Sun Ray™ Server Software 3.1 Release Notes

for the Solaris™ Operating System

Sun Microsystems, Inc.
www.sun.com

Part No. 819-2386-12
May 2006, Revision C

Adobe PostScript

Contents

Sun Ray Server Software 3.1

Sun Ray Server Software 3.1 (SRSS 3.1) delivers expanded platform support, optimizations, and enhancements to the Sun Ray Server Software 3 product. This document describes what's new, what's improved, what's been deprecated or removed, and problems known to exist in the update.

SRSS 3.1 does not support JDS3 for Linux.

Note – These release notes contain the most up-to-date information available as of the moment they are printed. As bugs are resolved (or new ones discovered), however, revised versions of this document will be posted to the Sun Download Center (SDLC). The latest revisions of the product documentation are also available on the SDLC.

Note – The latest SRSS 3.1 patch is included in the Patches section of the release image.

TABLE 1 SRSS 3.1 Patch Numbers for Sun Ray Connector

Solaris SPARC	120879-03
Solaris x86	120880-03

What's New

Support for Additional Platforms

Sun Ray Server Software 3.1 is designed to run on the following operating systems with SPARC servers:

- Solaris 10 3/05 or greater
- Solaris 9 9/04 or greater
- Solaris 8 02/02 or greater
- Trusted Solaris 8 7/03 (PSR3) or greater

Sun Ray Server Software 3.1 is also designed to run on the following operating systems with x64 servers:

- Solaris 10 3/05 or greater
- Java Desktop System, Release 2 on x86
- Red Hat Enterprise Linux Advanced Server 3 on x86 (32-bit)
- SuSe Linux Enterprise Server 8 Service Pack 3 on x86 (32-bit)

Support for the Solaris 10 Operating Environment

As of SRSS 3.1, Sun Ray Server Software supports Solaris 10 on both SPARC and x86 platforms (see below).

Note – The only display manager supported for Sun Servers running Solaris 10 is `dtlogin`; the Gnome Display Manager (GDM) cannot be used.

Support for the Solaris X86 Operating Environment

SRSS 3.1 supports the Solaris 10 platform on X86 servers, including both 32-bit and 64-bit versions. SRSS 3.1 on Solaris 10 X86 will be equivalent, feature for feature, to SRSS 3.1 on Solaris 10 SPARC.

Support for the Embedded Serial Ports on the Sun Ray 170

SRSS 3.1 delivers the firmware and server side support for the embedded serial ports found on the Sun Ray 170.

Support for the XKB Xserver Extension

SRSS 3.1 supports the Xserver XKB extension on Solaris 10 and Linux to allow for greater control over keyboard attributes, including Accessibility Preferences. The extension is not enabled by default but can be enabled through a new option to the `utxconfig` command.

Support for Regional Hotdesking

Regional Hotdesking is a new feature that can be used to extend the hotdesking mobility experience across multiple Sun Ray server groups. It utilizes customer-supplied site policies to determine the group where users or Sun Ray DTUs should have their sessions created. It can also be used, as an alternative or in conjunction with site policies, simply to preload a username into the login environment based on properties such as a smartcard CUID.

During development, regional hotdesking was called Automatic Multigroup Hotdesking (AMGH).

What's Improved

`libusb`

SRSS 3.1 supports `libusb` on all platforms.

Optimizations for Low-latency Network Audio Applications

The Sun Ray audio framework has been optimized to support audio applications that depend upon low latency between end points to meet their quality of service requirements. The round-trip latency between the Sun Ray DTU and the Sun Ray server has been reduced to 80ms for LAN configurations. Actual latency will depend upon the inherent latency of the network.

Enhancements to the Administration Framework

SRSS 3.1 enhances the Sun Ray Administration GUI to allow for the creation of a list of administrators for Sun Ray failover groups rather than the single login name framework used in SRSS 3 and previous releases. Like other users, the administrators are identified by Unix login name and are authenticated through the Pluggable Authentication Module (PAM) stack when they log in. The administration framework now provides an audit trail of the activities of these administrators.

Enhancements to Token Reader Utilization

Token readers can now be utilized from any server in a failover group to which the token reader is connected. The token reader tools may now access the entire list of token readers in the failover group, regardless of which server the token reader is currently connected to.

Enhancements for Type of Service (ToS) Packet Tagging

SRSS 3.1 delivers a zero administration mechanism for supporting Type of Service (ToS) network packet tagging. The Sun Ray Desktop Unit (DTU) firmware has been modified to reflect the ToS settings of incoming packets. Since the reflection of the ToS settings will be done on a stream-by-stream basis, a server can assign a different ToS value to different types of traffic between the Sun Ray DTU and the server (TCP vs. UDP) to provide better overall Quality of Service (QoS).

