Trusted Solaris 8 2/04 Release Notes

Adobe PostScript™

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Contents

Trusted Solaris 8 2/04 Release Notes

Note – Use *Trusted Solaris Installation and Configuration* (PN 816-1040-10) to configure the Trusted Solaris™ Operating System. The differences between a Trusted Solaris Operating System and a Solaris™ Operating System require planning and guidance during installation and configuration. Differences occur in labels, clearance confirmations, obligatory passwords, security configuration choices, name service domain setup, secure network setup, and no superuser.

The Trusted Solaris 8 2/04 release upgrades the Trusted Solaris 8 HW 7/03 release to use UltraSPARC® IV processors. The new release also enhances the following software with security:

- Solaris 8 2/04 release
- X Windows, version 11.0
- CDE 1.4.8 (Common Desktop Environment)
- Solaris Management Console 2.0.0 administrative interface

This release includes the following fixes:

- Bug fixes for Solaris software that affect Trusted Solaris software. See Table 1–1.

- Patches that were released to patch earlier Trusted Solaris releases, and bug fixes. See Table 1–2.

- All Solaris patches that were included in the Solaris 8 2/04 release. Use the `showrev -p` command to list the patches that have been applied to the system.

You can safely apply some patches that are available for the standard releases of Solaris software, CDE, X Windows, or the Solaris Management Console. Trusted Solaris software is packaged to reflect differences from Solaris software packages only where such differences exist.

The sections in this document are as follows:

- "Getting Help" on page 6

Getting Help

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`.

For additional information about the Trusted Solaris product, visit the `http://www.sun.com/trustedsolaris` web site.

For help from the user community in a public forum, visit the `http://www.sun.com/supporttraining` web site. Select `Forums`. After selecting `Trusted Solaris Security`, you can click the `Register` button to register for and participate in the Trusted Solaris Support Forum.

Reading About the Changes and Features in This Release

The following books contain information about this release:

Trusted Solaris 8 2/04 Release Notes
    For bugs that have been fixed between the Trusted Solaris 8 HW 12/02 and Trusted Solaris 8 HW 7/03 releases, and for changes from the Trusted Solaris 8 HW 7/03 release to this release. Also contains a list of interfaces that might be changed in future releases.

Solaris 8 2/04 What's New Supplement
    For features that the Trusted Solaris 8 2/04 release inherits from the Solaris 8 2/04 release. Features can include hardware information.

Solaris 8 (SPARC Platform Edition) 2/04 Release Notes
    For late-breaking news about the Solaris 8 2/04 release and hardware information.

Solaris 8 2/04 Sun Hardware Platform Guide
    For features that have been added since the Solaris 8 HW 7/03 release.

Solaris 8 2/04 Release Notes Supplement
    See the Solaris 8 2/04 Update Collection, `http://docs.sun.com/db/coll/834.4`.

Supported Hardware

The Trusted Solaris 8 2/04 release supports the workstation, server, and peripherals hardware that are supported by the Solaris 8 2/04 release. The Trusted Solaris 8 HW 7/03 and Trusted Solaris 8 2/04 releases also support the Sun Fire™ V60x and Sun Fire V65x hardware platforms.

For the hardware that is supported by the Solaris 8 2/04 release, see "Reading About the Changes and Features in This Release" on page 6.

For the Sun Fire V60x and Sun Fire V65x servers, do the following steps to reach documentation that can be downloaded:

1. Go to the Sun hardware documentation web site,
   `http://www.sun.com/products-n-solutions/hardware/docs`.
2. In the left-hand column, click `Servers`.
3. Click `Sun Fire V60x and V65x` to reach the list of documentation.

Future Trusted Solaris Releases

Information in this section is provided to help assist customers and vendors with early planning for migration to future releases. This information is based on information that is presently available.

In the future, Sun might no longer supply Trusted Solaris software as a product that is based on modifying the Solaris kernel. Instead, Sun might produce the functionality as software that is designed to meet or exceed the requirements of the Common Criteria's Labeled Security Protection Profile. Sun might also include features such as the multilevel secure desktop and trusted networking. This functionality might be installed with a future release of the Solaris operating system.

Some features that might change are:

- The name of the product might change.
- The information labels (ILs) feature was removed in the Trusted Solaris 7 release, but programmatic storage for ILs was maintained in order to preserve compatibility. That storage might be removed in a future release.
- Support for the TSIX protocol might be dropped.
- The NIS+ naming service might be replaced by another naming service in future releases.
- The formats of configuration files might change. The file formats are described in section 4 of the *Reference Manual* of earlier releases. For example, the entries and the fields in the `exec_attr` file and the `user_attr` file might change.
- The names of privileges might change. Therefore, interfaces that check for specific privileges might change correspondingly. For example, the privilege macros that are described on the `priv_macros`(5) man page might change.

Your experience when using future releases of Trusted Solaris software will generally be the same as your current experience. However, the underlying implementation for features such as privileges, file system attributes, and networking might change. For example, the interfaces that are documented in the *Trusted Solaris Reference Manual* might change.

For information about specific interfaces that might change in a future Trusted Solaris release, see Appendix A.

Solaris Bug Fixes Incorporated Into the Trusted Solaris 8 2/04 Release

The Trusted Solaris 8 2/04 release includes all product patches and bug fixes that were incorporated into the Solaris 8 2/04 release. This release also includes some of the patches for the Solaris 8 2/04 release. To see the list of patches, use the showrev -p command.

Additional bug fixes that are included in the Trusted Solaris 8 2/04 release are listed in the following table. Some bug fixes are for software that is part of the Trusted Solaris release, such as CDE or the Solaris Management Console.

TABLE 1–1 Solaris Bug Fixes Incorporated Into the Trusted Solaris 8 2/04 Release

Solaris Bug Number	Synopsis
None	Upgrade BIND to version 8.2.4
2126367 6248413	Need to support pam_passwd_auth.so.1. passwd asks wrong password for root if running NIS+.
4353832	fsck gives up too easily.
4392163	Some ftp clients expose in.ftpd EPRT bug.
4471907	libresolv() does not init in an IPv6-only environment.
4500613	Remove res_npquery() function prototype.
4509659	ufs: dnlc contains many "." entries.
4617431	Mozilla dumps core when using libresolv2.
4671383	ufs create/mkdir/edquota deadlock
4705157	in.rwhod is too trusting of input format.
4705393	newgrp is vulnerable to buffer overflow.
4723351	ufs: file link count is 0.
4765506	NIS+ has problems when password is longer than 8 characters.
4786448 6182042	/usr/dt/bin/dtaction segfaults
4789213	stat() succeeds on *dir*/. even when *dir* is mode 000.

TABLE 1–1 Solaris Bug Fixes Incorporated Into the Trusted Solaris 8 2/04 Release *(Continued)*

Solaris Bug Number	Synopsis
4803148	ufs has issues reading its own directories.
4805635	`root` can change end user password in NIS+ without entering its own password.
4830406	`passwd` utility does not handle NIS+ subdomains correctly.
4863307	`nsupdate` fails with more than 14 NS records for Bind 8.2.2 and 8.2.4
4873939	PAM and compat do not work after applying patch 108993-18.
4879704	`ndc` cannot switch off tracing with `notrace` when `in.named` is under heavy load.
4879822	`in.named` core dumps, Solaris 8, Bind v. 8.2.2-P5
4887906	`pam_sm_chauthtok()` returns 13 (PAM_USER_UNKNOWN) if `lastchg=0` for local users.
4889619	Unreferenced files seen by `fsck` on a cleanly unmounted filesystem.
4913437	Changing password in NIS+ fails on clients with "Permission denied".
4917860 6182042	DtSvc:potential buffer overflow hole.
4933407	Resolvers do not follow referrals (SUNW_CHAINING fix).
4941011	`nslookup view` command fails with `sed: command garbled`.
4954379	Sendmail contains buffer overflow in ruleset parsing.
4977110	`passwd` does not work with compat entries in `/etc/nsswitch.conf`.
4981868	`passwd` with NIS+ back end chooses wrong uid/credentials for update
5007891	Solaris 8 `passwd` command may SEGV on NIS+ master servers.
5014993	User logins may fail when nsswitch compat mode is used with NIS+ or LDAP
5044522	Root is able to change user password if number of attempts is greater than max_attempts in NIS+.
5055875	Buffer overflow in `auth_to_local` rules.
5092678 6182042	`libDtSvc` contains a buffer overflow when dealing with `DTDATABASESEARCHPATH`
5108531	Multiple PASV allow multiple port bound causes running out of ports.
5086486 5098146	Buffer overflows in `Xpm` code in `libXm` (CESA-2004-003 / CAN-2004-0687).
5086488 5098146	Integer overflows in `Xpm` code in `libXm` (CESA-2004-003 / CAN-2004-0688).

TABLE 1–1 Solaris Bug Fixes Incorporated Into the Trusted Solaris 8 2/04 Release *(Continued)*

Solaris Bug Number	Synopsis
6234932	`telnet.c` buffer overflow.

