



Solaris 10 10/09 Release Notes



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Preface

This document describes the Solaris 10 10/09 operating system. For information about the Solaris 10 3/05, Solaris 10 3/05 HW1, Solaris 10 3/05 HW2, Solaris 10 1/06, Solaris 10 6/06, Solaris 10 11/06, Solaris 10 8/07, Solaris 10 5/08, Solaris 10 10/08, and Solaris 10 5/09 releases, see the “Solaris 10 5/09 Release Notes”, Sun part number 820–7273.

The *Solaris 10 10/09 Release Notes* contain installation and runtime problem details. Also included are end-of-software support statements for the Solaris™ 10 Operating System.

For the latest version of the Solaris 10 10/09 Release Notes document, search for Solaris 10 10/09 Release Notes on <http://docs.sun.com>.

Note – This Solaris release supports systems that use the SPARC® and x86 families of processor architectures: UltraSPARC®, SPARC64, AMD64, Pentium, and Xeon EM64T. The supported systems appear in the *Solaris 10 Hardware Compatibility List* at <http://www.sun.com/bigadmin/hcl>. This document cites any implementation differences between the platform types.

In this document the term “x86” refers to 64-bit and 32-bit systems manufactured using processors compatible with the AMD64 or Intel Xeon/Pentium product families. For supported systems, see the *Solaris 10 Hardware Compatibility List*.

Who Should Use This Book

These notes are for users and system administrators who install and use the Solaris 10 software.

Related Books

You might need to refer to the following documentation when you install Solaris software:

- Java Desktop System Release 3 Solaris 10 Collection
- *Solaris 10 Start Here* card
- *Solaris 10 10/09 What's New*
- *Solaris 10 10/09 Installation Guide: Basic Installations*

- *Solaris 10 10/09 Installation Guide: Planning for Installation and Upgrade*
- *Solaris 10 10/09 Installation Guide: Solaris Live Upgrade and Upgrade Planning*
- *Solaris 10 10/09 Installation Guide: Network-Based Installations*
- *Solaris 10 10/09 Installation Guide: Custom JumpStart and Advanced Installations*
- *Solaris 10 10/09 Patch List*
- *Solaris 10 System Administrator Collection*

For information on current CERT advisories, see the official CERT web site at <http://www.cert.org>.

For some hardware configurations, you might need supplemental hardware-specific instructions for installing the Solaris software. If your system requires hardware-specific actions at certain points, the manufacturer of your hardware has provided supplemental Solaris installation documentation.

Third-Party Web Site References

Third-party URLs are referenced in this document and provide additional, related information.

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Documentation, Support, and Training

The Sun web site provides information about the following additional resources:

- [Documentation \(http://www.sun.com/documentation/\)](http://www.sun.com/documentation/)
- [Support \(http://www.sun.com/support/\)](http://www.sun.com/support/)
- [Training \(http://www.sun.com/training/\)](http://www.sun.com/training/)

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Typographic Conventions

The following table describes the typographic conventions that are used in this book.

TABLE P-1 Typographic Conventions

Typeface	Meaning	Example
AaBbCc123	The names of commands, files, and directories, and onscreen computer output	Edit your <code>.login</code> file. Use <code>ls -a</code> to list all files. <code>machine_name%</code> you have mail.
AaBbCc123	What you type, contrasted with onscreen computer output	<code>machine_name%</code> su Password:
<i>aabbcc123</i>	Placeholder: replace with a real name or value	The command to remove a file is <i>rm filename</i> .
<i>AaBbCc123</i>	Book titles, new terms, and terms to be emphasized	Read Chapter 6 in the <i>User's Guide</i> . <i>A cache</i> is a copy that is stored locally. Do <i>not</i> save the file. Note: Some emphasized items appear bold online.

Shell Prompts in Command Examples

The following table shows the default UNIX® system prompt and superuser prompt for the C shell, Bourne shell, and Korn shell.

TABLE P-2 Shell Prompts

Shell	Prompt
C shell	<code>machine_name%</code>
C shell for superuser	<code>machine_name#</code>

TABLE P-2 Shell Prompts *(Continued)*

Shell	Prompt
Bourne shell and Korn shell	\$
Bourne shell and Korn shell for superuser	#

Installation Issues

This chapter provides information and describes issues that relate to the installation of the Solaris 10 Operating System.

Note – To see which bugs and issues are fixed and no longer apply to the Solaris 10 10/09 software, refer to [Appendix A, “Table of Integrated Bug Fixes in the Solaris 10 Operating System.”](#)

General Information

This section provides general information such as behavior changes in Solaris 10 OS.

BIOS and Firmware Upgrade

The Solaris 10 10/09 release of Solaris is tested on all supported Sun systems running the latest combinations of the following:

- BIOS and ILOM
- SPARC Firmware and OBP and Hypervisor

For best results using the Solaris 10 10/09 release, upgrade your BIOS/Firmware to the latest release listed in the matrix at http://www.sun.com/bigadmin/patches/firmware/release_history.jsp.

New Memory Requirements

The following are the minimum and recommended memory requirements for the Solaris 10 10/09 release:

- For UFS root file systems:

- 384 Mbytes of minimum memory
- 512 Mbytes is the recommended memory
- For ZFS root file systems:
 - 786 Mbytes of minimum memory
 - 1 Gbyte of memory is recommended for overall ZFS performance

Changes in Upgrade Support for Solaris Releases

Starting with the Solaris 10 8/07 release, for SPARC systems, you can upgrade the Solaris OS only from the following releases:

- Solaris 8 OS
- Solaris 9 OS
- Solaris 10 OS

For x86 systems, you can upgrade the Solaris OS only from the following releases:

- Solaris 9 OS
- Solaris 10 OS

To upgrade releases previous to the Solaris 8 software to the Solaris 10 10/09 software, upgrade to any of the releases in the preceding list first. Then upgrade to the Solaris 10 10/09 release.

Support for Products Not Part of the Solaris OS

The Solaris 10 10/09 has been tested for compatibility with previous releases in line with Solaris's compatibility guarantee. This means that applications, including third party applications, which adhere to Solaris's published ABI will work without modification on the Solaris 10 10/09 release. For more information, see the Solaris Application Guarantee Program at <http://www.sun.com/software/solaris/guarantee.jsp>.

Your system might run both a Solaris OS and other products that are not part of the Solaris software. These products might be supplied by either Sun or another company. If you upgrade this system to the Solaris 10 release, make sure that these other products are also supported on the Solaris 10 OS. Depending on the status of each of these products, you can perform one of the following options:

- Verify that the existing version of the product is supported on the Solaris 10 software.
- Install a new version of the product that is supported on the Solaris 10 release. You might need to remove the previous version of the product prior to upgrading to the Solaris software. See the product documentation for more details.
- Remove the product prior to upgrading to the Solaris 10 software.

Before You Begin

This section contains critical installation issues that you need to be aware of before installing or upgrading to Solaris 10 OS. These issues might have an impact that would prevent installation or upgrades from completing successfully. If bugs in this section apply to your system, you might need to perform the recommended workarounds before you install or upgrade.

Solaris Live Upgrade and Solaris Zones

Starting with the Solaris 10 8/07 release, using Solaris Live Upgrade with Solaris zones is supported. For more information about this, see InfoDoc 206844 at <http://sunsolve.sun.com/search/document.do?assetkey=1-61-206844-1>.

Solaris Live Upgrade Restrictions

For Solaris Live Upgrade to operate correctly, a limited set of patch revisions must be installed for a given OS version. Make sure you have the most recently updated patch list by consulting <http://sunsolve.sun.com>. The Solaris 10 10/09 release has the following Solaris Live Upgrade restrictions:

- To upgrade your current Solaris 8 OS to the Solaris 10 10/09 release using Solaris Live Upgrade, perform the following steps:
 - For SPARC systems– Solaris Live Upgrade from the Solaris 8 release to the Solaris 10 10/09 release is supported. For step-by-step procedures on how to use Solaris Live Upgrade, see http://www.sun.com/bigadmin/features/articles/live_upgrade_patch.jsp.
 - For x86 systems– Solaris Live Upgrade from the Solaris 8 release to the Solaris 10 10/09 release is not supported. Instead, use the standard upgrade procedure or perform a Solaris Live Upgrade from the Solaris 8 OS to the Solaris 9 OS or to the Solaris 10 OS. Then you can perform a Solaris Live Upgrade from the Solaris 9 release or the Solaris 10 release to the Solaris 10 10/09.

Note – Solaris Live Upgrade from Solaris 8 to the Solaris 10 5/08, Solaris 10 10/08, Solaris 10 5/09, and Solaris 10 10/09 releases is supported through <http://sunsolve.sun.com/search/document.do?assetkey=1-9-250526-1>.

- To upgrade your current Solaris 9 OS to the Solaris 10 10/09 release using Solaris Live Upgrade, apply the following patches:
 - For SPARC systems– 137477-01 or later
 - For x86 systems– 137478-01 or later

- To upgrade your current Solaris 10 OS to the Solaris 10 10/09 release by using Solaris Live Upgrade, apply the following patches:
 - For SPARC systems– 137321-01 or later
 - For x86 systems– 137322-01 or later

These patches provide the new p7zip functionality. Solaris Live Upgrade requires p7zip functionality in order to support upgrade to Solaris 10 10/09.

Note – The minimum required patch information for the live boot environment, prior to using Solaris Live Upgrade is provided in Infodoc 206844 at <http://sunsolve.sun.com/search/document.do?assetkey=1-61-206844-1>.

Using Solaris Live Upgrade With a Zone Root on a ZFS File System

The Solaris 10 10/09 release provides the ability to install a ZFS root file system and configure a zone root on ZFS. Typically, you can create and configure a zone root on ZFS as you wish. If you plan to use Solaris Live Upgrade with ZFS and zone configurations, review the following information:

- If you want to use Solaris Live Upgrade with zone configurations that are supported in the Solaris 10 10/09 release, you will need to first upgrade your system to the Solaris 10 10/09 release by using the standard upgrade program.
- Then, with Solaris Live Upgrade, you can either migrate your UFS root file system with zone roots to a ZFS root file system or you can upgrade or patch your ZFS root file system and zone roots.
- You cannot migrate unsupported zone configurations from a previous Solaris 10 release directly to the Solaris 10 10/09 release.

For a detailed description of supported zone configurations to be upgraded or patched in the Solaris 10 10/09 release, see “[Migrating a UFS Root File System to a ZFS Root File System \(Solaris Live Upgrade\)](#)” in *Solaris ZFS Administration Guide*.

For complete instructions on setting up these configurations, see “[Solaris Installation and Solaris Live Upgrade Requirements for ZFS Support](#)” in *Solaris ZFS Administration Guide*.

Review the information in this chapter before you begin your migration to a ZFS root file system or before setting up zones on a system with a ZFS root file system. Follow the recommended procedure exactly to set up zones on a system with ZFS root file system to ensure that you can use Solaris Live Upgrade on that system.

Upgrading a Solaris Trusted Extensions System That is Configured with Labeled Zones

Solaris systems that are configured with Solaris Trusted Extensions use non-global zones. Upgrading these systems is the same as upgrading a Solaris system that uses zones, and has the same issues.

- **ZFS Zones**– Solaris systems with ZFS zones cannot currently be upgraded. For Solaris Trusted Extensions systems with ZFS zones, the alternative is to recreate the zones. To recreate the zones, perform these steps:
 1. First, back up all the data using the `tar -T` command.
 2. Then delete the zones.
 3. Upgrade the system and reconfigure all the zones.
 4. After all the zones are configured, restore all the data.
- **NFSv4 domain**– After upgrade, when you bring up each labeled zone, you will be prompted for the NFSv4 domain. To avoid this prompt, before upgrade add the correct `NFSMAPID_DOMAIN` value in the `/etc/default/nfs` file in each labeled zone. For more information, see CR 5110062.
- **Live Upgrade**– The following bug affects Live Upgrade of Solaris systems with zones:
 - [“lucreate and lumake Commands Fail to Create a Copy of a Non-Global Zone Which Is Not in Running State \(6659451\)” on page 46](#)

These bugs will also affect the Live Upgrade of systems that are configured with Solaris Trusted Extensions. The workarounds are also the same.

- **Name Service**– If your system was configured at install time to use a name service that is different from the name service being used during upgrade, then the global zone may use the correct name service after boot.

For example, if you specified NIS as the name service to use during system install, but the system was later converted to be an LDAP client, the `luactivate boot` can revert to using NIS as the name service for the global zone. This is due to CR 6569407.

The workaround is to adjust the `name_service.xml` symbolic link in the `/var/svc/profile` directory to point to the correct xml file corresponding to the name service currently in use. For example, if NIS was specified as the name service during install, then `name_service.xml` will be a symbolic link to `ns_nis.xml`. If the system was subsequently converted to being an LDAP client, and LDAP was the name service in use during Live Upgrade, then run the following command:

```
# ln -fs ns_ldap.xml name_service.xml
```

This should be done before starting Live Upgrade or before running the `lucreate` command. However, if you did not run this command before `lucreate`, then perform the following steps after running the `luactivate` command:

1. `lumount` the new boot environment:

```
# lumount <BE_name>
```

2. Change to the `/var/svc/profile` directory of the boot environment:

```
# cd /.alt.<BE_name>/var/svc/profile
```

3. Link the `name_service.xml` link as appropriate. For example:

```
# ln -fs ns_ldap.xml name_sevice.xml
```

4. `luumount` the boot environment:

```
# luumount <BE_name>
```

Note – If the system is booted without performing the steps mentioned above, you will need to manually start the appropriate name service-related SMF client services.

Patching Miniroot on SPARC and x86 Machines

The procedures for using `patchadd` with the `-C` destination specifier to patch a miniroot on SPARC and x86 machines have changed. You must now unpack the miniroot, apply patches, then repack the miniroot.

See the following for the detailed steps:

- Chapter 5, “Installing From the Network With DVD Media (Tasks),” in *Solaris 10 10/09 Installation Guide: Network-Based Installations*
- Chapter 6, “Installing From the Network With CD Media (Tasks),” in *Solaris 10 10/09 Installation Guide: Network-Based Installations*
- Chapter 7, “Patching the Miniroot Image (Tasks),” in *Solaris 10 10/09 Installation Guide: Network-Based Installations*

Solaris Data Encryption Supplement on Solaris 10 Updates

Starting with the Solaris 10 8/07 release, the Solaris Data Encryption Supplement packages are included by default with the Solaris 10 OS software. You no longer need to install and download these packages.

Additional Procedures Required When Installing GNOME Display Manager Patches for Solaris 10 10/09 Release

The following patches are applied to resolve problems that were reported in CR 6277164 and CR 6214222:

- Patch ID 119366-05 for SPARC based systems
- Patch ID 119367-05 for x86 based systems

The sections that follow provide further steps that you must perform to completely resolve the reported problems. For more information, read the Special Install Instructions section of the patch README for these patches.

x86: Systems With `elx` or `pcelx` NICs Fail Network Configuration

Systems with an `elx` or a `pcelx` network interface card (NIC) fail to install. During the configuration of the NIC, the following error message might be displayed:

```
WARNING: elx: transmit or jabber underrun: d0<UNDER, INTR, CPLT>
```

See the [`elxl\(7D\)`](#) or [`pcelx\(7D\)`](#) man page for more information.

Workaround: Install and run on systems that do not have `elx` or `pcelx` NICs.

Default Size of `/var` File System Inadequate

The default size of the `/var` file system might be insufficient if the `/var` file system is located on a separate slice.

You must manually specify a larger slice size for the `/var` file system.

Note – If the `/var` file system is not on a separate slice or partition, this problem does not occur.

Workaround: Choose one of the following workarounds.

- If you are using the Solaris installation program GUI, follow these steps.
 1. Begin the installation.
 2. From Select Type of Install, select Custom Install.

The Solaris installation program displays several screens that enable you to customize the software localizations, products, and disk layout that you want to install.

3. From Lay Out File Systems, select Modify.
The disk layout screen is displayed.
 4. Type `/var` in the File System column for a specific slice, then click Apply.
The installation program suggests a default size for the `/var` file system.
 5. Edit the Size column entry for the `/var` file system to twice the disk space size.
For example, if the installation program assigns 40 Mbytes of space, change the Size value to 80.
 6. Complete the installation.
- If you are using the Solaris installation program's text installer, follow these steps.
 1. Begin the installation.
 2. From Select Type of Install, select Custom Install.
The Solaris installation program displays several screens that enable you to customize the software localizations, products, and disk layout that you want to install.
 3. From Lay Out File Systems, select Auto Layout.
The disk layout screen is displayed.
 4. Type `/var` in the File System column for a specific slice.
The installation program suggests a default size for the `/var` file system.
 5. Press `F4_Customize` to customize the size of the `/var` file system.
 6. Edit the Size column entry for the `/var` file system to twice the disk space size.
For example, if the installation program assigns 40 Mbytes of space, change the Size value to 80.
 7. Complete the installation.
 - If you are using the custom JumpStart program, use the `filesys` profile keyword to set the size of the `/var` file system. The following example sets the size of the `/var` file system on slice 5 to 256 Mbytes.

```
filesys c0t0d0s5 256 /var
```

x86: Do Not Upgrade Hewlett-Packard (HP) Vectra XU Series Systems With BIOS Version GG.06.13

The Solaris 10 software includes a feature that enables you to install large partitions. The system BIOS must support logical block addressing (LBA). BIOS Version GG.06.13 does not support LBA access. The Solaris boot programs cannot manage this conflict. This issue can also affect other HP Vectra systems.

If you perform this upgrade, your HP system can no longer boot. Only a blank black screen with a flashing underscore cursor is displayed.

Workaround: Do not upgrade HP Vectra XU Series systems with the latest BIOS Version GG.06.13 to the Solaris 10 release. This version no longer supports these systems.

You can still boot your system by using the boot diskette or boot CD because the boot paths do not use the hard disk code. Then select the hard disk as your bootable device instead of the network or CD-ROM drive.

SPARC: Older Firmware Might Need Boot Flash PROM Update

On SPARC based systems, Solaris 10 OS runs in 64-bit mode only. Some Sun4U™ systems might need to be updated to a higher level of OpenBoot™ firmware in the flash PROM to run the OS in 64-bit mode. The following systems might require a flash PROM update:

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

The following table lists the UltraSPARC systems and the minimum firmware versions that are required to run the 64-bit Solaris 10 OS. *System type* is the equivalent of the output of the `uname -i` command. You can determine which firmware version you are running by using the `prtconf -V` command.

TABLE 1-1 Minimum Firmware Versions Required to Run 64-Bit Solaris Software on UltraSPARC Systems

System Type From <code>uname -i</code>	Minimum Firmware Version From <code>prtconf -V</code>
SUNW,Ultra-2	3.11.2
SUNW,Ultra-4	3.7.107
SUNW,Ultra-Enterprise	3.2.16

If a system is not listed in the previous table, the system does not need a flash PROM update. For instructions to perform a flash PROM update, see any edition of the Solaris 8 Sun Hardware Platform Guide at <http://docs.sun.com>.

Note – Upgrading firmware on both SPARC and x86 systems can lead to significant performance improvements. See the Firmware section on the BigAdmin Patching Hub at <http://www.sun.com/bigadmin/patches/overview.jsp>. See also, the FAQ at <http://www.sun.com/bigadmin/patches/firmware/faq.jsp>.

Solaris Management Console 2.1 Software Is Not Compatible With Solaris Management Console 1.0, 1.0.1, or 1.0.2 Software

Solaris Management Console 2.1 software is not compatible with Solaris Management Console 1.0, 1.0.1, or 1.0.2 software. If you are upgrading to the Solaris 10 release, and you have Solaris Management Console 1.0, 1.0.1, or 1.0.2 software installed, you must first uninstall the Solaris Management Console software before you upgrade. Solaris Management Console software might exist on your system if you installed the SEAS 2.0 overbox, the SEAS 3.0 overbox, or the Solaris 8 Admin Pack.

Workaround: Choose one of the following workarounds:

- Before you upgrade, use the `/usr/bin/prodreg` command to perform a full uninstall of Solaris Management Console software.
- If you did not uninstall Solaris Management Console 1.0, 1.0.1, or 1.0.2 software before you upgraded to the Solaris 10 release, you must first remove all Solaris Management Console 1.0, 1.0.1, or 1.0.2 packages. Use the `pkgrm` command for package removal instead of the `prodreg` command. Carefully follow the order of package removal. Complete the following steps:

1. Become superuser.
2. Type the following command:

```
# pkginfo | grep "Solaris Management Console"
```

If the description does not start with “Solaris Management Console 2.1,” the package names in the output identify a Solaris Management Console 1.0 package.

3. Use the `pkgrm` command to remove all instances of Solaris Management Console 1.0 packages in the following order:

Note – Do not remove any package that has “Solaris Management Console 2.1” in its description. For example, SUNWmc . 2 might indicate Solaris Management Console 2.1 software.

If the `pkginfo` output displays multiple versions of Solaris Management Console 1.0 packages, use the `pkgrm` command to remove both packages. Remove the original package. Then, remove the package that has been appended with a number. For example, if the `SUNWmcman` and `SUNWmcman . 2` packages appear in the `pkginfo` output, first remove the `SUNWmcman` package and then remove the `SUNWmcman . 2` package. Do not use the `prodreg` command.

```
# pkgrm SUNWmcman
# pkgrm SUNWmcapp
# pkgrm SUNWmcsvr# pkgrm SUNWmcsvu
# pkgrm SUNWmc
# pkgrm SUNWmcc
# pkgrm SUNWmcsws
```

4. In a terminal window, type the following command:

```
# rm -rf /var/sadm/pkg/SUNWmcapp
```

The Solaris Management Console 2.1 software should now function properly. For future maintenance, or if the Solaris Management Console 2.1 software does not function properly, remove the Solaris Management Console 2.1 software. Reinstall the software by completing the following steps:

1. Use the `pkgrm` command to remove all Solaris Management Console 2.1 packages and dependent packages in the following order:

Note – If your installation has multiple instances of Solaris Management Console 2.1 packages, such as `SUNWmc` and `SUNWmc . 2`, first remove `SUNWmc`, and then `SUNWmc . 2`. Do not use the `prodreg` command.

```
# pkgrm SUNWpmgr
# pkgrm SUNWrmui
# pkgrm SUNWlvmg
# pkgrm SUNWlvma
# pkgrm SUNWlvmr
# pkgrm SUNWdcInt
# pkgrm SUNWmga
# pkgrm SUNWmgapp
# pkgrm SUNWmcdev
# pkgrm SUNWmcex
```

```
# pkgrm SUNWwbmc
# pkgrm SUNWmc
# pkgrm SUNWmcc
# pkgrm SUNWmccom
```

2. Insert the Solaris 10 Software - 4 CD into your CD-ROM drive. Type the following in a terminal window:

```
#
# cd /cdrom/cdrom0/Solaris_10/Product
# pkgadd -d . SUNWmccom SUNWmcc SUNWmc SUNWwbmc SUNWmcex SUNWmcdev \
  SUNWmgapp SUNWmga SUNWdcInt SUNWlvmr SUNWlvma SUNWlvmg SUNWpmgr \
  SUNWrmui
```

All previous Solaris Management Console versions are removed. The Solaris Management Console 2.1 software is now functional.

x86: Failure of BIOS Device Utility Prevents Installation or Upgrade From Being Completed (6362108)

On certain occasions, the utility for BIOS devices (`/sbin/biosdev`) might fail and prevent a successful installation or upgrade. The failure can occur under either of the following circumstances:

- Patch ID 117435-02 was applied, but the system was not rebooted.
- The system contains two or more identical disks that have identical `fdisk` partitions.

The following error message is displayed:

```
biosdev: Could not match any!!
```

Workaround: Make sure that you reboot the system after applying Patch ID 117435-02. Ensure that identical disks to be used in the installation or upgrade are configured with different `fdisk`-partition layouts.

The following example is based on a system that has two disks with identical `fdisk`-partition layouts. To change the layouts, perform the following steps.

1. Become superuser.
2. Start the disk maintenance utility.

```
# format
```

A list of available disks in the system is displayed.

3. To select the disk whose fdisk partition you want to change, type the disk's number.
4. From the list of Format options, select fdisk.
The disk's partition information and a list of fdisk options are displayed.
5. To change the disk's layout, choose one of the following:
 - To specify a different active partition, press 2.
 - To add another disk partition, press 1.
 - To delete an unused partition, press 3.
6. To save your changes and exit the fdisk menu, press 5.
7. To exit the disk maintenance utility, select Quit from the Format options.
8. Reboot the system.
9. After the system reboots, verify that the error message no longer appears. As superuser, type the following command:

```
# /sbin/biosdev
```

If the error message is still generated, repeat the procedure but select a different option in Step 5.

