Solaris 9 (SPARC Platform Edition) 9/02 Release Notes

Adobe PostScript™

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Contents

Preface

The *Solaris 9 9/02 (SPARC Platform Edition) Release Notes* contains installation problem details and other information that was not available until immediately before the release of the Solaris™ 9 9/02 operating environment.

Note – The information in this document pertains to the SPARC™ platform. This information also pertains to both the 64–bit and 32–bit address spaces unless specified in a special chapter, section, note, bulleted item, figure, table, example, or code example.

Who Should Use This Book

These notes are for users and system administrators who install and use the Solaris 9 9/02 operating environment.

Related Books

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

- *Solaris 9 Start Here*
- *Solaris 9 Installation Guide*
- The Solaris 9 9/02 release notes, which are available through the following media:
  - The Solaris 9 9/02 Release and Installation Collection on the Solaris 9 9/02 Documentation CD
  - Print documentation that accompanies the product (installation issues and bugs only)
  - `http://docs.sun.com` (the most up-to-date information)
- *Solaris 9 System Administrator Collection*
- *What's New in the Solaris 9 9/02 Operating Environment*

Solaris documentation is available on the Solaris 9 9/02 Documentation CD, which is included with this product.

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 operating environment. If your system requires hardware-specific actions at certain points, the manufacturer of your hardware has provided supplemental Solaris installation documentation. Refer to those materials, such as *Solaris 9 Sun Hardware Platform Guide*, for hardware-specific installation instructions.

Accessing Sun Documentation Online

The docs.sun.com^{SM} Web site enables you to access Sun technical documentation online. You can browse the docs.sun.com archive or search for a specific book title or subject. The URL is `http://docs.sun.com`.

Typographic Conventions

The following table describes the typographic changes used in this book.

TABLE P–1 Typographic Conventions

Typeface or Symbol	Meaning	Example
AaBbCc123	The names of commands, files, and directories; on-screen computer output	Edit your `.login` file. Use `ls -a` to list all files. `machine_name% you have mail.`
AaBbCc123	What you type, contrasted with on-screen computer output	`machine_name%` **su** `Password:`
AaBbCc123	Command-line placeholder: replace with a real name or value	To delete a file, type **rm** *filename*.
AaBbCc123	Book titles, new words, or terms, or words to be emphasized.	Read Chapter 6 in *User's Guide*. These are called *class* options. You must be *root* to do this.

Shell Prompts in Command Examples

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

TABLE P–2 Shell Prompts

Shell	Prompt
C shell prompt	`machine_name%`
C shell superuser prompt	`machine_name#`
Bourne shell and Korn shell prompt	`$`
Bourne shell and Korn shell superuser prompt	`#`

Installation Issues

This chapter describes problems that relate to the installation of the Solaris 9 9/02 operating environment. For late-breaking Solaris installation issues that were not identified in time to be included in these release notes, refer to the *Solaris 9 (SPARC Platform Edition) 9/02 Release Notes* in the Solaris 9 9/02 Release and Installation Collection on `http://docs.sun.com`.

Note – The Solaris 9 9/02 operating environment requires a memory size of 128 Mbytes or greater.

Swap Installation Issue

Swap Slice Defaults to First Available Disk Cylinder

By default, the Solaris 9 9/02 installation program places swap starting at the first available disk cylinder (typically cylinder 0). This placement provides maximum space for the root (/) file system during the default disk layout and enables the growth of the root (/) file system during an upgrade.

If you think you will need to expand swap space in the future, you can place the swap slice so that it starts at another another disk cylinder by using one of the following methods.

- For the Solaris™ Web Start and SunInstall™ installation programs, you can customize the disk layout in cylinder mode and manually assign the swap slice to the desired location.

- For the Solaris Custom JumpStart™ installation program, you can assign the swap slice in the profile file.

For more information on the Solaris Custom JumpStart profile file, see the *Solaris 9 Installation Guide*.

Solaris Custom JumpStart Issue

Default Solaris JumpStart Profile Might Not Install Multiple Locales on Small Disks

If you use the default Solaris JumpStart™ profile on the Solaris 9 9/02 media to install multiple locales on a system with a small disk, the installation might fail. This problem might occur under the following conditions.

- You use the default Solaris JumpStart profile to install any locale other than the C locale on a system with a 2.1 Gbyte disk.
- You use the default Solaris JumpStart profile to install two or more locales on a system with a 4 Gbyte disk.

Issue You Need to Know About Before Installing Solaris 9 9/02 Software From DVD

Booting From the Solaris 9 9/02 DVD

The Solaris 9 9/02 operating environment is now available on DVD. To install or upgrade from DVD, insert the Solaris 9 9/02 DVD into the DVD-ROM drive and boot the system from the `ok` prompt with the following command.

```
ok boot cdrom
```

Bugs You Need to Know About Before Installing Solaris 9 9/02 Software From DVD or CD

Solaris 9 9/02 Software Does Not Automatically Install Netscape Version 6.2.3 Localization Packages From DVD or CD (4709348)

Netscape™ version 6.2.3 base and localization packages are now available in the `Solaris_9/ExtraValue/CoBundled/Netscape_6` directory of the Solaris 9 9/02 Software DVD and the Solaris 9 9/02 Software 2 of 2 CD. However, the `NS62installer` script in the `Solaris_9/ExtraValue/CoBundled/Netscape_6` directory installs only the base packages on the system.

Workaround: Use the `pkgadd`(1M) command to install the Netscape version 6.2.3 localization packages on your system. Follow these steps.

1. Become superuser.
2. Insert the Solaris 9 9/02 Software DVD or the Solaris 9 9/02 Software 2 of 2 CD.
3. Change to the directory where the localization packages are located.

   ```
   # cd /cdrom/Solaris_9/ExtraValue/CoBundled/Netscape_6/Packages
   ```
4. Execute the pkgadd(1M) command. Specify the name of the package you want to install.

   ```
   # pkgadd -d . name-of-localization-package
   ```

> **Note –** The following localization packages are in the Packages directory.

- `SUNWcns6` - Simplified Chinese localization
- `SUNWdens6`- German localization
- `SUNWesns6`– Spanish localization
- `SUNWfrns6`– French localization
- `SUNWhns6`– Traditional Chinese localization
- `SUNWitns6`– Italian localization
- `SUNWjans6`– Japanese localization
- `SUNWkons6`– Korean localization
- `SUNWplns6`- Polish localization
- `SUNWptns6`- Brazilian Portuguese localization
- `SUNWruns6`- Russian localization
- `SUNWsvns6`- Swedish localization

Boot From Solaris DVD Fails on Systems With Toshiba SD-M1401 DVD-ROM (4467424)

If your system has a Toshiba SD-M1401 DVD-ROM drive with firmware revision 1007, the system cannot boot from the Solaris 9 9/02 DVD.

Workaround: Apply patch 111649–03, or later version, to update the Toshiba SD-M1401 DVD-ROM drive's firmware. Patch 111649–03 is included on the Solaris 9 9/02 Supplement CD in the following directory.

`DVD_Firmware/Patches`

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

Media With UFS or UDFS File Systems Do Not Mount When Media Is Inserted Multiple Times (4638163)

CD or DVD media that is formatted with UFS or UDFS file systems might not mount on systems with certain media drives under the following conditions.

- The system is running the Solaris 9 9/02 operating environment.
- Volume Management (`vold`) is running on the system.
- You insert, remove, and reinsert the media.

A `mount: I/O error` message might display on the system console. The file system on the media is not mounted, and the File Manager graphical user interface for the media is not displayed.

Workaround: In the `/etc/rmmount.conf` file, add the following line before the line that reads `mount * hsfs udfs ufs -o nosuid`.

`mount cdrom* hsfs udfs ufs -o nosuid ro`

> **Note –** You must enter this line before the line that reads mount * hsfs udfs ufs
> -o nosuid. After you add this line, the mount section of the /etc/rmmount.conf
> file should read as follows.
>
> ```
> mount cdrom* hsfs udfs ufs -o nosuid ro
> mount * hsfs udfs ufs -o nosuid
> ```

Cannot Access Data on Solaris 9 9/02 DVD in Solaris 2.6 and Solaris 7 Operating Environments (4511090)

If your system is running the Solaris 2.6 or Solaris 7 operating environment, Volume Management incorrectly mounts the Solaris 9 9/02 DVD. The Solaris 9 9/02 DVD can be mounted, but the data is inaccessible. As a result, you cannot set up an install server, perform a Live Upgrade, or access any data on the media.

Workaround: Choose one of the following workarounds.

- Apply the patches appropriate for your system.

    TABLE 1–1 DVD patches for the Solaris 2.6 and Solaris 7 Operating Environments

Release	Patch ID
Solaris 2.6 operating environment	107618-03
Solaris 7 operating environment	107259-03

- Manually mount the Solaris 9 9/02 DVD. Do not use Volume Management to mount the Solaris 9 9/02 DVD. Follow these steps.

    1. Become superuser.
    2. Stop Volume Management.

        ```
        # /etc/init.d/volmgt stop
        ```
    3. Manually mount the DVD.

        ```
        # mkdir /mnt1
        # mount -F hsfs -o ro /dev/dsk/c0t6d0s0 /mnt1
        ```
    4. Verify that the DVD is mounted and the data is accessible.

        ```
        # cd /mnt1
        # ls
        ```

        The system returns the following information if the DVD is correctly mounted.

