized buttons on user-interface of dhcpmgr
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4324315

Patch-ID   : 109411-02
Keywords   : dtmail print garbage japanese
Synopsis   : SunOS 5.8: sdtname.dt and sdtprocess.dt japanese patch for sparc

SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4350277

Patch-ID   : 109452-01
Keywords   : Unlocalized buttons Sdtwinlst
Synopsis   : SunOS 5.8: Window List, buttons unlocalized in Options dialog
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4329351

Patch-ID   : 109454-01
Keywords   : fifofs fifo_fastturnoff fifo_poll STREAM fifonode
Synopsis   : SunOS 5.8: /kernel/fs/fifofs and /kernel/fs/sparcv9/fifofs patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4302216

Patch-ID   : 109470-02
Keywords   : DATA dtfile dat C locale messages substituted actions database
Synopsis   : CDE 1.4: Actions Patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4353583

Patch-ID   : 109552-01
Keywords   : UTF-8 unlocalized removable media manager
Synopsis   : SunOS 5.8: FIGSS-UTF.8, Removable media manager unlocalized
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4327983

Patch-ID   : 109564-01
Keywords   : Unlocalized error message German
Synopsis   : SunOS 5.8: Removable Media Mgr, Missing floppy error
unlocalized
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4329409

Patch-ID   : 109568-03
Keywords   : MOU3 sys-suspend speckeysd
Synopsis   : OpenWindows 3.6.2: sys-suspend need to support low power
mode
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4361324

Patch-ID   : 109573-01
Keywords   : dhcpmgr graphics help
Synopsis   : SunOS 5.8: dhcpmgr help graphics not displayed correctly
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4330902

Patch-ID   : 109576-01
Keywords   : parallel fscks ufs fsckall mountall
Synopsis   : SunOS 5.8: mountall and fsckall patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4260430

Patch-ID   : 109607-01
Keywords   : MB_CUR_MAX stdlib_iso __ctype
Synopsis   : Obsoleted by: 109607-02 SunOS 5.8:
/usr/include/iso/stdlib_iso.h patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4300780

Patch-ID   : 109609-01
Keywords   : UTF-8 Korean
Synopsis   : SunOS 5.8: UTF-8 Korean attached text becomes garbled
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4309015

Patch-ID   : 109618-01
Keywords   : cde dtfile rmm removable media manager greek unicode utf-8
en_US.UTF-8
Synopsis   : SunOS 5.8: en_US.UTF-8 locale patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4311444 4336840

Patch-ID   : 109622-01
Keywords   : zh_TW dtterm
Synopsis   : SunOS 5.8: env LANG=zh_TW dtterm doesn't work in partial
zh_TW.UTF-8
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4330770

Patch-ID   : 109642-01
Keywords   : eject remount rmformat zip media dkio.h
Synopsis   : SunOS 5.8: /usr/include/sys/dkio.h patch

SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4304790

Patch-ID   : 109727-01
Keywords   : pmclient.jar printmgr null pointer
Synopsis   : SunOS 5.8: /usr/sadm/admin/printmgr/classes/pmclient.jar
patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4326665

Patch-ID   : 109752-01
Keywords   : UI admintool zh_TW.BIG5/zh_TW.UTF-8
Synopsis   : SunOS 5.8: UI of admintool is lost in partial installation
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4347036

Patch-ID   : 109755-01
Keywords   : openwindows power management message japanese
Synopsis   : OpenWindows 3.6.1: (japanese) update for power mgt util for
s8u2
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4345748

Patch-ID   : 109766-02
Keywords   : JFP
Synopsis   : SunOS 5.8: SUNWjxmft and SUNWjxcft patch for 8/10 dot font.
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4400714

Patch-ID   : 109785-01
Keywords   : inittab filetype
Synopsis   : SunOS 5.8: /etc/inittab patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4273366

Patch-ID   : 109803-01
Keywords   : du size output
Synopsis   : SunOS 5.8: /usr/bin/du and /usr/xpg4/bin/du patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4306228

