# Sun™ Blade X6240 Server Module Windows Operating System Installation Guide

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# Contents

# Preface

This *Sun Blade X6240 server module Windows Operating System Installation Guide* contains instructions for installing the Windows Server 2003 and 2008 operating systems onto a Sun Blade X6240 server module.

## Related Documentation

For a description of the document set for the Sun Blade X6240 Server Module, see the *Sun Blade X6240 Getting Started Guide* (820-3975) that is packed with your server module and also posted at the product's documentation site. Go to the following URL, then navigate to the Sun Blade X6240 product documentation web site:

`http://docs.sun.com/`

Translated versions of some of these documents are available at the web site described above in French, Simplified Chinese, Traditional Chinese, Korean, and Japanese. English documentation is revised more frequently and might be more up-to-date than the translated documentation.

For all Sun hardware, software and Solaris documentation, go to:

`http://docs.sun.com`

# Support and Training

| Sun Function | URL |
|---|---|
| Support | http://www.sun.com/support/ |
| Training | http://www.sun.com/training/ |

# Product Updates

For product updates that you can download for the Sun Blade X6240 server module, visit the following web site:

http://www.sun.com/download/

Find the Hardware Drivers section and click x64 Servers & Workstations. The Sun Blade X6240 server module site contains updates for firmware and drivers, as well as CD-ROM `.iso` images.

# Third-Party Web Sites

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# Shell Prompts

| Shell | Prompt |
|---|---|
| C shell | *machine-name*% |
| C shell superuser | *machine-name*# |
| Bourne shell and Korn shell | $ |
| Bourne shell and Korn shell superuser | # |

# Typographic Conventions

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

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

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http://www.sun.com/hwdocs/feedback

Please include the title and part number of your document with your feedback:

*Sun Blade X6240 Server Module Windows Operating System Installation Guide,* part number 820-3970-10

# Getting Started

This chapter provides information you will need to know before installing the Microsoft Windows Server 2003/2008 operating system on a Sun Blade X6240 server module.

**Note –** This chapter contains important guidelines and information to help you in the installation process. Make sure to read the remainder of this chapter before beginning the Windows Server 2003 or 2008 installation.

The following sections are included in this chapter:

- "Installation Prerequisites" on page 2
- "Important Installation Considerations" on page 2
- "Supported Windows Operating Systems" on page 4
- "Installation Procedures" on page 4

**Tip –** We recommend that you use the Sun Installation Assistant (SIA) to install the Microsoft Windows Server operating system. SIA is a convenient, front-end application designed to assist you in installing Windows on your server. SIA supplements the standard installation utilities and procedures that ship with Microsoft Windows Server; it does not replace them. For more information, refer to the *Sun Installation Assistant User's Guide*, (820-33587**)**.

# Installation Prerequisites

The Sun Blade X6240 server modules require additional server-specific drivers that are not included with the Windows Server 2003/2008 operating system. The following chapters in this document describe how to access and install the operating system and drivers. The installation procedures apply to both the 32-bit and 64-bit versions of Microsoft Windows Server 2003/2008.

Depending on the installation methods chosen, a USB hub may be required. Before you begin, make sure you have access to the following:

- Windows Server 2003/2008 installation media
- Sun Blade X6240 server module installation media
- USB keyboard and mouse
- Monitor
- USB CD/DVD
- USB floppy drive and diskette
- USB hub (depending on installation method chosen)
- USB dongle connector with at least two ports to connect to the front slot of the Sun Blade X6240 server module

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**Note –** Your server module has only two USB ports. Use the dongle cable included with the system to attach a USB hub for the keyboard, mouse, and CD drive if needed. The second USB port is then available for a USB diskette drive.

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# Important Installation Considerations

Please note the following important considerations before beginning the Windows Server operating system installation on a Sun Blade X6240 server module:

- When you install the Windows operating system, any data on the boot drive, including any preinstalled operating system, will be overwritten.

- A primary consideration during installation is providing the mass storage drivers for the disk controller used with the Sun Blade X6240 server modules. The Microsoft Windows Server media does not contain the mass storage drivers needed for operating system installation.

  Windows requires that the mass storage drivers be delivered via a floppy diskette. The Windows installation program can only read mass storage drivers from diskette drive A. Other devices such as CD/DVD or USB flash drives are not supported for mass storage driver delivery.

  There are three methods that can be used to **deliver the drivers for Windows Server** installation:

  - Use a physical USB diskette drive connected to a USB dongle connector with at least two ports to connect to the front slot of the Sun Blade X6240 server module.

  - Use RKVMS[1] to redirect the diskette device to a physical diskette drive on another system that is hosting the JavaRConsole[2] (JavaRConsole system).

  - Use RKVMS to redirect the diskette device to a diskette image file on another system that is hosting the JavaRConsole.

- There are also three different methods that can be used to **deliver the Windows Server media** for installation:

  - Use a physical USB CD drive connected to a USB dongle connector with at least two ports to connect to the front slot of the Sun Blade X6240 server module.

  - Use RKVMS to redirect the CD drive to a physical CD drive on the JavaRConsole system.

  - Use RKVMS to redirect the CD drive to a Windows CD image on the JavaRConsole system.

  Depending on the methods chosen, a USB hub with a minimum of 2 ports may be required.

If you use the RKVMS method for any of these installations, you will need to refer to the Sun Integrated Lights Out Manager (ILOM) documentation for details on setting up the hardware needed for the installation. (Note that there are multiple versions of ILOM, be sure to refer to the guide that matches your server's installed version of ILOM.)

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1. RKVMS –Remote Keyboard, Video, Mouse, Storage. Allows redirection of the server keyboard, video output, mouse and storage devices via a networked system.

2. JavaRConsole – ILOM Remote Console application run from a networked system.

# Supported Windows Operating Systems

The Sun Blade X6240 server module supports the following Microsoft Windows operating systems at the time of publication of this document:

- Windows Server 2003 R2 Enterprise Edition with SP2 (32-bit and 64-bit)
- Windows Server 2008 R2 Enterprise/Datacenter (32-bit and 64-bit)

The updated lists of supported operating systems for the Sun Blade X6240 server module are available at: http://www.sun.com/servers/blades/

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**Note –** The Solaris Operating System or the Windows Server 2003 R2 Enterprise Edition with SP2 Operating System is preinstalled on the Sun Blade X6240 server module boot disk.

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# Server-Specific Driver Packages

The server-specific driver packages available for Windows Server operating system installations are:

- `lsi32.img` - This file contains the LSI 3081E drivers for 32-bit windows systems.
- `lsi64.img` - This file contains the LSI 3081E drivers for 64-bit windows systems.
- `srl.img` - This file contains the Sun StorageTek drivers.

The drivers are available on the Tools and Drivers CD-ROM (708-0346) that ships with the Sun Blade X6240 server module.

# Installation Procedures

This section outlines the procedures that you must follow to install the Windows Server operating system on the Sun Blade X6240 server module.

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**Note –** If you want to install Windows Server 2003 using a Preboot Execution Environment (PXE) server, go to "Installing a Windows Server 2003 Image From a RIS Server" on page 47.

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TABLE 1-1 lists the installation requirements of the Windows Server OS on the Sun Blade X6240 server module:

**TABLE 1-1**    Installation Requirements

| Item | Local | Remote |
|---|---|---|
| Windows Server 2003/2008 installation media | Required. | Required. |
| Sun Blade X6240 server module installation media (download and/or Tools and Drivers CD [708-0346]) | Required. | Required. |
| Floppy diskette | Required for REM only. | Required for REM only. |
| Keyboard, monitor, and mouse | Required. Attached to dongle/USB hub. | Required. Attached to local machine. |
| Dongle cable | Required. | Not required. |
| USB hub | Optional. Attached to USB connector on dongle cable. | Not required. |
| CD/DVD drive | Required. USB CD/DVD drive attached to USB hub. | CD/DVD drive attached to local machine. Not required for CD image install. Use .iso file instead. |
| Diskette drive | Required for REM only. USB diskette drive attached directly to USB connector on dongle cable | Required for REM only. Diskette drive attached to local machine |

**Note –** The floppy diskette and floppy drive are required to install mass storage drivers on systems with a RAID Expansion Module (REM). They are *unnecessary* for systems without a REM.

Complete the following procedures to install Windows 2003 or 2008:

1. "Selecting the Delivery Methods" on page 7.

2. "Preparing for Mass Storage Drivers Delivery" on page 11.

3. "Configuring the JavaRConsole System" on page 17.

4. **Installing the appropriate version of the Windows Server operating system.**
   - "Installing Windows Server 2003" on page 25.
   - "Installing Windows Server 2008" on page 33.

5. "Updating Critical System-Specific Drivers" on page 41.

# Selecting the Delivery Methods

In this chapter, you will decide on the delivery methods to provide the mass storage drivers and the Windows media for installation.

To select mass storage driver media and Windows Server media delivery methods, complete the following procedures:

**1.** Selecting a Delivery Method for Mass Storage Drivers.

**2.** Selecting a Windows Server Media Method.

After completing the above procedures, make a note of the delivery methods that you selected and proceed to "Preparing for Mass Storage Drivers Delivery" on page 11.

# Selecting a Delivery Method for Mass Storage Drivers

There are three methods that can be used to provide the mass storage drivers for Windows Server installation on the Sun Blade X6240 server module.

- *Diskette Local*: Uses a physical USB diskette drive externally connected to the USB port on the server module dongle. A USB hub may also be used.
- *Diskette Remote*: Uses RKVMS to redirect the diskette device to a physical diskette drive on the system hosting the JavaRConsole.
- *Diskette Image*: Uses RKVMS to redirect the diskette device to a diskette image file on the system hosting the JavaRConsole.

Select a method in TABLE 2-1 that meets the need of your environment. Make note of the method you have selected.