        ```
        Copyright  Solaris_9
        ```

Installation Bugs

Systems With Multiple Interfaces Recognize All Interfaces as Usable After Installation or Upgrade (4640568)

If you install or upgrade to the Solaris 9 9/02 operating environment on a system with multiple network interfaces, the system recognizes all system interfaces as usable. Interfaces that are not plugged in to the network or that are not intended for use appear in the output of the ifconfig -a command. Additionally, interfaces with identical Ethernet addresses might be assigned identical IP addresses. The following error message is displayed.

```
ifconfig: setifflags: SIOCSLIFFLAGS: qfe3: Cannot assign requested address
```

This problem also occurs on systems that have the local-mac-address PROM variable set to false. The problem occurs because all interfaces are configured with the same IP address.

Workaround: Choose one of the following workarounds.

- To plumb only the configured interface, reboot the system after the initial boot.
- To assign a different IP address to each network interface, set the local-mac-address PROM variable to true in one of the following ways.
  - At the ok prompt, type the following command.

    ok **setenv local-mac-address? true**
  - In a terminal window, type the following command as superuser.

    # **eeprom local-mac-address?=true**

Installation Bugs That Occur During an Installation From Solaris 9 9/02 Software 1 of 2 CD

Warnings Might Occur When a File System Is Created (4189127)

When a file system is created during installation, one of the following warning messages might be displayed.

```
Warning: inode blocks/cyl group (87) >= data blocks (63) in last
cylinder group. This implies 1008 sector(s) cannot be allocated.
```
Or

```
Warning: 1 sector(s) in last cylinder unallocated
```

The warning occurs when the size of the file system that you created does not equal the space on the disk that is being used. This discrepancy can result in unused space on the disk that is not incorporated into the indicated file system. This unused space is not available for use by other file systems.

Workaround: Ignore the warning message.

Upgrade Issues

Cannot Access Storage Area Networks Through `SUNWsan` With Solaris 9 9/02 Operating Environment

If your Solaris 8 system is connected to storage area networks (SANs), check with your support engineer before you upgrade to the Solaris 9 9/02 operating environment. Solaris 8 systems with the `SUNWsan` package installed might require special procedures to upgrade to the Solaris 9 9/02 operating environment. To find out if the `SUNWsan` package is installed on the system, type the following command in a terminal window.

```
# pkginfo SUNWsan
```

If the `SUNWsan` package is installed, the following information is displayed.

```
    system      SUNWsan       SAN Foundation Kit
```

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 want to upgrade to the Solaris 9 9/02 operating environment, 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, run `/usr/bin/prodreg` and 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 9 9/02 operating environment, you must remove all Solaris Management Console 1.0, 1.0.1, or 1.0.2 packages. You must use `pkgrm` for package removal instead of `prodreg`, and you must carefully follow the order of package removal. Follow these 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 `pkgrm` 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 the description. For example, `SUNWmc.2` might indicate Solaris Management
> Console 2.1 software.

> **Note –** If the `pkginfo` output displays multiple versions of Solaris
> Management Console 1.0 packages, use `pkgrm` to remove both packages.
> Remove the original package and then 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 `SUNWmcman` and then
> `SUNWmcman.2`. Do not use `prodreg`.

```
# 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 `pkgrm` 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 `prodreg`.

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

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

2. Insert the Solaris 9 9/02 Software (*SPARC Platform Edition*) 1 of 2 CD into your CD-ROM drive. Type the following in a terminal window.

```
# cd /cdrom/sol_9_902sparc/s0/Solaris_9/Product
# pkgadd -d . SUNWmccom SUNWmcc SUNWmc SUNWwbmc SUNWmcex SUNWmcdev \
  SUNWmgapp SUNWmga SUNWdclnt SUNWlvmr SUNWlvma SUNWlvmg SUNWpmgr SUNWrmui
```

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

Installation Bugs That Occur During an Upgrade

Live Upgrade Does Not Update /etc/group File on Boot Environment When Installing Solaris Flash Archive (4683186)

If you use Solaris Live Ugrade to install a Solaris™ Flash archive on a boot environment, the /etc/group file is not correct. The archive contains the /etc/group file that was archived and does not reflect the /etc/group file from the currently running boot environment. The /etc/group file on the boot environment must be identical to the file on the currently running system.

Workaround: After you install a Solaris Flash archive on a boot environment, you must copy the /etc/group file from the currently running system to the new boot environment. Follow these steps.

1. Become superuser.

2. Mount the boot environment that you want to patch.

   ```
   # lumount boot-envir-name mount-point
   ```
   In the previous command, *boot-envir-name* is the name of the boot environment whose file systems you want to mount. *mount-point* is the mount point of the file system.

3. Copy the /etc/group file from the currently running system to the new boot environment.

   ```
   # /etc/group mount-point/etc/group
   ```

4. Unmount the new boot environment.

   ```
   # luumount boot-envir-name
   ```

luupgrade Command Cannot Add Patches When Patch List File Is Specified (4679511)

If you use the -s option with the luupgrade command to add patches with a directory and a patch list file, the patches are not added. A message similar to the following message is displayed:

```
/usr/sbin/luupgrade [52]:        3 patch-list-file: bad number
```

In the previous message, *patch-list-file* is the patch list file you specified for the
luupgrade command to use to add patches.

Workaround: To add patches specifying a patch list file, perform the following steps.

1. Become superuser.

2. Mount the boot environment that you want to patch.

   ```
   # lumount boot-envir-name  mount-point
   ```

3. Add the patches to the boot environment.

   ```
   # /usr/sbin/patchadd -R mount-point -M patch-path patch-list-file-name
   ```
   In the previous command, *patch-path* is the path name of a directory that contains
   patches to add. The *patch-list-file-name* is the file that contains the list of patches you
   want to add.

4. Unmount the boot environment.

   ```
   # luumount boot-envir-name
   ```

Removal of SUNWjxcft Package Records Error During Upgrade From Solaris 8 Operating Environment to Solaris 9 9/02 Operating Environment (4525236)

When you upgrade from the Solaris 8 operating environment to the Solaris 9 or the
Solaris 9 9/02 operating environment, a problem is encountered when the SUNWjxcft
package is removed. The following error message is recorded in the upgrade_log
file.

```
Removing package SUNWjxcft:
Can't open /a/usr/openwin/lib/locale/ja/X11/fonts/TTbitmaps/fonts.upr
Can't open /a/usr/openwin/lib/locale/ja/X11/fonts/TTbitmaps/fonts.scale
Can't open /a/usr/openwin/lib/locale/ja/X11/fonts/TTbitmaps/fonts.alias
Can't open /a/usr/openwin/lib/locale/ja/X11/fonts/TT/fonts.upr
Can't open /a/usr/openwin/lib/locale/ja/X11/fonts/TT/fonts.scale
Can't open /a/usr/openwin/lib/locale/ja/X11/fonts/TT/fonts.alias

Removal of <SUNWjxcft> was successful
```

Workaround: Ignore the error message.

Upgrading From Solaris 8 Operating Environment Might Create Redundant Kerberos Privacy Mechanisms (4672740)

In the Solaris 9 9/02 operating environment, the Kerberos version 5 global mechanism
includes privacy support. Therefore, the Kerberos domestic mechanism is not needed.
If you installed the Kerberos domestic mechanism that is located in
/usr/lib/gss/do/mech_krb.so.1 on a Solaris 8 system, remove the Kerberos
domestic mechanism before you upgrade the system to the Solaris 9 9/02 operating
environment.

Workaround: Follow these steps before you upgrade to the Solaris 9 9/02 operating environment.

1. Type the following command to check to determine if the Kerberos domestic mechanism is installed on the system.

   ```
   % pkginfo | fgrep ' SUNWk5'
   ```

   - If the output of this command includes any SUNWk5 package names, the Kerberos domestic mechanism is installed on the system. Go to step 2.

   - If the output does not include any SUNWk5 package names, the Kerberos domestic mechanism is not installed on the system. Skip the rest of these steps. Upgrade the system.

2. Back up the /etc/nfssec.conf and /etc/gss/qop files by typing the following command.

   ```
   % tar -cf /var/tmp/krb_config_files.tar /etc/nfssec.conf /etc/gss/qop
   ```

3. Verify that the files are backed up by typing the following command.

   ```
   % tar -tf /var/tmp/krb_config_files.tar
   ```

4. Remove each package that is listed in the output of step 1.

   ```
   % pkgrm package-name package-name package-name
   ```

5. Upgrade to the Solaris 9 9/02 operating environment.

   The upgrade program updates the global Kerberos mechanism code and enables Kerberos privacy support.

6. In a text editor, change the following lines in the /etc/gss/mech file.

   - Uncomment the following line.

     ```
     kerberos_v5     1.2.840.113554.1.2.2     gl/mech_krb5.so gl_kmech_krb5
     ```

     If necessary, add the previous line to the /etc/gss/mech file.

   - Remove the following line.

     ```
     kerberos_v5     1.2.840.113554.1.2.2     do/mech_krb5.so do_kmech_krb5
     ```

   - Restore the /etc/nfssec.conf and /etc/gss/qop files by typing the following command.

     ```
     % tar -xf /var/tmp/krb_config_files.tar
     ```

preremove Scripts in Solaris 9 and Solaris 9 9/02 Asian Localization Center (ALC) Packages Do Not Execute Properly During Upgrade (4707449)

The preremove scripts included in the Asian Localization Center (ALC) packages of the Solaris 9, and Solaris 9 9/02 software do not execute properly during an upgrade with Disk Space Reallocation (DSR). If you attempt to upgrade to a newer release of the Solaris operating environment, the following error message is displayed in the /var/sadm/system/logs/update_log file.