10. If the system contains other identical disks with identical fdisk-partition layouts, repeat Steps 1-9 on these disks. Otherwise, you can proceed with your Solaris installation or upgrade.

Cannot Create a Solaris Flash Archive When Solaris Zones Are Installed (6246943)

Starting with the current Solaris release, a Solaris Flash archive cannot be properly created when a non-global zone is installed. The Solaris Flash feature is not currently compatible with the Solaris containers (zones) feature.

Do not use the `flar create` command to create a Solaris Flash archive in these instances:

- In any non-global zone
- In the global zone if there are any non-global zones installed

If you create a Solaris Flash archive in such an instance, the resulting archive might not install properly when the archive is deployed.

Workaround: It might be possible to create a Solaris Flash archive of a system that has installed zones if they are all halted. For more information, see http://opensolaris.org/os/community/zones/faq/flar_zones/.

x86: Sun Java Workstations 2100Z Might Panic When Booting From Solaris 10 Operating System DVD (6214356)

The DVD combo-drive firmware in a Sun Java Workstation 2100Z might cause a system panic. The panic occurs when you boot the workstation from the Solaris 10 Operating System DVD. After the kernel banner is displayed, the following message is very quickly flashed:

```
panic[cpu0]/thread=fec1be20: mod_hold_stub:
Couldn't load stub module sched/TS_DTB
fec25cb0 genunix:mod_hold_stub+139 (fec04088, 63, fea11)
fec25cc4 unix:stubs_common_code+9 (1, 8, fec026e4)
fec25ce4 unix:disp_add+3d (fec026dc)
fec25d00 genunix:mod_installsched+a4 (fef01530, fef01518)
fec25d20 genunix:mod_install+2f (fef01518, fec25d3c,)
fec25d2c TS:_init+d (0, d6d89c88, fec25d)
fec25d3c genunix:modinstall+d9 (d6d89c88)
fec25d50 genunix:mod_hold_installed_mod+2e (d6d77640, 1, fec25d)
fec25d7c genunix:modload+ac (fec026c4, fec26c4)
fec25d98 genunix:scheduler_load+3d (fec026c4, fec026dc)
fec25db4 genunix:getcid+50 (fec026c4, fec28514)
fec25dcc unix:dispinit+df (fec25ddc, fe814ba9)
fec25dd4 unix:startup_modules+d5 (fec25dec, fe8cac37)
fec25ddc unix:startup+19 (fe800000, 166130, 7)
fec25dec genunix:main+16 ()
```

Then the system automatically resets.

Workaround: Choose one of the following options:

Workaround 1: Modify some BIOS configuration settings. This temporary workaround enables a Solaris 10 installation to be completed. However, this method might cause poor read-DVD performance. Follow these steps:

1. During system boot, press F2 at the prompt to enter the setup.

The screen displays attachment-type options similar to the following example:

```
Primary Master [ ]
Primary Slave [ ]
Secondary Master [CD-ROM]
Secondary Slave [ ]
```

2. Choose the DVD drive's attachment type by selecting the attachment type for CD-ROM.

Note – The screen might display more than one attachment type for CD-ROM, for example, if your system has multiple optical drives. In such cases, you might need to open the system case to determine the DVD drive's point of attachment. Make sure that you select the correct attachment type that applies to the DVD drive.

3. After selecting the correct CD-ROM attachment type, press Enter.
The next screen appears with Type: [Auto] automatically selected.
4. Press the spacebar twice to change the selection to Type: [CD-ROM].
5. Use the arrow keys to select Transfer Mode.
6. Press Enter to display a list of other Transfer Mode options.
7. Use the arrow keys to select Standard, then press Enter to accept your selection.
8. Press F10 to save the configuration changes and exit BIOS setup.

The system restarts.

Workaround 2: Update the DVD combo drive's firmware to v1.12. This option requires your DVD combo drive to be attached to a system that is running Microsoft Windows. Follow these steps.

1. Remove your DVD combo drive from the Sun Java Workstation 2100z. See the workstation's user's guide for steps to remove the drive properly.
2. Connect the drive to a system that is running Microsoft Windows. Make sure to change the drive's master and slave jumper settings, if needed.
3. Go to AOpen's download center at <http://download.aopen.com.tw/default.aspx>.
4. Search for your DVD drive's firmware by using the following information:
 - Product: Combo drives
 - Model: COM5232/AAH
 - Categories: Firmware
5. Download and install the firmware version R1.12.
6. Reinstall the drive on the workstation. If needed, restore the original master and slave jumper settings.

Note – Newer versions of the firmware might already be available at the site. Sun's tests confirm that the v1.12 release resolves the panic issue. Sun cannot confirm whether newer firmware revisions after v1.12 similarly resolve the problem.

x86: Serial Consoles of Some Sun Fire Systems Do Not Work (6208412)

The serial console (ttya) on the following Sun Fire systems does not work by default:

- Sun Fire V20z
- Sun Fire V40z
- Sun Fire V60x
- Sun Fire V65x

To use the serial console, you must manually configure the system's BIOS.

Workaround: This workaround requires your system to have a Sun keyboard and a display monitor. Follow these steps:

1. Boot the machine.
2. During system boot, press F2 at the prompt to access the Phoenix BIOS.
3. Under Peripherals, change the comm port from disabled to enabled.
4. Save the configuration and boot the system.
5. Use the eeprom command to change input-device and output-device to ttya.

Note – Pressing the Stop and N keys at system boot to reset the low-level firmware to default settings does not work on these systems.

Solaris Installation GUI Program Might Fail on Systems With Existing x86 fdisk Boot Partitions (6186606)

The Solaris installation GUI program might fail on a system with an existing x86 boot partition. The failure occurs if the existing x86 boot partition was created with the Solaris text-based installer. The following error message is displayed.

```
Default layout will not work on this system.
Error:
Error: ERROR: Could not create explicit fdisk partition on c0t0d0,
requested cylinders 14581 - 14597 in use by fdisk partition 1
Error:
Error: ERROR: System installation failed
Pfinstall failed. Exit stat= java.lang.UNIXProcess@a89ce3 2
artition on c0t0d0, requested cylinders 14581 - 14597 in use by fdisk
partition 1  ERROR: System installation failed
```

Workaround: Choose one of the following workarounds.

Workaround 1: When the installation program prompts you to select an installation type, select 3 Solaris Interactive Text (Desktop Session).

Workaround 2: If you use the Solaris installation GUI program, follow these steps.

1. Begin the installation.
2. At the prompt to select an installation type, select Custom Install.
The custom installation panels prompt you for information about the locales, software, and disks that you want to install.
3. Answer the questions on the screens as appropriate for your system.
4. On the Fdisk Selection screen, check the disk that contains the x86boot partition.
5. Remove the x86boot partition by changing it to UNUSED in the pull-down menu.
6. Add the x86boot partition back by changing UNUSED back to x86boot.
7. Continue the installation.

Installation Bugs

The following bugs might occur during or after the installation of Solaris 10 OS.

x86: GUI Installation Fails on Systems With Lesser Than 768 MB Memory

For GUI-based installation of the Solaris 10 10/09 OS, the system should have a minimum 768 MB of memory. If the physical memory is less than 786 MB, an error message similar to the following is displayed and the installation switches to text installation.

```
Not enough memory for graphical installation. Graphical installation
requires 768 MB of memory. Found 640 MB of memory.
Reverting to text-based installation.
```

Workaround: Ensure that you have 768 MB of memory for a GUI-based installation or upgrade.

SPARC: DSR Upgrade Might Cause System Failure (6883262)

Disk space reallocation (DSR) Upgrade using DVD or /net image might cause corruption of systems. Upgrade appears successful on the system console, but no packages are added after patch and package removal. After removal of patches or packages, the upgrade goes directly to creating boot blocks and reboots the system. As all packages, including ones that are necessary for booting, are removed and no packages are added, the system fails to boot. This failure is seen intermittently.

The following error message is displayed:

```
Can't open boot_archive
Fast Data Access MMU Miss
%TL:1 %TT:68 %TPC:f0009ca4 %TnPC:f0009ca8 %TSTATE:8840001600
%PSTATE:16 ( IE:1 PRIV:1 PEF:1 )
DTLB-MATCH:ffffffffffffe ( VA:-2000 CTX:0 )
```

Workaround: Use Solaris Live Upgrade in place of DSR upgrade for change disk allocation.

Installation Fails if /var Has Just Minimum or Recommended Disk Space (6873975)

On systems with low memory, installation might fail if either / or /var have just minimum or recommended disk sizes. The following error message is displayed:

```
Creating boot_archive for /a
updating /a/platform/sun4u/boot_archive
15+0 records in
15+0 records out
cat: write error: No space left on device
```

Workaround: Increase the size of /var to at least 300 Mbytes on low memory systems.

DSR Upgrade Fails Due to Auto-Layout Problem (6858233)

DSR upgrade fails on systems installed with a Solaris 10 release prior to the Solaris 10 10/09 release. This failure is due to an auto-layout problem. For example, if you install with the following profile:

```
install_type initial_install
  system_type standalone
  cluster cxall
  partitioning explicit
  filesys rootdisk.s0 auto / logging
  filesys rootdisk.s1 512 swap
  filesys rootdisk.s6 10240 /backup logging
  filesys rootdisk.s7 free
```

And, then you do DSR upgrade to the Solaris 10 10/09 release with the following profile:

```
install_type upgrade
  root_device rootdisk.s0
  backup_media local_filesystem /backup
  layout_constraint rootdisk.s0 changeable
  layout_constraint rootdisk.s7 available
```

The DSR upgrade fails with the following error message:

Auto-layout could not determine how to reallocate space on the file systems with the constraints you specified. Try other constraints

Workaround: Label the rootdisk.s1 and rootdisk.s6 slices as “changeable”. If an extra disk is available in the system, and there is sufficient space on an unused slice for a backup, then modify the <backup_media> keyword, as shown in the following example:

```
backup_media local_filesystem /dev/dsk/c0t1d0s7
```

In this example, disk c0t1d0s7 is the second disk available, and the disk has enough space for a backup. Alternately, if there is only one rootdisk in the system, perform the backup on a remote system. Use the following syntax:

```
backup_media remote_filesystem hostname:/export/backup
```

The DSR upgrade will succeed.

System Panic Due to lgrp_* Functions During OS Installation (6834743)

On multi-socket Nehalem systems, where DIMMs are installed on only one CPU, the system panics during boot with the following kernel panic error message:

```
Too many lgrps for platform (4)
```

Workaround: Disable the use of the ACPI System Resource Affinity Table (SRAT) by performing one of the following two options:

- Boot into kmdb(1) by adding '-k' to the GRUB menu kernel line, booting, and typing the following commands to kmdb(1):

```
lgrp_plat_srat_enable/W 0
:c
```

- When the system is booted, set the <lgrp_srat_enable> boot property to 0 using eeprom(1M). This setting disables the use of SRAT across reboots.

Localized Installation Note

Localized Solaris installer always runs in the EUC or ISO8859 locales. Thus, the install log is written in EUC or ISO8859 encoding.

Workaround: While performing localized CLI (command line interface) install through a terminal, the locale on the terminal must be EUC or ISO8859 locale.

SPARC: WAN Boot Installation Fails for Solaris 10 10/09

The installation fails, when installing WAN boot image from Solaris 10 10/09 release. The following error message is displayed:

```
boot_file=/wanboot/wanboot.u-137111-04
root_file=/miniroot/miniroot.s10-1008
```

Workaround: The Solaris 10 10/09 miniroot image must be patched to proceed with the installation. Perform the following steps to patch a network installation miniroot image:

Note – These steps assume that you have a system on your network that is running the current Solaris release, and that system is accessible over the network.

1. On a system that is running the current Solaris release, log in as superuser or assume an equivalent role.
2. Change to the Tools directory of the installation image you created.

```
# cd install-server-path/install-dir-path/Solaris_10/Tools
```

install-server-path Specifies the path to the install server system on your network, for example, /net/installserver-1.

3. Create a new installation image, and place that image on the system that is running the current Solaris release.

```
# ./setup_install_server remote_install_dir_path
```

remote_install_dir_path Specifies the path on the current Solaris release in which to create the new installation image.

This command creates a new installation image on the current Solaris release. In order to patch this image, you must temporarily place this image on a system that is running the current Solaris release.

4. On the current Solaris release, unpack the network installation boot archive.

```
# /boot/solaris/bin/root_archive unpackmedia remote_install_dir_path \
destination_dir
```

remote_install_dir_path Specifies the path to the network installation image on the current Solaris release.

destination_dir Specifies the path to the directory to contain the unpacked boot archive.

5. On the current Solaris release, patch the unpacked boot archive.

```
# patchadd -C destination_dir path-to-patch/patch-id
```

path-to-patch Specifies the path to the patch that you want to add, for example, `/var/sadm/spool`.

patch-id Specifies the patch ID that you want to apply.

You can specify multiple patches with the `patchadd -M` option. For more information, see [patchadd\(1M\)](#).



Caution – Don't use the `patchadd -C` command unless you have read the Patch README instructions or have contacted your local Sun support office.

6. On the current Solaris release, pack the boot archive.

```
# /boot/solaris/bin/root_archive packmedia remote_install_dir_path \
destination_dir
```

7. Copy the patched archives to the installation image on the install server.

```
# cd remote_install_dir_path
# find boot Solaris_10/Tools/Boot | cpio -pdum \
install-server-path/install_dir_path
```

x86: Solaris Flash Archive Installation Fails on Releases Before the Solaris 10 10/08 Release (6735181)

If you are installing a Solaris Flash archive from a release before the Solaris 10 10/08 release, the archive fails to install. Starting with the Solaris 10 10/08 release, if the archive is from the Solaris 10 10/08 release or later, the archive can be installed. The following error message is displayed:

```
bootadm: biodev command failed for disk:
/dev/dsk/<c0t2d0s0>.
bootadm: ls_bootdisk(): cannot determine BIOS disk ID "hd?" for disk:
/dev/dsk/<c0t2d0s0>
bootamd: get_grubroot(): cannot get (hd?, ?,?) for menu. menu not on bootdisk:
/dev/rdisk/<c0t2d0s0>
```

Workaround: Choose one of the following workarounds:

- Install a Solaris Flash archive from the Solaris 10 10/08 release or later.
- If you need to install a Solaris Flash archive from a previous release, boot from the previous release and extract the archive.

SPARC: Using WAN Boot Program to Directly Boot From Installation Media Fails (6734066)

Installation fails if you attempt to boot the system by using the following command:

```
# boot -F wanboot -vV -o prompt
```

As a result, a system panic occurs. The following error message is displayed:

```
wanboot: panic - boot: can't alloc ramdisk memory
```

This problem occurs on both Sun4u and Sun4v platform types. This problem was introduced in the Solaris 10 10/08 release.

Workaround: Do not use wanboot program to boot the system. Instead, boot the system directly from the installation media.

Some Asian Locales Cannot Be Used for Custom JumpStart (6681454)

Some Asian locales like, th_TH.ISO8859-11, th_TH.TIS620, ko_KR.EUC, ko_KR.UTF-8, zh_TW.EUC, zh_CN.EUC, zh_CN.GBK, and zh_CN.UTF-8 cannot be used while installing with Custom JumpStart. While setting locales in the sysidcfg file using the system_locale keyword, the following error message is displayed:

```
xx_xx.xxxxx is not a valid system locale
```

The JumpStart installation is stopped and Interactive installation starts.

Workaround: Use shorter locale names such as th_TH, ko, ko.UTF-8, zh_TW, zh, zh.GBK, and zh.UTF-8, instead of longer locale names,

PRODRM Has Problems Deleting prodreg Entry For Solaris Trusted Extensions (6616592)

While upgrading Solaris Trusted Extensions from the Solaris 10 11/06 or Solaris 10 8/07 release to the Solaris 10 10/08, Solaris 10 5/09 release or the current Solaris 10 10/09 release, the prodreg entry for Solaris Trusted extensions is not removed. No error message is displayed.

Workaround: After upgrading Solaris Trusted Extensions to the current release, remove the prodreg entry manually as follows:

```
# prodreg unregister -f -r -u "Solaris Trusted Extensions" -i 1
```

x86: NVidia SATA Controllers Do Not Support ATAPI Devices (6595488)

The driver for the NVidia SATA controller MCP55 and CK804 chipsets included in the Solaris 10 10/09 release does not support ATAPI CD/DVD devices.

During system installation or upgrade by using a SATA CD/DVD device, the Solaris installer starts and appears to function but fails with the following error messages:

```
ERROR: The disc you inserted is not a Solaris OS CD/DVD
```

Or

```
There were problems loading the media from /cdrom
```

During normal system operation, the SATA CD/DVD drive is not configured and cannot be used.

Workaround: Use the USB CD/DVD.

Sun Upgrade Detailed Patch Analysis Panel Not Scrollable (6597686)

During a Solaris upgrade, if you select Detailed Analysis to see the patches that will be removed, the panel that displays the patches is not scrollable. The complete list of patches to be removed cannot be viewed.

Workaround: Run the `analyze_patches` scripts manually:

```
# cd <cdrom>/Solaris_10/Misc
# ./analyze_patches -R rootdir -N netdir -D databasedir
```

The command options are as follows:

- R `rootdir` `rootdir` is the root of the installed system. The default root directory is `/`.
- N `netdir` `netdir` is the path to the root of the OS image to be installed.
 `/cdrom/cdrom0` is the default path. `netdir` is the path to the directory that contains the `Solaris_10_606` directory. You must use this option if you are running the `patch_analyzer` from an NFS mount point.
- D `databasedir` If the script is called from a directory other than the `/Misc` directory in the OS image, the program cannot find the database it uses for patch analysis. Use the `-D` option to supply the path to the database. Without this database, which is located in the `Solaris_10_606/Misc/database` directory on the OS image, the script will not run correctly.

Keyboard Layout Needs to be Selected Even Without a Keyboard Attached (6593071)

During a Solaris Serial installation, the system does not have an attached keyboard, but a prompt for selecting the keyboard layout is displayed.

Workaround: Select the keyboard layout. You can change the keyboard layout using the `kbd` command with `-s` option if needed when a keyboard is attached.

Panic in PCIe as `dev_info` Node Has No Parent Data (6517798)

The Solaris OS might panic with a null pointer dereference if the `driver.conf` file has been modified using the parent attribute. The following error message is displayed:

System panic: BAD TRAP: type=31 rp=2a101d31200 addr=8 mmu_fsr=0
occurred in module "pcie" due to a NULL pointer dereference

Workaround: Before you install the Solaris 10 10/09 OS on a PCI Express (PCIe) based SPARC system, check if you have modified the `driver.conf` files as described below:

1. Change to the `/kernel/drv` directory.
2. Check if the parent attribute is set in the `driver.conf` file. If the parent attribute has been set and the last node in the parent has the word `pci` in it, comment out that line. Ensure that you comment out the entire property. For example:

```
# name="ACME,simple" parent="/pci@7c0/pci@0/pci@9"
# unit-address="3,1" debug-mode=12;
name="ACME,example" parent="pseudo" instance=1;
name="ACME,scsi" parent="/pci@7c0/pci@0/pci@9/scsi"
unit-address="3,1" debug-mode=12;
```

3. Repeat step 2 for the `driver.conf` files in the following directories:
 - `/usr/kernel/drv`
 - `/platform/$(uname -i)/drv`
 - `/platform/$(uname -m)/drv`
4. Install the Solaris 10 10/09 OS.
5. Install patch 127747-01.
6. Change to the directories listed in steps 1 and 3. Uncomment all the lines that were commented out in step 2 in the `driver.conf` files.

The Linux Partition Does Not Display on the GRUB Menu After Installing the Solaris OS (6508647)

If Linux is installed on your disk and you installed the Solaris OS on a separate partition, the Linux partition does not display on the GRUB menu. No error message is displayed.

Workaround: Edit the GRUB menu's `menu.lst` file to add Linux to the GRUB menu. Perform the following steps:

1. Boot the Solaris OS.
2. Edit the `menu.lst` file at `/boot/grub/menu.lst`. For more information, see the [System Administration Guide: Basic Administration](#).

x86: Install Hangs on Systems With 512 Mbyte of Memory (6423854)

Installations can run out of memory and hang on 512-Mbyte systems under the following conditions:

- You install using a network installation image of the OS.
- The Solaris installation program is in a windowing environment:
 - The graphical user interface (GUI).
 - The -text option or “3. Solaris Interactive Text (Desktop session)” in the menu below.

When the system exhausts available memory, the GUI installation process slows and eventually fails. The text does not display in a windowing environment.

Workaround:

To avoid this problem, select a non-windowing environment during the initial installation startup. During startup from the installation media the following menu is displayed:

```
-----
1.      Solaris Interactive (default)
2.      Custom JumpStart
3.      Solaris Interactive Text (Desktop session)
4.      Solaris Interactive Text (Console session)
5.      Apply driver updates
6.      Single user shell
Enter the number of your choice.
-----
```

At this point, choose “4. Solaris Interactive Text (Console session)”. This non-windowing environment will initiate a text-only installation, without using memory-intense processes.

x86: Invalid /sbin/dhccpinfo Error During Installation (6332044)

If you install the Solaris 10 10/09 OS on an x86 based system, the following error message is displayed.

```
/sbin/dhccpinfo: primary interface requested but no primary interface is set
```

The error does not affect the installation, and the installation succeeds.

Workaround: Ignore the error message.

x86: Installation From CD Media Appears to Hang After Reboot Selection (6270371)

A problem might occur when you are using the Solaris installation program and are using CD media. After the installation of the Solaris software from the Solaris 10 10/09 Software CD - 4, the following prompt is displayed:

Press Reboot now to continue.

If you press Reboot, the system might not respond. The installation is successful. However, the error prevents the installation program from exiting normally. Consequently, the typical postinstallation cleanup and system reboot cannot occur.

An error message similar to the following example is logged in `/tmp/disk0_install.log` file:

```
Exception in thread "Thread-70" java.lang.IndexOutOfBoundsException:
Index: 6, Size: 5
    at java.util.ArrayList.add(ArrayList.java:369)
    at
com.sun.wizards.core.WizardTreeManager.
actualExitButtonPressed(WizardTreeManager.java:1499)
    at
com.sun.wizards.core.WizardTreeManager.
exitButtonPressed(WizardTreeManager.java:1486)
    at
com.sun.wizards.core.AutonextController.
run(AutonextController.java:736)
    at
java.lang.Thread.run(Thread.java:595)
```

Workaround: Choose one of the following workarounds.

- **Workaround 1:** Follow these steps.
 1. Shut down the system, then turn on the power again.
 2. After the system starts up, insert the appropriate CD at the prompt. Although the CD is inserted, no additional software is installed on the system. In a moment, the system reboots normally.
- **Workaround 2:** Follow these steps.
 1. Open a terminal window.
 2. Log in as superuser.
 3. Create or modify access to the `.instsuccess` file.

```
# touch /tmp/.instsuccess
```

4. Stop the Java process.

```
# pkill -9 java
```

The system reboots without prompting for the CD media.

x86: System Fails to Boot After Custom JumpStart Installation (6205478)

If you use the Custom JumpStart installation method to install on an x86 based system, and explicitly configure slice 2 as the overlap slice in the profile, an error occurs. The system does not reboot successfully after the installation is completed. The following error message is displayed:

```
Cannot find Solaris partition
```

This failure occurs because the overlap slice 2 (c0t0d0s2, for example) is set to begin at cylinder 1 rather than cylinder 0.

Workaround: In the Custom JumpStart profile, remove the filesys keyword entry that configures slice 2 as the overlap slice. For example, you would remove a keyword entry that is similar to the following entry.

```
filesys c0t0d0s2 all overlap
```

After you remove the entry, perform the Custom JumpStart installation.

Upgrade Issues and Bugs

Note – For the latest information about upgrade support beginning with the Solaris 10 10/09 release, see [“Changes in Upgrade Support for Solaris Releases” on page 18](#).

This section describes upgrade bugs. Some might occur while you are upgrading to Solaris 10 OS. Others might occur after you have completed upgrading.

