



Sun Fire™ V60x and Sun Fire V65x Server Solaris™ Operating Environment Installation Guide

Sun Microsystems, Inc.
4150 Network Circle
Santa Clara, CA 95054 U.S.A.
650-960-1300

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Preface

This document contains instructions for installing the Solaris™ 9 operating environment onto a Sun Fire™ V60x or Sun Fire V65x server. Instructions are included for initial configuration of a server with Solaris 9 software preinstalled, installing the software from CDs, and installing from the network.

How This Book Is Organized

This document is organized into the following chapters:

- Chapter 1 contains the information that you need to gather and the actions that you need to take before performing Solaris 9 software installation or configuration.
- Chapter 2 explains how to configure the Solaris 9 software that is preinstalled on the Sun Fire V60x or Sun Fire V65x server.
- Chapter 3 describes how to install Solaris 9 software from the Solaris 9 x86 Platform Edition 1 of 2 and 2 of 2 CDs.
- Chapter 4 describes how set up a PXE server and install Solaris 9 software from the PXE server onto a client system.
- Appendix A contains instructions for creating a DCA diskette and modifying the `bootenv.rc` file on the diskette, in order to perform console redirection before installing Solaris 9 software.
- Appendix B contains instructions on how to create an Intel Architecture (IA) installation server on a SPARC system.

Using UNIX Commands

This document might not contain information on basic UNIX® commands and procedures such as shutting down the system, booting the system, and configuring devices.

See one or more of the following for this information:

- *Solaris Handbook for Sun Peripherals*
- AnswerBook2™ online documentation for the Solaris operating environment
- Other software documentation that you received with your system

Typographic Conventions

Typeface*	Meaning	Examples
AaBbCc123	The names of commands, files, and directories; on-screen computer output	Edit your <code>.login</code> file. Use <code>ls -a</code> to list all files. % You have mail.
AaBbCc123	What you type, when contrasted with on-screen computer output	% su Password:
<i>AaBbCc123</i>	Book titles, new words or terms, words to be emphasized. Replace command-line variables with real names or values.	Read Chapter 6 in the <i>User's Guide</i> . These are called <i>class</i> options. You <i>must</i> be superuser to do this. To delete a file, type <code>rm filename</code> .

* The settings on your browser might differ from these settings.

Shell Prompts

Shell	Prompt
C shell	<i>machine-name%</i>
C shell superuser	<i>machine-name#</i>
Bourne shell and Korn shell	\$
Bourne shell and Korn shell superuser	#

Related Documentation

Solaris 9 software documentation referenced in this guide can be viewed or downloaded from the following URLs on Sun's software documentation web site, <http://www.sun.com/documentation>:

Application	Title	Part Number
Installation	<i>Solaris 9 Installation Guide</i>	806-7171-10
System Administration	<i>Solaris 9 System Administration Guide: IP Services</i>	806-4075-10
Man Pages	<i>man pages section 1M: System Administration Commands</i>	816-0211-10

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Installation or Configuration Preparation

This chapter describes the preparation for configuring preinstalled Solaris 9 software or installing Solaris 9 software. This chapter contains the following sections:

- “Worksheet for Installation” on page 1
- “Determining Your Installation Method” on page 5
- “Service Partition Installation” on page 6
- “Console Redirection” on page 9

Worksheet for Installation

Use the following worksheet to gather the information that you need to install the Solaris operating environment.

You do not need to gather all of the information that is requested on the worksheet. You only need to collect the information that applies to your system. Some of this information will not be needed if you have Solaris 9 software preinstalled on your system, as indicated in the table on page 3.

TABLE 1-1 Worksheet for Installation

Info Needed to Install	Description/Example	Your Answers:
Network	Is the system connected to a network?	Yes/No
DHCP	Can the system use Dynamic Host Configuration Protocol (DHCP) to configure its network interfaces?	Yes/No
Host Name	Host name that you choose for the system.	

TABLE 1-1 Worksheet for Installation (*Continued*)

Info Needed to Install	Description/Example	Your Answers:
IP Address	If you are not using DHCP, supply the IP address for the system. Example: 129.200.9.1	
Subnet	If you are not using DHCP, is the system part of a subnet? If yes, what is the netmask of the subnet? Example: 255.255.0.0	Yes/No
IPv6	Do you want to enable IPv6 on this machine?	Yes/No
Kerberos	Do you want to configure Kerberos security on this machine? If yes, gather this information: Default Realm: Administration Server: First KDC: (Optional) Additional KDCs:	Yes/No
Name Service	Which name service should this system use?	NIS+ /NIS/DNS/ LDAP/None
Domain Name	If the system uses a name service, supply the name of the domain in which the system resides.	
NIS+ and NIS	Do you want to specify a name server or let the installation program find one? If you want to specify a name server, provide the following information. Server's host name: Server's IP Address:	SpecifyOne/ Find One
DNS	Provide IP addresses for the DNS server. You must enter at least one IP address, but you can enter up to three addresses. Server's IP Address(es): You can enter a list of domains to search when a DNS query is made. Search Domain: Search Domain: Search Domain:	
LDAP	Provide the following information about your LDAP profile. Profile Name: Profile Server: If you specify a proxy credential level in your LDAP profile, gather this information. Proxy Bind Distinguished Name: Proxy Bind Password:	

TABLE 1-1 Worksheet for Installation (Continued)

Info Needed to Install	Description/Example	Your Answers:
Default Route	<p>Do you want to specify a default route IP address or let the Solaris Web Start installation program or Solaris <code>suninstall</code> program find one?</p> <p>The default route provides a bridge that forwards traffic between two physical networks. An IP address is a unique number that identifies each host on a network.</p> <p>You have the following choices:</p> <ul style="list-style-type: none"> • You can specify the IP address. An <code>/etc/defaultrouter</code> file is created with the specified IP address. When the system is rebooted, the specified IP address becomes the default route. • You can let the software detect an IP address. The Solaris <code>suninstall</code> program detects an IP address when the system is rebooted. • You can choose None if you do not have a router or do not want the software to detect an IP address at this time. The software automatically tries to detect an IP address on reboot. <p style="text-align: right;">Host IP address:</p>	Specify One Detect One None
Time Zone	How do you want to specify your default time zone?	Geographic region Offset from GM Time zone file
Note: The remainder of the information in this table is not needed if Solaris 9 software is already installed on the server.		
Locales	For which geographic regions do you want to install support?	
Automatic re-boot or CD/DVD ejection	Reboot automatically after software installation? Eject CD/DVD automatically after software installation?	Yes/No Yes/No
Software group	Which Solaris software group do you want to install?	Entire Plus OEM Entire Developer End User Core
Custom Package Selection	<p>Do you want to add or remove software packages from the Solaris Software Group that you install?</p> <p>Note – When you select which packages to add or remove, you need to know about software dependencies and how Solaris software is packaged.</p>	

TABLE 1-1 Worksheet for Installation (*Continued*)

