

Sun Ultra 27 Workstation Linux, OpenSolaris and Solaris Operating System Installation Guide



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Preface

The *Sun Ultra™ 27 Workstation Linux, OpenSolaris and Solaris Operating System Installation Guide* provides instructions for installing and configuring the Solaris and Linux operating systems.

Typographic Conventions

The following table describes the typographic conventions that are used in this book.

TABLE P-1 Typographic Conventions

Typeface	Meaning	Example
AaBbCc123	The names of commands, files, and directories, and onscreen computer output	Edit your <code>.login</code> file. Use <code>ls -a</code> to list all files. <code>machine_name%</code> you have mail.
AaBbCc123	What you type, contrasted with onscreen computer output	<code>machine_name% su</code> Password:
<i>aabbcc123</i>	Placeholder: replace with a real name or value	The command to remove a file is <i>rm filename</i> .
<i>AaBbCc123</i>	Book titles, new terms, and terms to be emphasized	Read Chapter 6 in the <i>User's Guide</i> . <i>A cache</i> is a copy that is stored locally. Do <i>not</i> save the file. Note: Some emphasized items appear bold online.

Shell Prompts in Command Examples

The following table shows the default UNIX® system prompt and superuser prompt for the C shell, Bourne shell, and Korn shell.

TABLE P-2 Shell Prompts

Shell	Prompt
C shell	machine_name%
C shell for superuser	machine_name#
Bourne shell and Korn shell	\$
Bourne shell and Korn shell for superuser	#

Documentation, Support, and Training

The Sun web site provides information about the following additional resources:

- [Documentation \(http://www.sun.com/documentation/\)](http://www.sun.com/documentation/)
- [Support \(http://www.sun.com/support/\)](http://www.sun.com/support/)
- [Training \(http://www.sun.com/training/\)](http://www.sun.com/training/)

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Please include the title and part number of your document with your feedback: *Sun Ultra 27 Workstation Linux and Solaris Operating System Installation Guide*, 820-6772.

Change History

The following changes have been made to the documentation set.

- March 2009, initial documentation was published.
- August 2009, OpenSolaris installation instructions were added.

Installation Overview

This guide provides procedures for installing an operating system (OS) on your workstation if you do not want to use an optional preinstalled OS from Sun.

- For OpenSolaris installation instructions, see [Chapter 2, “Installing the OpenSolaris Operating System.”](#)
- For Solaris OS installation instructions, see [Chapter 3, “Installing the Solaris Operating System.”](#)
- For Linux OS installation instructions, see [Chapter 4, “Installing the Linux Operating System.”](#)
- For Linux and Solaris remote images, see [Appendix A, “Installing Linux, OpenSolaris and Solaris OS Remote Images.”](#)

Process Flow

[Figure 1–1](#) shows the process flow for installing an operating system on your workstation.

