Sun Blade X4-2B Installation Guide for Oracle® Solaris Operating System

Part No: E37041–04
March 2014

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Using This Documentation

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

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 Oracle Solaris OS Installation

This section provides an overview of the installation process, supported OS versions, and installation options.

Description	Link
View a list of installation tasks and links to procedures.	"Oracle Solaris Installation Task Table" on page 9
Learn about supported Solaris OS versions and links to latest information.	"Supported OS Versions and Latest Information" on page 10
See options for installing Solaris OS.	"OS Installation Options" on page 11

Oracle Solaris Installation Task Table

Use the following task table to install a supported version of Oracle Solaris on your Sun Blade X4-2B.

Step	Description	Link
1	Review the list of supported Solaris OS versions and learn how to obtain the latest and most up-to-date information about the server software and hardware.	"Supported OS Versions and Latest Information" on page 10
2	Review the options for single server or multiple server OS installations.	"OS Installation Options" on page 11
3	Get an overview of Oracle System Assistant and how you can use it to manage your server.	"Oracle System Assistant" on page 12
4	Prepare for the OS installation by performing necessary procedures.	"Preparing to Install the OS" on page 15

Supported Oracle Solaris Operating System Versions

The server supports the following Linux operating systems:

Solaris OS Version	Edition
Oracle Solaris 10	Release 10 1/13
Oracle Solaris 11	Release 11.1

For a specific and up-to-date list of supported operating systems, see:

`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`

Note – If the Oracle Solaris 11.1 OS was preinstalled, it was installed with the server set to Legacy BIOS Boot Mode. If you choose to boot the server in UEFI BIOS Boot Mode, the preinstalled image is not accessible. Therefore, if you want to use the Oracle Solaris 11.1 OS with the UEFI/BIOS Boot Mode set to UEFI BIOS, you must perform a fresh installation of Oracle Solaris 11.1.

Related Information

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

Supported OS Versions and Latest Information

Use this section to learn about the supported versions of the Oracle Solaris operating system (OS) and how to get the latest server-related information:

- "Supported Oracle Solaris Operating System Versions" on page 10
- "Latest Information in Product Notes" on page 11

Latest Information in Product Notes

The most up-to-date information about your server is maintained in the *Sun Server X4-2B Product Notes*. The *Product Notes* document contains detailed information about the available firmware updates and any hardware or software issues for the server.

This document and other server-related documents are available online in the server's documentation library 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 table below provides some information about these two installation options.

Option	Description
Multiple servers	For information on using Oracle Enterprise Manager Ops Center to install an OS on multiple servers, see: `http://www.oracle.com/technetwork/oem/ops-center/index.html`
Single server	Installs an OS to a single server using one of the following methods: ■ Locally: OS installation is performed locally at the server. Use this option if you have just completed the physical installation of the server in the rack. Additional hardware is required. ■ Remotely: OS installation is performed from a remote location. Uses the Oracle ILOM RemoteConsole application to access Oracle System Assistant or to perform a manual OS installation. **Note –** Oracle System Assistant is the easiest method for local or remote single-server OS installations.

Related Information:

- "Single-Server Installation Methods" on page 11

Single-Server Installation Methods

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

Media Delivery Method	Additional Requirements
Local assisted OS installation - Uses Oracle System Assistant	A monitor, USB keyboard and mouse, a USB device, Solaris distribution media. For more information, see "Assisted OS Installation" on page 12.
Remote assisted OS installation - Uses Oracle System Assistant	Oracle ILOM Remote Console, a redirected CD/DVD drive or ISO image file, and Solaris distribution media. For more information, see "Assisted OS Installation" on page 12.
Local using a CD/DVD drive – Uses a physical CD/DVD drive connected to the server.	A monitor, USB keyboard and mouse, a USB CD/DVD drive, and Oracle Solaris distribution media. For more information, see "Manual OS Installation" on page 12.
Remote using a CD/DVD drive or CD/DVD ISO image – Uses a redirected physical CD/DVD drive on a remote system running the Oracle ILOM Remote Console application.	A remote system with a browser, an attached physical CD/DVD drive, Oracle Solaris distribution media, and network access to the server management port. For more information, see "Manual OS Installation" on page 12.

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 Solaris OS installation media on either a local or remote CD/DVD drive, USB device, or CD/DVD image, and Oracle System Assistant guides the installation process and installs the necessary drivers when necessary.