```
Removing package SUNWkwbcp:
/a/var/sadm/pkg/SUNWkwbcp/install/preremove: /a/usr/4lib: does not exist
pkgrm: ERROR: preremove script did not complete successfully

Removal of SUNWkwbcp failed.
pkgrm return code = 1
Removing package SUNWkbcp:
/a/var/sadm/pkg/SUNWkbcp/install/preremove: /a/usr/4lib: does not exist
pkgrm: ERROR: preremove script did not complete successfu
Removal of SUNWkbcp failed.
pkgrm return code = 1
Removing package SUNWcwbcp:
/a/var/sadm/pkg/SUNWcwbcp/install/preremove: /a/usr/4lib: does not exist
pkgrm: ERROR: preremove script did not complete successfully

Removal of SUNWcwbcp failed.
pkgrm return code = 1
Removing package SUNWcbcp:
/a/var/sadm/pkg/SUNWcbcp/install/preremove: /a/usr/4lib: does not exist
pkgrm: ERROR: preremove script did not complete successfully

Removal of SUNWcbcp failed.
pkgrm return code = 1
Removing package SUNWhwbcp:
/a/var/sadm/pkg/SUNWhwbcp/install/preremove: /a/usr/4lib: does not exist
pkgrm: ERROR: preremove script did not complete successfully

Removal of SUNWhwbcp failed.
pkgrm return code = 1
Removing package SUNWhbcp:
/a/var/sadm/pkg/SUNWhbcp/install/preremove: /a/usr/4lib: does not exist
pkgrm: ERROR: preremove script did not complete successfully

Removal of SUNWhbcp failed.
pkgrm return code = 1
```

Workaround: Ignore the error message.

Upgrading to Solaris 9 9/02 Operating Environment Might Disable Existing Secure Shell Daemon (`sshd`) (4626093)

If you upgrade to the Solaris 9 9/02 operating environment on a system that is running a third-party Secure Shell, such as OpenSSH, from the /etc/init.d/sshd daemon, the upgrade disables the existing Secure Shell daemon. During an upgrade, the Solaris 9 9/02 upgrade software overwrites the contents of /etc/init.d/sshd.

Workaround: Choose one of the following workarounds.

- If you do not want the Secure Shell protocol server program on your system, do not install the SUNWsshdr and SUNWsshdu packages during the upgrade.

- If you do not want the Secure Shell protocol server or client programs on your system, do not install the Secure Shell Cluster (SUNWCssh) during the upgrade.

Upgrade Fails if `/export` Is Near Capacity (4409601)

If the `/export` directory is near full capacity and you upgrade to the Solaris 9 9/02 operating environment, space requirements for `/export` are miscalculated. The upgrade then fails. The problem commonly occurs if a diskless client is installed, or if third-party software is installed in `/export`. The following message is displayed:

```
WARNING: Insufficient space for the upgrade.
```

Workaround: Before you upgrade, choose one of the following workarounds.

- Rename the `/export` directory temporarily, until the upgrade is completed.
- Temporarily comment out the `/export` line in the `/etc/vfstab` file until the upgrade is completed.
- If `/export` is a separate file system, then unmount `/export` before you perform the upgrade.

Upgrading Diskless Client Servers and Clients (4363078)

If your system currently supports diskless clients that were installed with the Solstice AdminSuite™ 2.3 Diskless Client tool, you must first delete all existing diskless clients that are the same Solaris version and architecture as the server. Then, install or upgrade to the Solaris 9 9/02 operating environment. For specific instructions, see the *System Administration Guide: Basic Administration*.

If you attempt to install the Solaris 9 9/02 operating environment over existing diskless clients, the following error message might be displayed:

```
The Solaris Version (Solaris version-number) on slice <xxxxxxxx> cannot
be upgraded.
There is an unknown problem with the software configuration installed
on this disk.
```

In this error message, *version-number* refers to the Solaris version that is currently running on your system. *<xxxxxxxx>* refers to the slice that is running this version of the Solaris operating environment.

Upgrading the JavaSpaces Data Store to Prevent WBEM Data Loss (4365035)

If you upgrade from the Solaris 8 (Solaris WBEM Services 2.0), or the Solaris 8 6/00 (WBEM Services 2.1), operating environments to the Solaris 9 9/02 (Solaris WBEM Services 2.5) operating environment, your existing data is lost.

Workaround: Recompile the proprietary Managed Object Format (MOF) files after you perform an upgrade.

64–Bit Solaris Issues

Sun UltraSPARC System (`Sun4U`) Might Need Boot Flash PROM Update

Note – If your system is already running 64-bit ready firmware, then the flash PROM update is not required.

If you want to run the 64-bit Solaris operating environment on an UltraSPARC™ system, you might need to update its flash PROM firmware. The Solaris 9 9/02 installation programs enable you to add 64-bit support. This 64-bit support is selected by default when you install on Sun UltraSPARC systems. A 64-bit system only boots in the 64-bit mode by default if it has a CPU speed of 200 MHz or greater.

Note – If you choose to run the 32-bit Solaris operating environment on any Sun™ or UltraSPARC system, the flash PROM update is not needed.

The following table lists the UltraSPARC (Sun4U™) systems that are affected and the minimum firmware versions that are needed. *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 1–2 Minimum Firmware Versions Required to Run 64–Bit Solaris Operating Environment on UltraSPARC Systems

System Type From `uname -i`	Minimum Firmware Version From `prtconf -V`
SUNW,Ultra-1-Engine	3.10.0
SUNW,Ultra-1	3.11.1
SUNW,Ultra-2	3.11.2
SUNW,Ultra-4	3.7.107
SUNW,Ultra-Enterprise	3.2.16

Note – If a system is not listed in the previous table, it does not need a flash PROM update.

For instructions on how to perform the flash PROM update by using the Solaris CD, refer to the *Solaris 9 on Sun Hardware Collection*. If you do not have this manual, you can obtain it at `http://docs.sun.com`.

Documentation CD Issue

Cannot Install Documentation Packages With Names Longer Than Nine Characters on Documentation Servers Running the Solaris 2.6, 7, and 8 Operating Environments

Some localized documentation collections in PDF format have package names that are longer than nine characters. To install these PDF collections on servers that are running the Solaris 7 or 8 operating environment, you must first install two patches.

Note – No patches exist at the time of this release for Solaris 2.6 servers.

Workaround: For instructions on how to install these patches, see the Solaris Documentation Important Information file on the documentation media, Solaris 9 9/02 Documentation CD 1 of 2, 2 of 2, or DVD. This file is located in the following directory:

mount-point/README/*locale*/install_*locale*.html

For example, the English file on the Solaris 9 9/02 Documentation CD 1 of 2 is located in the following directory:

sol_9_doc_1of2/README/C/install_C.html

Documentation CD Installation Bugs

Uninstall Mode of Solaris 9 9/02 Documentation CD uninstaller Utility Does Not Work Properly (4675797)

If you run the Solaris 9 9/02 Documentation CD uninstaller in Uninstall All mode, the uninstaller only removes those documentation packages that are installed by default.

Workaround: Run the uninstaller in Uninstall Partial mode. Select the specific packages you want to uninstall.

Solaris 9 9/02 Installation CD Does Not Prompt For Solaris 9 9/02 Documentation 2 of 2 CD in Certain Locales (4668033)

If you use the Solaris 9 9/02 Installation CD with certain locales, the installation program does not prompt you to install packages from the Solaris 9 9/02 Documentation 2 of 2 CD. This problem occurs for the following locales.

- ja_JP.PCK
- ja_JP.UTF-8
- ko.UTF-8
- zh.GBK
- zh.UTF-8

- `zh_CN.18030`
- `zh_HK.BIG5HK`
- `zh_HK.UTF-8`
- `zh_TW.BIG5`
- `zh_TW.UTF-8`

Workaround: Choose one of the following workarounds.

- Select one of the EUC locales (ja, ko, zh or zh_TW) as the installation (default) locale when you install the Solaris 9 9/02 software.
- Run the `installer` utility directly from the Solaris 9 9/02 Documentation 2 of 2 CD.

Solaris 9 9/02 Documentation 2 of 2 CD Installs Simplified Chinese Documentation by Default (4673521)

If you install the Solaris 9 9/02 Documentation CD 2 of 2 in the `zh_HK.BIG5HK` or `zh_HK.UTF-8` locale, Simplified Chinese Documentation is installed by default.

Workaround: During the Solaris 9 9/02 Documentation 2 of 2 CD installation, select Custom Install. Then, select the Traditional Chinese documentation that you want to install.

Documentation CD Verify Panel Might Not Page in Command Line Interface Mode (4520352)

If you use the Solaris 9 9/02 Documentation CD installer program with the `nodisplay` option, the verify panel might not page correctly.

Workaround: Do not specify the `nodisplay` option with the Solaris 9 9/02 Documentation CD installer program. Use the graphical user interface (GUI) mode to install the Solaris 9 9/02 Documentation CD.

Localization Issue That Occurs During Installation

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 9 9/02 operating environment 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.

Localization Bugs That Occur During Installation

Solaris 9 Beta Refresh Chinese CDE Font Packages Do Not Upgrade to Solaris 9 9/02 Operating Environment (4653908)

If you upgrade to the Solaris 9 9/02 operating environment on a system running the Solaris 9 Beta Refresh operating environment with Simplified Chinese or Traditional Chinese locale support, the upgrade does not complete successfully. The Simplified Chinese and Traditional Chinese CDE font localization packages (SUNWcdft or SUNWhdft) do not upgrade to the appropriate Solaris 9 9/02 packages. The following error message is displayed.