Info Needed to Install	Description/Example	Your Answers:
Select Disks	On which disks do you want to install the Solaris software? Example: c0t0d0	
fdisk partitioning	Do you want to create, delete, or modify a Solaris fdisk partition? Each disk selected for file system layout must have a Solaris fdisk partition. Only one x86 Boot partition is allowed per system. Select disks for fdisk Partition Customization? Customize fdisk partitions?	Yes/No Yes/No
Preserve Data	Do you want to preserve any data that exists on the disks where you are installing the Solaris software?	Yes/No
Auto-layout file systems	Do you want the installation program to automatically lay out file systems on your disks? If yes, which file systems should be used for auto-layout? Example: /, /opt, /var If no, you must provide file system configuration information.	Yes/No
Mount remote file systems (only available in the Solaris suninstall program)	Does this system need to access software on another file system? If yes, provide the following information about the remote file system. Server: IP Address: Remote File System: Local Mount Point:	Yes/No

Determining Your Installation Method

The following sections describe the process for configuring and installing the Solaris 9 operating environment on your Sun Fire V60x or Sun Fire V65x server. Three methods of installation are described in this document.

- *Preinstalled Solaris* – Configuring a system that already has Solaris software installed
- *CD Installation* – Installing Solaris from Solaris 9 x86 Platform Edition CDs
- *PXE Installation* – Network installation of Solaris from a configured Preboot eXecution Environment (PXE) server

TABLE 1-2 shows which procedures in this document apply to each installation method.

TABLE 1-2 Installation Procedures

Installation Method	Order of Procedures
Preinstalled Solaris	<ol style="list-style-type: none">1. (If needed) “Console Redirection” on page 92. “Configure Solaris 9 Software Preinstalled on the Server” on page 12
CD Installation	<ol style="list-style-type: none">1. (If needed) “Service Partition Installation” on page 62. (If needed) “Console Redirection” on page 93. “Installing Solaris 9 Software From CDs” on page 14
PXE Installation	<ol style="list-style-type: none">1. (If needed) “Service Partition Installation” on page 62. (If needed) “Console Redirection” on page 93. “Solaris 9 Software Installation From a PXE Server” on page 194. “Installing Solaris 9 Software With a PXE Server” on page 27

Service Partition Installation

The Sun Fire V60x and Sun Fire V65x servers have a service partition installed by default. If the service partition has been removed from the disk, and you wish to reinstall it, you must install it from the *Sun Fire V60 and V65x Diagnostic CD* before installing Solaris 9 software.

Note – Depending on what data already exists on the drive, this operation may fail if the drive doesn't have enough space to create a new service partition. If this happens you might have to reformat the disk to make room. See “Reformatting the Hard Disk” on page 6.

Reformatting the Hard Disk

This procedure describes how to reformat the hard disk to create room for the service partition, if necessary.

Caution – Reformatting the hard disk removes all partitions and destroys all data on the disk. Before performing this procedure, make sure that you have saved all data that is on the disk.

1. **Boot the system with the *Sun Fire V60x and V65x Diagnostic CD* in the CD-ROM drive.**
2. **Click on the Quit to DOS option on the Diagnostics CD menu bar.**
3. **Type `fdisk` at the DOS prompt.**
4. **Select Option A (Remove all partitions).**
5. **Select 2 when asked from which drive to remove all partitions.**
6. **Type `y` when asked for confirmation.**
7. **Press the Esc key when prompted.**
8. **Select Option S (Save Settings).**
9. **When prompted, press any key to reboot.**

You can now create the service partition as specified in “Creating the Service Partition” on page 7.

Creating the Service Partition

For further information on the *Sun Fire V60x and V65 Diagnostic CD*, see the *Sun Fire V60x and Sun Fire V60x Server User Guide*.

To install the service partition from the *Sun Fire V60x and V65x Diagnostic CD*:

1. Insert the Diagnostic CD into a CD-ROM drive. The CD boots up into the CD menu.
2. When the Diagnostics CD screen appears, select **Service Partition > Run Service Partition Administrator**.



FIGURE 1-1 Diagnostics CD Screen

3. In the Service Partition Administration Menu, select Option 3 to create the partition.

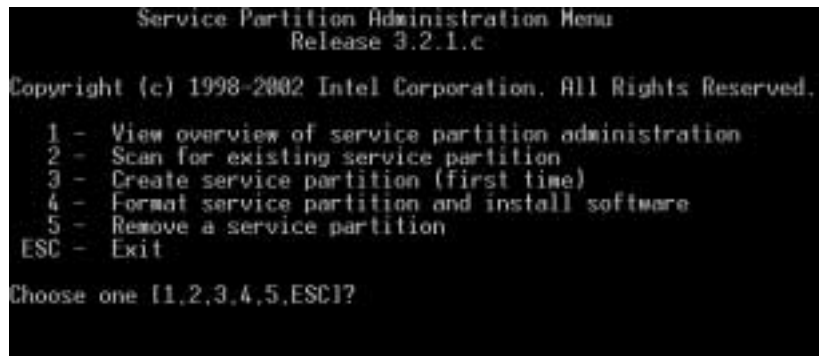


FIGURE 1-2 Service Partition Administration Menu

Console Redirection

If you want to redirect the console to the serial port (to enable a terminal concentrator, for example), you need to configure the serial port in both the server BIOS and Solaris.

The procedure for redirecting the console varies, depending on whether or not you have Solaris 9 software already installed on your server. Choose the appropriate procedure:

- “Redirecting the Console With Preinstalled Solaris 9 Software” on page 9
- “Redirecting the Console Before Installing Solaris 9 Software” on page 10

Redirecting the Console With Preinstalled Solaris 9 Software

1. **Connect a VGA-compatible monitor to the video port, and a PS/2 keyboard and mouse to the Sun Fire V60x or Sun Fire V65x system.**

Note – If the BIOS is already set up for serial console direction, you can skip Step 2 and go to Step 3.

2. **Configure the BIOS for console redirection as follows:**
 - a. **When the system boots up, press the F2 key to select BIOS setup.**
 - b. **Select the Server menu on the BIOS Setup Utility window.**
 - c. **Select Console Redirection.**
 - d. **Select BIOS Redirection Port [Serial 2 (RJ45)].**
 - e. **Press the Esc key to return to the main BIOS setup menu.**

Refer to the *Sun Fire V60x and Sun Fire V65x Server User Guide* for further details on console redirection through BIOS.

3. To redirect the console within Solaris, log in as superuser and enter the following commands:

```
# eeprom input-device=ttyb
# eeprom output-device=ttyb
```

Next time you boot the system, your boot console messages and input will be redirected to the serial port.

Redirecting the Console Before Installing Solaris 9 Software

Note – If the BIOS is already set up for serial console direction, you can skip Steps 1, 2, and 3 and go to Step 4.