**TABLE 2-1**　Delivery Methods for Mass Storage Drivers

| Mass Storage Drivers Delivery Method | Additional Requirements | Ease of Configuration and Installation |
|---|---|---|
| Diskette Local | • External USB diskette drive listed as "Designed for Windows"* on the Windows Marketplace site: http://testedproducts.windowsmarketplace.com/ <br>• Diskette | Easy |
| Diskette Remote | • JavaRConsole system with network access to the Sun Blade X6240 server module network management port and an attached diskette drive <br>• Diskette | Medium: Installation time will be minimally increased over the Diskette Local method. |
| Diskette Image | • JavaRConsole system with network access to the Sun Blade X6240 server module management network port | Medium: Installation time will be minimally increased over the Diskette Local method. |

\* If you do not use a USB diskette drive designed for Windows, it might appear that the drivers are installed during the OS installation, but when you reboot the system, the graphical part of the Windows setup will be unable to find the drivers again and the installation will fail with an error message.

# Selecting a Windows Server Media Method

There are three methods that can be used to provide the Windows media for Windows Server installation on the Sun Blade X6240 server module:

- *Windows Local*: Uses the physical CD/DVD drive connected to the USB port on the server module dongle. A USB hub may also be used.

- *Windows Remote:* Uses RKVMS to redirect the CD drive to a physical CD drive on the system hosting the JavaRConsole.

- *Windows Image*: Uses RKVMS to redirect the CD drive to a Windows media image file on the system hosting the JavaRConsole.

Select a method in TABLE 2-2 that meets the need of your environment note. Make a note of the method that you selected.

**TABLE 2-2**  Delivery Methods for Windows Server Media

| Windows Server Media Delivery Method | Additional Requirements | Ease of Configuration and Installation |
|---|---|---|
| Windows Local | To connect a physical CD drive to the server module, use the dongle cable provided with the system to attach a USB hub. This will enable you to connect keyboard, mouse, and CD/DVD drive. Ensure the CD/DVD drive is "Designed for Windows" as indicated on the Windows marketplace site: http://testedproducts.windowsmarketplace.com. | Easy. |
| Windows Remote | JavaRConsole system with network access to the Sun Blade X6240 server module network management port and an attached CD/DVD drive. | Medium: Installation time will be significantly increased over the Windows Local method. |
| Windows Image | JavaRConsole system with network access to the Sun Blade X6240 server module management network port. | Medium: Installation time will be significantly increased over the Windows Local method. |

# Preparing for Mass Storage Drivers Delivery

This chapter contains instructions on preparing the necessary mass storage drivers media for Windows Server installation.

Depending on the delivery method selected in Chapter 2, use one of the procedures listed in TABLE 3-1 to prepare the mass storage drivers.

**TABLE 3-1**    Mass Storage Drivers Delivery Methods

| Delivery Method | Relevant Section |
| --- | --- |
| Diskette Local | "Creating a Driver Diskette" on page 11 |
| Diskette Remote | "Creating a Driver Diskette" on page 11 |

# Creating a Driver Diskette

For the *Diskette Local* or *Diskette Remote* delivery method, you need to create a diskette containing the mass storage drivers before proceeding with the Windows installation.

Ensure that the following system configurations and materials are readily available:

- System with a connected diskette device. This may require a USB hub; refer to TABLE 2-2 for details.
- Diskette

Follow the procedure in the section that corresponds with the system you are using to create the diskette.

- "Using Windows to Create a Driver Diskette" on page 12

■ "Using Linux or Solaris to Create a Driver Diskette" on page 14

## Using Windows to Create a Driver Diskette

You can use Windows to create a driver diskette.

## ▼ To Create a Driver Diskette Using a Windows System

1. **Copy the driver files from the Tools and Drivers CD onto the system that you will use to create the driver diskette:**

   a. **Insert the Tools and Drivers CD into the Windows system with a CD device connected in the advised manner, if necessary (see** TABLE 2-2**).**

   b. **Copy the files into a directory on the Windows system.**

2. **Insert a writeable diskette into the floppy drive.**

3. **Start Windows Explorer.**

4. **Right-click the drive where you inserted the diskette.**

   A shortcut menu appears.

5. **Select Format.**

   The Format 3 1/2 Floppy dialog box appears.

**FIGURE 3-1**   Format 3 1/2 Floppy Dialog Box
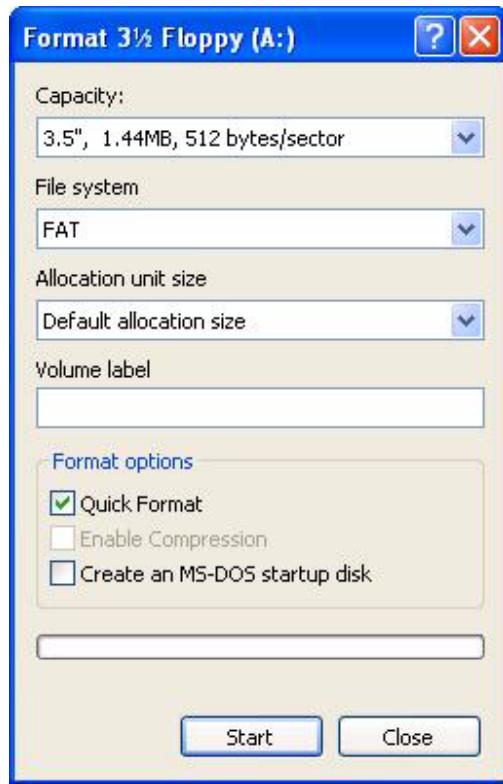


6. **Specify the settings to format the diskette, and click Start.**

   Quick Format is an acceptable format for this process.

7. **Once the formatting is complete, click Close.**

8. **Navigate to the** files **folder in the location where the extracted files reside.**

9. **In the Edit menu, click Select All.**

10. **Pressing and holding the left mouse button, drag and drop the selected files onto the diskette drive.**

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**Note –** If you used a tool such as Winzip to extract the files, do not drag and drop the files, as the directory structure will not be maintained. Instead, create the directory structure and copy the file to the correct directory.

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   The mass storage drivers diskette is created.

11. **Proceed to** Chapter 4**.**

# Using Linux or Solaris to Create a Driver Diskette

If you are using a Linux or Solaris system to create the driver diskette, use the following procedure.

## ▼ Using a Linux or Solaris System to Create a Driver Diskette

1. **Copy the driver package from the Tools and Drivers CD onto the system that you will use to create the floppy diskette.**

   a. **Create a** /tmp/files **directory. Type:**

      % **mkdir /tmp/files**

   b. **Insert the CD into the system and mount the CD, as necessary.**

   c. **Copy the files from the Tools and Drivers CD into the** /tmp/files **directory. Type:**

      % **cp -r * /tmp/files**

2. **Navigate to the** files **directory. Type:**

   % **cd /tmp/files**

3. **Insert a writeable, formatted diskette into the diskette drive.**

4. **Mount the diskette to the system.**

   See the example below for the operating system that you are using:

   For Solaris:

   % **volcheck**

   For Linux:

   % **mkdir /mnt/floppy**

   % **mount /dev/fd0 /mnt/floppy**

5. **Copy the files and folders in the** files **directory to the driver diskette.**

   See the example below that corresponds to the operating system that you are using:

   For Solaris:

   % **cp -r * /floppy/floppy0**

   For Linux:

   % **cp -r * /mnt/floppy**

6. **Proceed to** Chapter 4**.**

# Configuring the JavaRConsole System

This chapter describes how to set up the JavaRConsole system to deliver the mass storage drivers and Windows Server media for operating system installation.

**Note –** If you have chosen both the Diskette Local and Windows Local delivery methods in Chapter 2, proceed to Chapter 5.

The following sections are included in this chapter:

- "JavaRConsole System Requirements" on page 18
- "Setting Up the JavaRConsole System" on page 18

You have to set up a JavaRConsole system if you chose any one of the following mass storage driver or Windows media delivery methods described in Chapter 2:

- Diskette Remote
- Diskette Image
- Windows Remote
- Windows Image

**Note –** This procedure does not provide detailed instructions for configuring the system that is running the JavaRConsole (also known as the ILOM Remote Console). See the Sun Integrated Lights Out Manager (ILOM) documentation for details configuring your system to run ILOM on the JavaRConsole. (Note that there are multiple versions of ILOM; be sure to refer to the guide that matches your server's installed version of ILOM.).

# JavaRConsole System Requirements

The JavaRConsole system refers to the system that is hosting the JavaRConsole (ILOM Remote Console application).

The requirements for the JavaRConsole system are:

- Solaris, Linux, or Windows operating system is installed.
- The system must be connected to a network that has access to the Sun Blade X6240 series Ethernet management port.
- Java Runtime Environment (JRE) 1.5 or later is installed.
- If the JavaRConsole system is running on Solaris, volume management must be disabled for JavaRConsole to access the physical diskette and/or CD/DVD-ROM drives.
- If the JavaRConsole system is running on Windows Server, Internet Explorer Enhanced Security must be disabled.

**Note –** This procedure assumes that the JavaRConsole system and ILOM service processor have been set up according to the instructions in the *Sun Integrated Lights Out Manager* documentation. (Note that there are multiple versions of ILOM, be sure to refer to the guide that matches your server's installed version of ILOM.).

# Setting Up the JavaRConsole System

To set up the JavaRConsole system, use the following procedure.

## ▼ To Set Up the JavaRConsole System

1. **Start the ILOM web interface by typing the IP address of the Integrated Lights Out Manager (ILOM) service processor into a browser on the JavaRConsole system.**

**FIGURE 4-1** URL Sample
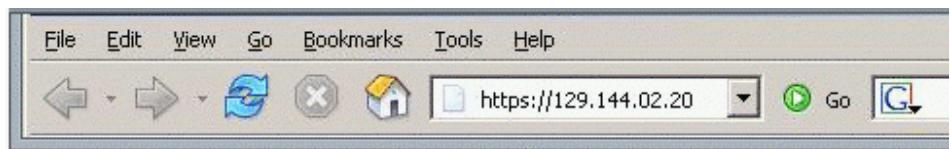


The Security Alert dialog box appears.

**FIGURE 4-2** Security Alert Dialog Box



2. **Click Yes.**

   The ILOM login screen appears.