Trusted Solaris Bugs Fixed in the Trusted Solaris 8 2/04 Release

The following table describes bugs from earlier Trusted Solaris releases that are fixed in this release. This section includes a description of how to use a new feature on the CDE menu.

TABLE 1–2 Trusted Solaris Bugs That Have Been Fixed in the Trusted Solaris 8 2/04 Release

Trusted Solaris Bug Number	Trusted Solaris Patch ID, If Any	Synopsis
4934078, 5045660	117490-03 117491-03 117979-01 117980-01 117826-01 117827-01	Users should not trigger NFS network traffic for file systems that they cannot access.
4956889	119038-01 119039-01	Workspace menu should recognize available applications. To use this feature, see "To Customize Workspace Menu" on page 12.
4965212	117490-01	Order of checking in `tnrh_credchk()` complicates privilege debugging.
4920740		Device Configuration Assistant (DCA) diskette and CD-ROM cannot boot Sun Fire V60x or Sun Fire V65x
5016234 5018531 5028607	116934-02 116935-02	Replicated automount servers do not work if one is up but not sharing.
5020313	118006-01 118007-01	Multiple logins as the same user in a failover group in Sun Ray 2.0.
5032544	118055-01 118056-01	Enabling `tcp_strict_syn_policy` breaks printing.
5038488	117581-01 117581-05	SunRay patch 114880-04 breaks USB devices and audio on Trusted Solaris software.
5040043	118383-01 118384-01	Trying to connect to local Xserver at `dtlogin` results in hang.
5044793	118066-01 118067-01	Trusted Solaris 8 can deadlock in the network stack.

TABLE 1–2 Trusted Solaris Bugs That Have Been Fixed in the Trusted Solaris 8 2/04
Release   *(Continued)*

Trusted Solaris Bug Number	Trusted Solaris Patch ID, If Any	Synopsis
5056435	116934-02 116935-02	Coding error in `automountd` complicates configuration debugging.
5065635 5074088	118015-01 118016-01	`utgroupsig` feature does not work in Trusted Solaris software.
5074119	117579-05 117580-04	Backport security fix 4947668 for Solaris Management Console to Trusted Solaris software.
5077438	118272-01 118273-01	Solaris linker bug
5069902 6191815		Upgrade Apache to 1.3.31 + fix for Sun Alert 57628
6182112	118800-01 118801-01	`dtmail` contains a buffer overflow in the command line interface.
6212255	119094-01 119095-01	Trusted Solaris 8 HW 7/03 `audit_class` file uses same masks.
6215421	118741-02 118742-02	Fix for 5061043 (included in 6191815) breaks Trusted Solaris `setprof`.
5026455 5033132 5038488 5066620	117581-03	Detaching a Sun Ray NSCM session kills the session.
5032544	118055-01 118056-01	Enabling `tcp_strict_syn_policy` breaks printing.
5044793	118066-01 118067-01	IP: Trusted Solaris 8 can deadlock in the network stack.
5075722		Trusted Solaris 8 HW 7/03 upgrade install modifies `pam.conf` with wrong modules
6224841		Panic in `tsol2tnet` called from `tsol_labelit`.
6236207		Trusted Solaris 8 HW 7/03 `dtgreet` not exiting properly when exiting remote host
	119696-01 119697-01	CDE library patch
	119698-01 119699-01	PAM patch

To Customize Workspace Menu

The fix for bug 4956889 adds a new feature to the Workspace Menu. The feature enables a user to add applications to the Workspace Menu.

Procedure: Follow these steps to customize and update the workspace menu.

1. Choose the applications that you want by clicking the Customize Menu ... item in the Workspace Menu.

    A File Manager appears with the selections that are available at that label for the Workspace Menu.

2. Make your choices for this workspace at this label.

3. Confirm your choices by clicking the File menu > Update Workspace Menu.

4. Restart the window manager by clicking Windows > Restart Workspace Menu from the Workspace Menu.

    After the window manager restarts, the new selection displays in the Workspace Menu.

Man Page Changes or Additions in the Trusted Solaris 8 2/04 Release

All Trusted Solaris man pages, including any new or updated man pages, are available in Trusted Solaris 8 2/04 software by using the `man` command.

Known Problems With the Software

This section identifies known problems in the Trusted Solaris 8 2/04 software, describes the problems, and suggests solutions. These bugs might or might not be fixed in a future release.

Communication is Broken Between `tsol` and `tsol_cipso` Labels (6251082)

On both SPARC® and x86 platforms, communication is broken between hosts with `tsol` and `tsol_cipso` labels. The `ping` and `rup` commands work between the hosts. The commands `telnet`, `rsh`, and `ftp` do not work for local users within the range `CONFIDENTIAL` to `TOP_SECRET`. The commands `telnet`, `rsh`, and `ftp` work for `ADMIN_LOW`, `UNCLASSIFIED` and `ADMIN_HIGH` labels. The problem is consistent on V490, V890, SB1000, and V440R platforms, but is not observed on SB1500 and some x86 servers.

Workaround: None.

Trusted Solaris `dtwm` Patch Causes Function Key Problems (6282792)

When patch 16336-07 or patch 119038-01 is installed, the Front and Open keys on the Sun keyboard fail to work once a role has been assumed.

Workaround: Do not use the Front or Open key.

On a Trusted Solaris 8 HW 12/02 system, do not install patch 116336-07. On a Trusted Solaris 8 HW 7/03 system, do not install patch 119038-01.

x86: Installation Difference Between the Trusted Solaris 8 4/01 Release and the Trusted Solaris 8 2/04 Release

Trusted Solaris Installation and Configuration instructs the customer to remove the boot diskette.

Workaround: When the installation program informs you to remove the boot diskette, do so. The CD-ROM is still inserted. During the BIOS/system self-tests, you can remove the CD.

If you have installed the software from a CD-ROM, leave the CD-ROM in the drive. If you are doing an upgrade install, the system does not automatically reboot after the installation of the first CD.

- On most systems, if you fail to remove the CD during the self-tests, the device configuration screen appears. You can then navigate the menus in the Device Configuration Assistant (DCA) and select the hard drive to boot from. You then remove the CD when the installation program prompts you to do so.

- If you are installing a Sun Fire V60x or a Sun Fire V65x system, you *must* remove the CD during the BIOS/system self-tests. You are not prompted to remove the CD. You then boot directly from the disk.

Client Cannot Contact Trusted Solaris Net Install Server (4907769)

A network install server that is running the Trusted Solaris operating system is unable to communicate with Trusted Solaris clients that the install server has installed until the server is rebooted.

Workaround: If the client will need to be in contact with the network install server, reboot the server. If there are multiple clients to install, reboot the server after the client installations are complete.

Alternatively, you can install Trusted Solaris clients from a network install server that is running the Solaris operating system.

Problem With Solaris Management Console and Java 1.2.2_17a (4958563)

A black line appears at the bottom of a small number of Solaris Management Console dialog boxes. The line obscures some buttons.

Workaround:

- Resize the dialog box to see the buttons.
- Install the Java fix (version 1.2.2_17b or higher) for this bug when the fix is available.

`ftp` Through CIPSO Router Does Not Work (4797140)

When an unlabeled machine sends a full packet, an intervening labeled gateway adds the CIPSO header. The addition of the CIPSO header makes the packet larger than 1500 bytes, and therefore the packet is dropped due to size.

Workaround: By setting the MTU on the system to be smaller, the problem is solved. Then, when the CIPSO label is added, the packet is still a legal size.

`xterm` Windows Terminate When Cutting and Pasting With `xinerama` (4895240)

Cutting and pasting between `xterm` windows when using `xinerama` causes the following problems:

- The `xterm` application that the data is copied from terminates. Termination happens at the instant that the data is pasted.
- Running the `mozilla` application results in a `BadWindow` error, with `mozilla` failing to run.
- The title bar and label bar of exposed windows is not properly redrawn.

Workaround: None.

Languages CD Is Not Supported

This release supports only the C locale (U.S. English). Thus, no Languages CD is provided.

Communication Between TSIX Host Types With IPsec AH Is Broken (4471447)

Network packets that use the TSIX protocol are not processed correctly when AH headers are present.

Workaround: None.

IKE Does Not Work With the TSOL Host Type (4548783)

Network packets that are labeled with the TSOL protocol are not processed correctly by IKE in the SunScreen™ 3.2 product. The SunScreen product is co-packaged with this release. The SunScreen log messages show `IKE_INVALID_COOKIE`.

The SunScreen software properly processes TSOL-labeled network traffic that is in clear text. The SunScreen IKE software also behaves correctly in the Trusted Solaris operating environment to protect traffic between unlabeled network connections.

Workaround: None.

`nisaddent` Causes a SIGSEGV Error When Adding to `tnrhdb` (4491941)

A `SIGSEGV` error is produced when using the `nisaddent -avf` command to add an incorrectly formatted file to the `tnrhdb` NIS+ map. The incorrectly formatted file produces a core dump.