Patch-ID   : 109807-01
Keywords   : dumpadm min% 4GB
Synopsis   : SunOS 5.8: /usr/sbin/dumpadm patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4340246

Patch-ID   : 109809-01
Keywords   : timezone data Australasia
Synopsis   : SunOS 5.8: timezone data patch for Australasia
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4313766

Patch-ID   : 109813-01
Keywords   : memory.h
Synopsis   : SunOS 5.8: /usr/include/memory.h patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4313659

Patch-ID   : 109862-01
Keywords   : dumps core font server xfs zombie
Synopsis   : Obsoleted by: 109862-03 X11 6.4.1 Font Server patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4335328 4336593 4314299 4335325 4323233 4345905

Patch-ID   : 109872-01
Keywords   : GSR simulation VIS
Synopsis   : SunOS 5.8: vis driver patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4269556

Patch-ID   : 109876-02
Keywords   : floppy Super I/O dma_i8237A floppy
Synopsis   : SunOS 5.8: fd driver patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4382509

Patch-ID   : 109879-02
Keywords   : isadma PCI
Synopsis   : SunOS 5.8: isadma driver patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4358337

Patch-ID   : 109881-02
Keywords   : IEEE 1394 HCI1394_ISO_CTXT_BFFILL ixl1394_xmit_special
panic
Synopsis   : SunOS 5.8: 1394 adb macros patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4351774

Patch-ID   : 109890-01
Keywords   : pmserver.jar print manager
Synopsis   : SunOS 5.8: pmserver.jar patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4308951

Patch-ID   : 109892-03
Keywords   : security ecpp printer device node type M_CTL cpr untimeout
ECP
Synopsis   : SunOS 5.8: /kernel/drv/ecpp driver patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4375134 4380979

Patch-ID   : 109894-01
Keywords   : security bpp logical device namespace printer nodetype
Synopsis   : SunOS 5.8: /kernel/drv/sparcv9/bpp driver patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4309750

Patch-ID   : 109902-03
Keywords   : in.ndpd multipathing offlining IPMP
Synopsis   : SunOS 5.8: /usr/lib/inet/in.ndpd patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4386544

Patch-ID   : 109910-01
Keywords   : CDE help volumes
Synopsis   : CDE 1.3: help for Winlst, Rem. Media Mgr. & Workspace Mgr.
SunOs Release   : 5.7
Relevant Architectures : sparc
BugIds fixed with this patch :4329353 4339080 4329355

Patch-ID   : 109926-02
Keywords   : pem 3COM562 PCMCIA panic
Synopsis   : SunOS 5.8: /kernel/drv/pem and /kernel/drv/sparcv9/pem
patch

SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4352663

Patch-ID   : 109933-01
Keywords   : mv hang page_lock
Synopsis   : SunOS 5.8: mv, cp, ln patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4264701

Patch-ID   : 109936-01
Keywords   : diff case Swedish characters single-byte 8-bit Latin-1
Synopsis   : SunOS 5.8: /usr/bin/diff patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4338744

Patch-ID   : 109960-01
Keywords   : input chinese remote textfield memory leak leaks
Synopsis   : CDE 1.4: sdtperfmeter patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4341412 4290470 4280252

Patch-ID   : 109990-01
Keywords   : dis v8plusb elf header
Synopsis   : SunOS 5.8: /usr/ccs/bin/dis patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4015840 4350263

Patch-ID   : 109994-01
Keywords   : dis adb
Synopsis   : SunOS 5.8: /usr/bin/sparcv7/adb and /usr/bin/sparcv9/adb
patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4015840 4350263

Patch-ID   : 110044-01
Keywords   : zh.GBK iswalpha()
Synopsis   : SunOS 5.8: iswalpha() can't work well in zh.GBK locale
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4355229

Patch-ID   : 110065-01
Keywords   : install update u2
Synopsis   : SunOS 5.8: New features added to install
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4357775

Patch-ID   : 110075-01
Keywords   : security devinfo driver hardening
Synopsis   : SunOS 5.8: /kernel/drv/devinfo and
/kernel/drv/sparcv9/devinfo patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4341354