Related Information: "Oracle System Assistant" on page 12

Manual OS Installation

With this method, you deliver the Oracle Solaris distribution media on either a local or remote CD/DVD drive, USB device, or CD/DVD image. You also need to supply the necessary drivers. The 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 script*.

Related Information: "Preparing to Install the OS" on page 15

Oracle System Assistant

This section contains the following topics:

- "Oracle System Asssistant Overview" on page 13
- "Oracle System Assistant OS Installation Task" on page 13
- "Obtaining Oracle System Assistant" on page 13

Oracle System Asssistant Overview

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 use 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

Related Information:

Oracle X4 Series Servers Administration Guide (`http://www.oracle.com/goto/x86AdminDiag/docs`)

Oracle System Assistant OS Installation Task

The Oracle System Assistant Install OS task assists in the installation of a supported OS. You supply the OS installation media, and Oracle System Assistant guides you through the installation process. However, once a server-supported OS is installed, you can use Oracle System Assistant to update the OS drivers as well as all the firmware components (BIOS, Oracle ILOM, HBAs, and expanders).

You can access Oracle System Assistant locally or remotely. If you just completed the installation of the server, then using Oracle System Assistant locally (while physically present at the server) can be a fast and efficient method of starting up the server. Once the server is operational, you can conveniently access Oracle System Assistant remotely while still retaining full-featured functionality.

Obtaining Oracle System Assistant

Oracle System Assistant might be already installed in the server. For more information about how to determine if the server has Oracle System Assistant or how to perform updates and recovery procedures, refer to the Oracle X4 Series Servers Administration Guide (`http://www.oracle.com/goto/x86AdminDiag/docs`).

Preparing to Install the OS

This section describes the steps for preparing to install an OS. Use the following task table as a guide.

Step	Task	Link
1	You must have already reviewed the OS installation task table.	"About Oracle Solaris OS Installation" on page 9
2	Get the installation documentation.	"Obtaining Oracle Solaris Documentation" on page 15
3	Setup for the installation based on your selected installation method.	"Selecting the Installation Method" on page 16
4	Prepare the BIOS by loading the optimal default values, and selecting a BIOS mode.	"Setting Up BIOS" on page 20
5	Install and update the OS	"Installing the Oracle Solaris OS" on page 23

Obtaining Oracle Solaris Documentation

Documentation for supported versions of Oracle Solaris operating systems are available at:

- Oracle Solaris 10:

  `http://www.oracle.com/technetwork/documentation/solaris-10-192992.html`
- Oracle Solaris 11:

  `http://www.oracle.com/technetwork/documentation/solaris-11-192991.html`

Note – Oracle Solaris documentation is also available on the Documentation DVD included with the Oracle Solaris OS software.

Selecting the Installation Method

This section describes how to set up a local or remote installation session. A local OS installation is performed at the server. A remote OS installation is performed using the JavaRConsole System, the Oracle ILOM Remote Console application, and a redirected CD/DVD drive or CD ISO image.

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

- "Set Up the Local Console" on page 16
- "Set Up the Remote Console" on page 17

▼ 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.

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

Before You Begin

- You should have already performed the server installation as described in the *Sun Blade X4-2B Installation Guide*
- You need the following items:
  - Video monitor with 15-pin (DB-15) connector capabilities
  - USB keyboard and mouse
  - USB device (CD/DVD drive or thumb drive)
  - Sun Blade Modular System 3-cable dongle
- 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 3-cable 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 3-cable 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 3-cable 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 3-cable 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 easiest method 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.

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.

Before You Begin The following requirements must be met:

- You should have already performed the server installation as described in the *Sun Blade X4-2B Installation Guide*.
- The Oracle ILOM Remote Console must be:
  - Running on Oracle Solaris, Linux, or Windows

    If the system is running Windows, disable Internet Explorer Enhanced Security.

    If the system is running Solaris, volume management must be disabled for JavaRConsole to access the CD/DVD-ROM drive.
  - Connected to a network that has access to the Sun server Ethernet management port.
- Java Runtime Environment (JRE) 1.5 must be installed.
- The server service processor (SP has been set up according to the instructions in the Oracle ILOM documentation for your server).
- You need the SP IP address to access Oracle ILOM. For information about determining the SP IP address, see *Sun Blade X4-2B Installation Guide*.
- To ensure that the server has the latest updates, server web access is required.