1. Connect a VGA-compatible monitor to the video port, and a PS/2 keyboard and mouse to the Sun Fire V60x or Sun Fire V65x system.
2. Configure the BIOS for console redirection as follows:
 - a. When the system boots up, press the F2 key to select BIOS setup.
 - b. Select the Server menu on the BIOS Setup Utility window.
 - c. Select Console Redirection.
 - d. Select BIOS Redirection Port [Serial 2 (RJ45)].
 - e. Press the Esc key to go back to the main BIOS setup menu.

Refer to the *Sun Fire V60x and Sun Fire V65x Server User Guide* for further details on console redirection via BIOS.
3. Disconnect the monitor, keyboard and mouse, as needed.
4. Follow the instructions that match the installation method you are using.
 - *CD Install*: The Solaris 9 Software Solaris x86 Platform Edition 1 of 2 CD does not work with console redirection. You must create a Device Configuration Assistant (DCA) diskette, modify the `bootenv.rc` file, and initiate installation from a DCA diskette.

See Appendix A for instructions on how to create a DCA diskette and modify the `bootenv.rc` file.

- *PXE Network Install*: Modify the input and output devices on the miniroot of the PXE server as follows:

a. Open the `bootenv.rc` file in the `vi` editor.

```
% vi /path_to_boot_server/boot/solaris/bootenv.rc
```

Example of path to the `bootenv.rc` file:

```
/export/home/net-install/Solaris_9/Tools/Boot/boot/solaris/bootenv.rc
```

b. Add the following lines to the `bootenv.rc` file:

```
setprop input-device ttyb
```

```
setprop output-device ttyb
```

Note – If you need to reset the console redirection, set the device values back to default (`input-device=keyboard`, `output-device=screen`).

Configure Solaris 9 Software Preinstalled on the Server

If you have used the “Worksheet for Installation” on page 1 to gather information about your system and network, use this information as you proceed through the configuration. If you have not filled out the worksheet, get the following information from your network administrator:

- IP address (if not using DHCP)
- Subnet mask
- Type of name service (DNS, NIS or NIS+, for example)
- Domain name
- Host name of server
- Host IP address of name server

- 1. Connect a VGA-compatible monitor to the video port.**
- 2. Connect a PS/2 keyboard (and mouse, if desired) to the PS/2 port.**
- 3. Press the Power button.**

When the server completes the initial boot process, the first of a series of configuration screens appears. You will be prompted for boot options, which you can change, or you can let the screens timeout to select the default.

- 4. Follow the instructions on the screen to enter your system configuration information.**
 - a. Select a language.**

For example, 0. English
 - b. Select a locale.**

For example, 0. English

c. Configure the monitor, keyboard, and mouse as follows:

i. Press the F2 key to continue at the kdmconfig-Introduction screen.

The kdmconfig - View and Edit Window System Configuration screen displays.

ii. (Optional) Examine the configuration information on the kdmconfig - View and Edit Window System Configuration screen and make any changes you need.

iii. When you are finished, select No changes needed - Test/Save and Exit, and press the F2 key to continue.

The kdmconfig - Window System Configuration Test screen displays.

iv. Press the F2 key to continue.

The screen refreshes and the kdmconfig - Window System Configuration Test palette and pattern screen appears to test the display.

v. Move the pointer and examine the colors that are shown on the palette to ensure that they are displayed accurately.

If the colors do not display accurately, click No. If possible, press any key on the keyboard, or wait until `kdmconfig` exits the kdmconfig - Window System Configuration Test screen automatically. Repeat Step ii through Step v until the colors are displayed accurately and you can move the pointer as expected.

If the colors display accurately, click Yes.

The Identify This System screen displays. This screen is followed by several screens in which you will need to fill in information about the system and network information.

d. Use the information in “Worksheet for Installation” on page 1 to help you fill out the system and network information as prompted.

The screens that display will vary, depending on the installation method that you are using.

After you have entered the system configuration information, the server completes the boot process and displays the Solaris login screen.

Note – To install and start any of the preinstalled software, refer to the accompanying *Sun Fire V60x and Sun Fire V65x Server Solaris Applications Getting Started Guide*.

Installing Solaris 9 Software From CDs

You can install the Solaris operating environment on your Sun Fire V60x or Sun Fire V65x system by using the Solaris `suninstall` program on the Solaris 9 Software 1 of 2 CD. You cannot install any additional software with the Solaris `suninstall` program.

Note – The Solaris 9 software media kit is not included with the Sun Fire V60x and V65x servers and must be ordered separately. Downloads of Solaris 9 8/03 x86 Platform Edition software are available for a limited time to customers that purchased Sun V60x and V65x Servers. See <http://sun.com/solaris/x86>, for more information.

Preinstallation Steps for CD Installation

Before starting the installation, ensure that you have the following CDs:

- Solaris 9 Software x86 Platform Edition 1 of 2 CD.
- Solaris 9 Software x86 Platform Edition 2 of 2 CD – The installation program prompts you for this CD if necessary.
- Solaris 9 x86 Platform Edition Languages CD – The installation program prompts you for this CD if necessary to support languages for specific geographic regions.

Note – To make sure that you have the necessary information for the Solaris install, see the checklist in “Worksheet for Installation” on page 1.

1. Insert the Solaris 9 Software x86 Platform Edition 1 of 2 CD.

2. Boot the system by shutting down the system and then turning it off and on.

A memory test and hardware detection are executed. The screen refreshes and information similar to the following displays:

```
SunOS - Intel Platform Edition Primary Boot Subsystem, vsn 3.0
SunOS Secondary Boot version 3.00
Solaris Intel Platform Edition Booting System
Running Configuration Assistant...
```

The Device Configuration Assistant screen displays.

3. Proceed to “Installing Solaris 9 Software From CDs” on page 16.

Installing Solaris 9 Software From CDs

After you have completed the preinstallation steps for CD installation, proceed with the following steps.

1. When the Solaris Device Configuration Assistant screen displays, press F2_Continue.

The Bus Enumeration screen appears with the message:

```
Determining bus types and gathering hardware configuration data ...
```

2. Press Enter.

The Scanning Devices screen displays. System devices are scanned. When scanning is complete, the Identified Devices screen displays.

3. Decide if you need to make any changes in the Identified Devices screen and take one of the following actions:

- Press the F2 key to continue if you don't want to make changes
- Select changes and press the F4 key to continue.

The Loading screen appears and contains messages about drivers that are loaded to boot your system. After a few seconds, the Boot Solaris screen appears.

4. On the Boot Solaris screen, select CD, and press the F2 key to continue.

The Solaris `suninstall` program checks the default boot disk for the requirements to install or upgrade the system.

Note – Ethernet ports are disabled if you are booting from a CD or floppy device. If you choose an Ethernet port (by choosing a NET option on the Boot Solaris screen), the DCA will fail with the following message: `Loading Driver e1000g.bef`. If this happens, you will then need to reboot the system.

5. On the next screen, choose Solaris Interactive installation or Custom JumpStart.

The instructions in this document apply to Solaris Interactive Installation. If you want to perform a Custom Jumpstart Installation, see *Solaris 9 Installation Guide* (806-7171-10).