Audio Devices Unavailable After Upgrade on Solaris Trusted Extensions Systems (6866818)

On systems configured for Solaris Trusted Extensions, audio devices are unavailable for allocation at user labels, after upgrading from the Solaris 10 5/08 or earlier releases to the Solaris 10 10/08 or later releases. This bug occurs because the `/etc/logindevperm` changes are lost during the upgrade. No error message is displayed.

Workaround: After upgrading, manually merge the `/etc/logindevperm.old` and `/etc/logindevperm` files to restore Solaris Trusted Extensions configuration changes to `logindevperm`.

SUNWsmbar Removes the `/etc/services` and `/etc/inet/services` Files During Upgrade (6756546)

During system upgrade to the Solaris 10 10/09 OS, the `/etc/services` and `/etc/inet/services` files are removed when the SUNWsmbar is installed. The following error messages are displayed on the system console upon reboot:

```
line1-v215 console login: Oct  6 15:40:57 inetd[457]: Property 'name' of instance
svc:/network/stdiscover:default is missing, inconsistent or invalid
Oct  6 15:40:57 inetd[457]: Property 'proto' of instance
svc:/network/stdiscover:default is missing, inconsistent or invalid
Oct  6 15:40:57 inetd[457]: Invalid configuration for instance
svc:/network/stdiscover:default, placing in maintenance
Oct  6 15:40:57 inetd[457]: Property 'name' of instance
svc:/network/stlisten:default is missing, inconsistent or invalid
Oct  6 15:40:57 inetd[457]: Property 'proto' of instance
svc:/network/stlisten:default is missing, inconsistent or invalid
Oct  6 15:40:57 inetd[457]: Invalid configuration for instance
svc:/network/stlisten:default, placing in maintenance
```

Workaround: To prevent removal of the `/etc/services` and `/etc/inet/services` during OS upgrade perform the following steps:

1. Stop all running Samba services:

```
#svcadm disable samba:default swat:default wins:default winbind:default
```

2. Uninstall the SUNWsmbar package before upgrading the OS:

```
#pkgrm SUNWsmbar
```

3. Upgrade the OS to the Solaris 10 10/09 release.

4. Re-install the SUNWsmbar package:

```
#pkgadd SUNWsmbar
```

shutdown Command Might Cause the System to Hang After Upgrade (6751843)

The shutdown command might cause the system to hang after it is upgraded to the Solaris 10 10/09 release. The hang occurs while the `svc.startd` daemon halts system services.

The Sun Java Web Console debug log file at `/var/log/webconsole/console/console_debug_log` displays if the web console service is cycling, starting and stopping.

Workaround: Type the following commands:

```
/usr/share/webconsole/private/bin/wcremove -i console  
svcadm clear system/webconsole:console  
smcwebserver start
```

Note – The `wcremove` command removes the server domain instance that was created for that specific console. When the console is restarted, a new domain instance is created.

lucreate and lumake Commands Fail to Create a Copy of a Non-Global Zone Which Is Not in Running State (6659451)

When the `lucreate` and `lumake` commands are used on non-global zones which are not in the running state, the commands might not execute successfully. The contents of the original non-global zone and the copy might differ. Users might be unable to log in to the zone's console using the `zlogin` command. The following error message is displayed while using the `zlogin` command:

```
zlogin: makeutx failed
```

The diagnostic output of the `lucreate` and `lumake` commands do not display any errors.

Workaround: Ensure that all non-global zones are in the running state before using the `lucreate` and `lumake` commands.

SPARC: Upgrading with Solaris Live Upgrade From Solaris 8 and Solaris 9 Releases Fails (6638175)

Upgrading to the Solaris 10 10/09 release using Solaris Live Upgrade, from the previous Solaris 8 and Solaris 9 releases fails. The install images compression file is now unzipped by using the 7za utility. The SUNWp7zip package is not included in the Solaris 8 and 9 releases. As a result, Solaris Live Upgrade fails.

Workaround: To upgrade your system to the Solaris 10 10/09 release using Solaris Live Upgrade from the previous Solaris 8 and Solaris 9 releases, perform the steps listed under [“Solaris Live Upgrade Restrictions” on page 19.](#)

Issues With DSR Upgrade With Zones (6616788)

Disk space reallocation (DSR) upgrade with zones fails if zones are installed in the /opt directory. Upgrade might fail during the restoration of the DSR archive. In some cases, the upgrade might be successful, but the system cannot be rebooted.

Workaround: Ensure that the root file system is not 100% full before upgrade. Remove some files before upgrade so that the root slice is less than 90% full.

Solaris Trusted Extensions Upgrade Issues (6616585)

When you upgrade Solaris Trusted Extensions from the Solaris 10 11/06 or Solaris 10 8/07 release to the Solaris 10 10/08, Solaris 10 5/09 release or the current Solaris 10 10/09 release, unwanted localized Solaris Trusted Extensions packages are installed on your system. This bug occurs because the Solaris Trusted Extensions installer in the Solaris 10 11/06 or Solaris 10 8/07 releases installs localized packages by default. No error message is displayed.

Workaround: Before upgrading Solaris Trusted Extensions to the current release, remove the following localized Solaris Trusted Extensions packages:

SUNWjdtts	SUNWkdtts
SUNWjmgts	SUNWkmgts
SUNWjtsman	SUNWktsu
SUNWjtsu	SUNWodtts
SUNWtgnome-l10n-doc-ja	SUNWtgnome-l10n-ui-ko
SUNWtgnome-l10n-ui-it	SUNWtgnome-l10n-ui-zhHK

SUNWtgnome-l10n-ui-sv	SUNWtgnome-l10n-ui-es
SUNWtgnome-l10n-doc-ko	SUNWtgnome-l10n-ui-ptBR
SUNWtgnome-l10n-ui-ja	SUNWtgnome-l10n-ui-zhTW
SUNWtgnome-l10n-ui-zhCN	SUNWtgnome-l10n-ui-fr
SUNWtgnome-l10n-ui-de	SUNWtgnome-l10n-ui-ru

System Cannot Communicate With ypbind After Upgrade (6488549)

This bug occurs during an upgrade from Solaris 10 Hardware 2 release to the current Solaris 10 10/09 release.

In the Solaris 10 Hardware 2 release, the `name_service.xml` file for any name service, such as NIS, NIS+, FILES, or LDAP is as follows:

```
# ls -l name_service.xml
lrwxrwxrwx  1 root    root      10 Apr 10 16:26 name_service.xml -> ns_files.xml
```

If the name service is NIS, the `name_service.xml` file links to `ns_files.xml`. However, the contents of the `ns_files.xml` are the same as `ns_nis.xml`.

```
# cat /etc/release
                Solaris 10 3/05 HW2 s10s_hw2wos_05 SPARC
        Copyright 2005 Sun Microsystems, Inc.  All Rights Reserved.
                Use is subject to license terms.
                Assembled 26 September 2005

# cd /var/svc/profile
# ls -l name_service.xml ns_files.xml ns_nis.xml
lrwxrwxrwx  1 root    other    12 May 21 04:06 name_service.xml -> ns_files.xml
-r--r--r--  1 root    sys      779 May 21 04:25 ns_files.xml
-r--r--r--  1 root    sys      779 Jan 21  2005 ns_nis.xml
#
# diff ns_files.xml ns_nis.xml
# diff name_service.xml ns_nis.xml
```

In the above output, the `ns_nis.xml` and `ns_files.xml` files are the same. This means that the `name_service.xml` file symbolically links to the wrong name service file. The `name_service.xml` file links to `ns_files.xml`. Instead, the `name_service.xml` file should link to the `ns_nis.xml`.

Note – The fix for CR 6411084, the SUNWcsr install or postinstall script, creates the correct link only if `name_service.xml` is not a link file. If `name_service.xml` is already a symbolic link file, as in the Solaris 10 Hardware 2 release, the fix for CR 6411084 will not work.

After an upgrade from Solaris 10 Hardware 2 to the current Solaris 10 10/09 release, the following message is displayed on the console or logged in the messages file:

```
Oct 23 12:18:45 vt2000a automount[301]: [ID 366266 daemon.error]
can't read nis map auto_master: can't communicate with ypbind - retrying
```

Also, the `/network/nis/client:default` service is offline.

Workaround: Choose one of the following workarounds:

- **Workaround 1:** Before an upgrade, remove the `/var/svc/profile/name_service.xml` file.
- **Workaround 2:** After an upgrade, change the `/var/svc/profile/name_service.xml` link to the correct `ns_<xxx>.xml` file, based on the name service.

Upgrade Fails on System With Zones That Have Been Installed But Not Booted

A non-global zone that has been installed but never booted or made ready prevents a system from being upgraded correctly. No error message is displayed.

Workaround:

If such a zone is found, the zone should be made ready and then halted prior to starting the upgrade. For example:

```
global# zoneadm -z myzone ready ; zoneadm -z myzone halt
```

Upgrading a Solaris 10 System with Non-Global Zones to the Solaris 10 10/09 Release Might Cause the Local File System Service to Fail (6428258)

Upgrading a Solaris 10 3/05 system or a Solaris 10 1/06 system to the Solaris 10 10/09 release with non-global zones might cause the SMF service that mounts local file systems to fail in the non-global zones. As a result, other services in the non-global zones might fail to start.

After upgrading a Solaris 10 system with non-global zones to the Solaris 10 10/09 release, services might be in the maintenance state. For example:

```
# zlogin myzone svcs -x
svc:/system/filesystem/local:default (local file system mounts)
State: maintenance since Wed May 24 13:18:06 2006
Reason: Start method exited with $SMF_EXIT_ERR_FATAL.
See: http://sun.com/msg/SMF-8000-KS
See: /var/svc/log/system-filesystem-local:default.log
Impact: 18 dependent services are not running. (Use -v for list.)
```

Workaround:

Reboot the non-global zone from the global zone. For example:

```
global# zoneadm -z myzone reboot
```

Device ID Discrepancies After Upgrading From Solaris 9 9/04 OS

In this Solaris 10 release, Solaris Volume Manager displays device ID output in a new format. Solaris 9 9/04 OS, which introduced device ID support in disk sets, does not recognize the new format. When you upgrade to Solaris 10 OS from the Solaris 9 9/04 release, device IDs that are associated with existing disk sets are not updated in the Solaris Volume Manager configuration. If you need to revert to Solaris 9 9/04 OS, configuration changes made to disk sets after the upgrade might not be available to Solaris 9 9/04 OS. For more information, see [Chapter 25, “Troubleshooting Solaris Volume Manager \(Tasks\),” in *Solaris Volume Manager Administration Guide*](#).

Solaris Live Upgrade `luupgrade` Command Missing the Progress Bar (6239850)

The upgrade progress bar does not appear when you use the Solaris Live Upgrade software in the following manner:

- You use the Solaris 10 10/09 CD media to upgrade the OS.
- You upgrade a boot environment by using the `luupgrade` command with the following options:
 - `-i` to install from the CD media
 - `-O “-nodisplay -noconsole”` to run the installer on the second CD in text mode and without user interaction
- You are upgrading to the Solaris 10 10/09 software from the following releases:
 - Solaris 9 release
 - Solaris 10 release

For example, if you run the following command, the progress bar should be displayed after you see the following output:

Running installer on BE s10u1.

However, the bar fails to appear.

```
# luupgrade -i -n s10u1 -s /net/installsrv/export/s10u1
-O "-nodisplay -noconsole"
```

```
Validating the contents of the media /net/installsrv/export/s10u1.
The media is a standard Solaris media.
The media contains a standard Solaris installer.
The media contains Solaris 3 version 10.
Mounting BE s10u1.
Running installer on BE s10u1.
```

No error message is displayed.

Workaround: Use the `prstat` command. This command enables you to watch the progress while packages are being added during the installation.

Obsolete Uninstallers Not Removed When You Use Solaris Live Upgrade to Upgrade From Previous Solaris Releases (6198380)

If you use Solaris Live Upgrade to upgrade from the Solaris 8 or Solaris 9 releases to Solaris 10 OS, obsolete uninstaller programs are not removed. These uninstaller programs from the previous OS remain in the system's `/var/sadm/prod` directory.

The following obsolete uninstallers are not removed.

```
uninstall_Alternate_Pathing_2_3_1.class
uninstall_CDRW_1_1.class o uninstall_CDRW_1_0.class
uninstall_Bonus_Localization_-_Catalan_CDE_Desktop.class
uninstall_Bonus_Localization_-_Polish_CDE_Desktop.class
uninstall_Bonus_Localizations_-_Russian_CDE_Desktop.class
uninstall_Capacity_on_Demand_1_0.class
uninstall_Java3D_1_3_1.class
uninstall_Java3D_1_3.class
uninstall_Java3D_1_2_1_04.class
uninstall_Java3D_1_2_1_03.class
uninstall_Lights_Out_Management_2_0.class
uninstall_Man_Page_Supplement.class
```

```
uninstall_OpenGL_1_3.class
uninstall_OpenGL_1_2_3.class
uninstall_Netra_ct_Platform_1_0.class
uninstall_Netra_tllxx_Alarms_2_0.class
uninstall_Netscape_6_2_3.class
uninstall_Netscape_6_2_1_Beta.class
uninstall_PC_launcher_1_0_2.class
uninstall_PC_launcher_1_0_1_PCfileviewer_1_0_1.class
uninstall_RSC_2_2_2.class
uninstall_RSC_2_2_1.class
uninstall_RSC_2_2.class
uninstall_ShowMeTV_1_3.class
uninstall_Solaris_9_French_Localization.class
uninstall_Solaris_9_German_Localization.class
uninstall_Solaris_9_Hong_Kong_Traditional_Chinese_Localization.class
uninstall_Solaris_9_Italian_Localization.class
uninstall_Solaris_9_Japanese_Localization.class
uninstall_Solaris_9_Korean_Localization.class
uninstall_Solaris_9_Simplified_Chinese_Localization.class
uninstall_Solaris_9_Spanish_Localization.class
uninstall_Solaris_9_Swedish_Localization.class
uninstall_Solaris_9_Traditional_Chinese_Localization.class
uninstall_Solaris_On_Sun_Hardware_Documentation.class
uninstall_Sun_Hardware_AnswerBook.class
uninstall_SunATM_5_0.class
uninstall_SunATM_5_1.class
uninstall_SunFDDI_PCI_3_0.class
uninstall_SunFDDI_SBus_7_0.class
uninstall_Sun_Fire_880_FC-AL_Backplane_Firmware_1_0.class
uninstall_Sun_Fire_B10n_Load_Balancing_Blade_1_1.class
uninstall_SunForum_3_1.class
uninstall_SunForum_3_2.class
uninstall_SunHSI_PCI_3_0.class
uninstall_SunHSI_SBus_3_0.class
uninstall_SunScreen_3_2.class
uninstall_SunVTS_5_1_PS6.class
uninstall_SunVTS_5_1_PS5.class
uninstall_SunVTS_5_1_PS4.class
uninstall_SunVTS_5_1_PS3.class
uninstall_SunVTS_5_1_PS2.class
uninstall_SunVTS_5_1_PS1.class
uninstall_SunVTS_5_0.class
uninstall_System_Management_Services_1_4.class
uninstall_System_Management_Services_1_3.class
uninstall_System_Management_Services_1_2.class
uninstall_System_Service_Processor_3_5.class
uninstall_WBEM_DR_1_0.class
uninstall_Web_Start_Wizards_SDK_3_0_2.class
```

```
uninstall_Web_Start_Wizards_SDK_3_0_1.class
uninstall_Web_Start_Wizards_SDK.class
uninstall_XML_Libraries_2_4_12.class
```

Workaround: After you upgrade the system, manually remove the obsolete uninstallers in the /var/sadm/prod directory.

Additional Installation Issues

This section describes issues that are related to the installation of the Solaris OS.

StarOffice and StarSuite Software Cannot Coexist in the Same System

When you install Solaris 10 OS, either the StarOffice or the StarSuite™ software is also automatically installed, depending on which language you select. The languages and the corresponding software that these languages support are listed as follows:

Selected Language	Supported Software
Chinese, Japanese, Korean	StarSuite
Other languages	StarOffice

StarOffice and StarSuite cannot coexist in the same system. If you want to replace a software that you accidentally installed, follow these steps.

1. Insert the Solaris 10 Software - 4 CD or Solaris 10 Operating System DVD in the drive.
2. Become superuser.
3. Change to the Product directory, for example, /cdrom/cdrom0/Solaris_10/Product.
4. Replace the software.
 - To replace StarOffice with StarSuite, use the following commands:

```
# pkgrm `pkginfo | grep staroffice- | awk '{print $2}'`
# pkgadd -d .SUNWstarsuite-*
```
 - To replace StarSuite with StarOffice, use the following commands:

```
# pkgrm `pkginfo | grep starsuite- | awk '{print $2}'`
# pkgadd -d . SUNWstaroffice-*
```

If you use Solaris CDs, the localization packages are included in either Language 1 or 2 CD. The package names are as follows:

- SUNWstaroffice-lang* where lang = es, fr, de, sv, or it
- SUNWstarsuite-lang* where lang = ja, ko, zh-CN, or zh-TW

Additional Related Locales Might Be Installed

When you select a locale for your installation, additional related locales might also be installed. This change in behavior occurs in the Solaris 10 release because all full locales, with message translations, and the Asian and Japanese partial locales, locale enabler, have been repackaged based on language support for locales. Other partial locales are still packaged and installed based on geographic region, such as Central Europe.

Solaris Runtime Issues

This chapter describes runtime issues that are known to be problems.

Note – To see which bugs and issues are fixed and no longer apply to the Solaris 10 10/09 software, refer to [Appendix A, “Table of Integrated Bug Fixes in the Solaris 10 Operating System.”](#)

Common Desktop Environment

The following bugs in Solaris 10 OS apply to the Common Desktop Environment (CDE).

Mozilla Crashes After Printing (6824695)

When you use Mozilla to print a page, Mozilla crashes once the page is printed. No error message is displayed.

Workaround: Use Firefox or Thunderbird instead of Mozilla.

Trusted Stripe Disappears From the Screen After Resolution Change (6460624)

When you type the `/usr/X11/bin/xrandr -s` command to set a smaller screen resolution, trusted stripe is no longer displayed. This affects the Trusted CDE Desktop but not the Trusted Java DS Desktop. No error message is displayed.

Workaround: After the resolution change, restart the Workspace Manager. Select **windows -> Restart Workspace Manager** from the CDE workspace menu and click OK.

x86: kdmconfig Command Does Not Create System Identification Configuration File for Xorg X Server (6217442)

If you use the JumpStart installation method, the process might use a system identification configuration (`sysidcfg`) file. This file is used to generate a specific Xsun configuration file for a system. The Xsun configuration portion of a `sysidcfg` file is created by the command `kdmconfig -d filename`. However, on systems that use the default Xorg server, the command does not create a file with any Xorg configuration information. Consequently, you cannot use the JumpStart method on these systems without some additional preparatory steps.

Workaround: Before using the JumpStart installation method on a system that uses the Xorg server, perform the following steps.

1. Prepare a specific `xorg.conf` file to be used on the system. Store this file in the JumpStart directory of the JumpStart server.

Create an `xorg.conf` file with one of these commands:

- `/usr/X11/bin/Xorg -configure`
- `/usr/X11/bin/xorgconfig`
- `/usr/X11/bin/xorgcfg`

2. Create a finish script that copies the `xorg.conf` file to the `/etc/X11` directory in the system that you want to install. For example, the script might include the following line:

```
cp ${SI_CONFIG_DIR}/xorg.conf /etc/X11/Xorg.conf
```

3. In the custom JumpStart rules file, include the finish script in the rules entry for systems of the type that you want to install.
4. Perform the custom JumpStart installation.

For instructions about how to perform a custom JumpStart installation, see the [Solaris 10 10/09 Installation Guide: Custom JumpStart and Advanced Installations](#). Chapter 4 includes information about the JumpStart rules file, while Chapter 5 contains a section about finish scripts.

File Systems

The following file system bugs apply to the Solaris 10 release.

zoneadm attach Fails and Mount Operation is Invalid for Branded Zones (6800618)

Attach operation fails on branded zones, although it succeeds on native (Solaris 10) zones. The following error message is displayed:

```
zone mount operation is invalid for branded zones.
Cannot generate the information needed to attach this zone.
```

Workaround: Use the attach -F command for non-native branded zones. For more information on this procedure, see *System Administration Guide: Solaris Containers--Resource Management and Solaris Zones*.

x86: Unable to Use reboot Command to Boot 32-Bit Kernel (6741682)

The bootadm command fails to construct a properly formatted GRUB menu entry when you boot a system in the 32-bit mode by using the following commands:

- reboot kernel/unix
- reboot -- -r

As a result, the system boots in the 64-bit mode. The faulty menu.lst file might appear as follows:

```
findroot rootfs0
kernel /platform/i86pc/kernel/unix
module /platform/i86pc/boot_archive
```

In the previous example, the kernel line does not contain the multiboot information and is therefore incorrect. No error message is displayed.

Workaround: Edit the /boot/grub/menu.lst file manually and add the following information:

```
title Solaris 10 10/08
findroot rootfs0
kernel /platform/i86pc/multiboot kernel/unix
module /platform/i86pc/boot_archive
```

After making these changes, the system boots in the 32-bit mode.

Note – The changes you make to the menu.lst file persist over system reboots.

Alternately, you can edit the GRUB menu at boot time, adding the kernel/unix boot argument, as shown in the following example:

```
grub edit> kernel /platform/i86pc/multiboot kernel/unix
```

Note – Changes made by editing the GRUB menu at boot time do not persist over system reboots.

For more information, see “[Modifying Boot Behavior on x86 Based Systems](#)” in *System Administration Guide: Basic Administration*.

zpool attach **Command Does Not Copy** bootblock Information (6668666)

If you use the `zpool attach` command to add a disk to a ZFS root pool, the bootblock information is not copied to the newly added disk. This problem does not affect mirrored ZFS root pools that are created with an initial installation. System does not boot from alternate disk in the mirrored root pool.

Workaround: Choose one of the following workarounds:

- On a SPARC system, identify the alternate disk device and install the boot information. For example:

```
# installboot -F zfs /usr/platform/'uname -i'/lib/fs/zfs/bootblk /dev/rdisk/c0t1d0s0
```

- On an x86 system, identify the alternate disk device and install the boot information. For example:

```
# installgrub /boot/grub/stage1 /boot/grub/stage2 /dev/rdisk/c0t1d0s0
```

x86: ata Timeouts During Boot (6586621)

ata driver timeouts might occur during system boot on Intel multiprocessor systems. These timeouts occur when the root device is on a drive with the HBA controller bound to the legacy ata driver. These timeouts lead to a momentary hang, hard hang, or a panic during system boot with console messages similar to the following:

```
scsi: [ID 107833 kern.warning] WARNING: /pci@0,0/pci-ide@1f,2/ide@0 (ata0):
      timeout: reset bus, target=0 lun=0
scsi: [ID 107833 kern.warning] WARNING: /pci@0,0/pci-ide@1f,2/ide@0 (ata0):
      timeout: early timeout, target=0 lun=0
gda: [ID 107833 kern.warning] WARNING: /pci@0,0/pci-ide@1f,2/ide@0/cmdk@0,0 (Disk0):
      Error for command 'read sector'   Error Level: Informational
gda: [ID 107833 kern.notice]           Sense Key: aborted command
gda: [ID 107833 kern.notice]           Vendor 'Gen-ATA ' error code: 0x3
```

```

gda: [ID 107833 kern.warning] WARNING: /pci@0,0/pci-ide@1f,2/ide@0/cmdk@0,0 (Disk0):
      Error for command 'read sector'   Error Level: Informational
gda: [ID 107833 kern.notice]           Sense Key: aborted command
gda: [ID 107833 kern.notice]           Vendor 'Gen-ATA ' error code: 0x3
scsi: [ID 107833 kern.warning] WARNING: /pci@0,0/pci-ide@1f,2/ide@0 (ata0):
      timeout: abort request, target=0 lun=0
scsi: [ID 107833 kern.warning] WARNING: /pci@0,0/pci-ide@1f,2/ide@0 (ata0):
      timeout: abort device, target=0 lun=0
scsi: [ID 107833 kern.warning] WARNING: /pci@0,0/pci-ide@1f,2/ide@0 (ata0):
      timeout: reset target, target=0 lun=0
scsi: [ID 107833 kern.warning] WARNING: /pci@0,0/pci-ide@1f,2/ide@0 (ata0):
      timeout: reset bus, target=0 lun=0
scsi: [ID 107833 kern.warning] WARNING: /pci@0,0/pci-ide@1f,2/ide@0 (ata0):
      timeout: early timeout, target=0 lun=0
gda: [ID 107833 kern.warning] WARNING: /pci@0,0/pci-ide@1f,2/ide@0/cmdk@0,0 (Disk0):
      Error for command 'read sector'   Error Level: Informational
gda: [ID 107833 kern.notice]           Sense Key: aborted command
gda: [ID 107833 kern.notice]           Vendor 'Gen-ATA ' error code: 0x3
gda: [ID 107833 kern.warning] WARNING: /pci@0,0/pci-ide@1f,2/ide@0/cmdk@0,0 (Disk0):

```

Workaround: Choose one of the following workarounds:

Note – To avoid performance degradation, workaround 3 or workaround 4 should only be used temporarily until workaround 5 can be used.

