Sun Ray Software Release Notes

Versions 5.2 and 5.2.x

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Abstract

This document provides an overview of the new features, the system requirements, deprecated features, and known issues for the Sun Ray Software 5.2, 5.2.1, 5.2.3, and 5.2.5 releases.

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Chapter 1. Sun Ray Software 5.2.5 Release

The Sun Ray Software 5.2.5 release update is available on My Oracle Support.

See http://www.oracle.com/technetwork/server-storage/sunrayproducts/downloads/index.html for details.

1.1. What's New

See Appendix A, *Changelog* for the list of bugs fixed in the Sun Ray Software 5.2.5 release update.

1.1.1. Faster USB mass storage performance and a broader choice of USB peripherals

Improvements include:

- Mass storage read/write speeds up to 5x faster than previous Oracle Virtual Desktop Infrastructure and Sun Ray Software releases on Sun Ray 3 Series Clients. To gain this performance improvement, the Sun Ray Software 5.2.5 firmware now provides the Enhanced Host Controller Interface (EHCI) USB 2.0 driver for Sun Ray 3 Series Clients.
- Access to an unprecendented broad range of USB devices. Tested devices include USB printers, scanners, storage devices, secure flash drives, biometric devices, speech recognition devices, and headsets. See http://www.oracle.com/technetwork/server-storage/sunrayproducts/docs/index.html for the list of tested devices.
- A tuned and optimized USB and network stack to minimize network latency.

1.1.2. Separate Session Locale and Keyboard Layout Settings for Windows Sessions

Two new options have been added to the `uttsc` command. The `-G` option for specifying the language/locale for the session and the `-Y` option for specifying the keyboard layout used to process the keyboard input. For example, you can specify the Nl-NL Dutch locale with an international US English keyboard layout as follows: `uttsc -G nl-NL -Y en-US:INT`.

See the `uttsc` man page for more details. The `-l` option is still available and sets both the language/locale and keyboard layout.

1.2. Upgrading to Sun Ray Software 5.2.5

This procedure describes how to upgrade to Sun Ray Software 5.2.5.

1. If the Sun Ray server is already running a version of the Sun Ray Software 5.2 release, run the following command on the Sun Ray server to make sure this update is needed.

   ```
   # /opt/SUNWut/sbin/utrelease
   ```

2. Download the Sun Ray Software 5.2.5 release update from My Oracle Support.

   See http://www.oracle.com/technetwork/server-storage/sunrayproducts/downloads/index.html for details.

3. Follow the upgrade instructions in the *Sun Ray Software 5.2 Installation and Configuration Guide*.

4. Verify that the update has been installed.

   ```
   # /opt/SUNWut/sbin/utrelease
   Sun Ray Software 5.2.5
   ```

Chapter 2. Sun Ray Software 5.2.4 Release

Sun Ray Software 5.2.4 was not provided to customers.

Chapter 3. Sun Ray Software 5.2.3 Release

The Sun Ray Software 5.2.3 release update is available on My Oracle Support.

See http://www.oracle.com/technetwork/server-storage/sunrayproducts/downloads/index.html for details.

3.1. What's New

See Appendix A, *Changelog* for the list of bugs fixed in the Sun Ray Software 5.2.3 release update.

3.1.1. utkeylock Command

The `utkeylock` command can modify the state of certain locking modifier keys on a user's keyboard. Currently, only the NumLock key is supported. This command may be useful to invoke during session creation to enable NumLock for users who expect NumLock to be on by default, which is typical for Windows PCs. By default, the NumLock key is disabled on a Sun Ray Client.

See the `utkeylock` man page for details.

> **Note**
>
> The following configuration works for all kiosk sessions, but it does not work for sessions using the Gnome Display Manager through a regular session mode.

The following procedure describes how to enable the NumLock key for all Sun Ray sessions.

1. Become superuser on the Sun Ray server.
2. Change directory to the session initialization directory.
   - Solaris:

     ```
     # cd /usr/dt/config/Xsession.d
     ```

   - Linux:

     ```
     # cd /etc/X11/xinit/xinitrc.d
     ```

3. Create one of the following customized scripts based on the result you want (the script is called `utnumlock.sh` in this procedure).
   - Enable the NumLock key when a session initializes.

     ```
     #!/bin/sh

     # Enable NumLock key for each session
     /opt/SUNWut/bin/utkeylock -n on
     ```

   - Enable the NumLock key when a session initializes and on all subsequent connections through hotdesking.

     ```
     #!/bin/sh

     # Enable NumLock key on and make sure it stays on each time a user hotdesks
     /opt/SUNWut/bin/utaction -i -c "/opt/SUNWut/bin/utkeylock -n on" &
     ```

   > **Note**
   >
   > For Linux, the script name must have the `.sh` extension, otherwise the script will not get sourced.

4. Save the script and make the script executable for everyone.

   ```
   # chmod 775 utnumlock.sh
   ```

3.2. Upgrading to Sun Ray Software 5.2.3

This procedure describes how to upgrade to Sun Ray Software 5.2.3.