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

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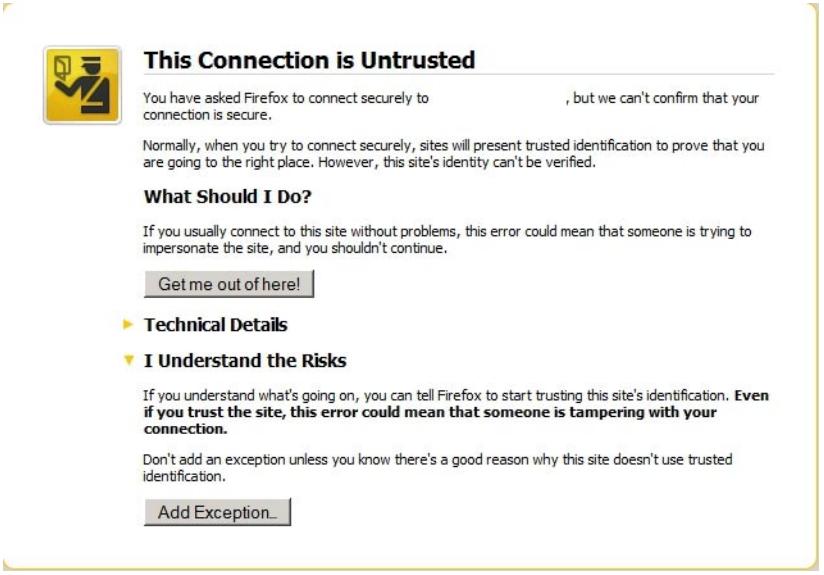
1 **To access Oracle ILOM, type the IP address of the service processor into a web browser on the Remote Console system.**

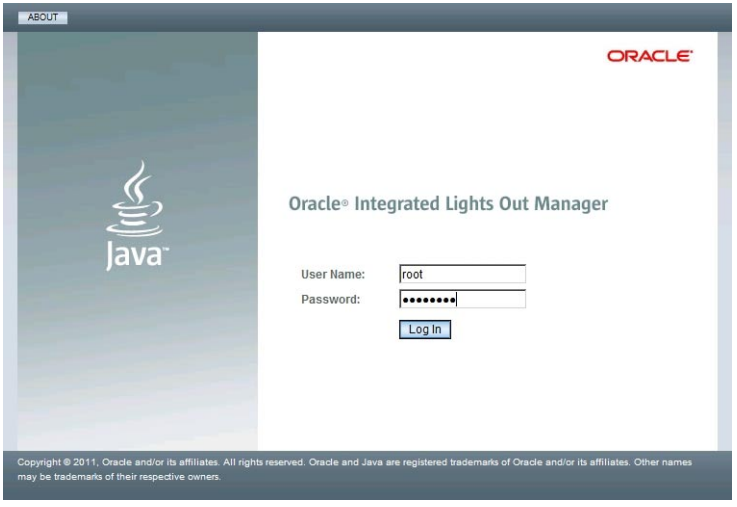
The Security Alert dialog box appears.



2 **Click the I Understand the Risks link.**

3 **Click Add Exception.**

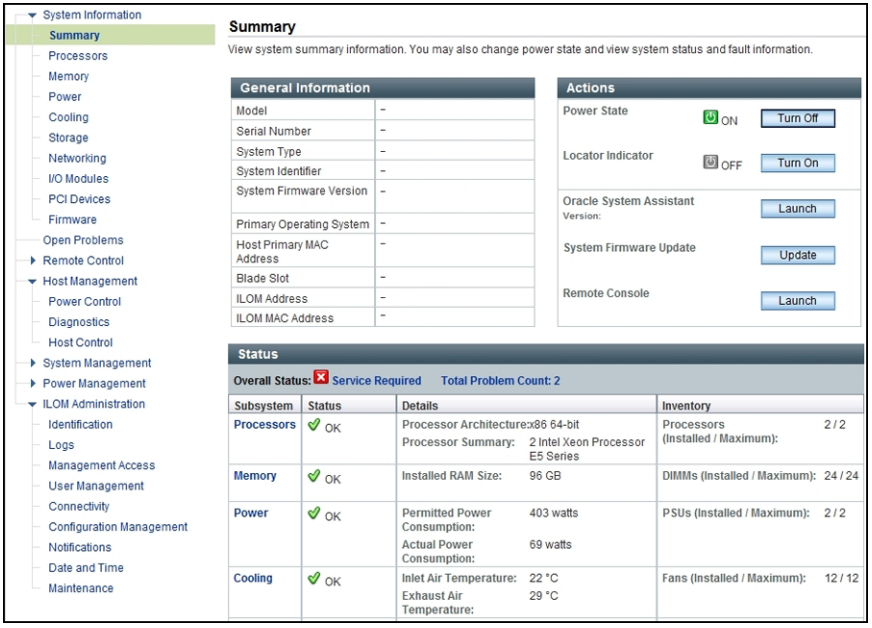
The Oracle ILOM login screen appears.



