

Upgrading the SMW Software from SLES 10 SP1 to SLES 10 SP3 Base Operating System

Note: If your SMW is already running SLES 10 SP3, this technical note is not required.

This technical note provides procedures to upgrade the Cray System Management Workstation (SMW) SUSE Linux Enterprise Server 10 Service Pack 1 (SLES 10 SP1) base operating system to the SLES 10 Service Pack 3 (SLES 10 SP3) base operating system. These upgrade procedures support both the SMW hardware that is Restriction of Hazardous Substances (RoHS) compliant and the older SMW (nonRoHS-compliant) hardware.

Send e-mail to docs@cray.com with any comments that will help us to improve the accuracy and usability of this document. Be sure to include the title and number of the document with your comments. We value your comments and will respond to them promptly.



Warning: [Procedure 3](#) breaks the connection from the SMW; you should shut down your Cray XT system now.

Important: The following procedures require physical access to the SMW in order to shut down the SMW, boot the upgrade media, and install the SLES 10 SP3 upgrade.

Ensure you have the base operating system DVD that is labeled Cray-ULC10SP3 on the DVD.

Procedure 1. Performing pre-upgrade settings adjustments

Prior to upgrading the SMW to SLES 10 SP3, the following must be performed. These commands will disable the automatic console desktop identification and mounting of RAID partitions by the Gnome desktop manager in SLES 10 SP3. Automatic mounting of all detected file systems is new functionality in SLES 10 SP3. This procedure must be performed to prevent automatic mounting of RAID partitions when logging onto the SMW console. If this procedure is not performed, the RAID partitions will be mounted automatically upon login on the SMW console, causing corruption of the partitions used by the Cray mainframe.

The following commands are available as a shell script for download from Cray Software Product Services via Field Notice 5618, "SLES 10 SP3 Update for the SMW."

1. Log on to the SMW as `root`.
2. Execute the following commands:

```
smw:~ # /opt/gnome/bin/gconftool-2 --config-source=xml:readwrite:/etc/opt/gnome/gconf/gconf.xml.mandatory \
--direct -s -t boolean /system/storage/display_external_drives False

smw:~ # /opt/gnome/bin/gconftool-2 --config-source=xml:readwrite:/etc/opt/gnome/gconf/gconf.xml.mandatory \
--direct -s -t boolean /system/storage/display_internal_hard_drives False

smw:~ # /opt/gnome/bin/gconftool-2 --config-source=xml:readwrite:/etc/opt/gnome/gconf/gconf.xml.mandatory \
--direct -s -t boolean /system/storage/display_scsi_drives False

smw:~ # /opt/gnome/bin/gconftool-2 --config-source=xml:readwrite:/etc/opt/gnome/gconf/gconf.xml.mandatory \
--direct -s -t boolean /desktop/gnome/volume_manager/automount_drives False

smw:~ # /opt/gnome/bin/gconftool-2 --config-source=xml:readwrite:/etc/opt/gnome/gconf/gconf.xml.mandatory \
--direct -s -t boolean /desktop/gnome/volume_manager/automount_media False
```

Procedure 2. Shutting down the Cray XT System

1. Log on to the SMW as `crayadm` and confirm the Cray XT system is shut down.

```
crayadm@smw:~> ping boot
```

If the command responds with "alive", then the system is up and needs to be shut down.

2. Shut down the system by typing the following command.

```
crayadm@smw:~> xtbootsys -s last -a auto.xtshutdown
```

(For more information about using automation files, see the `xtbootsys(8)` man page.)

Alternatively, these commands can be executed as `root` from the boot node to shut down your system.

```
boot001:~# xtshutdown -y
boot001:~# shutdown -h now;exit
```

Procedure 3. Installing the base operating system



Warning: Make certain you have completed [Procedure 1](#) before performing this procedure to install the base operating system.

1. If the SMW is up, `su` to `root` and shut it down.

```
crayadm@smw:~> su - root
smw:~ # shutdown -h now;exit
```

2. Power up the SMW. When the BIOS power-on self-test (POST) process begins, **quickly press the Del key** after the following messages appear on the screen.

For a RoHS-compliant SMW:

```
Press DEL to run Setup
Press F12 if you want to boot from the network
Press F11 for BBS POPUP
Initializing USB Controllers .. Done.
...
USB Device(s): 1 Keyboard, 1 Mouse
```

(The last line in this example indicates that the SMW is ready to accept keyboard input.)

For a nonRoHS-compliant SMW:

```
Press DEL to run Setup
Press F12 if you want to boot from the network
Press F11 for BBS POPUP
```

After the POST process completes, the **BIOS Setup Utility** screen displays.

3. Use the right-arrow key to select the **Boot** menu. Use the down arrow to highlight **Boot Device Priority**. Press the Enter key.
4. Verify the boot priority list.

For a RoHS-compliant SMW, the list is ordered:

```
1st Boot Device [HDD:3M-ST3320620AS]
2nd Boot Device [CD/DVD:PM-LITE-ON]
3rd Boot Device [1st Floppy Drive]
4th Boot Device [2-NVIDIA-BootAgen]
```

For a nonRoHS-compliant SMW, the list is ordered:

```
1st Boot Device [PM-ST3120026A]
2nd Boot Device [SS-LITE-ON DVDRW S]
3rd Boot Device [1st FLOPPY DRIVE] (optional)
4th Boot Device [MBA v6.2.11 Slot 0] (optional)
```

If necessary, change the boot priority list so that the local hard drive is the first boot device and the local CD/DVD drive is the second boot device.