6. **Follow the prompts on the screens that follow to complete the network and system configuration information.**
 - a. **Select a language:**

For example, 0. English
 - b. **Select a locale:**

For example, 0. English
 - c. **Configure the monitor, keyboard, and mouse as follows:**
 - i. **Press the F2 key to continue at the kdmconfig-Introduction screen.**

The kdmconfig - View and Edit Window System Configuration screen displays.
 - ii. **(Optional) Examine the configuration information on the kdmconfig - View and Edit Window System Configuration screen and make any changes you need.**
 - iii. **When you are finished, select No changes needed - Test/Save and Exit, and press the F2 key to continue.**

The kdmconfig Window System Configuration Test screen displays.
 - iv. **Press the F2 key to continue.**

The screen refreshes and the kdmconfig Window System Configuration Test palette and pattern screen appears to test the display.
 - v. **Move the pointer and examine the colors that are shown on the palette to ensure that they are displayed accurately.**

If the colors do not display accurately, click No. If possible, press any key on the keyboard, or wait until `kdmconfig` exits the kdmconfig Window System Configuration Test screen automatically. Repeat Step ii through Step v until the colors are displayed accurately and you can move the pointer as expected.

If the colors display accurately, click Yes.

The Identify This System screen will display. This screen will be followed by several screens in which you will need to fill in information about the system and network information.
 - d. **Use the information in “Worksheet for Installation” on page 1 to help you fill out the system and network information as prompted.**

The screens that display will vary, depending on the installation method that you are using.
 - e. **After you have finished the system configuration information, the Solaris Interactive Installation screen displays.**
7. **At the Solaris Interactive Installation screen, press the F4 key to choose Initial installation.**

8. In the following screen, press the F4 key for Standard installation to begin a standard installation.

9. Enter the information as prompted on the screens that follow.

See “Worksheet for Installation” on page 1 for information.

When the installation process is completed for the first CD, the system will automatically reboot or prompt you to reboot, depending on the option you chose in the installation process.

10. Remove Solaris 9 x86 Platform Edition 1 of 2 CD and replace it with Solaris 9 Software x86 Platform Edition 2 of 2 CD.

Note – If you do not remove CD 1 of 2 before the server completes the reboot cycle, the Device Configuration Assistant screen will display. If this happens, remove the CD 1 of 2 at this point, replace it with CD 2 of 2, and reboot the server by turning it off and on.

The machine automatically reboots or a screen displays with different boot options. You can choose an option or wait a few seconds for the default boot.

11. Enter a superuser password of your choosing when prompted.

12. (Optional) When you are prompted, install the Solaris 9 x86 Platform Edition Languages CD.

The installation takes several minutes to complete. When the Solaris `suninstall` program finishes installing the Solaris software, the system reboots automatically or prompts you to reboot manually.

After the installation is finished, installation logs are saved in a file. You can find the installation logs in the following directories:

- `/var/sadm/system/logs`
- `/var/sadm/install/logs`

To install additional software, refer to the *Sun Fire V60x and Sun Fire V65x Server Solaris Applications Getting Started Guide*.

Solaris 9 Software Installation From a PXE Server

The procedures in this section describe how to configure your Solaris network, including a Preboot eXecution Environment (PXE) server, to allow you to install Solaris 9 software to a Sun Fire V60x or Sun Fire V65x PXE client using a network connection to the PXE server.

Note – The Solaris 9 software media kit is not included with the Sun Fire V60x and V65x servers and must be ordered separately. Downloads of Solaris 9 8/03 x86 Platform Edition software are available for a limited time to customers that purchased Sun V60x and V65x Servers. See <http://sun.com/solaris/x86>, for more information.

This chapter contains the following procedures:

- “Configuring Your Network to Support PXE Installation” on page 20
- “Configuring a DHCP Server” on page 23
- “Preparing the Client System for a PXE Installation” on page 26
- “Installing Solaris 9 Software With a PXE Server” on page 27

Configuring Your Network to Support PXE Installation

Note – The instructions in this section apply to an Intel platform installation server. If you want to use a SPARC platform installation server, see the instructions in Appendix B.

To install Solaris 9 software from a network, you will need the following:

- Intel platform server and client system connected to a network.
 - The following Solaris 9 x86 Platform Edition CDs:
 - Solaris 9 Software x86 Platform Edition 1 of 2 CD
 - Solaris 9 Software x86 Platform Edition 2 of 2 CD
 - Solaris 9x86 Platform Edition Languages CD
1. **Ensure that the install server has the latest version of Solaris 9 software loaded.**
 2. **While system is running, insert Solaris 9 Software x86 Platform Edition 1 of 2 CD.**
 3. **Create a directory for the server software:**

```
# mkdir install_path
```

Where *install_path* is the directory in which the server software will be installed.

For example:

```
# mkdir /export/home/net_install
```

4. **Change to the `Tools` directory on the CD:**

```
# cd /cdrom/cdrom0/s2/Solaris_9/Tools
```

5. **Copy the contents of the CD to the install server directory:**

```
# ./setup_install_server install_path
```

Where *install_path* is the directory in which the server software will be installed.

For example:

```
# ./setup_install_server /export/home/net_install
```

6. **Eject the Solaris 9 Software x86 Platform Edition 1 of 2 CD as follows:**

```
# cd
```

```
# eject cdrom
```

7. Insert the Solaris 9 Software x86 Platform Edition 2 of 2 CD.

8. Change to the `Tools` directory on the CD:

```
# cd /cdrom/cdrom0/Solaris_9/Tools
```

9. Copy the contents of the CD to the install server directory:

```
#!/add_to_install_server install_path
```

Where *install_path* is the directory in which the server software will be installed.

For example:

```
#!/add_to_install_server /export/home/net_install
```

10. Eject the Solaris 9 Software x86 Platform Edition 2 of 2 CD.

11. Insert the Solaris 9 x86 Platform Edition Languages CD in the system's CD-ROM drive.

12. Change to the `Tools` directory on the mounted CD:

```
# cd /cdrom/cdrom0/sol_9_lang_ia/Tools
```

13. Copy the contents of the CD to the install server's directory:

```
# ./add_to_install_server install_dir_path
```

Where *install_path* is the directory in which the server software will be installed.