Workaround: The `nisaddent` command works correctly with a valid input file. To ensure that the input file has fields separated by colons and not by spaces, use `niscat -s :` when dumping an NIS+ table that will be used later as input to NIS+.

File System Label Ranges Are Not Enforced for Unlabeled NFS File Systems (4150441)

This bug occurs in a very unusual situation. The administrator must have consciously configured an NFS remote host to be at one label, and the label range to be another label.

Workaround: To prevent the creation of files at the default label for the server, mount the file system as "read-only". Existing files are unaffected, but the read-only mount option prevents the creation of files at a label outside the label range.

Graphical Window Manager Controls Do Not Work (4462771)

The new utilities `sdtgwm`, `sdtwsm`, and `sdtwinlst` and their corresponding actions in the `Desktop_Apps` folder generate errors, such as `Warning: Query Module Not Running`.

Workaround: None. These tools are inappropriate for users in the Trusted Solaris environment. Thus, the tools are not supported.

`niscat` Command Hangs and Spawns Multiple `nisd` Processes on an NIS+ Server (4430740)

The bug is known to occur when the Solaris Management Console is running on an NIS+ client or master and has loaded its toolbox from an NIS+ replica. Next, the replica is shut down and the Solaris Management Console is used to update any NIS+ maps. Since the machine from which the Solaris Management Console loaded its toolbox is down, the Solaris Management Console client has no way to communicate with the Solaris Management Console server, which is the machine from which the toolbox has been loaded.

Workaround: Do not use the Solaris Management Console to update NIS+ databases when an NIS+ replica is down. Use the standard NIS+ command-line interface instead.

Trusted Solaris Label Encodings File Requires Coding for ILs (4329208)

Although Trusted Solaris 8 software does not support information labels (ILs), the `chk_encodings` command fails with the following error if the `label_encodings` file omits information about ILs.

```
# chk_encodings label_encodings
   Label encodings conversion error at line 37:
      Can't find INFORMATION LABELS specification.
      Found instead: "SENSITIVITY LABELS:".
   label_encodings: label encodings syntax check failed.
```

Workaround: Copy a valid SENSITIVITY LABELS: section in your `label_encodings` file, and rename the section to INFORMATION LABELS:, as in:

```
INFORMATION LABELS:
...
```

```
WORDS:
...
REQUIRED COMBINATIONS:
...
COMBINATION CONSTRAINTS:
...
```

See the label_encodings(4) man page for more information.

`smosservice` Command Fails to Create OS Server (4378498)

The Solaris Management Console commands smosservice and smdiskless do not work correctly.

Workaround: Set up diskless service manually. On the OS server, name and allocate the client disk partitions during the installation process.

Drag-and-Drop Operations Do Not Work for OPEN LOOK Applications (4095021)

Drag-and-drop operations do not work reliably for OPEN LOOK applications.

Workaround: Use the copy and paste keys with OPEN LOOK applications.

Nonexistent Location ID: FileManagerLabelsHelp (4477399)

This bug is seen when you perform the following steps:

1. Insert diskette.

   floppy_0 is allocated by Device Allocation Manager.

2. From File Manager, click the File menu and select Removable Media Manager.

3. Select the diskette icon. Click mouse button 3 to open the Labels menu item.

4. In Removable Media Manager - File Labels (the Trusted Solaris Label Builder), click the Help button at bottom right of the dialog box.

Workaround: Perform the following steps:

1. Click mouse button 3 on the Front Panel and select Help from the menu. The Workspace Manager – Help window appears.

2. In the Workspace Manager – Help window, scroll down in the top pane to Trusted Solaris Applications and select that text.

3. In the bottom pane, click Create Labels.

Solaris Management Console Mounts and Shares Tools Do Not Set or Modify Trusted Solaris Attributes (4496897)

The Solaris Management Console Mounts tool and Solaris Management Console Shares tool do not manipulate Trusted Solaris attributes.

Workaround: Use the Set Mount Points action and the Share Filesystems action to handle Trusted Solaris attributes. You can also use the Admin Editor on the `/etc/vfstab` file and the `/etc/dfs/dfstab` file.

Possible Interface Changes in a Future Trusted Solaris Release

TABLE A–1 Proposed Changes to Trusted Solaris Privileges 1 through 40

Privilege Identifier in Trusted Solaris 8	Replacement	Note
1 `FILE_AUDIT`	None	Removed
2 `FILE_CHOWN`	`FILE_CHOWN,` `FILE_CHOWN_SELF`	Additional privilege
9 `FILE_LOCK`	None	Removed
10 `FILE_MAC_READ`	None	Removed
11 `FILE_MAC_SEARCH`	None	Removed
12 `FILE_MAC_WRITE`	None	Removed
15 `FILE_SETDAC`	None	Removed
17 `FILE_SETPRIV`	None	Removed
23 `IPC_MAC_READ`	None	Removed
24 `IPC_MAC_WRITE`	None	Removed
30 `NET_BROADCAST`	None	Removed
32 `NET_DOWNGRADE_SL`	None	Removed
33 `NET_MAC_READ`	`NET_MAC_AWARE,` `NET_MAC_BINDMLP`	Different privileges
37 `NET_REPLY_EQUAL`	`NET_MAC_AWARE`	Different privilege
38 `NET_SETCLR`	None	Removed
39 `NET_SETID`	None	Removed
40 `NET_SETPRIV`	None	Removed

TABLE A–2 Proposed Changes to Trusted Solaris Privileges 42 through 86

Privilege Identifier in Trusted Solaris 8	Replacement	Note
42 NET_UPGRADE_SL	None	Removed
43 PROC_AUDIT_APPL	PROC_AUDIT	Different privilege
44 PROC_AUDIT_TCB	PROC_AUDIT	Different privilege
46 PROC_DUMPCORE	None	Removed
47 PROC_MAC_READ	PROC_ZONE	Different privilege
48 PROC_MAC_WRITE	PROC_ZONE	Different privilege
49 PROC_NODELAY	None	Removed
52 PROC_SETCLR	None	Removed
55 PROC_SETSL	None	Removed
29 PROC_DEBUG_NONTRANQUIL	None	Removed
56 PROC_TRANQUIL	None	Removed
58 SYS_BOOT	None	Removed
60 SYS_CONSOLE	None	Removed
63 SYS_FS_CONFIG	None	Removed
65 SYS_MAXPROC	SYS_RESOURCE	Different privilege
66 SYS_MINFREE	SYS_RESOURCE	Different privilege
28 SYS_SYSTEM_DOOR	None	Removed
73 – 86 WIN_*	Same privilege names	No name changes

TABLE A–3 Proposed Changes to Trusted Solaris User Commands – a to mld

Trusted Solaris 8 Command	Replacement	Note
adornfc	None	Files are no longer adorned.
allocate	allocate	New options
at	at	Use the Solaris 10 command.
atq	atq	Use the Solaris 10 command.
atrm	atrm	Use the Solaris 10 command.
batch	batch	Use the Solaris 10 command.
cancel	cancel	Use the Solaris 10 command.

TABLE A–3 Proposed Changes to Trusted Solaris User Commands – a to mld   *(Continued)*

Trusted Solaris 8 Command	Replacement	Note
chgrp	chgrp	Use the Solaris 10 command.
chmod	chmod	Use the Solaris 10 command.
chown	chown	Use the Solaris 10 command.
crle	crle	Use the Solaris 10 command.
crontab	crontab	Use the Solaris 10 command.
date	date	Use the Solaris 10 command.
deallocate	deallocate	New options
disable	disable	Use the Solaris 10 command.
du	du	Use the Solaris 10 command.
enable	enable	Use the Solaris 10 command.
find	find	Use the Solaris 10 command.
getfattrflag	None	Files no longer have flags.
getfpriv	None	Files no longer have forced privileges.
getlabel	getlabel	Gets the sensitivity label of the containing file system.
getmldadorn	None	Files are no longer adorned.
getsldname	getzonepath	Renamed. Gets the zone root of the file.
ipcrm	ipcrm	Use the Solaris 10 command.
ipcs	ipcs	Use the Solaris 10 command.
kbd	kbd	Use the Solaris 10 command.
ld	ld	Use the Solaris 10 command.
list_devices	list_devices	New options
login	login	Use the Solaris 10 command.
lp	lp	Use the Solaris 10 command.
lpstat	lpstat	The status is limited to jobs that are dominated by the caller's label.
mkdir	mkdir	Use the Solaris 10 command.
mldpwd	None	MLDs and SLDs are removed.
mldrealpath	None	MLDs and SLDs are removed.

