



Sun Netra™ CP3250 Blade Server Product Notes

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Sun Netra CP3250 Blade Server Product Notes

The Sun *Netra CP3250 Blade Server Product Notes* contain important and late-breaking information about the Sun Netra™ CP3250 blade server. This document includes information about upgrading to ATCA R3U3.

This document contains the following topics:

- “Known Issues” on page 2
- “Enhancements” on page 2
- “Overview” on page 4
- “Additional Copyright Information” on page 5
- “Related Documentation” on page 5
- “System Components” on page 6
- “Installing the Blade Server and Software” on page 8
- “Upgrading Your Firmware and Software” on page 9



Caution – You must use shielded cables for all ports to satisfy EMI compliance standards.

Known Issues

The following known issues exist in this release of the Netra CP3250 board hardware and software.

TABLE 0-1 Known Issues

ID	Problem	Workaround
6764337	FMA support unavailable for 5100 chipset memory controller. FMA faults reported on DIMMs could be erroneous.	

Enhancements

The R3U3 release provides the following enhancements:

- Retaining custom IPMC configurations during upgrades
- Upgrading Linux (RedHat 5.3) firmware for BIOS

Retaining Custom IPMC Configurations Across Upgrades

IPMC configuration variables are now retained across firmware upgrades and downgrades, as long as the version being downgraded to supports this feature.

IPMC has a group of parameters that are stored in SEEPROM (NV Storage). All variables are part of one data structure. Each of these variables performs a function and can be set or read via commands. These variables are stored across IPMC resets. However, previously, these variables were reset to default values when new or upgraded firmware was installed.

This enhancement retains any custom values you configured for the following variables.

TABLE 0-2 IPMC Variables for Which You Can Retain Configurations

Variable	Description
log_level	Controls the log level of the debug messages.
Payload timeout	Controls the timeout for payload response. IPMC, after sending payload alert, expects OS to respond within this time. Used in graceful reboot and graceful shutdown features.
Payload shutdown timeout	Controls the payload shutdown timeout as described in the graceful reboot/shutdown specification. This is the time that an OS would take to shutdown its applications before IPMC shuts it down or resets the payload.
Verbosity	Controls the debug mode verbosity of the messages. Selectively, messages from/to a particular interface can be enabled/disabled. Used for debugging only.
AMC power up timeout	Controls the time it would take for the AMCs/ARTM to come up before the payload is brought to M4 state.
IPMC Control	Reflects IPMC's control bits. Currently two bits, Bit 0 and Bit 1 control LED2 and LED1 on the boards.

If you want to reset these variables to their default, use the new `Reset IPMC configuration variables` command.

For detailed command information, refer to the *Netra CT 900 Server Administration and Reference Manual* (819-1177).

Upgrading Linux (RedHat 5.3) Firmware for BIOS

Support was added for the Linux BIOS Update Utility. This utility is a stand-alone application for Linux that incorporates the BIOS payload and application required to perform a BIOS update. The utility uses the `/dev/mem` interface to access the BIOS.

For this application to work on a Linux system:

- The LPC interface driver must be configured within the kernel to allow writes to the BIOS
- The BIOS must be mapped into `/dev/mem`
- CP32x0 BIOS version 1.03 or newer must be installed to perform a BIOS update

The CP32x0 BIOS consists of three regions:

1. Boot BIOS Region, which contains the lowest level system initialization.
2. NVRAM Region, which stores system specific configuration data.
3. Main BIOS Region, which includes system configuration code.

The utility can be used to update any or all of these regions. Typically, only the main BIOS region needs to be updated, but in some cases it might be necessary to update the Boot BIOS region

For detailed instructions, refer to the README file.

Overview

The Sun Netra CP3250 blade server is a dual-socket quad-core Intel-based ATCA blade for high performance ATCA x86 applications in wireless infrastructure and central office consolidation.

This blade server complies with the AdvancedTCA specification and is a new addition to SUN's ATCA product family.

The ATCA standard comprises the PICMG 3.0, 3.1, 3.2, and 3.3 versions of the standard. The Sun Netra CP3250 blade server complies with the following specifications:

- PICMG 3.0, the base specification that defines the mechanical, power distribution, system management, data transport, and regulatory guidelines.
- PICMG 3.1, which builds on the PICMG 3.0 base specification and on IEEE 802.3-2003.

The Sun Netra CP3250 blade server can be used either in the Sun Netra CT 900 shelf (chassis) or in a compatible third-party ATCA chassis.

Because the Sun Netra CP3250 blade server is available as a standalone option, it has its own set of blade-specific documentation.

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Related Documentation

The following documents ship with the Sun Netra CP3250 blade server:

- *Important Safety Information for Sun Hardware Systems*
- *Sun Netra CP3250 Blade Server Getting Started Guide*

Refer to the *Sun Netra CP3250 Blade Server Getting Started Guide* for information on obtaining the rest of the Sun Netra CP3250 blade server documentation. The documentation is available at the following sites:

<http://docs.sun.com/app/docs/prod/cp3250.brd#hic>

<http://docs.sun.com/app/docs/prod/n900.srvr#hic>

System Components

This section describes the system-level software and hardware components, required and optional, for the Sun Netra CP3250 blade server.

