Sun Ray™ Server Software 3.1 Release Notes

for the Solaris™ Operating System

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Adobe PostScript

Contents

What's New 1
Support for the Solaris 10 Operating Environment 1
Support for the Solaris X86 Operating Environment 2
Support for the Embedded Serial Ports on the Sun Ray 170 2
Support for the XKB Xserver Extension 2
Support for Regional Hotdesking 2
What's Improved 3
libusb 3
Optimizations for Low-latency Network Audio Applications 3
Enhancements to the Administration Framework 3
Enhancements to Token Reader Utilization 3
Enhancements for Type of Service (ToS) Packet Tagging 4
Enhancements to Device Access Control 4
Known Problems and Limitations 5
x86 Platform Limitations 5
Installation and Configuration 5
Multibyte Font Display Problem 5
Gnome Display Manager 5
Sun Ray Server Software Reconfiguration 6

Firmware Configuration 6
`utadm` Fails to Configure Firmware (5050398) 6
Controlled Access Mode (CAM) 7
Action Required Popup (6242736) 7
Device Incompatibility (Bug ID 6259230) 7
Deprecated `utxconfig` Option 7
NCSM Login (Bug ID 6232241) 8
L10N Issues 8
PAM Message Prompts (Bug ID 6303138) 8
Solaris 10 Zones 8
Solaris 10 XKB Problems 8
Keyboard Unusable (Bug ID 6247309) 8
Auto-Repeat (Bug ID 6244200) 9
XKB Features on a Second DTU (Bug ID 6267227) 9
Apache Daemon 9
PID Misidentified (Bug ID 6231618) 9
Trusted Solaris (TSOL) 9
NCSM Authentication (Bug ID 6283886) 9
Documentation 10
Documentation Errata for L10N 10
Administrator's Guide 10
Printing 10
Multihead Groups 11
Screen Shots 11

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 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 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.

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
```

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 and 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.
```

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.

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

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.

Solaris 10 XKB Problems

The following problems with XKB on Solaris 10 are noted for the current build:

Keyboard Unusable (Bug ID 6247309)

On Solaris 10, the XKB feature causes the keyboard to become unusable if the keyboard accessibility preference “slow keys’ is used.

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.

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
```

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 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.