Netra Server X5-2 Product Notes

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Using This Documentation

- **Overview** – Provides important late-breaking information about Oracle's Netra Server X5-2.
- **Audience** – This document is written for technicians, system administrators, authorized service providers, and users who have advanced experience troubleshooting and replacing hardware.
- **Required knowledge** – Advanced experience troubleshooting and replacing hardware.

Product Documentation Library

Documentation and resources for this product and related products are available at http://www.oracle.com/goto/netra-x5-2/docs.

Feedback

Provide feedback about this documentation at http://www.oracle.com/goto/docfeedback.

Late-Breaking Information

These topics provide important information and late-breaking news about the server:

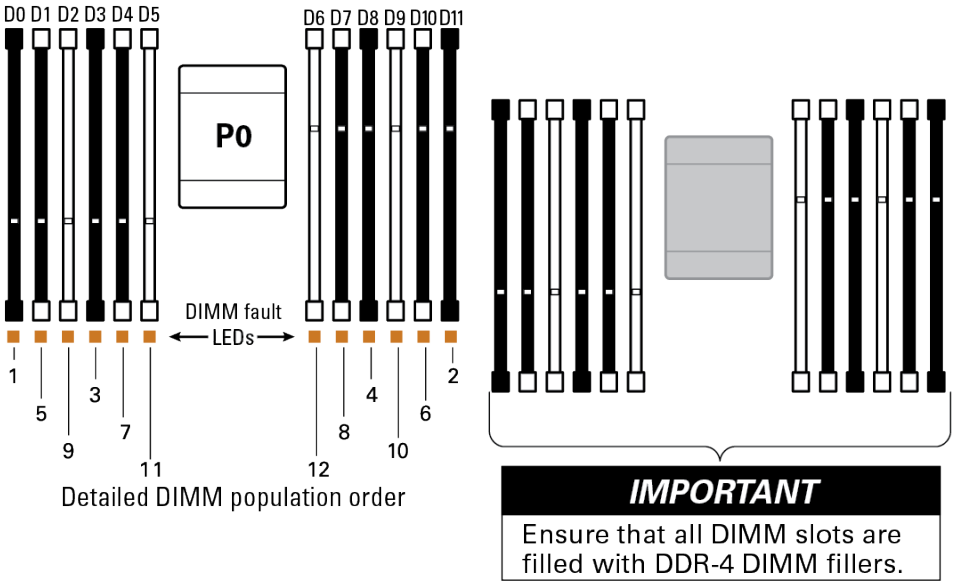
- "Single-Processor Configuration" on page 9
- "Operating System Support" on page 10
- "Preinstalled Software" on page 10
- "Minimum Supported Versions of the Firmware, OS, and Software" on page 11
- "Downloading Patches and Software Updates" on page 12
- "PCIe Card Configuration" on page 13
- "CPU Power Limit Option" on page 13
- "Known Issues" on page 14

Single-Processor Configuration

The Netra X5-2 server is now available in a single-processor configuration. The single processor resides in socket P0, and the other socket, P1, is protected from damage by a cover. The single-processor configuration cannot be upgraded to a dual-processor configuration. The single-processor configuration also affects these components:

- **PCIe slots** – Only slot 5 and slot 6 are functional. Slots 1, 2, 3, and 4 are unavailable. Labels on these slots prevent them from being used.
- **DIMMs** – Only 12 DDR4 DIMM slots are functional with a maximum amount of 384 gigabytes of memory. You must install DIMMs in the DIMM slots for P0 (D0 through D11). All of the DIMM slots for P1 must be filled with filler panels. You must also follow the installation order as it is printed on the service label that is attached to the server.

  This illustration shows the label for the DIMM installation order.



Operating System Support

Some of the non-Oracle operating systems might not be certified for this release of the Netra Server X5-2. Those OSs include:

- Red Hat Enterprise Linux
- SUSE Linux Enterprise Server
- VMware
- Microsoft Windows Server

For more information about Netra X86 operating systems, refer to Netra X86 Rack Server Operating Systems (`https://wikis.oracle.com/display/SystemsComm/Sun+Netra+X86+Rack+Server+Products#tab:Operating-Systems`).

Preinstalled Software

Software	Location	Description
Oracle Solaris 11.2.9	The OS is installed on drive 0.	Host OS.
Oracle Linux 6.6 for x86 (64-bit)	The OS is installed on drive 0.	Host OS.

Software	Location	Description
		Includes either Oracle Unbreakable Enterprise Kernel Release 3 Update 3 for Linux or the Red Hat Compatible Kernel.
Electronic Prognostics	`/usr/lib/ep`	Provides early warning of the potential for specific FRU faults. This software is part of the Oracle Solaris 11 OS distribution.