**FIGURE 4-3** Login Screen
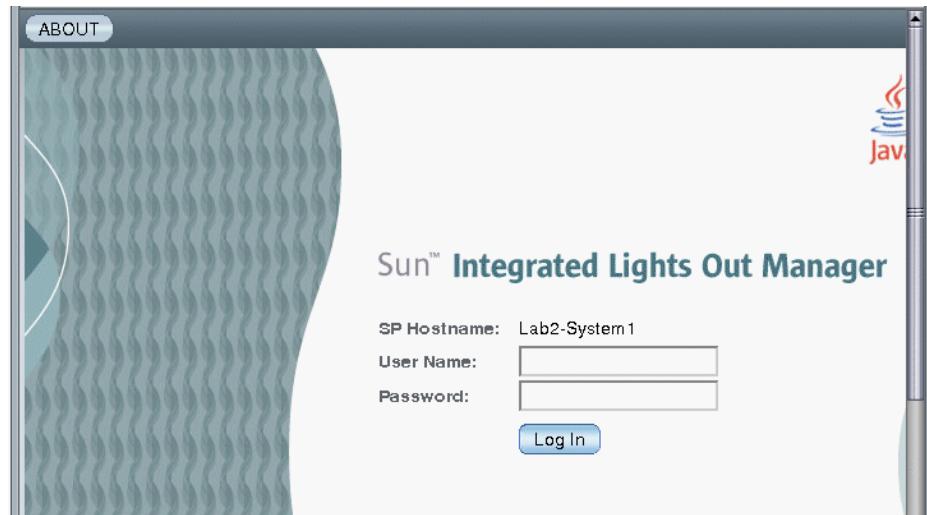


3. **Enter the user name and password, and then click Log In.**

   The default user name is **root** and default password is **changeme**.

   The ILOM Version page appears.

**FIGURE 4-4**   ILOM Version Page



**4. Click the Remote Control tab.**

The Launch Redirection page appears.

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**Note –** Ensure that the mouse mode is set to Absolute. Under the Remote Control tab, click the Mouse Mode Settings tab, select Absolute from the drop-down menu, and click **Save**.

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**FIGURE 4-5** ILOM Remote Control - Redirection Page
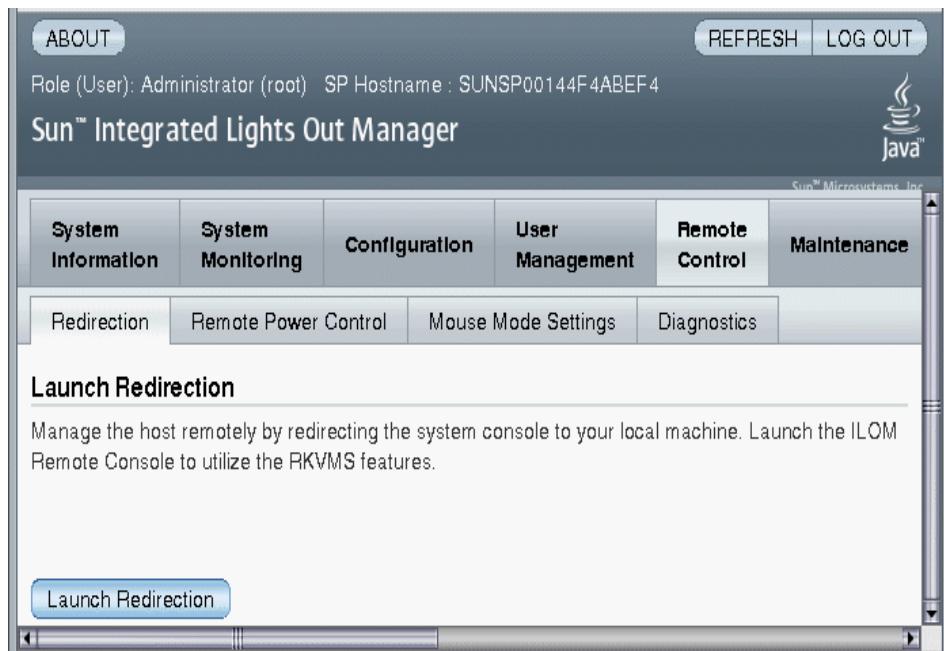


**5. Select the Redirection tab and then click Launch Redirection.**

**Note –** When using a Windows system for JavaRConsole system redirection, an additional warning displays after clicking Launch Redirection. If the Hostname Mismatch dialog box displays, click the **Yes** button.

**FIGURE 4-6** Hostname Mismatch Dialog Box

The Remote Control Login Dialog box appears.

**FIGURE 4-7**  Remote Control Login Dialog Box
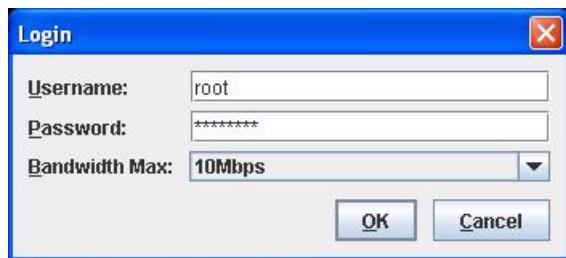


6. **In the Remote Control Login dialog box, enter your user name and password and click OK.**

   The default user name is **root** and the password is **changeme**.

   After the login is successful, the JavaRConsole screen appears.

**FIGURE 4-8**  JavaRConsole Devices Menu
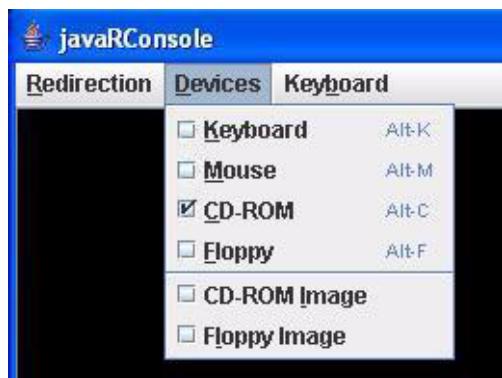


7. **From the Devices menu, select one diskette item and/or one CD item according to the delivery method you have chosen.**

   - **Diskette Remote.** Select Floppy to redirect the server to the contents of the physical diskette drive attached to the JavaRConsole system.

   - **Diskette Image.** Select Floppy Image to redirect the server to the mass storage drivers diskette image file located on the JavaRConsole system.

   - **CD-ROM Remote.** Select CD-ROM to redirect the server to the operating system software CD contents from the CD/DVD-ROM drive attached to the JavaRConsole system.

- **CD-ROM Image.** Select CD-ROM Image to redirect the server to the operating system software .iso image file located on the JavaRConsole system.

**Caution –** Using the CD-ROM Remote or CD-ROM Image options to install the Windows Server will significantly increase the time necessary to perform the installation as the content of the CD-ROM is accessed over the network. The installation duration will depend on the network connectivity and traffic.

# Installing Windows Server 2003

This chapter describes how to install the Windows Server 2003 operating system directly onto a Sun Blade X6240 server module using the Windows Server 2003 media.

The following sections are included in this chapter:

- "Installation Requirements" on page 25
- "Installing the Windows Server 2003 Operating System" on page 26

# Installation Requirements

Before beginning the operating system installation, ensure that the following requirements are met.

For all installation methods:

- Complete the procedures in the previous chapters of this document.
- If you selected the *Diskette Local* mass storage drivers installation method, use a USB hub so that one dongle port is free to connect the diskette drive directly to the system. Connect the hub to the dongle cable provided with the system.
- For information about specific details of the operating system installation, refer to your Microsoft Windows documentation.

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**Note –** The complete Microsoft Windows operating system installation process is not documented in this section. This section documents only the steps that are specific for installing Windows Server 2003 on a Sun Blade X6240 server module.

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For requirements specific to the mass storage driver and Windows media delivery methods that you have chosen, see TABLE 5-1.

**TABLE 5-1**    Requirements for Each Installation Method

| Method | Action or Items Required |
| --- | --- |
| Diskette Local | Connect the USB diskette drive directly to the system USB dongle port, and insert the mass-storage drivers diskette into the diskette drive.* |
| Diskette Remote | Connect the diskette drive to the JavaRConsole system (if necessary) and insert the mass-storage drivers diskette into the diskette drive. |
| Diskette Image | Ensure that the `floppy.img` file is accessible from the JavaRConsole system. |
| Windows Local | Ensure that the Microsoft Windows Server installation media and a DVD drive are available. |
| Windows Remote | Insert the Microsoft Windows Server installation media into the JavaRConsole system's CD or DVD drive. |
| Windows Image | Ensure that the Windows Server installation media is accessible from the JavaRConsole system. |

\*  See the list of USB diskette drives listed as "Designed for Windows" on the
   Windows Marketplace site at `http://testedproducts.windowsmarketplace.com/`

# Installing the Windows Server 2003 Operating System

Follow these steps to install the Microsoft Windows Server 2003 software onto your Sun Blade X6240 server module.

**Caution –** The Solaris 10 5/08 Operating System or Windows Server 2003 R2 Enterprise Edition with SP2 Operating System is preinstalled on the Sun Blade X6240 server module boot disk. The Windows installation will format the boot disk and all data will be lost. If the Windows Server 2003 OS is preinstalled, you do not have to use this procedure unless you are installing a newer version or different version (32-bit or 64-bit). Instructions for configuring the preinstalled Windows Server 2003 OS from the boot disk are provided in the *Sun Blade X6240 Server Module Installation Guide* (820-3968).

# ▼ To Install the Operating System

1. **Ensure that you have completed all of the requirements listed in** "Installation Requirements" on page 25**.**

2. **Power cycle the Sun Blade X6240 server module.**

   The BIOS POST process begins.

3. **When the** Press F8 for BBS POPUP or Boot menu **prompt appears on the BIOS POST screen, press** F8**.**

**FIGURE 5-1**    F8 Prompt

```
Initializing USB Controllers .. Done.
Press F2 to run Setup (CTRL+E on Remote Keyboard)
Press F8 for BBS POPUP  (CTRL+P on Remote Keyboard)
Press F12 to boot from the network (CTRL+N on Remote Keyboard)
```

When the BIOS POST process is complete, the Boot Device menu appears.