- **Workaround 1:** Enable AHCI in BIOS if available on the system. Enabling this setting requires a reinstall of the Solaris OS.
- **Workaround 2:** Install Solaris on a disk on a controller which does not use the ata driver.
- **Workaround 3:** Disable MP in the BIOS setup so that a single processor is active.
- **Workaround 4:** Disable MP in Solaris so that a single processor is active. Perform the following steps from the Grand Unified Bootloader (GRUB) menu:
 1. Type `e` to edit your selected Solaris entry.
 2. Navigate to the line that begins with kernel.
 3. Type `e` to switch to the GRUB edit mode.
 4. Append `-kd` to the line.
 5. Press Enter to accept the change.
 6. Type `b` to boot the selected Solaris entry.
 7. At the `kbmd` prompt, type the following command:

```
use_mp/W 0 :c
```

8. If you are performing a system boot, proceed to Step 10, otherwise install the Solaris 10 10/09 software.

9. At the end of the installation, reboot the system. Repeat steps 1 through 7.
10. To make this change permanent so that the above steps do not need to be repeated for subsequent boots, do the following:
 Become the super user, when the system boot is completed.
11. Open the `/etc/system` file.
12. Add the following line:

```
set use_mp = 0
```

- **Workaround 5:** Disable microcode update. Type the following command:

```
# mv /platform/i86pc/ucode /platform/i86pc/ucode.disabled
```

Microcode update can be invoked manually after the system is up:

```
# ucodeadm -u /platform/i86pc/ucode.disabled/intel-ucode.txt
```

zoneadm install Fails With a ZFS Legacy Mount (6449301)

If a non-global zone is initially configured with a ZFS file system to be mounted with the ``add fs` subcommand and specifies `mountpoint=legacy`, the subsequent zone installation fails. The following error message is displayed.

```
ERROR: No such file or directory:
cannot mount </zones/path/root/usr/local> in non-global zone to install:
the source block device or directory </path/local> cannot be accessed
```

Workaround: Add access to a ZFS file system after installing the non-global zone.

ZFS and UNIX/POSIX Compliance Issues

ZFS is designed to be a POSIX compliant file system and in most situations, ZFS is POSIX compliant. However, two edge case conditions exist when ZFS does not meet the POSIX compliance tests:

1. Updating ZFS files system capacity statistics.
2. Modifying existing data with a 100 percent full file system.

Related CRs:

- 6362314
- 6362156

- 6361650
- 6343113
- 6343039
- 6742203

fdisk -E Can Sweep Disk Used by ZFS Without Warning (6412771)

If you use the `fdisk -E` command to modify a disk that is used by a ZFS storage pool, the pool becomes unusable and might cause an I/O failure or system panic.

Workaround:

Do not use the `fdisk` command to modify a disk that is used by a ZFS storage pool. If you need to access a disk that is used by a ZFS storage pool, use the `format` utility. In general, disks that are in use by file systems should not be modified.

ZFS and Third-Party Backup Product Issues

The following are the issues with BrightStor ARCserve Backup products.

BrightStor ARCserve Backup Client Agent for UNIX (Solaris) and ZFS Support

The BrightStor ARCserve Backup (BAB) Client Agent for UNIX (Solaris) can be used to backup and restore ZFS files.

However, ZFS NFSv4-style ACLs are not preserved during backup. Traditional UNIX file permissions and attributes are preserved.

Workaround: If you want to preserve ZFS files with NFSv4-style ACLs, use the `tar` command with the `-p` option or the `cpio` command with the `-P` option to write the ZFS files to a file. Then, use BAB to backup the `tar` or `cpio` archive.

ZFS GUI Should Check For /usr/lib/embedded_su at the Beginning of Each Wizard (6326334)

If you add the `SUNWzfs` package from a Solaris 10 10/09 release to a system that runs a pre-Solaris 10 6/06 release, which does not have the `embedded_su` patch, the ZFS Administration application wizards are not fully functional.

If you attempt to run the ZFS Administration application on a system without the `embedded_su` patch, you will only be able to browse your ZFS configuration. The following error message is displayed:

```
/usr/lib/embedded_su: not found
```

Workaround:

Add the `embedded_su` patch (119574-02) to the system that runs a pre-Solaris 10 6/06 release.

Fails to Sync File System on Panic (6250422)

If a host panics with file system I/O occurring to a target, which is connected by using the Solaris iSCSI software initiator, the I/O might not be able to flush or sync to the target device. This inability to flush or sync might cause file system corruption. No error message is displayed.

Workaround:

Use the journaling file system like UFS. Starting with Solaris 10, UFS logging is enabled by default. For more information about UFS, see [“What’s New in File Systems?” in *System Administration Guide: Devices and File Systems*](#).

Upgrading From Some Solaris Express or Solaris 10 Releases Requires Remounting of File Systems

After you upgrade an NFSv4 server from Solaris Express 6/05 to Solaris Express 7/05 or later (including all Solaris 10 updates), your programs might encounter EACCES errors. Furthermore, directories might erroneously appear to be empty.

To prevent these errors, unmount and then remount the client file systems. In case unmounting fails, you might need to forcibly unmount the file system by using `umount -f`. Alternatively, you can also reboot the client.

NFSv4 Access Control List Functions Might Work Incorrectly

NFSv4 Access Control List (ACL) functions might work improperly if clients and servers in the network are installed with different previous Solaris 10 releases. The affected ACL functions and command-line utilities that use these functions are the following:

- `acl()`
- `facl()`

- `getfacl`
- `setfacl`

For more information about these functions and utilities, see their respective man pages.

For example, errors might be observed in a network that includes the following configuration:

- A client that is running Solaris 10 Beta software
- A server that is running Solaris 10 software

The following table illustrates the results of the ACL functions in client-server configurations with different Solaris 10 releases.

Operation	Client S10 OS	Server S10 OS	Result
get ACL	S10 Beta	S10 OS	fabricated ACL *
get ACL	S10 OS	S10 Beta	works ok
set ACL	S10 Beta	S10 OS	works ok
set ACL	S10 OS	S10 Beta	Error: EOPNOTSUP

Workaround: For the NFSv4 ACL functionality to work properly, perform a full installation of the Solaris 10 OS on both the server and the client.

Access Problems Between Solaris NFSv4 Clients and NFSv4 Servers

In the current Solaris 10 version, Solaris implementation of NFSv4 Access Control Lists (ACL) is now compliant with RFC 3530 specifications. However, errors occur for NFSv4 clients that use the Solaris 10 Beta 2 or Beta 1 versions. These clients cannot create files in the NFSv4 servers that are using the current Solaris 10 release. The following error message is displayed:

NFS getacl failed for *server_name*: error 9 (RPC: Program/version mismatch)

Workaround: None.

Using `mkfs` Command to Create File System Might Fail on Very Large Disks (6352813)

The `mkfs` command might be unable to create a file system on disks with a certain disk geometry and whose sizes are greater than 8 Gbytes. The derived cylinder group size is too large for the 1-Kbyte fragment. The large size of the cylinder group means that the excess metadata cannot be accommodated in a block.

The following error message is displayed:

```
With 15625 sectors per cylinder, minimum cylinders
per group is 16. This requires the fragment size to be
changed from 1024 to 4096.
Please re-run mkfs with corrected parameters.
```

Workaround: Use the `newfs` command instead. Or, assign a larger fragment size, such as 4096, when you use the `mkfs` command.

System Crash Dump Fails on Devices Greater Than 1 TByte (6214480)

The system cannot generate a dump on a partition that is equal to or greater than 1 Tbyte in size. If such a device is on a system, the following might occur after the system boots subsequent to a system panic:

- The system does not save the dump.
- The following message is displayed:

```
0% done: 0 pages dumped, compression ratio 0.00, dump failed: error 6
```

Workaround: Configure the size of your system's dump device to less than 1 Tbyte.

Hardware–Related Issues and Bugs

The following hardware–related issue and bugs apply to the Solaris 10 release.

Reduced `ixgbe` Driver Performance in Solaris 10 10/09 (6885903)

The `ixgbe` driver has 8 RX queues by default. The multiple RX queues result in reduced driver performance in the promiscuous mode when compared to a single RX queue in the Solaris 10 10/08 and Solaris 10 5/09 releases. Multiple RX queues create kernel contentions. These kernel contentions might contribute to poor `ixgbe` performance in the Solaris 10 10/09 release.

Workaround: Set the `ixgbe` RX and TX queue values to 1. Perform the following steps:

1. Edit the `/kernel/drv/ixgbe.conf` configuration file.

```
rx_queue_number = 1;
tx_queue_number = 1;
```


2. Reboot the system.

ZFS root pool Requires Maintenance After Every Reboot (6856341)

After reboot the ZFS root pool comes up in degraded mode. A mirrored root pool that might be impacted by this issue will contain disk devices that use different device drivers and the second driver isn't loaded during the boot process.

A symptom of this issue is when the system is rebooted, the pool state is DEGRADED because both device drivers are not loaded at the same time. A mirrored root pool that might be impacted by this issue will have zpool status output similar to the following:

```
state: DEGRADED
status: One or more devices could not be opened. Sufficient replicas exist for
the pool to continue functioning in a degraded state.
```

Workaround: Perform the following steps:

1. Identify the device drivers to be force loaded. For example, use the `prtconf` command with syntax similar to the following:

```
# prtconf -aD /dev/rdisk/clt0d0
SUNW,Sun-Fire-280R (driver name: rootnex)
pci, instance #1 (driver name: pcisch)
SUNW,qlc, instance #4 (driver name: qlc)
fp, instance #5 (driver name: fp)
ssd, instance #5 (driver name: ssd)
```

2. Edit the `/etc/system` file and provide a `forceload` entry for each driver identified in step 1. For example:

```
forceload: drv/qlc
forceload: drv/ssd
forceload: drv/fp
```

x86: System Fails to Plumb and Panics While Plumbing the Fourth 5709 Interface with 1 Gbyte RAM (6822680)

Certain x86 systems fail to plumb the fourth 5709 interface with 1 Gbyte of RAM. The system might panic or the following error message is displayed:

```
ifconfig: plumb: bnx<X>: Invalid argument
```

This bug affects Dell PowerEdge R610 and R710 servers.

Workaround: Perform the following steps:

1. Use more than 1 Gbyte of RAM.
2. Create a `hostname.bnxX` for each interface.
3. Reboot your system.
4. Download and install the latest BNx driver 4.6.2.
5. Modify the `bnx.conf` file to use the default setting for `tx_descriptor_count`.

x64: PCI Subsystem ID Changes in ConnectX Firmware 2.6.0 From Mellanox (6810093)

Upgrading the ConnectX firmware to version 2.6.000 or higher on a running system might cause problems in some HCAs and x64 platforms. This issue affects only Mellanox-branded HCAs. Sun-branded PCIe HCAs, EMs, NEMs, and SPARC platforms are not affected.

You might be unable to boot the system or the system might hang during boot. `ibd` (IPoverIB) instance numbers might change and prevent the system from booting and plumb `ibd` devices.

Workaround 1: Before rebooting the system after updating the firmware using `cxflash`, remove the `ibd<x>` instances from the `/etc/path_to_inst` file and `/dev` directory. Perform the following steps:

1. Log in as the root user. The device tree information might look like this:

```
# ls -R /devices | grep 15b3
/devices/pci@0,0/pci10de,5d@e/pci15b3,634a@0
/devices/pci@0,0/pci10de,5d@e/pci15b3,634a@0/ibport@1,ffff,ipib
/devices/pci@0,0/pci10de,5d@e/pci15b3,634a@0/ibport@1,ffff,ipib:ibd0
/devices/pci@0,0/pci10de,5d@e/pci15b3,634a@0/ibport@2,ffff,ipib
/devices/pci@0,0/pci10de,5d@e/pci15b3,634a@0/ibport@2,ffff,ipib:ibd1
/devices/pci@0,0/pci10de,5d@e/pci15b3,634a@0:devctl
```

Note – Device specifics vary depending on the Mellanox-branded card installed.

2. Edit the `path_to_inst` file. Perform the following steps:
 - a. Make a backup copy of the existing `path_to_inst` file.

```
# cp /etc/path_to_inst /etc/path_to_inst.backup
```

- b. Open the `path_to_inst` file:

```
# vi /etc/path_to_inst
```

- c. Search for lines that contain `ibd` and `hermon`, and delete those lines.
- d. Save the changes and close the file.
3. Remove the entries in the `/dev` directory:

```
rm /dev/ibd?*
```

4. Reboot the system. The system boots normally, and the corresponding device tree looks like this:

```
# ls -R /devices | grep 15b3
/devices/pci@0,0/pci10de,5d@e/pci15b3,5@0
/devices/pci@0,0/pci10de,5d@e/pci15b3,5@0/ibport@1,ffff,ipib
/devices/pci@0,0/pci10de,5d@e/pci15b3,5@0/ibport@1,ffff,ipib:ibd0
/devices/pci@0,0/pci10de,5d@e/pci15b3,5@0/ibport@2,ffff,ipib
/devices/pci@0,0/pci10de,5d@e/pci15b3,5@0/ibport@2,ffff,ipib:ibd1
/devices/pci@0,0/pci10de,5d@e/pci15b3,5@0:devctl
```

Workaround 2: If you reboot the system before updating the `path_to_inst` file and `/dev` directory, the system might hang. In such a case, perform the following steps:

1. Power off the system and remove the HCA from the bus.
2. Reboot the system without the HCA installed.
3. When system is back on, follow steps 2 through 3 listed in Workaround 1.
4. Power off the system.
5. Re-install the HCA. Reboot the system.
6. If the system reboots, but `ibd` interfaces do not automatically plumb, the `/etc/hostname.ib<?>` files might not be appropriate for the current device configuration. Manually rename the files to reflect the correct configuration.

Unrecoverable Machine-Check Exception on PCIe (6797934)

Some IBM systems either hang or panic after install. The following panic message is displayed:

```
Unrecoverable Machine-Check Exception
```

Workaround 1: Add the following line to the `/etc/system` file after installation to avoid system hang:

```
set pcie:pcie_aer_ce_mask=0x11C1
```

Workaround 2: If the system panics during install or during boot after the install, then use this workaround. Boot the system, with `-kd` option and set it in the `kmdb` debugger:

```
::bp pcie'pcie_initchild
:c
pcie_aer_ce_mask/W 11C1
:d all
:c
```

When the system comes up append the following line to the `/etc/system` file to make the changes permanent:

```
set pcie:pcie_aer_ce_mask=0x11C1
```

x86: i86_mwait Work Does Not Function as Designed (6736444)

Systems with the Intel Xeon Processor MP 7400 series running the Solaris 10 10/09 OS might experience reduced performance and increased power consumption under light utilization. This problem might occur when CPUs do not quiesce, preventing power management while idle. No error message is displayed.

Workaround: Add the following line to the `/etc/system` file and reboot the system:

```
set idle_cpu_prefer_mwait=0
```

fwflash Does Not Support ConnectX and hermon HCAs (6731804)

The standard `fwflash` command needs a plug-in to support firmware update on the ConnectX HCA flash device. This plug-in is not yet available in the Solaris 10 10/09 release.

Workaround: A standalone version of the utility is available to enable Solaris 10 users to update their firmware. Perform the following steps:

1. Download the utility and man page from the Customer Download Center at <http://www.sun.com/download/index.jsp?tab=2>. On this page search for Solaris InfiniBand (IB) Updates 3. Follow the instructions for downloading the package and `untar` the files. Do not install the package since you need to extract only some of the files.
2. Rename the original `.tar` file:

```
# mv ib_updates_3_s10u6.i386.tar ib_updates_3_s10u6.i386.tar-orig
```

3. Unzip the compressed `.tar` file:

```
#gunzip ib_updates_3_s10u6.i386.tgz
```

4. Extract the cxflash utility from the .tar file:

```
# tar -xvf ib_updates_3_sl0u6.i386.tar usr/sbin/cxflash
```

This will extract the relative path below your working directory:

```
# ls -lR usr
usr:
total 2
drwxrwxrwx  2 staff  staff          512 Mar  9 09:20 sbin

usr/sbin:
total 88
-rwxr-xr-x  1 staff  staff        44976 Jan 26 13:39 cxflash
```

5. Copy the cxflash file to /usr/sbin. This utility can be used to flash firmware onto hermon and ConnectX HCAs.

```
# ls -l firmware
total 1952
-rw-r--r--  1 staff  staff        487336 Jan 30 18:29 SUN-375-3548_2.5.100.bin
-rw-r--r--  1 staff  staff        487436 Jan 30 18:29 SUN-375-3549_2.5.100.bin
```

Note – The firmware directory which is created when the files are extracted, contains the firmware files for Sun-branded HCA cards and Express Modules. If you have a different versions of the HCA card, please obtain firmware of minimum 2.5.000 revision from your HCA card vendor.

Issues With HP NC326i Adapter and bge Driver (6691658)

bge fails to operate normally with the HP NC326i device. No error message is displayed.

Workaround: None.

SPARC: 19.55% Performance Regression for the NCP Device Driver (6660074)

Performance regression occurs for the Niagara Crypto Provider (NCP) device driver on Sun SPARC® Enterprise T5220 machines with the Solaris 10 10/09 release. No error message is displayed.

Workaround: Add the following line to the /platform/sun4v/kernel/drv/ncp.conf configuration file:

```
ncp-threads-per-core=6;
```

USB Floppy Drive Fails to Mount (6650724)

Floppy disks are not automatically mounted when inserted into USB floppy drives. No error message is displayed. The pcfs file system on the floppy disk is not accessible.

Workaround: The file system on the floppy disk can be mounted manually by running the mount command. For example:

```
mount -F pcfs /vol/dev/dsk/c3t0d0/noname /rmdisk
```

Error Message Is Displayed When Disconnecting USB Storage Devices (6624786)

The following error message is displayed when a USB storage device is disconnected:

```
Disconnected device was busy, please reconnect.
```

This message is displayed even when the device is unmounted successfully.

Workaround: None. The error message can be safely ignored.

The (ZFS) ARC Allocates Memory Inside The Kernel Cage Preventing DR (6522017)

ZFS can potentially allocate kernel memory across all system boards on systems with very large memory configurations. One free system board is required for dynamic memory reconfiguration so that the memory from the board to be dynamically reconfigured can be copied to the free board. The dynamic memory reconfiguration means that you cannot dynamically reconfigure memory on systems with very large memory configurations that have ZFS running. High-end SunFire™ servers can relocate kernel pages so that this issue is avoided. These servers must have kernel page relocation (KPR) enabled for domains with more than 32 cores. No error message is displayed

Workaround: Reduce the amount of kernel memory that ZFS can allocate by setting the `zfs_arc_max` parameter in the `/etc/system` file. The following example sets the maximum size to 512 Mbytes.

```
set zfs_arc_max = 0x20000000
```

mpathadm Does Not Display Load-Balance Setting Specific to Device

The `mpathadm show logical-unit` subcommand lists the load balancing global configuration value for the Current Load Balance property. However, entries in the `csi_vhci.conf` that change the load-balance type for a specific product are not reflected in the `mpathadm` output even when the setting is active.

Registration Tool Prevents Power Management on Some Framebuffers (6321362)

If the background processes for the registration tool are left running, the Elite3D and Creator3D framebuffers stop power management. This failure reduces the power savings when the system is in a power-managed state. Under certain conditions, `sys-suspend` might also hang. No error message is displayed. The system might hang during a system suspend or resume operation.

Workaround:

Run the following command approximately 60 seconds after each login:

```
# pkill -f basicreg.jar
# pkill -f swupna.jar
```

SPARC: Sun Crypto Accelerator 4000 Board Versions 1.0 and 1.1 Not Supported in Solaris 10 OS

A new cryptographic framework is provided in Solaris 10 OS. However, versions 1.0 and 1.1 of the Sun Crypto Accelerator 4000 board's software and firmware do not utilize this framework. Consequently, these versions are not supported in the Solaris 10 OS.

The 2.0 release uses the new framework. This release is available as a free upgrade to current Sun Crypto Accelerator 4000 users who plan to use Solaris 10 OS. Because the Sun Crypto Accelerator 4000 is an export-controlled product, you must contact Sun Enterprise Services or your local sales channel to obtain the free upgrade. Additional information is available on the Sun Crypto Accelerator 4000 web page at Sun's [products site](#).

Certain USB 2.0 Controllers Are Disabled

Support for certain USB 2.0 controllers has been disabled because of incompatibilities between these devices and the EHCI driver. The following message is displayed:

Due to recently discovered incompatibilities with this USB controller, USB2.x transfer support has been disabled. This device will continue to function as a USB1.x controller. If you are interested in enabling USB2.x support please refer to the ehci(7D) man page. Please refer to www.sun.com/io for Solaris Ready products and to www.sun.com/bigadmin/hcl for additional compatible USB products.

For the latest information about USB devices, see http://www.sun.com/io_technologies/USB-Faq.html.

Supported USB Devices and Corresponding Hub Configurations

This Solaris release supports both USB 1.1 and USB 2.0 devices. The following table is a summary of USB devices that work in specific configurations. Connection types can either be direct to the computer or through a USB hub. Note that USB 1.1 devices and hubs are low speed or full speed. USB 2.0 devices and hubs are high speed. For details about ports and speeds of operation, see the *System Administration Guide: Devices and File Systems*.

TABLE 2-1 USB Devices and Configurations

USB Devices	Connection Types
USB 2.0 storage devices	Direct, USB 1.1 hub, USB 2.0 hub
USB 1.1 devices except audio	Direct, USB 1.1 hub, USB 2.0 hub
USB 1.1 audio devices	Direct, USB 1.1 hub
USB 2.0 audio devices	Not supported

x86: Limitations Exist With Certain Device Drivers in Solaris 10 OS

The following list describes limitations with certain drivers and interfaces in this release of Solaris 10 for x86 platforms:

- Checkpoint Resume

This functionality is turned off for all device types. In the `DDI_SUSPEND` code in your `detach()` function, you should return `DDI_FAILURE`.
- Power Management

This functionality is unavailable to USB devices. Do not create power management components. Write your driver so that `pm_raise_power()` and `pm_lower_power()` are called only when

power management components are created.

DVD-ROM/CD-ROM Drives on Headless Systems

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 diskette remain at full-power mode. These devices might switch to low-power mode on a system without a monitor. To restore power to the CD or diskette, type **volcheck** to obtain the latest status from each removable device.

Alternatively, you can disable power management on your system by using the Dtpower GUI. By disabling power management, these devices are constantly at full power.

x86: Manual Configuration Required to Specify Non-US English Keyboards

By default, the `kdmconfig` program specifies Generic US-English(104-Key) as the keyboard type that is connected to the system. If the system's keyboard is not a US-English keyboard, you must manually specify the keyboard type during installation. Otherwise, installation continues by using the default keyboard specification that is inconsistent with the system's actual keyboard type.

Workaround 1: If the system's keyboard is not a US-English keyboard, perform the following steps during installation:

1. When the Proposed Window System Configuration For Installation is displayed, press Esc.

Note – The information on the Proposed Window System Configuration For Installation, which includes the keyboard type, is displayed only for 30 seconds. If you want to change configuration settings, you must press Esc before the 30 seconds lapse. Otherwise, the installation continues by using the displayed settings.

2. Change the keyboard type to the type that corresponds to your system's keyboard.
3. Press Enter to accept the changes and continue with the installation.

Workaround 2: If you want to change the keyboard type in a system that is already running Solaris 10 OS, use the `kdmconfig` program. Choose the option that applies to the type of X server your system is running.

- If your system is running the Xsun server, follow these steps:

1. Run `kdmconfig`.
 2. Use the Change Keyboard option to change the keyboard type.
 3. Save the configuration.
- If your system is running the default Xorg server, follow these steps:
 1. Run `kdmconfig`.
 2. Select the Xsun server.
 3. Use the Change Keyboard option to change the keyboard type.
 4. Save the configuration.
 5. Run `kdmconfig` again to switch to the Xorg server.