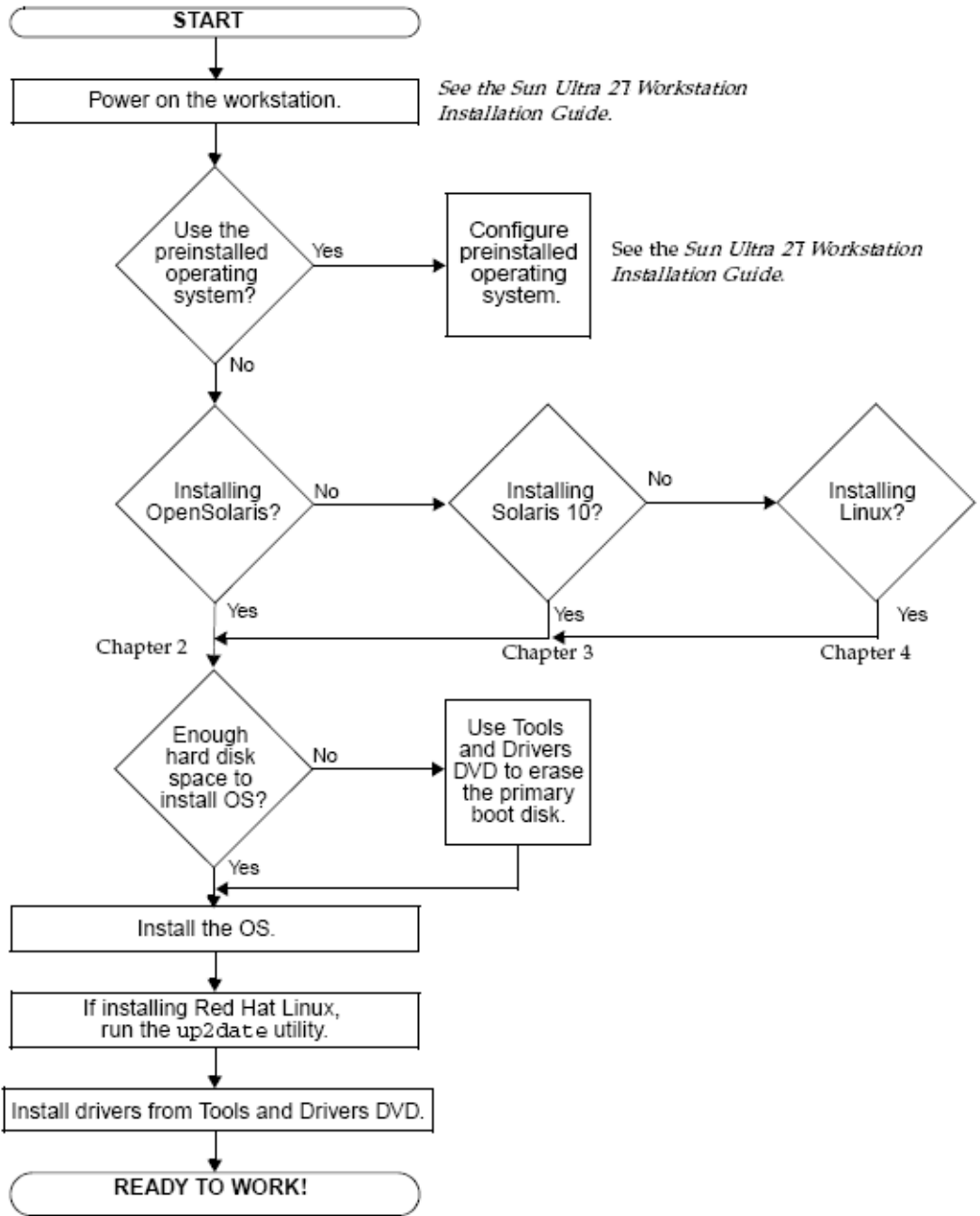


FIGURE 1-1 Installation Flow Diagram

Installing the OpenSolaris Operating System

This chapter provides information about installing the OpenSolaris OS on your workstation if your workstation did not come with the preinstalled OpenSolaris OS option.

OpenSolaris 2009.06 (x86/x64) is the minimum version supported for your Sun Ultra 27 Workstation. If you do not already have the latest LiveCD distribution media, you can download it from:

<http://www.opensolaris.com/get/index.jsp>

Note – For information describing how to configure the optional preinstalled OpenSolaris OS image, refer to the *Sun Ultra 27 Workstation Installation Guide* (820-6771) for setup instructions. Do not follow the instructions listed here.

This chapter includes the following sections:

- “System Requirements” on page 11
- “Preparing for OpenSolaris OS Installation” on page 12
- “Installing OpenSolaris” on page 14
- “Post OpenSolaris Installation Tasks” on page 15

System Requirements

The following table outlines the various requirements for installing the OpenSolaris 2009.06 operating system on your workstation.

TABLE 2-1 OpenSolaris Installation Requirements

Requirement	Description
Memory	The minimum requirement is 512 Mbytes.
Disk Space	Recommended size is at least 9 Gbytes. A minimum of 3.2 Gbytes is required.
Multiboot Capability	<p>If you are installing the OpenSolaris software on a system that will have more than one operating system installed, use the <code>fdisk</code> command or a third-party partitioning tool to create a new partition or to make adjustments to pre-existing partitions. See:</p> <p>http://dlc.sun.com/osol/docs/content/dev/getstart/partition.html</p> <p>For more information about preparing a multiboot environment for specific operating systems, see:</p> <p>http://dlc.sun.com/osol/docs/content/dev/getstart/prepmulti.html</p>

Preparing for OpenSolaris OS Installation

The following procedures describe how to prepare your workstation for OpenSolaris installation.