Software Components

An OS is required to operate the blade server. The Sun Netra CP3250 blade server has been tested for compatibility with the following OS software:

- Solaris™ 10 (05/08) Operating System (Solaris OS)
- WindRiver Linux 3.1
- RedHat Linux 5.2
- Windows 2003

For information on versions of the Solaris OS, including installation, see the appropriate Solaris Documentation Collection at the Sun Documentation web site at:

<http://docs.sun.com>

For information on the WindRiver Linux, RedHat Linux, and Windows operating systems, see the documentation that came with the operating system.

Refer to the appropriate vendor documentation for more information on your operating system. Web site URLs are provided as follows.

TABLE 0-3 Third-Party OS Web Sites for Downloading Software

Operating System	Web Site URL
RedHat Linux	https://hardware.redhat.com/hwcert
Windows	http://www.windowsservercatalog.com/
Windriver Linux	http://www.windriver.com/products/linux/

Note – At the third-party OS web site, search for “Sun Netra CP3250” to find the download package(s).

Required Hardware Components

The Sun Netra CP3250 blade server cannot be used as a stand-alone system. It is designed to be used in an ATCA chassis for 8U boards. The minimum hardware requirements needed to use the Sun Netra CP3250 blade server are as follows:

- ATCA system enclosure for 8U boards (includes shelf, backplane, hub/switch board, shelf manager and power supply)
- Console output device or serial terminal
- Boot device (such as hard drive, network, or Compact Flash card)
- Peripheral device for network access
- IPMC (built in)
- Cables for terminal and network connections
- Sun Netra CT 900 server fan tray upgrade kit (PN 594-4953-01). If you are installing the Sun Netra CP3250 blade server in a Sun Netra CT 900 server that has lower-speed fan trays, you must upgrade the Sun Netra CT 900 server fan trays to support the additional cooling needs of the Sun Netra CP3250 blade server. For more information on the Sun Netra CT 900 server fan tray upgrade kit (PN 594-4953-01), see the *Sun Netra CT 900 Server Upgrade Guide* (820-3255).



Caution – You can damage the Sun Netra CP3250 blade server components if you install the blade server in a chassis that does not provide sufficient cooling. For more information, see the *Sun Netra CP3250 Blade Server User's Guide* (820-5195).



Note – Use only serial cables that are less than 10 meters in length.

Optional Hardware Components

Sun Microsystems provides the following items for customer order:

- Compact Flash card
- AMC cards
- Netra CP32x0 10GbE Advanced Rear Transition Module (ARTM-10G)
- Netra CP32x0 SAS Storage Advanced Rear Transition Module (ARTM-HD)
This ARTM is available in a single HD and a dual HD:
 - Single HD: XCP32X0-RTM-HD1-Z
 - Dual HD: XCP32X0-RTM-HD2-Z

Note – The Netra CP32x0 ARTM is optional and must be ordered separately from the Sun Netra CP3250 blade server.

The optional ARTM enables rear system I/O access to the following:

- Network
- Boot device
- Hot-swappable SAS hard disk drives (optional)
- Console terminal
- Sun Netra CP3240 switch (optional)

The Sun Netra CP3240 switch is capable of operating at 10 GbE, but the Sun Netra CP3250 blade server is set by default to operate at 1GbE. To use the switch at 10 GbE, perform a one-time configuration procedure, available in the *Sun Netra CP3x40 Switch Product Notes* (820-3260).

Installing the Blade Server and Software

For complete instructions on installing and configuring the blade server, refer to the *Sun Netra CP3250 Blade Server User's Guide* (820-5195).

The Sun Netra CP3250 blade server does not ship with an onboard disk on which to install an operating system (OS). Install the OS on an advanced rear transition module (ARTM), or on another compatible device such as an Advanced Mezzanine Card, Bootable CompactFlash, or Bootable USB device.

Upgrading Your Firmware and Software

New releases contain the most up-to-date features, enhancements, and bug fixes. Using an earlier release could limit your use of features and enhancements, and could affect your systems with known issues.

For detailed information and upgrade instructions, refer to these Product Notes and to the README files for the blade server and firmware.

Be sure to check for any updates that are available. If you are using Solaris OS, software updates, firmware updates, and support information for the Netra CP3250 board and advanced rear transition modules can be found at the Sun Download Center:

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

For information on your specific configuration, contact your local Sun Services representative.

<http://www.sun.com/service/contacting/solution.html>

Note – Be sure to download and install the `nxge` driver patch 138049-04 or newer.

To upgrade your blade servers and Sun Netra CT 900 server at the same time, invoke the `autofwupgrade` command from the ShMM. For instructions, refer to the the README and *Sun Netra CT 900 Server Product Notes*.

If you are using a third-party OS, see the applicable vendor's web site for updates. For users who want manual control of the firmware upgrade process, use upgrade tools such as `upgradefw` and others instead of the ShMM `autofwupgrade`. Refer to the README for instructions.