SPARC: jfca Driver for Certain Host Bus Adapters That Are Connected to Tape Devices Might Cause Errors (6210240)

The `jfca` driver for the following host bus adapters (HBAs) might cause system panics or I/O failures when these HBAs are connected to tape devices:

- SG-PCI1FC-JF2
- SG-PCI2FC-JF2

The `jfca` driver for these HBAs is prone to race conditions when certain operations are being run, and thus causes the errors. The operations are the following:

- Link reset
- Loop reset
- Switch reset
- Repeated link failures

Error messages similar to the following examples might be displayed:

- I/O failure messages

```
jfca: [ID 277337 kern.info] jfca4: Sequencer-detected error. Recover
immediately.
last message repeated 18376 times
  jfca: [ID 716917 kern.notice] jfca4: ExgWarning: SendVerify(1): SHOULD
ABORT THE ORIG I/O PKG=30007520bd8!
scsi: [ID 107833 kern.warning] WARNING:
/pci@1e,600000/SUNW,jfca@3,1/fp@0,0/st@w2100001086108
628,1 (st3):
  SCSI transport failed: reason 'timeout': giving up
```

- System panic message

```
panic[cpu1]/thread=2a100497cc0:
BAD TRAP: type=31 rp=2a1004978d0 addr=a8 mmu_fsr=0 occurred in module
"jfca" due to a NULL pointer dereference
```

Workaround: Do not connect tape devices to either the SG-PCI1FC-JF2 or SG-PCI2FC-JF2 HBA.

Contention Exists Between Certain Devices That Share the Same Bus (6196994)

A bus contention occurs if Quad Fast-Ethernet (QFE) cards share the same bus with any of the following adapters:

- Sun GigaSwift adapter
- Sun Dual Gigabit Ethernet and Dual SCSI/P adapter
- Sun Quad Gigaswift Ethernet adapter

The infinite-burst parameter of the ce driver that is used by these adapters is enabled by default. Consequently, little or no bus time is available for the QFE ports that share the same bus.

Workaround: Do not place QFE cards on the same bus as the network adapters in the list.

Some DVD and CD-ROM Drives Fail to Boot Solaris (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 Sun's SCSI DVD-ROM drive (X6168A). With marginal media, the DVD-ROM occasionally experiences timeout errors. The only exceptions are Sun Fire 6800, 4810, 4800, and 3800 systems. These systems overwrite the SCSI timeout value by means of OpenBoot PROM.

Workaround: For other platforms, use the on-board SCSI interfaces or DVD-ROM compatible SCSI adapters, such as the following examples:

- X1018A (SBus: F501-2739-xx)
- X6540A (PCI: F375-0005-xx)

iPlanet Directory Server 5.1 Issues

This section provides important information for users of iPlanet™ Directory Server 5.1 who are upgrading to the new Solaris 10 release.

Installing Directory Server 5.1

Sun Java System Directory Server 5 2005Q1 replaces iPlanet Directory Server 5.1 that was integrated in the Solaris 9 Operating System. In Solaris 10 OS, this new Directory Server can be installed as part of the Sun Java Enterprise System.

Note – For information about the Sun Java System Directory Server 5 2005Q1, refer to the documentation for the Sun Java System at <http://docs.sun.com>.

Solaris 10 OS continues to support Directory Server 5.1. You might need to install Directory Server 5.1 under the following circumstances:

- You need to recover Directory Server 5.1 data.
- You want to migrate your data to Directory Server 5 2005Q1.

In Solaris 10 release, you install the Directory Server 5.1 manually. Follow these steps:

1. Insert the Solaris 10 Software - 5 CD into your CD-ROM drive.
2. Become superuser.
3. In a terminal window, install the Directory Server.

```
# cd /cdrom/cdrom0/Solaris_10/Product/  
# pkgadd -d . IPLTnls IPLTnspr IPLTnss IPLTjss IPLTpldap \  
IPLTdsr IPLTdsu IPLTadmin IPLTcons IPLTadcon IPLTdscon \  
IPLTadman IPLTdsman
```

To install Simplified Chinese localization packages, issue the following additional command:

```
# pkgadd -d . IPLTcdsu IPLTcadmin IPLTccons IPLTcadcon \  
IPLTcdscon IPLTcadman IPLTcdsman
```

To install Japanese localization packages, issue the following additional command:

```
# pkgadd -d . IPLTjdsu IPLTjadmin IPLTjcons IPLTjadcon \  
IPLTjdscon IPLTjadman IPLTjdsman
```

4. After installation is complete, configure iPlanet Directory Server 5.1. Refer to [Chapter 11](#), “Sun ONE Directory Server Configuration,” in *System Administration Guide: Naming and Directory Services (DNS, NIS, and LDAP)*.

Migrating to the Sun Java System Directory Server 5 2005Q1



Caution – The database formats of the two Directory Server versions are incompatible. Thus, if you are a Directory Server 5.1 user, Sun recommends that you migrate your database to a database that is formatted for the Sun Java System Directory Server 5 2005Q1.

To perform a migration, both versions of the Directory Server must exist in the system that has been upgraded to the Solaris 10 OS. If you are a DS 5.1 user, but are using the compressed archive (.tar.gz) delivery format, you can skip immediately to the migration instructions in Step 2.

1. On a terminal window, check whether iPlanet Directory Server 5.1 packages are present in your system.

```
$ pkginfo | grep IPLT
```

If the following packages appear as output, then you can go to Step 2 to proceed with the migration. The output indicates that the iPlanet Directory Server 5.1 packages are in the system.

```
system  IPLTadcon  Administration Server Console
system  IPLTadman  Administration Server Documentation
system  IPLTadmin  Administration Server
system  IPLTcons   Console Client Base
system  IPLTdscon  Directory Server Console
system  IPLTdsman  Directory Server Documentation
system  IPLTdsr    Directory Server (root)
system  IPLTdsu    Directory Server (usr)
system  IPLTjss    Network Security Services for Java
system  IPLTnls    Nationalization Languages and Localization Support
system  IPLTnspr   Portable Runtime Interface
system  IPLTnss    Network Security Services
system  IPLTpldap  PerLDAP
$
```

If the packages do not exist, then install the iPlanet Directory Server 5.1 packages first. Refer to the 4-step procedure in the preceding section “[Installing Directory Server 5.1](#)” on page 76. After installation is complete, go to Step 2 to proceed with the migration.

2. Migrate your iPlanet Directory Server 5.1 database to the current version. For instructions, refer to the documentation collection for the Sun Java System Directory Server at http://docs.sun.com/coll/DirectoryServer_05q1.

After migrating your data, make sure you continue to back up directory data in the same way as you backed up directory data before migration. Future disaster recovery might require the migrated database.

Localization Issues

This section describes localization issues that apply to Solaris 10 OS.

Swedish Software Translations Note

Swedish software translations are no longer updated since the Solaris 10 8/07 release except the ones translated by communities. Thus, updated messages are displayed in English.

Workaround: None.

Multiple Input Method Switcher Applications Appear in Trusted Java DS

When you log in to the Trusted Java DS with UTF-8 or Asian locales, the Input Method Switcher application, `iiim-panel`, appears per label by default. Thus in multiple label environment, multiple `iiim-panel` appears, which could be confusing to the user.

No error message is displayed.

Workaround: Stop using the `iiim-panel`. Perform the following steps:

- Right-click on `iiim-panel` and select Preference. The Input Method Preference Editor, `iiim-properties`, is displayed.
- Select None or Attach to Each Application from the Input Method Status and Switcher Placement list in the General tab.
- Press Apply or Click the OK button.

To switch the input language, you can also use Hotkey. To enable Hotkey, perform the following steps:

- Go to Misc tab in the `iiim-properties`.
- Select the Enable Language/Script choice window using Hotkey option.
- Press Apply or Click the OK button.

Note – When Attach to each application is selected, the language switcher list will not be displayed for GTK applications. You can switch input language by using Hotkey.

Wnn8 Japanese Input Method

Wnn8 Japanese Input method cannot be used if the Wnn8 servers are not enabled.

Workaround: Enable the Wnn8 servers:

```
# svcadm enable wnn8/server
```

In addition, select Wnn8 as the Japanese Language engine by running the `iiim-properties` command.

Input Method Cannot Be Enabled With Primary Administrator Rights (6475081)

A user who has the Primary Administrator right can not use the input method for specific locales which prevents that user from entering characters normally. The input method status is not displayed in the workspace. No error message is displayed.

Workaround: Add the following lines to the `/etc/security/exec_attr` file:

```
Primary Administrator:solaris:cmd:::/usr/bin/csh:uid=0;gid=0
Primary Administrator:solaris:cmd:::/usr/bin/ksh:uid=0;gid=0
Primary Administrator:solaris:cmd:::/usr/bin/sh:uid=0;gid=0
```

For information about the file format, see the `exec_attr(4)` man page.

New ChuYin Input Method Not Supported in Upgrade to IIIMF rev.12 (6492129)

When you upgrade the OS to the Solaris 10 6/06 or Solaris 10 11/06 release, the input method framework and individual input methods get upgraded from rev.10 to rev.12. However, ChuYin is not in the list of supported input methods. Also, you cannot use the function keys F2 and F3 to switch methods

Workaround: Use PinYin to type traditional Chinese characters with Hanyu PinYin. Use Ctrl+Shift to switch input methods.

AltGr Does Not Work As Mode Switcher in Some Russian Locales (6487712)

The AltGr key does not work as a mode switcher for the Russian Xsun layout in ru_RU.KOI8-R and ru_RU.ANSI1251 locales.

Workaround 1: Switch to the ru_RU.UTF-8 or the ru_RU.ISO8859-5 locale.

Workaround 2: Use IIIMF™ instead of the Russian keyboard layout.

Arabic Text Not Appearing in ar Locales

If your x86 system is using Xorg as the default Xserver, the Arabic font (iso7759-6) does not appear in the ar locale. This error does not occur if you are using XSun instead of XOrg.

Workaround: Follow these steps.

1. As superuser, edit /usr/dt/config/Xservers.

- Uncomment or add the following line:

```
:0 Local local_uid@console root /usr/openwin/bin/Xsun :0
-nobanner -defdepth 24
```

- Comment out the following line:

```
:0 Local local_uid@console root /usr/X11/bin/Xorg :0
```

2. Reboot the system.

Alternatively, you can log in to ar_EG.UTF-8 or other UTF-8 locales.

Several Arabic Fonts Do Not Work in GNOME (6384024)

In GNOME when you select certain Arabic fonts, the characters do not display. This problem appears when you select fonts for applications, the desktop, or the window title using the GNOME font properties menu. The affected fonts include:

- Akhbar MT (Regular, Bold)
- Shayyal MT (Regular, Bold)
- Naskh MT (Regular, Bold)

No error message is displayed.

Workaround:

Use any of the newly delivered Kacst family of fonts to display Arabic characters in GNOME applications.

Unable to Switch Input Language on Session-Saved Applications (6360759)

Multiple language input is supported in UTF-8 locales, but the language switch is not working with session-saved applications where mouse button 1 is clicked first after login. This problem occurs with the Java Desktop System (Java DS). No error message is displayed.

Workaround:

Click mouse button 1 on the background workspace or Launch Menu before clicking any application.

Keyboard Shortcuts in Mozilla in ES Locale Are Unusual and Ambiguous (6288620)

The keyboard shortcuts in Mozilla 1.7 are unusual, especially in Spanish locale. For example, Ctrl-S is being used for copying as well as for saving. No error message is displayed.

Workaround:

Identify the shortcut keys assigned to user actions from menu in the product.

Migration Note to UTF-8 locales

When migrating to UTF-8 locales, the files affect the method that you use to import or export data.

Microsoft Office Files

Microsoft Office files are encoded in Unicode. StarOffice applications can read and write the Unicode encoded files.

HTML Files

HTML files authored using HTML editors such as Mozilla Composer, or HTML files saved by a web browser, usually contain a charset encoding tag. After exporting or importing, you can browse such HTML files with the Mozilla Navigator web browser, or edit the files with Mozilla Composer, according to the encoding tag in the HTML file.

Fixing Broken HTML File

Some HTML files might be displayed in garbage characters. This problem is typically due to the following reasons:

- The charset encoding tag is incorrect.
- The charset encoding tag is missing.

To find the charset encoding tag in the HTML file, perform the following actions:

1. Open the file with Mozilla.
2. Press Ctrl-i, or click View to open the View menu.
3. Click Page Info.

The charset information is in the bottom of the General tab, for example:

```
Content-Type text/html; charset=us-ascii
```

If the string charset=us-ascii does not match the actual encoding of the file, the file might appear broken. To edit the encodings of the HTML file, perform the following actions:

1. Open the file with Mozilla Composer.
2. Open the File menu.
3. Select Save as Charset.
4. Choose the correct encoding. Mozilla Composer automatically converts the encoding and the charset tag as appropriate.

Emails Saved As Portable Format

Modern mails are tagged with the MIME charset tag. The Email and Calendar application accepts MIME charset tags. You do not need to perform any encoding conversion.

Plain Text Files

Plain text files do not have a charset tag. If the files are not in UTF-8 encoding, encoding conversion is needed. For example, to convert a plain text file encoded in Traditional Chinese big5 to UTF-8, execute the following command:

```
iconv -f big5 -t UTF-8 inputfilename
```

```
> outputfilename
```

You can also use the File System Examiner for the encoding conversion.

You can use the Text Editor to read and write character encoding text automatically or by specifying an encoding explicitly when opening or saving a file.

To start Text Editor, click Launch, then choose Applications->Accessories->Text Editor.

File Names and Directory Names

If file names and directory names using multibyte characters are not in UTF-8 encoding, encoding conversion is needed. You can use File System Examiner to convert file and directory names and the contents of plain text files from legacy character encodings to UTF-8 encoding. Refer to the online Help for File System Examiner for more information.

To start File Systems Examiner, click Launch, then choose Applications->Utilities->File System Examiner.

When you access non-UTF-8 file or directory names on Microsoft Windows via SMB using File Manager, you can access the non-UTF-8 file or directory names without encoding conversion.

Launching Legacy Locale Applications

For applications that are not ready to migrate to Unicode UTF-8, you can create a launcher on a front panel to start the application in legacy locales. You can also launch the applications directly from the command line. Perform the following steps to create a launcher for an application.

1. Right-click on the panel where you want to place the launcher.
2. Choose Add to Panel->Launcher.

3. Use the following format to type the entry in the Command field in the Create Launcher dialog:

```
env LANG=locale LC_ALL=  
locale application name
```

For example, if you want to launch an application called `motif-app` from `/usr/dt/bin` in the Chinese Big5 locale, enter the following text in the Command field of the Create Launcher:

```
env LANG=zh_TW.BIG5 LC_ALL=zh_TW.BIG5 /usr/dt/bin/motif-app
```

4. Click OK to create the launcher on the panel.

When you need to run CLI (command line interface) applications which are specific to a legacy locale, open a Terminal window in the legacy locale first and then run the CLI applications in the same Terminal window. To open a Terminal window in a legacy locale, enter the following command:

```
eng LANG=locale LC_ALL=locale GNOME-TERMINAL --disable-factory.
```

Instead of opening a new Terminal window in a legacy locale, you can switch the locale setting from UTF-8 to a legacy locale in the current Terminal window by changing the encoding the Set Character Encoding menu in the Terminal window. Then you must also set the `LANG` and `LC_ALL` environment variables to the current shell.

Hardware for Some Keyboards Layouts Type 6 and 7 Not Available

Software support for some keyboard layouts has been added to the Solaris OS. This software gives users greater flexibility for keyboard input by modifying standard U.S. keyboard layouts to their own language needs.

Currently, no hardware is available for the following keyboard layout types:

Albania	Belarus
Belarus	French Canadian
Croatia	Czech
Denmark	Estonia
Hungary	Iceland
Latvia	Lithuania

Malta UK	Malta US
Poland	Brazil Portuguese
Romania	Serbia and Montenegro
Slovakia	Slovenia

Workaround: Choose one of the following workarounds:

- **Workaround 1:** To take advantage of this keyboard software, set up keyboard input using the `kbd -s` command line utility. For desktop sessions with the UTF-8 locale environment, use Input Method Preference Editor. If the required keyboard layout is not included in the `kbd -s` utility, use Workaround 2.
- **Workaround 2:** Modify the `/usr/openwin/share/etc/keytables/keytable.map` file. For example, for the Canadian Type 6 keyboard, make the following changes:
 1. Change the `US6.kt` entry to `Canada6.kt` in the `/usr/openwin/share/etc/keytables/keytable.map` file. The modified entry should read as follows:

```
6                                0                Canada6.kt
```
 2. Reboot the system for the changes to take effect.

Networking Issues

The following networking bugs apply to the Solaris 10 release.

e1000g Driver Generates Corrupted LSO Packets (6855964)

Under high stresses, the e1000g driver might generate corrupted LSO packets to cause the Ethernet chip to stall and reset.

Workaround: Disable LSO by adding the following line in the `e1000g.conf` file:

```
lso_enable=0,0,0,0,0,0,0,0;
```

Ensure that '0's are in line with the e1000g interface numbers.

TCP Corruption Seen With Northstar Cards (6838180)

The Intel 82571 chip DMAs might transfer incorrect data but a valid CRC on the network and stop responding. This lack of response results in the device hanging and getting reset.

Workaround: Disable LSO by adding the following line in the `e1000g.conf` file:

```
lso_enable=0,0,0,0,0,0,0,0;
```

Ensure that '0's are in line with the e1000g interface numbers.

Increased Restrictions on Cross Zone Communications (6837033)

Tightened restrictions on interzone communications for systems running Solaris Trusted Extensions configuration could limit noncompliant third-party applications, causing them to fail.

Workaround: Choose one of the following workarounds:

- **Workaround 1:** Temporarily alter the security settings. Comment out the following lines in the `/lib/svc/method/svc-labeld` file:

```
/usr/sbin/ndd -set /dev/ip \  
ip_restrict_interzone_loopback 1
```

- Type the following command:

```
/usr/sbin/ndd -set /dev/ip ip_restrict_interzone_loopback 0
```

Although making this change would allow time to address any application programming or application configuration issues, it is not a recommended permanent solution.

- **Workaround 2:** Change the application or the configuration to conform to the programming and configuration instructions for a Solaris OS with Trusted Extensions configured. For more information, see [Chapter 5, “Interprocess Communications,” in *Solaris Trusted Extensions Developer's Guide*](#).

Note – If correction of the application or its configuration is not feasible, please contact your Sun Services representative.

DR and showdevices Do Not Work After XSCF Reboot (6821108)

After rebooting the XSCF service processor on OPL systems, IPsec communications are lost. The following error message is seen on XSCF service processor:

```
XSCF> showdevices -d 0
```

Can't get device information from DomainID 0.

The following message is seen in the /var/adm/messages file on the domain:

```
Apr  7 11:19:20 domain-0 sckmd: [ID 205163 daemon.error]
PF_KEY error: type=ADD, errno=17: File exists, diagnostic code=0: No diagnostic
```

This problem occurs because the existing Security Associations (SAs) on the domain are not deleted properly, and so the addition of the new SAs fail.

Workaround 1: Reboot the XSCF service processor twice. Half the SAs are deleted the first time and the remaining half are deleted the second time. The second addition succeeds and IPsec communication is reestablished.

Workaround 2: Delete the IPsec SAs twice on each domain before rebooting the service processor.

If you do not use IPsec for anything else on the system, the `ipseckey flush` will display all the SAs. If you use IPsec for other things, perform the following steps to display all SAs:

1. Get the IP addresses:

```
# /usr/platform/SUNW,SPARC-Enterprise/sbin/prtdscp
Domain Address: 192.168.224.2
SP Address: 192.168.224.1
```

2. Delete the SPIs twice using the `ipseckey` and `prtdscp` utilities:

```
# ipseckey delete ah spi 0xff00 dst
'/usr/platform/SUNW,SPARC-Enterprise/sbin/prtdscp -s'
# ipseckey delete ah spi 0xff00 dst
'/usr/platform/SUNW,SPARC-Enterprise/sbin/prtdscp -s'

# ipseckey delete ah spi 0xff dst
'/usr/platform/SUNW,SPARC-Enterprise/sbin/prtdscp -d'
# ipseckey delete ah spi 0xff dst
'/usr/platform/SUNW,SPARC-Enterprise/sbin/prtdscp -d'
```

When the service processor reboots, the keys are added correctly.

x86: bnx Driver Does Not Support Broadcom NetXtreme II 5709 Chipset (6637053)

The Broadcom NetXtreme II 5709 (BCM5709) chipset is not supported in the Solaris 10 10/09 release.

Workaround: Download the bnx driver from the http://www.broadcom.com/support/ethernet_nic/downloaddrivers.php web site.

Note – Existing chipsets might experience performance regression issues when the downloaded driver is installed.

SPARC: NFS/RDMA Connection Errors (6229077)

Connection errors might occur between an NFS server and client that are using Remote Direct Memory Access (RDMA). Because of these errors, the buffer pool resources are exhausted and the system panics. The following error message is displayed:

```
rpcib: WARNING: rib_rbuf_alloc: No free buffers!
```

Workaround: Choose one of the following workarounds:

- Configure the NFS server to enable TCP. In the `/etc/default/nfs` file, change `(NFSD_PROTOCOL=tcp)`.
- Mount the NFS file system from the client side with the `proto=tcp` mount option.

For more information, see the [mount_nfs\(1M\)](#) and [nfs\(4\)](#) man pages.

Login Fails on iSCSI Target With Two Portals and One Bad Portal (6476060)

If an iSCSI target or an array returns more than one IP address as part of its send target response, the initiator takes into account only the last address in the list and not the first one, as it used to prior to this release. As a result, if the last IP address is bad or invalid, the connection to this target fails.

Workaround: Return the different target portal group tags (TPGT) for each entry in its send target response. The initiator tries to establish a connection to all the IP addresses so that the connection succeeds.

System Domain of Interpretation Is Not Configurable (6314248)

The system Domain of Interpretation (DOI) is not configurable. When the Solaris Management Console is used to create a new trusted network template, the Solaris Management Console sets the DOI to **0** and Solaris Trusted Extensions does not function correctly. Various error messages are displayed.

Workaround: Set the DOI to **1** using the Solaris Management Console.

IP Forwarding Disabled by Default in Solaris 10 OS

In this Solaris release, IP forwarding is disabled by default. This setting applies to both IPv4 and IPv6 regardless of other system configurations. Systems with multiple IP interfaces that formerly forwarded IP packets by default no longer have this automatic feature. To enable IP forwarding in multihomed systems, administrators must manually perform additional configuration steps.

Workaround: The command `routeadm` enables IP forwarding. The configuration changes that are the result of `routeadm` usage persist across system reboots.

- To enable IPv4 forwarding, type `routeadm -e ipv4-forwarding`.
- To enable IPv6 forwarding, type `routeadm -e ipv6-forwarding`.
- To apply the enabled IP-forwarding configuration to the currently running system, type `routeadm -u`.

For more information about IP forwarding, see the [routeadm\(1M\)](#) man page.

Zone Not Booting When IP Address Belongs to a Failed IP Network Multipathing Group (6184000)

A zone can be configured so that the zone's IP address becomes part of an IP Network Multipathing (IPMP) group. The configuration process is documented in “[How to Extend IP Network Multipathing Functionality to Shared-IP Non-Global Zones](#)” in *System Administration Guide: Solaris Containers-Resource Management and Solaris Zones*.

If all the network interfaces in the IPMP group fail, a zone does not boot if it has an IP address that is part of the IPMP group.

The following example illustrates the result if you attempt to boot the zone.

```
# zoneadm -z my-zone boot
zoneadm: zone 'my-zone': bge0:1:
could not set default interface for multicast: Invalid argument
zoneadm: zone 'my-zone': call to zoneadmd failed
```

Workaround: Repair at least one network interface in the group.

Security Issues

The following security issues applies to the Solaris 10 release.

Nonpassword Logins Fail With pam_ldap Enabled (6365896)

After the account management PAM module for LDAP (pam_ldap) is enabled, users must have passwords to log in to the system. Consequently, nonpassword-based logins fail, including those logins that use the following tools:

- Remote shell (rsh)
- Remote login (rlogin)
- Secure shell (ssh)

Workaround: None.

