Sun Ray™ Server Software 4.0 Release Notes

for the Solaris™ Operating System

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Sun Ray Server Software 4.0 Release Notes for Solaris

Supported Platforms

Sun Ray Server Software 4.0 for Solaris is designed to run on the following operating systems with Solaris SPARC and x86 servers:

- Solaris 10 11/06 SPARC and X86
- Solaris 10 11/06 SPARC and X86 with Trusted Extensions

TABLE 1 summarizes which versions of Sun Ray Server Software are compatible with which operating system versions.

TABLE 1 Sun Ray Server Software vs. Operating System Versions

Sun Ray Server Software	Solaris 8	Solaris 9	Solaris 10	Trusted Solaris
3	Solaris 8 Update 7 or higher (Solaris 8 2/02)	Solaris 9 Update 5 or higher (Solaris 9 12/03)		Trusted Solaris 8 SPARC (7/03)
3.1	Solaris 8 Update 7 or higher (Solaris 8 2/02)	Solaris 9 Update 7 or higher (Solaris 9 9/04)	SPARC and x86 (Solaris 10 3/05)	Trusted Solaris 8 SPARC (7/03) Trusted Solaris 8 SPARC (2/04)
4.0			Solaris 10 11/06 SPARC and x86	Solaris 10 11/06 SPARC and x86 with Solaris Trusted Extensions

Solaris Trusted Extensions Patch Requirements

In a Solaris Trusted Extensions environment, the following patches must be installed prior to Sun Ray Software installation. They are available on the SunSolve™ Website.

TABLE 2 Required Patches for Trusted Extensions

Platform	Patch Numbers
SPARC	120011-14, 125533-02, 126450-01, 126363-01, 126365-01
x86	120012-14, 125534-02, 126451-01, 126364-01, 126366-01, 125720-09

Note – After installing patches 120011-14 (SPARC) and 120012-14 (x86), apply the following workaround to avoid NSCD issues.

Update the `/etc/nsswitch.conf` file, and add the string `xxxx` to the end of the line as shown below:

```
passwd: files xxxx
```

or, if using LDAP:

```
passwd: files ldap xxxx
```

What's New

Sun Ray Server Software 4.0 for Solaris offers the following new features:

New Admin GUI

The Sun Ray Administration GUI has been rewritten for the 4.0 release. It uses the Java Server Faces (JSF) technology to dynamically render a Web-based administration interface that complies with the most current Sun branding. The previously used CGI-based rendering logic has been completely removed.

New OSD

On Screen Display icons have been revised to present a clearer depiction of connectivity and other issues; however, the icon codes and DHCP codes remain the same. They are described in Tables B-1 and B-2 in the *Sun Ray Server Software 4.0 Administrator's Guide*.

Optional Pop-up GUI

The Pop-up Graphical User Interface allows the entry of network configuration parameters for a Sun Ray DTU from the attached keyboard. It is described in Chapter 7 of the *Sun Ray Server Software 4.0 Administrator's Guide*.

Although this feature can be useful in certain implementations, such as when employees use Sun Ray DTUs for access to their corporate web site from home, it can also be undesirable in other environments. SRSS 4.0 therefore contains two versions of the DTU firmware.

- The default version of the firmware, installed in the standard location: `/opt/SUNWut/lib/firmware`

  This version does not contain the local configuration capability. The standard installation mechanisms using `utadm` and `utfwadm` will install the default version.

- The configurable version firmware, installed in: `/opt/SUNWut/lib/firmware_gui`

  To use the firmware that includes configuration, the administrator must run `utfwadm` to install the firmware, using the `-f` option.

Integrated VPN Support

Sun Ray Server Software with the most recent firmware provides a VPN solution that does not require remote users to have separate VPN routers. It does require, however, that the corporate network utilize Cisco gateways that support the Cisco EasyVPN protocol. It also requires the optional Pop-up GUI firmware.

Integrated VPN support is available only on Sun Ray 2 DTUs:

- Sun Ray 2
- Sun Ray 2FS
- Sun Ray 270

PC/SC-lite Support

Sun Ray Server Software supports the industry-standard PC/SC-lite API to enable access to smart cards and smart card readers connected to Sun Ray DTUs.

PC/SC-lite 1.0 is available on the Sun Download Center. For installation instructions and further details, see the *PC/SC-lite 1.0 Release Notes*.

Kiosk (Controlled Access) Mode

The previous Controlled Access Mode (CAM) functionality has been replaced by Kiosk mode. Kiosk mode policy can be overridden for a user's smart card token or for a DTU's pseudo-token. For details, see Chapter 10 of the *Sun Ray Server Software Administrator's Guide for Solaris*.