TABLE A–4 Proposed Changes to Trusted Solaris User Commands – nca to vac

Trusted Solaris 8 Command	Replacement	Note
nca	nca	Remains unsupported
ncakmod	ncakmod	Remains unsupported
nispasswd	None	NIS+ is not a supported name service.
passwd	passwd	Use the Solaris 10 command.
pattr	None	Processes no longer have attribute flags.
pclear	None	Removed
pcred, pfiles, pflags	pcred, pfiles, pflags	Use the Solaris 10 command.
pfsh	pfsh	Use the Solaris 10 command.
plabel	plabel	Only returns the sensitivity label.
pldd, pmap	pldd, pmap	Use the Solaris 10 command.
ppriv	ppriv	Use the Solaris 10 command.
pprivtest	ppriv	Replaced with ppriv -D command.
proc	proc	Use the Solaris 10 command.
profiles	profiles	Use the Solaris 10 command.
prun, psig, pstack, pstop, ptime, ptree, pwait, pwdx	prun, psig, pstack, pstop, ptime, ptree, pwait, pwdx	Use the Solaris 10 command.
rm	rm	Use the Solaris 10 command.
rmdir	rmdir	Use the Solaris 10 command.
roles	roles	Use the Solaris 10 command.
setfattrflag	None	Files no longer have flags.
setfpriv	None	Files no longer have forced privileges.
setlabel	setlabel	Files are moved between labeled zones.
snca	snca	Remains unsupported
tar	tar	New options
testfpriv	None	Files no longer have forced privileges.
tfind	None	MLDs and SLDs are removed.
uname	uname	Use the Solaris 10 command.

TABLE A–4 Proposed Changes to Trusted Solaris User Commands – nca to vac *(Continued)*

Trusted Solaris 8 Command	Replacement	Note
vacation	vacation	Use the Solaris 10 command.

TABLE A–5 Proposed Changes to Trusted Solaris User Commands – 1b Interfaces

Trusted Solaris 8 Command	Replacement	Note
lpc	lpc	Use the Solaris 10 command.
lpq	lpq	Caller must dominate label of jobs.
lpr	lpr	Use the Solaris 10 command.
lprm	lprm	Caller must dominate label of job.

TABLE A–6 Proposed Changes to Trusted Solaris System Administration Commands – add to auto

Trusted Solaris 8 Command	Replacement	Note
add_allocatable	add_allocatable	Ordinary users use the Device Manager, not this command, to add an allocatable device.
add_drv	add_drv	Use the Solaris 10 command.
arp	arp	Use the Solaris 10 command.
atohexlabel	atohexlabel	Handles sensitivity label, not CMW label.
audit	audit	Use the Solaris 10 command.
audit_startup	audit_startup	Use the Solaris 10 command.
audit_warn	audit_warn	Use the Solaris 10 command.
auditconfig	auditconfig	New options
auditd	auditd	Use the Solaris 10 command.
auditreduce	auditreduce	New options
auditstat	auditstat	Use the Solaris 10 command.
automount	automount	Use the Solaris 10 command.
automountd	automountd	Use the Solaris 10 command.
autopush	autopush	Use the Solaris 10 command.

TABLE A–7 Proposed Changes to Trusted Solaris System Administration Commands – boot to ifconfig

Trusted Solaris 8 Command	Replacement	Note
bootparamd	bootparamd	Use the Solaris 10 command.
bsmconv, bsmunconv	bsmconv, bsmunconv	Use the Solaris 10 command.
chk_encodings	chk_encodings	Enhanced to check for CIPSO labels.
chroot	chroot	Use the Solaris 10 command.
coreadm	coreadm	Use the Solaris 10 command.
cron	cron	Use the Solaris 10 command.
devfsadm	devfsadm	Use the Solaris 10 command.
devfsadmd	devfsadmd	Use the Solaris 10 command.
device_clean	device_clean	New options.
devpolicy	devpolicy	Use the Solaris 10 command.
dfmounts	dfmounts	Use the Solaris 10 command.
dfshares	dfshares	Use the Solaris 10 command.
dispadmin	dispadmin	Use the Solaris 10 command.
dminfo	dminfo	Use the Solaris 10 command.
dl_booting	dl_booting	Use the Solaris 10 command.
dl_restore	dl_restore	Use the Solaris 10 command.
drvconfig	drvconfig	Use the Solaris 10 command.
eeprom	eeprom	Use the Solaris 10 command.
format	format	Use the Solaris 10 command.
fsdb_ufs	fsdb_ufs	Use the Solaris 10 command.
ftpd	ftpd	Use the Solaris 10 command.
fuser	fuser	Use the Solaris 10 command.
getfsattr, getfsattr_ufs	None	File system attributes have been removed.
halt	halt	Use the Solaris 10 command.
hextoalabel	hextoalabel	Handles sensitivity label, not CMW label.
ifconfig	ifconfig	New options

TABLE A–8 Proposed Changes to Trusted Solaris System Administration Commands – in.ftpd to mkdevdb

Trusted Solaris 8 Command	Replacement	Note
in.ftpd	in.ftpd	Use the Solaris 10 command.
in.named	in.named	Use the Solaris 10 command.
in.rarpd	in.rarpd	Use the Solaris 10 command.
in.rdisc	in.rdisc	Use the Solaris 10 command.
in.rexecd	in.rexecd	Use the Solaris 10 command.
in.rlogind	in.rlogind	Use the Solaris 10 command.
in.routed	in.routed	Use the Solaris 10 command.
in.rshd	in.rshd	Use the Solaris 10 command.
in.tftpd	in.tftpd	Use the Solaris 10 command.
inetd	inetd	Use the Solaris 10 command.
init	init	Use the Solaris 10 command.
init.wbem	init.wbem	Use the Solaris 10 command.
install	install	Use the Solaris 10 command.
ipsecconf	ipsecconf	Use the Solaris 10 command.
ipseckey	ipseckey	Use the Solaris 10 command.
lockd	lockd	Use the Solaris 10 command.
lpadmin	lpadmin	Caller must dominate to view, be equal to change a job.
lpfilter	lpfilter	Use the Solaris 10 command.
lpforms	lpforms	Use the Solaris 10 command.
lpmove	lpmove	Use the Solaris 10 command.
lpsched	lpsched	Caller must dominate to view, be equal to change a job.
lpshut	lpshut	Use the Solaris 10 command.
lpsystem	lpsystem	Use the Solaris 10 command.
lpusers	lpusers	Use the Solaris 10 command.
mkdevalloc	mkdevalloc	Use the Solaris 10 command.
mkdevdb	None	

TABLE A–9 Proposed Changes to Trusted Solaris System Administration Commands – mkdevmaps to prtconf

Trusted Solaris 8 Command	Replacement	Note
`mkdevmaps`	`mkdevmaps`	Use the Solaris 10 command.
`modload`, `modunload`	`modload`, `modunload`	Use the Solaris 10 command.
`mount`	`mount`	Use the Solaris 10 command.
`mount_hsfs`	`mount_hsfs`	Use the Solaris 10 command.
`mount_nfs`	`mount_nfs`	Use the Solaris 10 command.
`mount_pcfs`	`mount_pcfs`	Use the Solaris 10 command.
`mount_tmpfs`	`mount_tmpfs`	Use the Solaris 10 command.
`mount_ufs`	`mount_ufs`	Use the Solaris 10 command.
`mountall`	`mountall`	Use the Solaris 10 command.
`mountd`	`mountd`	Use the Solaris 10 command.
`named`	`named`	Use the Solaris 10 command.
`netstat`	`netstat`	New options
`newsecfs`	None	File system attributes have been removed.
`nfsd`	`nfsd`	Use the Solaris 10 command.
`nfsstat`	`nfsstat`	Use the Solaris 10 command.
All NIS+ commands: `nis_cachemgr`, `nisclient`, `nisd`, `nisd_resolv`, `nispasswdd`, `nispopulate`, `nissetup`, `nslookup`	None	NIS+ is no longer a supported name service.
`nscd`	`nscd`	Use the Solaris 10 command.
`pbind`	`pbind`	Use the Solaris 10 command.
`pkgchk`	`pkgchk`	Use the Solaris 10 command.
`poweroff`	`poweroff`	Use the Solaris 10 command.
`praudit`	`praudit`	Use the Solaris 10 command.
`prtconf`	`prtconf`	Use the Solaris 10 command.

