

# **Sun Blade X4-2B Installation Guide for Windows Operating Systems**



Part No: E37709-04  
March 2014

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# Using This Documentation

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This section describes how to get the latest firmware and software for the system, documentation and feedback, and a document change history.

- “Sun Blade X4-2B Model Name ” on page 5
- “Getting the Latest Firmware and Software” on page 5
- “Documentation and Feedback” on page 6
- “About This Documentation” on page 6
- “Support and Training” on page 6
- “Access to Oracle Support ” on page 7
- “Contributors” on page 7
- “Change History” on page 7

## Sun Blade X4-2B Model Name

The name identifies the following: Sun Blade **X4-2B** Server Module

- The alpha character, X, identifies an x86 product.
- The first number, 4, identifies the generation of the server.
- The second number, 2, identifies the number of processors.
- The alpha character, B, identifies the product as a blade server.

## Getting the Latest Firmware and Software

Firmware, drivers, and other hardware-related software for each Oracle x86 server, server module (blade), and blade chassis are updated periodically.

You can obtain the latest version in one of three ways:

- Oracle System Assistant – This is a factory-installed option for Sun Oracle x86 servers. It has all the tools and drivers you need and resides on a USB drive installed in most servers.
- My Oracle Support – <http://support.oracle.com>
- Physical media request

For more information, see “Getting Server Firmware and Software Updates” in *Sun Blade X4-2B Installation Guide*.

# Documentation and Feedback

Documentation	Link
All Oracle products	<a href="http://www.oracle.com/documentation">http://www.oracle.com/documentation</a>
Sun Blade X4-2B server module	<a href="http://www.oracle.com/goto/X4-2B/docs">http://www.oracle.com/goto/X4-2B/docs</a>
X4 server series system administration	Oracle x86 Administration Guide for X4 Series Servers ( <a href="http://www.oracle.com/goto/x86AdminDiag/docs">http://www.oracle.com/goto/x86AdminDiag/docs</a> )
Oracle System Assistant	Oracle x86 Administration Guide for X4 Series Servers ( <a href="http://www.oracle.com/goto/x86AdminDiag/docs">http://www.oracle.com/goto/x86AdminDiag/docs</a> )
Oracle Integrated Lights Out Manager (ILOM) 3.1	<a href="http://www.oracle.com/goto/ILOM/docs">http://www.oracle.com/goto/ILOM/docs</a>
Oracle Hardware Management Pack	<a href="http://www.oracle.com/goto/OHMP/docs">http://www.oracle.com/goto/OHMP/docs</a>
Chassis Sun Blade 6000 modular system	<a href="http://www.oracle.com/goto/SB6000/docs">http://www.oracle.com/goto/SB6000/docs</a>

Provide feedback on this documentation at: <http://www.oracle.com/goto/docfeedback>.

## About This Documentation

This documentation set is available in both PDF and HTML. The information is presented in topic-based format (similar to online help) and therefore does not include chapters, appendixes, or section numbering.

You can generate a PDF that includes all information about a particular topic subject (such as hardware installation or product notes) can be generated by clicking the PDF button in the upper left corner of the HTML page.

## Support and Training

These web sites provide additional resources:

- Support: <http://support.oracle.com>
- Training: <http://education.oracle.com>

## Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

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## Change History

The following lists the release history of this documentation set:

- September 2013. Initial publication.
- November 2013. Software 1.0.1 update.
- March 2014. Software 1.1 update.





# About Windows OS Installation

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This section provides an overview of the Windows OS installation. Use the following task table to assist you.

Step	Task	Link
1	Review the list of supported Windows OS versions and learn how to obtain the latest and most up-to-date information about the server software and hardware.	<a href="#">“Supported OS Versions and Latest Information” on page 9</a>
2	Review the options for single server or multiple server OS installations.	<a href="#">“OS Installation Options” on page 10</a>
3	Prepare for the installation by performing required procedures.	<a href="#">“Preparing to Install the OS” on page 15</a>
4	Install the OS.	<a href="#">“Installing the Windows OS” on page 23</a>

## Supported OS Versions and Latest Information

Use this section to learn about the supported versions of the Windows OS and how to get the latest server-related information:

- [“Supported Windows Operating Systems” on page 9](#)

## Supported Windows Operating Systems

The server supports the following Microsoft Windows operating systems

Windows OS Version	Edition
Windows Server 2008 R2 SP1	<ul style="list-style-type: none"><li>▪ Standard Edition (64-bit)</li><li>▪ Enterprise Edition (64-bit)</li><li>▪ Datacenter edition (64-bit)</li></ul>

Windows OS Version	Edition
Windows Server 2008 SP2	<ul style="list-style-type: none"> <li>■ Standard Edition (64-bit)</li> <li>■ Enterprise Edition (64-bit)</li> <li>■ Datacenter edition (64-bit)</li> </ul>
Windows Server 2012	<ul style="list-style-type: none"> <li>■ Standard Edition (64-bit)</li> <li>■ Enterprise Edition (64-bit)</li> <li>■ Datacenter edition (64-bit)</li> </ul>
Windows Server 2012 R2	<ul style="list-style-type: none"> <li>■ Standard Edition (64-bit)</li> <li>■ Enterprise Edition (64-bit)</li> <li>■ Datacenter edition (64-bit)</li> </ul>

For specific versions of the Microsoft Windows Server supported for the Sun Blade X4-2B server module, refer to:

<https://wikis.oracle.com/display/SystemsComm/Sun+Blade+Systems+Products#tab:Operating-Systems>

**Note** – The most up-to-date information about the server is maintained in the *Sun Blade X4-2B Product Notes*. The *Product Notes* document contains detailed information about the supported operating systems, available firmware updates, and any hardware or software issues for the server. For more information, refer to the *Sun Blade X4-2B Product Notes* at:

<http://www.oracle.com/goto/X4-2B/docs>

## OS Installation Options

You can choose to install an OS on a single server or on multiple servers. The scope of this document is for *single-server* OS installations. The following table provides information about these two installation options.

Option	Description
Multiple servers	See the Enterprise Manager page at: <a href="http://www.oracle.com/technetwork/oem/ops-center/index.html">http://www.oracle.com/technetwork/oem/ops-center/index.html</a>

Option	Description
Single server	<p>Install an OS to a single server using one of the following methods:</p> <ul style="list-style-type: none"> <li>▪ Locally: OS installation is performed locally at the server. This option is convenient if you have just completed the physical installation of the server in the rack. You can use Oracle System Assistant, or perform the installation manually. Additional hardware is required.</li> <li>▪ Remotely: OS installation is performed from a remote location. Uses the Oracle Integrated Lights Out Manager (ILOM) Remote Console application to access Oracle System Assistant or to perform a manual OS installation.</li> </ul> <p><b>Note</b> – Use Oracle System Assistant for local or remote single server OS installations.</p>

For more information about single-server OS installation methods and Oracle System Assistant, see:

- [“Single-Server Installation Methods” on page 11](#)
- [“Oracle System Assistant” on page 13](#)

## Single-Server Installation Methods

Select a method for providing the Windows installation media. Use the following information to determine the local or remote OS installation that best serves your needs.