Solaris Commands and Standards

The following section describes behavior changes in certain commands and standards in Solaris 10 OS.

SPARC: Applications Noncompliant With 8-byte Aligned Mutexes Fail (6729759)

Objects of type `mutex_t` and `pthread_mutex_t` must start at 8-byte aligned addresses. Applications that do not satisfy this requirement fail. The following error message is displayed:

```
*** _THREAD_ERROR_DETECTION: lock usage error detected ***
...
"mutex is misaligned"
OR:
"condvar is misaligned"
```

Workaround: Setting the environment variable to the following values causes alignment errors to be reported on stderr:

- `THREAD_ERROR_DETECTION=1`
- `THREAD_ERROR_DETECTION=2`

Users should test their applications with the `THREAD_ERROR_DETECTION` environment variable set to one of these values and request corrections to noncompliant applications.

winbind Fetches Only the First 1000 Active Directory Users

This bug occurs while using the Samba server with winbind in an Active Directory environment. The Solaris 10 10/09 release includes the Samba 3.0.28 software version. When querying all the users or more than 1000 users from the Active Directory server, winbind fetches only the first 1000 results.

Workaround: None.

PgAdmin III 1.6 Does Not Support PostgreSQL version 8.3

PgAdmin III 1.6 cannot be used to administer PostgreSQL 8.3 version. PgAdmin 1.6 does not understand catalog structures in the new PostgreSQL version. Various error messages are displayed.

Workaround: Upgrade to PgAdmin III version 1.8.

Changed Man Pages for Solaris Trusted Extensions Are in Reference Manual Only

The following Solaris Trusted Extensions man pages are revised for this release:

- `add_allocatable(1M)`
- `remove_allocatable(1M)`
- `label_to_str(3TSOL)`
- `tsol_getrhtype(3TSOL)`
- `tnzonecfg(4)`

The revised man pages cannot be viewed using the `man` command. To view the revised man pages, see the [Solaris Trusted Extensions Reference Manual](#).

Bash 3.00 No Longer Sets Some Environment Variables

Solaris 10 OS includes Bash 3.00. This shell no longer automatically exports the following variables to the environment:

- HOME
- PATH
- SHELL
- TERM
- HOSTNAME
- HOSTTYPE
- MACHTYPE
- OSTYPE

This new behavior applies even if the shell assigns default values to these variables.

Workaround: Export these variables manually.

New `ln` Utility Requires `-f` Option

The behavior of `/usr/bin/ln` has changed to adhere to all of the standards from SVID3 through XCU6. If you use the `ln` command without the `-f` option to link to an existing target file, the link is not established. Instead, a diagnostic message is written to standard error, and the command proceeds to link any remaining source files. Finally, the `ln` command exits with an error value.

For example, if file `b` exists, the syntax `ln a b` generates the following message:

```
ln: b: File exists
```

This behavior change affects existing shell scripts or programs that include the `ln` command without the `-f` option. Scripts that used to work might now fail in Solaris 10 OS.

Workaround: Use the `-f` option with the `ln` command. If you have existing scripts that execute the link utility, make sure to modify these scripts to comply with the command's new behavior.

New `tcsh` Rejects `setenv` Variable Names That Use a Dash or an Equals Sign

In Solaris 10 OS, `tcsh` has been upgraded to version 6.12. This version no longer accepts environment variables whose names use a dash or an equals sign. Scripts that contain `setenv` lines and that work in earlier Solaris versions might generate errors in the current Solaris 10 release. The following error message is displayed:

setenv: Syntax error

For more information, refer to the `tcsh` man page for the Solaris 10 OS.

Workaround: Do not use the dash or equals sign in names for environment variables.

STDIO `getc` Family EOF Condition Behavior Change

Applications that were built in strict standard C conformance mode are affected by the behavior changes of certain library functions. An example is applications that were compiled by using the `cc -Xc` or `c89` compilation mode. The behavior has changed for the following library functions:

- `fgetc()`
- `fgets()`
- `fgetwc()`
- `fgetws()`
- `getc()`
- `getchar()`
- `gets()`
- `getwc()`
- `getwchar()`
- `getws()`

A formal interpretation of the 1990 C Standard requires that after an end-of-file condition is set, no more data is returned from the file on subsequent input operations. The exception is if the file pointer is repositioned or the error and end-of-file flags are explicitly cleared by the application.

The behavior for all other compilation modes remains unchanged. Specifically, the interfaces can read additional newly written data from the stream after the end-of-file indicator has been set.

Workaround: Call `fseek()` or `clearerr()` on the stream to read additional data after the EOF condition has been reported on the stream.

Output Columns of the `ps` Command Have Been Widened

Due to larger UIDs, processor ids, and cumulative execution time, the columns of the `ps` command output have been widened. Customer scripts should not assume fixed output columns.

Workaround: Scripts should use the `-o` option of the `ps` command.

For more information, see the [ps\(1\)](#) man page.

Solaris Volume Manager

The following Solaris Volume Manager bug applies to the Solaris 10 release.

Solaris Volume Manager `metattach` Command Might Fail

If you have a Solaris Volume Manager mirrored root (/) file system in which the file system does not start on cylinder 0, all submirrors you attach must also not start on cylinder 0.

If you attempt to attach a submirror starting on cylinder 0 to a mirror in which the original submirror does not start on cylinder 0, the following error message is displayed:

```
can't attach labeled submirror to an unlabeled mirror
```

Workaround: Choose one of the following workarounds:

- Ensure that both the root file system and the volume for the other submirror start on cylinder 0.
- Ensure that both the root file system and the volume for the other submirror do not start on cylinder 0.

Note – By default, the JumpStart installation process starts swap at cylinder 0 and the root (/) file system somewhere else on the disk. Common system administration practice is to start slice 0 at cylinder 0. Mirroring a default JumpStart installation with root on slice 0, but not cylinder 0, to a typical secondary disk with slice 0 that starts at cylinder 0, can cause problems. This mirroring results in an error message when you attempt to attach the second submirror. For more information about the default behavior of Solaris installation programs, see the Solaris 10 Installation Guides.

Sun Java Desktop System

This section describes issues that apply to the Sun Java Desktop System (Java DS) in the Solaris 10 OS.

Email and Calendar

This section describes issues related to Email and Calendars.

Problem With Changing Authentication Type (6246543)

After you change the authentication type for the incoming mail server, Email and Calendar might not work correctly.

Workaround: Restart Email and Calendar.

Login Issues

This section describes login issues.

Login Error Message

You might encounter the following error message when you log in to a Java Desktop System session:

```
Could not look up internet address for hostname.  
This will prevent GNOME from operating correctly.  
It may be possible to correct the problem by adding  
hostname to the file /etc/hosts
```

Workaround: Ensure that your hostname is set up correctly in the `/etc/hosts` file. Perform the following steps:

1. Set the hostname in the `/etc/hosts` file as follows:

```
127.0.0.1 localhost loghost hostname  
localhost.localdomain
```

hostname is the name of your system.

2. Ensure that your hostname is listed in the `/etc/nodename` file. This file must also contain the following line:

```
127.0.0.1 localhost loghost hostname  
localhost.localdomain
```

Help System

Wrong Help Window Opened For Volume Control (6253210)

If you use the Yelp browser to open the online help for Volume Control, the help file for the Keyboard Accessibility panel application is opened instead.

Workaround: None.

Mozilla Browser

Cannot Print Certain Documents From the Mozilla Browser

You cannot print documents from the Mozilla browser if the documents contain Unicode characters that are not in the Basic Multilingual Plane (BMP).

Workaround: None.

System-Level Issues

User Preferences Not Fully Compatible

User preferences in your home account for an earlier version of the GNOME Desktop might be partly incompatible with the version on the Java DS Release 3.

Workaround: Reset your preferences. Perform the following steps:

1. Log out of the Java Desktop System.
2. Click Session and choose Failsafe terminal.
3. Log in.
4. In the failsafe terminal window, enter the following commands:

```
% gnome-cleanup exit
```

5. Log in again.

Your GNOME preferences are now reset.

Problems With Online Registration of StarOffice Software (6208829)

You might be unable to complete the online registration of the StarOffice software if the software cannot find Mozilla on the system. The software must be able to locate the Email and Calendar application to successfully send documents.

Workaround: Add `/usr/sfw/bin` to your PATH. Perform the following steps.

1. Open a terminal window.
 2. Issue the following command:
- ```
% export PATH=/usr/sfw/bin:$PATH
```
3. To start the StarOffice software, issue the following command:

```
% soffice
```



4. Complete the StarOffice registration procedure.

## Problems With Sound Recorder

The slide bar and the side counter do not work when the Sound Recorder is recording a new .wav file.

**Workaround:** None.

## Nautilus ACL MASK is Not in Sync With Group Permissions (6464485)

The Group permissions in the Permissions tab should be the same as the Mask permissions in the Access Tab, but on some occasions they appear out of sync.

**Workaround:** Click the Close button, and then click Reload. View the file properties again. The Group permissions and the Mask permissions will now be in sync again. The permissions are set to what you changed the Mask to in the previous step.

## strftime(3c) Should Support GNU Extension in %-m And %-d (6448815)

The Java DS menu bar and some applications, like Evolution, incorrectly display Chinese date. The incorrect date is displayed in the %-m M %-d D format where M and D are the month and date in Chinese respectively.

**Workaround:** Perform the following steps:

1. Backup the /usr/share/locale/LC\_MESSAGES/gnome-panel\*.mo file.
2. Download gnome-panel.gnome-2-16.zh\_CN.po from [http://l10n.gnome.org/POT/gnome-panel.gnome-2-16/gnome-panel.gnome-2-16.zh\\_CN.po](http://l10n.gnome.org/POT/gnome-panel.gnome-2-16/gnome-panel.gnome-2-16.zh_CN.po) and save it under the /tmp directory.
3. Edit the file gnome-panel.gnome-2-16.zh\_CN.po and replace all occurrences of %-m with %Om, and %-d with %e.
4. Generate a new gnome-panel.gnome-2-16.zh\_CN.po file.

```
msgfmt -v -o gnome-panel.gnome-2-16.zh_CN.mo /tmp/gnome-panel.gnome-2-16.zh_CN.po
```

Copy the file back to the /usr/share/locale/LC\_MESSAGES/ directory.

5. Log out of the system and re-login.

## x86: Cannot Configure Full-Screen Magnification on Systems With One Video Card

If your Solaris 10 system has a single physical video card, you cannot configure the system for full-screen magnification. For such a configuration, you must use a separate configuration file in which you define settings for a dummy driver. First, make sure that the Xserver is not running. Then perform the following steps:

1. Log in to a command-line session.
  - If you are using the GNOME Display Manager, follow these steps:
    - a. Log in to a session as superuser.
    - b. At the prompt, type **svcadm disable application/gdm2-login**.
    - c. Log in again as superuser.
  - If you are using dtlogin, follow these steps:
    - a. In the dtlogin window, click Options and select Command Line Login.
    - b. Log in as superuser.
2. Create a new `xorg.conf` file.

```
/usr/X11/bin/Xorg -configure
```

The command creates the file `xorg.conf.new` in the root (`/`) directory.

3. Copy the new configuration file to the `/etc/x11` directory and rename the file `xorg.conf`.

```
cp /xorg.conf.new /etc/X11/xorg.conf
```

4. Modify the configurations in the file by using the following sample configurations:
  - Add a new monitor section.

```
Section "Monitor"
 Identifier "monitor_dummy"
 ModelName "dummy"
 HorizSync 10-200
 VertRefresh 20-90
EndSection
```

- Add a new device section.

```
Section "Device"
 BoardName "dummy"
 Driver "dummy"
 Identifier "device_dummy"
 VendorName "dummy"
 videoram 10000
EndSection
```

---

**Note** – You might need to adjust the videoram value, depending on the screen width, height, and color depth of your particular graphics card. The value in Kbytes must be large enough for the intended screen. For example, you can compute the value by using the formula  $\text{width} * \text{height} * \text{bpp} / 8$ .

---

- Add a new screen section.

```
Section "Screen"
 DefaultDepth 24
 SubSection "Display"
 Depth 24
 Modes "1280x1024"
 EndSubSection
 Device "device_dummy"
 Identifier "screen_dummy"
 Monitor "monitor_dummy"
EndSection
```

---

**Note** – You might need to adjust the resolution value for your particular system setup.

---

5. Look for the following line under the ServerLayout section:

```
Screen 0 "Screen0" 0 0
```

6. Insert the following line below the line in the previous step:

```
Screen 1 "screen_dummy" RightOf "Screen0"
```

This new line defines Screen1, a second dummy screen that is notionally to the right of Screen0, the physical and primary screen.

7. Save the changes.
8. Reboot the system from the appropriate command-line session:
  - If you are using GDM, perform the following:
    - a. Type **svcadm enable application/gdm2-login**.
    - b. Reboot the system.
  - If you are using dtlogin, reboot the system and log in.
9. Start the Gnopernicus screen reader.
10. Change the Startup Mode to Magnifier.
11. Click Preferences, then select Magnifier.
12. Click Add/Modify.

13. Assign the following values for Magnifier preferences:

- For Source: 0.1
- For Zoomer Placement:
  - Left and Top: 0
  - Bottom and Right: maximum

14. Click Apply.

Because of the overlaying full-screen magnification zoomer, the Gnopernicus windows become invisible. However, full-screen magnification is now available.

## Certain View Options Might Cause File Manager to Fail (6233643)

The File Manager might fail if you use the following View options:

- View as Catalog
- View as Image Collection

Depending on the View options that you use, the following error messages might be displayed:

- Error:

The application nautilus has quit unexpectedly

- Error:

The Catalog view encountered an error while starting up

- Error:

The Image Collection view encountered an error while starting up

**Workaround:** None. Every time these problems occur, restart File Manager or click the Restart Application button on the crash dialog box.

## System Administration

This section describes system administration bugs in Solaris 10 OS.

### SPARC: Solaris Volume Manager GUI Fails to Start (6671736)

The Solaris Volume Manager GUI fails to start successfully. However, no system panic is detected.

**Workaround:** Remove the following lines from the `/var/sadm/smc/toolboxes/smc/smc.tbx` file.

```
<ToolBoxURL>
 <URL>file:/var/sadm/smc/toolboxes/tsol_files/tsol_files.tbx</URL>
</ToolBoxURL>
<ToolBoxURL>
 <URL>file:/var/sadm/smc/toolboxed/tsol_ldap/tsol_ldap.tbx</URL>
</ToolBoxURL>
```

## x86: add\_drv, update\_drv, and rem\_drv Commands Should Use Advisory Record Locking (6445040)

The `update_drv` command does not remove the `/tmp/AdDrEm.lck` lock file immediately, resulting in subsequent `add_drv`, `update_drv`, and `rem_drv` commands to fail. This issue is mostly visible when creating a custom install image. This lock file has been bundled in the miniroot so any attempts to add a package will fail. The following error message is displayed:

```
add_drv/rem_drv currently busy; try later
```

**Workaround:** If the `/tmp/AdDrEm.lck` file exists, manually remove it before attempting a `pkgadd` or `*_drv` commands.

## SPARC: FKU 137137-xx Does Not Support Third-Party Volume Manager Software

The FKU 137137-xx patch does not support third-party Volume Manager software, with some exceptions. This lack of support is due to prepatch, postpatch, and postbackout implementation. If users use unsupported third-party Volume Manager software, they cannot apply the FKU patch. The following error message is displayed during patch installation:

```
unsupported root slice type xxxxx
```

However, the Fujitsu and Veritas Volume Manager software is supported.

**Workaround:** None.

## Do Not Use `patchadd -M` to Install Patches on a System With Non-Global Zones

On a system with non-global zones, it is recommended not to use the `patchadd -M` option. The current implementation of `patchadd -M` applies all the patches to the global zone first, and only then to the non-global zones. This is sub-optimal, because if an issue occurs after a number of patches have been applied to the global zone but not to the non-global zone, the zones may be significantly out of sync with each other, making the situation potentially difficult to recover.

**Workaround:** `patchadd -a -M` can be used to construct a valid install sequence for a set of patches and to ensure that the patches should install without an issue.

For more information, see the Best Practices article on the BigAdmin Patching Hub, at [http://www.sun.com/bigadmin/features/articles/patch\\_management.jsp](http://www.sun.com/bigadmin/features/articles/patch_management.jsp).

## `::findleaks` Command Fails (6720107)

The `mdb` debugger `::findleaks` command fails on the Solaris 10 10/09 OS. The following error message is displayed:

```
mdb: couldn't walk 'modctl': unknown walk name
```

**Workaround:** Before using the `::findleaks` command, type the `::load krtld` command.

## Solaris 10 10/09 DVD Media Might Not be Automatically Mounted by `vol`d (6712352)

The Solaris 10 10/09 DVD does not mount by default during runtime. No error message is displayed.

**Workaround:** Perform the following steps:

1. Become superuser.
2. Disable `vol`d:
  - On Solaris 10 Systems:

```
svcadm disable -t volfs
```
  - On Solaris 8 and Solaris 9 systems:

```
/etc/init.d/volmgt stop
```
3. Mount the media manually by using the `# mount -F hsfs path to block device path to mount point` command. For example:

```
mount -F hsfs /dev/rdisk/c0t2d0s2 /mnt
```

## Cannot Log In to Solaris Management Console After Enabling Solaris Trusted Extensions (6639493)

The Solaris™ Management Console hangs and does not allow root login to the Solaris Management Console after enabling Solaris Trusted Extensions. The following error message might be displayed the Solaris Management Console hangs:

Configuring the Management Server...

**Workaround:** Perform the following steps:

1. Configure Solaris Trusted Extensions and start the Solaris Management Console.
2. Choose Open ToolBox from the Console menu.
3. Select `localhost` if it is listed.
4. If `localhost` is not listed, then type `localhost`.
5. Choose the Policy=TSOL toolbox.
6. Log in again to the Solaris Management Console as root.
7. (Optional) If the second login to the Solaris Management Console fails, repeat steps 1 through 5 by typing `127.0.0.1` instead of `localhost` in step 3.

## zoneadm attach Command Might Fail (6550154)

When you attach a zone, if the original host and the new host have packages at the same patch level but at different intermediate patch histories, the zone attach might fail. Various error messages are displayed. The error message depends on the patch histories of the two hosts.

**Workaround:** Ensure that the original host and the new host machines have had the same sequence of patch versions applied for each patch.

## Solaris is Unable to Handle Mode Switches Between Legacy and AHCI Modes for the SATA Controller (6520224)

In systems which have an AHCI compliant SATA controller, the BIOS setup typically enables the controller to be set in either AHCI, legacy, or RAID modes. Solaris supports AHCI and legacy modes.

The SATA mode setting in BIOS must not be changed after an initial Solaris installation. The SATA mode setting must also not be changed before or after a Solaris upgrade. If the SATA mode BIOS setting is modified after installing Solaris, the system will reset and fail to boot without indicating what led to the failure.

**Workaround:** If boot failure is encountered as a result of changing the BIOS setting, revert back to the original setting in order to boot Solaris.

## Deferred Activation Patching (6486471)

Starting with patch 119254-42 and 119255-42, the patch installation utilities, `patchadd` and `patchrm`, have been modified to change the way that certain patches delivering new features or existing files that are incompatible with the running system are handled. This utilities modification affects the installation of these patches on any Solaris 10 release. These “deferred-activation” patches handle the large scope of change delivered in Kernel patches better.

In deferred Activation patching, a loopback file system, `lofs`, is used to create a copy of the root file system. The original files being patched are copied to a safe location and the `lofs` copy of the root file system is patched. Then the original file is `lofs` mounted back over the new file as it is patched. This means the running system remains consistent over the duration of patching, new features are not active and any incompatible change is hidden until the user reboots.

Users must reboot as soon as possible after applying a Deferred Activation Patch, but they do not have to reboot immediately, they can still add further patches then reboot.

The patch README provides instructions on which patches require a reboot.

---

**Note** – Sun strongly recommends that patch operations are carried out in a single-user mode, especially when this is recommended by the patch README.

---

If you are running non-global zones or have `lofs` disabled, consider the following points when installing or removing deferred-activation patches:

- All non-global zones must be in a halted state for this patch operation. You must halt the non-global zone before applying the patch.
- Deferred-activation patching requires the loopback file system, `lofs` in order to complete successfully. Systems running Sun Cluster 3.1 or Sun Cluster 3.2 are likely to have `lofs` turned off because of restrictions on HA-NFS functionality when `lofs` is enabled. Therefore, before a deferred-activation patch is installed, you must re-enable the loopback file system by performing the following steps.
  1. Remove or comment out the following line in the `/etc/system` file:

```
exclude:lofs
```



2. Reboot your system.
3. Install the patch.
4. After you have completed the patch installation operation, restore or uncomment the same line from the `/etc/system` file.
5. Reboot the system to resume normal operations.

No error message is displayed.

**Workaround:** Sun recommends Solaris Live Upgrade to manage patching. Solaris Live Upgrade prevents the problems of patching a running system. Solaris Live Upgrade reduces the amount of downtime involved in patching and reduces risk by providing fallback capability if problems occur. For more information, see [Solaris 10 10/09 Installation Guide: Solaris Live Upgrade and Upgrade Planning](#).

## Possible Error With 32-bit Applications Getting File System State on Large File Systems (6468905)

When run on large file systems, for example ZFS, applications using `statvfs(2)` or `statfs(2)` to get information about the state of the file system exhibit an error. The following error message is displayed:

```
Value too large for defined data type
```

**Workaround:** Applications should use `statvfs64()` instead.

## Using `patchadd` With the `-R` Option To Specify an Alternative Root Path From Systems That Are Not Zones Aware Should Be Restricted (6464969)

On systems running a Solaris release that is not zones aware, using `patchadd -R`, or any command that accepts the `-R` option to specify an alternate root path for a global zone that has non-global zones installed, will not work.

In contrast with the error message that is displayed by using the `luupgrade [-t, -T, -p, -P]` command, no error message regarding the use of appropriate command-level restrictions is displayed in this instance.

There is no indication that the `-R` option did not work. As a result of the failure of the command, Solaris 10 packages or patches are not installed on any of the installed non-global zones.

This problem occurs while installing and uninstalling packages or patches.

---

**Note** – The -R option works if the alternate boot environment has configured non-global zones, but no installed non-global zones. However, to avoid a potential problem, or if you are not sure whether there are any installed non-global zones used as the alternate root path, restrict the use of the -R option in all instances.

---

For more information, see the following man pages :

- [patchadd\(1M\)](#)
- [patchrm\(1M\)](#)
- [pkgadd\(1M\)](#)
- [pkgrm\(1M\)](#)

**Workaround 1:** Upgrade the OS to at least the Solaris 10 1/06 release.

If you are running the Solaris 10 3/05 release, install the following patches to enable the use of commands that accept the -R option to create an alternate root path:

- Patch ID 119254-19 for SPARC based systems
- Patch ID 119255-19 for x86 based systems

**Workaround 2:** Restrict the use of the patchadd -R command or any command that accepts the -R option to create an alternate root path.

Instead, boot the alternate root, for example, the Solaris 10 release, as the active OS. Then install and uninstall the Solaris 10 packages and patches without using the -R option.

## Sun Patch Manager Tool 2.0 Not Compatible With Previous Versions

A system that runs the Sun Patch Manager Tool 2.0 can manage remote systems that run Patch Manager Tool, including Sun Patch Manager Tool 1.0.

However, a system with an earlier version of Patch Manager Tool cannot manage remote systems that run Patch Manager Tool 2.0. Earlier versions include the following:

- Sun Patch Manager Base Software 1.x
- Sun Patch Manager Tool 1.0

---

**Note** – Common Information Model/Web Based Enterprise Management (CIM/WBEM) support for Patch Manager Tool does not exist in the Solaris 8 OS. Consequently, remote management with Patch Manager does not apply to Solaris 8 systems.

---

## Cannot Delete Existing Diskless Clients From the System (6205746)

If you use the `smdiskless` command to delete a diskless client, the command fails. The diskless client is not removed from the system databases. The following error message is displayed:

Failing with error EXM\_BMS.

**Workaround:** Unshare the `/export` partition before adding the client.

## SPARC: smosservice delete Command Does Not Successfully Remove All Directories (6192105)

If you use the `smosservice delete` command to remove a diskless client service, the command does not successfully remove all the service directories.