TABLE A–10 Proposed Changes to Trusted Solaris System Administration Commands – psradm to rwall

Trusted Solaris 8 Command	Replacement	Note
psradm	psradm	Use the Solaris 10 command.
rarp	rarp	Use the Solaris 10 command.
rdate	rdate	Use the Solaris 10 command.
rdisc	rdisc	Use the Solaris 10 command.
reboot	reboot	Use the Solaris 10 command.
reject	reject	Use the Solaris 10 command.
rem_drv	rem_drv	Use the Solaris 10 command.
remove_allocatable	remove_allocatable	Use the Solaris 10 command.
rexecd	rexecd	Use the Solaris 10 command.
rlogind	rlogind	Use the Solaris 10 command.
rmmount	rmmount	Use the Solaris 10 command.
route	route	New options
routed	routed	Use the Solaris 10 command.
rpc.bootparamd	rpc.bootparamd	Use the Solaris 10 command.
rpc.getpeerinfod	getpeerucred	Use the Solaris function.
rpc.nisd	None	NIS+ is no longer a supported name service.
rpc.nisd_resolv	None	No longer supported
rpc.nispasswdd	None	No longer supported
rpc.tbootparamd	None	Not needed
rpc.yppasswdd	rpc.yppasswdd	Use the Solaris 10 command.
rpc.ypupdated	rpc.ypupdated	Use the Solaris 10 command.
rpcbind	rpcbind	Use the Solaris 10 command.
rpcinfo	rpcinfo	Use the Solaris 10 command.
rshd	rshd	Use the Solaris 10 command.
runpd	runpd	Use `ppriv -d` command.
rwall	rwall	Use the Solaris 10 command.

TABLE A–11 Proposed Changes to Trusted Solaris System Administration Commands –
sendmail to swap

Trusted Solaris 8 Command	Replacement	Note
sendmail	sendmail	Use the Solaris 10 command.
setaudit	auditconfig -setaudit	Use the Solaris 10 command.
setfsattr	None	File system attributes have been removed.
setuname	setuname	Use the Solaris 10 command.
share	share	Use the Solaris 10 command.
share_nfs	share_nfs	Use the Solaris 10 command.
shareall	shareall	Use the Solaris 10 command.
showmount	showmount	Use the Solaris 10 command.
smc	smc	Use the Solaris 10 command.
smcron	smcron	Use the Solaris 10 command.
smexec	smexec	Use the Solaris 10 command.
smgroup	smgroup	Use the Solaris 10 command.
smhost	smhost	Use the Solaris 10 command.
smmaillist	smmaillist	Use the Solaris 10 command.
smmultiuser	smmultiuser	Use the Solaris 10 command.
smnetidb	None	Not needed
smnettmpl	smnettmpl	Changed to work with security policy.
smnetwork	smnetwork	Changed to work with security policy.
smprofile	smprofile	Use the Solaris 10 command.
smuser	smuser	Use the Solaris 10 command.
snoop	snoop	Use the Solaris 10 command.
spray	spray	Use the Solaris 10 command.
statd	statd	Use the Solaris 10 command.
su	su	Use the Solaris 10 command.
swap	swap	Use the Solaris 10 command.

TABLE A–12 Proposed Changes to Trusted Solaris System Administration Commands –
sysdef to yp

Trusted Solaris 8 Command	Replacement	Note
sysdef	sysdef	Use the Solaris 10 command.
sysh	smf_method	Use the Solaris 10 service management framework.
tbootparam	None	Not needed
telinit	telinit	Use the Solaris 10 command.
tftpd	tftpd	Use the Solaris 10 command.
tnchkdb	tnchkdb	Changed options
tnctl	tnctl	Changed options
tnd	tnd	Changed options
tninfo	tninfo	Changed options
tokmapctl	None	TSIX functionality has been removed.
tokmapd	None	TSIX functionality has been removed.
uadmin	uadmin	Use the Solaris 10 command.
umount	umount	Use the Solaris 10 command.
umountall	umountall	Use the Solaris 10 command.
unshare	unshare	Use the Solaris 10 command.
unshare_nfs	unshare_nfs	Use the Solaris 10 command.
unshareall	unshareall	Use the Solaris 10 command.
writeaudit	writeaudit	Use the Solaris 10 command.
ypbind	ypbind	Use the Solaris 10 command.
yppasswdd	yppasswdd	Use the Solaris 10 command.
ypserv	ypserv	Use the Solaris 10 command.
ypupdated	ypupdated	Use the Solaris 10 command.
ypxfr	ypxfr	Use the Solaris 10 command.
ypxfr_1perday	ypxfr_1perday	Use the Solaris 10 command.
ypxfr_1perhour	ypxfr_1perhour	Use the Solaris 10 command.
ypxfrd	ypxfrd	Use the Solaris 10 command.

TABLE A–13 Proposed Changes to Trusted Solaris System Calls – a to fgetfpriv

Trusted Solaris 8 System Call	Replacement	Note
`access()`	`access()`	Use the Solaris 10 system call.
`acct()`	`acct()`	Remains unsupported
`acl()`	`acl()`	Use the Solaris 10 system call.
`adjtime()`	`adjtime()`	Use the Solaris 10 system call.
`audit()`	`audit()`	Use the Solaris 10 system call.
`auditon()`	`auditon()`	Use the Solaris 10 system call.
`auditsvc()`	None	No longer a public interface.
`chdir()`	`chdir()`	Use the Solaris 10 system call.
`chmod()`	`chmod()`	Use the Solaris 10 system call.
`chown()`	`chown()`	Use the Solaris 10 system call.
`chroot()`	`chroot()`	Use the Solaris 10 system call.
`chstate()`	`chstate()`	Use the Solaris 10 system call.
`creat()`	`creat()`	Use the Solaris 10 system call.
`devpolicy()`	`devpolicy()`	Use the Solaris 10 system call.
`exec(), execl(), execle(), execlp(), execv(), execve(), execvp()`	`exec(), execl(), execle(), execlp(), execv(), execve(), execvp()`	Use the Solaris 10 system call.
`facl()`	`facl()`	Use the Solaris 10 system call.
`fchdir()`	`fchdir()`	Use the Solaris 10 system call.
`fchmod()`	`fchmod()`	Use the Solaris 10 system call.
`fchown()`	`fchown()`	Use the Solaris 10 system call.
`fchroot()`	`fchroot()`	Use the Solaris 10 system call.
`fgetcmwfsrange()`	None	File systems no longer have attributes.
`fgetcmwlabel()`	`getlabel()`	Replaced.
`fgetfattrflag()`	None	Files no longer have flags.
`fgetfpriv()`	None	Files no longer have forced privileges.

TABLE A–14 Proposed Changes to Trusted Solaris System Calls – fgetfsattr to getgr

Trusted Solaris 8 System Call	Replacement	Note
`fgetfsattr()`	None	File systems no longer have attributes.
`fgetmldadorn()`	None	Files are no longer adorned.
`fgetsldname()`	None	MLDs and SLDs are removed.
`fork(),fork1()`	`fork(),fork1()`	Use the Solaris 10 system call.
`fpathconf()`	`fpathconf()`	Use the Solaris 10 system call.
`fsetcmwlabel()`	None	Files no longer have attributes.
`fsetfattrflag()`	None	Files no longer have flags.
`fsetfpriv()`	None	Files no longer have forced privileges.
`fstat()`	`fstat()`	Use the Solaris 10 system call.
`fstatvfs()`	`fstatvfs()`	Use the Solaris 10 system call.
`getaudit(), getaudit_addr()`	`getaudit(), getaudit_addr()`	Use the Solaris 10 system call.
`getauid()`	`getauid()`	Use the Solaris 10 system call.
`getclearance()`	None	In a future release, the process clearance is the same as the label.
`getcmwfsrange()`	None	File systems no longer have attributes.
`getcmwlabel()`	`getlabel()`	Replaced.
`getcmwplabel()`	`getplabel()`	Process label is zone's label.
`getdents()`	`getdents()`	Use the Solaris 10 system call.
`getfattrflag()`	None	Files no longer have flags.
`getfpriv()`	None	Files no longer have forced privileges.
`getfsattr()`	None	File systems no longer have attributes.
`getgroups()`	`getgroups()`	Use the Solaris 10 system call.

TABLE A–15 Proposed Changes to Trusted Solaris System Calls – getmld to msgr

Trusted Solaris 8 System Call	Replacement	Note
getmldadorn()	None	Files are no longer adorned.
getmsgqcmwlabel()	None	
getpattr()	getpflags()	Returns a different set of flags.
getpgid(),getpgrp(), getpid(),getppid()	getpgid(),getpgrp(), getpid(),getppid()	Use the Solaris 10 system call.
getppriv()	getppriv()	Use the Solaris 10 system call.
getrlimit()	getrlimit()	Use the Solaris 10 system call.
getsemcmwlabel()	None	
getshmcmwlabel()	None	
getsid()	getsid()	Use the Solaris 10 system call.
getsldname()	getzonerootby()* functions	MLDs and SLDs are replaced by zone root paths.
kill()	kill()	Use the Solaris 10 system call.
lchown()	lchown()	Use the Solaris 10 system call.
lgetcmwlabel()	None	Files no longer have attributes.
link()	link()	Use the Solaris 10 system call.
llseek()	llseek()	Use the Solaris 10 system call.
lseek()	lseek()	Use the Solaris 10 system call.
lsetcmwlabel()	None	Files no longer have attributes.
lstat()	lstat()	Use the Solaris 10 system call.
mkdir()	mkdir()	Use the Solaris 10 system call.
mknod()	mknod()	Use the Solaris 10 system call.
mldgetfattrflag()	None	Files no longer have flags.
mldsetfattrflag()	None	Files no longer have flags.
mount()	mount()	Use the Solaris 10 system call.
msgctl()	msgctl()	Use the Solaris 10 system call.
msgget()	msgget()	Use the Solaris 10 system call.
msggetl()	None	
msgrcv()	msgrcv()	Use the Solaris 10 system call.