Patch-ID   : 110274-03
Keywords   : FIGGS Install New Features help
Synopsis   : SunOS 5.8: Figgs Custom install new features and install help
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4367029

Patch-ID   : 110320-01
Keywords   : t1394_detach() s1394
Synopsis   : SunOS 5.8: /kernel/misc/sparcv9/s1394 patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4362967

Patch-ID   : 110326-02
Keywords   : Screen savers LSARC TEC GWM Sdtwsm Stylemgr
Synopsis   : CDE 1.4: dtstyle patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4389935 4384360 4319599 4382452 4392829 4390631

Patch-ID   : 110364-02
Keywords   : sdttypesbinder L10N
Synopsis   : SunOS 5.8: Add L10N sdttypesbinder files
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4383627

Patch-ID   : 110379-01
Keywords   : littleneck gpio nexus
Synopsis   : SunOS 5.8: littleneck support, gpio patch

SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4339732 4336443 4341185

Patch-ID   : 110381-01
Keywords   : snapshots online ufsdump
Synopsis   : SunOS 5.8: ufssnapshots support, clri patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4296770

Patch-ID   : 110387-03
Keywords   : security snapshots online ufsdump mmap
Synopsis   : SunOS 5.8: ufssnapshots support, ufsdump patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4358666

Patch-ID   : 110407-02
Keywords   : Type editor CDE labels buttons file definition TCH SCH
Synopsis   : CDE 1.4 Sdttypes patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4374350

Patch-ID   : 110428-01
Keywords   : Turkish UTF-8 L10N
Synopsis   : SunOS 5.8: New Turkish UTF-8 locale
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4368177

Patch-ID   : 110458-02
Keywords   : security libcurses setupterm buffer overflow
Synopsis   : SunOS 5.8: libcurses patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4398331

Patch-ID   : 110461-01
Keywords   : ttcompat cmn_err CE_PANIC
Synopsis   : SunOS 5.8: ttcompat patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4335144

Patch-ID   : 110603-01
Keywords   : empty card file label open multiline note
Synopsis   : CDE 1.4: sdtname patch

SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4149628 4235799

Patch-ID   : 110611-01
Keywords   : lp.cat postio ECP
Synopsis   : SunOS 5.8: lp.cat and postio ECP patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4366956 4375449

Patch-ID   : 110670-01
Keywords   : security gettext rcp
Synopsis   : SunOS 5.8: usr/sbin/static/rcp patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4366956 4375449

Patch-ID   : 110716-02
Keywords   : product registry
Synopsis   : SunOS 5.8: Solaris Product Registry 3.0 patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4407526

Patch-ID   : 110724-01
Keywords   : CTL layout bidi CDE performance
Synopsis   : SunOS 5.8: liblayout patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4393355

Patch-ID   : 110745-01
Keywords   : Solaris Management Console European figss
Synopsis   : SunOS 5.8: toolbox syntax correction
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4391812 4391778 4391779 4391781

Patch-ID   : 110750-01
Keywords   : tcx s24 window
Synopsis   : SunOS 5.8: TCX Graphics Patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4349827

Patch-ID   : 110752-01
Keywords   : zh/zh_TW prodreg
Synopsis   : SunOS 5.8: Uninstaller doesn't come up with error messages

SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4389792

Patch-ID   : 110754-03
Keywords   : WBEM
Synopsis   : SunOS 5.8: WBEM messages updates for Asian ko/zh/zh_TW
locales
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4507096

Patch-ID   : 110756-02
Keywords   : DCL
Synopsis   : SunOS 5.8: DCL messages updates for Asian ko/zh/zh_TW
locales
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4404182 4507099

Patch-ID   : 110758-03
Keywords   : SMC
Synopsis   : SunOS 5.8: SMC messages updates for Asian ko/zh/zh_TW
locales
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4507101

Patch-ID   : 110766-03
Keywords   : JFP mp
Synopsis   : SunOS 5.8: SUNW0mp update
SunOs Release   : 5.8
Relevant Architectures :
BugIds fixed with this patch :4472652