The preinstalled OS is ready to be configured at the appropriate point when you first apply power to the server.

Refer to the Oracle Solaris documentation for instructions on installing and configuring the Oracle Solaris OS.

Minimum Supported Versions of the Firmware, OS, and Software

Software	Minimum Supported Versions
Oracle System Firmware	SW Release 1.0 Includes these components: ■ Oracle ILOM 3.2.4.32 ■ BIOS version 32.00.01.01 ■ Oracle OSA 1.0
Oracle Solaris 11 Operating System	Oracle Solaris 11.2.9 Includes these software components: ■ Oracle VM Server for X86 3.3.2 ■ Oracle Electronic Prognostics
Oracle Linux Operating System	Oracle Linux 6.6 for x86 (64-bit) with the Oracle Unbreakable Enterprise Kernel Release 3 Update 5 for Linux or the Red Hat Compatible Kernel Includes these software components: ■ Oracle VM Server for X86 3.3.2 ■ Oracle VM Manager Release 3.3.*x*
Oracle VM	Oracle VM for X86 Release 3.3.2 Includes these software components: ■ Oracle VM Server for X86 Release 3.3.2 ■ Oracle VM Manager Release 3.3.*x*

Downloading Patches and Software Updates

Patches and software updates are provided on the My Oracle Support site at `https://support.oracle.com`.

- "Download Patches" on page 12
- "Download Software Updates" on page 12

Download Patches

To download the patches from My Oracle Support, follow this procedure.

1. **Select a language, and click Sign In.**
2. **Type your user name and password, and either click Go or press Return (Enter).**
3. **Click the Patches & Updates tab.**
   The Patch Search menu is displayed.
4. **In the Patch Name or Number field, type the patch number, or type multiple patch numbers separated by a comma.**
5. **Click Search.**
6. **Check the box next to each patch, and select Download from the pop-up menu.**
   Refer to the patch README for installation instructions.

Download Software Updates

To download the software from My Oracle Support, follow this procedure.

1. **Select a language, and click Sign In.**
2. **Type your user name and password, and either click Go or press Return (Enter).**
3. **Click the Patches & Updates tab.**
   The Patch Search menu is displayed.
4. **In the Patch Search menu, click Product or Family (Advanced Search).**
5. **In the Products field, type Netra Server X5-2.**

In the drop-down menu, the Netra Server X5-2 is displayed.

6. **In the Release menu, click the arrow next to the Netra Server X5-2 release that you want.**
7. **For the platform, leave the left menu set at Platform and select the Platform that you want (for example, Oracle Solaris on X86-64-bit) from the drop-down menu.**
8. **(Optional) Check the Exclude Superseded Patches box.**
9. **Click the Search button.**
10. **Check the box next to the patches that you want, and select Download from the pop-up menu.**

    Refer to the software README for installation instructions.

PCIe Card Configuration

In a dual-processor configuration, you can install a maximum of six PCIe cards into the server. In a single-processor configuration, you can install a maximum of two PCIe cards in slot 5 and slot 6.

Follow these guidelines when configuring PCIe cards:

- The Sun Storage 12 Gb SAS PCIe RAID HBA, Internal card must be installed in slot 6. This is a configuration requirement.
- Populate any empty PCIe slot with a PCIe filler panel. Use only the PCIe filler panels provided with the server to maintain proper airflow and EMI conformance for empty slots.
- To optimize performance, populate the PCIe cards starting with PCIe slot 1, and move in an ascending order up to PCIe slot 6.

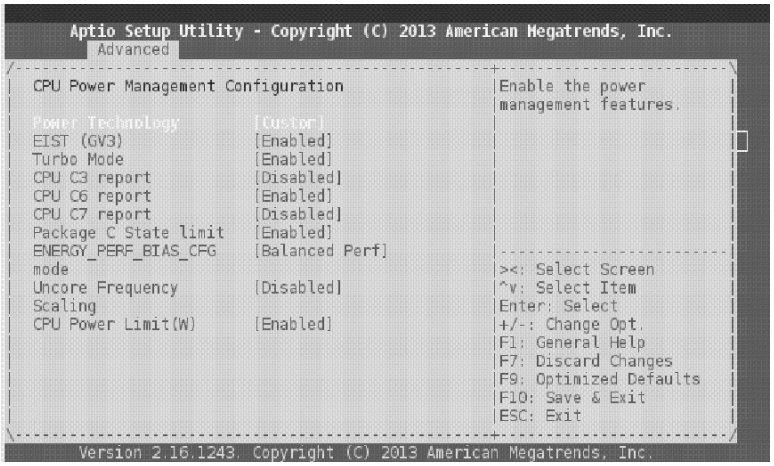
For information about the supported PCIe cards, refer to the product page at `http://www.oracle.com/goto/netra-x5-2`.