Media Delivery Method	Requirements
<b>Local assisted OS installation</b> – Uses Oracle System Assistant.	<ul style="list-style-type: none"> <li>▪ Video monitor</li> <li>▪ USB keyboard and mouse</li> <li>▪ USB CD/DVD drive</li> <li>▪ Windows distribution media</li> </ul> <p>For more information, see <a href="#">“Assisted OS Installation” on page 12.</a></p>
<b>Remote assisted OS installation</b> – Uses Oracle System Assistant.	<ul style="list-style-type: none"> <li>▪ Oracle ILOM Remote Console application</li> <li>▪ Redirected CD/DVD drive or ISO image file</li> <li>▪ Windows distribution media</li> </ul> <p>For more information, see <a href="#">“Assisted OS Installation” on page 12.</a></p>
<b>Local manual OS installation using a CD/DVD drive</b> – Uses a physical CD/DVD drive connected to the server.	<ul style="list-style-type: none"> <li>▪ Video monitor</li> <li>▪ USB keyboard and mouse</li> <li>▪ USB CD/DVD drive</li> <li>▪ Windows distribution media</li> </ul> <p>For more information, see <a href="#">“Manual OS Installation” on page 12.</a></p>

Media Delivery Method	Requirements
<b>Remote manual OS installation using a CD/DVD drive or CD/DVD ISO image</b> – Uses a redirected physical CD/DVD drive on a remote system running the Oracle ILOM Remote Console application.	<ul style="list-style-type: none"> <li>■ Remote system with a browser</li> <li>■ CD/DVD drive or ISO image</li> <li>■ Windows distribution media</li> <li>■ Network access to the server management port</li> </ul> <p>For more information, see “<a href="#">Manual OS Installation</a>” on page 12.</p>
<b>Network PXE install</b> – Uses a customized Windows Imaging Format (WIM) image on a Windows Deployment Services (WDS) server.	<p>A server running WDS and a WIM image customized for the server. See “<a href="#">Windows Deployment Services OS Installation</a>” on page 12.</p>

## Assisted OS Installation

This is the easiest method for installing a supported OS on the server. This method involves using Oracle System Assistant. You deliver the Windows OS installation media on either a local or remote CD/DVD drive or CD/DVD image, and the application initiates the installation the process. Oracle System Assistant must be installed in the server.

For more information about Oracle System Assistant, refer to the [Oracle X4 Series Servers Administration Guide](http://www.oracle.com/goto/x86AdminDiag/docs). (<http://www.oracle.com/goto/x86AdminDiag/docs>).

## Manual OS Installation

With this method, you do not use Oracle System Assistant to install an OS. Instead, you deliver the Windows distribution media on either a local or remote CD/DVD drive, USB device, or CD/DVD image. You also need to supply the necessary tools and drivers. The tools and drivers for the server are available from the My Oracle Support site as server-specific and OS-specific packages. To install the OS, use the distribution media's installation wizard.

## Windows Deployment Services OS Installation

You can install Windows from a deployment server environment. Advanced users can create a customized Windows installation image (WIM) for the server on a Windows Deployment Services (WDS) server. Once this installation image file has been created, you can boot the server from its network card and select the image from the WDS system for deployment.

For more information about WDS, refer to:

<http://msdn.microsoft.com/en-us/library/aa967394.aspx>

### Related Information

- “[Oracle System Assistant](#)” on page 13

# Oracle System Assistant

Oracle System Assistant is delivered on a USB storage device embedded in the system as an integral part of your server, and is ready to launch as soon as you apply standby power. This embedded storage device includes everything you need to start using the server with your choice of supported operating system and hardware. You provide the operating system installation media, and Oracle System Assistant provides everything else. The components of Oracle System Assistant include:

- User interface access to startup and maintenance provisioning tasks (including Install OS task)
- Operating system drivers and tools
- Server-specific firmware
- Hardware Management Pack
- Server-related documentation

For more information about Oracle System Assistant, see the following topics:

- [“Oracle System Assistant OS Installation Task” on page 13](#)
- [“Obtaining Oracle System Assistant” on page 13](#)

## Oracle System Assistant OS Installation Task

The Oracle System Assistant's Install OS task provides an assisted installation of a supported OS. You supply the OS installation media, and Oracle System Assistant initiates the installation process.

The assisted OS installation is available for all supported Windows operating systems. Once the OS is installed, you can also use Oracle System Assistant to update the OS drivers as well as all the components (firmware, tools, drivers, and other related software).

### Related Information

- [“Obtaining Oracle System Assistant” on page 13](#)

## Obtaining Oracle System Assistant

In most cases, Oracle System Assistant is already installed on the server.

- If it is already installed, and you want the latest version, then update Oracle System Assistant by using the Get Updates task.
- If the server supports Oracle System Assistant, but it is not installed, contact your Oracle representative.

### **Related Information**

- [Oracle X4 Series Servers Administration Guide \(http://www.oracle.com/goto/x86AdminDiag/docs\)](http://www.oracle.com/goto/x86AdminDiag/docs)

# Preparing to Install the OS

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Before installing the OS, you need to set up the installation method. This section describes the steps for preparing to install an OS. Use the following task table as a guide.

Step	Description	Links
1	You must have already reviewed the OS installation task table.	<a href="#">“About Windows OS Installation” on page 9</a>
2	Set up for the installation based on the selected installation method.	<ul style="list-style-type: none"><li>▪ Local installation: <a href="#">“Set Up the Local Console” on page 15</a></li><li>▪ Remote installation: <a href="#">“Set Up the Remote Console” on page 16</a></li></ul>
3	Prepare the BIOS by loading the optimal default values and selecting a BIOS mode.	<a href="#">“Setting Up BIOS” on page 20</a>
4	When you have finished with the preparation procedures, install the OS.	<a href="#">“Installing the Windows OS” on page 23</a>

## Selecting the Installation Method

Choose the procedure that matches the installation method that you plan to use.

- [“Set Up the Local Console” on page 15](#)
- [“Set Up the Remote Console” on page 16](#)

### ▼ Set Up the Local Console

A local OS installation is performed at the server. The preferred procedure for a local installation method is to use the Oracle System Assistant’s Install OS task. Use this procedure to set up for a local Oracle System Assistant assisted installation or a local manual (unassisted) installation.