- “Erasing a Currently Installed OS” on page 12
- “Setting the BIOS for the OpenSolaris OS” on page 13
- “Setting the LSI RAID Configuration” on page 13

Erasing a Currently Installed OS

To erase the currently installed OS, you can use the Tools and Drivers DVD to erase partitions on the boot hard drive. If you use the Erase Primary Boot Hard Disk option, it erases all partitions *except* the diagnostic partition.



Caution – The Erase Primary Boot Hard Disk option erases all partitions and all user data on the hard drive, except the diagnostic partition. Be sure to back up all data on the hard drive before performing this action.

The system diagnostic software requires the diagnostic partition to write its test scripts. Otherwise, the only output is the display on the diagnostic screen.

If you accidentally remove the diagnostic partition, you can re-create and mount it using the Create Diagnostic Partition option on the Tools and Drivers DVD. See the *Sun Ultra 27 Workstation Service Manual* for instructions.

▼ To Erase the Currently Installed OS

To erase all partitions on primary boot hard drive except the diagnostic partition:

- 1 **Back up any data on the workstation's boot hard disk that you want to save.**
- 2 **Insert the Tools and Drivers DVD into the workstation DVD drive and power cycle the workstation.**

The workstation will boot from the Tools and Drivers DVD.

- 3 **When the Tools and Drivers main menu appears, select the following option:**

Erase Primary Boot Hard Disk

This option erases all partitions currently located on the primary hard drive, except for the diagnostic partition. The diagnostic partition, if it is present, remains untouched.

Setting the BIOS for the OpenSolaris OS

SATA must be configured as AHCI in the BIOS. If the BIOS has not been changed (still at factory defaults), it is already set correctly and you can skip this section. To verify the SATA configuration setting in the BIOS, do the following:

▼ To Set the BIOS for the OpenSolaris OS

- 1 **Power on the workstation.**
- 2 **Press the F2 key at the Sun logo screen to enter the BIOS Setup menu.**
- 3 **Go to Advanced > Integrated Devices.**
- 4 **If necessary, change the Configured SATA As option to AHCI.**
- 5 **Press the F10 key to save your changes and exit the BIOS.**

Setting the LSI RAID Configuration

If your workstation has multiple disks, you can use this procedure to set up a mirrored RAID volume. The process of RAID creation for the LSI controller included in your workstation is fully described in the *Sun LSI 106x RAID User's Guide* (820–4933).

▼ To Set the LSI RAID Configuration

- 1 **Power on the workstation.**

- 2 **During the BIOS portion of the boot, press Ctrl-C when prompted to open the LSI configuration tool.**
- 3 **Select the SAS controller you want and press Enter.**
The adapter properties screen appears.
- 4 **Select RAID properties and press Enter.**
The RAID properties screen appears.
- 5 **Select the type of RAID volume you wish to create.**
The Create New Array screen appears.
- 6 **Select the disks you would like to include in the RAID volume.**



Caution – Do not mix SAS and SATA disks within a RAID volume.

- 7 **Add global hot spares, as needed.**
- 8 **When the volume has been fully configured, press C.**
- 9 **After the array is configured, save changes and exit.**

Note – After you create IM and IME RAID arrays, the system may perform an automatic reboot to enable the write cache feature.

Installing OpenSolaris

You have two options for installing OpenSolaris on your workstation:

- **Install OpenSolaris locally (at the workstation) using the LiveCD.**

To install OpenSolaris from the LiveCD, refer to the *Getting Started with OpenSolaris 2009.06* guide on the web: <http://dlc.sun.com/osol/docs/content/2009.06/getstart/>

- **Install OpenSolaris over the network using the automated installer.**

If you want to install the OpenSolaris operating system (OS) on multiple client systems on a network, you can use the automated installer (AI) to accomplish that task. The automated installer performs essentially “hands-free” network installations of the OpenSolaris OS. For information on using the automated installer, refer to the *OpenSolaris Automated Installer Guide* on the web at: <http://dlc.sun.com/osol/docs/content/2009.06/AIinstall/index.html>

After completing one of the above installation options, proceed to “[Post OpenSolaris Installation Tasks](#)” on page 15.