1. If the Sun Ray server is already running a version of the Sun Ray Software 5.2 release, run the following command on the Sun Ray server to make sure this update is needed.

```
# /opt/SUNWut/sbin/utrelease
```

2. Download the Sun Ray Software 5.2.3 release update from My Oracle Support.

   See http://www.oracle.com/technetwork/server-storage/sunrayproducts/downloads/index.html for details.

3. Follow the upgrade instructions in the *Sun Ray Software 5.2 Installation and Configuration Guide*.

4. Verify that the update has been installed.

```
# /opt/SUNWut/sbin/utrelease
Sun Ray Software 5.2.3
```

Chapter 4. Sun Ray Software 5.2.2 Release

Sun Ray Software 5.2.2 was not provided to customers.

Chapter 5. Sun Ray Software 5.2.1 Release

The Sun Ray Software 5.2.1 release update was delivered as part of the latest Sun Ray Software 5.2 media pack, version 3 (v3).

5.1. What's New

See Appendix A, *Changelog* for the list of bugs fixed in the Sun Ray Software 5.2.1 release update.

5.2. Upgrading to Sun Ray Software 5.2.1

This procedure describes how to determine if an upgrade to Sun Ray Software 5.2.1 is needed, and how to perform the upgrade if needed.

1. If the Sun Ray server is already running a version of the Sun Ray Software 5.2 release, run the following command on the Sun Ray server to make sure this update is needed.

   ```
   # /opt/SUNWut/sbin/utrelease
   ```

2. If `Sun Ray Software 5.2` is displayed, continue with this procedure to upgrade the Sun Ray Software. If `Sun Ray Software 5.2.1` is displayed, then nothing more is required.

3. Download the Sun Ray Software 5.2 media pack, version 3 (v3).

   See http://www.oracle.com/technetwork/server-storage/sunrayproducts/downloads/index.html for details.

4. Follow the upgrade instructions in the *Sun Ray Software 5.2 Installation and Configuration Guide*.

5. Verify that the update has been installed.

   ```
   # /opt/SUNWut/sbin/utrelease
   Sun Ray Software 5.2.1
   ```

Chapter 6. Sun Ray Software 5.2 Release

6.1. What's New

The following table describes the major changes since the 5.1 release.

6.1.1. Installation and Configuration

Feature	Description
Simplified Installation	In this release, there is a single installer (the `utsetup` command) that installs the entire Sun Ray Software product on the Sun Ray server. Installation improvements include: • Many of the previous Sun Ray Software components are now installed as part of the Sun Ray Software installation. These components include the Sun Ray Connector for Windows OS (SRWC), the Sun Ray Connector for VMWare View Manager (SRVC), and Smart Card authentication with PC/SC-lite. (These core features are now referred to as the Windows connector, VMware View connector, and smart card services, respectively.) • The new `utsetup` command enables you to step through a Sun Ray Software installation and configuration process and save the setup details for cloning other Sun Ray servers.
Integrated Sun Ray Client Firmware	Previous to the Sun Ray Software 5.2 release, there were two versions of the Sun Ray Client firmware delivered. A non-GUI firmware and a GUI firmware. In this release, there is now one firmware, and the Configuration GUI must be specifically enabled for local configuration.

6.1.2. Multimedia

Feature	Description
Improved performance for video and audio streams on Windows XP and Windows 2003	The multimedia redirection component for Windows XP and Windows 2003 now provides better performance and playback for MPEG-2 videos and MPEG, AAC, and WMA audio streams from a Windows session using Windows Media Player 10 or 11.
Audio Optimization	Previous to the Sun Ray Software 5.2 release, a Sun Ray client always used 48kHz stereo for audio input regardless of what the application requested. The 48kHz audio was sent from the client to the Sun Ray server and then the audio was converted down (if needed) based on what was requested by the application. In this release, a Sun Ray client uses only what the application needs, which can help reduce bandwidth and increase scalability. For example, if a VoIP application requests 8kHz mono, a Sun Ray client will require 92% less bandwidth for the audio input than before. In this example, the bandwidth is reduced from 192 KB/s (16-bit, 48kHz stereo) to 16 KB/s (16-bit, 8kHz mono), which is a 92% reduction.

6.1.3. Peripherals

Feature	Description
USB Headsets	Users can now chat in real time using a USB headset on a Sun Ray 2 or Sun Ray 3 Series Client, with no special installation or USB redirection required. For the list of tested USB Headsets, see the Sun Ray Peripherals List.

Feature	Description
Multi-Voltage Smart Card Support for Sun Ray 2 Series and Sun Ray 3 Series Clients	With the new Sun Ray Software 5.2 firmware installed, all Sun Ray 2 Series and Sun Ray 3 Series Clients will support smart cards that operate at all three of the ISO-7816 defined Vcc voltages of 1.8 Volts (Class C), 3 Volts (Class B), and 5 Volts (Class A). The client firmware will automatically choose the most appropriate voltage to operate the card. There are no administrator settings available or required to control this feature.
Better Multi-monitor Support for Sun Ray 3 Plus and Sun Ray 2FS Clients	Better multi-monitor support is now provided by the X Resize and Rotate (RandR) 1.2 extension. When using multiple monitors for a single desktop, this update eliminates size restrictions when hot-desking, enables dynamic configuration changes to a session, and reduces application window "straddling" across physical monitors.