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**Note** – For a local OS installation, additional hardware is required and server web access is recommended.

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**Before You Begin**

- You should have already performed the server installation as described in the [Sun Blade X4-2B Installation Guide](#).
- Assemble the following items:
  - Video monitor with 15-pin (DB-15) connector capabilities
  - USB keyboard and mouse
  - USB device (CD/DVD drive or thumb drive)
  - Multiport dongle cable
- To ensure that the server has the latest updates, server web access is recommended.

- 1 **Ensure the server is in standby power mode.**
- 2 **Attach the multiport dongle to the universal connector port (UCP) on the front of the server module.**
- 3 **Connect the video monitor to the video connector on the multiport dongle.**
- 4 **Connect the keyboard and mouse to one of the USB connectors on the front of the server (or to one of the USB connectors on the multiport dongle).**
- 5 **Connect the CD/DVD drive to the other USB connector on the front of the server (or to one of the USB connectors on the multiport dongle).**

**Next Steps** [“Setting Up BIOS” on page 20](#)

## ▼ Set Up the Remote Console

A remote OS installation is performed using the Oracle ILOM Remote Console application and a redirected CD/DVD drive or CD ISO image. The preferred procedure for a remote installation is to use Oracle System Assistant's assisted Install OS task. Use this procedure to set up for a remote Oracle System Assistant assisted installation or a remote manual (unassisted) installation.

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**Note** – Using the CD-ROM or CD-ROM image option to install the OS *significantly* increases the time necessary to perform the installation as the content of the CD-ROM is accessed over the network. The installation duration depends on the network connectivity and traffic. This installation method also has a greater risk of issues due to transient network errors.

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**Before You Begin** The following requirements must be met:

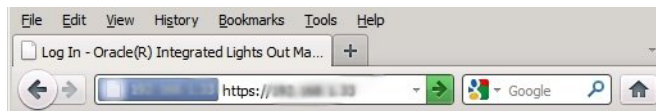
- You have already performed the server installation as described in the *Sun Blade X4-2B Installation Guide*.
- The Oracle ILOM Remote Console system is running on Solaris, Linux, or Windows.
- The Oracle ILOM Remote Console system is connected to a network that has access to the server Ethernet management port.
- Java Runtime Environment (JRE) 1.5 is installed.
- If the Oracle ILOM Remote Console system is running Solaris, volume management must be disabled for Oracle ILOM Remote Console to access the CD/DVD-ROM drive.
- If the Oracle ILOM Remote Console system is running Windows, disable Internet Explorer Enhanced Security.
- The server service processor (SP) has been set up according to the instructions in the Oracle ILOM documentation for your server.
- You have the SP IP address to access Oracle ILOM.
- To ensure that the server has the latest updates, you must have web access.

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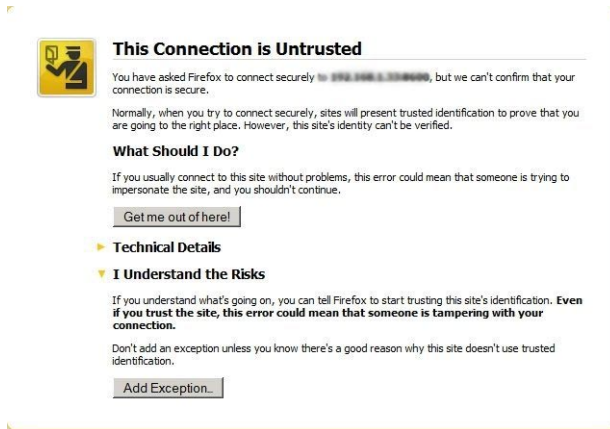
**Note** – Some of the screen shots shown in this procedure might differ from the screens you see.

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- 1 To access Oracle ILOM, type the IP address of the service processor into a browser on the Oracle ILOM Remote Console system.



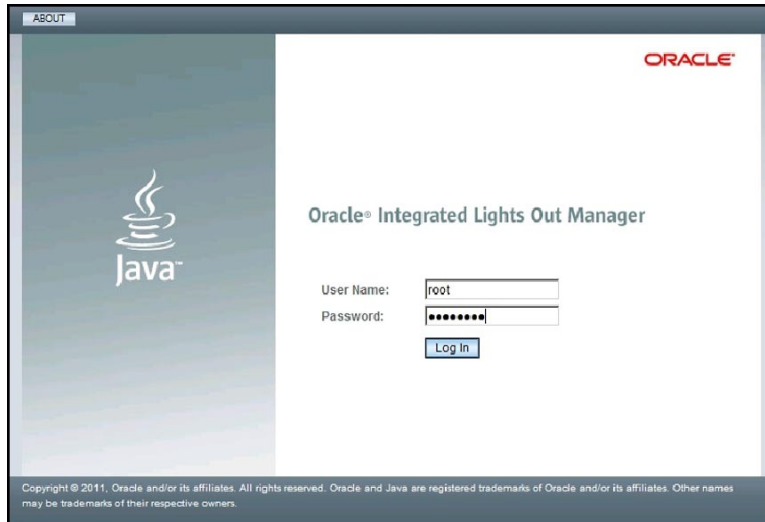
The Security Alert dialog box appears.



2 Click the I Understand the Risks link.

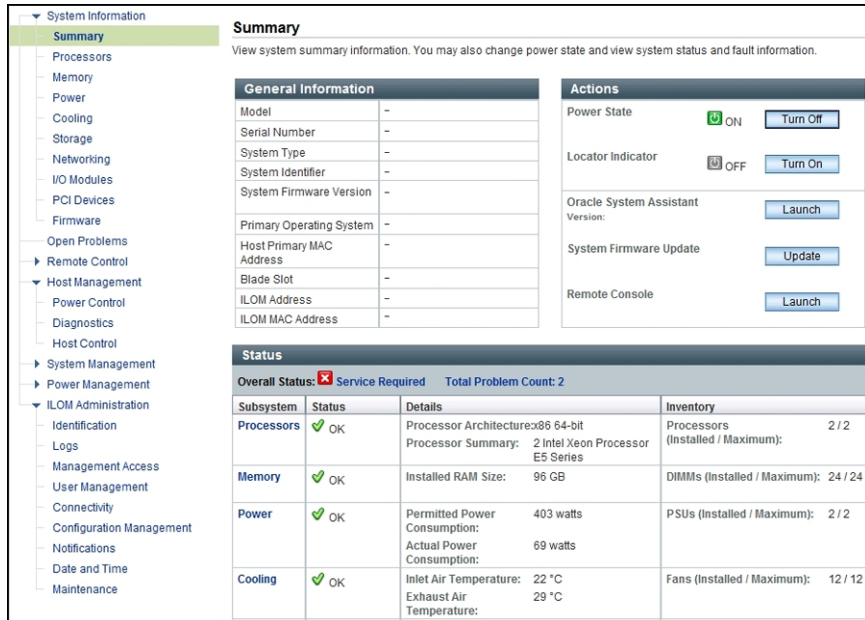
3 Click Add Exception.

