



Sun Ray™ Server Software 3.1 Release Notes

for the Linux Operating System

Sun Microsystems, Inc.
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Contents

What's New 1

Support for the Embedded Serial Ports on the Sun Ray 170 1

Support for the XKB Xserver Extension 2

Support for Regional Hotdesking 2

What's Improved 2

libusb 2

Optimizations for Low-latency Network Audio Applications 2

Enhancements to the Administration Framework 3

Enhancements to Token Reader Utilization 3

Enhancements for Type of Service (ToS) Packet Tagging 3

Enhancements to Device Access Control 3

Known Problems and Limitations 4

x86 Platform Limitations 4

Installation and Configuration 4

Multibyte Font Display Problem 4

JDS2 Installation 5

Version Mismatch Between Kernel Source and Boot Image (Bug ID
5057919) 5

Gnome Display Manager 5

Sun Ray Server Software Reconfiguration	6
Firmware Configuration	6
utadm Fails to Configure Firmware (5050398)	6
Device Incompatibility (Bug ID 6259230)	7
Deprecated utxconfig Option	7
Documentation	7
Documentation Errata for L10N	7
Administrator's Guide	7
Printing	7
Multihead Groups	8
Screen Shots	8
Extra Sections	8
Reference Manual	8

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, 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 current release. 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 will also be available on the SDLC.

What's New

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 Server (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.)

Known Problems and Limitations

x86 Platform Limitations

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

Installation and Configuration

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`.

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.

JDS2 Installation

Version Mismatch Between Kernel Source and Boot Image (Bug ID 5057919)

On multi-processor systems, the `utio` and `utadem` modules do not install automatically on JDS2. The administrator must install the modules manually in order to make the USB and audio features to work properly.

Use `lsmod` as shown below to see if the `utio` and `utadem` modules are loaded:

```
# lsmod |grep utio
# lsmod |grep utadem
```

If not, install `utio` and `utadem` are as follows:

```
# cd /lib/modules/`uname -r`/build
# make cloneconfig
# make dep clean

# cd /usr/src/SUNWut/utio
# make clean
# make
# make install

# cd /usr/src/SUNWut/utadem
# make clean
# make
# make install

# /etc/init.d/utsyscfg stop
# /etc/init.d/utsyscfg start
```

Gnome Display Manager

If a user exits a session with the key sequence `Ctrl+Alt+backspace+backspace`, GDM may hang the DTU display. Unfortunately, power cycling the DTU has no effect; therefore, users should be instructed to exit their sessions gracefully, by logging out, instead of using this key sequence.

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
```

Device Incompatibility (Bug ID 6259230)

New Quatech SSU-100 devices (P/N 990-0044-01D) don't work on Sun Ray DTUs.

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.

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 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 for Linux.

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 10-3 (Failover Group Status Table) has been updated with a current screen shot.

Extra Sections

A few paragraphs that describe or refer to NCSM (Non-Smart Card Mobile Sessions), a feature that is not implemented on Linux platforms in SRSS 3.1, were inadvertently included in the Linux administrator's guide. This error should have no impact on SRSS administrators.

Reference Manual

The *Sun Ray Server Software 3.1 Reference Manual for the Linux Operating System* is actually a set of concatenated man pages provided to L10N for translation into Japanese. It is included on the SRSS 3.1 CD as a convenience to other users; however, the man command is usually preferable to hardcopy.

In the current release, the footer pages carry the text string, "SRSS 3 Update 1" rather than the correct designation, "SRSS 3.1".