6.1.4. Networking

Feature	Description
Cisco VPN with Hybrid Authentication and Other VPN Updates	Sun Ray Software now provides the ability to configure Cisco Hybrid authentication through the firmware GUI. Other updates include support for Cisco Profile Configuration File (`.pcf`) files, gateway setting for Perfect Forward Secrecy (PFS), and HTTP transport.
VPN Gateway Password Configuration Now Used	If the VPN gateway is configured to disallow stored passwords, the client's firmware will ignore requests to save the password locally. Previously, the firmware saved the password regardless of the VPN gateway configuration.
IPMP Support	Sun Ray Software now supports arbitrary IP MultiPathing, or IPMP. IPMP is supported only on Sun Ray servers in a shared network configuration (LAN with fully-routed subnets) and running the Solaris operating system. See the *Sun Ray Software 5.2 Installation and Configuration Guide* for more information.

6.1.5. User Experience

Feature	Description
OSD Icons Now Hidden During Boot	With the new Sun Ray Software 5.2 firmware installed, a spinning wheel icon is displayed now by default on a Sun Ray Client when it boots, instead of showing the On-Screen Display (OSD) icons. To show the details of the boot process and to help identify problems, you can use the Stop-O key sequence (or Ctrl-Pause-O on non-Sun keyboards) to enable the On-Screen Display (OSD) icons to display.
Alternate Sun Ray Client Hot Key	The Ctrl-Shift-Alt-Meta key combination now can be used as an alternate to the Ctrl-Pause prefix. This new key combination can be customized through the Advanced menu of the firmware GUI (Enter Alternative STOP modifiers) or the `stopkeys` keyword in the `.parms` file. You can set it to any combination of the four keys, but at least two must be used. Throughout the Sun Ray Software documentation, the Ctrl-Pause prefix is still used for examples.

6.2. System Requirements

See the *Sun Ray Software 5.2 Installation and Configuration Guide* for the system requirements, including the operating system requirements for the Sun Ray server and Windows remote desktop support.

6.3. Deprecated Features

The following features are no longer available in this release.

- SuSE Linux Enterprise Server (SLES) support.
- Sun Management Center (SunMC) support.
- USB to serial adapter support.
- The `-c` option of the `uttscadm` command. The `utconfig` command now performs this option automatically.
- The `-O` option of the `uttsc` command. This has been replaced with the `-H nodisconnect` option.
- The `utrestart` command has been changed to `utstart`.

6.4. CCID IFD Handler v1.3.10

The CCID IFD Handler v1.3.10 distribution is a Sun Ray implementation of the Interface Device Handler (IFD) for CCID-compliant USB smart card readers for the PC/SC-lite API, derived from the Open Source MUSCLE project. When used in conjunction with PC/SC-lite, this IFD handler enables PC/SC-compliant applications and middleware to use external USB smart card readers on Sun Ray clients.

The CCID IFD Handler is not provided with Sun Ray Software 5.2 release. However, you can download the *PC/SC-lite 1.3* component from the 5.1.1 Media Pack, which includes the CCID IFD Handler v1.3.10 distribution. Only the CCID IFD handler needs to be installed. PC/SC-lite is already installed with Sun Ray Software 5.2.

The CCID IFD Handler v1.3.10 documentation is provided in the *Sessions and Tokens* chapter of the *Sun Ray Software 5.2 Administration Guide*.

6.5. Known Issues

The latest known bugs and other issues are listed here, along with appropriate workarounds when they are available.

6.5.1. Installation, Configuration, and Upgrade Issues

6.5.1.1. Shutdown/Restart Options (Linux)

Sun Ray Software installation removes Shutdown/Restart options from the console; however, users can open a terminal and execute these commands.

Reference: CR 12241632

6.5.2. General Issues

6.5.2.1. Smart Card LED blinks for approximately 40 seconds when installing Sun Ray Software firmware

When installing the Sun Ray Software firmware on Sun Ray 3 Series Clients, the smart card LED will blink for approximately 40 seconds as the smart card controller firmware is being updated.

This is normal.

6.5.2.2. The smart card reader on Sun Ray 3 Series Clients may stop responding to a smart card

One indication of this problem is that the smart card LED remains on after the smart card has been removed from the Sun Ray Client.

Workaround: Reboot the Sun Ray Client.

Reference: CR 12309883

6.5.2.3. Serial ports not working on Sun Ray 170 Clients

Fixed in Sun Ray Software 5.2.3 release.

When creating a new session on a Sun Ray 170 Client, the serial port device nodes are not created under the $UTDEVROOT path.

Workaround: Do not update Sun Ray 170 Clients with the Sun Ray Software 5.2 firmware if the serial port needs to be used. If you have a site with multiple Sun Ray Client models and you need to bypass the firmware upgrades on Sun Ray 170 clients, you must use individual MAC addresses to upgrade the firmware on specific clients or upgrade the firmware manually.