The Oracle ILOM login screen appears.



**4 Log in to Oracle ILOM as a user with administrative privileges.**

The Oracle ILOM System Summary screen appears.



**5 Click the Remote Console Launch button.**

A dialog box for the jnlpgenerator.jnlp file appears.



**6 Click Open.**

The Oracle ILOM Remote Console screen appears.



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

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

- **CD-ROM Image.** Select CD-ROM Image to redirect the server to the operating system software ISO image file located on the Oracle ILOM Remote Console system.

**Next Steps**    [“Setting Up BIOS” on page 20](#)

## Setting Up BIOS

Before you install the operating system, you should ensure that BIOS settings are configured to support the type of installation you plan to perform. The following topics provide specific instructions on how to configure the BIOS to support the installation:

- [“Load BIOS Optimal Default Settings” on page 20](#)
- [“Select the BIOS Boot Mode” on page 21](#)

### ▼ Load BIOS Optimal Default Settings



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**Caution** – This procedure resets the BIOS settings to the default values and overwrites any previously customized settings. You can back up BIOS settings using Oracle ILOM, Oracle Hardware Management Pack, or Oracle System Assistant.

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The BIOS Setup Utility contains an option to load the optimal BIOS settings for the server, as it was shipped from the factory. Perform this procedure on a newly installed server to ensure that the BIOS is set to the optimal default values.

- Before You Begin**
- The server is equipped with a properly installed storage drive.
  - A console connection is established to the server.

- 1 Power on the server.**  
POST messages appear on the console.
- 2 Watch the messages, and, when prompted, press F2 to access the BIOS Setup Utility.**  
The BIOS Setup Utility main screen appears.
- 3 To ensure that the factory defaults are set, press F9.**
- 4 To save the changes, and exit the BIOS Setup Utility, press F10.**
- 5 Reboot the server.**

**Next Steps**    [“Select the BIOS Boot Mode” on page 21](#)

## ▼ Select the BIOS Boot Mode

The BIOS firmware supports both legacy BIOS and Unified Extensible Firmware Interface (UEFI). All versions of Windows supported for Sun Blade X4-2B UEFI boot mode. You have the option of setting BIOS to either Legacy boot mode or UEFI boot mode before you perform the OS installation. The default setting is Legacy boot mode.

Refer to: [Oracle x86 Administration Guide for X4 Series Servers \(http://www.oracle.com/goto/x86AdminDiag/docs\)](http://www.oracle.com/goto/x86AdminDiag/docs) for more information.

- 1 Power on the server.**  
POST messages appear on the console.
- 2 Watch the messages, and, when the prompt appears, press F2 to access the BIOS Setup Utility.**  
The BIOS Setup Utility main screen appears.
- 3 In the BIOS Setup Utility, use the left or right arrow keys to navigate to the Boot screen.**  
The Boot Menu screen appears.
- 4 Use the down arrow key to select the UEFI/BIOS Boot Mode field.**
- 5 Press Enter and use the up or down arrow keys to select Legacy or UEFI BIOS boot mode option.**
- 6 To save the changes, and exit the BIOS Setup Utility, press F10.**
- 7 Reboot the server.**

**Next Steps** [“Installing the Windows OS” on page 23](#)



# Installing the Windows OS

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This section describes the OS installation process. Use the following task table as a guide.

Step	Description	Links
1	You must have already performed the steps in the Preparing to Install the OS task table.	<a href="#">“Preparing to Install the OS” on page 15</a>
2	Install Windows using the selected method.	<ul style="list-style-type: none"><li>■ <a href="#">“Install Windows (Oracle System Assistant)” on page 23</a></li><li>■ <a href="#">“Install Windows Server 2008 R2 and Windows Server 2008 SP2 (Manually)” on page 26</a></li><li>■ <a href="#">“Install Windows Server 2012 or 2012 R2 (Manually)” on page 31</a></li><li>■ <a href="#">“Install Windows Server (PXE)” on page 37</a></li></ul>
3	Update server system tools, drivers, and supplemental software.	<a href="#">“Installing Server System Tools and Updating Drivers” on page 38</a>

## ▼ Install Windows (Oracle System Assistant)

The Oracle System Assistant Install OS task is the easiest method for installing a supported OS on the Sun Blade X4-2B.

For more information about Oracle System Assistant, refer to the [Oracle X4 Series Servers Administration Guide](http://www.oracle.com/goto/x86AdminDiag/docs) (<http://www.oracle.com/goto/x86AdminDiag/docs>).

- Before You Begin**
- Reference the OS installation task table. See [“Installing the Windows OS” on page 23](#).
  - You must configure RAID for the boot disk *before* you install the Windows operating system. For more details, refer to the [Sun Blade X4-2B Installation Guide](#).
  - Get the Windows OS install distribution media.
  - **For local installation**, have the Microsoft Windows installation media available to insert into the attached physical CD/DVD-ROM drive.
  - **For remote installation:**