```
Removing package SUNWcdft:
/a/var/sadm/pkg/SUNWcdft/install/postremove:
  /a/usr/dt/config/xfonts/zh_CN.EUC: does not exist
/a/var/sadm/pkg/SUNWcdft/install/postremove:
  /a/usr/dt/config/xfonts/zh_CN.GBK: does not exist
/a/var/sadm/pkg/SUNWcdft/install/postremove:
  /a/usr/dt/config/xfonts/zh_CN.UTF-8: does not exist
pkgrm: ERROR: postremove script did not complete successfully
```

Workaround: Before you upgrade to the Solaris 9 9/02 operating environment, remove the appropriate Solaris 9 Beta Refresh postremove files.

```
# rm /var/sadm/pkg/SUNWcdft/install/postremove
# rm /var/sadm/pkg/SUNWhdft/install/postremove
```

Upgrading Systems Running Solaris 8 Operating Environment With Full Thai/Russian/Polish/Catalan Support Leaves Invalid Packages on System (4650059)

If you upgrade to the Solaris 9 9/02 operating environment on a system running the Solaris 8 operating environment with the Solaris 8 Language Supplement CD installed, several invalid Thai, Russian, Polish, and Catalan locale packages remain on the system. These locale packages have an ARCH=sparcall value, and are not removed during the upgrade to the Solaris 9 9/02 operating environment.

Workaround: Before you upgrade to the Solaris 9 9/02 operating environment, use the Solaris Product Registry application to remove the Solaris 8 Languages Supplement CD packages.

Installing Only Some European Locales Causes Characters to Not Display in UTF-8 Locale (4634077)

If you install one or more of a specific set of European locales, the system might not display any characters outside of the English or European character set in the UTF-8 codeset of the locale. This problem occurs under the following conditions.

- You install one or more of the following locales.

  - Middle East/Israel (ISO8859-8)
  - Northern Africa/Egypt (ISO8859-6)

- Eastern Europe/Russia (ISO8859-5)
- Eastern Europe/Turkey (ISO8859-9)
- South America/Brazil (ISO8859-1)
- Central Europe/Poland (ISO8859-2)

- You install no other locales on the system.

Workaround: Choose one of the following workarounds.

- During the installation, install both the en_US.UTF-8 North America/U.S.A. locale and the European locale that you want on the system.

- After the installation is completed, use the pkgadd utility to add the following packages to your system.

  - SUNW5ttf – Traditional Chinese BIG5 True Type Fonts Package
  - SUNWcttf – Simplified Chinese (EUC) True Type Fonts
  - SUNWiiimr – Internet/Intranet Input Method Framework Package (Root)
  - SUNWiiimu – Internet/Intranet Input Method Framework Package (Usr)
  - SUNWinleu – Indic Locale Environment User Files
  - SUNWinlex – Indic Language Environment user files (64-bit)
  - SUNWinttf – Indic True Type Fonts
  - SUNWjxcft – Japanese Required TrueType Font
  - SUNWkttf – Korean True Type Fonts
  - SUNWtleu – Thai Locale Environment User Files
  - SUNWtleux – Thai Language Environment user files (64-bit)

  These packages are available from the Solaris_9/Product directory on the Solaris 9 9/02 Software 1 of 2 CD or CD image.

  For example, if you install the Solaris 9 9/02 operating environment from the Solaris 9 9/02 Software 1 of 2 CD, type the following commands.

  ```
  # cd /cdrom/cdrom0/Solaris_9/Product
  # pkgadd -d . SUNW5ttf
  # pkgadd -d . SUNWcttf
  ```

  Repeat the pkgadd command for each package in the previous list.

Solaris Runtime Issues

This chapter describes runtime issues that are known to be problems. For late-breaking Solaris runtime issues that were not identified in time to be included in these release notes, refer to the *Solaris 9 (SPARC Platform Edition) 9/02 Release Notes* in the Solaris 9 9/02 Release and Installation Collection on `http://docs.sun.com`.

USB Device Support Bugs

Data Corruption on USB Hard Drives (4660516)

If USB hard drives that are not Solaris Ready are used with the Solaris 9 9/02 operating environment, the result might be UFS panics and data corruption.

Workaround: Refer to `http://www.sun.com/io_technologies/storagesolutions.html` for a list of Solaris Ready products.

Smart Card Bugs

System Does Not Respond to Smart Card (4415094)

If `ocfserv` terminates and the display is locked, the system remains locked even when a smart card is inserted or removed.

Workaround: Perform the following steps to unlock your system.

1. Perform a remote login to the machine on which the `ocfserv` process terminated.
2. Become superuser.
3. Kill the `dtsession` process by typing the following in a terminal window.

   ```
   # pkill dtsession
   ```

`ocfserv` restarts and smart card login and capability are restored.

Edit Config File Menu Item in Smartcards Management Console Does Not Work (4447632)

The Edit Config File menu item in the Smartcards Management Console does not edit smart card configuration files that are located in `/etc/smartcard/opencard.properties`. If the menu item is selected, a warning is displayed which indicates not to continue unless requested by technical support.

Workaround: Do not use the Edit Config File menu item in the Smartcards Management Console. For information on smart card configuration, see the *Solaris Smartcard Administration Guide*.

Common Desktop Environment (CDE) Bugs

`dtmail` Crashes When Launched From the Command Line if FontList Option Is Specified (4677329)

`dtmail` crashes after connecting with the IMAP server if the FontList option is specified when `dtmail` is launched from the command line. See the following example.

```
/usr/dt/bin/dtmail -xrm "Dtmail*FontList: -*-r-normal-*:"
```

The following error message is displayed.

```
Segmentation Fault
```

This problem occurs in both the C and ja locales.

Workaround: Do not specify the FontList option when you launch `dtmail` from the command line.

CDE Mailer Appears to Hang While Displaying Email With Long Lines (4418793)

If you try to read an email message with many long lines in any of the Solaris 9 9/02 Unicode or UTF-8 locales, CDE Mailer (`dtmail`) appears to hang. The message does not display immediately.

Workaround: Choose one of the following workarounds.

- Enlarge the `dtmail` Mailbox window to accommodate 132 columns.
- Disable the Complex Text Layout feature by following these steps.

  1. Become superuser.
  2. Change directories to your system's locale directory.

     ```
     # cd /usr/lib/locale/locale-name
     ```

     In the previous example, *locale-name* refers to the name of your system's Solaris 9 9/02 Unicode or UTF-8 locale.

3. Rename the locale layout engine category.

```
# mv LO_LTYPE LO_LTYPE-
```

> **Note –** Rename the locale layout engine category to the original name
> (LO_LTYPE) before you apply any patches to the locale layout engine.

PDASync Cannot Delete Last Entry From the Desktop (4260435)

After you delete the last item from the desktop, the item is restored from the handheld
device to the desktop when you synchronize your handheld device. Examples of items
that you might delete, and then have restored, are the last appointment in your
Calendar or the last address in the Address Manager.

Workaround: Manually delete the last entry from the handheld device prior to
synchronization.

PDASync Does Not Support Data Exchange With the Multibyte
Internationalized PDA Device (4263814)

If you exchange multibyte data between a PDA device and Solaris CDE, the data
might be corrupted in both environments.

Workaround: Back up your data on your personal computer with the PDA backup
utility before you run the PDASync application. If you accidentally exchange
multibyte data and corrupt that data, restore your data from the backup.

System Administration Bugs

Solaris WBEM Services 2.5 Daemon Cannot Locate com.sun Application
Programming Interface Providers (4619576)

The Solaris WBEM Services 2.5 daemon cannot locate providers that are written to the
com.sun.wbem.provider interface or to the com.sun.wbem.provider20
interface. Even if you create a Solaris_ProviderPath instance for a provider that
is written to these interfaces, the Solaris WBEM Services 2.5 daemon does not locate
the provider.

Workaround: To enable the daemon to locate such a provider, stop and restart the
Solaris WBEM Services 2.5 daemon.