Enhancements to Device Access Control

SRSS 3 introduced a switch for disabling USB peripheral connectivity for security conscious sites. In SRSS 3.1, this capability is expanded to include:

- The embedded serial ports introduced in the Sun Ray 170
- Internal smart card readers

To control all device connectivity, including access to smart cards, SRSS 3.1 provides a new command, `utdevadm`, plus appropriate updates to the Admin GUI. (The `utusbadm` command, which provides similar control only over USB devices, will be deprecated.)

Removed or Deprecated Features

SCF (Smart Card Framework) API

Sun Ray Server Software provide the industry-standard PC/SC-lite API to enable access to smart cards and smart card readers connected to Sun Ray DTUs. The Sun-proprietary SCF API is not supported in this release of the Sun Ray Server Software and will be removed in the next SRSS release.

Netscape 4.x Browsers

SRSS 3.1 no longer supports Netscape 4.x browsers for accessing the Admin GUI. Please use later releases of the Netscape or the Mozilla browsers.

Deprecated `utxconfig` Option

The `utxconfig -s` option has been deprecated and will be removed in a future release. Please use `auto` with the `-r` and `-R` options instead.

Known Problems and Limitations

x86 Platform Limitations

On x86 platforms only, SRSS 3.1 requires CPUs that support the Pentium Pro instruction set.

Installation, Configuration, and Upgrade Issues

Reboot Before Running `utadm` and `utconfig`

In SRSS 3.1, 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`.

Apache Daemon — PID Misidentified (Bug ID 6231618)

`apachectl` on Solaris 10 uses the wrong file to determine the process ID (PID), thus preventing `apachectl` from restarting or stopping the daemon.

The PID is stored in the `/var/run/httpd.pid` file; however, the Solaris 10 `apachectl` uses the `/var/run/apache/httpd.pid` file instead. Thus, when you use `utconfig -u` to unconfigure SRSS, the `httpd` daemon is not stopped. Consequently, using `utconfig` to reconfigure SRSS generates a report that the port is already in use.

The workaround is to create a soft link, as follows, before running `utconfig -u`:

```
# ln -s /var/run/httpd.pid /var/run/apache/httpd.pid
```

Sun Cluster™ and Sun Ray Configuration

There are three known issues with Sun Cluster 3.1 Update4:

Sun Cluster on a Sun Ray Configuration (Bug ID 6306113)

Using Sun Cluster on an existing Sun Ray configuration requires the site to disable **`ipv6`** configurations.

The following steps are required to disable **`ipv6`** in this environment:

1. **Add the following line to /etc/system on all cluster nodes:**

```
set cl_comm:ifk_disable_v6=1
```

2. **Comment out the following line from the `/usr/cluster/lib/svc/method/bootcluster` file**

   (On S9, this file is `/etc/rcS.d/S56bootcluster.sh`)

```
 /sbin/ifconfig lo0 inet6 plumb ::1 up
```

3. **Reboot all cluster nodes.**

Sun Ray on a Sun Cluster Configuration

When the SRSS product is installed in a previously configured Sun Cluster, the administrator must manually create the `/etc/hostname.`<*interface_name*> file with the correct hostname entry before using the `/opt/SUNWut/sbin/utadm` command to configure interfaces.

Sun Cluster & CAM Mode

Sun Cluster install disables the LOFS filesystem by adding a line
`exclude: lofs`
in the `/etc/system` file.

CAM mode requires LOFS to be enabled. To enable LOFS:

1. **Comment out the**
   `exclude: lofs`
   line in the `/etc/system` file

2. **Reboot the system.**

Note – Enabling LOFS is not recommended if the configuration on the cluster has HA-NFS on HAStoragePlus with `automounter` running.

Sun Ray Server Software Reconfiguration

If you re-run `utconfig` without first unconfiguring SRSS (i.e., with `utconfig -u`), you may have problems using the Admin GUI or running certain administration commands. The workaround is to change the group ID for the `/etc/opt/SUNWut/utadmin.conf` file to `utadmin`:

```
# chgrp utadmin /etc/opt/SUNWut/utadmin.conf
```

Firmware Configuration

`utadm` Fails to Configure Firmware (5050398)

utadm occasionally fails to configure Sun Ray DTU firmware. When this occurs, the following message is displayed:

```
...
Error: Interface "<interface>" is not currently configured as a
dedicated interconnect.  You must configure the interface as a
dedicated interconnect before using this command to configure the
firmware.  If you are trying to configure the firmware for a shared
network, please use the -N option.
...
```

The workaround is to run `utfwadm` as in the appropriate case below after `utadm` completes.