14. Change to the `Tools` directory and add the install client to the install server:

```
# cd /export/home/net_install/Solaris_9/Tools
# ./add_install_client -d SUNW.i86pc i86pc
```

The following is an example of the output:

```
Adding "share -F nfs -o ro,anon=0
/export/home/boot_server/Solaris_9/Tools/Boot" to /etc/dfs/dfstab
making /tftpboot
copying inetboot to /tftpboot
copying nbp to /tftpboot
```

To Enable SUNW.i86pc in the DHCP server, add an entry to the server with the following data:

```
Install server      (SinstNM)   : test.sun.com
Install server IP   (SinstIP4)  : ip-addr-for-test.sun.com
Install server path (SinstPTH)  : /export/home/net_install
Root server name    (SrootNM)   : test
Root server IP      (SrootIP4)  : 192.168.1.95
Root server path    (SrootPTH)  :
/export/home/net_install/Solaris_9/Tools/Boot
```

To enable PXE boot, create a macro definition called `PXEClient:Arch:00000:UNDI:002001` which has the following values:

```
Boot file           (BootFile)  : nbp.SUNW.i86pc
Boot server IP      (BootSrvA)  : 192.168.1.95
```

15. Verify that `/tftpboot` directory exists:

```
# ls /tftpboot/
```

The following files should be in the `tftpboot` directory:

```
SUNW.i86pc           nbp.SUNW.i86pc
inetboot.I86PC.Solaris_9-1  rm.SUNW.i86pc
nbp.I86PC.Solaris_9-1      tftpboot
```

16. Configure the DHCP server as shown in “Configuring a DHCP Server” on page 23.

Configuring a DHCP Server

The following instructions contain information for setting up DHCP using the `dhcpconfig` command-line interface. This configuration method is intended for use by experienced Solaris system administrators and is enables ease of use in scripts.

The `dhcpcmgr` utility (DHCP Manager) is for less experienced administrators, or those preferring a graphical utility to configure and manage the DHCP service. To set up DHCP using the DHCP Manager, see the *Solaris 9 System Administration Guide: IP Services (806-4075-10)* for instructions.

The following man pages provide further information regarding the DHCP configuration commands: `dhcpconfig(1M)`, `dhcpcmgr(1M)`, `dhtadmin(1M)`, `pntadm(1M)`. You can access these man pages by typing `man command-name` at a Solaris system prompt. The man pages are also listed in *man pages section 1M: System Administration Commands (816-0211-10)*.

Note – Use caution when reconfiguring your DHCP server. Incorrect reconfiguration of your existing DHCP server might adversely affect your network. You may want to experiment by configuring a new DHCP server on a private subnet.

1. Ensure that you have the variable values available before proceeding.

The variables shown in TABLE 4-1 are needed to execute the commands in this procedure. Some of this information is provided in the output in Step 14 of “Configuring Your Network to Support PXE Installation” on page 20.

TABLE 4-1 Variables Used in DHCP Configuration

Variable	Description
<code>data_resource</code>	DHCP data storage module type. Valid values are: <code>SUNWfiles</code> , <code>SUNWbinfiles</code> , or <code>SUNWnisplus</code>
<code>dhcp_directory</code>	Path name for the DHCP Directory
<code>dns_ip</code>	IP address of the DNS server
<code>domain</code>	DNS domain name
<code>hosts_resource</code>	Resource in which to place hosts data. Usually, the name service in use on the server. Valid values are: <code>nisplus</code> , <code>files</code> , or <code>dns</code>

TABLE 4-1 Variables Used in DHCP Configuration

Variable	Description
<i>hosts_domain</i>	DNS or NIS+ domain name for hosts data (used only if <i>hosts_resource</i> is nisplus or dns)
<i>network_ip</i>	IP address for network
<i>router</i>	Router IP address
<i>client_ip</i>	IP address for install client
<i>client_name</i>	Name for install client
<i>macro</i>	Name of macro that contains DHCP options. Use your network IP address for the macro name.
<i>install_server_ip</i>	IP address for install server
<i>install_server_name</i>	Name for install server
<i>install_path</i>	Path name for install server directory
<i>boot_path</i>	Path name for boot server directory
<i>boot_server_name</i>	Name for boot server
<i>boot_server_ip</i>	IP address for boot server

2. Configure the DHCP server:

```
# dhcpconfig -D -r data_resource -p dhcp_directory -a dns_ip -d domain  
-l 84600 -h hosts_resource [-y hosts_domain]
```

For example:

```
# dhcpconfig -D -r SUNWfiles -p /var/dhcp -a 192.168.1.100 -d  
sun.com -l 84600 -h files
```

Note – Add the *-y hosts_domain* suboption to the command line if you specify *dns* or *nisplus* is specified for the *-h hosts_resource*.

3. Configure your network for DHCP service and create a macro labeled after your network IP address:

```
# dhcpconfig -N network_ip -t router
```

For example:

```
# dhcpconfig -N 192.168.1.0 -t 192.168.1.1
```

Note – Use the *network_ip* value to replace the *macro* variable in later steps.

4. Add the PXE client macro (as shown in the output from Step 14 on p. 22) to the DHCP configuration:

```
# dhtadm -A -m PXEClient:Arch:00000:UNDI:002001 -d ':BootFile=
nbp.SUNW.i86pc:BootSrvA={boot_server_ip}:'
```

For example:

```
# dhtadm -A -m PXEClient:Arch:00000:UNDI:002001 -d ':BootFile=
nbp.SUNW.i86pc:BootSrvA=192.168.1.95:'
```

5. Add client information to DHCP server configuration and assign a macro to the configuration:

```
# pntadm -A client_ip -c client_name -f DYNAMIC -m macro -s install_server_ip
network_ip
```

For example:

```
#pntadm -A 192.168.1.140 -c client -f DYNAMIC -m 192.168.1.0 -
s 192.168.1.95 192.168.1.0
```

6. Create the required DHCP vendor options:

```
# dhtadm -A -s SinstNM -d 'Vendor=SUNW.i86pc,11,ASCII,1,0'
# dhtadm -A -s SinstPTH -d 'Vendor=SUNW.i86pc,12,ASCII,1,0'
# dhtadm -A -s SinstIP4 -d 'Vendor=SUNW.i86pc,10,IP,1,1'
# dhtadm -A -s SrootNM -d 'Vendor=SUNW.i86pc,3,ASCII,1,0'
# dhtadm -A -s SrootPTH -d 'Vendor=SUNW.i86pc,4,ASCII,1,0'
# dhtadm -A -s SrootIP4 -d 'Vendor=SUNW.i86pc,2,IP,1,1'
# dhtadm -A -s SjumpsCF -d 'Vendor=SUNW.i86pc,14,ASCII,1,0'
# dhtadm -A -s SsysidCF -d 'Vendor=SUNW.i86pc,13,ASCII,1,0'
```

7. Add the DHCP options to the macro and assign values:

Note – Do not use quotes for *install_server_ip* and *boot_server_ip*.

```
# dhtadm -M -m macro -e 'SinstNM="install_server_name"'
# dhtadm -M -m macro -e 'SinstPTH="install_path"'
# dhtadm -M -m macro -e 'SinstIP4=install_server_ip'
# dhtadm -M -m macro -e 'SrootNM="boot_server_name"'
# dhtadm -M -m macro -e 'SrootPTH="boot_path"'
# dhtadm -M -m macro -e 'SrootIP4=boot_server_ip'
```

8. Print the macro values.

```
# dhtadm -P
```

9. Verify that the DHCP `in.dhcpd` daemon is running:

```
# ps -aef|grep in.dhcpd
```

You see output similar to the following:

```
root  3040   484 0 19:21:49 pts/2    0:00 grep in.dhcpd
root  3017     1 0 19:12:48 ? 0:00 /usr/lib/inet/in.dhcpd
```

10. Prepare the client system for Solaris installation as shown in “Preparing the Client System for a PXE Installation” on page 26.