**FIGURE 5-2**    Boot Device Menu

```
            Please select boot device:

USB:TSSTcorp CD/DVDW
SCSI:#0500 ID11 LUN0 LSILOGIC L
Network:IBA GE Slot 8400 v1270
Network:IBA GE Slot 8401 v1270




        ↑ and ↓ to move selection
      ENTER to select boot device
       ESC to boot using defaults
```

4. **If you have selected the Windows Local installation method, insert the CD now.**

5. **Select CD-DVD from the Boot Device menu.**

⚠ **Caution –** After you press Enter in Step 6, the next actions must be performed quickly. Read Step 7 and Step 8 before proceeding, so that you will know what to look for. The prompts are displayed for five seconds and are easy to miss. If you do not press F6 while the prompts are being displayed, the screen allowing you to specify additional drivers is not displayed and the installation will fail. You will need to restart the system and go back to Step 3

6. **Press Enter.**

7. **When prompted with** `Press any key to boot from CD`**, quickly press any key.**

   The Windows Setup begins. During the early part of Windows Setup, the following message appears at the bottom of the screen:

   `Press F6 if you need to install a third party SCSI or RAID driver.`

8. **Press F6 to install mass-storage drivers.**

   A screen appears, prompting you to press S to specify additional devices.

**FIGURE 5-3**   Specify Additional Device Screen
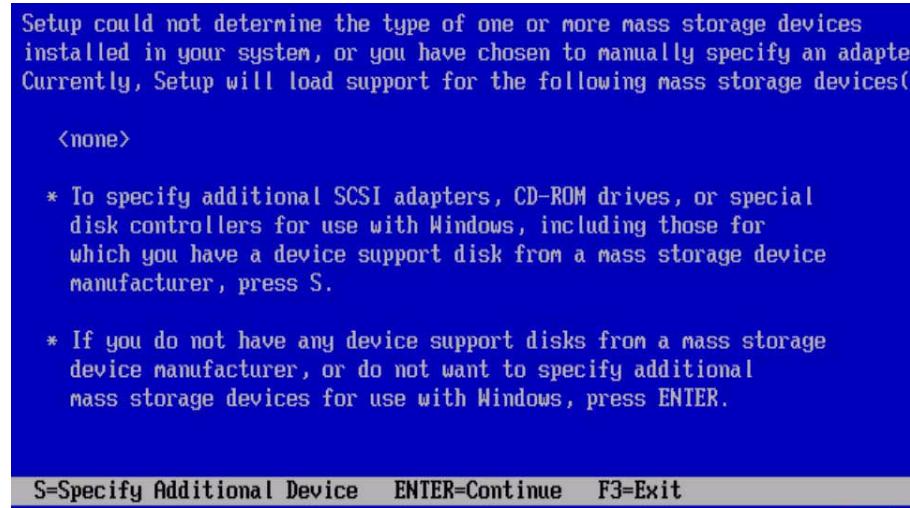


9. **Ensure that the mass storage drivers are accessible according to the mass storage driver installation method that you have selected.**

   - **Diskette Local.** Mass storage drivers diskette in diskette drive A on the Sun Blade X6240 server module.

- **Diskette Remote.** Mass storage drivers diskette in the JavaRConsole server diskette drive
- **Diskette Image.** `floppy.img` available on the JavaRConsole system

10. **Press S to specify additional devices.**

   A screen appears listing the available drivers.

   **FIGURE 5-4**   Select SCSI Adapter Screen
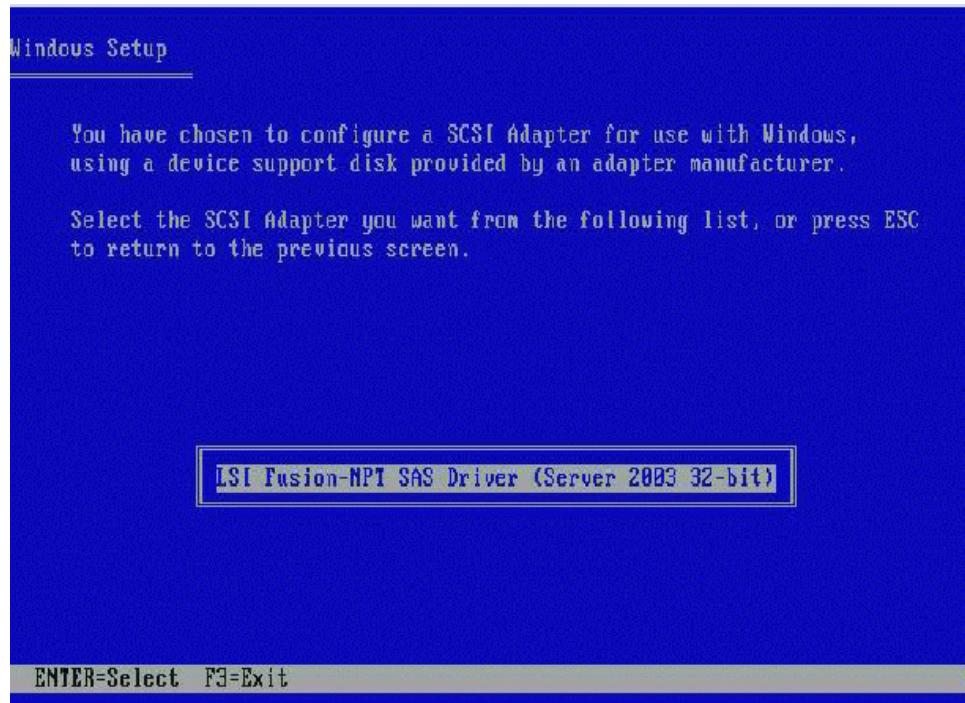


11. **Select the appropriate version of the LSI Logic Fusion-MPT SAS Driver, depending on the version of Windows you are installing (Server 2003 32-bit or Server 2003 AMD64), and press Enter.**

   A screen appears, confirming your selections and allowing you to select additional drivers.

**FIGURE 5-5** Specify Additional Device Screen



```
indows Setup


Setup will load support for the following mass storage device(s):

   LSI Fusion-MPT SAS Driver (Server 2003 32-bit)

 * To specify additional SCSI adapters, CD-ROM drives, or special
   disk controllers for use with Windows, including those for
   which you have a device support disk from a mass storage device
   manufacturer, press S.

 * If you do not have any device support disks from a mass storage
   device manufacturer, or do not want to specify additional
   mass storage devices for use with Windows, press ENTER.







 S=Specify Additional Device   ENTER=Continue   F3=Exit
```

**12. Press Enter to continue.**

The Welcome to Windows Setup screen appears.

**FIGURE 5-6** Welcome to Windows Setup Screen



```
Windows Server 2003, Enterprise Edition Setup

  Welcome to Setup.

  This portion of the Setup program prepares Microsoft(R)
  Windows(R) to run on your computer.

       •  To set up Windows now, press ENTER.

       •  To repair a Windows installation using
          Recovery Console, press R.

       •  To quit Setup without installing Windows, press F3.




  ENTER=Continue   R=Repair   F3=Quit
```

**13. Press Enter to continue.**

Windows Setup continues and displays the following screen, allowing you to
select Express Setup or Custom Setup.

**FIGURE 5-7** Select Setup Screen



```
Windows Server 2003, Enterprise Edition Setup

  Windows Setup can automatically configure most aspects of your
  installation, requiring little or no input from you.  If you are
  configuring a computer with no local monitor or keyboard, you
  must use this feature or setup will not complete.


  If you would like to use this feature, please press ENTER now.


  If you would like to proceed with a manual installation, please
  press the C key now.


  ENTER=Express Setup   C=Custom Setup   F3=Quit
```

> **Note –** If you plan to use a hardware RAID as the system disk, you must select Custom Setup and manually partition the disk. You must reserve a minimum of 64 MB of unpartitioned space at the end of the disk.

14. **Press Enter for Express Setup.**

15. **Follow the onscreen instructions to complete the Windows Server Installation.**

    During installation, the system will reboot.

16. **Proceed to** "Updating Critical System-Specific Drivers" on page 41**.**

# Installing Windows Server 2008

This chapter describes how to install the Windows Server 2008 operating system directly onto a Sun Blade X6240 server module using the Windows Server media.

The following sections are included in this chapter:

- "Installation Requirements" on page 33
- "Installing the Windows Server 2008 Operating System" on page 34

# Installation Requirements

Before beginning the operating system installation, ensure that the following requirements are met.

For all installation methods:

- Complete the procedures in the previous chapters of this document.
- If you selected the *Diskette Local* mass storage drivers installation method, use a USB hub so that one dongle port is free to connect the diskette drive directly to the system. Connect the hub to the dongle cable provided with the system.
- For information about specific details of the operating system installation, refer to your Microsoft Windows documentation.

---

**Note –** The complete Microsoft Windows operating system installation process is not documented in this section. This section documents only the steps that are specific for installing Windows Server 2008 on a Sun Blade X6240 server module.

---

For requirements specific to the mass storage driver and Windows media delivery methods that you have chosen, see TABLE 6-1.

**TABLE 6-1**  Requirements for Each Installation Method

| Method | Action or items required |
| --- | --- |
| Diskette Local | Connect the USB diskette drive directly to the system USB dongle port, and insert the mass-storage drivers diskette into the diskette drive.[*] |
| Diskette Remote | Connect the diskette drive to the JavaRConsole system (if necessary) and insert the mass-storage drivers diskette into the diskette drive. |
| Diskette Image | Ensure that the `floppy.img` file is accessible from the JavaRConsole system. |
| Windows Local | Ensure that the Microsoft Windows Server installation media and a DVD drive are available. |
| Windows Remote | Insert the Microsoft Windows Server installation media into the JavaRConsole system's CD or DVD drive. |
| Windows Image | Ensure that the Windows Server installation media is accessible from the JavaRConsole system. |

[*]  See the list of USB diskette drives listed as "Designed for Windows" on the Windows Marketplace site at `http://testedproducts.windowsmarketplace.com/`

# Installing the Windows Server 2008 Operating System

Follow these steps to install the Microsoft Windows Server 2008 software onto your Sun Blade X6240 server module.

**Caution –** The Solaris Operating System or the Windows Server 2003 R2 Enterprise Edition with SP2 Operating System is preinstalled on the Sun Blade X6240 server module boot disk. The Windows installation will format the boot disk and all data will be lost.