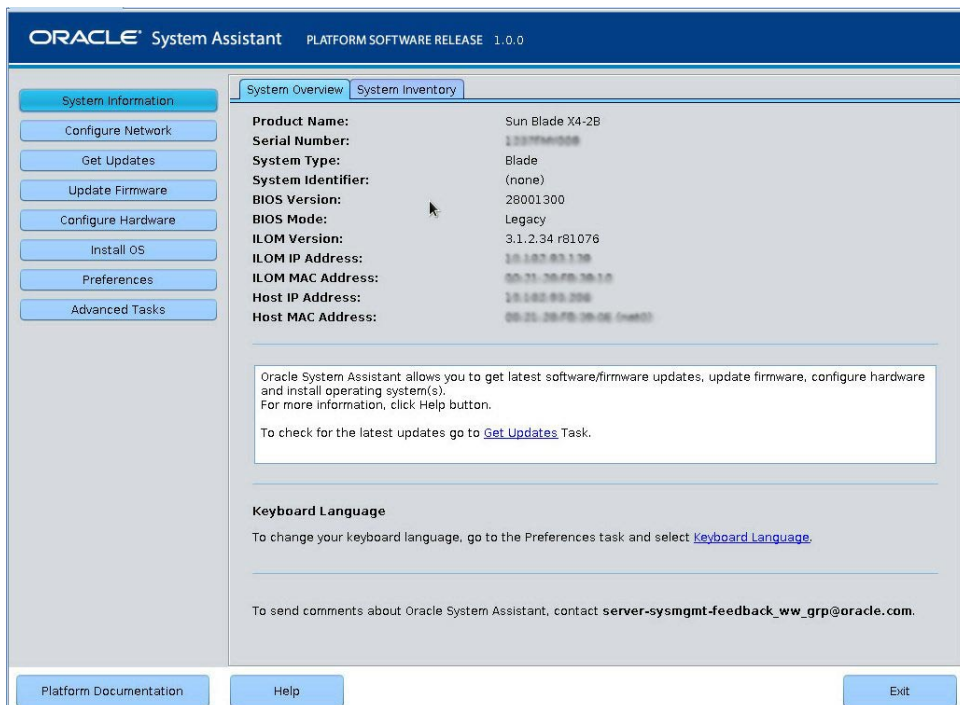
- Insert the Microsoft Windows installation media into the system's CD/DVD-ROM drive. Make sure you have selected CD-ROM from the Device menu.
  - If you are using the Windows image, ensure that the ISO image is accessible. Make sure you have selected CD-ROM Image from the Device menu.
- 1 **Ensure that the server is in standby power mode.**
  - 2 **Boot the server and watch the video monitor or Remote Console screen for the prompt to press the F9 key to start Oracle System Assistant.**





### 3 When the prompt appears, press the F9 key.

The Oracle System Assistant System Overview main screen appears.



### 4 To update Oracle System Assistant, click Get Updates.

### 5 To check for a new software release, click the Check for Updates button.

If an update is available, the update's readme file appears.

### 6 To get the update, click the Download and Apply Updates button.

The Get Updates Sign-In screen appears.

### 7 Provide your MOS credentials.

### 8 Enter your MOS username and password.

The server downloads the updates then displays a popup asking to reboot the server.

### 9 Select OK.

The server reboots and restarts Oracle System Assistant.

- 10 **If you have a Sun Storage 6Gb/s RAID REM, you must create a RAID volume (even if only RAID0) using the "Configure Hardware" task on the drive on which you plan on installing the OS.**  
If you don't, the system will not see the drive.
- 11 **Click the Install OS button.**  
The Install OS screen appears.
- 12 **To ensure that you are installing a supported version of the OS, review the list in the View supported operating systems window.**
- 13 **In the Select your media location section, indicate the location of the OS distribution media.**  
The options are CD/DVD or virtual drive.
- 14 **Follow the prompts until the installation is finished.**  
The server reboots one or more times during the installation process.

**Next Steps**    [“Installing Server System Tools and Updating Drivers” on page 38](#)

## ▼ **Install Windows Server 2008 R2 and Windows Server 2008 SP2 (Manually)**

This section describes how to install the OS without the use of Oracle System Assistant. The OS can be installed using either a local or remote method.



**Caution** – Data loss. The OS installation formats the boot disk, which erases any existing data on the disk, including any preinstalled OS.

---

### **Before You Begin**

- Set up the server for the OS installation of choice (local or remote). See [“Set Up the Local Console” on page 15](#) or [“Set Up the Remote Console” on page 16](#).
- If necessary, prepare a volume on the server hard drives and set the boot device. Refer to the [Sun Blade X4-2B Installation Guide](#).
- Acquire the Windows OS install distribution media.
- If you want to configure your boot drive for RAID 1 (mirroring) using the LSI Logic integrated RAID controller’s setup utility, press Ctrl+H (or Ctrl+C from the command line during server POST sequence).
- **For local installation:** Insert the Microsoft Windows Server 2008 R2 installation media into the attached physical CD/DVD-ROM drive when prompted.
- **For remote installation:** Insert the Windows Server installation media into the Oracle ILOM Remote Console system’s CD/DVD-ROM drive. Make sure you have selected CD-ROM in the Device menu.

- If you are using a Windows image: Ensure that the Windows Server installation ISO image is accessible from the remote system. Make sure you have selected CD-ROM Image in the Device menu.

### 1 Power cycle the server.

If you are using the Windows Remote or Windows Image method, you can power cycle the server through Oracle ILOM.

The BIOS POST process begins.

---

**Note** – BIOS POST messages, including the BIOS menu options list, can go by quickly. If you miss the messages, power cycle the server and hold down the F8 key during boot until the BBS Popup menu appears.

---

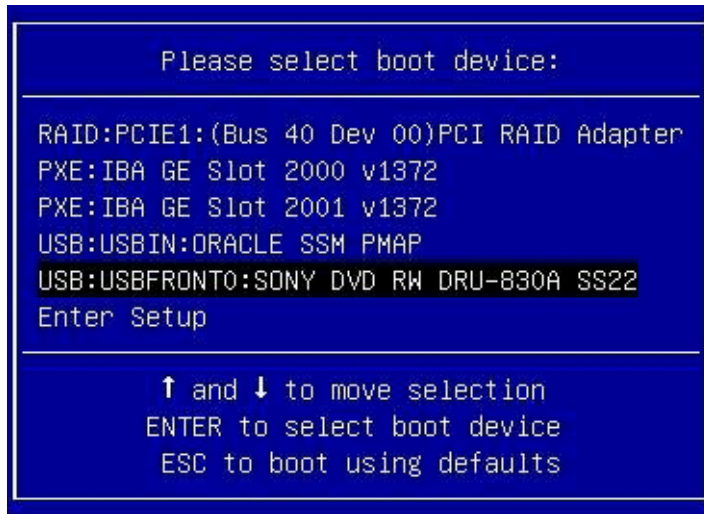
### 2 Watch the screen for the BIOS menu to appear.



### 3 When the BIOS menu options list appears, press F8 to access the BBS Popup menu.

Once the BIOS POST process is complete, the BBS Popup menu appears. The BBS Popup menu allows you to select a boot device.

A sample BBS Popup menu screen:



- 4 If you have selected the Windows Local installation method, insert the Windows media DVD into the connected DVD drive.
- 5 Do one of the following:
  - Windows Local method: Select CD/DVD from the Boot Device menu, and press Enter.
  - Windows Remote or Windows Image method: Select the virtual CD/DVD from the Boot Device menu, and press Enter.