TABLE A–16 Proposed Changes to Trusted Solaris System Calls – msgsnd to setauid

Trusted Solaris 8 System Call	Replacement	Note
msgsnd()	msgsnd()	Use the Solaris 10 system call.
nice()	nice()	Use the Solaris 10 system call.
open()	open()	Use the Solaris 10 system call.
p_online()	p_online()	Use the Solaris 10 system call.
pathconf()	pathconf()	Use the Solaris 10 system call.
pread()	pread()	Use the Solaris 10 system call.
preadl()	None	
priocntl()	priocntl()	Use the Solaris 10 system call.
priocntlset()	priocntlset()	Use the Solaris 10 system call.
processor_bind()	processor_bind()	Use the Solaris 10 system call.
pwrite()	pwrite()	Use the Solaris 10 system call.
pwritel()	None	
read()	read()	Use the Solaris 10 system call.
readl()	None	Removed.
readlink()	readlink()	Use the Solaris 10 system call.
readv()	readv()	Use the Solaris 10 system call.
readvl()	None	
rename()	rename()	Use the Solaris 10 system call.
rmdir()	rmdir()	Use the Solaris 10 system call.
secconf()	None	
semctl()	semctl()	Use the Solaris 10 system call.
semget()	semget()	Use the Solaris 10 system call.
semgetl()	None	
semop(), semtimedop()	semop(), semtimedop()	Use the Solaris 10 system call.
setaudit(), setaudit_addr()	setaudit(), setaudit_addr()	Use the Solaris 10 system call.
setauid()	setauid()	Use the Solaris 10 system call.

TABLE A–17 Proposed Changes to Trusted Solaris System Calls – setcl to sym

Trusted Solaris 8 System Call	Replacement	Note
setclearance()	None	In a future release, the process clearance is the same as the label.
setcmwlabel()	setflabel(3TSOL)	Replaced with a library call.
setcmwplabel()	None	Files no longer have attributes.
setegid(), seteuid()	setegid(), seteuid()	Use the Solaris 10 system call.
setfattrflag()	None	Files no longer have flags.
setfpriv()	None	Files no longer have forced privileges.
setgid()	setgid()	Use the Solaris 10 system call.
setgroups()	setgroups()	Use the Solaris 10 system call.
setpattr()	setpflags()	Returns a different set of flags.
setppriv()	setppriv()	Use the Solaris 10 system call.
setregid()	setregid()	Use the Solaris 10 system call.
setreuid()	setreuid()	Use the Solaris 10 system call.
setrlimit()	setrlimit()	Use the Solaris 10 system call.
setuid()	setuid()	Use the Solaris 10 system call.
shmat()	shmat()	Use the Solaris 10 system call.
shmctl()	shmctl()	Use the Solaris 10 system call.
shmdt()	shmdt()	Use the Solaris 10 system call.
shmget()	shmget()	Use the Solaris 10 system call.
shmgetl()	None	
shmop()	shmop()	Use the Solaris 10 system call.
sigsend(), sigsendset()	sigsend(), sigsendset()	Use the Solaris 10 system call.
stat()	stat()	Use the Solaris 10 system call.
statvfs()	statvfs()	Use the Solaris 10 system call.
stime()	stime()	Use the Solaris 10 system call.
swapctl()	swapctl()	Use the Solaris 10 system call.
symlink()	symlink()	Use the Solaris 10 system call.

TABLE A–18 Proposed Changes to Trusted Solaris System Calls – sys to wri

Trusted Solaris 8 System Call	Replacement	Note
sysinfo()	sysinfo()	Use the Solaris 10 system call.
tokmapper()	None	TSIX functionality has been removed.
uadmin()	uadmin()	Use the Solaris 10 system call.
ulimit()	ulimit()	Use the Solaris 10 system call.
umount(), umount2()	umount(), umount2()	Use the Solaris 10 system call.
unlink()	unlink()	Use the Solaris 10 system call.
utimes()	utimes()	Use the Solaris 10 system call.
vfork()	vfork()	Use the Solaris 10 system call.
write()	write()	Use the Solaris 10 system call.
writel()	None	
writev()	writev()	Use the Solaris 10 system call.
writevl()	None	

TABLE A–19 Proposed Changes to Trusted Solaris Library Functions – au_preselect to getaudit

Trusted Solaris 8 Function	Replacement	Note
au_preselect()	au_preselect()	Use the Solaris 10 function.
au_user_mask()	au_user_mask()	Use the Solaris 10 function.
endac()	endac()	Use the Solaris 10 function.
endauclass()	endauclass()	Use the Solaris 10 function.
endauevent()	endauevent()	Use the Solaris 10 function.
endauuser()	endauuser()	Use the Solaris 10 function.
getacdir(), getacflg(), getacinfo(), getacmin(), getacna()	getacdir(), getacflg(), getacinfo(), getacmin(), getacna()	Use the Solaris 10 function.
getauclassent(), getauclassent_r(), getauclassnam(), getauclassnam_r()	getauclassent(), getauclassent_r(), getauclassnam(), getauclassnam_r()	Use the Solaris 10 function.
getauditflags(), getauditflagsbin(), getauditflagschar()	getauditflags(), getauditflagsbin(), getauditflagschar()	Use the Solaris 10 function.

TABLE A–20 Proposed Changes to Trusted Solaris Library Functions – getauevent to setutent

Trusted Solaris 8 Function	Replacement	Note
getauevent(), getauevent_r(), getauevnam(), getauevnam_r(), getauevnonam(), getauevnum(), getauevnum_r()	getauevent(), getauevent_r(), getauevnam(), getauevnam_r(), getauevnonam(), getauevnum(), getauevnum_r()	Use the Solaris 10 function.
getauuserent(), getauusernam()	getauuserent(), getauusernam()	Use the Solaris 10 function.
getfauditflags()	getfauditflags()	Use the Solaris 10 function.
setac()	setac()	Use the Solaris 10 function.
setauclass()	setauclass()	Use the Solaris 10 function.
setauevent()	setauevent()	Use the Solaris 10 function.
setauuser()	setauuser()	Use the Solaris 10 function.
endutent()	endutent()	Use the Solaris 10 function.
endutxent()	endutxent()	Use the Solaris 10 function.
ftw()	ftw()	Use the Solaris 10 function.
getutent(), getutid(), getutline()	getutent(), getutid(), getutline()	Use the Solaris 10 function.
getutmp(), getutmpx(), getutxent() getutxid(), getutxline()	getutmp(), getutmpx(), getutxent() getutxid(), getutxline()	Use the Solaris 10 function.
grantpt()	grantpt()	Use the Solaris 10 function.
initgroups()	initgroups()	Use the Solaris 10 function.
mlock()	mlock()	Use the Solaris 10 function.
mlockall()	mlockall()	Use the Solaris 10 function.
nftw()	nftw()	Use the Solaris 10 function.
plock()	plock()	Use the Solaris 10 function.
pututline()	pututline()	Use the Solaris 10 function.
pututxline()	pututxline()	Use the Solaris 10 function.
setutent()	setutent()	Use the Solaris 10 function.

TABLE A–21 Proposed Changes to Trusted Solaris Library Functions – setutxent to lib6

Trusted Solaris 8 Function	Replacement	Note
`setutxent()`	`setutxent()`	Use the Solaris 10 function.
`updwtmp()`, `updwtmpx()`	`updwtmp()`, `updwtmpx()`	Use the Solaris 10 function.
`utmpname()`	`utmpname()`	Use the Solaris 10 function.
`utmpxname()`	`utmpxname()`	Use the Solaris 10 function.
`door_create()`	`door_create()`	Use the Solaris 10 function.
`door_tcred()`	`door_ucred()`	Use the Solaris 10 function.
`kstat_read()`, `kstat_write()`	`kstat_read()`, `kstat_write()`	Use the Solaris 10 function.
`clnt_call()`	`clnt_call()`	Use the Solaris 10 function.
`clnt_control()`, `clnt_create()`, `clnt_create_timed()`, `clnt_create_vers()`, `clnt_create_vers_timed()`, `clnt_destroy()`, `clnt_dg_create()`	`clnt_control()`, `clnt_create()`, `clnt_create_timed()`, `clnt_create_vers()`, `clnt_create_vers_timed()`, `clnt_destroy()`, `clnt_dg_create()`	Use the Solaris 10 function.
`clnt_freeres()`, `clnt_geterr()`	`clnt_freeres()`, `clnt_geterr()`	Use the Solaris 10 function.
`clnt_pcreateerror()`	`clnt_pcreateerror()`	Use the Solaris 10 function.
`clnt_perrno()`, `clnt_perror()`	`clnt_perrno()`, `clnt_perror()`	Use the Solaris 10 function.
`clnt_raw_create()`, `clnt_spcreateerror()`	`clnt_raw_create()`, `clnt_spcreateerror()`	Use the Solaris 10 function.
`clnt_sperrno()`, `clnt_sperror()`	`clnt_sperrno()`, `clnt_sperror()`	Use the Solaris 10 function.
`clnt_tli_create()`, `clnt_tp_create()`, `clnt_tp_create_timed()`, `clnt_vc_create()`	`clnt_tli_create()`, `clnt_tp_create()`, `clnt_tp_create_timed()`, `clnt_vc_create()`	Use the Solaris 10 function.
`libt6()`	`ucred_getlabel`(3TSOL), `setsockopt()`,	`ucred_getlabel()` reads the socket label
		`setsockopt()` with `SO_MAC_EXEMPT` specified enables labeled communication.