```
# /etc/init.d/init.wbem stop
```

```
# /etc/init.d/init.wbem start
```

Note – If you use the javax API to develop your provider, you do not need to stop and restart the Solaris WBEM Services 2.5 daemon. The Solaris WBEM Services 2.5 daemon dynamically recognizes javax providers.

Some `com.sun` Application Programming Interface Method Invocations Fail Under XML/HTTP Transport Protocol (4497393, 4497399, 4497406, 4497411)

If you choose to use the `com.sun` application programming interface rather than the javax application programming interface to develop your WBEM software, only CIM remote method invocation (RMI) is fully supported. Other protocols, such as XML/HTTP, are not guaranteed to work completely with the `com.sun` application programming interface.

The following table lists examples of invocations that execute successfully under RMI, but fail under XML/HTTP.

Method Invocation	Error Message
CIMClient.close()	NullPointerException
CIMClient.execQuery()	CIM_ERR_QUERY_LANGUAGE_NOT_SUPPORTED
CIMClient.getInstance()	CIM_ERR_FAILED
CIMClient.invokeMethod()	XMLERROR: ClassCastException

Cannot Modify File System Mount Properties With Solaris Management Console Mounts and Shares Tool (4466829)

The Solaris Management Console Mounts and Shares tool cannot modify mount options on system-critical file systems such as / (root), /usr, and /var.

Workaround: Choose one of the following workarounds.

- Use the remount option with the mount command.

    ```
    # mount -F file-system-type -o remount,additional-mount-options \
    device-to-mount  mount-point
    ```

    Note – Mount property modifications that are made by using the -remount option with the mount command are not persistent. In addition, all mount options that are not specified in the *additional-mount-options* portion of the previous command inherit the default values that are specified by the system. See the man page mount_ufs(1M) for more information.

- Edit the appropriate entry in the /etc/vfstab file to modify the file system mount properties, then reboot the system.

CIM_ERR_LOW_ON_MEMORY Error Occurs When Trying to Add Data With WBEM (4312409)

The following error message is displayed when memory is low:

```
CIM_ERR_LOW_ON_MEMORY
```

You cannot add more entries when the Common Information Model (CIM) Object Manager has run low on memory. You must reset the CIM Object Manager Repository.

Workaround: To reset the CIM Object Manager Repository, follow these steps.

1. Become superuser.
2. Stop the CIM Object Manager.

   # **/etc/init.d/init.wbem stop**

3. Remove the JavaSpaces™ log directory.

   # **/bin/rm -rf /var/sadm/wbem/log**

4. Restart the CIM Object Manager.

   # **/etc/init.d/init.wbem start**

Note – When you reset the CIM Object Manager Repository, you lose any proprietary definitions in your data store. You must recompile the MOF files that contain those definitions by using the mofcomp command. See the following example.

/usr/sadm/bin/mofcomp -u root -p *root-password your-mof-file*

Solaris Volume Manager Issue

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 often 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, displays an error message when you attempt to attach the second submirror. For more information about the default behavior of Solaris installation programs, see "Swap Installation Issue" on page 13.

Solaris Volume Manager Bugs

Detaching Submirror With `metadetach` Command Automatically Resizes Mirror (4678627)

If you use the `metadetach` command to remove a submirror from a mirror, you might not be able to reattach the submirror. This problem occurs because the mirror is automatically resized after you detach the submirror.

Workaround: Before you use the `metadetach` command to detach a submirror, attach a submirror of equal size to the submirror you want to detach.

Solaris Volume Manager `metareplace -e` Command Fails to Enable Soft Partitions When Disks Are Removed and Then Replaced (4645781)

If you physically remove a soft partitioned disk from a system and then replace it with a new disk, the `metareplace -e` command fails to enable the soft partitions. This failure might occur whether or not you used the `metarecover` command prior to issuing the `metareplace -e` command to enable the soft partitions.

Workaround: Re-create the soft partitions on the new disk.

> **Note –** If the soft partitions are a part of a mirror or RAID 5, use the `metareplace` command without the `-e` option to replace the old soft partition with the new soft partition.
>
> # **metareplace dx** *mirror or RAID 5 old_soft_partition new_soft_partition*

Solaris Volume Manager `metahs -e` Command Fails On Copper Cable Storage Boxes When Failed Hot Spare Disk Has Been Swapped Out (4644106)

The `metahs -e` command might fail if you encounter the following circumstances.

1. A hot spare device encounters a problem, such as an induced error, when using the `metaverify` test utility.

2. Solaris Volume Manager software attempts to activate the hot spare when an error occurs on a metadevice. The hot spare is marked `broken`.

3. The system is brought down. The failed disk that contains the hot spare is replaced with a new disk at the same location.

4. When the system is booted, Solaris Volume Manager software does not recognize the new hot spare.

5. The `metahs -e` command is used to enable the hot spare on the new disk.

The following message is displayed.

```
WARNING: md: d0: open error of hotspare (Unavailable)
```

The failure occurs because the Solaris Volume Manager software does not internally recognize the new hot spare disk that was swapped into the same physical location. The Solaris Volume Manager software continues to display the device ID of the disk that is no longer in the system.

Note – This failure is not known to occur on a Photon or storage enclosures where the device number changes when a disk is replaced.

Workaround: Choose one of the following workarounds.

- Follow these steps to update the device ID for the hot spare disk in the Solaris Volume Manager state database.

    1. Become superuser.

    2. Type the following command to update the device ID for the hot spare disk.

        # **metadevadm -u** *logical-device-name*

    3. Type the following command to make the new hot spare disk available.

        # **metareplace -e** *logical-device-name*

- Follow these steps to manage hot spares and hot spare pools on the system.

    1. Become superuser.

    2. Type the following command to delete the entry for the hot spare slice.

        # **metahs -d hsp***hot-spare-pool-number logical-device-name*

    3. Type the following command to create a new entry for the hot spare slice at the same location with the correct device ID.

        # **metahs -a hsp***hot-spare-pool-number logical-device-name*

Solaris Volume Manager `metadevadm` Command Fails If Logical Device Name No Longer Exists (4645721)

You cannot replace a failed drive with a drive that has been configured with the Solaris Volume Manager software. The replacement drive must be new to Solaris Volume Manager software. If you physically move a disk from one slot to another slot

on a Photon, the metadevadm command fails. This failure occurs when the logical device name for the slice no longer exists. However, the device ID for the disk remains present in the metadevice replica. The following message is displayed.

```
Unnamed device detected. Please run 'devfsadm && metadevadm -r to resolve.
```

Note – You can access the disk at the new location during this time. However, you might need to use the old logical device name to access the slice.

Workaround: Physically move the drive back to its original slot.

Solaris Volume Manager metarecover Command Fails to Update metadb Namespace (4645776)

If you remove and replace a physical disk from the system, and then use the metarecover -p -d command to write the appropriate soft partition specific information to the disk, an open failure results. The command does not update the metadevice database namespace to reflect the change in disk device identification. This condition causes an open failure for each such soft partition that is built on top of the disk. The following message is displayed.

```
Open Error
```

Workaround: Create a soft partition on the new disk instead of issuing the metarecover command to recover the soft partition.

Note – If the soft partition is part of a mirror or RAID 5, use the metareplace command without the -e option to replace the old soft partition with the new soft partition.

```
# metareplace dx mirror or RAID 5 old_soft_partition new_soft_partition
```

Networking Bugs

Idle Solaris PPP 4.0 Daemon Might Exit During Holdoff Period (4647938)

The Solaris Point-to-Point Protocol (PPP) 4.0 daemon (pppd) might unexpectedly exit under the following conditions.

- The pppd daemon is idle.
- The demand and holdoff options to the pppd daemon are enabled.
- A packet arrives during the holdoff period.

If the pppd daemon exits unexpectedly, a message that is similar to the following message is logged in the appropriate system log file.

current date hostname pppd[*PID*]: [ID 702911 daemon.error] unable
to set IP to pass: Invalid argument
current date hostname pppd[*PID*]: [ID 702911 daemon.error] unable to
enable IPCP

See the man page pppd(1M) for more information on the demand and holdoff
options to the pppd daemon.

Workaround: Choose one of the following workarounds.

- If you do not need the pppd daemon to wait before trying to re-initiate links, do
  not use the holdoff option with the pppd daemon.

- Set the holdoff option value to 0.

- Run the pppd daemon from a loop script that is similar to the following Bourne
  shell script.

  ```
  #!/bin/sh
          while :; do
                  /usr/bin/pppd cua/b lock idle 60 demand nodetach noauth \
                          38400 10.0.0.1:10.0.0.2 holdoff 20
          done
  ```

Configuring Multiple Tunnels Between Two IP Nodes With Filtering Enabled Might Result in Packet Loss (4152864)

If you configure multiple IP tunnels between two IP nodes, and enable
ip_strict_dst_multihoming or other IP filters, packet loss might result.

Workaround: Choose one of the following workarounds.

- First configure a single tunnel between the two IP nodes. Add addresses to the
  tunnel by using the ifconfig command with the addif option.

- Do not enable ip_strict_dst_multihoming on tunnels between two IP nodes.

Security Bugs

Unlocking CDE Screenlock Removes Kerberos Version 5 Credentials (4674474)

If you unlock a locked CDE session, all your cached Kerberos version 5 (krb5)
credentials might be removed. The result is you might not be able to access various
system utilities. This problem occurs under the following conditions.

- In the /etc/pam.conf file, the dtsession services for your system are
  configured to use the krb5 module by default.

- You lock your CDE session, and then try to unlock the session.

If this problem occurs, the following error message is displayed.

lock screen: PAM-KRB5 (auth): Error verifying TGT with host/*host-name*:
Permission denied in replay cache code

Workaround: Add the following non-pam_krb5 dtsession entries to the /etc/pam.conf file.