# ▼ To Install the Windows Server 2008 Operating System

1. **Ensure that you have completed all of the requirements listed in** "Installation Requirements" on page 33**.**

2. **Power cycle the Sun Blade X6240 server module.**

   The BIOS POST process begins.

3. **When the** Press F8 for BBS POPUP or Boot menu **prompt appears on the BIOS POST screen, press** F8**.**

**FIGURE 6-1** F8 Prompt



```
Initializing USB Controllers .. Done.
Press F2 to run Setup (CTRL+E on Remote Keyboard)
Press F8 for BBS POPUP  (CTRL+P on Remote Keyboard)
Press F12 to boot from the network (CTRL+N on Remote Keyboard)
```

When the BIOS POST process is complete, the Boot Device menu appears.

**FIGURE 6-2** Boot Device Menu



```
        Please select boot device:

USB:TSSTcorp CD/DVDW
SCSI:#0500 ID11 LUN0 LSILOGIC L
Network:IBA GE Slot 8400 v1270
Network:IBA GE Slot 8401 v1270




     ↑ and ↓ to move selection
   ENTER to select boot device
     ESC to boot using defaults
```

4. **If you have selected the Windows Local installation method, insert the DVD now.**

5. **Select CD-DVD from the Boot Device menu.**

6. **Press Enter.**

7. **When prompted with** `Press any key to boot from CD/DVD`**, quickly press any key.**

   The Windows Server 2008 localization screen appears.

**FIGURE 6-3** Windows Server 2008 Localization Screen



8. **Select the localization options and click Next to continue.**

   The Install Windows screen appears.

**FIGURE 6-4** Install Windows Screen



9. **Click Install now to start installation.**

   The Product Key screen appears and prompts you to enter the product key.

10. **Type the product key and click Next to continue.**

   The Where do you want to install Windows screen appears.

**FIGURE 6-5** Where Do You Want to Install Windows Screen
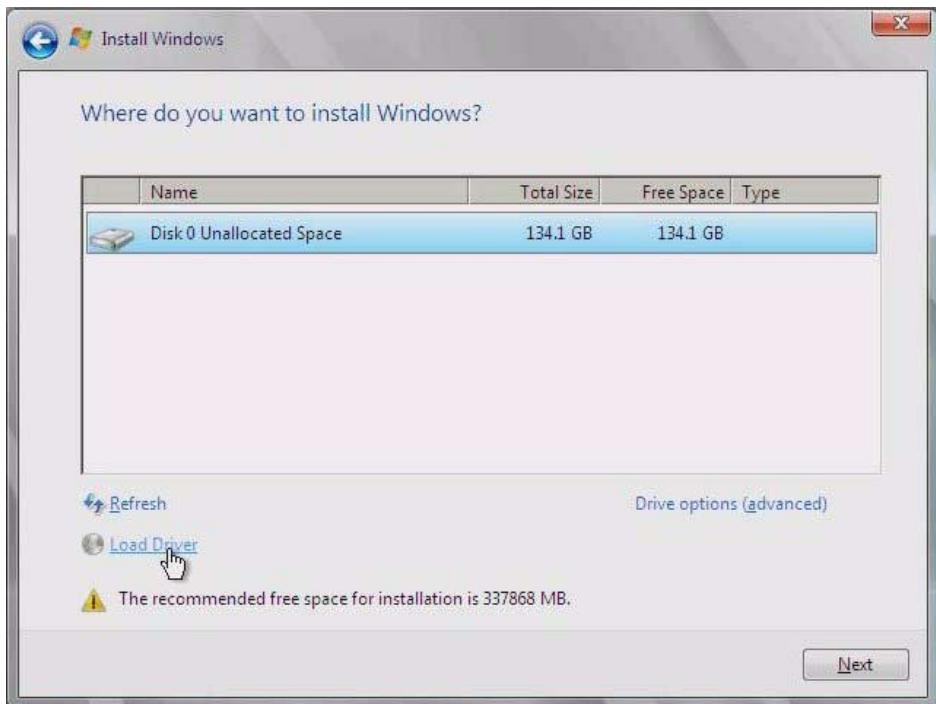


11. **(Optional) To install third-party SCSI or RAID driver, do one of the following:**

   ■ If you want to install mass-storage drivers, click **Load Drive**r. The Select the Driver to Be Install screen appears. This step is required for systems with REM only. Proceed to Step 12.

   ■ If you do *not* want to install mass-storage drivers, do nothing. The installation program automatically advances and the Select the Driver to Be Installed screen appears. Proceed to Step 14.

**FIGURE 6-6** Select the Driver to be Installed Screen
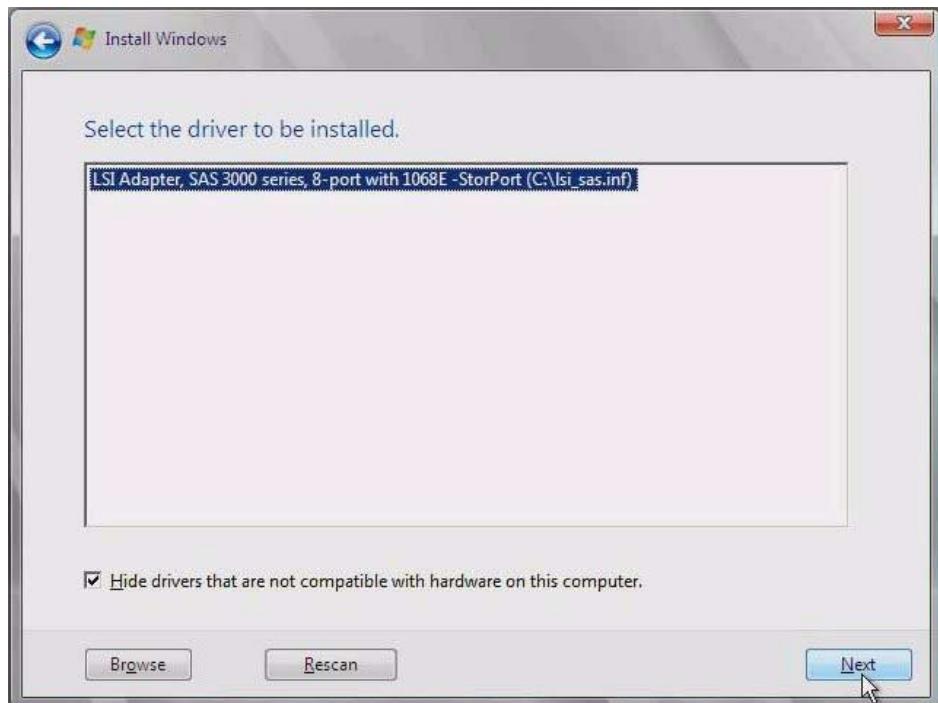


12. **Ensure that the mass storage drivers are accessible according to the mass storage driver installation method that you have selected.**

    - **Diskette Local.** Mass storage drivers diskette in diskette drive A on the Sun Blade X6240 server

    - **Diskette Remote.** Mass storage drivers diskette in the JavaRConsole server diskette drive

    - **Diskette Image.** `floppy.img` available on the JavaRConsole system

13. **Click Browse, browse the device, and select the appropriate driver version.**

14. **Click Next to start installation**

15. **Proceed to** "Updating Critical System-Specific Drivers" on page 41**.**

# Updating Critical System-Specific Drivers

This chapter describes how to update the Windows Server 2003 or 2008 installation with the Sun Blade X6240 server module-specific device driver software.

This chapter contains the following sections:

-
-

The procedures in this chapter assume that you have already:

- Configured JavaRConsole as described in Chapter 4, if you are updating the device driver software remotely.
- Installed the Microsoft Windows Server 2003 or 2008 operating system.
- Obtained a copy of the Sun Blade X6240 Tools and Drivers CD-ROM (708-0346).

# Updating the System-Specific Drivers

Follow this procedure to update Windows Server system-specific drivers.

## ▼ To Update the System-Specific Drivers

1. **To make the system-specific driver accessible, do one of the following:**

   - Insert the Tools and Drivers CD/DVD in to the local USB DVD drive or the remote DVD drive.
   - Mount the Tools and Drivers ISO image from the JavaRConsole Devices menu.

2. **The Tools and Drivers installation program runs automatically and the Sun Blade X6240 Tools and Drivers DVD dialog box appears.**

**FIGURE 7-1** Tools and Drivers DVD Dialog Box



If the Tools and Drivers CD/DVD does not run, double click the DVD drive to start the installation program.

3. **Select Software and Driver Installation to install drivers.**

The Driver Installation/Update dialog box appears.

**FIGURE 7-2**    Driver Installation/Update Dialog Box

**FIGURE 7-2**    Driver Installation/Update Dialog Box

4. **To install system-specific drivers, select Install/Update Drivers.**

   After the drivers installation is complete, the installation program displays the System Settings Change dialog box, which prompts you for a system reboot to update

**FIGURE 7-3**    System Settings Change Dialog Box
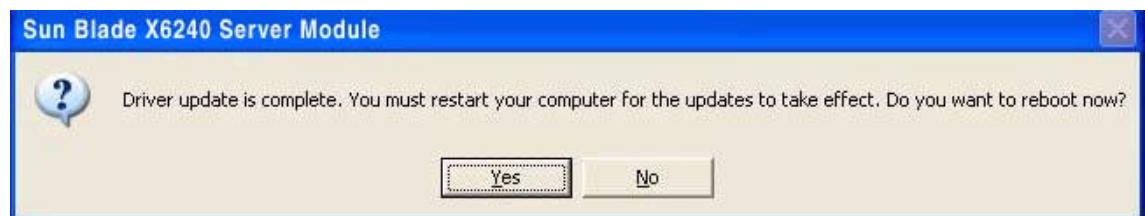


5. **Select Yes to reboot system, or No to install optional components.**

   If you selected **No**, proceed to "Installing Optional Components" on page 44 to install optional components, otherwise, the installation is complete.

# Installing Optional Components

Perform this procedure if an LSI or Sun StorageTek REM is installed in the system.