---

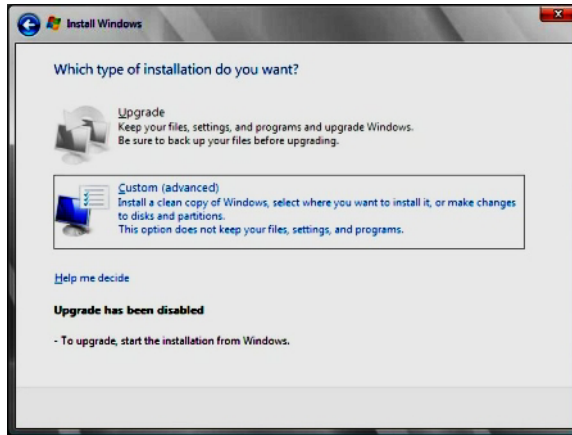
**Note** – Make sure that the boot entry for the Oracle System Assistant USB is below the hard disk on which the you want to install the OS.

---

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

The Windows installation wizard starts.

- 6 Proceed through the installation wizard until you see the Installation Type, then click Custom (advanced).



- 7 At the Where do you want to Install Windows screen:

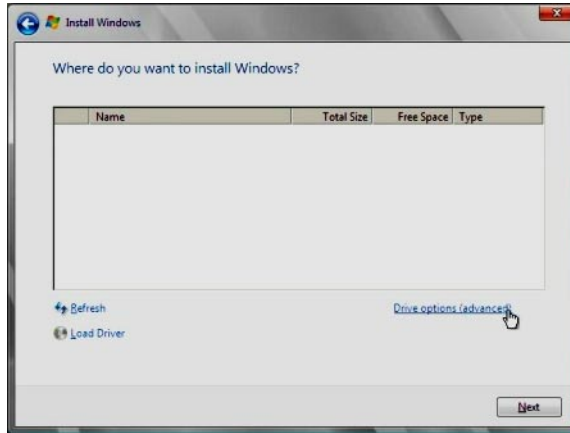
- To add a mass storage driver for Windows Server 2008 SP2, click Load Driver, and browse to the location of the mass storage device driver (CD/DVD or USB flash drive). Select the driver information file (.inf).

---

**Note** – For Windows Server 2008 SP2, the driver must be accessible through a connected CD/DVD or the Oracle System Assistant USB flash drive. If the driver is not accessible, the disk is not visible as shown below.

---

- To select the Windows default partition settings, click Next. Go to Step 9.
- To override the Windows default partition settings, click Drive Options (advanced) and proceed to the next step.

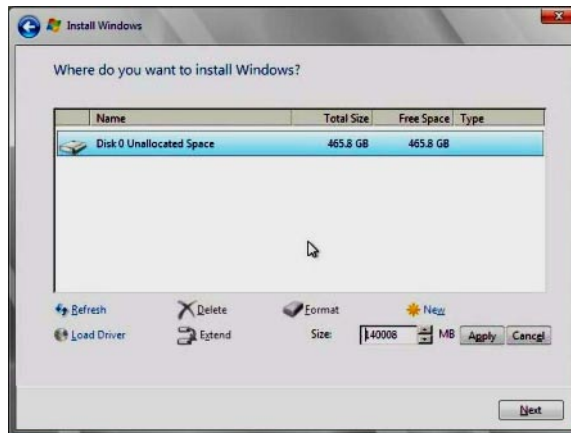


---

**Caution** – Data loss. Formatting or repartitioning a preexisting partition destroys all data on the partition.

---

- 8 At the Advanced Drive Options screen:
  - a. Click Delete to delete the existing partition.
  - b. Click New to create the new partition.
  - c. Change size settings as needed, and then click Apply.
  - d. Click Next.



The Windows installation begins. During the installation process, the server reboots several times.

When the installation process is complete, Windows starts.

**9 When Windows prompts you to change the user password, click OK, and assign the administrator password.**

---

**Note** – The password must have 8 characters, with one number and one uppercase character. For more details, click the Accessibility link on the account creation screen.

---

Once you have assigned a password to the Administrator account, the Windows Server 2008 R2 desktop appears.

**Next Steps** [“Installing Server System Tools and Updating Drivers” on page 38.](#)

## ▼ Install Windows Server 2012 or 2012 R2 (Manually)

This section describes how to install the OS without the use of Oracle System Assistant. The OS can be installed using either a local or remote method.




---

**Caution** – Data loss. The OS installation formats the boot disk, which erases any existing data on the disk, including any preinstalled OS.

---

**Before You Begin**

- Set up the server for the OS installation of choice (local or remote). See [“Set Up the Local Console” on page 15](#) or [“Set Up the Remote Console” on page 16](#).
- If necessary, prepare a volume on the server hard drives and set the boot device. Refer to the *Sun Blade X4-2B Installation Guide*.
- Acquire the Windows OS install distribution media.
- **For local installation:** Insert the Microsoft Windows Server 2012 installation media into the attached physical CD/DVD-ROM drive when prompted.
- **For remote installation:** Insert the Windows Server installation media into the Oracle ILOM Remote Console system’s CD/DVD-ROM drive. Make sure you have selected CD-ROM in the Device menu.
- If you are using a Windows image: Ensure that the Windows Server installation ISO image is accessible from the remote system. Make sure you have selected CD-ROM Image in the Device menu.

**1 Power cycle the server.**

If you are using the Windows Remote or Windows Image method, you can do this through Oracle ILOM.

The BIOS POST process begins.

---

**Note** – BIOS POST messages, including the BIOS menu options list, can go by quickly. If you miss the messages, power cycle the server and hold down the F8 key during boot until the BBS Popup menu appears.

---

- 2 **Watch the screen for the BIOS menu to appear.**



- 3 **When the BIOS menu options list appears, press F8 to access the BBS Popup menu.**

Once the BIOS POST process is complete, the BBS Popup menu appears. The BBS Popup menu allows you to select a boot device.



A sample BBS Popup menu screen:



- 4 If you have selected the Windows Local installation method, insert the Windows media DVD into the connected DVD drive.
- 5 Do one of the following:
  - If you are using the Windows Local method, select CD/DVD from the Boot Device menu, and press Enter.
  - If you are using the Windows Remote or Windows Image method, select the virtual CD/DVD from the Boot Device menu, and press Enter.