4 Type the user name and password and click Log In.

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

The Oracle ILOM System Summary screen appears.

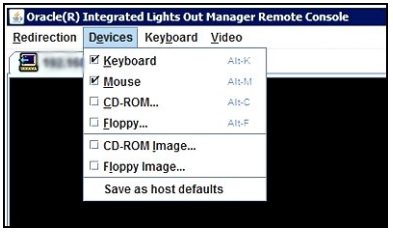


5 Click the Remote Console Launch button.

A dialog box for the `jnlpgenerator.jnlp` file appears.

6 Click Open.

The 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 JavaRConsole 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

Caution – This procedure resets the BIOS settings to the default values and overwrites any previously customized settings. To retain customized settings, review each menu and make note of the customized values before loading the default values.

The BIOS Setup Utility contains an option to load the optimal BIOS settings for the server. 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. For details, see "Selecting the Installation Method" on page 16.

1. **Power on the server.**

   POST messages appears on the video (KVM or RKVM) 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.**

Next Steps "Select the BIOS Boot Mode" on page 21

▼ Select the BIOS Boot Mode

The BIOS firmware supports both legacy BIOS Boot Mode and Unified Extensible Firmware Interface (UEFI) Boot Mode; the default setting is Legacy BIOS Boot Mode.

Options for setting the BIOS Boot Mode before installing the OS are:

- If the OS supports legacy BIOS only, make sure that BIOS is set to Legacy BIOS Boot Mode before you install the OS.
- If the OS supports both legacy BIOS and UEFI BIOS, you can select either Legacy BIOS Boot Mode or UEFI BIOS Boot Mode before you install the OS.

Note – Upon initial release of the Sun Blade X4-2 server, Solaris 11.1 does support UEFI Boot Mode, and Solaris 10 1/13 does **not** support UEFI Boot Mode.

Refer to: Oracle x86 Administration Guide for X4 Series Servers (`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. **Select the desired boot mode option supported by your OS.**

   Press Enter and use the up or down arrow keys to select the Legacy or UEFI BIOS Boot Mode option.

6. **To save the changes, and exit the BIOS Setup Utility, press F10.**

Next Steps "Installing the Oracle Solaris OS" on page 23

Installing the Oracle Solaris OS

This section describes how to install the Oracle Solaris OS. Procedures for identifying logical and physical network interface names and installing the server system tools are also included.

Step	Description	Links
1	Start the installation.	"Installing the Oracle Solaris OS" on page 23
2	When configuring an operating system for a networked server, you might need to provide the logical name (assigned by the OS) and the physical name (MAC address) of each network interface.	"Identify Logical and Physical Network Interface Names" on page 27
3	Install the Oracle Solaris OS system tools and access the drivers that are included with Oracle System Assistant software and the downloaded software package.	■ "Install Server System Tools (Optional)" on page 30 ■ "Access System Drivers" on page 31

Installing the Oracle Solaris OS

This section contains the following procedures:

- "Install the Solaris OS (Oracle System Assistant)" on page 23
- "Install the Oracle Solaris OS (Manually)" on page 27

▼ Install the Solaris OS (Oracle System Assistant)

The Oracle System Assistant Install OS task provides assisted installation of a supported Oracle Solaris OS version.

Before You Begin

- Prepare the server storage drives. For more information, refer to the *Sun Blade X4-2B Installation Guide*.
- Perform the steps in "Preparing to Install the OS" on page 15.