Preparing the Client System for a PXE Installation

Before installing Solaris 9 software from a PXE server, you must first configure your server. See “Configuring Your Network to Support PXE Installation” on page 20.

After the PXE server is configured, complete the following steps on the client system.

- 1. Boot the machine on which you will install the Solaris 9 software.**
- 2. At the BIOS information screen press the Esc key.**

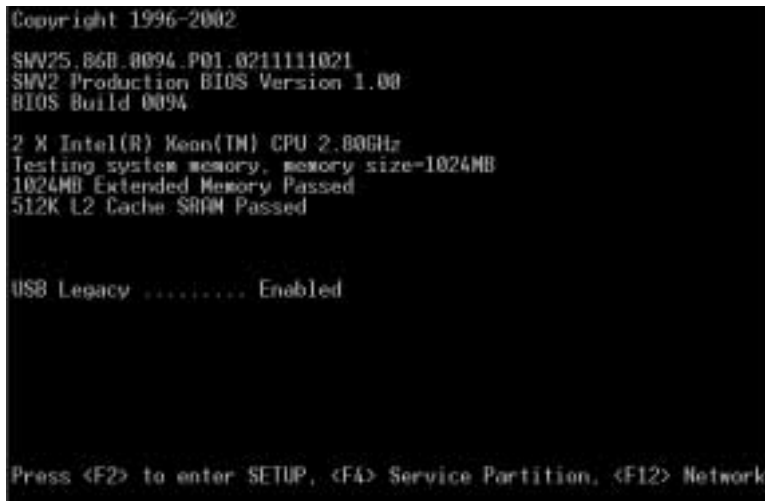


FIGURE 4-1 BIOS Information Screen

The boot selection menu displays.

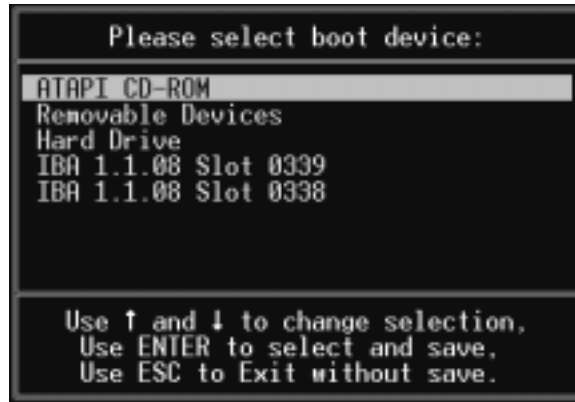


FIGURE 4-2 Boot Selection Menu

3. Select the IBA choice that is connected to the same network as the install server.

The lowest number to the right of the boot choices corresponds to the lower Ethernet port number. The higher number to the right of the boot choices corresponds to the higher Ethernet port number.

4. When the system prompts you for boot options, choose an option or the server will reboot by default.

After the system downloads the initial boot images from PXE server, the Device Configuration Assistant displays.

Proceed to “Installing Solaris 9 Software With a PXE Server” on page 27.

Installing Solaris 9 Software With a PXE Server

After you have completed the preinstallation steps for PXE installation, proceed with the following steps.

1. When the Solaris Device Configuration Assistant screen displays, press F2_Continue.

The Bus Enumeration screen appears with the message:

```
Determining bus types and gathering hardware configuration data ...
```

2. Press Enter.

The Scanning Devices screen appears. System devices are scanned. When scanning is complete, the Identified Devices screen appears.

3. Decide if you need to make any changes in the Identified Devices screen.

- Press the F2 key to continue if you don't want to make changes or
- Select changes and press the F4 key to continue.

The Loading screen appears and contains messages about drivers that are loaded to boot your system. After a few seconds, the Boot Solaris screen appears.

4. On the Boot Solaris screen, select the NET option that corresponds to the Ethernet port chosen in Step 3 of “Preparing the Client System for a PXE Installation” on page 26, and press the F2 key to continue.

The Solaris `suninstall` program checks the default boot disk for the requirements to install or upgrade the system.

Note – If the system is being PXE booted over the network, take care to select the same Ethernet port that was used during the prior PXE preinstallation step. If you choose an invalid Ethernet port, the DCA will fail with the following message: `Loading Driver e1000g.bef`. If this happens, you must reboot and choose an appropriate Ethernet port next time.

5. The next screen will prompt you to choose Solaris Interactive installation or Custom JumpStart.

The instructions in this document apply to Solaris Interactive Installation. If you want to perform a Custom Jumpstart Installation, see *Solaris 9 Installation Guide* (806-7171-10).

6. Follow the prompts on the screens that follow to complete the network and system configuration information.

a. Select a language:

For example, 0. English

b. Select a locale:

For example, 0. English

c. Configure the monitor, keyboard, and mouse as follows:

i. Press the F2 key to continue at the kdmconfig-Introduction screen.

The `kdmconfig - View and Edit Window System Configuration` screen appears.

ii. (Optional) Examine the configuration information on the `kdmconfig - View and Edit Window System Configuration` screen and make any changes you need.

- iii. **When you are finished, select No changes needed - Test/Save and Exit, and press the F2 key to continue.**

The kdmconfig Window System Configuration Test screen appears.

- iv. **Press the F2 key to continue.**

The screen refreshes and the kdmconfig Window System Configuration Test palette and pattern screen appears to test the display.

- v. **Move the pointer and examine the colors that are shown on the palette to ensure that they are displayed accurately.**

If the colors do not display accurately, click No. If possible, press any key on the keyboard, or wait until `kdmconfig` exits the kdmconfig Window System Configuration Test screen automatically. Repeat Step ii through Step v until the colors are displayed accurately and you can move the pointer as expected.

If the colors display accurately, click Yes.

The Identify This System screen will display. This screen will be followed by several screens in which you will need to fill in information about the system and network information.

- d. **Use the information in “Worksheet for Installation” on page 1 to help you fill out the system and network information as prompted.**

The screens that display will vary, depending on the installation method that you are using.

- e. **After you have finished the system configuration information, the Solaris Interactive Installation screen displays.**

7. **At the Solaris Interactive Installation screen, press the F4 key to choose Initial installation.**

8. **In the following screen, press the F4 for Standard installation to begin a standard installation.**

9. **Enter the information as prompted on the screens that follow.**

See “Worksheet for Installation” on page 1 for information.

The machine will automatically reboot or a screen will display with different boot options. You can choose an option or wait a few seconds for the default boot.

10. Enter a superuser password of your choosing when prompted.

When the Solaris `suninstall` program finishes installing the Solaris software, the system reboots automatically or prompts you to reboot manually.

After the installation is finished, installation logs are saved in a file. You can find the installation logs in the following directories:

- `/var/sadm/system/logs`
- `/var/sadm/install/logs`

To install additional software, refer to the *Sun Fire V60x and Sun Fire V65x Server Solaris Applications Getting Started Guide*.