5. Press the Esc key to return to the **BIOS Setup Utility** screen.
6. Press the down arrow key to select **Hard Disk Drives**, and press the Enter key.
7. Verify that the drive order shown corresponds to the physical placement of the hard drives in the SMW.

For a RoHS-compliant SMW, the drives should be ordered as follows:

```
1st Drive      [HDD:3M-...]
2nd Drive      [HDD:4M-...]
3rd Drive      [HDD:5M-...]
```

For a nonRoHS-compliant SMW, the drives should be ordered as follows:

```
1st Drive [PM-...]
2nd Drive [SM-...]
```

8. Press the `Esc` key to return to the **Boot** menu. Then press the left arrow to select the **Main** menu. From the **Main** menu, use the down arrow to select the **System Time** option. Set the system date and time to the time at the Coordinated Universal Time (UTC) time zone. This time can be found by running the command `date -u` on any system.
9. Insert the base operating system DVD labeled `Cray-ULC10SP3` into the CD/DVD drive.
10. Press the `F10` key to save the BIOS changes. A dialog box with the question **Save configuration changes and exit setup?** displays.

Note: If you want to adjust a setting, it is possible to cancel acceptance of BIOS changes at this point of the upgrade. To do so, press `Tab` to highlight `Cancel`, and then press the `Enter` key to cancel acceptance of BIOS changes.

- Press the `Enter` key to save changes, exit the setup utility, and automatically reboot the SMW.
11. When the POST process begins again, **quickly press the `F11` key** to enter `Boot Device Selection` mode.

```
Press DEL to run Setup
Press F12 if you want to boot from the network
Press F11 for BBS POPUP
Initializing USB Controllers .. Done.
...
USB Device(s): 1 Keyboard, 1 Mouse
```

(The last line in this example indicates that the SMW is ready to accept keyboard input.)

12. At the **Please select boot device** prompt, use the up-arrow and down-arrow keys to select the CD/DVD drive, and press the `Enter` key.
13. Using the down arrow key, **within 10 to 15 seconds** after the **SUSE Linux Enterprise Server** boot menu displays, quickly scroll down and select **Installation**.

```
- Boot from Hard Disk
- Installation
- Installation - ACPI Disabled
- Installation - Local ACPI Disabled
- Installation - Safe Settings
- Rescue System
- Memory Test
```

Then press the `Enter` key.

If you do not use the down arrow key within 10 to 15 seconds to select an action, the first action on this boot menu list is taken (that is, booting from the SMW's disk).

The **Installation Settings** window displays.

14. Confirm the language for the SMW.

English (US) is the default primary language. To change the primary language, select your desired primary language from the menu. Then click on **Next** at the bottom of the window.

15. The distribution license agreement will be displayed. Click **Yes** to accept the agreement and then click **Next**.
16. Select **Update**.



Warning: Be sure to select only **Update**. **Do not** select New Installation or all existing data on the disk drive will be lost.

17. Click **Next**.
18. The **Select for Update** window, indicating **Partition or System to Update** should show `/dev/sda2` (RoHS systems) or `/dev/hda2` (non-RoHS systems).
19. Click **Next**.
20. On the **Installation Settings** window, the Packages section will state **Cannot solve all conflicts. Manual intervention is required**. Click on **Packages**.
21. A window indicating dependency conflicts will be displayed.

These dependency conflicts should resolve by clicking **unlock all resolvables** and clicking **OK - Try Again**.
22. Click **Accept**.
23. A window indicating automatic changes will be displayed. These are additional update packages being installed to resolve dependencies to the updated software.
24. Click **Continue**.
25. Continue the Installation.

On the **Installation Settings** window, click on **Accept** at the bottom of the window. The **Confirm Update** window appears. If you want to check or change settings, click on **Back**; otherwise, click on **Start Update** to confirm and to install the operating system.

Note: A pop-up window about confirming hardware detection may display. If this occurs, click on **continue**.

26. The installation runs for approximately 30 minutes. The process automatically reboots the SMW from the hard disk, and the installation continues with system configuration.

27. A **Test Internet Connection** window will appear. This function should not be utilized. Select **No**, and click on **Next**.
28. The SLES 10 SP3 release notes will be displayed. Click on **Next** to continue.
29. The **installation completion** window will be displayed on the screen. Two options **Disable ZMD Service** and **Clone for Autoyast** are located near the bottom of the display.
 - a. Select the option to disable the ZMD service.
 - b. Deselect the option to disable the clone for autoyast.
30. Click **Finish**.
31. At this point, the system comes up the rest of the way to multi-user mode for login on the console. The base operating system, `Cray-ULC10SP3`, is now installed.

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Version 4.01 Published November 2009 Updated document with the complete path to the gconftool-2 command. Supports the Cray System Management Workstation (SMW) running the SMW 4.0 release or the SMW 3.1 release with the SLES 10 SP1 base operating system.

Version 4.0 Published October 2009 Supports the Cray System Management Workstation (SMW) running the SMW 4.0 release or the SMW 3.1 release with the SLES 10 SP1 base operating system.