Reference: CR 12293607

6.5.3. GUI Issues

6.5.3.1. Admin GUI Upgrade

The Admin GUI requires a Web container that s 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 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.

Reference: CR 12204639

6.5.3.2. Remote Access

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 Admini 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.

Reference: CR 12188689

6.5.3.3. Self-Registration GUI

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

Workaround: 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.

Reference: CRs 12195258, 12196361

6.5.3.4. Multiple Authentication (Solaris)

Sometimes multiple authentications are required when the session is disconnected using a hot key sequence (the default is Shift-Pause).

Reference: CR 12249130

6.5.4. Login Issues

6.5.4.1. Sun Ray Clients hang at 26D when choosing a remote host name from `Choose Host From List` option in the dtlogin screen

When trying to log in to a remote system from the dtlogin window, choosing a remote host name from the `Options->Remote Login->Choose Host From List` option causes the client to hang at 26D.

Workaround: Enter a remote host name using the `Enter Host Name` option instead of choosing a remote host name from the list.

Reference: CR 12310031

6.5.5. Screen Issues

6.5.5.1. Video Blanking for YUV Icons (Solaris)

While the YUV icon is displayed, the screen will not go to power saver even if the Video Blanking interval option is set.

Reference: CR 12240490

6.5.5.2. No Screen Lock for Second Linux Session (Linux)

A user who creates two Linux sessions cannot create a screen lock for the second session. When Sun Ray Software needs to lock the screen, it uses `xlock` for the second session. When the user tries to lock the screen from the menu, nothing happens. The workaround is to start a `screensaver` daemon for the second session manually, to enable screen locking and stop Sun Ray Software from using `xlock`.

```
# /usr/X11R6/bin/xscreensaver -nosplash &
```

6.5.6. Audio Issues

6.5.6.1. `xmms` Player Configuration (Linux)

To configure an `xmms` player to play mp3 files, perform the following steps:

1. Change the preferences on `xmms` output plugin to add more buffering.
2. Change the buffer size to 10000 ms and the Pre-Buffer percent to 90.

   When you run `xmms`, from command line or menu, click on the **O** (letter O) on the left side of the panel to bring up the PREFERENCES menu.
3. Under the AUDIO I/O PLUGINS button, select **OUTPUT PLUGIN OSS DRIVER** and click CONFIGURE.
4. Select Buffering.
   a. The default Buffer size is 3000 ms. Change this to 10000 ms.
   b. The default Pre-buffer percent is 25. Change this to 90.
5. Click OK, then click OK on the **PREFERENCES** panel.
6. Exit `xmms` and restart it.

Reference: CR 12178869

6.5.7. Multimedia Issues

6.5.7.1. Some Adobe Flash settings dialog controls are not responsive

With the Adobe Flash acceleration component installed, some or all control elements of the Flash settings dialog might not react to mouse or keyboard events. This may include the button to close the dialog.

Workaround: Reload the entire web page in the browser.

Reference: CR 12257770

6.5.7.2. RealPlayer Rendering (Solaris)

If you press Ctrl-Moon while using XVideo to play a video clip in RealPlayer, the RealPlayer application sometimes fails to render for a long period of time.

Workaround: Click `Pause` followed by `Play` to start the the video clip playing again.

Reference: CR 12249128

6.5.7.3. Video image problems when hotdesking from two screens to one screen

Video image problems may occur when a user hotdesks a Sun Ray session from a Sun Ray 2FS Client with two screens to a Sun Ray 2 or Sun Ray 270 Client if the `uttsc` or video window is not near the left-most border of the desktop and the video is being scaled up.

Workaround:

- Keep the video near the left-most border of the desktop.
- Make sure that scaling does not occur by using the application menus or command keys to set video image size to 100%.

Reference: CR 12248506

6.5.7.4. Scaling Down Using XVideo (Solaris)

In this release, video playback using XVideo does not scaling down.

Reference: CR 12247940

6.5.7.5. Audio stops working on VC-1 playback after hotdesking from Sun Ray 2 Series Client to Sun Ray 1 Series Client

When a user running VC-1 (WMV9) video playback on Sun Ray 2 Series Client hotdesks to a Sun Ray 1 Series Client, the audio stops working.

Workaround: Relaunch Windows Media Player to play the video.

Reference: CR 12247074

6.5.7.6. Sometimes VC-1 (WMV9) video does not play on the first attempt in Windows Media Player

Workaround: Relaunch the video clip.

Reference: CR 12237505

6.5.7.7. Slow Maximized XVideo Playback in RealPlayer (Linux)

When video is played in an enlarged size (RealPlayer maximized mode), the user's X session responds very slowly, especially to menu requests.

Reference: CR 12220430

6.5.7.8. RealPlayer Application Core Dumps (Linux)

Sometimes, RealPlayer application exits with a core dump while using XVideo to play a video clip.

This problem is caused by memory corruption in the RealPlayer process. The fix is beyond the scope of Sun Ray release.

Reference: CR 12228666

6.5.8. Solaris 10 Zones

Solaris 10 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. Sun Ray Software releases are supported only in the global zone.