---

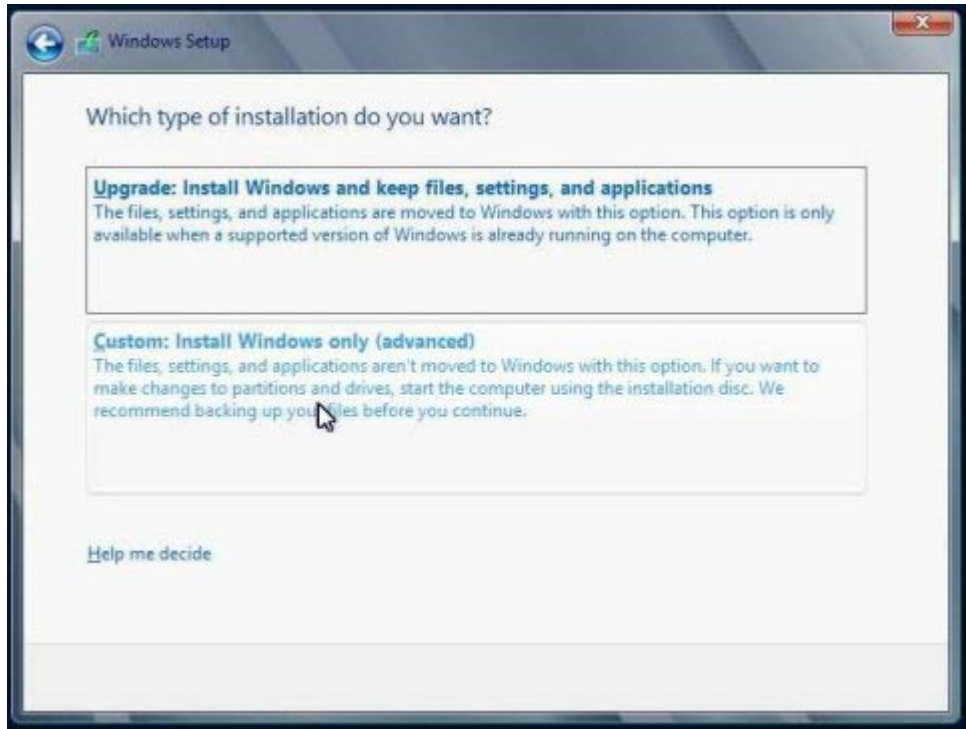
**Note** – Make sure that the boot entry for the Oracle System Assistant USB is below the hard disk on which the you want to install the OS.

---

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

The Windows installation wizard starts.

- 6 Proceed through the installation wizard until you see the Installation Type, then click Custom (advanced).



- 7 At the Where do you want to Install Windows screen:

- To add a mass storage driver for Windows Server 2012, click Load Driver, and browse to the location of the mass storage device driver (CD/DVD or USB flash drive). Select the driver information file (.inf).

---

**Note** – For Windows Server 2012, the driver must be accessible through a connected CD/DVD or the Oracle System Assistant USB flash drive. If the driver is not accessible, the disk is not visible as shown below.

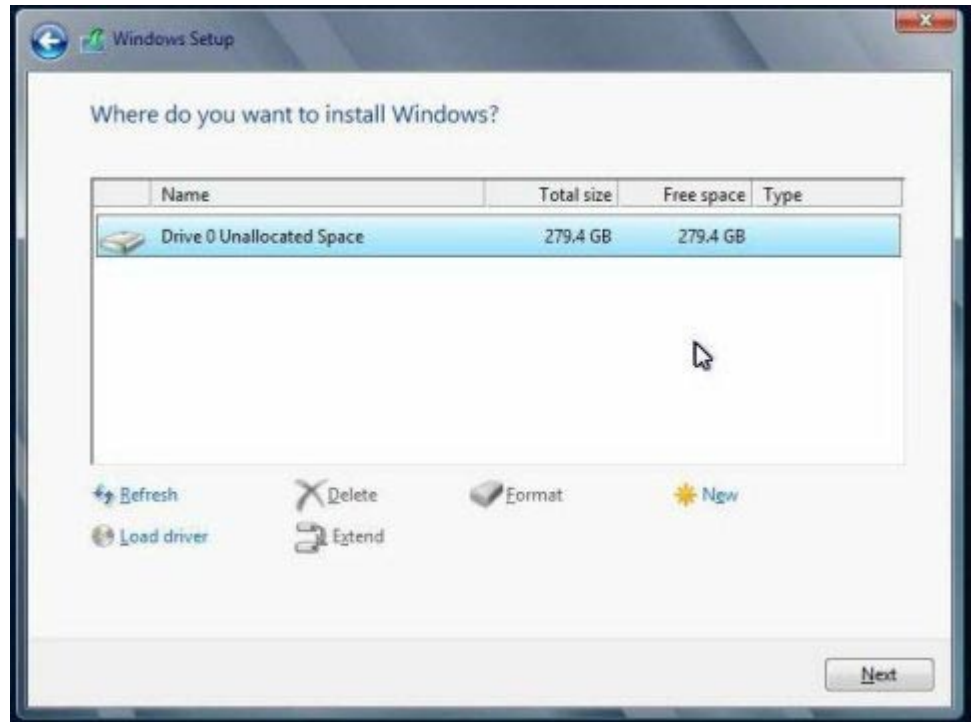
---

- To select the Windows default partition settings, click Next. Go to Step 9.
- To override the Windows default partition settings, click Drive Options (advanced) and proceed to the next step.



**Caution** – Data loss. Formatting or repartitioning a preexisting partition destroys all data on the partition.

- 8 At the Advanced Drive Options screen:
  - a. Click Delete to delete the existing partition.
  - b. Click New to create the new partition.
  - c. Change size settings as needed, and then click Apply.
  - d. Click Next.

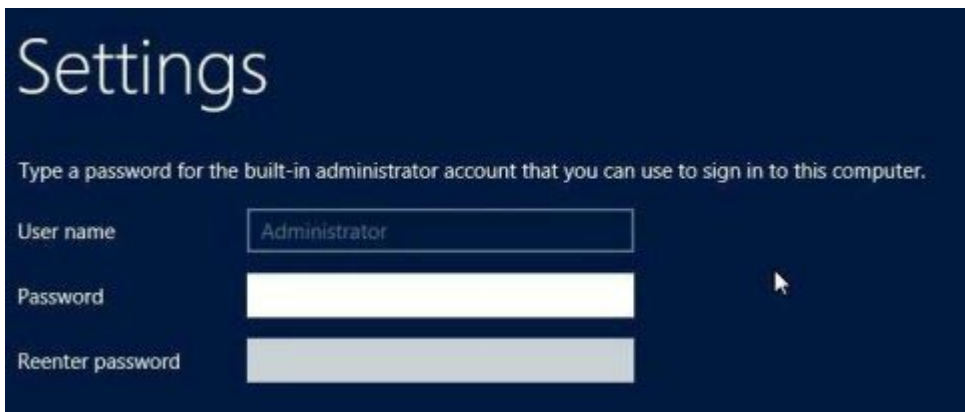


The Windows installation begins. During the installation process, the server reboots several times.



When the installation process is complete, Windows starts and prompts you to set the Administrator password.

**9 Assign the administrator password.**



---

**Note** – The password must have 8 characters, with one number and one uppercase character. For more details, click the [Accessibility](#) link on the account creation screen.