Instructions for preserving old CAM configuration data and converting to the new Kiosk mode are included in the *Sun Ray Server Software 4.0 Installation and Configuration Guide for Solaris*.

NAT Gateway Device Support

Peripheral devices are supported when the Sun Ray DTU is behind a NAT gateway.

Self-Registration GUI Enhancement

In this release, the self-registration GUI has been enhanced for compatibility with PAM authentication. For details, see the man pages for `pam` and `pam.conf`. The self-registration GUI uses the PAM service name *utselfreg*. No specific PAM configuration is added to `/etc/pam.conf` for this service, so it defaults to the *other* PAM service, as described on the `pam.conf` man page.

Supported Features for Trusted Extensions

SRSS 4.0 supports the following features for Solaris 10 with Trusted Extensions:

- SRSS installation and configuration
- Audio
- Mass storage
- Authenticated smart cards

What's Changed

`utgstatus`

From this release onward, the `utgstatus` command displays server information only for trusted hosts.

Removed or Deprecated Features

SCF (Smart Card Framework) API

The Sun-proprietary SCF API has been removed from the SRSS 4.0 release.

`utsession` Suspend and Resume Options

The suspend (`-s`) and resume (`-r`) options of `/opt/SUNWut/sbin/utsession` have been removed from this release.

Known Problems and Limitations

GUI Issues

Apache Tomcat Out of Memory Error (Bug ID 6558040)

Apache Tomcat runs within the Java Virtual Machine (JVM) of the Java Runtime Environment (JRE). The JVM can be executed as client or server VM. In general the server VM reserves more memory and starts up more slowly than the client VM, but the server VM runs faster than the client VM over time.

Executing Tomcat in the client VM can cause out of memory issues on some systems. If you encounter any out of memory issues when accessing the Admin GUI, configure Tomcat explicitly to run the Admin GUI in the server VM:

1. **Modify the** `jre.options` **property in the** `webadmin.conf` **file (see** `/etc/opt/SUNWut/webadmin/webadmin.conf`**) as follows:**

```
jre.options=-server
```

2. **Restart the Admin GUI to apply the new setting:**

```
/opt/SUNWut/lib/utwebadmin restart
```

Note – If your system is a server-class machine (at least two CPUs and at least two GB of physical memory), the server VM will automatically be used even if you do not specify the server setting. For further details, see:
`http://java.sun.com/j2se/1.5.0/docs/guide/vm/server-class.html`

Remote Access (Bug ID 6508069)

Disabling remote access can result in an empty page.

The `utconfig -w` command allows you to enable or disable remote access to the Admin GUI. If remote access is disabled (the default), you must access the Admin GUI via `http://localhost:1660` or `http://127.0.0.1:1660`.

Accessing the Admin GUI via `http://<servername>:1660` will not work in this case and will result in an empty browser page. If you want to access the Admin GUI via `http://<servername>:1660`, you must enable remote access.

Admin GUI Upgrade (Bug ID 6572246)

The 4.0 Admin GUI requires a Web container that supports the Java Servlet and Java Server Pages (JSP) standards; earlier versions did not. Due to this change, Apache Tomcat 5.5 (or higher) has to be installed on the system, and the `utconfig` script has therefore been extended to ask for the location of an existing Tomcat instance.

If you perform an upgrade from a previous Sun Ray Server Software version (using a preserve file, for example), you must run `utconfig -w` after you have completed the upgrade. The `utconfig -w` command will prompt you for the Admin GUI settings, including the location of the Tomcat installation, after which the Admin GUI will be started automatically.

Self-Registration GUI (Bug IDs 6533780, 6538083)

If the wrong username or password is entered, the self-registration GUI does not allow text to be entered.

The workaround is to press the `Exit` button to relaunch the self-registration GUI.

Occasionally use of the self-registration GUI can result in a Java core dump, although registration continues to work as expected, and no other adverse side effects are observed. However, if `coreadm` is configured to name core dumps uniquely, disk space usage should be monitored.

SunMC (Bug ID 6507891)

The Sun Ray SunMC module does not detect the status of the Admin GUI correctly and will always report the Admin GUI as not running, whether it is running or not.

Solaris 10 Zones

S10 uses zones to permit multiple virtualized operating system environments to coexist in a single instance of Solaris, allowing processes to run in isolation from other activity on the system for added security and control. SRSS 4.0 is supported only in the global zone.

Note – Attempts to install SRSS 4.0 in S10 local zones generate appropriate error messages.

Solaris Trusted Extensions Issues

Device Issues

Audio

Remove the setuid-0 bit on the utaudio binary.

```
# chmod u-s /opt/SUNWut/bin/utaudio
```

Volume Control (Bug ID 6481380)

The volume control applet on the panel doesn't work in Trusted JDS.