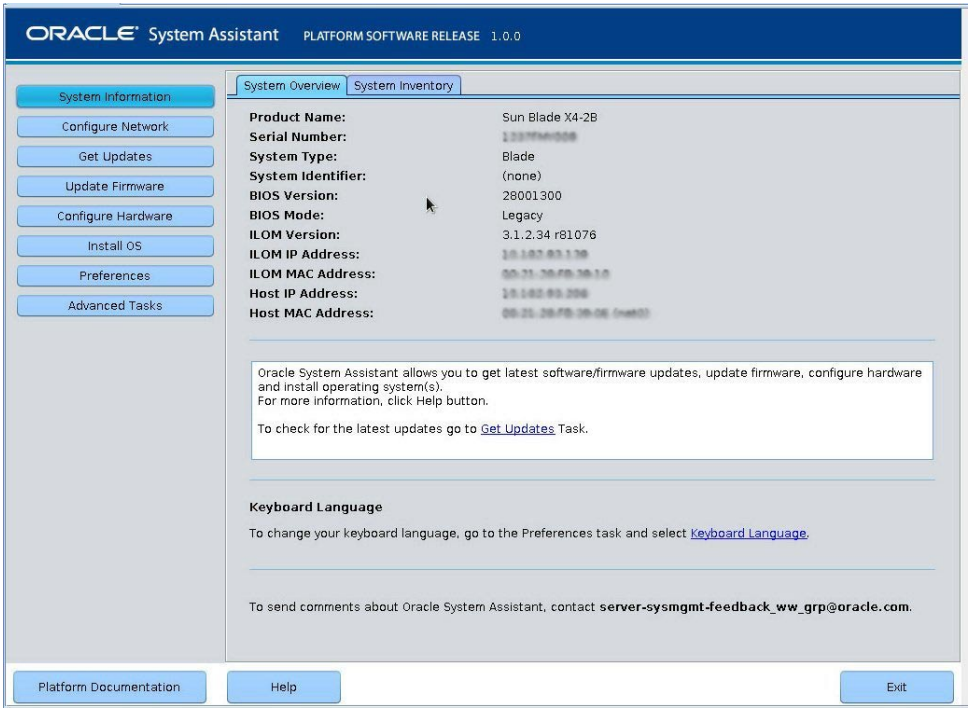
- During the OS installation and configuration process, you might need to provide logical and physical network names. For more information, see "Identify Logical and Physical Network Interface Names" on page 27.
- For local installation, have the installation media available to insert into the attached physical CD/DVD-ROM drive when prompted.
- For remote installation, insert the installation media into the Oracle ILOM Remote Console system's CD/DVD-ROM drive. Make sure you have selected CD-ROM from the Oracle ILOM Remote Console Device menu.
- If you are using an ISO image, ensure that the it is accessible from the Oracle ILOM Remote Console system. Make sure you have selected CD-ROM Image from the Oracle ILOM Remote Console Device menu.

1 **Ensure that the server is in standby power mode.**

2 **Boot the server and watch the video monitor or Oracle ILOM Remote Console screen for the prompt to press the F9 key to enter Oracle System Assistant.**

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

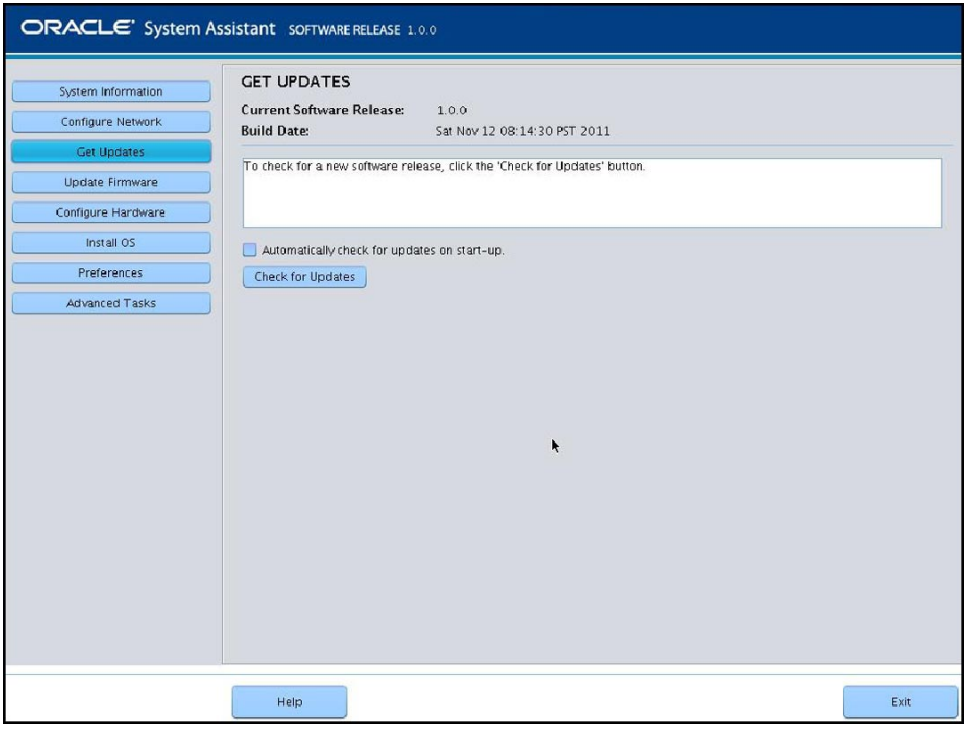
The Oracle System Assistant main screen appears.