Post OpenSolaris Installation Tasks

After completing the OpenSolaris installation and rebooting the Operating System, review the following post installation tasks and, if necessary, perform the tasks that are applicable to your system.

- “[Installing Device Drivers to Support Additional Hardware](#)” on page 15
- “[Installing Updates](#)” on page 15

Installing Device Drivers to Support Additional Hardware

The Device Driver Utility enables you to connect to the Image Packaging System (IPS) and use it to search for device drivers for hardware in your system that might not have a driver installed.

To start the Device Driver Utility, choose **Applications > System Tools > Device Driver Utility**.

For more about device drivers and using the Device Driver Utility, refer to:

<http://d1c.sun.com/osol/docs/content/dev/getstart/devdriver.html>

Installing Updates

After installing the OpenSolaris 2009.06 operating system, you may find that some of the software applications that you use on a regular basis are not immediately available to you. You may also want to check for the latest updates and fixes available after the operating system was released. You can install software applications or package updates from a package repository, by using either the Package Manager GUI client that is used by IPS or the IPS command-line interface (CLI).

Directions for accessing and installing updates can be found at:

<http://d1c.sun.com/osol/docs/content/dev/getstart/new-user.html>

Installing the Solaris Operating System

This chapter provides information about installing the Solaris OS on your workstation, if you do not want to use the optional preinstalled Solaris OS.

Solaris 10 10/08 (x86/x64) is the minimum version supported for your Sun Ultra 27 Workstation. If you do not already have the latest CD distribution media, you can download it from:

<http://www.sun.com/software/solaris/releases.jsp>

Note – For information describing how to configure the optional preinstalled Solaris OS image, refer to the *Sun Ultra 27 Workstation Installation Guide* (820-6771) for setup instructions. Do not follow the instructions listed here.

This chapter includes the following sections:

- “System Requirements” on page 17
- “Preparing for the Solaris OS Installation” on page 18
- “Installing the Solaris OS” on page 20
- “Installing Drivers” on page 20

System Requirements

The following table outlines the various requirements for installing the Solaris 10 operating system on your workstation.

Requirement	Description
Memory	Minimum 1024 MB of physical RAM

Requirement	Description
Disk Space	Minimum 10 GB of available hard drive space

Preparing for the Solaris OS Installation

The following procedures describe how to prepare your workstation for Solaris installation.

- “Erasing the Currently Installed OS” on page 18
- “Setting the BIOS for the Solaris OS” on page 19
- “Setting the LSI RAID Configuration” on page 19

Erasing the Currently Installed OS

To erase the currently installed OS, you can use the Tools and Drivers DVD to erase partitions on the boot hard drive. If you use the Erase Primary Boot Hard Disk option, it erases all partitions *except* the diagnostic partition.



Caution – The Erase Primary Boot Hard Disk option erases all partitions and all user data on the hard drive, except the diagnostic partition. Be sure to back up all data on the hard drive before performing this action.

The system diagnostic software requires the diagnostic partition to write its test scripts. Otherwise, the only output is the display on the diagnostic screen.

If you accidentally remove the diagnostic partition, you can re-create and mount it using the Create Diagnostic Partition option on the Tools and Drivers DVD. See the *Sun Ultra 27 Workstation Service Manual* for instructions.

▼ To Erase the Currently Installed OS

To erase all partitions on primary boot hard drive except the diagnostic partition:

- 1 Back up any data on the workstation's boot hard disk that you want to save.**
- 2 Insert the Tools and Drivers DVD into the workstation DVD drive and power cycle the workstation.**

The workstation will boot from the Tools and Drivers DVD.

- 3 When the Tools and Drivers main menu appears, select the following option:**

Erase Primary Boot Hard Disk

This option erases all partitions currently located on the primary hard drive, except for the diagnostic partition. The diagnostic partition, if it is present, remains untouched.

Setting the BIOS for the Solaris OS

SATA is configured as AHCI in the BIOS by default.

- If the BIOS was not changed, you do not need to perform this setup.
- To verify that the Configured SATA As option in the BIOS is set correctly, do the following.