## ▼ To Install Optional Components

**1. Follow the on-screen instructions to install the appropriate driver and software.**

**FIGURE 7-4** Optional Software Dialog Box



After the appropriate driver and software installation completes, the installation program displays the System Settings Change dialog box, which prompts you for a system reboot to update system settings.

**FIGURE 7-5** System Settings Change Dialog Box
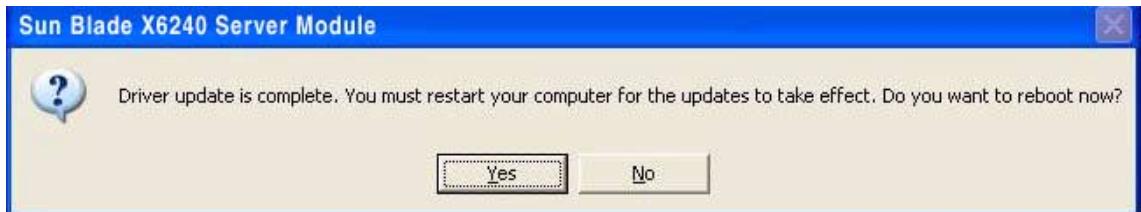


2. **Click Yes to reboot system and have the changes take effect.**

# Installing a Windows Server 2003 Image From a RIS Server

This chapter is intended for advanced system administrators who want to incorporate the Sun Blade X6240 server module driver package into a Windows Server 2003 SP2 image that resides on a Remote Installation Services (RIS) server and then install that RIS image on the Sun Blade X6240 server module. Both 32-bit and 64-bit versions of the Windows 2003 SP2 operating system are supported.

RIS can be used to set up computers remotely by using a RIS network shared folder as the source of the Windows operating system image. You can install the Windows operating system on remote boot-enabled computers that are connected to the network by booting from a PXE ROM or Remote Boot Disk. The Sun Blade X6240 server module is one such computer.

This chapter is not a tutorial on RIS; it provides guidance on how to incorporate the Sun Blade X6240 server module-specific drivers into a RIS image.

The following sections are included in this chapter:

# Determining Required Drivers

The Sun Blade X6240 server module server-specific drivers that must be incorporated into a Windows 2003 SP2 RIS image are shown in TABLE 8-1.

**TABLE 8-1**    Sun Blade X6240 Server Module-Specific Drivers for RIS Installation

| Device | Required for 32-bit Windows Server 2003 SP2 | Required for 64-bit Windows Server 2003 SP2 |
|---|---|---|
| AMD K8 Processor | Yes | Yes |
| AMI Virtual Floppy | Yes | Yes |
| LSI 1068E HBA | Yes | Yes |
| NVIDIA nForce4 HyperTransport Bridge | Yes | Yes |
| NVIDIA nForce4 Low Pin Count Controller | Yes | Yes |
| NVIDIA nForce4 PCI System Management | Yes | Yes |
| NVIDIA nForce4 Networking Controller | Yes | Yes |
| NVIDIA Network Bus Enumerator | Yes | Yes |

# Obtaining Driver Files for the RIS Image

To incorporate the Sun Blade X6240 server module driver package files into a RIS image you need to have the driver packages available for Windows Server 2003 SP2 PXE installation. The Tools and Drivers CD (708-0346) that shipped with the server module contains the driver files that you need.

# Configuring a RIS Image

This procedure describes how to add the drivers to a RIS image that is located on the RIS server. The name of the RIS image is:
`RemoteInstall\Setup\`*Language*`\Images\`*Dir_name*`\`*Arch*

Where*:*

- *Language* is the language of the installed operating system (for example, English).

- *Dir_name* is the directory where the RIS image installed.
- *Arch* is either i386 or amd64 for the 32-bit or 64-bit images respectively.

Separate installation procedures are provided for 32-bit and 64-bit Windows 2003 Server systems.

# Configuring a RIS Image for a Windows Server 2003 SP2 32-bit System

Use this procedure for the 32-bit Windows Server 2003 SP2 operating system.

## ▼ To Configure a RIS Image for a Windows Server 2003 SP2 32-bit System

1. **Install RIS support on a Windows Server 2003 system.**

---

**Note –** Before you can create a RIS image of the Windows Server 2003 SP2 operating system, you must install RIS support on a system that is running the Windows Server 2003 operating system.

---

   For a complete set of instructions on how to install RIS on Windows Server 2003, go to http://support.microsoft.com/kb/325862/en-us.

2. **To create an image of Windows Server 2003 SP2 on the RIS server, perform the following steps:**

   a. **Insert the Windows Server 2003 SP2 32-bit CD-ROM into the RIS server CD drive.**

   b. **From the Start menu choose Run.**

   c. **Type** `risetup.exe` **in the Run field.**

      The Welcome to the Remote Installation Services Setup Wizard screen appears.

   d. **Click Next.**

   e. **Select Add a new OS image to this remote installation server, and click Next.**

f. **Select the drive into which you inserted the Windows Server 2003 SP2 32-bit CD, and click Next.**

g. **Type a descriptive name for the stored Windows Server 2003 SP2 32-bit CD, and click Next. For example:**

   **`Sun Blade X6240_Windows_2003_SP2_32bit`**

h. **Type a description and Help text for the end user, and click Next to continue.**

i. **Select Use the old client installation screens, and click Next.**

j. **Review the settings, and click Finish to install the image.**

k. **After the image is installed on the server, click Done.**

3. **To modify the RIS image that you created in** Step 2 **with the server-specific RIS Intel Ethernet drivers, perform the following steps:**

   The RIS Intel Ethernet drivers are on the Tools and Drivers CD.

   a. **Insert the Tools and Drivers CD into the RIS server CD drive.**

   b. **To copy the Windows 32-bit RIS Intel Ethernet driver files locally to the RIS server, type:**

      > **copy** *<cdrom_drive>***:\drivers\windows\RIS\2003\32bit\\* C:temp\\ intel**

      Where *cdrom_drive* is the drive that contains the Tools and Drivers CD.

   c. **Copy all the files in the** `C:\temp\intel` **directory to the RIS image on the RIS server. For example:**

      > **copy C:temp\intel\\*.\* D:\RemoteInstall\Setup\English\ Images\\***image_dir***\i386**

      Where *image_dir* is the directory on the RIS server that contains the RIS image.

4. **To modify the** `ristndrd.sif` **file, perform the following steps:**

   The `ristndrd.sif` file is located at
   `D:\RemoteInstall\Setup\English\Image\`*image_dir*`\i386\templates`

   Where *image_dir* is the directory on the RIS server that contains the RIS image.

   a. **Edit the** `ristndrd.sif` **file to add the following entries:**

```
[Unattended]
OemPreinstall=yes
[GuiUnattended]
AdminPassword=password
```

**b. Depending on the controller card type in the RIS server, use one of the following procedures to edit the** `ristndrd.sif` **file to include the entries specified:**

- For an LSI 3081E card, add the following entries:

```
[Unattended]
DriverSigningPolicy = Ignore
OemPnPDriversPath = "\drivers\nic\nvidia;\drivers\nic\intel;
  \drivers\sata_ide;\drivers\smbus;\drivers\video;\drivers\tpm"
[MassStorageDrivers]
"LSI Logic Fusion-MPT SAS Driver (Server 2003 32-bit)"="OEM"
[OEMBootFiles]
txtsetup.oem
idecoi.dll
lsi_sas.cat
lsi_sas.inf
lsi_sas.sys
lsi_sas.tag
lsipseud.inf
[UserData]
ProductKey = XXXXX-XXXXX-XXXXX-XXXXX-XXXXX
[Identification]
JoinWorkgroup = WORKGROUP
```

- For a Sun StorageTek card, add the following entries:

```
[Unattended]
DriverSigningPolicy = Ignore
OemPnPDriversPath = "\drivers\nic\nvidia;\drivers\nic\intel;
  \drivers\sata_ide;\drivers\smbus;\drivers\video;\drivers\tpm"
[MassStorageDrivers]
"Adaptec SAS/SATA-II RAID Controller="OEM"
[OEMBootFiles]
txtsetup.oem
raiddisk1
arcsas.cat
arcsas.inf
arcsas.sys
[UserData]
ProductKey = XXXXX-XXXXX-XXXXX-XXXXX-XXXXX
[Identification]
JoinWorkgroup = WORKGROUP
```

- For an on-board NVidia controller, add the following entries:

```
[Unattended]
DriverSigningPolicy = Ignore
OemPnPDriversPath = "\drivers\nic\nvidia;\drivers\nic\intel;
  \drivers\sata_ide;\drivers\smbus;\drivers\video;\drivers\tpm"
[MassStorageDrivers]
"NVIDIA RAID CLASS DRIVER (required)"="OEM"
"NVIDIA nForce Storage Controller (required)"="OEM"
[OEMBootFiles]
txtsetup.oem
nvatabus.sys
nvraid.cat
nvraid.inf
nvraid.sys
nvraidco.dll
[UserData]
ProductKey = XXXXX-XXXXX-XXXXX-XXXXX-XXXXX
[Identification]
JoinWorkgroup = WORKGROUP
```

5. **To add the** `$oem$` **directory and its subdirectories to the RIS image directory, perform the following steps:**

   a. **Add the** `$oem$` **directory to the RIS image directory located at**
      `D:\RemoteInstall\Setup\English\Images\`*image_dir*

      Where *image_dir* is the directory on the RIS server that contains the RIS image.

   b. **Create the following subdirectories under the** `$oem$` **directory:**

      `\$1\drivers`

      `\textmode`

   c. **Create the following subdirectories under the** `\$1\drivers` **directory:**

      `\nic\intel`

      `\nic\nvidia`

      `\sata_ide`

      `\smbus`

      `\tpm`

      `\video`

6. **Depending on the type of controller in the RIS server, use one of the following procedures to copy the driver files into the** `$oem$` **directory tree:**

**Note –** The Tools and Drivers CD contains the drivers for Windows Server 2003 SP2 32-bit systems for three types of controllers: LSI 3081E, Sun StorageTek, and NVidia.