4 **To update the Oracle System Assistant application, click the Get Updates button.**

This action ensures that the application has the latest firmware and drivers before you begin the OS installation.

Note – Server web access is required to update Oracle System Assistant.



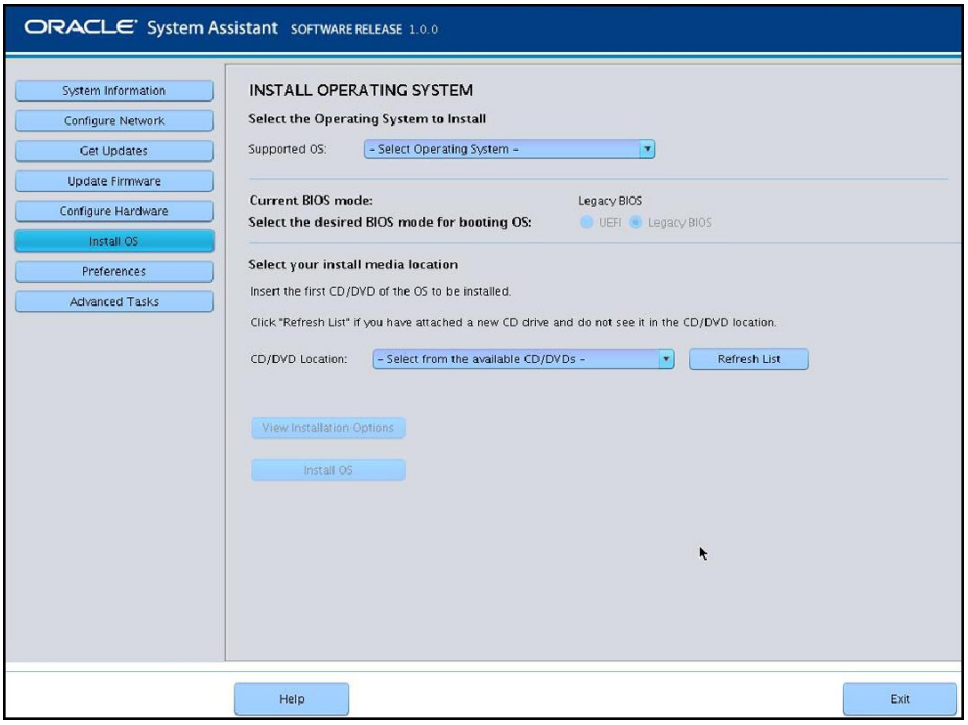
5 **To update the server firmware, click the Update Firmware button.**

This action ensures that the server has the latest firmware before you begin the OS installation.

6 **To install the OS, click the Install OS button.**

Note – 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.

The Install OS screen appears.



7 **From the Select Operating System drop-down list, select the OS.**

8 **Select the BIOS boot mode.**

See "Select the BIOS Boot Mode" on page 21. For more information, refer to Oracle X4 Series Servers Administration Guide (`http://www.oracle.com/goto/x86AdminDiag/docs`).

9 **In the Select your install media location section, indicate the location of the installation media.**

This is the location of the OS distribution media. If you attached a CD/DVD drive, you might need to click the Refresh button to see it in the drop-down list.

10 **To select a device, click `View Installation Options`.**

This is the device on which you install the OS.

Caution – Loss of data. The OS installation erases the contents of the disk. All data on the selected disk is erased.

11 **To begin the OS installation, click `Install OS`.**

12 **Follow the prompts until the installation is finished.**

The server boots.

Next Steps "Install Server System Tools (Optional)" on page 30

▼ Install the Oracle Solaris OS (Manually)

Use this procedure to install the OS locally or remotely using CD/DVD installation media or ISO image.