▼ To Set the BIOS for the Solaris OS

- 1 Power on the workstation.
- 2 Press the F2 key at the Sun logo screen to enter the BIOS Setup menu.
- 3 Go to **Advanced > Integrated Devices**.
- 4 If necessary, change the **Configured SATA As** option to **AHCI**.
- 5 Press the F10 key to save your changes and exit the BIOS.

Setting the LSI RAID Configuration

If your workstation has multiple disks, you can use this procedure to set up a mirrored RAID volume. The process of RAID creation for the LSI controller included in your workstation is fully described in the *Sun LSI 106x RAID User's Guide* (820–4933).

▼ To Set the LSI RAID Configuration

- 1 Power on the workstation.
- 2 During the BIOS portion of the boot, press **Ctrl-C** when prompted to open the LSI configuration tool.
- 3 **Select the SAS controller you want and press Enter.**
The adapter properties screen appears.
- 4 **Select RAID properties and press Enter.**
The RAID properties screen appears.

- 5 **Select the type of RAID volume you wish to create.**

The Create New Array screen appears.

- 6 **Select the disks you would like to include in the RAID volume.**



Caution – Do not mix SAS and SATA disks within a RAID volume.

- 7 **Add global hot spares, as needed.**
- 8 **When the volume has been fully configured, press C.**
- 9 **After the array is configured, save changes and exit.**

Note – After you create IM and IME RAID arrays, the system may perform an automatic reboot to enable the write cache feature.

Installing the Solaris OS

You have two options for installing Solaris 10 operating system (OS) on your workstation:

- **Install Solaris locally (at the workstation) using a distribution CD.**

To install Solaris 10 OS from a distribution CD, refer to the *Solaris 10 OS Installation Guide: Basic Installations* on the web in the documentation collection for the version of Solaris you are installing: <http://docs.sun.com/app/docs/prod/solaris.10>

- **Install Solaris over the network using a previously created remote image.**

If you want to install the Solaris 10 OS on multiple client systems on a network, refer to “Installing the Solaris Operating System From a JumpStart Server” on page 33

After completing one of the above installation options, proceed to “Installing Drivers” on page 20.

Installing Drivers

After installing the OS, run the installation script provided on the Tools and Drivers DVD to install the drivers that correspond to your OS.

The Tools and Drivers DVD is included with your workstation.

Note – The Tools and Drivers DVD also contains the tools to re-create and mount the diagnostic partition. You should not have to do this unless you accidentally erased it. See the *Sun Ultra 27 Workstation Service Manual* for details.

Perform this procedure to install drivers if you are performing a new installation of the Solaris OS.

▼ To Install Drivers

1 Log in to the system as superuser.

2 Insert the Tools and Drivers DVD into the DVD drive.

The DVD is automounted by the Solaris OS.

3 Change to the `/cdrom/cdrom0/drivers/sx86` directory by typing the following command:

```
# cd /cdrom/cdrom0/drivers/sx86
```

4 Run the installation script by typing the following command:

```
# ./install.sh
```

The system drivers are installed.

The script prompts you to reboot the system for changes to take effect.

5 Press the Y key to reboot, or the N key to allow a manual reboot.

6 Remove the DVD from the DVD drive.

7 When prompted for networking information on your system, enter the networking information for your server.

Installing the Linux Operating System

This chapter provides information about installing the Linux OS on your workstation.

The following Linux operating systems (or later versions) are supported for this workstation:

- Red Hat Enterprise Linux Client Release 5.3, 32-bit and 64-bit
- SUSE Linux Enterprise Desktop (SLED) 10 SP2, 64-bit only

You can order Red Hat Enterprise Linux or SUSE Linux Enterprise Desktop for the workstation from the following Sun web site:

<http://www.sun.com/software/linux/index.html>

This chapter includes the following sections:

- “System Requirements” on page 23
- “Preparing for Linux Installation” on page 24
- “Installing the Linux OS” on page 26
- “Installing Drivers” on page 26

System Requirements

Requirements for Linux vary. Refer to the documentation for the supported version you intend to install.