- For the LSI 3081E controller card, type the following commands to copy the drivers to the appropriate directories:

  > **copy** *cdrom_drive***:\drivers\windows\RAID\lsi\drivers\2003\32bit\ \* D:\remoteinstall\setup\english\images\\***image_dir***\$oem$\textmode**

  > **copy** *cdrom_drive***:\drivers\windows\RIS\2003\32bit\\* D:\ remoteinstall\setup\english\images\\***image_dir***\i386**

  > **copy** *cdrom_drive***:\drivers\windows\NIC\pro1000\win32\\* D:\ remoteinstall\setup\english\images\\***image_dir***\$oem$\$1\drivers\ nic\intel**

  > **copy** *cdrom_drive***:\drivers\chipset\2003\32bit\ethernet\\* D:\ remoteinstall\setup\english\images\\***image_dir***\$oem$\$1\drivers\ nic\nvidia**

  > **copy** *cdrom_drive***:\drivers\windows\TPM\driver\32bit\\*Driver\\* D:\remoteinstall\setup\english\images\\***image_dir***\$oem$\$1\ drivers\tmp**

  > **copy** *cdrom_drive***:\drivers\windows\video\2003\32bit\\* D:\ remoteinstall\setup\english\images\\***image_dir***\$oem$\$1\drivers\ video**

  > **copy** *cdrom_drive***:\drivers\windows\chipset\2003\32bit\ide\ winxp\sata_ide\\* D:\remoteinstall\setup\english\images\ ***image_dir***\$oem$\$1\drivers\sata_ide**

  > **copy** *cdrom_drive***:drivers\windows\chipset\2003\32bit\smbus\\* D:\remoteinstall\setup\english\images\**<*image_dir*>**\$oem$\$1\ drivers\smbus**

  Where:

  - *cdrom_drive* is the drive in which the Tools and Drivers CD is installed.
  - *image_dir* is the name you assign to the image directory.

- For the Sun StorageTek controller card, type the following commands to copy the drivers to the appropriate directories:

  > **copy** *cdrom_drive***:\drivers\windows\RAID\StorageTEK\drivers\\***
  **D:\remoteinstall\setup\english\images\\***image_dir***\$oem$\textmode**

  > **copy** *cdrom_drive***:\drivers\windows\RIS\2003\32bit\\* D:\**
  **remoteinstall\setup\english\images\\***image_dir***\i386**

  > **copy** *cdrom_drive***:\drivers\windows\NIC\pro1000\32win\\* D:\**
  **remoteinstall\setup\english\images\\***image_dir***\$oem$\$1\drivers\**
  **nic\intel**

  > **copy** *cdrom_drive***:\drivers\windows\chipset\2003\32bit\ethernet\**
  **\* D:\remoteinstall\setup\english\images\\***image_dir***\$oem$\$1\**
  **drivers\nic\nvidia**

  > **copy** *cdrom_drive***:\drivers\windows\TPM\driver\32bit\\*Driver\\***
  **D:\remoteinstall\setup\english\images\\***image_dir***\$oem$\$1\**
  **drivers\tpm**

  > **copy cdrom_drive:drivers\windows\video\2003\32bit\\* D:\**
  **remoteinstall\setup\english\images\\***image_dir***\$oem$\$1\drivers\**
  **video**

  **copy** *cdrom_drive***:\drivers\windows\chipset\2003\32bit\ide\winxp\**
  **sata_ide\\* D:\remoteinstall\setup\english\images\\***image_dir***\**
  **$oem$\$1\drivers\sata_ide**

  > **copy** *cdrom_drive***:\drivers\windows\chipset\2003\32bit\smbus\\***
  **D:\remoteinstall\setup\english\images\\***image_dir***\$oem$\$1\**
  **drivers\smbus**

  Where:

  - *cdrom_drive* is the drive in which the Tools and Drivers CD is installed.
  - *image_dir* is the name you assign to the image directory.

- For the on-board NVidia controller, type the following commands to copy the drivers to the appropriate directories:

  > **copy** *cdrom_drive***:\drivers\windows\chipset\2003\32bit\ide\ winxp\sataraid\\* D:\remoteinstall\setup\english\images\** *image_dir***\\$oem$\textmode**

  > **copy** *cdrom_drive***:\drivers\windows\chipset\2003\32bit\ide\ winxp\sata_ide\\* D:\remoteinstall\setup\english\images\** *image_dir***\\$oem$\textmode**

  > **copy** *cdrom_drive***:\drivers\windows\RIS\2003\32bit\\* D:\ remoteinstall\setup\english\images\***image_dir***\i386**

  > **copy** *cdrom_drive***:\drivers\windows\NIC\pro1000\win32\\* D:\ remoteinstall\setup\english\images\***image_dir***\\$oem$\\$1\drivers\ nic\intel**

  > **copy** *cdrom_drive***:\drivers\chipset\2003\32bit\ethernet\\* D:\ remoteinstall\setup\english\images\***image_dir***\\$oem$\\$1\drivers\ nic\nvidia**

  > **copy** *cdrom_drive***:\drivers\windows\TPM\driver\32bit\\*Driver\\* D:\remoteinstall\setup\english\images\***image_dir***\\$oem$\\$1\ drivers\tpm**

  > **copy** *cdrom_drive***:\drivers\windows\video\2003\32bit\\* D:\ remoteinstall\setup\english\images\***image_dir***\\$oem$\\$1\drivers\ video**

  > **copy** *cdrom_drive***:\drivers\windows\chipset\2003\32bit\ide\ winxp\sata_ide\\* D:\remoteinstall\setup\english\images\** *image_dir***\\$oem$\\$1\drivers\sata_ide**

  > **copy** *cdrom_drive***:\drivers\windows\chipset\2003\32bit\smbus\\* D:\remoteinstall\setup\english\images\***image_dir***\\$oem$\\$1\ drivers\smbus**

  Where:

  - *cdrom_drive* is the drive in which the Tools and Drivers CD is installed.
  - *image_dir* is the name you assign to the image directory.

7. **To modify the** txtsetup.oem **file, perform the following steps:**

   a. **In a text editor, open the** D:\RemoteInstall\Setup\English\Images\ *image_dir*\$oem$\textmode\txtsetup.oem **file.**

   Where *image_dir* is the directory on the RIS server that contains the RIS image.

   b. **If** dll **files are present in the [Files.scsi.RAIDClASS] or [Files.scsi.BUSDRV] sections, comment them out by adding a semicolon at the beginning of each line.**

   c. **Save the changes and exit the file.**

8. **To stop and start the Remote Installation Service (BINLSVC) on the RIS server, type the following at the command prompt:**

   ```
   net Stop binlsvc
   net Start binlsvc
   ```

9. **Install the RIS image on to the Sun Blade X6240 server module.**

   For instructions on installing the RIS image on to the Sun Blade X6240 server module, see "Installing the RIS Image on a Client System" on page 63.

# Configuring a RIS Image for a Windows Server 2003 SP2 64-bit System

Use this procedure for the 64-bit Windows Server 2003 SP2 operating system.

## ▼ To Configure a RIS Image for a Windows Server 2003 SP2 64-bit System

1. **Install the RIS support on a Windows 2003 SP2 system.**

   ---

   **Note –** Before you can create a RIS image of the Windows Server 2003 SP2 operating system, you must install RIS support on a system that is running the Windows Server 2003 operating system.

   ---

   For a complete set of instructions on how to install RIS on Windows Server 2003, go to `http://support.microsoft.com/kb/325862/en-us`.

2. **To Install Windows Server 2003 SP2 on the RIS server, perform the following steps:**

   a. **Insert the Windows Server 2003 SP2 64-bit CD-ROM into the RIS server CD drive.**

   b. **From the Start menu choose Run.**

   c. **Type** `risetup.exe` **in the Run field.**

   The Welcome to the Remote Installation Services Setup Wizard screen appears.

   d. **Click Next.**

   e. **Select Add a new OS image to this remote installation server, and click Next.**

   f. **Select the drive into which you inserted the Windows Server 2003 SP2 64-bit CD, and click Next.**

g. **Type a descriptive name for the stored Windows Server 2003 SP2 64-bit CD, and click Next. For example:**

   `Sun Blade X6240_Windows_2003_SP2_64bit`

h. **Type a description and Help text for the end user, and click Next.**

i. **Select Use the old client installation screens, and overwrite the old ones, and click Next.**

j. **Review the settings in the Review Settings window, and click Finish to install the image.**

k. **After the image is installed on the server, click Done.**

3. **To modify the RIS image created in** **with the server-specific RIS Intel Ethernet drivers, perform the following steps:**

   The RIS Intel Ethernet drivers are on the Tools and Drivers CD.

   a. **Insert the Tools and Drivers CD into the RIS server.**

   b. **To copy the Windows 64-bit RIS Intel Ethernet driver files locally to the RIS server, type:**

      > **copy** *<cdrom_drive>***:\drivers\windows\RIS\2003\64bit\\* C:temp\ intel**

      Where *cdrom_drive* is the drive that contains the Tools and Drivers CD.

   c. **Copy all the files in** `C:\temp\intel` **directory to the RIS image on the RIS server. For example:**

      > **copy C:tmp\intel\\*.\* D:\RemoteInstall\Setup\English\ Images\\***image_dir***\amd64**

      Where *image_dir* is the directory on the RIS server that contains the RIS image.