```
dtsession auth requisite pam_authtok_get.so.1
dtsession auth required  pam_unix_auth.so.1
```

With these entries in the /etc/pam.conf file, the pam_krb5 module does not run by default.

CDE Removable Media Auto Run Capability Removed From the Solaris 9 9/02 Operating Environment (4483353)

The Removable Media auto run capability in the CDE desktop environment has been temporarily removed from the Solaris 9 9/02 operating environment. This cabability has been removed to mitigate potential security issues.

To use the auto run function for a CD-ROM or another removable media volume, you must do one of the following:

- Run the volstart program from the top level of the removable media file system
- Follow the instructions that are included with the CD for access from outside of CDE

Note – For the latest information on security issues and patches, check the SunSolve web site at http://sunsolve.sun.com. All security patches are available from the SunSolve site without a support contract.

---

cron, at, and batch Cannot Schedule Jobs for Locked Accounts (4622431)

In the Solaris 9 9/02 operating environment, locked accounts are treated in the same way as expired or nonexistent accounts. As a result, the cron, at, and batch utilities cannot schedule jobs on locked accounts.

Workaround: To enable locked accounts to accept cron, at, or batch jobs, replace the password field of a locked account (*LK*) with the string NP, for no password.

Additional Software Bug

Veritas Volume Manager Might Fail on Systems Running Solaris 9 9/02 Operating Environment (4642114)

If you try to perform various tasks with Veritas Volume Manager on a system that is running the Solaris 9 9/02 operating environment, the vxddladm addjob or vxddladm addsupport utilities might core dump.

Workaround: Follow these steps.

1. Become superuser.

2. Verify that the `/var/ld/ld.config` file and `/usr/bin/crle` utility exist on the system.

3. Type the following commands in a terminal window.

```
# /usr/bin/cp /var/ld/ld.config /var/ld/ld.config.save
# /usr/bin/crle -E LD_LIBRARY_PATH=/usr/lib
# appropriate-vxddladm-command
# /usr/bin/mv /var/ld/ld.config.save /var/ld/ld.config
```

Documentation CD Issues

iPlanet Directory Server 5.1 Documentation Links Do Not Work Properly

In the iPlanet Directory Server™ 5.1 Collection, links titled DocHome and links between separate books do not work. If you select these links, your browser displays a Not Found error.

Workaround: Choose one of the following workarounds.

- To navigate between iPlanet Directory Server 5.1 documents on your system, go to the iPlanet Directory Server 5.1 Collection page. Click the link to the document you want to view.
- View the iPlanet Directory Server 5.1 Collection on `http://docs.sun.com`.

SUNWsdocs Package Necessary to Remove Other Documentation Packages

If you remove the `SUNWsdocs` package, then try to remove other documentation packages, the removal fails. This problem occurs because the `SUNWsdocs` package is installed with any collection and provides the browser entry point.

Workaround: If you removed the `SUNWsdocs` package, reinstall the `SUNWsdocs` package from the documentation media and then remove the other documentation packages.

Documentation CD Bugs

European Locale PDF Documents Available Only Through C Locale (4674475)

In the Solaris 9 9/02 operating environment, and other UNIX based systems, PDF documents on the Solaris 9 9/02 Documentation 1 of 2 CD are not accessible in the following European locales.

- `de` (German)
- `es` (Spanish)
- `fr` (French)
- `it` (Italian)
- `sv` (Swedish)

This problem occurs because of a limitation with Adobe Acrobat Reader. For more information on this problem, see the Adobe Technote site at `http://www.adobe.com:80/support/techdocs/294de.htm`.

Workaround: Choose one of the following workarounds.

- In the Solaris 9 9/02 operating environment, and other UNIX based systems, set the environment variable `LC_ALL` to `C acroread`. For example, in the C shell, type the following command in a terminal window.

  ```
  % env LC_ALL=C acroread
  ```
- In non-UNIX based systems, upgrade to Adobe Acrobat Reader 5.0.

Removing Solaris 9 9/02 Documentation Packages Might Unexpectedly Uninstall Some Solaris 9 9/02 Documentation Collections (4641961)

Some Solaris 9 9/02 documentation collections might unexpectedly be removed from your system if the following occurs.

1. You install both the Solaris 9 9/02 Documentation 1 of 2 and 2 of 2 CDs on your system.
2. You then use the `prodreg` utility or the Solaris 9 9/02 Documentation CD installer program to remove certain documentation packages.

The Solaris 9 9/02 Documentation CD 1 of 2 and 2 of 2 have three collections in common. If you remove the packages that contain these collections from either of the Solaris 9 9/02 Documentation 1 of 2 or 2 of 2 CD installations, the package is removed for both installations.

The following table lists the packages that might be removed unexpectedly.

TABLE 2–1 Solaris 9 9/02 Documentation Packages Contained on Both Solaris 9 9/02 Documentation CDs

HTML Package Names	PDF Package Names	Collection Description
SUNWaadm	SUNWpaadm	Solaris 9 System Administrator Collection
SUNWdev	SUNWpdev	Solaris 9 Developer Collection
SUNWids	SUNWpids	iPlanet Directory Server 5.1 Collection

Workaround: Choose one of the following workarounds.

- If the uninstall process unexpectedly removed these documentation packages and you want these packages on your system, reinstall the packages from the Solaris 9 9/02 Documentation 1 of 2 or 2 of 2 CDs.
- To avoid this problem, use the `pkgrm` utility to remove the packages that you want to eliminate from your system.

Localization Bugs

AltGraph-E Does Not Produce Euro Character in `en_US.UTF-8` Locale (4633549)

In the `en_US.UTF-8` locale, you cannot input the Euro character by simultaneously pressing the AltGraph and E keys.

Workaround: Choose one of the following workarounds.

- Press and release the Compose key, then press and release the C key, then press and release the = key (Compose+C+=).

  Note – If your keyboard does not include the Compose key, then press the Control key while you press the Shift and T keys (Ctrl-Shift-T).

- Press the Alt key while you press the 4 key (Alt-4).

Shift-U Does Not Work as Expected in Arabic Locales (4303879)

To generate the diacritic character in Arabic locales, type the Arabic character, then Shift-U.

Sorting in the European `UTF-8` Locales Does Not Function Correctly (4307314)

Sorting in the European `UTF-8` locales does not work properly.

Workaround: Before you attempt to sort in a `FIGGS UTF-8` locale, set the *LC_COLLATE* variable to the ISO–1 equivalent.