6.5.9. Keyboard Issues

6.5.9.1. XKB (Linux)

The following message is displayed after enabling XKB feature; however, the feature works as expected.

```
Error activating XKB configuration.
Probably internal X server problem.
```

6.5.9.2. Numeric Keypad Mapping (Linux)

Numeric keypad mapping does not work properly in Java-based Sun Ray tools such as `utsettings`, `utmhconfig`, and the registration GUI.

Workaround: Set the environment variable `_AWT_USE_TYPE4_PATCH` to false, as follows:

```
# setenv _AWT_USE_TYPE4_PATCH false
```

6.5.9.3. Keyboard Layout (Linux)

`setxkbmap` cannot be used to set layouts for keyboards on Sun Ray Clients.

6.5.10. Kiosk Issues

6.5.10.1. Set Kiosk Application Type Correctly

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).

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 clients will hang, typically with a 26D error.

Workaround: Check the specified types in the Admin GUI and correct the settings, if necessary.

Reference: CR 12195273

6.5.10.2. 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 the 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 the 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`.

6.5.10.3. Sessions May Hang After CAM Migration (Solaris)

After preserving existing CAM configurations and migrating to Kiosk Mode, using `utconfig -k` and `utcammigrate -u`, sessions that should be Kiosk sessions according to policy might 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.

6.5.11. Mass Storage Issues

6.5.11.1. Transcend flash disks do not work with USB redirection on Sun Ray 3 Series Clients

Reference: CR 13447031

6.5.11.2. Partitions and mount paths are not shown when Transcend flash disk is connected to a Sun Ray 3 Client

Fixed in Sun Ray Software 5.2.3 release.

Reference: CR 12291824

6.5.11.3. USB Operations Fail After Idle Timeout Limit

If a user fails to access a given session for longer than the screen lock idle timeout interval while an application is accessing a USB device -- for instance, while copying a large number of files to or from a USB flash drive -- the session will be locked. With RHA, NSCM, and authenticated smart cards, this means the session detaches and all USB devices disconnect from the session. This can interrupt or abort the application's access to the device.

Workaround:

- Advise users to monitor their USB device usage to avoid being timed out
- Set the timeout interval value high enough to allow I/O to complete before the interval elapses
- Disable the screen saver
- Disable RHA

> **Note**
>
> The last two alternatives are less desirable because they each remove a level of security.

6.5.11.4. Memorex Disk

Memorex disk does not work when connected to a Sun Ray 2FS Clients.

Reference: CR 12271355

6.5.12. Solaris Trusted Extensions Issues

6.5.12.1. Audio

Remove the setuid-0 bit on the `utaudio` binary.

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

6.5.12.2. Volume Control

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

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

Reference: CR 6481380

6.5.12.3. Multiple Slices/Partitions

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

Reference: CR 12195719

6.5.12.4. Flash Disk Allocation

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

Workaround: Hot-plug the device.

Reference: CR 12202377

6.5.12.5. Multihead Role Assumption

In a multihead Trusted JDS session, role assumption does not work until `utmhscreen` is removed.

Reference: CR 12240048

6.5.12.6. Multihead Screen Lock

In multihead trusted CDE session, the session cannot be retrieved once the screen has been locked manually via screen lock.

Workaround: Users should use Shift-Pause to lock their screens.

To avoid this situation by making sure that the screen cannot be locked in the normal fashion, comment out the following line in the `/etc/pam.conf` file:

```
dtsession-SunRay auth sufficient /opt/SUNWut/lib/pam_sunray.so syncondisplay
```

A second alternative is to disable RHA, either by specifying the `-D` option to `utpolicy` or by selecting **Direct Session Access Allowed** from the **Advanced/System Policy** page of the Admin GUI.

Reference: CR 12240927

6.5.12.7. Sun Ray Interconnect Configuration

The following entry should be made available in `/etc/security/tsol/tnrhdb`:

```
0.0.0.0/32:admin_low
```

Reference: CR 12247254

6.5.12.8. `xscreensaver` Links

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
```

6.5.13. Localization Issues

6.5.13.1. Swedish Locale

To enable the Swedish locale for Solaris, use the `pkgadd` command to install these packages:

```
# pkgadd -d . SUNWsuta
# pkgadd -d . SUNWsutes
# pkgadd -d . SUNWsuto
# pkgadd -d . SUNWsutwa
# pkgadd -d . SUNWsutwh
# pkgadd -d . SUNWsutwl
# pkgadd -d . SUNWskio
```

To enable the Swedish locale for Linux, use the `rpm` command to install these packages:

```
# rpm -i SUNWsuta-4.3-04.i386.rpm
# rpm -i SUNWsuto-4.3-04.i386.rpm
# rpm -i SUNWsutwa-4.3-04.i386.rpm
# rpm -i SUNWsutwh-4.3-04.i386.rpm
# rpm -i SUNWsutwl-4.3-04.i386.rpm
# rpm -i SUNWskio-4.3-04.i386.rpm
```

6.5.13.2. Portuguese Locale

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

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

To enable the Portuguese locale for Linux, use the `rpm` command to install these packages:

```
# rpm -i SUNWputo-4.1-04.i386.rpm
# rpm -i SUNWpkio-4.1-04.i386.rpm
```

6.5.13.3. `utselect` and `utwall` (Linux)

In the Simplified Chinese, Traditional Chinese, and Korean locales, `utselect` and `utwall` do not work properly in the Linux distributions.

Workaround: Remove the `utselect` and `utwall` catalog files from the appropriate locale sub-directory. This brings up `utselect` and `utwall` in English.

For the Simplified Chinese locale:

```
# rm /opt/SUNWut/lib/locale/zh_CN/LC_MESSAGES/utselect.mo
# rm /opt/SUNWut/lib/locale/zh_CN/LC_MESSAGES/utwall.mo
# rm /opt/SUNWut/lib/locale/zh_CN.utf8/LC_MESSAGES/utselect.mo
# rm /opt/SUNWut/lib/locale/zh_CN.utf8/LC_MESSAGES/utwall.mo
```

For the Traditional Chinese locale:

```
# rm /opt/SUNWut/lib/locale/zh_TW/LC_MESSAGES/utselect.mo
# rm /opt/SUNWut/lib/locale/zh_TW/LC_MESSAGES/utwall.mo
```

For the Korean locale:

```
# rm /opt/SUNWut/lib/locale/ko_KR.utf8/LC_MESSAGES/utselect.mo
# rm /opt/SUNWut/lib/locale/ko_KR.utf8/LC_MESSAGES/utwall.mo
```

6.5.14. VMware View Connector Issues

6.5.14.1. Authentication fails on VDM login screen when launching Windows 7 using Network Level Authentication (NLA)

Sun Ray Software is capable of supporting Windows Network Level Authentication (NLA), but VMware View 4.5 does not support NLA on non-Windows based View clients. You must use the standard RDP authentication with VMware View 4.5.

Workaround: To configure RDP authentication, enable RDP authentication on the guest OS and add the `-N off` option to the `uttsc` arguments field in the **KIOSK MODE** tab within the SRS Admin GUI.

6.5.14.2. Character input is not working with international keyboards

There are problems when typing some characters into Java 5 dialogs on Sun Ray.

Workaround: Install Java 6 on the Sun Ray server and modify the kiosk script to use Java 6 to execute the VMware View connector GUI.

6.5.14.3. User not returned to VMware View connector login window, but instead loops at Windows login screen

The `vdm-client.jar`, after authenticating the user's credentials, starts the standard Windows connector `uttsc` script. The `uttsc` script launches the uttsc binary in a loop which attempts to detect how and why the `uttsc` binary exited. If the `uttsc` binary exits with a 0 exit code, the `uttsc` script will attempt to restart it rather than exiting. This avoids unnecessary kiosk sessions teardowns/recreates. However, in the VDM case, this causes an error since the password provided originally by VDM is good for one login only and the user's normal user name and password cannot be used.

Workaround: Remove the looping logic from the `uttsc` script and add it to the VDM script so that the `vdm-client.jar` is relaunched inside the existing Kiosk Session.

6.5.15. Smart Card Services (PC/SC-lite) Issues

6.5.15.1. Sun Ray Connector May Hang

Removing the smart card while the light (LED) near the Sun Ray Client card slot is blinking is not recommended. Hotdesking while the smart card reader light is blinking can cause applications to freeze for up to two minutes before recovering.

Workaround: Do not remove the smart card while it is being accessed. If the application freezes, wait a few minutes: the application(s) should recover without user intervention.

Reference: CR 12208135

6.5.15.2. Resetting or Power-cycling Client Can Freeze Applications

Power-cycling or resetting Sun Ray Client during Smart Card related activities, or doing so while applications that use smart cards are running, can cause those applications to freeze for up to two minutes, or make smart cards otherwise inaccessible for two minutes.

Workaround: Avoid resetting the client while smart card-related applications are running. If an application freezes after a reset or power-cycle event, wait a few minutes: the application(s) should recover without user intervention.

PIN Prompt to Windows May Fail Occasionally

When hotdesking with a Windows connector session running, the PIN dialog may (occasionally) fail to appear. The user will get a password prompt.

The workaround is to:

1. Log out of the Windows Session.
2. Re-start the Windows connector session.
3. Log into Windows again.

6.5.16. Windows Connector Issues

6.5.16.1. Dynamic multi-monitor changes are ignored by currently running Windows sessions

Windows sessions through the Windows connector ignore multi-monitor layout or resolution changes that happen automatically or are triggered by the user (for example, the `xrandr` command).

Workaround: For a Windows session to use new multi-monitor layout or resolution information on the client, you must restart the Windows connector (run the `uttsc` command again).

6.5.16.2. uttrace command used to troubleshoot USB redirection feature does not work

Reference: CR 13086346

6.5.16.3. Xrandr not supported with Windows connector on Linux

The `-X xrandr` option with `uttsc` command is not supported when using the Windows connector on Linux. This means that with multiple monitors, the Windows session cannot determine the layout and size of the monitors if this option is used.

Workaround: Do not specify the `-X` option. By default, the `-X xinerama` option will be used to enumerate monitor information.

Reference: CR 12307403

6.5.16.4. Windows Login chime is distorted when using Windows connector on Oracle Enterprise Linux 5.5