Patch-ID   : 110811-01
Keywords   : library versioning libnls appcert
Synopsis   : SunOS 5.8: libnls patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4346460

Patch-ID   : 110815-01
Keywords   : library versioning libmp appcert
Synopsis   : SunOS 5.8: libmp patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4346496

Patch-ID   : 110822-01
Keywords   : mboxsc platform
Synopsis   : SunOS 5.8: mboxsc driver patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4363907

Patch-ID   : 110823-03
Keywords   : fcode platform
Synopsis   : SunOS 5.8: fcode patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4411034

Patch-ID   : 110824-02
Keywords   : fcpci platform
Synopsis   : SunOS 5.8: fcpci driver patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4405109

Patch-ID   : 110825-02
Keywords   : fcodem platform
Synopsis   : SunOS 5.8: fcodem driver patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4405109

Patch-ID   : 110831-02
Keywords   : cvc platform ioctls
Synopsis   : SunOS 5.8: /platform/SUNW,Sun-Fire-
15000/kernel/drv/sparcv9/cvc patch
SunOs Release   : 5.8
Relevant Architectures : sparc?
BugIds fixed with this patch :4370761 4396065

Patch-ID   : 110832-01
Keywords   : cvcredir platform
Synopsis   : SunOS 5.8: cvcredir patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4363907

Patch-ID   : 110837-03
Keywords   : efcode fcdriver fcode fcpackage fcthread interpreter
Synopsis   : SunOS 5.8: efcode patch

SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4393561 4393772 4398474

Patch-ID   : 110841-01
Keywords   : new platform gptwo
Synopsis   : SunOS 5.8: gptwo patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4369175 4381743

Patch-ID   : 110848-02
Keywords   : new platform pcicfg
Synopsis   : SunOS 5.8: pcicfg patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4405109

Patch-ID   : 110864-01
Keywords   : Thai upgrade
Synopsis   : SunOS 5.8: SUNW_PKGLIST fixes (ALC S8U4 packages for
SUNWCreq)
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4402062

Patch-ID   : 110867-01
Keywords   : 64bit upgrade SUNW_PKGLIST
Synopsis   : SunOS 5.8: SUNW_PKGLIST fixes (ALC S8U4 packages)
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4399082

Patch-ID   : 110885-01
Keywords   : JFP product registry
Synopsis   : SunOS 5.8: JFP Solaris Product Registry 3.0 patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4405721

Patch-ID   : 110888-01
Keywords   : New translations
Synopsis   : SunOS 5.8 : figgs, New and updated message strings
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4406660 4407100

Patch-ID   : 110896-01
Keywords   : mount point cachefs
Synopsis   : Obsoleted by: 110896-02 SunOS 5.8: /usr/lib/fs/cachefs/mount
patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4332446

Patch-ID   : 110901-01
Keywords   : sgen hang USCSI
Synopsis   : SunOS 5.8: /kernel/drv/sgen and /kernel/drv/sparcv9/sgen
patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4319695 4325990

Patch-ID   : 110907-01
Keywords   : UNIX98 inet.h in6_addr
Synopsis   : SunOS 5.8: /usr/include/arpa/inet.h patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4345816

Patch-ID   : 110910-01
Keywords   : fsck user confirmation
Synopsis   : SunOS 5.8: /usr/lib/fs/ufs/fsck patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4225018

Patch-ID   : 110914-01
Keywords   : tr core options
Synopsis   : SunOS 5.8: /usr/bin/tr patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4366964

Patch-ID   : 110939-01
Keywords   : closewtmp utmpx wtmpx
Synopsis   : SunOS 5.8: /usr/lib/acct/closewtmp patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4352064

Patch-ID   : 110943-01
Keywords   : security tcsh here documents tmpfiles
Synopsis   : SunOS 5.8: /usr/bin/tcsh patch

SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4384076

Patch-ID   : 111071-01
Keywords   : security cu uucp
Synopsis   : SunOS 5.8: cu patch
SunOs Release   : 5.8
Relevant Architectures : sparc
BugIds fixed with this patch :4406722