4. **To modify the** `ristndrd.sif` **file, perform the following steps:**

   The `ristndrd.sif` file is located at
   `D:\RemoteInstall\Setup\English\Image\`*image_dir*`\amd64\templates`

   Where *image_dir* is the directory on the RIS server that contains the RIS image.

   a. **Edit the** `ristndrd.sif` **file to add the following entries:**

   ```
   [Unattended]
   OemPreinstall=yes
   [GuiUnattended]
   AdminPassword=password
   ```

   b. **Depending on the controller card type in the RIS server, use one of the following procedures to edit the** `ristndrd.sif` **file to include the entries specified:**

- For an LSI 3081E card, add the following entries:

```
[Unattended]
DriverSigningPolicy = Ignore
OemPnPDriversPath = "\drivers\nic\intel;\drivers\nic\nvidia;
  \drivers\smbus;\drivers\tpm;\drivers\video"
[MassStorageDrivers]
"LSI Logic Fusion-MPT SAS Driver (Server 2003 x64-bit)"="OEM"
[OEMBootFiles]
txtsetup.oem
lsi_sas.cat
lsi_sas.inf
lsi_sas.sys
lsi_sas.tag
lsinodrv.inf
[UserData]
ProductKey = XXXXX-XXXXX-XXXXX-XXXXX-XXXXX
[Identification]
JoinWorkgroup = WORKGROUP
```

- For a Sun StorageTek card, add the following entries:

```
[Unattended]
DriverSigningPolicy = Ignore
OemPnPDriversPath = "\drivers\nic\intel;\drivers\nic\nvidia;
  \drivers\smbus;\drivers\tpm;\drivers\video"
[MassStorageDrivers]
"Adaptec SAS/SATA-II RAID Controller(x64 device drivers)="OEM"
[OEMBootFiles]
txtsetup.oem
raiddisk1
arcsas.cat
arcsas.inf
arcsas.sys
[UserData]
ProductKey = XXXXX-XXXXX-XXXXX-XXXXX-XXXXX
[Identification]
JoinWorkgroup = WORKGROUP
```

- For an on-board NVidia controller, add the following entries:

```
[Unattended]
DriverSigningPolicy = Ignore
OemPnPDriversPath = "\drivers\nic\intel;\drivers\nic\nvidia;\
  \drivers\smbus;\drivers\tpm;\drivers\video"
[MassStorageDrivers]
"NVIDIA RAID CLASS DRIVER (required)"="OEM"
"NVIDIA nForce Storage Controller (required)"="OEM"
```

```
[OEMBootFiles]
txtsetup.oem
disk1
nvata64.inf
nvata64.sys
nvata.cat
nvatax64.sys
nvraid.cat
nvrdx64.inf
nvrdx64.sys
[UserData]
ProductKey = XXXXX-XXXXX-XXXXX-XXXXX-XXXXX
[Identification]
JoinWorkgroup = WORKGROUP
```

5. **To add the** `$oem$` **directory and its subdirectories to the RIS image directory, perform the following steps:**

   a. **Add the** `$oem$` **directory to the RIS image directory located at**
      `D:\RemoteInstall\Setup\English\Images\`*image_dir*

      Where *image_dir* is the directory on the RIS server that contains the RIS image.

   b. **Create the following subdirectories under the** `$oem$` **directory:**

      `\$1\drivers`

      `\textmode`

   c. **Create the following subdirectories under the** `\$1\drivers` **directory:**

      `\nic\intel`

      `\nic\nvidia`

      `\sata_ide`

      `\smbus`

      `\tpm`

      `\video`

6. **Depending on the type of controller in the RIS server, use one of the following procedures to copy the driver files into the** `$oem$` **directory tree:**

---

**Note –** The Tools and Drivers CD contains the drivers for Windows Server 2003 SP2 64-bit systems for three types of controllers: LSI 3081E, Sun StorageTek, and NVidia.

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- For the LSI 3081E controller card, type the following commands to copy the drivers to the appropriate directories:

  > **copy** *cdrom_drive***:\drivers\windows\RAID\lsi\drivers\2003\64bit\ \* D:\remoteinstall\setup\english\images\***image_dir***\$oem$\textmode**

  > **copy** *cdrom_drive***:\drivers\windows\RIS\2003\64bit\\* D:\ remoteinstall\setup\english\images\***image_dir***\amd64**

  > **copy** *cdrom_drive***:\drivers\windows\NIC\pro1000\winx64\\*Driver\\* D:\remoteinstall\setup\english\images\***image_dir***\$oem$\\$1\ drivers\nic\intel**

  > **copy** *cdrom_drive***:\drivers\windows\chipset\2003\64bit\ethernet\ \*Driver\\* D:\remoteinstall\setup\english\images\***image_dir***\$oem$\ \$1\drivers\nic\nvidia**

  > **copy** *cdrom_drive***:\drivers\windows\TPM\driver\64bit\\*Driver\\* D:\remoteinstall\setup\english\images\***image_dir***\$oem$\\$1\ drivers\tmp**

  > **copy** *cdrom_drive***:\drivers\windows\video\2003\64bit\\* D:\ remoteinstall\setup\english\images\***image_dir***\$oem$\\$1\drivers\ video**

  > **copy** *cdrom_drive***:\drivers\windows\chipset\2003\64bit\smbus\\* D:\remoteinstall\setup\english\images\<***image_dir***>\$oem$\\$1\ drivers\smbus**

  Where:

  - *cdrom_drive* is the drive in which the Tools and Drivers CD is installed.

  - *image_dir* is the name you assign to the image directory.

- For the Sun StorageTek controller card, type the following commands to copy the drivers to the appropriate directories:

  > **copy** *cdrom_drive***:\drivers\windows\RAID\StorageTEK\drivers\ amd64\\* D:\remoteinstall\setup\english\images\\***image_dir***\$oem$\ textmode**

  > **copy** *cdrom_drive***:\drivers\windows\RIS\2003\64bit\\* D:\ remoteinstall\setup\english\images\\***image_dir***\amd64**

  > **copy** *cdrom_drive***:\drivers\windows\NIC\pro1000\winx64\\*Driver\\* D:\remoteinstall\setup\english\images\\***image_dir***\$oem$\$1\ drivers\nic\intel**

  > **copy** *cdrom_drive***:\drivers\windows\chipset\2003\64bit\ethernet\ \*Driver\\* D:\remoteinstall\setup\english\images\\***image_dir***\$oem$\ $1\drivers\nic\nvidia**

  > **copy** *cdrom_drive***:\drivers\windows\TPM\driver\driver\64bit\ \*Driver\\* D:\remoteinstall\setup\english\images\\***image_dir***\$oem$\ $1\drivers\tpm**

  > **copy** *cdrom_drive***:\drivers\windows\video\2003\64bit\\* D:\ remoteinstall\setup\english\images\\***image_dir***\$oem$\$1\drivers\ video**

  > **copy** *cdrom_drive***:\drivers\windows\chipset\2003\64bit\smbus\\* D:\remoteinstall\setup\english\images\\***image_dir***\$oem$\$1\ drivers\smbus**

  Where:

  - *cdrom_drive* is the drive in which the Tools and Drivers CD is installed.
  - *image_dir* is the name you assign to the image directory.

- For the on-board NVidia controller, type the following commands to copy the drivers to the appropriate directories:

  > **copy** *cdrom_drive***:\drivers\windows\chipset\2003\64bit\ide\ win64\sataraid\\* D:\remoteinstall\setup\english\images\** *image_dir***\$oem$\textmode**

  > **copy** *cdrom_drive***:\drivers\windows\chipset\2003\64bit\ide\ win64\sata_ide\\* D:\remoteinstall\setup\english\images\** *image_dir***\$oem$\textmode**

  > **copy** *cdrom_drive***:\drivers\windows\RIS\2003\64bit\\* D:\ remoteinstall\setup\english\images\***image_dir***\amd64**

  > **copy** *cdrom_drive***:\drivers\windows\NIC\pro1000\winx64\\* D:\ remoteinstall\setup\english\images\***image_dir***\$oem$\$1\drivers\ nic\intel**

  > **copy** *cdrom_drive***:\drivers\chipset\2003\64bit\ethernet\\* D:\ remoteinstall\setup\english\images\***image_dir***\$oem$\$1\drivers\ nic\nvidia**

  > **copy** *cdrom_drive***:\drivers\windows\TPM\driver\64bit\\*Driver\\* D:\remoteinstall\setup\english\images\***image_dir***\$oem$\$1\ drivers\tpm**

  > **copy** *cdrom_drive***:\drivers\windows\video\2003\64bit\\* D:\ remoteinstall\setup\english\images\***image_dir***\$oem$\$1\drivers\ video**

  > **copy** *cdrom_drive***:\drivers\windows\chipset\2003\64bit\ide\ winxp\sata_ide\\* D:\remoteinstall\setup\english\images\** *image_dir***\$oem$\$1\drivers\sata_ide**

  > **copy** *cdrom_drive***:\drivers\windows\chipset\2003\64bit\smbus\\* D:\remoteinstall\setup\english\images\***image_dir***\$oem$\$1\ drivers\smbus**

  Where:

  - *cdrom_drive* is the drive in which the Tools and Drivers CD is installed.
  - *image_dir* is the name you assign to the image directory.

7. **To stop and start the Remote Installation Service (BINLSVC) on the RIS server, type the following at the command prompt:**

   **net Stop binlsvc**

   **net Start binlsvc**

8. **Install the RIS image on to the Sun Blade X6240 server module.**

   For instructions on installing the RIS image to the Sun Blade X6240 server module, see "Installing the RIS Image on a Client System" on page 63.

# Installing the RIS Image on a Client System

This procedure describes how to install the RIS image that you created and modified to a Sun Blade X6240 server module. Before you perform this procedure, you must configure the RIS image as described in "Configuring a RIS Image" on page 48.

Once configured, the RIS image contains the Windows Server 2003 SP2 operating system (you can configure either the 32-bit or the 64-bit version) and the server-specific drivers that are included on the Tools and Drivers CD (708-0346) that shipped with the server module.

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**Note –** A RIS image can be installed on any computer that contains a network adapter that supports PXE DHCP-based boot ROM. The Sun Blade X6240 server module has this type of network adapter.

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## ▼ To Install the RIS Image on a Client System

1. **Verify that the network adapter is set as the primary boot device in the computer BIOS.**

2. **Restart the client computer from the network adapter.**

3. **When you are prompted to do so, press F12 to start the download of the Client Installation Wizard.**

4. **At the Welcome screen, press Enter.**

5. **Type the user name of an account that has permissions to add computer accounts to the domain, and then type the domain name and password for the account.**

6. **Press Enter.**

7. **When you receive a warning message that states that all data on the client computer compact flash card will be deleted, press Enter.**

⚠ **Caution –** The Solaris Operating System or the Windows Server 2003 R2 Enterprise Edition with SP2 Operating System is preinstalled on the Sun Blade X6240 server module boot disk. The Windows installation will format the boot disk and all data will be lost.

8. **A computer account and a global unique ID for this workstation are displayed. Press Enter to start Setup.**

9. **If you are prompted to do so, follow the instructions on the screen to complete the client operating system installation.**

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