```
# echo $LC_COLLATE
>  es_ES.UTF-8
# LC_COLLATE=es_ES.IS08859-1
# export LC_COLLATE
```
Then start sorting.

Secure Shell Application Is Not Fully Localized (4680353)

The Secure Shell application is not localized and cannot be fully translated.

iPlanet Directory Server Issues

Setup Issue

When entering Distinguished Names during installation, use the UTF-8 character set encoding. Other encodings are not supported. Installation operations do not convert data from local character set encoding to UTF-8 character set encoding. LDIF files used to import data must also use UTF-8 character set encoding. Import operations do not convert data from local character set encoding to UTF-8 character set encoding.

Schema Issues

The schema provided with the iPlanet Directory Server 5.1 differs from that specified in RFC 2256 for the `groupOfNames` and `groupOfUniquenames` object classes. In the schema provided, the `member` and `uniquemember` attribute types are optional. RFC 2256 specifies at least one value for these types must be present in the respective object class.

The `aci` attribute is an operational attribute that is not returned in a search unless you explicitly request the attribute.

Replication Issue

Multi-Master Replication over WAN is currently not supported.

Server Plug-in Issues

iPlanet Directory Server 5.1 provides the UID Uniqueness plug-in. By default, the plug-in is not activated. To ensure attribute uniqueness for specific attributes, create a new instance of the Attribute Uniqueness plug-in for each attribute. For more information on the Attribute Uniqueness plug-in, refer to the *iPlanet Directory Server 5.1 Administrator's Guide*.

The Referential Integrity plug-in is now off by default. The Referential Integrity plug-in should only be enabled on one master replica in a multi-master replication environment to avoid conflict resolution loops. Before enabling the Referential Integrity plug-in on servers that issue chaining requests, analyze your performance resource, time, and integrity needs. Integrity checks can consume significant memory and CPU resources.

Roles and Class of Service Issue

The `nsRoleDN` attribute is used to define a role. This attribute should not be used for evaluating role membership in a user's entry. When evaluating role membership, look at the `nsrole` attribute.

Indexing Issue

If VLV indexes encompass more than one database, the VLV indexes do not work correctly.

iPlanet Directory Server Bugs

Cannot Inactivate Users Through Console (4521017)

If you launch the iPlanet Directory Server 5.1 Console and create a new user or new role as inactive, the newly created user or newly created role is not inactivated. Users and roles cannot be created through the Console as inactive.

Workaround: To create an inactive user or inactive role, follow these steps:

1. Create the new user or new role.
2. Double-click the newly created user or newly created role, or select the newly created user or newly created role. Click the Properties item from the Object menu.
3. Click the Account tab.
4. Click the Inactivate button.
5. Click OK.

The newly created user or newly created role is Inactivated.

Cannot Configure Directory With a Root Suffix That Contains Spaces (4526501)

If the user specifies a base DN that contains a space, for example, `o=U.S. Government,C=US` at iPlanet Directory Server configuration time, the resulting DN is truncated to `Government,C=US`. At configuration time, the DN should be entered as `o=U.S.%20Government,C=US`.

Workaround: To correct the base DN entry, follow these steps.

1. Select the top directory entry in the left side of the navigation pane of the Servers and Applications tab on the Console.
2. Edit the suffix in the User directory subtree field.
3. Click OK.

Password Policy Information Is Not Synchronized Between Servers (4527608)

If you update a non-master directory server with password policy information, the information is not replicated to all other servers. This information includes account lockouts.

Workaround: Manage password policy information manually on each server.

Account Lockout Remains in Effect After the User Password Is Changed (4527623)

If Account Lockout is in effect and the user password is changed, Account Lockout remains in effect.

Workaround: Reset the accountUnlockTime, passwordRetryCount, and retryCountResetTime lockout attributes to unlock the account.

Console Backup Immediately After Install Fails (4531022)

If you install the iPlanet Directory Server, start the console, initialize the directory with an LDIF file and then backup the server, the Console reports the backup was successful. However, the backup has actually failed.

Workaround: Perform the following tasks from the Console after you initialize the database:

1. Stop the server.
2. Restart the server.
3. Perform the backup.

Server Ignores Case Sensitive Syntax When Normalizing DN Attributes (4630941)

You cannot use the LDAP naming services to create automount path names that are identical, except for case results in non-unique path names. The directory server does not allow creation of entries if the naming attribute is defined with case-sensitive syntax and an entry already exists with the same name, but a different case.

Note – `/home/foo` and `/home/Foo` paths cannot co-exist.

For example, if entry `attr=foo,dc=mycompany,dc=com` exists, the server does not allow the creation of `attr=Foo,dc=mycompany,dc=com`. A side effect of this problem is that when LDAP naming services are used, automount path names have to be unique regardless of their case.

Workaround: None.

Stopping the Server During Export, Backup, Restore, or Index Creation Crashes the Server (4678334)

If the server is stopped during export, backup, restore or index creation, the server crashes.

Workaround: Do not stop the server during these types of operations.

Replication Unable to Use Self-signed Certificate (4679442)

If you attempt to configure replication over (SSL) with certificate-based authentication, replication does not work if either of the following conditions exist.

- The supplier's certificate is self-signed.

- The supplier's certificate is only capable of behaving as an SSL server certificate that is unable to "play" the role of the client during an SSL handshake.

Workaround: None.

End-of-Software Support Statements

This chapter lists end-of-support statements. For late-breaking end-of-support statements that were not identified in time to be included in these release notes, refer to the *Solaris 9 (SPARC Platform Edition) 9/02 Release Notes* in the Solaris 9 Release and Installation Collection on `http://docs.sun.com`.

Features Removed From the Solaris 9 Operating Environment

`adb` Map Modifiers and Watchpoint Syntax

The `adb`(1) utility is implemented as a link to the new `mdb`(1) utility in this release of the Solaris operating environment.

The `mdb`(1) man page describes the features of the new debugger, including its `adb`(1) compatibility mode. Even in this compatibility mode, differences between `adb`(1) and `mdb`(1) exist. These differences include the following:

- The text output format of some subcommands is different in `mdb`(1). Macro files are formatted by using the same rules, but scripts that depend on the output of other subcommands might need to be modified.

- The watchpoint-length specifier syntax in `mdb`(1) is different from the syntax that is described in `adb`(1). The `adb`(1) watchpoint commands `:w`, `:a`, and `:p` enable an integer length (in bytes) to be inserted between the colon and the command character. In `mdb`(1), the count should be specified after the initial address as a repeat count.

  The `adb`(1) command `123:456w` is specified in `mdb`(1) as `123,456:w`.

- The `/m`, `/*m`, `?m`, and `?*m` format specifiers are not recognized or supported by `mdb`(1).

AnswerBook2 Server

The AnswerBook2™ server is no longer included in this release. Existing AnswerBook2 servers can run on the Solaris 9 operating environment. Solaris documentation is available on the Solaris Documentation CD in online formats. All Solaris documentation is also always available at `http://docs.sun.com`.

aspppd **Utility**

The `aspppd(1M)` utility is no longer included in this release. Instead, use the `pppd(1M)` utility with Solaris PPP 4.0 utility that is included in the Solaris 9 operating environment.

ATOK8 **Japanese Input Method**

The `ATOK8` Japanese input method is no longer supported in this release. The `ATOK12` Japanese input method is included in the Solaris 9 operating environment. The `ATOK12` Japanese input method provides a similiar range of operations to the `ATOK8` with the addition of several enhancements.

crash **Utility**

The `crash(1M)` utility is no longer supported in this release. In the Solaris 9 operating environment, the `mdb(1)` utility provides a function that is similar to the function of the `crash` utility. The mdb utility also examines system crash dump files. The `crash` utility's interface has been structured around implementation details, such as slots, that have no relation to the Solaris operating system implementation.

"Transition From crash" in the *Solaris Modular Debugger Guide* provides information for users who are making the transition from using `crash` to using `mdb`.

Crash Dump Options for Solaris ipcs **Command**

The capability of applying the `ipcs(1)` command to system crash dumps by using the `-C` and `-N` command-line options is no longer supported in this release. Equivalent capability is now provided by the `mdb(1)` `::ipcs` debugger command.

cs00 **Japanese Input Method**

The `cs00` Japanese input method is no longer supported in the Solaris 9 operating environment. Related interfaces, such as the `xci` interface, the Japanese Feature Package (JFP) `libmle` API, and the `mle` command, are also no longer supported in the Solaris 9 operating environment.

If you upgrade to the Solaris 9 operating environment from a previous release, the existing public user dictionary `/var/mle/ja/cs00/cs00_u.dic` is removed.

Two Japanese input methods, `ATOK12` and `Wnn6`, are supported in the Solaris 9 operating environment. For more information on the ATOK12 and Wnn6 input methods, see the *International Language Environments Guide*.

Early Access (EA) Directory

The name of the `EA` directory has been changed to `ExtraValue` in the Solaris 9 operating environment.

Emulex MD21 Disk Controller for ESDI Drives

The MD21 disk controller for ESDI drives is no longer supported in the Solaris 9 operating environment.

`enable_mixed_bcp` Tunable

The `enable_mixed_bcp` tunable is no longer supported in this release. In Solaris releases prior to the Solaris 9 operating environment, the `/etc/system` variable `enable_mixed_bcp` could be set to `0` to disable dynamic linking of partially statically linked SunOS™ 4.0 and compatible executables. The system used dynamic linking for these executables by default. In the Solaris 9 operating environment, dynamic linking is always used for these executables, and the `enable_mixed_bcp` tunable has been removed from the system. This change does not affect binary compatibility for SunOS 4.0 and compatible executables in any way.

`japanese` Locale Name Alternate

The `japanese` locale name alternate of the `ja` Japanese Extended UNIX® Code (EUC) locale is no longer supported in this release. This locale name facilitated migration from the Solaris 1.0 release, and compatible releases. You can use `ja` or `ja_JP.eucJP` as the Japanese EUC locale with the Solaris 9 operating environment. The Solaris 1.0 BCP (JLE) application, and compatible versions, can still run in the Solaris 9 operating environment without any changes.

Java Software Developer's Kit (SDK) 1.2.2

Version 1.2.2 of the Java™ SDK (`SUNWj2dev`) is no longer included in the Solaris 9 release. Near-equivalent capability is supported by Java 2 Standard Edition, versions 1.4 and compatible versions. Current and previous versions of JDK and JRE are available for download from `http://java.sun.com`.

JDK 1.1.8 and JRE 1.1.8

Version 1.1.8 of the JDK and version 1.1.8 of the JRE are no longer supported in this release. Near-equivalent capability is supported by Java 2 Standard Edition, versions 1.4 and compatible versions. Current and previous versions of JDK and JRE are available for download from `http://java.sun.com`.

OpenWindows Toolkits for Developers

Development in the OpenWindows™ XView™ and OLIT toolkits is no longer supported in this release. Developers are encouraged to migrate to the Motif toolkit. Applications that were developed with the OpenWindows XView and OLIT toolkits can still run on the Solaris 9 operating environment.

OpenWindows Environment for Users

The OpenWindows environment is no longer supported in this release. The Common Desktop Environment (CDE) is the default desktop environment that is included in the Solaris 9 operating environment. Applications that use the OpenWindows XView and OLIT toolkits can still run on the Solaris 9 operating environment in CDE.

Priority Paging and Related Kernel Tunables
(`priority_paging/cachefree`**)**

The `priority_paging` and `cachefree` tunable parameters are not supported in the Solaris 9 release. These parameters have been replaced with an enhanced file system caching architecture that implements paging policies that are similar to priority paging, but always enabled. Attempts to set these parameters in the `/etc/system` file result in boot-time warnings such as the following:

```
sorry, variable 'priority_paging' is not defined in the 'kernel'
sorry, variable 'cachefree' is not defined in the 'kernel'
```

If you upgrade to the Solaris 9 release or `pkgadd` the `SUNWcsr` packages and your `/etc/system` file includes the `priority_paging` or `cachefree` parameters, the following occurs:

1. The following message is displayed if the `priority_paging` or `cachefree` parameters are set in the `/etc/system` file:

   ```
   NOTE: /etc/system has been modified since it contains references to
   priority paging tunables. Please review the changed file.
   ```

2. Comments are inserted in the `/etc/system` file before any line that sets `priority_paging` or `cachefree`. For example, if `priority_paging` is set to 1, this line is replaced with the following lines:

   ```
   * NOTE: As of Solaris 9, priority paging is unnecessary and
   * has been removed. Since references to priority paging-related tunables
   * will now result in boot-time warnings, the assignment below has been
   * commented out. For more details, see the Solaris 9 Release Notes, or
   * the "Solaris Tunable Parameters Reference Manual".