**Workaround:** Follow these steps.

1. Make sure that no clients exist that use the service.

```
unshare /export/exec/Solaris_10_sparc.all
rm -rf /export/exec/Solaris_10_sparc.all
rm -rf /export/exec/.copyofSolaris_10_sparc.all
rm -rf /export/.copyofSolaris_10
rm -rf /export/Solaris_10
rm -rf /export/share
rm -rf /export/root/templates/Solaris_10
rm -rf /export/root/clone/Solaris_10
rm -rf /tftpboot/inetboot.sun4u.Solaris_10
```

2. Remove the following entry from the `/etc/bootparams` file.

```
fs1-24 boottype=:os
```

---

**Note** – Remove this entry only if this file server does not provide functions or resources for any other services.

---

3. Remove the following entry from the `/etc/dfs/dfstab` file.

```
share -F nfs -o ro /export/exec/Solaris_8_sparc.all/usr
```

4. Modify the `/var/sadm/system/admin/services/Solaris_10` file.
  - If the file server is not Solaris\_10, delete the file.

- If the file server is Solaris\_10, remove all entries after the first three lines. The deleted lines indicate the service USR\_PATH and SPOOLED ROOT packages in /export/root/templates/Solaris\_10 and the supported platforms.

## System-Specific Issues

---

This chapter describes issues specific to Sun midrange and high-end servers. Current Sun servers are part of the Sun Fire system family. Older servers are part of the Sun Enterprise system family.

---

**Note** – The Sun Validation Test Suite release notes are now a separate document and can be found at <http://sun.com>.

---

### Dynamic Reconfiguration on Sun Fire High-End Systems

This section describes major domain-side DR bugs on the following Sun Fire high-end systems that run the Solaris 10 software:

- Sun Fire 25K
- Sun Fire 20K
- Sun Fire 15K
- Sun Fire 12K

For information about DR bugs on Sun Management Services, see the *SMS Release Notes* for the SMS version that is running on your system.

---

**Note** – This information applies only to DR as it runs on the servers listed in this section. For information about DR on other servers, see the Release Notes or Product Notes documents or sections that describe those servers.

---

### Known Software and Hardware Bugs

The following software and hardware bugs apply to Sun Fire high-end systems.

## GigaSwift Ethernet MMF Link Fails With CISCO 4003 Switch After DR Attach

The link fails between a system with a Sun GigaSwift Ethernet MMF Option X1151A and certain CISCO switches. The failure occurs when you attempt to run a DR operation on such a system that is attached to one of the following switches:

- CISCO WS-c4003 switch (f/w: WS-C4003 Software, Version NmpSW: 4.4(1))
- CISCO WS-c4003 switch (f/w: WS-C4003 Software, Version NmpSW: 7.1(2))
- CISCO WS-c5500 switch (f/w: WS-C5500 Software, Version McpSW: 4.2(1) and NmpSW: 4.2(1))

This problem is not seen on a CISCO 6509 switch.

**Workaround:** Use another switch. Alternatively, you can consult Cisco for a patch for the listed switches.

## Dynamic Reconfiguration on Sun Fire Midrange Systems

This section describes major issues that are related to DR on the following Sun Fire midrange systems:

- Sun Fire E6900
- Sun Fire E4900
- Sun Fire E6800
- Sun Fire E4810
- Sun Fire E4800
- Sun Fire E3800

---

**Note** – This information applies only to DR as it runs on the servers listed in this section. For information about DR on other servers, see the Release Notes or Product Notes documents or sections that describe those servers.

---

## Minimum System Controller Firmware

Table 3–1 shows acceptable combinations of Solaris software and System Controller (SC) firmware for each Sun Fire midrange system to run DR.

**Note** – To best utilize the latest firmware features and bug fixes, run the most recent SC firmware on your Sun Fire midrange system. For the latest patch information, see <http://sunsolve.sun.com>.

**TABLE 3-1** Minimum SC Firmware for Each Platform and Solaris Release

Platform	Solaris Release	Minimum SC Firmware
Sun Fire E6900/E4900 with UltraSPARC IV+	Solaris 10 3/05 HW1 (a limited release) or Solaris 10 1/06	5.19.0
E6900/E4900 without UltraSPARC IV+	Solaris 9 4/04	5.16.0
Sun Fire 6800/4810/4800/3800	Solaris 9 4/04	5.16.0
Sun Fire 6800/4810/4800/3800	Solaris 9	5.13.0

You can upgrade the system firmware for your Sun Fire midrange system by connecting to an FTP or HTTP server where the firmware images are stored. For more information, refer to the README and Install.info files. These files are included in the firmware releases that are running on your domains. You can download Sun patches from <http://sunsolve.sun.com>.

## Known DR Software Bugs

This section lists important DR bugs.

### Network Device Removal Fails When a Program Is Holding the Device Open (5054195)

If a process is holding open a network device, any DR operation that would involve that device fails. Daemons and processes that hold reference counts stop DR operations from completing.

**Workaround:** As superuser, perform the following steps:

1. Remove or rename the /rplboot directory.
2. Shut down NFS services.

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

3. Shut down Boot Server services.

```
sh /etc/init.d/boot.server stop
```

4. Perform the DR detach operation.
5. Restart NFS services.

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

- Restart Boot Server services.

```
sh /etc/init.d/boot.server start
```

## Sun Enterprise 10000 Release Notes

This section describes issues that involve the following features on the Sun Enterprise 10000 server:

- System Service Processor requirement
- Dynamic reconfiguration (DR)
- InterDomain Networks (IDNs)
- Solaris Operating System on Sun Enterprise 10000 domains

---

**Note** – The Solaris 10 software can be run on individual domains within a Sun Enterprise 10000 system. However, the Sun Enterprise 10000 System Service Processor is not supported by this release.

---

### System Service Processor Requirement

The SSP 3.5 software is required on your System Service Processor (SSP) to support the Solaris 10 software. Install the SSP 3.5 on your SSP first. Then you can install or upgrade to the Solaris 10 OS on a Sun Enterprise 10000 domain.

The SSP 3.5 software is also required so that the domain can be properly configured for DR Model 3.0.

### Dynamic Reconfiguration Issues

This section describes different issues that involve dynamic reconfiguration on Sun Enterprise 10000 domains.

#### DR Model 3.0

You must use DR 3.0 on Sun Enterprise 10000 domains that run the Solaris OS beginning with the Solaris 9 12/03 release. DR model 3.0 refers to the functionality that uses the following commands on the SSP to perform domain DR operations:

- addboard
- moveboard



- deleteboard
- showdevices
- rcfgadm

You can run the `cfgadm` command on domains to obtain board status information. DR model 3.0 also interfaces with the Reconfiguration Coordination Manager (RCM) to coordinate the DR operations with other applications that are running on a domain.

For details about DR model 3.0, refer to the *Sun Enterprise 10000 Dynamic Reconfiguration User Guide*.

## DR and Bound User Processes

For this Solaris release, DR no longer automatically unbinds user processes from CPUs that are being detached. You must perform this operation before initiating a detach sequence. The drain operation fails if CPUs are found with bound processes.

## Network Device Removal Fails When a Program Is Holding the Device Open (5054195)

If a process is holding open a network device, any DR operation that would involve that device fails. Daemons and processes that hold reference counts stop DR operations from completing.

**Workaround:** As superuser, perform the following steps:

1. Remove or rename the `/rplboot` directory.
2. Shut down NFS services.

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

3. Shut down Boot Server services.

```
sh /etc/init.d/boot.server stop
```

4. Perform the DR detach operation.
5. Restart NFS services.

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

6. Restart Boot Server services.

```
sh /etc/init.d/boot.server start
```

## InterDomain Networks

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

## OpenBoot PROM Variables

Before you issue the boot net command from the OpenBoot PROM prompt (OK), verify that the local-mac-address? variable is set to false. This setting is the factory default setting. If the variable is set to true, you must ensure that this value is an appropriate local configuration.



---

**Caution** – A local-mac-address? that is set to true might prevent the domain from successfully booting over the network.

---

In a net con window, you can use the following command at the OpenBoot PROM prompt to display the values of the OpenBoot PROM variables:

```
OK printenv
```

To reset the local-mac-address? variable to the default setting, use the setenv command:

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

## Dynamic Reconfiguration on Sun Enterprise Midrange Systems

This section contains the latest information about dynamic reconfiguration (DR) functionality for the following midrange servers that are running the Solaris 10 software:

- Sun Enterprise 6x00
- Sun Enterprise 5x00
- Sun Enterprise 4x00
- Sun Enterprise 3x00

For more information about Sun Enterprise Server Dynamic Reconfiguration, refer to the *Dynamic Reconfiguration User's Guide for Sun Enterprise 3x00/4x00/5x00/6x00 Systems*. The Solaris 10 release includes support for all CPU/memory boards and most I/O boards in the systems that are mentioned in the preceding list.

## Supported Hardware

Before proceeding, make sure that the system supports dynamic reconfiguration. If your system is of an older design, the following message appears on your console or in your console logs. Such a system is not suitable for dynamic reconfiguration.

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

The following I/O boards are not currently supported:

- Type 2 (graphics)
- Type 3 (PCI)
- Type 5 (graphics and SOC+)

## Software Notes

This section provides general software information about DR.

### Enabling Dynamic Reconfiguration

To enable dynamic reconfiguration, you must set two variables in the `/etc/system` file. You must also set an additional variable to enable the removal of CPU/memory boards. Perform the following steps:

1. Log in as superuser.
2. Edit the `/etc/system` file by adding the following lines:

```
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 file:

```
set kernel_cage_enable=1
```

Setting this variable enables the memory unconfiguration operation.

4. Reboot the system to apply the changes.

### Quiesce Test

You start the quiesce test with the following command:

```
cfgadm -x quiesce-test sysctrl0:slot number
```

On a large system, the quiesce test might run for up to a minute. During this time no messages are displayed if `cfgadm` does not find incompatible drivers.

### Disabled Board List

Attempting to connect a board that is on the disabled board list might 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, two options are available:

- Using the force flag (-f)

```
cfgadm -f -c connect sysctrl0:slot number
```

- Using the enable option (-o enable-at-boot)

```
cfgadm -o enable-at-boot -c connect sysctrl0:slot
number
```

To remove all boards from the disabled board list, choose one of two options depending on the prompt from which you issue the command:

- From the superuser prompt, type:

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

- From the OpenBoot PROM prompt, type:

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

For further information about the `disabled-board-list` setting, refer to the “Specific NVRAM Variables” section in the *Platform Notes: Sun Enterprise 3x00, 4x00, 5x00, and 6x00 Systems* manual. This manual is part of the documentation set in this release.

## Disabled Memory List

Information about the OpenBoot PROM `disabled-memory-list` setting is published in this release. See “Specific NVRAM Variables” in the *Platform Notes: Sun Enterprise 3x00, 4x00, 5x00, and 6x00 Systems* in the Solaris on Sun Hardware documentation.

## Unloading Detach-Unsafe Drivers

If you need to unload detach-unsafe drivers, use the `modinfo` line command to find the module IDs of the drivers. You can then use the module IDs in the `modunload` command to unload detach-unsafe drivers.

## Self-Test Failure During a Connect Sequence

Remove the board from the system as soon as possible if the following error message is displayed during a DR connect sequence:

```
cfgadm: Hardware specific failure: connect failed: firmware operation error
```

The board has failed self-test, and removing the board avoids possible reconfiguration errors that can occur during the next reboot.

The failed self-test status does not allow further operations. Therefore, if you want to retry the failed operation immediately, you must first remove and then reinsert the board.

## Known Bugs

The following list is subject to change at any time.

### Network Device Removal Fails When a Program Is Holding the Device Open (5054195)

If a process is holding open a network device, any DR operation that would involve that device fails. Daemons and processes that hold reference counts stop DR operations from completing.

**Workaround:** As superuser, perform the following steps:

1. Remove or rename the /rplboot directory.
2. Shut down NFS services.

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

3. Shut down Boot Server services.

```
sh /etc/init.d/boot.server stop
```

4. Perform the DR detach operation.
5. Restart NFS services.

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

6. Restart Boot Server services.