The Windows login chime is distorted when using the `uttsc` command to log in to a Windows server running Windows 2003 R2 and Windows XP. This happens on Sun Ray servers running Oracle enterprise Linux 5.5.

Reference: CR 12305002

6.5.16.5. Windows connector may hang at the Windows welcome screen when connecting to a Windows 2008 R2 server

This hang is due to the multi-monitor enumeration process that occurs between the server and the Windows connector, and it is caused by the Windows server not sending monitor layout data to the Windows connector.

Workaround: Disable the multi-monitor enumeration process using the `uttsc -X off` command.

Reference: CR 12304470

6.5.16.6. Content becomes corrupted in an application when rapidly scrolling through the application's content

Rapid scrolling, by using the scroll bar or arrow keys, over a large amount of pages may corrupt the content being scrolled. This issue can happen with applications like browsers, PDF viewers, and word processors.

Workaround: Minimizing and maximizing the application restores the corrupted areas. Slower scrolling will also prevent this from happening.

Reference: CR 12301598

6.5.16.7. When reducing the size of a video, the video starts playing inside the image of the previously set higher video size

Reference: CR 12300252

6.5.16.8. Black mouse cursor is displayed in Windows 2008 R2 session when XRender is disabled

If Xrender extension is disabled on a client, a black mouse cursor is displayed instead of a white mouse cursor in a Windows 2008 R2 session.

Workaround: See *How to Enable or Disable Xrender* section in the *Sun Ray Software 5.2 Administration Guide*.

Reference: CR 12293338

6.5.16.9. Problems with playback of YUV encoded video

Problems include audio distortion, video slowing down, or the video hanging. This is due to buffer underruns when transferring the content to the Sun Ray client.

Reference: CR 12300480

6.5.16.10. Session freezes when Windows Media Player is used with multimedia redirection installed and firewall on

The Windows machine does not have the proper port open for the firewall. The multimedia redirection feature requires that a TCP port between 6000 and 10000 must be open for the firewall.

Workaround: Opening port 6000 should be sufficient unless some other service is using it.

Reference: CR 12289045

6.5.16.11. Scanning does not work when using scanner button

With some scanners, scanning does not work when initiated by the button on the scanner. You can still scan documents by initiating the scan from the software.

Reference: CR 12279842

6.5.16.12. Explore window not launched automatically after inserting flash disk

The Explore Window (disk contents) is not launched automatically after inserting a flash disk. The program must be manually launched. This is a different behavior than the Windows behavior on a console session.

Reference: CR 12270188

6.5.16.13. Smart cards cannot authenticate users to a Windows Terminal Server

To use smart cards to authenticate users to the Windows Terminal Server, install the Base Smart Card Cryptographic Service Provider Package update from http://support.microsoft.com/kb/909520/en-us.

This update improves screen unlocking behavior in the Sun Ray environment.

6.5.16.14. Copying a large file from Windows onto PCFS-formatted removable media does not work, due to known Linux limitations

Workaround: Use other file systems than PCFS, such as UFS, ext3, or etc.

6.5.16.15. Windows Performance Counter API Requirement

The Adobe Flash Acceleration and Sun Ray Audio Driver components require hardware that supports the Windows Performance Counter API. If the Windows Performance Counter API is not working properly, the components might fail to load or behave unexpectedly. In one known example, this problem occurs when a computer has the AMD Cool'n'Quiet technology enabled in the BIOS, which is documented in http://support.microsoft.com/kb/895980.

Chapter 7. Feedback and Support

This chapter provides information about how to provide feedback and contact support for the Sun Ray Software product.

7.1. Reporting Problems and Providing Feedback

To report a bug in the software or to ask a question, please contact the Sun Ray Software Team and Community at the Virtual Desktop Infrastructure and Sun Ray Clients General Discussion. If you need a fix for a bug, and have a Standard or Premium Support Agreement, you should open a case with Support.

If you are reporting a bug, please provide the following information where applicable:

- Description of the problem, including the situation, where the problem occurs, and its impact on your operation.
- Machine type, operating system version, browser type and version, locale and product version, including any patches you have applied, and other software that might be affecting the problem.
- Detailed steps on the method you have used, to reproduce the problem.
- Any error logs or core dumps.

7.2. Contacting Oracle Specialist Support

If you have a Sun Standard or Premium Support Agreement or Oracle Customer Support Identifier, first try to resolve your issue by using My Oracle Support at https://support.oracle.com. If you can't resolve your issue, contact the Sun Ray Software Support team directly for technical assistance. If your team is unknown, find the correct Service Center for your country, then contact Sun/Oracle Services to open a ticket directly.

The responding attendant will need the following information to get started:

- Your Sun Service Contract number. (*ex: "NK11111111"*) or Oracle Customer Support Identifier
- The product you are calling about. (*"Sun Ray Software"*)
- A brief description of the problem you would like assistance with. (*ex: "I am having problems installing my Sun Ray Software release"*)

Appendix A. Changelog

A.1. Sun Ray Software 5.2.5

The following bugs have been fixed in the Sun Ray Software 5.2.5 release update.

Sun Ray Software Core

- 12307702 - USB headset's ineffective audio controls are not marked as read-only in utsettings
- 12422817 - Sun Ray 3 Plus Client timer is 2% faster than expected
- 12617447 - Need to not advertise devices that cannot be claimed to SRS services
- 12667006 - USB audio driver needs to support underrun buffers
- 12667566 - Integrate EHCI functionality
- 12670555 - Large-size USB mass storage is not auto-mounted on Linux
- 12841622 - USB audio driver sets mic gain and speaker volume incorrectly
- 12878138 - Distorted screen seen on Sun Ray 3i Client if multiple rotations performed successively
- 12907014 - Sun Ray Client hangs at 35 OSD icon if the mouse is moved during poweroff timer expiration
- 12944033 - OSD font is too large for Entrust Identity Guard Radius challenge
- 12948240 - utuser -ef command failed to modify the user properties value
- 12978469 - Enabling AMGH causes gdm-binary to segfault
- 13000909 - Sun Ray 2 and Sun Ray 3 Series Clients reboot after faulting in network stack
- 13018665 - Xnewt crashes when two monitors are connected to Sun Ray 3 Plus Client
- 13069222 - Kiosk session timeout not working on Linux
- 13104861 - Hotdesking not working when username has period in it
- 13112454 - Xnewt crash seen when changing resolution through 'xrandr --mode' option in a multi-monitor configuration
- 13251766 - Menu text is missing in OpenOffice menus and dialog boxes
- 13252262 - ut_bind : referenced symbol not found libtutdevctx.so.1
- 13360378 - VPN fails with OSD 28B after upgrade to 5.2.x.
- 13386957 - Sun Ray Client doesn't get the DHCPv6 parameters and shows 54A OSD icon

Windows Connector

- 12303808 - uttsc sends wrong scan codes for "menu" key press
- 12310345 - Need support for US and US international keyboard layouts in n1-NL locale
- 12557485 - uttsc session fails when dragging and dropping a column in an Excel table
- 12741651 - USB storage devices are not detected and redirected after restarting Sun Ray Clients
- 12776566 - uttsc crashes with Adobe Flash acceleration

- 12915529 - Expired windows remain on screen
- 12930361 - Corrupted content when scrolling large web pages or PDF files
- 13100295 - uttsc -b option cannot be specified together with -g option under kiosk login
- 13261804 - Corrupted screen rendering when overlapping accelerated content
- 13322563 - Hangul/Hanja key problem

Smart Card Services

- 13089965 - PC/SC-lite aborts with sharing violations

A.2. Sun Ray Software 5.2.3

The following bugs have been fixed in the Sun Ray Software 5.2.3 release update.

Sun Ray Software Core

- 12283331 - utsetting error "Unrecognized timing index(33) ignored"
- 12293607 - Embedded serial port device nodes are not created for Sun Ray 170
- 12295542 - Numlock preference should be configurable
- 12308195 - Sun Ray 3 Client fails to detect some USB devices with Windows connector, such as PNY USB flash drive
- 12309720 - Sun Ray 3 Clients display black borders on Samsung Syncmaster 2223NW and Acer X203H monitors
- 12676653 - Xnewt's render extension implementation has performance inefficiencies
- 12682210 - After installing 140994-07, Microsoft Mobile Mouse 800, 1000, 4000 stops working
- 12733066 - xorg server uses bad locking algorithm
- 12748766 - Sun Ray 3/3i Client reboots unexpectedly
- 12770542 - Significant screen artifacts with Sun Ray 3 Plus Client with VDI 3.3/VRDP/Windows 7
- 12820686 - utkeylock ineffective with non-US keyboard, Xnewt remaps, clears numlock
- 12826782 - yuvfile sessions leave display resolution in confusing state

Windows Connector

- 12301913 - Windows connector needs to handle graphicsexpose events
- 12308162 - Local buffer in Xnewt does not always reflect the client content
- 12309840 - uttscadm -R should not preserve the source file attributes
- 12350273 - uttsc man page shows formatting directives in place of the availability table
- 12383578 - uttsc core dumps when using non-C locale in combination with the -M option
- 12530857 - Provide runtime option for uttsc to use either Xserver or Windows connector backing store
- 12590638 - uttsc pulldown menu does not handle UTF-8 strings correctly

- 12607826 - Selecting items is very slow when using Windows XP in kiosk mode
- 12706005 - Windows connector needs to support VRDP A/V sync information better
- 12835123 - Infinite timer loop in endstream processing
- 12902585 - VRDP accelerated stream size limit needs to increase

VMware View Connector

- 12306431 - Accentuated characters are not recognized by VMware View connector
- 12720473 - Language in VMware View connector login window is English for non-English kiosk local settings

Smart Card Services

- 12367081 - Applications using libpcsclite crashing

Sun Ray Data Store

- 12536029 - Adding smartcard user causes core dump

A.3. Sun Ray Software 5.2.1

The following bug has been fixed in the Sun Ray Software 5.2.1 release update.

- 12577446 - Sun Ray Client performace may degrade due to the firmware miscalculating bandwidth requirements