- For Red Hat Enterprise Linux, refer to: <http://www.redhat.com/docs/manuals/enterprise/#RHEL5>
- For SUSE Linux Enterprise, refer to: <http://www.novell.com/documentation/sled10/>

Preparing for Linux Installation

The following procedures describe how to prepare your workstation for Solaris installation.

- “Erasing the Currently Installed OS” on page 24
- “Setting the BIOS for Linux” on page 25
- “Setting the LSI RAID Configuration” on page 25

Erasing the Currently Installed OS

To erase the currently installed OS, you can use the Tools and Drivers DVD to erase partitions on the boot hard drive. If you use the Erase Primary Boot Hard Disk option, it erases all partitions *except* the diagnostic partition.



Caution – The Erase Primary Boot Hard Disk option erases all partitions and all user data on the hard drive, except the diagnostic partition. Be sure to back up all data on the hard drive before performing this action.

The system diagnostic software requires the diagnostic partition to write its test scripts. Otherwise, the only output is the display on the diagnostic screen.

If you accidentally remove the diagnostic partition, you can re-create and mount it using the Create Diagnostic Partition option on the Tools and Drivers DVD. See the *Sun Ultra 27 Workstation Service Manual* for instructions.

▼ To Erase the Currently Installed OS



Caution – The Erase Primary Boot Hard Disk option erases all partitions and all user data on the hard drive, except the diagnostic partition. Be sure to back up all data on the hard drive before performing this action.

To erase all partitions on the boot hard drive, except the diagnostic partition:

- 1 Back up any data on the workstation's boot hard disk that you want to save.**
- 2 Insert the Tools and Drivers DVD into the workstation DVD drive and power cycle the workstation.**

The workstation will boot from the Tools and Drivers DVD.

- 3 When the Tools and Drivers main menu appears, select the following option:**

Erase Primary Boot Hard Disk

This option erases all partitions currently located on the primary hard drive, except for the diagnostic partition. The diagnostic partition, if it is present, remains untouched.

Setting the BIOS for Linux

SATA is configured as AHCI in the BIOS by default. To verify that this option is set correctly in the BIOS, do the following procedure:

▼ To Set the BIOS for Linux

- 1 Power on the workstation.
- 2 Press the F2 key at the Sun logo screen to enter the BIOS Setup menu.
- 3 Go to **Advanced > Integrated Devices**.
- 4 If necessary, change the **Configured SATA** as option to **AHCI**.
- 5 Press the F10 key to save your changes and exit the BIOS.

Setting the LSI RAID Configuration

If your workstation has multiple disks, you can use this procedure to set up a mirrored RAID volume. The process of RAID creation for the LSI controller included in your workstation is fully described in the *Sun LSI 106x RAID User's Guide* (820–4933).

▼ To Set the LSI RAID Configuration

- 1 Power on the workstation.
- 2 During the BIOS portion of the boot, press **Ctrl-C** when prompted to open the LSI configuration tool.
- 3 Select the **SAS controller you want** and press **Enter**.
The adapter properties screen appears.
- 4 Select **RAID properties** and press **Enter**.
The RAID properties screen appears.
- 5 Select the **type of RAID volume you wish to create**.
The Create New Array screen appears.

- 6 Select the disks you would like to include in the RAID volume.



Caution – Do not mix SAS and SATA disks within a RAID volume.

- 7 Add global hot spares, as needed.
- 8 When the volume has been fully configured, press C.
- 9 After the array is configured, save changes and exit.

Note – After you create IM and IME RAID arrays, the system may perform an automatic reboot to enable the write cache feature.

Installing the Linux OS

Install Linux from distribution media, as described in your Linux documentation.

- For Red Hat Enterprise Linux, refer to: <http://www.redhat.com/docs/manuals/enterprise/#RHEL5>
- For SUSE Linux Enterprise, refer to: <http://www.novell.com/documentation/sled10/>

Note – If you are installing the Red Hat Enterprise Linux OS, after installing the OS but before installing the video drivers, run the `up2date` utility. If you have already installed the NVIDIA video drivers, run the `install.sh` script after running `up2date`.

Installing Drivers

After installing the OS, run the installation script provided on the Tools and Drivers DVD to install the drivers that correspond to your OS.

The Tools and Drivers DVD is included with your workstation.