```
sh /etc/init.d/boot.server start
```



# End-of-Software Support Statements

---

This chapter lists end-of-software support statements.

---

**Note** – The Solaris 10 OS media kit contains not only the Solaris 10 OS software, but also developer tools for the Solaris OS and the Solaris Companion CD (useful and popular technologies offered as unsupported, value-add, free software). The information provided on <http://www.sun.com/service/serviceplans/solaris/10/> lists the components of the Solaris 10 OS media kit. It also shows the support provided for these components under the SunSpectrum program and Sun Software Support contracts.

---

## Features That Might Be Removed in a Future Release

The following features might not be supported in a future release of the Solaris software.

### @euro Locale Variants

The following @euro locale variants might be removed in a future Solaris release:

ca_ES.ISO8859-15@euro	de_AT.ISO8859-15@euro
de_DE.ISO8859-15@euro	de_DE.UTF-8@euro
el_GR.ISO8859-7@euro	en_IE.ISO8859-15@euro
es_ES.ISO8859-15@euro	es_ES.UTF-8@euro
fi_FI.ISO8859-15@euro	fr_BE.ISO8859-15@euro
fr_BE.UTF-8@euro	fr_FR.ISO8859-15@euro

fr_FR.UTF-8@euro	it_IT.ISO8859-15@euro
it_IT.UTF-8@euro	nl_BE.ISO8859-15@euro
nl_NL.ISO8859-15@euro	pt_PT.ISO8859-15@euro

Users should use the corresponding non-variant locales.

## StarOffice

The StarOffice productivity suite might not be available in a future Solaris release. Users can purchase a copy of StarOffice from the Sun Store directly at <http://globalspecials.sun.com> or migrate to the OpenOffice.org productivity suite.

## ucblinks

The ucblinks feature that created SunOS 4.x device name links in the /dev directory might not be supported in a future Solaris 10 release. The current Solaris releases use SunOS 5.x device names.

The following table lists the SunOS 4.x device name links that might be removed:

SunOS 4.x device name	Device type
/dev/[r]fd%d	fd floppy
/dev/[r]sr%d	sd/atapi cdrom
/dev/[r]sd%d	sd disk
/dev/[r]n%d	st tape

The following table lists the current SunOS 5.x device name links:

SunOS 5.x device name	Device type
/dev/[r]diskette	fd floppy
/dev/[r]dsk/*	sd/atapi cdrom
/dev/[r]dsk/*	sd disk
/dev/rmt/*	st tape



## Xprt Server and Xprint Extension

The Xprt server and Xprint extension to the X Window System might no longer be included in a future Solaris release. The libXp library will remain for binary compatibility. This enables existing users of this software to continue printing over the network to Xprt servers running on Solaris 10 and prior Solaris releases, or Xprint implementations on other platforms.

## xmh Command

The xmh command might no longer be included in a future Solaris release. Thunderbird and Evolution are the supported email GUIs.

## XIE Libraries

XIE libraries might no longer be included in a future Solaris release.

## bdf to snf and show snf Commands

The bdf to snf and show snf commands might no longer be included in a future Solaris release.

## PostgreSQL 8.1 and 8.2

PostgreSQL versions 8.1 and 8.2 might not be supported in a future Solaris release.

## Locale Variant `cs`

The `cs` short variant for the Czech locale might be removed in a future Solaris release. Users should use the following Czech locales instead:

- `cs_CZ`
- `cs_CZ.ISO8859-2`
- `cs_CZ.UTF-8`
- `cs_CZ.UTF-8@euro`

## Solaris Audit Commands

The following Solaris Audit interfaces might be replaced with equivalent functionality in a future release of Solaris:

- `audit_startup(1M)`

- `bsmconv(1M)`
- `bsmrecord(1M)`
- `bsmunconv(1M)`
- `audit_control(4)`

## **xorgcfg and xorgconfig Utilities**

The `xorgcfg` and `xorgconfig` utilities for generating `xorg.conf` files might no longer be available in a future Solaris release.

The `Xorg(1)` server does not require an `xorg.conf(4)` file in many cases and will autoconfigure itself if the file is not present. Users should use one of the following alternative methods to generate an `xorg.conf` file for customization if the default configuration does not meet their needs:

- When the server is not already running, `/usr/X11/bin/Xorg -configure`, provides a sample configuration file for the currently detected hardware in the system.
- When `Xorg` is started without a configuration file, the `xorg.conf` data that `Xorg` automatically generates is logged in the `/var/log/Xorg.0.log` log file. The `xorg.conf` data might also be copied to an `xorg.conf` file for customization.
- Users of NVidia graphics devices should use the provided `nvidia-settings(1)` and `nvidia-xconfig(1)` utilities to generate or update device-specific configurations.
- Users of Sun graphics devices for the SPARC platform should use the `fbconfig(1)` utility to generate or update device-specific configurations.

## **Auditing File Size Statistics and File Size Restriction Interfaces**

The auditing file size statistics and file size restriction interfaces `getfsize` and `setfsize`, consisting of the similarly named sub-commands within the `auditon(2)` system call and the options to the `auditconfig(1M)` command, might not be supported in a future Solaris release.

## **Berkeley DB 4.2**

Oracle Berkeley DB (BDB) 4.2 might not be supported in a future Solaris release.

## **Some `audiorecord` and `audioplay` Application Switches**

The `-p` and `-b` switches to both the `audiorecord` and `audioplay` applications, as well as the `-m` switch to `audiorecord` might be removed in a future Solaris release.

If a filename is not specified on the command line and standard input and output is not a tty, both these applications will exit with an error. Any changes to audio volume settings made by these applications are not persistent from one instance to the next. Users wishing to adjust the settings of their audio devices should migrate to the `mixerctl(1)` and `gnome-volume-control(1)` applications.

## **CD Media**

The Solaris 10 OS might no longer be available on CDs in future Solaris releases.

## **Inbound Open Source and Third Party Vendor Supplied Open Source Components Policy Change**

When the Open Source Community stops the development of inbound Open Source components like Mozilla, Sun will also stop all the development and support activities of this product version. Sun will publish a Managed Products End-of-Software Support List (EOSL) at <http://www.sun.com/service/index.jsp> and update the list monthly with the components that will no longer be supported.

## **Mozilla 1.X Support**

Starting from the Solaris 10 10/08 release, the Mozilla™ 1.X software is no longer supported as a result of the new Inbound Open Source components policy change. Users should upgrade to Firefox.

## **x86: `sbpro` Driver**

The Sound Blaster Pro device driver (`sbpro`) for SoundBlaster Pro, SoundBlaster 16, and SoundBlaster AWE32 ISA devices might not be supported in a future release.

## **CacheFS**

The CacheFS file system feature might not be supported in a future Solaris release.

## sdtudctool

sdtudctool might not be available in a future Solaris release. For more information, see User Defined Characters Migration Guide for the migration at [http://developers.sun.com/global/products\\_platforms/solaris/reference/techart/UDCGuide.html](http://developers.sun.com/global/products_platforms/solaris/reference/techart/UDCGuide.html)

## SPARC: cg6 Driver for SBus Graphics Cards

The cg6 driver for the following SBus graphics cards might not be included in a future release:

- GX
- GXplus
- TurboGX
- TurboGXplus

## ctlmp and ctlconvert\_txt

The /usr/openwin/bin/ctlmp and /usr/openwin/bin/ctlconvert\_txt utilities might not be supported in a future Solaris release. Users should use mp(1) print filter or another suitable printing mechanism instead.

## genlayouttbl Utility

The genlayouttbl(1) utility which provides complex text layout data to the CDE/Motif GUI toolkit might not be available in a future release.

## Mobile IP

The Mobile IPv4 feature described in the mipagent(1M) man page, might not be available in a future Solaris release.

## Gnopernicus

Gnopernicus, the Java DS Screen Reader might not be available in a future Solaris release. Users should use the Orca Screen Reader instead.

## Xsun Server

The Xsun server for the X Window System might not be available in a future Solaris release. Users should migrate to the Xorg server.

Features such as Display Postscript (DPS) and X Image Extension (XIE) that are available in Xsun but not in Xorg might no longer be included.

## **Common Desktop Environment**

The Common Desktop Environment (CDE) might not be available in a future Solaris release. Users should migrate to the Java Desktop System.

## **CDE Image Viewer**

CDE's Image Viewer `sdtimage` might not be available in a future Solaris release. Users should migrate to GNOME Open `gnome-open`, to open image files.

## **Sun Java System Calendar Server Client Applet**

The Sun Java System Calendar Server client applet, `Now` applet, might not be available in a future Solaris release.

## **DARPA Trivial Name Server**

The DARPA trivial name server, `in.tnamed(1M)`, might not be available in a future Solaris release. The Internet domain name server `named(1M)` provides similar functionality.

## **I2O Intelligent I/O**

The I2O intelligent I/O driver framework and all corresponding drivers might not be supported in a future Solaris release. This includes the `i2o_bs(7D)`, and `i2o_scsi(7D)` drivers and all I2O related functionality.

## **GNOME Viewer for PDF and PostScript Files**

The GNOME viewer for PDF and PostScript™ files, might not be available in a future Solaris release. A replacement application is expected to enable viewing of PDF and PostScript files.

## **The Graphical Smartcard Admin Interface**

The graphical Smartcard admin interface `sdtsmartcardadmin(1M)` may not be available in future Solaris releases. The same functionality is available in the `smartcard(1M)` command.

## iButton Smartcard

The Dallas Semiconductor iButton Java Card Smartcard and OpenCard Framework (OCF) terminal driver, as described in `ocf_ibutton(7d)` might not be supported in future Solaris releases. Users should migrate to other Smartcard devices that are supported by `libpcsc-lite(3lib)`.

## Cyberflex Smartcard

The Cyberflex Smartcard might not be supported by the `pam_smartcard(5)` and `smartcard(1m)` commands in future Solaris releases. Users should migrate to other Smartcard devices and cards that are supported by `libpcsc-lite(3lib)`.

## PAM Smartcard

The PAM Smartcard module `pam_smartcard(5)` might not be available in future Solaris releases.

## OCF/SCF Smartcard Framework

The OCF/SCF Smartcard framework may not be available in a future Solaris releases. The functionality of `ocfserv(1M)` will be provided by `pcscd(1M)`. The card provisioning functionality of `smartcard(1M)` will be provided by `muscletool(1M)`. The driver configuration functionality provided by `smartcard(1M)` is generally not necessary with `pcscd(1M)`, however, when required system administrators can edit the `reader.conf(4)` file.

## SCF Smartcard APIs

The SmartCard Framework (SCF) interfaces exported by `libsmartcard` and `smartcard.jar` may not be available in future Solaris releases. These interfaces are now obsolete. New C applications should be written to use the PS/SC interfaces exported from `libpcsc-lite(3lib)`. There is no planned replacement for the SCF Java interfaces at this time.

## Remote Program Load Server Functionality

The Remote Program Load (RPL) server functionality available through `rpld(1M)` and `rpld.conf(4)` may not be available in a future release of Solaris.

## Transition From `ipge` to `e1000g` NIC Driver as the Default Ethernet Driver for Sun4V Systems

The `ipge` driver and all its `SUNWipge` packages for Sun4V systems might not be available in a future release of Solaris. Starting with the Solaris 10 8/07 release, Ontario and other SPARC based platforms transition from `ipge` to `e1000g` drivers. The `e1000g` driver will be the default Ethernet driver for all Sun platforms that use Intel 1G chipsets.

## Solstice Enterprise Agents Support

The following Solstice Enterprise Agents™ (SEA) agents, libraries, and packages might not be supported in a future Solaris release:

- SEA-based SNMP master agent and sub agents
- `libssagent` and `libssasnmplib` libraries
- `SUNWsacom`, `SUNWsasnm`, `SUNWmibii` packages

The System Management Agent (SMA) provides similar functionality for the aforementioned sources.

## 32-bit x86: Extended Memory File System Support

The extended memory file system (`xmemfs`) might not be supported in a future Solaris release.

For more information, see the `xmemfs(7FS)` man page.

## Standard Type Services Framework Support

Standard Type Service Framework (STSF) might not be available in a future Solaris release.

This includes the following:

- `libST` and `libXst` libraries
- `xstls` command
- `stfsloader` service
- XST extension to Xsun and Xorg servers

You can find this functionality in one of the following alternative sources:

- `libX11`
- `libXft2`

## **SPARC: jfca Driver Support**

The JNI Fibre Channel Adapter (jfca) driver might not be available in a future Solaris release.

For more information, see the `j fca(7D)` man page.

## **zic -s Option Support**

The `-s` option in the `zic` command might not be available in a future Solaris release.

For more information, see the `zic(1M)` man page.

## **Removable Volume Management Support**

The volume management daemon (`vold`), volume management file system (`volfs`), and the associated volume management commands might not be included in a future Solaris release.

Automatic mounting and unmounting of removable media will continue to be supported.

For more information, see the `vold(1M)` and `volfs(7FS)` man pages.

## **32-bit x86: Controller Devices and Drivers**

The following devices might not be supported in a future Solaris release:

- IBM PC ServeRAID SCSI
- IBM ServeRAID II Ultra SCSI
- IBM ServeRAID-3 Ultra2 SCSI

In addition, device drivers written for these controllers might not be supported.

## **64-bit SPARC: Dual Basic Rate ISDN Interface and Multimedia Codec Chips**

T5900FC Dual Basic Rate ISDN Interface (DBRI) and associated multimedia codec chips might not be supported in a future Solaris release. In addition, device drivers written for these devices might not be supported.



## SPARC: Certain Drivers Might Not be Supported in a Future Solaris Release

The following drivers might not be supported in a future Solaris release:

- SUNWrtvc: Device driver for the SunVideo™ real-time video capture and compression card
- SUNWdial: Streams module for the Dials and Buttons devices
- SUNWdialh: Header files for the Dials and Buttons devices

## Automated Security Enhancement Tool Support

The checksum functionality provided by Automated Security Enhancement Tool (ASET) in the `/usr/aset` directory might not be available in a future Solaris release.

You can find this functionality in one of the following alternative sources:

- The basic audit reporting tool, `bart`, in Solaris 10 OS
- The Solaris Security Toolkit found at <http://www.sun.com/software/security/jass/>
- The Solaris Fingerprint Database found at <http://sunsolve.sun.com/pub-cgi/show.pl?target=content/content7>

## Asian Short `dtlogin` Names

The following Asian short locale names might not be listed in the `dtlogin` language list in a future release:

- `zh`
- `ko`
- `zh_TW`

Beginning with Solaris 8 release, new ISO-standard locale names have been provided, including the following locale names:

- `zh_CN.EUC`
- `zh_CN.GBK`
- `zh_CN.UTF-8`
- `ko_KR.EUC`
- `ko_KR.UTF-8`
- `zh_TW.EUC`

## Audit Daemon Interfaces

The following interfaces that are used by the Solaris audit daemon might not be supported in a future release:

- `auditsvc(2)`
- `audit_data(4)`

## Cfront Runtime Support Library

The library `libc.so.3` is the runtime support library for programs that are compiled by the Cfront C++ compiler C++ 3.0. Neither the compiler nor programs that are created by the compiler run on Solaris 10 OS. The library might not be supported in a future release of Solaris.

## Configuration Assistant's fp Plug-in Hardware Options

The following options of the configuration administration's (cfdm) fp plug-in might not be supported in a future Solaris release:

- `show_FCP_dev`
- `unusable_FCP_dev`

## Device Allocation Interfaces For the Basic Security Module

The following components of the device allocation mechanism of the Basic Security Module might not be included in a future release of the Solaris software:

- `mkdevalloc(1M)`
- `mkdevmaps(1M)`
- `/etc/security/dev`

## Obsolete Device Driver Interfaces

Some device driver interfaces (DDI) might not be supported in a future release.

The following table lists the DDI interfaces that might not be supported, along with the preferred DDI interface alternatives.

Obsolete Interface	Preferred Interface
mmap	devmap
identify	set to nulldev
copyin	ddi_copyin
copyout	ddi_copyout
ddi_dma_addr_setup	ddi_dma_addr_bind_handle
ddi_dma_buf_setup(9F)	ddi_dma_buf_bind_handle
ddi_dma_curwin	ddi_dma_getwin
ddi_dma_free	ddi_dma_free_handle
ddi_dma_htoc	ddi_dma_addr[buf]_bind-handle
ddi_dma_movwin	ddi_dma_getwin
ddi_dma_nextseg	ddi_dma_nextcookie
ddi_dma_nextwin	ddi_dma_nextcookie
ddi_dma_segtocookie	ddi_dma_nextcookie
ddi_dma_setup	ddi_dma_*_handle
ddi_dmae_getlim	ddi_dmae_getattr
ddi_getlongprop	ddi_prop_lookup
ddi_getlongprop_buf	ddi_prop_lookup
ddi_getprop	ddi_prop_get_in
ddi_getproplen	ddi_prop_lookup
ddi_iopb_alloc	ddi_dma_mem_alloc
ddi_iopb_free	ddi_dma_mem_free
ddi_mem_alloc	ddi_dma_mem_alloc
ddi_mem_free	ddi_dma_mem_free
ddi_map_regs	ddi_regs_map_setup
ddi_prop_create	ddi_prop_update
ddi_prop_modify	ddi_prop_update
ddi_segmap	see devmap
ddi_segmap_setup	devmap_setup

Obsolete Interface	Preferred Interface
<code>ddi_unmap_regs</code>	<code>ddi_regs_map_free</code>
<code>free_pktiopb</code>	<code>scsi_free_consistent_buf</code>
<code>get_pktiopb</code>	<code>scsi_alloc_consistent_buf</code>
<code>makecom_g0</code>	<code>scsi_setup_cdb</code>
<code>makecom_g0_s</code>	<code>scsi_setup_cdb</code>
<code>makecom_g1</code>	<code>scsi_setup_cdb</code>
<code>makecom_g5</code>	<code>scsi_setup_cdb</code>
<code>scsi_dmafree</code>	<code>scsi_destroy_pkt</code>
<code>scsi_dmaget</code>	<code>scsi_init_pkt</code>
<code>scsi_pktalloc</code>	<code>scsi_init_pkt</code>
<code>scsi_pktfree</code>	<code>scsi_destroy_pkt</code>
<code>scsi_resalloc</code>	<code>scsi_init_pkt</code>
<code>scsi_resfree</code>	<code>scsi_destroy_pkt</code>
<code>scsi_slave</code>	<code>scsi_probe</code>
<code>scsi_unslave</code>	<code>scsi_unprobe</code>
<code>ddi_peek{c,s,l,d}</code>	<code>ddi_peek{8,16,32,64}</code>
<code>ddi_poke{c,s,l,d}</code>	<code>ddi_poke{8,16,32,64}</code>
<code>in{b,w,l}</code>	<code>ddi_get{8,16,32}</code>
<code>out{b,w,l}</code>	<code>ddi_put{8,16,32}</code>
<code>repins{b,w,l}</code>	<code>ddi_rep_get{8,16,32}</code>
<code>repouts{b,w,l}</code>	<code>ddi_rep_put{8,16,32}</code>

## Device Management Entries in `power.conf`

The Device Management entries in the `power.conf` file might not be supported in a future release. Similar capability is provided by the Automatic Device Power Management entries in the Solaris 10 software.

For more information, see the [power.conf\(4\)](#) man page.

## Device Support and Driver Software

The following table lists devices and driver software that might not be supported in a future release.

TABLE 4-1 Device and Driver Software

Name of Physical Device	Name of Driver	Type of Card
AMI MegaRAID host bus adapter, first generation	mega	SCSI RAID
Compaq 53C8x5 PCI SCSI, and Compaq 53C876 PCI SCSI	cpqncr	SCSI HBA
Compaq SMART-2/P Array Controller and Compaq SMART-2SL Array Controller	smartii	SCSI RAID controller

## Form and Menu Language Interpreter

The Form and Menu Language Interpreter (FMLI) commands are obsolete and might not be supported in a future Solaris release. The obsolete commands include the following:

- `/usr/bin/fmli`
- `/usr/bin/vsig`

## Host Files in `/etc/net/ti*`

The host files in `/etc/net/ti*` are no longer consulted in the Solaris Operating System, though these files remain in the Solaris software. In a future Solaris release, these host files might be entirely removed.

## Java 2 Platform, Standard Edition 1.4

Java 2 Platform, Standard Edition (J2SE Platform) 1.4 might not be included in a future Solaris release. J2SE 5.0 software, the default Java version in the Solaris 10 OS, is a compatible replacement for J2SE 1.4 technology.

## Kerberos Ticket Lifetime Parameters in `krb5.conf`

The Kerberos Ticket Lifetime parameters, `max_life` and `max_renewable_life`, might no longer be supported in a future release of the Solaris OS. These parameters are in the `appdefaults` section of the `/etc/krb5/krb5.conf` file. Instead of these parameters, use `max_lifetime` and `renew_lifetime` in the `libdefaults` section of `/etc/krb5/krb5.conf`.

## Korean CID Fonts

Korean CID fonts will not be supported in a future release. You can use the Korean TrueType fonts that are included in the Solaris software as a replacement for Korean CID fonts.

## Legacy or Traditional Non-UTF-8 Locales

Sun is adopting Unicode for character encoding. Therefore, except for zh\_CN.GB18030 and C locales, non-UTF-8 locales might be removed as the Java Desktop System login locale in a future Solaris release.

## Functions in the CPU Performance Counters Library (libcpc)

Hardware performance counters enable the measurement of many different hardware events that are related to CPU behavior. The following functions in the CPU Performance Counters library (libcpc) might not be supported in a future Solaris OS release:

---

cpc_access	cpc_bind_event
cpc_count_sys_events	cpc_count_usr_events
cpc_event_accum	cpc_event_diff
cpc_eventtostr	cpc_getcciname
cpc_getcpuref	cpc_getcpuver
cpc_getnpic	cpc_getusage
cpc_pctx_bind_event	cpc_pctx_invalidate
cpc_pctx_rele	cpc_pctx_take_sample
cpc_rele	cpc_seterrfn
cpc_shared_bind_event	cpc_shared_close
cpc_shared_open	cpc_shared_rele
cpc_shared_take_sample	cpc_strtoevent
cpc_take_sample	cpc_version
cpc_walk_names	

---

New functions have been added to the library in Solaris 10 OS. Developers who have code that utilizes the interfaces in the preceding list should instead use the following corresponding new functions:

---

<code>cpc_open</code>	<code>cpc_close</code>
<code>cpc_set_create</code>	<code>cpc_set_destroy</code>
<code>cpc_set_add_request</code>	<code>cpc_set_request_preset</code>
<code>cpc_buf_create</code>	<code>cpc_buf_destroy</code>
<code>cpc_bind_curlwp</code>	<code>cpc_bind_pctx</code>
<code>cpc_bind_cpu</code>	<code>cpc_unbind</code>
<code>cpc_set_sample</code>	<code>cpc_buf_sub</code>
<code>cpc_buf_add</code>	<code>cpc_buf_copy</code>
<code>cpc_buf_zero</code>	<code>cpc_buf_get</code>
<code>cpc_buf_set</code>	<code>cpc_buf_hrttime</code>
<code>cpc_buf_tick</code>	<code>cpc_walk_requests</code>
<code>cpc_walk_events_all</code>	<code>cpc_walk_events_pic</code>
<code>cpc_walk_attrs</code>	<code>cpc_enable</code>
<code>cpc_disable</code>	<code>cpc_caps</code>
<code>cpc_npics</code>	<code>cpc_cpures</code>
<code>cpc_cciname</code>	<code>cpc_seterrhdlr</code>

---

See the `cpc(3CPC)` man page for details.

## libXinput Library

The `libXinput.so.0` library might not be provided in a future release of the Solaris software. The `libXinput.so.0` library was provided for backward compatibility with X11R4 applications that were built by using the draft standard X Input API of Solaris 2.1 and Solaris 2.2. The X11 standard X Input Extension library, `libXi`, was integrated in Solaris 2.3.

All applications that rely on the `libXi` API should be built by using the `libXi` shared library for future compatibility and standards conformance.

## Network Information Service Plus (NIS+) Name Service Type

NIS+ might not be supported in a future release. Tools to aid in the migration from NIS+ to LDAP are available in the Solaris 9 software. For more information, visit <http://www.sun.com/directory/nisplus/transition.html>.

## nstest Test Program

The `nstest` is an interactive DNS test program to construct and send DNS queries. This program might no longer be supported in a future Solaris OS release. The same functionality that is provided by this test program is available by using the `dig` and `nslookup` commands.

## Perl Version 5.6.1

Perl version 5.6.1 might not be supported in a future Solaris OS release. Perl version 5.8.4, the default version in the Solaris 10 OS, is not binary compatible with Perl version 5.6.1. However, the earlier version is still retained in this Solaris release. Customized modules that are installed by the customer must be rebuilt and reinstalled to use Perl version 5.8.4. Modify any scripts that require the use of version 5.6.1 to specifically use version 5.6.1 of the interpreter instead of version 5.8.4. The interpreters of the respective Perl versions are located in the following directories:

Perl 5.6.1     `/usr/perl5/5.6.1/bin/perl`

Perl 5.8.4     `/bin/perl, /usr/bin/perl, or /usr/perl5/bin/perl`

## Solaris Management Console Patch Tool (Patch Manager)

The Solaris Management Console patch tool, Patch Manager, might not be available in a future release.

## Solstice Enterprise Agents

Solstice Enterprise Agents might not be supported in a future release.



## Standalone Router Discovery

The `/usr/sbin/in.rdisc` implementation of the IPv4 ICMP Router Discovery protocol might not be supported in a future release of the Solaris software. A near-equivalent version of this protocol, which is implemented as a component of `/usr/sbin/in.routed`, supports an enhanced administrative interface. The `/usr/sbin/in.routed` component supports the implementation of Routing Information Protocol (RIP) version 2. The `/usr/sbin/in.routed` component also has the ability to distinguish Mobile IP advertisements from Router Discovery messages.

## Sun Fire Link Interfaces

The Sun Fire Link Interfaces might no longer be supported in a future Solaris release.

## Sun Java Desktop System Applications

The following applications in the Java DS, Release 3, might be removed from a future release.

- Sun Java Calendar Preview
- GNOME Keyboard Layout Switcher
- Java DS Diagram Editor
- Java DS Java Text Editor
- Java DS Java Dictionary
- Java DS Disk Analyzer
- Java DS Mr. Project

## Token Ring and Fiber Distributed Data Interface Device Types

Support for token ring (DL\_TPR) and Fiber Distributed Data Interface (FDDI) device types in generic LAN driver (GLD) might be removed in a future Solaris release. After the removal is implemented, drivers for token ring or FDDI that rely on this support in GLD cease to function. However, other drivers or applications that do not use this support are not affected. To test whether a driver relies on GLD, run the following script:

```
#!/bin/sh
#
Test a driver binary for use of GLD
#
for file
do
```

```
/usr/ccs/bin/nm $file | /bin/awk '
/\|gld_register$/ { isgld=1; }
END {
 if (isgld)
 print file, "uses GLD";
 else
 print file, "does not use GLD";
}' file=$file
done
```

For more information about generic LAN driver, see the [gld\(7D\)](#) man page as well as “Writing Device Drivers”.

## WBEM-based Dynamic Reconfiguration

The feature known as WDR - Web-Based Enterprise Management Dynamic Reconfiguration - might not be supported in a future release of the Solaris Operating System. WDR is currently supported on Sun Fire midrange and high-end systems.

## XIL Interface

The XIL™ interface might not be supported in a future release. An application that uses XIL causes the following warning message to be displayed:

```
WARNING: XIL OBSOLESCENCE
This application uses the Solaris XIL interface
which has been declared obsolete and may not be
present in version of Solaris beyond Solaris 9.
Please notify your application supplier.
The message can be suppressed by setting the environment variable
"_XIL_SUPPRESS_OBSOLETE_MSG".
```

## xetops Utility

The xetops utility might not be supported in a future release. The xetops utility converts an Asian text file to a PostScript file. This conversion enables Asian characters to be printed on PostScript printers that do not have resident Asian fonts.

Similar capability is provided in the mp command, which has been enhanced to support all of the native Asian encodings with more options and functionality.

## x86: Xsun DDX Modules, Library, and Related Files

Certain DDX modules for Xsun might be removed from a future Solaris release. These modules are used when you configure the Xsun X server on the kdmconfig screen, Video Device Selection, by selecting an entry that is not prefixed with “XF86.” The files affected by this notice include the following:

- Files in the `/usr/openwin/server/modules` directory whose names do not have the `ddxSUNWxf86` prefix
- The `/usr/openwin/server/lib/libaccel.so.1` library
- Files with the `.xga` suffix under the `/usr/openwin/share/etc/devdata/SUNWaccel/boards` directory

Sun recommends that for your preferred X server, use the Xorg X server whose DDX modules provide comparable functionality to the Xsun X server. However, if you use the Xsun X server, you can still use the XFree86 DDX modules. These are modules with the prefix `ddxSUNWxf86` and whose entries in the kdmconfig screen, Video Device Selection, begin with “XF86.” These modules provide comparable functionality to the Xsun DDX modules that might be removed.



## Documentation Issues

---

This chapter describes known issues that are related to documentation.

### System Administration Guide: IP Services

The note on page 786 is incorrect and reads as follows:

---

**Note** – The x86 architecture does not support IPQoS on VLANs.

---

The correct note should read as follows:

---

**Note** – Support for SPARC and x86 architecture, including IPQoS on VLANs.

---

### Some Translated Docs Are Not Updated

The following translated docs have not been updated in the Solaris 10 10/09 release. The contents of the docs might be different from the corresponding English docs. For the latest release information, please refer to the English version.

The differences between the English version and the current translated version are listed in the following table:

Title of the doc	Affected Languages	Changes made in the English version
Solaris Tunable Parameters Reference Manual	Japanese	Chapter 1 – Added tcp_local_dack_interval information  Chapter 4 – Updated tcp_local_dack_interval information  Appendix A – Added tcp_local_dack_interval information  Appendix B – Added Solaris 10 information
Solaris Security for Developers Guide	Japanese	Updated Links  Changed references to directory, /etc/crypto to etc/crypto

Title of the doc	Affected Languages	Changes made in the English version
System Administration Guide: Devices and File Systems	Japanese	<p>Chapter 3 – Updated removable media examples with Solaris 10 10/08 media names and structure</p> <p>Chapter 10 – Updated EFI label section to describe how to reapply a VTOC label when an EFI label is no longer needed</p> <p>Chapter 11 – Updated “Identifying Disks on a System” section to include steps for providing the disk marketing name on x86 systems</p> <p>Chapter 16 – Included the following modifications:</p> <ul style="list-style-type: none"> <li>■ Added more information about ZFS file systems throughout this chapter</li> <li>■ Updated Additional Virtual File Systems Table with SHAREFS description in the Types of File Systems section</li> <li>■ Updated the ufsdump example in the Support of Multiterabyte UFS File Systems section</li> </ul> <p>Chapter 18 – Updated section titles to indicate UFS usage and also added ZFS file system information</p>
System Administration Guide: Basic Administration	Japanese Simplified Chinese	<p>Made minor structural changes</p> <p>Changed the SPARC Boot Architecture Redesign content added in the Solaris 10 10/08 release</p> <p>Updated existing diskless client content about the SPARC Boot Architecture Redesign feature for the Solaris 10 10/08 release</p> <p>Fixed all priority 3 and 4 bugs</p>
System Administration Guide: Advanced Administration	Japanese Simplified Chinese	Updated the Managing Disk Use chapter about ZFS boot implementation in the Solaris 10 10/08 release

Title of the doc	Affected Languages	Changes made in the English version
System Administration Guide: Solaris Printing	Japanese	Added missing examples
	Simplified Chinese	Fixed typos and corrected any incorrect information

## Solaris 10 10/09 Patch List

In the Solaris 10 10/09 release, the Solaris patch lists are not documented in the Solaris 10 10/09 Release Notes. The patch lists are documented in [Solaris 10 10/09 Patch List](#).

## System Administration Guide: IP Services

The title of the procedure to ensure unique MAC addresses is SPARC: How to Ensure That the MAC Address of an Interface Is Unique, in Solaris 10 3/05 ONLY . This procedure applies to all Solaris 10 Update releases and so the title should read as SPARC: How to Ensure That the MAC Address of an Interface Is Unique.

## System Administration Guide: Naming and Directory Services (NIS+)

Starting with the Solaris 10 8/07 release, the Solaris OS does not have two separate hosts files. The `/etc/inet/hosts` file is now a single hosts file that contains both IPv4 and IPv6 entries. You need not maintain IPv4 entries in two hosts files that always require synchronization. For backward compatibility, the `/etc/inet/ipnodes` file is replaced with a symbolic link of the same name to the `/etc/inet/hosts` file. For more information, see the `hosts(4)` man page. NIS clients and servers can communicate using either IPv4 or IPv6 RPC transports.

## Discontinuation of Swedish Documentation

Starting with the Solaris 10 8/07 release, documents will not be translated into Swedish. For all the latest information, see the English documents on <http://docs.sun.com/>.



## Application Server Documentation Refers to Derby Database Instead of Java DB

Application Server documentation refers to the Java DB database as “Derby.” Replace all references to “Derby” with Java DB. The database is installed to `/usr/appserver/javadb`.

## Documents on the Software Supplement CD

Beginning with Solaris 10 Operating System, the Supplement CD no longer exists. The documents that were formerly supplied on the Supplement CD can now be found at <http://docs.sun.com>. The rest of the CD's contents reside elsewhere in the Solaris kit or on Sun Microsystems' web site.

## System Administration Guide: Basic Administration

This section describes corrections to specific chapters in the System Administration Guide: Basic Administration.

---

**Note** – Beginning with the Solaris 10 1/06 release, this section no longer applies to the Solaris documentation.

---

### Managing Diskless Clients (Tasks)

In Step 4 of “How to Add a Diskless Client,” the command to verify whether a diskless client has been added should read as follows:

4. Verify that the diskless clients were installed.

```
/usr/sadm/bin/smdiskless list -H host-name:898 --
```

## Solaris 10 Start Here and Solaris 10 Installation Guides

---

**Note** – Beginning with the Solaris 10 1/06 release, this section no longer applies to the Solaris documentation.

---

The Solaris 10 Start Here and Solaris 10 Installation Guides incorrectly indicate that Sun Java Enterprise System is installed by default in the Solaris 10 release. To install Sun Java Enterprise System with the Solaris 10 OS, you must perform a custom installation.

The following documents incorrectly state that Sun Java Enterprise System is installed by default during a Solaris 10 installation.

## **Solaris 10 Installation Guide: Basic Installations**

- Planning for a Solaris Installation From CD or DVD Media (Tasks) — Checklist for Installation
- Installing With the Solaris Installation Program (Tasks)
  - Step 9 of SPARC: To Install or Upgrade With the Solaris Installation Program
  - Step 17 of x86: To Install or Upgrade With the Solaris Installation Program

## **Solaris 10 Installation Guide: Network-Based Installations**

- Solaris Installation and Upgrade (Roadmap) — Task Map: Installing or Upgrading the Solaris Software
- Gathering Information Before Installation or Upgrade (Planning)
  - Checklist for Installation
  - Checklist for Upgrading

## **Solaris 10 Installation Guide: Solaris Live Upgrade and Upgrade Planning**

- Solaris Installation and Upgrade (Roadmap) — Task Map: Installing or Upgrading the Solaris Software
- Gathering Information Before Installation or Upgrade (Planning) — Checklist for Upgrading

## **Solaris 10 Installation Guide: Custom JumpStart and Advanced Installations**

See Solaris Installation and Upgrade (Roadmap) — Task Map: Installing or Upgrading the Solaris Software.

## **Solaris 10 Start Here**

See Install the Solaris 10 OS.

# Solaris 10 Documentation and Man Pages

The company S2io has changed its name to Neterion. All references to S2io in the Solaris 10 documentation and man pages should read Neterion.



# Table of Integrated Bug Fixes in the Solaris 10 Operating System

The table in this appendix list bugs in these Release Notes that have been fixed in the Solaris 10 10/09 OS.

**Note** – This table is only a partial list. Other fixed bugs in the operating system that were not previously documented in the Release Notes are excluded from this table. For a complete list, refer to the Solaris 10 Operating System Patch List. The Patch List identifies bugs that have been fixed by specific patches that were applied to the current release. The list includes bugs that have not been documented in the Release Notes.

## Fixed and Integrated Bugs

TABLE A-1 Bugs Fixed in the Solaris 10 10/09 Software

CR Number	Title
6750725	lucreate Fails When Destination File System Is ZFS and Locale Is Japanese EUC
6741743	boot -L Does Not Work After Converting UFS to ZFS
6740164	zpool attach Might Create an Illegal Root Pool
6704717	Taking the Primary Disk Offline in a Mirrored ZFS Root Pool
6730309	L2ARC is Disabled in the Solaris 10 10/08 Release
6696226	Solaris Live Upgrade Does Not Create a menu.lst File
6462803	zfs snapshot -r Fails When File System Is Busy