Device Configuration Assistant (DCA) Diskette Creation

As mentioned in “Redirecting the Console Before Installing Solaris 9 Software” on page 10, you must create a DCA diskette to redirect the console when installing Solaris 9 from CD. This appendix provides instructions on how to create a DCA diskette and modify the `bootenv.rc` file on the diskette before redirecting the console.

Note – The Solaris 9 software media kit is not included with the Sun Fire V60x and V65x servers and must be ordered separately. Downloads of Solaris 9 8/03 x86 Platform Edition software are available for a limited time to customers that purchased Sun V60x and V65x Servers. See <http://sun.com/solaris/x86>, for more information.

Creating the DCA Diskette

This procedure assumes that the system is running Volume Manager. If you are not using Volume Manager to manage diskettes and discs, refer to *System Administration Guide: Basic Administration* for detailed information about managing removable media without Volume Manager.

1. **Log in as superuser on a Solaris x86 system to which a diskette drive and a CD-ROM drive are attached.**
2. **Insert or the Solaris 9 Software x86 Platform Edition 2 of 2 CD into the CD-ROM drive.**

The Volume Manager mounts the disc.

3. Change to the directory that contains the boot image:

```
# cd /cdrom/sol_9_ia/Solaris_9/Tools
```

4. Insert a blank diskette or a diskette that can be overwritten in the diskette drive.

5. Notify Volume Manager to check for new media:

```
# volcheck
```

6. Format the diskette:



Caution – Formatting erases all data on the diskette

```
# fdformat -d -U
```

7. Copy the file to the diskette:

```
# dd if=d1_image of=/vol/dev/aliases/floppy0 bs=36k
```

8. Eject the diskette by typing `eject floppy` at the command line, and then manually ejecting the diskette from the drive.

Modifying the `bootenv.rc` File

After creating a DCA diskette (as instructed in “Creating the DCA Diskette” on page 31), you must modify the `bootenv.rc` file on a different system to facilitate console redirection.

a. Insert the diskette into a system with a diskette drive.

b. Notify Volume Manager to check for new media:

```
% volcheck
```

c. Open the `bootenv.rc` file in the `vi` editor:

```
% vi /floppy/floppy0/solaris/bootenv.rc
```

d. Modify the input and output devices in the `bootenv.rc` file as follows:

```
setprop input-device ttyb
setprop output-device ttyb
```


Creating an Intel Architecture (IA) Install Server on a SPARC System With IA CD Media

This chapter describes how to create an Intel Architecture (IA) install server on a SPARC system. The Solaris 9 Software x86 Platform Edition 1 of 2 CD must be installed first on an IA server, then mounted onto the SPARC system.

IA Install Server Creation

Use this procedure to create an Intel Architecture (IA) install server on a SPARC system with IA CD media. You need the following:

- A SPARC system
- An IA system with a CD-ROM drive
- A set of CDs for the remote IA system
 - Solaris 9 Software x86 Platform Edition 1 of 2 CD
 - Solaris 9 Software x86 Platform Edition 2 of 2 CD
 - Solaris 9 x86 Platform Edition Languages CD
 - Solaris 9 x86 Platform Edition Installation CD

Note – The Solaris 9 software media kit is not included with the Sun Fire V60x and V65x servers and must be ordered separately. Downloads of Solaris 9 8/03 x86 Platform Edition software are available for a limited time to customers that purchased Sun V60x and V65x Servers. See <http://sun.com/solaris/x86>, for more information.

Note – This procedure assumes that the system is running the Volume Manager. If you are not using the Volume Manager to manage media, refer to *System Administration Guide: Basic Administration* for detailed information about managing removable media without the Volume Manager.

In this procedure, *SPARC system* is the SPARC system that is to be the install server and *remote IA system* is the remote IA system to be used with the IA CD media.

The following subsections contain the procedures for creating an IA install server on a SPARC system:

1. “Preparing the IA System” on page 34
2. “Mounting the IA CD Image and Copying the Image to the SPARC System” on page 35
3. “Unsharing CD-ROM Slices on the IA System” on page 36
4. “Completing the CD Installation on the SPARC System” on page 37
5. “Setting up Solaris Web Start Installation” on page 38

Preparing the IA System

The IA system must include a CD-ROM drive and be part of the site’s network and name service. If you use a name service, the system must also be in the NIS, NIS+, DNS, or LDAP name service. If you do not use a name service, you must distribute information about this system by following your site’s policies.

Perform the following steps to prepare the remote IA system for mounting the CD image to the SPARC system.

Note – Perform all of the steps in this subsection on the remote IA system.

1. **Become superuser on the remote IA system.**
2. **Insert the Solaris 9 Software x86 Platform Edition 1 of 2 CD into the system’s drive.**

3. **Add the following entries to the `/etc/dfs/dfstab` file:**

```
share -F nfs -o ro,anon=0 /cdrom/cdrom0/s0
share -F nfs -o ro,anon=0 /cdrom/cdrom0/s2
```

4. **Start the NFS daemon:**

```
remote IA system# /etc/init.d/nfs.server start
```

5. Verify that the CD is available to other systems:

```
remote IA system# share
- /cdrom/sol_9_ia/s0 ro,anon=0 " "
- /cdrom/sol_9_ia/s2 ro,anon=0 " "
```

Mounting the IA CD Image and Copying the Image to the SPARC System

Perform the following steps to mount the CD image onto the SPARC system.

Note – Perform all of the steps in this subsection on the SPARC system.

1. On the SPARC system that is to be the IA install server, become superuser.
2. Access the IA CD by creating two directories for the appropriate mount points, one for the miniroot and one for the product:

```
SPARC system# mkdir directory_name_s0
```

```
SPARC system# mkdir directory_name_s2
```

Where *directory_name_s0* is the name of the directory to contain the miniroot from slice 0

Where *directory_name_s2* is the name of the directory to contain the product from slice 2

3. Mount the remote IA CD image:

```
SPARC system# mount remote_IA_system_name:/cdrom/sol_9_ia/s0 directory_name_s0
```

```
SPARC system# mount remote_IA_system_name:/cdrom/sol_9_ia/s2 directory_name_s2
```

4. Change to the **Tools** directory on the mounted disc:

```
SPARC system# cd /directory_name_s2/Solaris_9/Tools
```

5. Copy the disc in the drive to the install server's hard disk in the directory you've created:

```
SPARC system# ./setup_install_server -t directory_name_s0 install_dir_path
```

Where:

-t Specifies the path to a boot image if you want to use a boot image other than the one in the Tools directory on the Solaris 9 Software 2 of 2 CD.

directory_name_s0 Name of the directory that contains the miniroot from slice 0.

install_dir_path Specifies the directory where the disc image is to be copied. The directory must be empty.

Note – The `setup_install_server` command indicates whether you have enough disk space available for the Solaris 9 Software disc images. To determine available disk space, use the `df -k1` command.