Note – The Tools and Drivers DVD also contains the tools to recreate and mount the diagnostic partition. You should not have to do this unless you accidentally erased it. See the *Sun Ultra 27 Workstation Service Manual* for details.

▼ To Install the Linux Drivers

1 Log in to the system as superuser.

2 Insert the Tools and Drivers DVD into the DVD drive and type:

```
# cd /mountpoint/drivers/linux/operating_system
```

Where:

mountpoint is the directory to which the DVD is mounted.

operating_system is the type of Linux OS installed on the workstation.

- If the directory does not exist, the DVD will not automount. You need to mount the DVD and change to the correct directory as shown in [Step 3](#) and [Step 4](#).
- If you are able to access the *operating_system* directory, go to [Step 5](#).

3 If the DVD does not automount, open a terminal window and mount the DVD by typing the following command:

```
# mount -o ro /dev/cdrom /mountpoint
```

Where *mountpoint* is the appropriate mount point for the OS and optical drive type.

For example:

```
# mount -o ro /dev/cdrom /mnt/dvdrom
```

4 Change to the */mountpoint/drivers/linux/operating_system* directory.

Where:

mountpoint is the directory to which the DVD is mounted.

operating_system is the type of Linux OS installed on the workstation.

For example:

```
# cd /mnt/dvdrom/drivers/linux/red_hat
```

5 Run the installation script by typing the following command:

```
# ./install.sh
```

This script does not execute if the X server is running.

- If the script exits and you receive an error message, go to [Step 6](#).
- If the script executes correctly, go to [Step 7](#).

- 6 If the script exits and you receive an error message, perform the following procedure to disable the X server:
 - a. Type the following at the system prompt:
`% init 3`
 - b. Log in as superuser.
 - c. Repeat [Step 4](#) and [Step 5](#).
- 7 Eject the DVD after the driver installation is complete.
- 8 Reboot the workstation.

Installing Linux, OpenSolaris and Solaris OS Remote Images

This appendix describes how to install Linux and the Solaris OS from remote images. It includes the following sections:

- “Installing the Linux Operating System From a PXE Server” on page 29
- “Installing the OpenSolaris Operating System Using the Automated Installer” on page 31
- “Installing the Solaris Operating System From a JumpStart Server” on page 33

Installing the Linux Operating System From a PXE Server

If you want to install the Linux operating system (OS) on multiple client systems on a network, you can use a PXE (Preboot Execution Environment) to accomplish that task.

Before You Begin

- Set up your PXE server that will hold the OS images for your client.
- Setup the install client image on the PXE server. For Red Hat Linux, this would involve creating a boot media image with a kickstart file, or making the kickstart file available on the PXE server. For SUSE Linux, this would involve creating an installation media image using YaST, and making the image available on the PXE server.

Refer to the Linux vendor’s documentation for details on various deployment options:

- For Red Hat Enterprise Linux Client, see: <http://www.redhat.com/docs/manuals/enterprise/#RHEL5>
- For SUSE Linux Enterprise Desktop, see: <http://www.novell.com/documentation/sled10/#administration>

▼ To Install the Linux Operating System From a PXE Server

- 1 Power cycle the workstation.
- 2 Hold down the F8 key until you see the BBS Popup menu.

This menu allows you to select a boot device.



- 3 Select a Network: IBA GE Slot entry and press Enter.

The network card selected must be connected to the network and be accessible by the PXE server.

Note – If the network card is properly connected to the network but does not boot, it may be necessary to configure the network card for booting through the workstation's BIOS configuration program.

The network card boots and after receiving the correct response from the DHCP server, displays the Boot Agent message similar to:

```
Intel(R) Boot Agent PXE Base Code (PXE-2.1 build 0.86)
Copyright(C) 1997-2007, Intel Corporation
```

```
CLIENT MAC ADDR 00 14 4F 29 04 12 GUID FF2000008 FFFF FFFF FFFF 7BDA264F1400
CLIENT IP: 10.6.68.29 MASK: 255.255.255.0 DHCP IP: 10.6.68.49
GATEWAY: 10.6.68.1
```

- 4 When prompted, press F12 for a network service boot.

The PXE image menu will be displayed.

