

Sun Ray Server Software 3 Update 1

β Release Notes

Sun Ray Server Software 3 (SRSS 3) Update 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.

Items scheduled for release but not yet included in the current build are called out separately and **highlighted in magenta**.

Note – SRSS 3 Update 1 does not support JDS3 for Linux.

What's New

Support for the Solaris 10 Operating Environment

As of SRSS 3 Update 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 Update 1 supports the Solaris 10 platform on X86 servers, including both 32-bit and 64-bit versions. SRSS 3 Update 1 on Solaris 10 X86 will be equivalent, feature for feature, to SRSS 3 Update 1 on Solaris 10 SPARC.

Note – PC/SC is not supported on x86 in the current release.

Support for the Embedded Serial Ports on the Sun Ray 170

SRSS 3 Update 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 Update 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 Update 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 Update 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 Administration

Token readers can now be administered from any server in a fail over group to which the administrator and the token reader are connected. For sites that don't allow remote administration via the administration GUI, token readers can now be administered from any server in the group. The token reader tools present the entire list of token readers in the failover group regardless of which server the administrator is currently logged into.

Enhancements for Type of Service (ToS) Packet Tagging

SRSS 3 Update 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 Update 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 Update 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

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 Update 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.

NCSM Login (Bug ID 6232241)

If the Sun Ray NSCM session is in a disconnected state, the `xscreensaver` doesn't execute the PAM stack immediately after the screen lock timeout. It waits for the session to connect to Sun Ray DTU before it executes the pam stack (`pam_sunray`).

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 Update 1 is supported only in the global zone.

Note – Attempts to install SRSS 3 Update 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

As noted in 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
```

Xserver Bug Affects x86 Console Login

On Solaris 10 x86, if there is a main console (a monitor attached directly to the Solaris x86 server), the screen goes black or blank and becomes unusable as a monitor when the first Sun Ray session is logged in.

Gnome Display Manager

GDM Incompatibility

Sun Ray Server Software requires its own Sun Ray-enhanced Gnome Display Manager. If you update your system with a newer GDM, SRSS will not be able to run, and DTUs with 2.0 or newer firmware will display the 26D icon. If you are using an automatic update system, such as Red Hat's `up2date`, you may wish to alter your configuration files to ignore GDM.

GDM Password Problem (Bug ID 6255032)

GDM crashes if the wrong password is supplied.

Regional Hotdesking

utamghadm (Bug ID 6243038)

The utamghadm command should be able to run on secondary as well as primary servers; however, a this bug prevents it from running on secondary servers, or, occasionally, producing unexpected results.

Note – For this build, please run utamghadm from the primary server only.

Documentation

This build includes preliminary copies of complete SRSS 3 Update 1 documentation sets for both Solaris and Linux operating systems, including Administration Guides, Installation and Configuration Guides, and concatenated man pages packaged as Reference Manuals (for Japanese language translation). These manuals are intended to be feature-complete and reviewable: corrections and suggestions from beta testers and others are welcome!

Change bars appear in the margins of these documents where appropriate.

Please send comments directly to: gary.sloane@sun.com.