TABLE A–22 Proposed Changes to Trusted Solaris Library Functions – NIS+ to rpc_svc_reg

Trusted Solaris 8 Function	Replacement	Note
NIS+ functions: `nis_add()`, `nis_add_entry()`, `nis_addmember()`, `nis_checkpoint()`, `nis_creategroup()`, `nis_destroygroup()`, `nis_first_entry()`, `nis_freeresult()`, `nis_freeservlist()`, `nis_freetags()`, `nis_getservlist()`, `nis_groups()`, `nis_ismember()`, `nis_list()`, `nis_lookup()` `nis_mkdir()` `nis_modify()`, `nis_modify_entry()`, `nis_names()`, `nis_next_entry()`, `nis_ping()`, `nis_print_group_entry()`, `nis_remove()`, `nis_remove_entry()` , `nis_removemember()`, `nis_rmdir()`, `nis_server()`, `nis_servstate()`, `nis_stats()`, `nis_tables()`, `nis_verifygroup()`	None	NIS+ is no longer a supported name service.
`rpc()`	`rpc()`	Use the Solaris 10 function.
`rpc_broadcast()`, `rpc_broadcast_exp()`, `rpc_call()`, `rpc_clnt_calls()`	`rpc_broadcast()`, `rpc_broadcast_exp()`, `rpc_call()`, `rpc_clnt_calls()`	Use the Solaris 10 function.
`rpc_clnt_create()`, `rpc_createerr()`	`rpc_clnt_create()`, `rpc_createerr()`	Use the Solaris 10 function.
`rpc_reg()`	`rpc_reg()`	Use the Solaris 10 function.
`rpc_svc_calls()`	`rpc_svc_calls()`	Use the Solaris 10 function.
`rpc_svc_create()`	`rpc_svc_create()`	Use the Solaris 10 function.
`rpc_svc_reg()`	`rpc_svc_reg()`	Use the Solaris 10 function.

TABLE A–23 Proposed Changes to Trusted Solaris Library Functions – rpcb_getaddr to svc_vc_create

Trusted Solaris 8 Function	Replacement	Note
rpcb_getaddr()	rpcb_getaddr()	Use the Solaris 10 function.
rpcb_getallmaps()	None	
rpcb_getmaps(), rpcb_gettime(), rpcb_rmtcall(), rpcb_set(), rpcb_unset(),rpcbind()	rpcb_getmaps(), rpcb_gettime(), rpcb_rmtcall(), rpcb_set(), rpcb_unset(), rpcbind()	Use the Solaris 10 function.
svc_auth_reg()	svc_auth_reg()	Use the Solaris 10 function.
svc_control(), svc_create(), svc_destroy(), svc_dg_create()	svc_control(), svc_create(), svc_destroy(), svc_dg_create()	Use the Solaris 10 function.
svc_dg_enablecache(), svc_done(),svc_exit()	svc_dg_enablecache(), svc_done(),svc_exit()	Use the Solaris 10 function.
svc_fd_create()	svc_fd_create()	Use the Solaris 10 function.
svc_fdset(), svc_freeargs(), svc_getargs(), svc_getreq_common(), svc_getreq_poll(), svc_getreqset(), svc_getrpccaller(), svc_max_pollfd(), svc_pollfd()	svc_fdset(), svc_freeargs(), svc_getargs(), svc_getreq_common(), svc_getreq_poll(), svc_getreqset(), svc_getrpccaller(), svc_max_pollfd(), svc_pollfd()	Use the Solaris 10 function.
svc_raw_create()	svc_raw_create()	Use the Solaris 10 function.
svc_reg()	svc_reg()	Use the Solaris 10 function.
svc_run(), svc_sendreply()	svc_run(), svc_sendreply()	Use the Solaris 10 function.
svc_tli_create(), svc_tp_create()	svc_tli_create(), svc_tp_create()	Use the Solaris 10 function.
svc_unreg()	svc_unreg()	Use the Solaris 10 function.
svc_vc_create()	svc_vc_create()	Use the Solaris 10 function.

TABLE A–24 Proposed Changes to Trusted Solaris Library Functions – T6 functions to xprt_register

Trusted Solaris 8 Function	Replacement	Note
T6 functions: `t6alloc_blk()`, `t6attr_query()`, `t6clear_blk()`, `t6cmp_blk()`, `t6copy_blk()`, `t6dup_blk()`, `t6ext_attr()`, `t6free_blk()`, `t6get_attr()`, `t6get_endpt_default()`, `t6get_endpt_mask()`, `t6last_attr()`, `t6new_attr()`, `t6peek_attr()`, `t6recvfrom()`, `t6sendto()`, `t6set_attr()`, `t6set_endpt_default()`, `t6set_endpt_mask()`, `t6size_attr()`	`ucred_getlabel(3TSOL)`, `setsockopt()`	Replaced with `ucred_getlabel()` and `setsockopt()`
`t_accept()`	`t_accept()`	Use the Solaris 10 function.
`t_bind()`	`t_bind()`	Use the Solaris 10 function.
`t_optmgmt()`	`t_optmgmt()`	Use the Solaris 10 function.
`t_snd()`	`t_snd()`	Use the Solaris 10 function.
`t_sndudata()`	`t_sndudata()`	Use the Solaris 10 function.
`xprt_register()`, `xprt_unregister()`	`xprt_register()`, `xprt_unregister()`	Use the Solaris 10 function.

TABLE A–25 Proposed Changes to Trusted Solaris Library Functions – dn_comp to socket

Trusted Solaris 8 Function	Replacement	Note
`dn_comp()`, `dn_expand()`, `fp_resstat()`, `herror()`, `hstrerror()`, `res_hostalias()`, `res_init()`, `res_mkquery()`, `res_nclose()`, `res_ninit()`, `res_nmkquery()`, `res_npquery()`, `res_nquery()`, `res_nquerydomain()`, `res_nsearch()`, `res_nsend()`, `res_nsendsigned()`, `res_query()`, `res_search()`, `res_send()`, `resolver()`	`dn_comp()`, `dn_expand()`, `fp_resstat()`, `herror()`, `hstrerror()`, `res_hostalias()`, `res_init()`, `res_mkquery()`, `res_nclose()`, `res_ninit()`, `res_nmkquery()`, `res_npquery()`, `res_nquery()`, `res_nquerydomain()`, `res_nsearch()`, `res_nsend()`, `res_nsendsigned()`, `res_query()`, `res_search()`, `res_send()`, `resolver()`	Use the Solaris 10 function.
`clock_getres()`, `clock_gettime()`, `clock_settime()`	`clock_getres()`, `clock_gettime()`, `clock_settime()`	Use the Solaris 10 function.
`accept()`	`accept()`	Use the Solaris 10 function.
`bind()`	`bind()`	Use the Solaris 10 function.
`getsockopt()`	`getsockopt()`	Use the Solaris 10 function.
`listen()`	`listen()`	Use the Solaris 10 function.
`send()`, `sendmsg()`, `sendto()`	`send()`, `sendmsg()`, `sendto()`	Use the Solaris 10 function.
`setsockopt()`	`setsockopt()`	`SO_MAC_EXEMPT` option added
`socket()`	`socket()`	Use the Solaris 10 function.

TABLE A–26 Proposed Changes to Trusted Solaris TSOL Library Functions – Xbcltos to bltos

Trusted Solaris 8 Function	Replacement	Note
`Xbcltos()`	None	CMW labels are no longer supported.
`adornfc()`	None	Files are no longer adorned.
`auditwrite()`	None	Use the standard audit functions. This function is now private.