To adjust the volume, use the three volume keys on the keyboard or launch the Sun Ray Settings GUI by pressing `Shift+Props`.

Flash Disk Allocation (Bug ID 6562880)

Allocating flash disk with UFS file system second time does not work.

The workaround is to hot-plug the device.

Multiple Slices/Partitions (Bug ID 6535611)

Sun Ray mass storage handles a single slice or partition for use by the Trusted Extensions device allocation framework.

Mount Points (Bug ID 6538004)

Mount points for USB mass storage devices with HSFS/UFS/PCFS file systems are not removed correctly.

xscreensaver Issues

Verify that following links are created so that xscreensaver can work correctly:

```
# ln -s /usr/openwin/bin/xscreensaver /usr/bin/xscreensaver
# ln -s /usr/openwin/bin/xscreensaver-command /usr/bin/xscreensaver-command
# ln -s /usr/openwin/bin/xscreensaver-demo /usr/bin/xscreensaver-demo
```

utsettings GUI in Trusted JDS

In Audio Output and Audio Input, mouse clicks cannot be used to enable/disable the check boxes; however, the following keys can be used for navigation:

- Tab to move to an option
- Space to select the option

Installation, Configuration, and Upgrade Issues

Reboot Before Running utadm and utconfig

In SRSS 3.1 and later, Sun Ray services are started only on the first reboot after installation. Consequently, after you install Sun Ray Server Software, you must reboot the Sun Ray Server before running utadm and utconfig.

Keyboard Issues

Alt and Meta Keys

Alt and Meta keys are swapped when XKB is enabled.

XKB Features on a Second DTU (Bug ID 6267227)

XKB-related features do not function when a user logs in to a second DTU with the same user ID.

Auto-Repeat (Bug ID 6244200)

On Solaris 10 with XKB enabled, auto-repeat may not work as expected in the CDE environment. Use of XKB with CDE is not recommended.

Kiosk Issues

Set Kiosk Application Type Correctly (Bug ID 6533804)

Some Kiosk session types allow additional applications to be launched. Within the Admin GUI, you can specify a new Kiosk application either by entering a path to an executable or by specifying a path to an application descriptor (a file that lists the various properties for the application).

At the moment, the Admin GUI cannot automatically determine the type (executable vs. descriptor), so you must specify the type correctly in the Admin GUI when adding a new application.

If you specify an incorrect type, the Kiosk session cannot start up correctly, and the affected DTUs will hang, typically with a 26D error.

If you encounter such an error, the workaround is to check the specified types in the Admin GUI and correct the settings, if necessary.

Sessions May Hang After CAM Migration

Procedures for preserving existing CAM configurations and migrating to Kiosk Mode are documented in chapters 4 and 7 of the Sun Ray Server Software 4.0 Installation and Configuration Guide. However, after performing the documented procedures, using `utconfig -k` and `utcammigrate -u`, you may find that sessions that should be Kiosk sessions according to policy appear hung and show only a black screen.

To recover from this condition, terminate these sessions. To ensure that all affected sessions are terminated, perform a cold restart of the Sun Ray server group.

Unconfiguring Kiosk Mode Disables Kiosk Policy

If Kiosk mode is enabled for smart card and/or for non-card sessions, then disabling Kiosk mode (using `utconfig -u -k`) also disables the Kiosk policy.

This behavior may be surprising in a failover group, where Kiosk policy is disabled for the entire group when Kiosk Mode is unconfigured on any server in the group.

Before unconfiguring Kiosk Mode on any host in a failover group, disable Kiosk policy, and perform a cold restart of the server group.

To perform maintenance tasks on Kiosk user accounts without unconfiguring Kiosk Mode completely, use the `/opt/SUNWkio/bin/kioskuseradm` tool instead of `utconfig`.

Xinerama

Xinerama is not supported in Trusted Extensions.

Mass Storage Issues

Caution – Failure to run `utdiskadm -r` before unplugging mass storage devices will cause loss of data. Make sure your users run `utdiskadm -r` before they unplug any mass storage device.

```
% /opt/SUNWut/bin/utdiskadm -r device_name
```

L10N Issues

Portuguese Locale

To enable the Portuguese locale, use the `pkgadd` command to install these packages:

```
# pkgadd -d . SUNWputes
# pkgadd -d . SUNWputo
```

NSCM Login Greeter (Bug ID 6561238)

If NSCM policy is enabled, the welcome message is not displayed correctly for all languages in UTF-8 locales (*fr*, *de*, *es*, *pt_BR*, and *it*). The messages *Please enter your user name* and *Please enter your password* may not appear or may be truncated because the length of the message varies in different languages.