   * set priority_paging=1
   ```

`s5fs` File System

The `s5fs` file system is no longer supported in this release. The `s5fs` file system supports the installation of Interactive UNIX applications which is no longer required in the Solaris operating environment.

sendmail **Utility Features**

Some features of the sendmail utility are no longer supported in this release. The affected features are modifications that are mostly nonstandard and specific to Sun. These features include special syntax and special semantics for V1/Sun configuration files, the remote mode feature, the AutoRebuildAliases option, and the three sun-reverse-alias features.

More information about these features and migration issues is located at http://www.sendmail.org/vendor/sun/solaris9.html.

SUNWebnfs

The SUNWebnfs package is no longer included on the Solaris operating environment media.

The library and documentation are available for download from http://www.sun.com/webnfs.

sun4d**–Based Servers**

The following servers that are based on the sun4d architecture are no longer supported in this release.

- SPARCserver™ 1000
- SPARCcenter™ 2000

Hardware options that are dependent on the sun4d architecture are no longer supported in this release.

SUNWrdm

The SUNWrdm package, which formerly contained text release notes, is no longer included on the Solaris Software CD in this release.

For release notes, refer to the Release Notes on the Solaris Documentation CD, the printed Installation Release Notes, or the most current release notes that are available on http://docs.sun.com.

Features That Might Be Removed in a Future Release

Solaris 32-bit Sun4U **kernel**

Many installations of the Solaris 7, 8, and 9 software use the default 64-bit kernel to support 32-bit and 64-bit applications. Customers who use the 32-bit kernel on UltraSPARC systems should read this notice.

In the Solaris 7, 8 and 9 operating environments, all systems that are based on the UltraSPARC I and UltraSPARC II processors allow administrators the choice of booting a 32-bit kernel or a 64-bit kernel. The UltraSPARC III® and later systems support only the 64-bit kernel.

In a future release of the Solaris operating environment, the 32-bit kernel might not be available for the UltraSPARC I and UltraSPARC II systems.

The primary impact of these changes are to systems that rely on third-party 32-bit kernel modules: firewalls, kernel-resident drivers, and replacement filesystems, for example. These systems must be updated to use 64-bit versions of those modules.

Another impact of these changes is that UltraSPARC systems that contain UltraSPARC I processors with clocks that run at 200MHz or lower frequencies might not be supported in a future release.

To identify the system's kernel type, use the isainfo(1) command.

% **isainfo −kv**

To identify the system's processor clock rate, use the psrinfo(1M) command.

% **psrinfo −v | grep MHz**

Netstat -k Option

The unsupported -k option of netstat, which reports on all named kstats on the running OS instance, might be removed in a future release. Use the supported kstat command, which provides the same facility. The kstat command was introduced in the Solaris 8 operating environment.

SPARCengine Ultra AX

Support for the SPARCengine Ultra™ AXmp graphics card might not be provided in a future release of the Solaris operating environment. Related support for third-party graphics cards, such as the IGS CyberPro2010 on the Ultra AX, might not be provided in a future release of the Solaris operating environment.

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 Solaris. 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.

AdminTool

AdminTool (admintool), including swmtool, might not be supported in a future release.

Asian Short `dtlogin` Names

The following Asian short locale names might not be listed in the `dtlogin` language list in a future release.

- `zh`
- `zh.GBK`
- `zh.UTF-8`
- `ko`
- `ko.UTF-8`
- `zh_TW`

The Solaris 8, Solaris 9 , and Solaris 9 9/02 releases provide new ISO standard locale names, including:

- `zh_CN.EUC`
- `zh_CN.GBK`
- `zh_CN.UTF-8`
- `ko_KR.EUC`
- `ko_KR.UTF-8`
- `zh_TW.EUC`

Device Management Entries in `power.conf`

The Device Management entries in `power.conf`(4) might not be supported in a future release. Similar capability is provided by the Automatic Device Power Management entries in the Solaris 9 operating environment.

Federated Naming Service XFN Libraries and Commands

The Federated Naming Service (FNS), which is based on the X/Open XFN standard, might not be supported in a future release.

GMT Zoneinfo Time Zones

The `/usr/share/lib/zoneinfo/GMT[+-]*` time zones might not be supported in a future release. These files might be removed from `/usr/share/lib/zoneinfo`. Replace usage of the zoneinfo time zones with the equivalent `Etc/GMT[-+]*` file. See the man pages `zoneinfo`(4) and `environ`(5) for more information.

JRE 1.2.2

Version 1.2.2 of the Java™ runtime environment (JRE) might not be supported in a future release. Similar capability is supported by Java 2 Standard Edition, version 1.4 and compatible versions. Current and previous versions of JRE are available for download from `http://java.sun.com`.

Kerberos Version 4 Client

The Kerberos version 4 client might be removed from a future release. This client includes the Kerberos version 4 support in the kinit(1), kdestroy(1), klist(1), ksrvtgt(1), mount_nfs(1M), share(1M), and kerbd(1M) commands. The Kerberos version 4 client also includes support in the kerberos(3KRB) library, and in the ONC RPC programming API kerberos_rpc(3KRB).

Korean CID Fonts

Korean CID fonts might not be supported in a future release. You can use the Korean TrueType fonts that are included in the Solaris operating environment as a replacement for Korean CID fonts.

Lightweight Directory Access Protocol (LDAP) Client Library

LDAP client library, libldap.so.3, might not be included in a future release. The current version of this library, libldap.so.5, is compliant with the draft-ietf-ldapext-ldap-c-api-05.txt revision of the ldap-c-api draft from the Internet Engineering Task Force (IETF).

NIS+

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 operating environment. For more information, visit
http://www.sun.com/directory/nisplus/transition.html.

pam_unix Module

The pam_unix(5) module might not be supported in a future release. A similar range of operations is provided by pam_authtok_check(5), pam_authtok_get(5), pam_authtok_store(5), pam_dhkeys(5), pam_passwd_auth(5), pam_unix_account(5), pam_unix_auth(5), and pam_unix_session(5).

Perl Version 5.005_03

Perl version 5.005_03 might not be supported in a future release. In the Solaris 9 operating environment, the default version of Perl has been changed to a version that is not binary compatible with the earlier version (5.005_03). However, the earlier version of Perl is still retained for compatibility. Customer-installed modules need to be rebuilt and reinstalled against the new version. Modify any scripts that require the use of version 5.005_03 to explicitly use the 5.005_03 version of the interpreter (/usr/perl5/5.005_03/bin/perl) instead of the default version (/bin/perl, /usr/bin/perl, or /usr/perl5/bin/perl).

Power Management I/O Control Commands

The following power management I/O control commands (ioctls) might not be supported in a future release.

- PM_DISABLE_AUTOPM

- PM_REENABLE_AUTOPM
- PM_SET_CUR_PWR
- PM_GET_CUR_PWR
- PM_GET_NORM_PWR

The following alternative ioctls are supported in the Solaris 9 9/02 operating environment.

- PM_DIRECT_PM
- PM_RELEASE_DIRECT_PM
- PM_GET_CURRENT_POWER
- PM_SET_CURRENT_POWER
- PM_GET_FULL_POWER

For more information on these alternative ioctls, see the ioctl(2) man page.

Solstice Enterprise Agents

Solstice Enterprise Agents might not be supported in a future release.

SPC Driver

The SPC driver might not be supported in a future release.

sun4m Hardware

sun4m hardware might not be supported in a future release of the Solaris operating environment.

XIL

XIL 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.
```

xutops Print Filter

The xutops print filter might not be supported in a future release. A similar range of operations is provided by the mp(1) print filter in the Solaris 9 9/02 operating environment.

Documentation Issues

This chapter describes known documentation problems. For documentation issues identified too late to be included in these release notes, refer to the *Solaris 9 (SPARC Platform Edition) 9/02 Release Notes* in the Solaris 9 9/02 Release and Installation Collection on `http://docs.sun.com`.

Documentation Errata

Document Affected: *Solaris 9 Package List*

The LDAP package `SUNWlldap` is not included in "Solaris 9 Operating Environment Package List" in *Solaris 9 Package List*. The `SUNWlldap` package is included in the Solaris 9 operating envrionment, and is included in the Core, End User, Developer, Entire, and Entire+OEM metaclusters.

Document Affected: `sysidcfg` **Man Page and** *Solaris 9 9/02 Installation Guide*

The `sysidcfg`(4) man page and Solaris 9 9/02 Release and Installation Collection instruct you to use only an IPv4 address as a value for the `default_route` keyword in the `sysidcfg` file. However, you can also use `NONE` as a value for the `default_route` keyword.

Document Affected: *Solaris WBEM SDK Developer's Guide*

In the Solaris CIM schema, the following classes and properties are tagged with the `Deprecated` qualifier.

- `Solaris_LogRecord` class
- `Solaris_LogService` class
- `Solaris_LogServiceSetting` class
- `Solaris_LogServiceSetting` class
- `OptionsEnabled` property in `Solaris_IPProtocolEndpoint` class

Use suitable alternatives to these deprecated classes and properties. Refer to the class description qualifiers to determine the correct class and the correct property alternatives.

Document Affected: "Writing a Client Program" in *Solaris WBEM SDK Developer's Guide*

If you create WBEM clients that use the RMI protocol with the `javax.com.sun.client` API and want to connect to a server that is running the Solaris 8 operating environment, you must include the `/usr/sadm/lib/wbem/cimapi.jar` file in the client's `CLASSPATH`. The `cimapi.jar` file includes the `com.sun.wbem` classes that are required to communicate with a server that is running the Solaris 8 operating environment.