TABLE A–26 Proposed Changes to Trusted Solaris TSOL Library Functions – Xbcltos to bltos   *(Continued)*

Trusted Solaris 8 Function	Replacement	Note
`aw_errno()`, `aw_geterrno()`, `aw_perror()`, `aw_perror_r()`, `aw_strerror()`	None	`auditwrite()` is now private. Use the au* equivalents.
`bclearhigh()`, `bclearlow()`	Not known	Might change
`bcleartoh()`, `bcleartoh_r()`	`label_to_str()`	Obsolete. Use new label translation functions.
`bcleartos()`	`label_to_str()`	Obsolete. Use new label translation functions.
`bclearundef()`	Not known	Might change
`bclearvalid()`	Not known	Might change
`bclhigh()`, `bcllow()`	None	CMW labels are no longer supported.
`bcltobanner()`	`label_to_str()`	Removed. Use new label translation functions.
`bcltoh()`, `bcltoh_r()`	None	CMW labels are no longer supported.
`bcltos()`, `bcltosl()`	None	CMW labels are no longer supported.
`bclundef()`	None	CMW labels are no longer supported.
`blcompare()`, `bldominates()`, `blequal()`	Not known	Might change
`blinrange()`	Not known	Might change
`blinset()`	Not known	Might change
`blmanifest()`	Not known	Might change
`blmaximum()`, `blminimum()`, `blminmax()`	Not known	Might change
`blportion()`	None	CMW labels are no longer supported.
`blstrictdom()`	Not known	Might change
`bltocolor()`, `bltocolor_r()`	`label_to_str()`	Obsolete. Use new label translation functions.
`bltos()`	`label_to_str()`	Obsolete. Use new label translation functions.

TABLE A–27 Proposed Changes to Trusted Solaris TSOL Library Functions – bltype to mldstat

Trusted Solaris 8 Function	Replacement	Note
`bltype()`	Not known	Might change
`blvalid()`	Not known	Might change
`bslhigh()`, `bsllow()`	Not known	Might change
`bsltoh()`, `bsltoh_r()`	`label_to_str()`	Obsolete. Use new label translation functions.
`bsltos()`	`label_to_str()`	Obsolete. Use new label translation functions.
`bslundef()`	Not known	Might change
`bslvalid()`	Not known	Might change
`btohex()`	`label_to_str()`	Obsolete. Use new label translation functions.
`get_priv_text()`	`priv_gettext()`	Replaced with Solaris function.
`getcsl()`	None	CMW labels are no longer supported.
`getpeerinfo()`	`getpeerucred()`	Replaced with Solaris function.
`getvfsaent()`, `getvfsafile()`	None	`vfstab_adjunct` file has been removed.
`h_alloc()`, `h_free()`	`label_to_str()`	Obsolete. Use new label translation functions.
`hextob()`, `htobclear()`, `htobsl()`	`label_to_str()`	Obsolete. Use new label translation functions.
`htobcl()`	None	CMW labels are no longer supported.
`labelbuilder()`	`labelbuilder()`	No support for IL or CMW modes.
`labelclipping()`	`labelclipping()`	No support for IL or CMW modes.
`labelinfo()`	`labelinfo()`	No support for IL or CMW modes.
`mldgetcwd()`	None	Not needed
`mldlstat()`	None	Not needed
`mldrealpath()`	None	Not needed
`mldrealpathl()`	`mldrealpathl()`	Changed
`mldstat()`	None	

TABLE A–28 Proposed Changes to Trusted Solaris TSOL Library Functions – priv_set to str_to_priv

Trusted Solaris 8 Function	Replacement	Note
priv_set_to_str(), priv_to_str()	priv_set_to_str()	Replaced with Solaris function.
randomword()	None	
sbcltos()	None	CMW labels are no longer supported.
sbcleartos(), sbltos(),sbsltos()	label_to_str()	Obsolete. Use new label translation functions.
set_effective_priv(), set_inheritable_priv(), set_permitted_priv()	None	Use the privilege interfaces in the Solaris 10.
setbltype()	Not known	Might change
setcsl()	None	CMW labels are no longer supported.
stobcl()	None	CMW labels are no longer supported.
stobclear(),stobl(), stobsl()	str_to_label()	Obsolete. Use new label translation functions.
str_to_priv(), str_to_priv_set()	None	Privileges are already strings.

TABLE A–29 Proposed Changes to Trusted Solaris XTSOL Library Functions

Trusted Solaris 8 Function	Replacement	Note
XTSOLShutdown()	None	
XTSOLgetPropLabel()	XTSOLgetPropLabel()	Changed parameters
XTSOLgetResLabel()	XTSOLgetResLabel()	Changed parameters
XTSOLsetPropLabel()	XTSOLsetPropLabel()	Changed parameters
XTSOLsetResLabel()	XTSOLsetResLabel()	Changed parameters

TABLE A–30 Proposed Changes to Trusted Solaris Files and Databases

Trusted Solaris 8 File	Replacement	Note
audit.log	audit.log	Works as in Solaris 10.
audit_class	audit_class	Works as in Solaris 10.
audit_control	audit_control	Works as in Solaris 10.

TABLE A–30 Proposed Changes to Trusted Solaris Files and Databases   *(Continued)*

Trusted Solaris 8 File	Replacement	Note
audit_data	audit_data	Works as in Solaris 10.
audit_event	audit_event	Works as in Solaris 10.
audit_user	audit_user	Works as in Solaris 10.
device_allocate	device_allocate	*key=value* pairs are added to the Solaris command.
device_maps	device_maps	Works as in Solaris 10.
device_policy	None	Removed
exec_attr	exec_attr	Style of entries are changed.
fbtab	fbtab	Works as in Solaris 10.
inetd.conf	inetd.conf	Works as in Solaris 10.
inittab	inittab	Works as in Solaris 10.
label_encodings	label_encodings	Default file might change.
logindevperm	logindevperm	Remains unsupported
mnttab	mnttab	Works as in Solaris 10.
nca.if	nca.if	Not secure functionality, so remains unsupported.
nsswitch.conf	nsswitch.conf	Works as in Solaris 10.
policy.conf	policy.conf	Works as in Solaris 10.
priv_desc, priv_name	ppriv	Use ppriv command.
proc	proc	Works as in Solaris 10.
resolv.conf	resolv.conf	Works as in Solaris 10.
rmtab	rmtab	Works as in Solaris 10.
shadow	shadow	Works as in Solaris 10.
sharetab	sharetab	Works as in Solaris 10.
tnidb	None	Removed
tnrhdb	tnrhdb	Same format, fewer templates.
tnrhtp	tnrhtp	Different format, fewer templates.
tsolgateways	None	Use the Solaris static routing mechanism.

TABLE A–30 Proposed Changes to Trusted Solaris Files and Databases   *(Continued)*

Trusted Solaris 8 File	Replacement	Note
tsolinfo	None	Special packaging utilities are no longer required.
vfstab	vfstab	Works as in Solaris 10.
vfstab_adjunct	None	File systems no longer have attributes.

TABLE A–31 Proposed Changes to Trusted Solaris PAM Modules, Privilege Macros, and Device Clean Scripts

Trusted Solaris 8 Interface	Replacement	Note
pam_tp_auth	None	Removed
pam_tsol	pam_tsol_account(5)	An account module is provided.
pam_unix	None	Replaced in Solaris 9 release. See the pam(5) man page.
priv_macros, PRIV_ASSERT, PRIV_CLEAR, PRIV_EMPTY, PRIV_EQUAL, PRIV_FILL, PRIV_INTERSECT, PRIV_INVERSE, PRIV_ISASSERT, PRIV_ISEMPTY, PRIV_ISFULL, PRIV_ISSUBSET, PRIV_TEST, PRIV_UNION, PRIV_XOR	None	Use the Solaris privilege interfaces.
device_clean	device_clean(5)	New options. Changed man page section.

TABLE A–32 Proposed Changes to Trusted Solaris Device and Driver Interfaces

Trusted Solaris 8 Device or Driver Interface	Replacement	Note
sad()	sad()	Use the Solaris 10 interface.
wscons()	wscons()	Use the Solaris 10 interface.
kb()	kb()	Use the Solaris 10 interface.
copyb()	copyb()	Use the Solaris 10 interface.

TABLE A–32 Proposed Changes to Trusted Solaris Device and Driver Interfaces *(Continued)*

Trusted Solaris 8 Device or Driver Interface	Replacement	Note
copymsg()	copymsg()	Use the Solaris 10 interface.
dupb()	dupb()	Use the Solaris 10 interface.
dupmsg()	dupmsg()	Use the Solaris 10 interface.
insq()	insq()	Use the Solaris 10 interface.
kstat_create()	kstat_create()	Use the Solaris 10 interface.
linkb()	linkb()	Use the Solaris 10 interface.
msgpullup()	msgpullup()	Use the Solaris 10 interface.
put()	put()	Use the Solaris 10 interface.
putctl()	putctl()	Use the Solaris 10 interface.
putctl1()	putctl1()	Use the Solaris 10 interface.
putnext()	putnext()	Use the Solaris 10 interface.
putnextctl()	putnextctl()	Use the Solaris 10 interface.
putnextctl1()	putnextctl1()	Use the Solaris 10 interface.
putq()	putq()	Use the Solaris 10 interface.
tsol_get_strattr(), tsol_set_strattr()	None	Removed