6. Change to the top directory:

```
SPARC system# cd /
```

7. Unmount both directories:

```
SPARC system# umount directory_name_s0
```

```
SPARC system# umount directory_name_s2
```

Unsharing CD-ROM Slices on the IA System

Perform these steps on the IA system to unshare CD-ROM slices and eject the CD.

Note – Perform all of the steps in this subsection on the remote IA system.

1. Unshare both CD-ROM slices:

```
remote IA system# unshare /cdrom/sol_9ia/s0
```

```
remote IA system# unshare /cdrom/sol_9ia/s2
```

2. Eject the Solaris 9 Software x86 Platform Edition 1 of 2 CD.

Completing the CD Installation on the SPARC System

Perform the following steps to complete the CD installation on the SPARC system.

Note – Perform all of the steps in this subsection on the SPARC system.

1. **Insert the Solaris 9 Software x86 Platform Edition 2 of 2 CD into the SPARC system's CD-ROM drive.**

2. **Change to the `Tools` directory on the mounted CD:**

```
SPARC system# cd /cdrom/cdrom0/Solaris_9/Tools
```

3. **Copy the CD to the install server's hard disk:**

```
SPARC system# ./add_to_install_server install_dir_path
```

Where *install_dir_path* specifies the directory where the CD image is to be copied.

4. **Eject the Solaris 9 Software x86 Platform Edition 2 of 2 CD.**

5. **Insert the Solaris 9 x86 Platform Edition Languages CD into the SPARC system's CD-ROM drive and mount the CD.**

6. **Change to the `Tools` directory on the mounted CD:**

```
SPARC system# cd /cdrom/cdrom0/Tools
```

7. **Copy the CD to the install server's hard disk:**

```
SPARC system# ./add_to_install_server install_dir_path
```

Where *install_dir_path* specifies the directory where the CD image is to be copied.

8. **Decide if you want to enable users to use the Solaris Web Start installation method to boot a system and install the Solaris 9 software from a network.**

- If no, eject the Solaris 9 x86 Platform Edition Languages CD and go to “Creating a Boot Server (If Needed)” on page 39.
- If yes, eject the Solaris 9 x86 Platform Edition Languages CD and continue.

Setting up Solaris Web Start Installation

1. On the remote IA system, insert the Solaris 9 x86 Platform Edition Installation CD into the IA system's CD-ROM drive.

2. On the remote IA system, add the following entry to the `/etc/dfs/dfstab` file:

```
share -F nfs -o ro,anon=0 /cdrom/cdrom0/s0
share -F nfs -o ro,anon=0 /cdrom/cdrom0/s2
```

3. On the remote IA system, start the NFS daemon:

```
remote IA system# /etc/init.d/nfs.server start
```

4. On the remote IA system, verify that the CD is available to other systems:

```
remote IA system# share
- /cdrom/multi_sol_9_ia/s0 ro,anon=0 " "
- /cdrom/multi_sol_9_ia/s2 ro,anon=0 " "
```

5. On the SPARC system, mount the slices on the CD:

```
SPARC system# mount remote_IA_system_name:/cdrom/multi_sol_9_ia/s0 directory_name_s0
SPARC system# mount remote_IA_system_name:/cdrom/multi_sol_9_ia/s2 directory_name_s2
```

6. On the SPARC system, change to the directory that contains the `modify_install_server` file on the mounted CD:

```
SPARC system# cd directory_name_s2
```

7. Copy the Solaris Web Start interface software to the install server:

```
SPARC system# ./modify_install_server -p install_dir_path directory_name_s0
```

Where:

<code>-p</code>	Preserves the existing image's miniroot in <code>install_dir_path/Solaris_9/Tools/Boot.orig</code>
<code>install_dir_path</code>	Specifies the directory where the Solaris Web Start interface is to be copied
<code>directory_name_s0</code>	Name of the directory to contain the miniroot from slice 0

Creating a Boot Server (If Needed)

- **Decide if you need to create a boot server.**
 - If the install server is on the same subnet as the system to be installed or you are using DHCP, you do not need to create a boot server. See “Configuring a DHCP Server” on page 22.
 - If the install server is not on the same subnet as the system to be installed and you are not using DHCP, you must create a boot server. For detailed instructions on how to create a boot server, refer to “To Create a Boot Server on a Subnet With a CD Image” in the *Solaris 9 Installation Guide*.

Example: Creating an IA Install Server on a SPARC System With IA CD Media

The following example illustrates how to create an IA install server on a SPARC system that is named `rosemary`. The following IA CDs are copied from a remote IA system that is named `tadpole` to the SPARC install server’s `/export/home/s9cdia` directory.

- Solaris 9 Software x86 Platform Edition 1 of 2 CD
- Solaris 9 Software x86 Platform Edition 2 of 2 CD
- Solaris 9 x86 Platform Edition Languages CD
- Solaris 9 Installation Multilingual x86 Platform Edition CD

In this example, each CD is inserted and automatically mounted before each of the commands. After each command, the CD is removed.

On the remote IA system:

```
tadpole (remote IA system)# share -F nfs -o ro,anon=0 /cdrom/cdrom0/s0
tadpole (remote IA system)# share -F nfs -o ro,anon=0 /cdrom/cdrom0/s2
tadpole (remote IA system)# /etc/init.d/nfs.server start
```

On the SPARC system:

```
rosemary (SPARC system)# mkdir /ias0
rosemary (SPARC system)# mkdir /ias2
rosemary (SPARC system)# mount tadpole:/cdrom/sol_9_ia/s0 /ias0
rosemary (SPARC system)# mount tadpole:/cdrom/sol_9_ia/s0 /ias2
rosemary (SPARC system)# cd /ias2/Solaris_9/Tools
rosemary (SPARC system)# ./setup_install_server -t /ias0 /export/home/s9cdia
rosemary (SPARC system)# cd /
rosemary (SPARC system)# umount /ias0
rosemary (SPARC system)# umount /ias2
tadpole (remote IA system) unshare /cdrom/cdrom0/s0
tadpole (remote IA system) unshare /cdrom/cdrom0/s2
rosemary (SPARC system)# cd /cdrom/cdrom0/Solaris_9/Tools
rosemary (SPARC system)# ./add_to_install_server /export/home/s9cdia
rosemary (SPARC system)# cd /cdrom/cdrom0/sol_9_lang_ia/Tools
rosemary (SPARC system)# ./add_to_install_server /export/home/s9cdia
```

On the remote IA system:

```
tadpole (remote IA system)# share -F nfs -o ro,anon=0 /cdrom/cdrom0/s0
tadpole (remote IA system)# share -F nfs -o ro,anon=0 /cdrom/cdrom0/s2
tadpole (remote IA system)# /etc/init.d/nfs.server start
```

On the SPARC system:

```
rosemary (SPARC system)# mount remote_IA_system_name:/cdrom/sol_9_ia /ias0
rosemary (SPARC system)# mount remote_IA_system_name:/cdrom/sol_9_ia /ias2
rosemary (SPARC system)# cd /ias2
rosemary (SPARC system)# ./modify_install_server -p /export/home/s9cdia /ias0
```