Before You Begin

- Perform the procedures in the section, "Preparing to Install the OS" on page 15.
- During the OS installation and configuration process, you might need to provide logical and physical network names. For more information, see "Identify Logical and Physical Network Interface Names" on page 27.
- If you have a Sun Storage 6Gb/s RAID REM, you must create a RAID volume (even if only RAID0) on the drive on which you plan on installing the OS. If you don't, the system will not see the drive. For more information, refer to Oracle X4 Series Servers Administration Guide (`http://www.oracle.com/goto/x86AdminDiag/docs`).
- Review Oracle Solaris OS installation documentation:
  - Oracle Solaris 10:

    `http://download.oracle.com/docs/cd/E19253-01/index.html`
  - Oracle Solaris 11.1:

    `http://www.oracle.com/technetwork/documentation/solaris-11-192991.html`

1 **Ensure that the installation media is installed in the primary boot drive.**

2 **Power on the server.**

The server boots from the CD/DVD or CD/DVD ISO image, and the Solaris Installation Program screen appears.

3 **Use the text- or GUI-based installation program to install the OS.**

Next Steps "Install Server System Tools (Optional)" on page 30

▼ Identify Logical and Physical Network Interface Names

When you are configuring an operating system for a networked server, you might need to provide the logical name (assigned by the OS) and the physical name (MAC address) of each network interface. This topic shows you how to get this information.

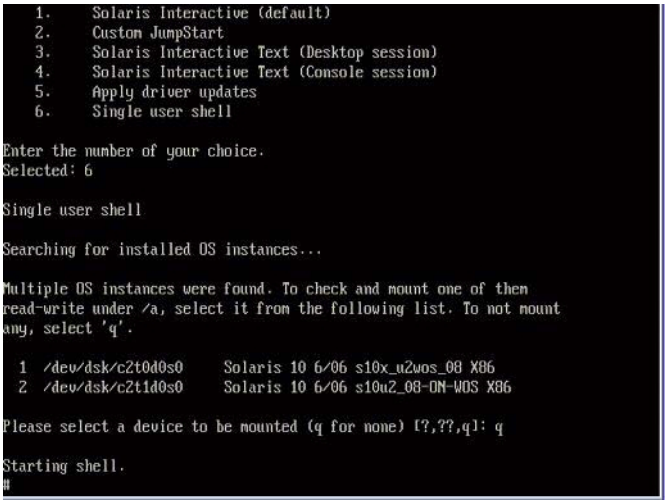
Use this procedure to display information about MAC addresses and network interfaces, including their logical and physical names (MAC addresses).

1 In the Install Type menu, select Option (6) Single User Shell and press Enter.

Note – Alternatively, you can run these commands from a command shell.

If a message appears about mounting an OS instance, select **q**. You should not mount any OS instance.

The message "`Starting Shell`" appears. See the following figure.



2 At the command prompt (#), type the following command to plumb all network interfaces.

```
# ifconfig -a plumb
```

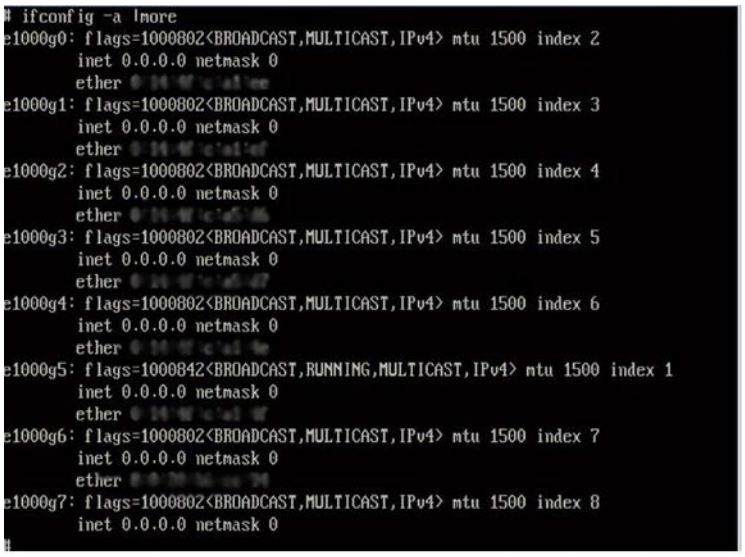
Note – The plumb process might take some time.

---

3 At the command prompt, type the following command.

```
# ifconfig -a
```

The output of Solaris named interfaces and MAC addresses appears. For example:



In the sample output above:

- The `el000g#` entry in the first column is the Solaris logical named interface. This first column in the output identifies the logical names assigned by Solaris to the network interfaces.
- The `ether #:#:#:#:#:#` entry in second column (third row) is the physical MAC address name of the network port.