---

Once you have assigned a password to the Administrator account, the Windows Server 2012 desktop appears.

**See Also** [“Installing Server System Tools and Updating Drivers” on page 38.](#)

## ▼ Install Windows Server (PXE)

The following procedure applies to Windows Server 2008 SP2, Windows Server 2008 R2 and Windows 2012 and 2012 R2.

**Before You Begin** To deploy Windows Server 2012 using PXE:

- First install Windows Deployment Service (WDS) on a Windows 2012 server
- If you have a Sun Storage 6Gb/s RAID REM, you must create a RAID volume (even if only RAID0) through the "Configure Hardware" task on the drive on which you plan on installing the OS. If you don't, the system will not see the drive.

---

**Note** – The power-on messages and prompts occur quickly and might appear on the screen for a brief time. You might want to enlarge the size of the screen to eliminate scroll bars.

---

### 1 Reset or power on the server, from one of the following:

- Oracle ILOM web interface: From the Remote Power Control tab, select Reset.
- Local server: Press the Power button on the front panel of the server for approximately 1 second to power off the server, and then press the Power button again to power on the server.

The BIOS POST process begins.

### 2 Press F8 to specify a temporary boot device.

The Please Select Boot Device screen appears.

### 3 In the Please Select Boot Device screen, select the appropriate PXE installation boot device, and press Enter.

---

**Note** – The PXE installation boot device is the physical network port used to communicate with the network installation server.

The Boot Agent screen appears.

---

- 4 In the Boot Agent screen, press F12 for a network service boot.**
- 5 Continue the normal Windows Server WDS network installation.**  
For additional information, consult Microsoft Windows Deployment Services product documentation.
- 6 When the installation is complete, perform any necessary post installation tasks.**

**Next Steps**    [“Installing Server System Tools and Updating Drivers” on page 38](#)

## Installing Server System Tools and Updating Drivers

These procedures describe how to install the server system tools and update system drivers using the InstallPack application that is available with the Oracle System Assistant software and the downloaded server-specific software package:

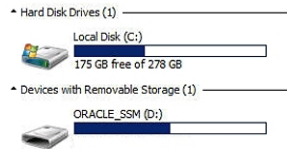
- [“Install Server System Tools” on page 38](#)
- [“Update System Drivers” on page 40](#)

### ▼ Install Server System Tools

- 1 Do one of the following:**
  - **If your system does *not* have Oracle System Assistant:**
    - a. Download the latest server system tools and drivers package from the My Oracle Support site.**  
For more information, see [“Getting Server Firmware and Software Updates” in \*Sun Blade X4-2B Installation Guide\*](#).
    - b. Unzip the downloaded tools and drivers package to the server.**  
The server system tools are located in the following directories—where *version* is the version of the installed Windows OS:
      - Windows Install Pack MSM (MegaRaid Storage Manager):  
Windows/*version*/Tools/LSI-MSM

- NIC Teaming for Windows: `Windows/version/Tools/Intel-NIC-PROSet`
- Oracle Hardware Management Pack:  
`Windows/version/Tools/Hardware-Management-Pack`
- **If your system has Oracle System Assistant:**
  - a. **From the OS, open a file browser, and navigate to the Oracle System Assistant USB device.**

The USB device is named: `ORACLE_SSM`



- b. **Double-click the `ORACLE_SSM` USB drive.**

The server system tools are located in the following directories:

- Windows Install Pack MSM (MegaRaid Storage Manager):  
`Windows/version/Tools/LSI-MSM`
- NIC Teaming for Windows: `Windows/version/Tools/Intel-NIC-PROSet`
- Oracle Hardware Management Pack:  
`Windows/version/Tools/Hardware-Management-Pack`

where *version* is the version of the installed Windows OS.

## 2 To install server system tools:

- For Oracle Hardware Management Pack, refer to the installation documentation at <http://www.oracle.com/pls/topic/lookup?ctx=ohmp>.
- For Windows InstallPack of MSM and NIC Teaming for Windows, continue to the next step.

## 3 Navigate to the installer folder:

`drive:\ORACLE_SSM\Windows\version\installer`.

where *version* is the version of the installed Windows OS.

## 4 Double-click the `InstallPack.hta` file.

The InstallPack application appears.

**5 To install the server system tools, ensure that Custom is selected and click next.**

The Custom setting allows you to select which tool to install.

**6 Ensure that Supplemental software option is selected.**

Ensure that the option to install Platform-specific drivers is *not* selected.

---

**Note** – The Platform-specific drivers option allows you to install the drivers for your server. These drivers are installed during the OS installation process.

---

**7 Click Next and select the tools to install.**

**8 Click Next and continue through the Install Pack application until the tool installation process is finished.**

**Next Steps** For more information on setting up Intel NIC teaming for your environment, refer to the Intel Connectivity web page on Advanced Networking Services Teaming at: <http://www.intel.com/support/network/sb/CS-009747.htm>

Additionally, you can download the complete set of Intel Network Connections User Guides for your server's network adapters at: <http://www.intel.com/support/network/sb/cs-009715.htm>

## ▼ Update System Drivers

This procedure describes how to update the server system drivers using the Windows InstallPack application that is available with the Oracle System Assistant software and the downloaded server-specific software package.

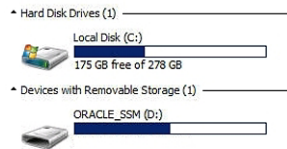


**1 Do one of the following:**

▪ **If your system has Oracle System Assistant:**

- a. **From the OS, open a file browser, and navigate to the Oracle System Assistant USB device.**

The USB device is named: ORACLE\_SSM



- b. **Double-click the ORACLE\_SSM USB drive.**

▪ **If your system does *not* have Oracle System Assistant:**

- a. **Download the latest server system tools and drivers package from the My Oracle Support site.**

For more information, see “[Getting Server Firmware and Software Updates](#)” in *Sun Blade X4-2B Installation Guide*.

- b. **Unzip the downloaded tools and drivers package on the server.**

The server system drivers are located in the following directory:

Windows\*version*\Drivers

where *version* is the version of the installed Windows OS.

**2 Navigate to the installer folder:**

`drive:\ORACLE_SSM\Windows\version\installer.`

where *version* is the version of the installed Windows OS.

**3 Double-click the InstallPack.hta file.**

The InstallPack application appears.

**4 Proceed through the application and select the option to install Platform-specific drivers.**

Ensure that the option to install Supplemental software is *not* selected.

---

**Note** – The Supplemental software option allows you to install server system tools.

---

- 5 Click Next and continue through the Install Pack application until the tool installation process is finished.**

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