CPU Power Limit Option

To meet NEBS requirements, the CPU Power Limit option is used to effectively lower the Thermal Design Power (TDP) such that the CPU will always run just below the 55°C (131° F) throttle point. This function reduces the CPU power to 120 watts from the maximum 145 watts to prevent CPU throttling. In this mode, performance at lower ambient temperature is reduced, However, the CPU cores will not throttle at or below 55°C (131°F). When disabled,

the system will operate normally and the default TDP of 145 watts will be maintained. In this mode, the CPU cores should throttle as needed when ambient temperatures and load cause the die temperature to exceed maximum.

You can disable the CPU Power Limit option on the BIOS Advanced, CPU Power Management Configuration screen.



Known Issues

These topics describe known issues with the server.

- "Rear USB 3.0 Ports Operating as USB 2.0 Ports" on page 14

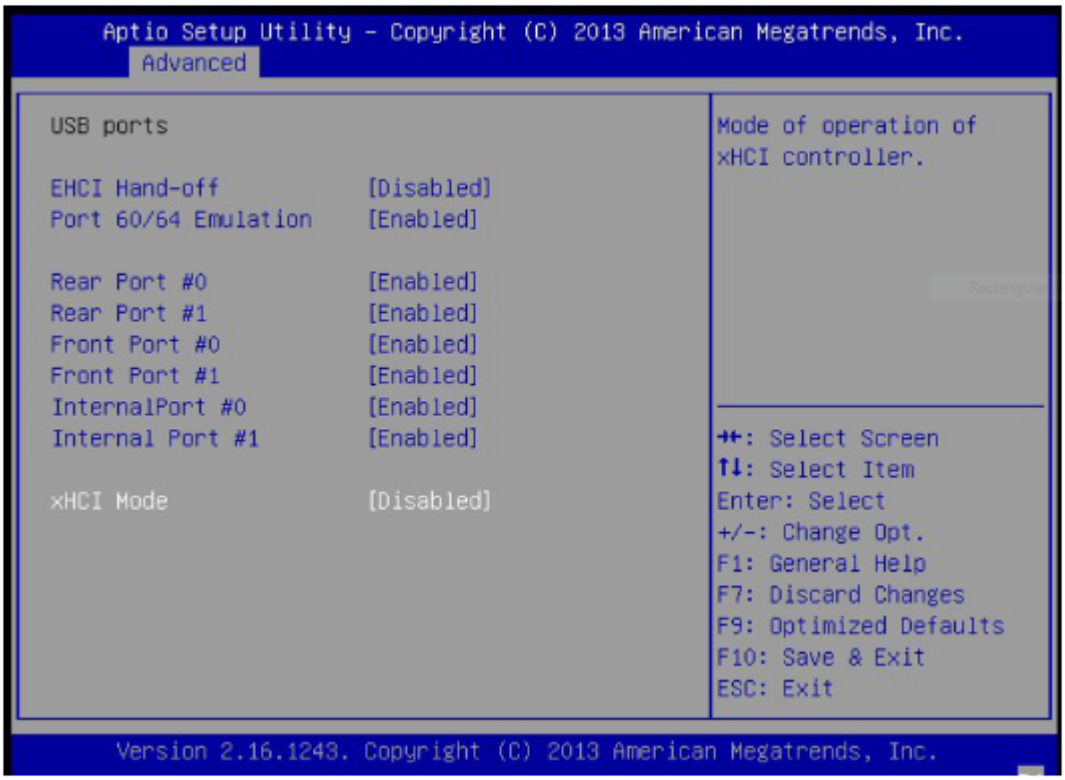
Rear USB 3.0 Ports Operating as USB 2.0 Ports

Due to potential issues with the USB 3.0 drivers, the two blue USB 3.0 ports on the rear panel are set to operate as USB 2.0 ports in the initial release of the Netra Server X5-2. However, you can enable USB 3.0 support on these ports in the BIOS to test if they will operate properly in your environment.

Workaround: To enable USB 3.0 support, perform these steps:

1. Access the BIOS Setup utility.

   Refer to "Accessing BIOS" in *Netra Server X5-2 Administration Guide* .
2. From the Advanced tab, navigate to the USB Ports page.



3. Enable xHCI Mode.
4. Test your software applications to ensure that they work properly with the USB 3.0 drivers.