  For example:

  The physical MAC address for the Solaris named network interface is `e1000g0` is `0:14:4f:c:a1:ee`.

4 Save this information to a file, or write it down.

5 To start the system configuration script, type `sys-unconfig(1M)` at the command line.

This command restores the system configuration to the factory defaults.

Caution – The `sys-unconfig(1M)` command halts the system and restores the factory settings. Do not run this command unless you are ready to reconfigure your system.

For example:

```
# sys-unconfig
WARNING
This program will unconfigure your system.  It will cause it
```

```
to revert to a "blank" system - it will not have a name or know
about other systems or networks.
This program will also halt the system.
Do you want to continue (y/n) ?
```

The system reboots and the configuration script starts.

▼ Install Server System Tools (Optional)

Server system tools, which include LSI MegaRAID Storage Manager (LSI MSM), MegaCLI, and Oracle Hardware Management Pack are available with the Oracle System Assistant software and the downloaded Solaris OS software package from `http://support.oracle.com`. Use this procedure to access and install the server system tools.

Note – Additional software for Solaris 11.1 can be installed with the Oracle Solaris Image Packaging System (IPS). For more information, refer to:

`http://docs.oracle.com/cd/E26502_01/html/E28984/index.html`

---

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`

  For USB mounting instructions, refer to the Oracle X4 Series Servers Administration Guide (`http://www.oracle.com/goto/x86AdminDiag/docs`).

  b. **Navigate to the appropriate Solaris OS `Tools` folder:**

  `Solaris/`*OS_name*`/Tools`

  where *OS_name* is the installed Solaris OS.

- **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.**

c. Within the unzipped file system, navigate to the Solaris OS `Tools` folder:

`Solaris/`*OS_name*`/Tools`

where *OS_name* is the installed Solaris OS.

2 The following table lists the procedures for installing the tools.

Tool	Instructions
LSI MSM	1. Navigate to the `MSM/disk` directory and run the `install.sh` file. This starts the installation script. 2. Follow the progress of the script until the installation is finished. For more information, refer to the LSI MSM installation instructions at: `http://www.lsi.com/sep/Pages/oracle/sg_x_sas6-r-rem-z.aspx` **Note –** The readme.txt file in Tools/MSM directory contains important installation information.
MegaCLI	Navigate to the MegaCLI directory and run the `MegaCLI` file. **Note –** The readme.txt file in Tools/MegaCLI directory contains important installation information.
Oracle Hardware Management Pack	Refer to the `hmp-prerequisite-installation.txt` ReadMe file in the `hmp-tools/oracle-hmp-`*version*`/SOFTWARE` directory (where *version* is the version of Oracle Hardware Management Pack). For more information, refer to the Oracle Hardware Management Pack documentation at: `http://www.oracle.com/goto/OHMP/docs`

▼ Access System Drivers

This procedure describes how to access the `Drivers` directory on Oracle System Assistant and the OS-specific download package.

1 Do one of the following:

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

  a. From the OS, navigate to the Oracle System Assistant USB device.

  The USB device is named: `ORACLE_SSM`

  For USB mounting instructions, refer to the Oracle X4 Series Servers Administration Guide (`http://www.oracle.com/goto/x86AdminDiag/docs`).

  b. Navigate to the appropriate Solaris OS `Drivers` folder:

  `Solaris/`*OS_name*`/Drivers`

where *OS_name* is the installed Solaris OS.

- **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, refer to the "Getting Server Firmware and Software Updates" in *Sun Blade X4-2B Installation Guide*.

  b. **Unzip the downloaded tools and drivers package to the server.**

  c. **Within the unzipped file system, navigate to the appropriate Solaris OS `Drivers` folder:**

     `Solaris/`*OS_name*`/InstallPack`

     where *OS_name* is the installed Solaris OS.

2 **Do one of the following:**

- **To update or install *all* supported drivers, navigate to the InstallPack directory and run the `InstallPack.py` file.**

  `Solaris/`*OS_name*`/InstallPack`

  Follow the InstallPack application instructions to complete the driver update.

- **To update or install other drivers, navigate to the driver directory and double-click the `.pkg` files.**

  `Solaris/`*OS_name*`/Drivers/`*driver* where *driver* is the directory name containing the driver.

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