- 5 Select the image that you want to install.
- 6 Reboot when the installation is complete.
- 7 Install the workstation–specific drivers from the Tools and Drivers DVD as described in [“Installing Drivers” on page 26](#), unless your client image is configured to preload the drivers.

Installing the OpenSolaris Operating System Using the Automated Installer

If you want to install the OpenSolaris operating system (OS) on multiple client systems on a network, you can use the automated installer (AI) to accomplish that task. The automated installer performs essentially “hands-free” network installations of the OpenSolaris OS.

Before You Begin

- If you have not used the automated installer before, review the Automated Installer Task Map at: <http://dlc.sun.com/osol/docs/content/2009.06/AIinstall/tasks.html>
- If you have already set up an install server, you can go to the instructions on how to Administer an Automated Install Server at: <http://dlc.sun.com/osol/docs/content/2009.06/AIinstall/administer.html>
- Setup the install client image on the Automated Install Server, described at: <http://dlc.sun.com/osol/docs/content/2009.06/AIinstall/client.html>

▼ Installing the OpenSolaris Operating System From an Automated Install Server

- 1 Power cycle the workstation.
- 2 Hold down the F8 key until you see the BBS Popup menu.
This menu allows you to select a boot device.



3 Select a Network: IBA GE Slot entry and press Enter.

The network card selected must be connected to the network and be accessible by the Automated Install server.

Note – If the network card is properly connected to the network but does not boot, it may be necessary to configure the network card for booting through the workstation's BIOS configuration program.

The network card boots and after receiving the correct response from the DHCP server, displays the Boot Agent message similar to:

```
Intel(R) Boot Agent PXE Base Code (PXE-2.1 build 0.86)
Copyright(C) 1997-2007, Intel Corporation

CLIENT MAC ADDR 00 14 4F 29 04 12 GUID FF2000008 FFFF FFFF FFFF 7BDA264F1400
CLIENT IP: 10.6.68.29 MASK: 255.255.255.0 DHCP IP: 10.6.68.49
GATEWAY: 10.6.68.1
```

4 When prompted, press F12 for a network service boot.

The AI image menu will be displayed. Typically, there should be only one entry, for example:
OpenSolaris 2009.06 snv_111 X86

5 Select the OpenSolaris image and press Enter.

Note – The image is selected automatically after a timeout.

The OpenSolaris OS installation will start and the workstation will reboot when it is complete.

Installing the Solaris Operating System From a JumpStart Server

Note – Before you begin, build and place on the JumpStart™ server a Solaris image that includes the Intel Ethernet Drivers (e1000g). The Solaris OS does not include e1000g drivers. For more information about JumpStart installations, see the *Solaris 10 7/07 Installation Guide: Custom JumpStart and Advanced Installations*, 819-5778.

▼ Install the Solaris Operating System from a JumpStart Server

- 1 Power cycle the workstation.
- 2 Hold down the F8 key until you see the BBS Popup menu.

This menu allows you to select a boot device.



- 3 Select a Network: IBA GE Slot entry and press Enter.

The network card selected must be connected to the network and be accessible by the JumpStart server.

Note – If the network card is properly connected to the network but does not boot, it may be necessary to configure the network card for booting through the workstation's BIOS configuration program.

The network card boots and after receiving the correct response from the DHCP server, displays the Boot Agent message similar to:

```
Intel(R) Boot Agent PXE Base Code (PXE-2.1 build 0.86)
Copyright(C) 1997-2007, Intel Corporation
```

```
CLIENT MAC ADDR 00 14 4F 29 04 12 GUID FF2000008 FFFF FFFF FFFF 7BDA264F1400
CLIENT IP: 10.6.68.29 MASK: 255.255.255.0 DHCP IP: 10.6.68.49
GATEWAY: 10.6.68.1
```

4 When prompted, press F12 for a network service boot.

The PXE image menu will be displayed if there is more than one image available.

5 Select the Solaris image to install, if multiple are listed, and press Enter.

6 The operating system is installed and the workstation reboots when it is complete.

The following are the log files for the JumpStart installation:

```
/var/sadm/system/logs/install_log
    begin_log
    finish_log
    sysidtool.log
```

7 Install drivers as described in [“Installing Drivers” on page 20](#), unless your JumpStart image is configured to preload the drivers.

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