- For all interfaces:

```
# utfwadm -A -a -n all
```

or

For all networks:

```
# utfwadm -A -a -N all
```

Admin GUI Issues

Two Admin GUI pages are producing unexpected results:

Refreshing the Admin GUI Page

Refreshing the Admin GUI page from most of the links gives unexpected results. To refresh the data frame independently, use the right mouse button to click on the frame -> This Frame -> Reload Frame.

Restarting Sun Ray Services

The Restart Sun Ray Services page shows unexpected behavior on some browsers. Functionally, it always completes correctly, and the results can be verified from the log files, but, it does not always display the Results or Progress pages correctly.

Keyboard Issues

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.

XKB Features on a Second DTU (Bug ID 6267227)

XKB-related features do not function when logged in with same user ID on second DTU.

Controlled Access Mode (CAM)

Action Required Popup (6242736)

Some DTU's get stuck with the Action Required popup menu when CAM (kiosk) policy is enabled on SRSS 3.1 for Solaris x86. When this condition occurs, the user can simply click on the OK button to restart a CAM session.

Note – This bug occurs only on Solaris x86, only when SRSS is configured for Kiosk mode for non-card users.

Here is the full text of the Action Required popup:

```
Action Required
The DT messaging system could not be started.
To correct the problem:
1. Choose [OK] to return to the login screen.
2. Select Failsafe Session from the login screen's option menu and
log in.
3. Check to see that the hostname is correct in these locations:
/etc/src.sh
/etc/hosts
/usr/adm/inetd.sec
4. Check to see any magic cookie related error messages in these
locations:
/var/adm/messages
$HOME/.dt/errorlog
For additional information, see the DT User's Guide.
```

NCSM Login (Bug ID 6232241)

If you have the NSCM policy configured, then NSCM sessions can require two logins before the session is connected. (This condition does not occur with smart card sessions in the same setup.)

As a workaround, use CDE instead of Gnome, or disable `xscreensaver`, in which case `xlock` will be used to lock user sessions.

L10N Issues

Multibyte Font Display Problem

In multibyte locales using pre-1.5 releases of JRE, Java-based Sun Ray tools such as `utsettings`, `utmhconfig`, and the Registration GUI do not work properly. Proper multibyte font display requires JRE 1.5.

The workaround is to create a `guijre` symbolic link in `/etc/opt/SUNWut` to point to an appropriate JRE release, for instance:

```
# ln -s </path_to_jre_1.5> guijre
```

The Registration GUI, `utsettings`, and `utmhconfig`, can then be launched with the specified JRE.

Blank Web Admin Screen (Bug ID 6318194)

Netscape 4.78 browsers running on Solaris 9 produce a blank web admin screen. Although it appears to be the default browser, Netscape 4.78 is no longer supported. Please upgrade to Netscape 7 for the expected behavior.

PAM Message Prompts (Bug ID 6303138)

The PAM message prompts are not localized in admin web login screen on Solaris 10.

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 3.1 is supported only in the global zone.

Note – Attempts to install SRSS 3.1 in S10 local zones will generate an appropriate error message.

Trusted Solaris (TSOL)

NCSM Authentication (Bug ID 6283886)

Username and password are requested twice for NCSM users on TSOL 8 PSR4.

The workaround is to follow the instructions below after installing SRSS 3.1 but before rebooting:

1. **Assume Primary Admin role.**
2. **Add the following entry to the** `/etc/security/exec_attr` **file:**

```
...
Sun Ray Initialization:tsol:cmd:::/opt/SUNWut/lib/utctl:privs=6
...
```

3. **Reboot the server.**
4. **Configure Sun Ray Server Software.**

Documentation

This build includes documentation for both Solaris and Linux operating systems, including Administration Guides, and Installation and Configuration Guides. These manuals are intended to be feature-complete and reviewable.

Newer versions will be posted on the Sun Download Center as significant updates become available.

Documentation Errata

The following errata appear in the documentation included on the SRSS 3.1 CD.

Administrator's Guide

The NSCM feature, which is not supported for Linux, is mentioned in several places in the Administrator's Guide (Figure 3-4 and page 113).

Release Notes

The footers of the release notes on the Sun Ray Server Software 3.1 CD mistakenly refer to Sun Ray Server Software 3 instead of Sun Ray Server Software 3.1.

Documentation Errata for L10N

Some corrections and other modifications have been made to the administration guides after drafts were submitted for translation and localization. They are described here.

Administrator's Guide

Printing

Printing instructions ("To Set Up a Printer") in Chapter 4 have been updated to include more specific information to differentiate between Solaris 10 and Solaris 8 or 9) .

Multihead Groups

The following admonition has been added under Hotdesking and under Multihead Administration:

Note – Regional hotdesking is not enabled for multihead groups.

Screen Shots

Figure 11-3 (Failover Group Status Table) has been updated with a current screen shot.