



# Netra™ CP3010 Board Product Notes

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Sun Microsystems, Inc.  
www.sun.com

Part No. 819-1181-15  
March 2008 Revision A

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# Netra CP3010 Board Product Notes

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The *Netra CP3010 Board Product Notes* contain important and late-breaking information about the Netra™ CP3010 board. This document includes instructions for upgrading to ATCA R3U1.

This document contains the following:

- [“Known Issues” on page 2](#)
- [“Enhancements” on page 3](#)
- [“New Feature” on page 4](#)
- [“Maximum Serial Cable Length” on page 5](#)
- [“Connecting Ethernet Cables” on page 5](#)
- [“Solaris Operating System Versions” on page 6](#)
- [“Firmware Versions” on page 6](#)
- [“Upgrading the Software and Firmware” on page 7](#)
- [“Removing and Installing Boards” on page 16](#)
- [“Configuring Network Interfaces for Ethernet Ports” on page 16](#)

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# Known Issues

The following known issues (priorities 1-3) exist in this release of the Netra CP3010 board hardware and software.

**TABLE 1** Known Issues

Bug ID	Problem	Comments or Workaround
6462726	Board might panic and cause a system crash when a user drops down to OpenBoot™ PROM (OBP) from <code>ttys</code> console and goes back up to Solaris™ OS.	
6560707	Sometimes NetConsole display omits characters.	

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**Note** – The SAS port on the Netra CP30x0 rear transition module (RTM) is inoperable when used with the Netra CP3010 board. Use the SAS port on the Netra CP3010 board instead.

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**Note** – Netra CP3010 board is shipped without a TOD battery, which is optional equipment. If you want to install a battery, refer to the *Netra CP3010 Board User's Guide*.

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# Enhancements

This release provides the following enhancements:

- IPMC firmware (H8)
- Firmware upgrade tool

## IPMC Firmware (H8)

For the Netra CP3010, Netra CP3020, Netra CP3220, Netra CP3060, and Netra CP3260 boards, the IPMC firmware (H8) is upgraded with bug fixes, enhancements, and compliance to AMC.2.

## Firmware Upgrade Tool

A utility, `CP3010_firmware_install_tool`, is provided to automatically upgrade the firmware on your boards. Use this new utility to upgrade the following:

- IPMC Firmware
- IPMC Boot code
- BCM5704 NIC Firmware ASFIPMIc
- OBP

Or, you can upgrade each firmware version individually as before.

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# New Feature

A new firmware upgrade tool provides a single automated upgrade of Netra CT 900 servers and Netra boards. This tool reduces the labor and time needed to upgrade your servers and boards to a new or updated release.

This tool upgrades the following automatically from the ShMM:

- IPMC firmware on Netra CP3010, Netra CP3020, Netra CP3220, Netra CP3060, and Netra CP3260 boards
- System firmware on Netra CP3060 and Netra CP3260 boards
- MMC firmware on Netra CP32x0-ARTM-HD
- Midplane FRUID image

You can use this tool to upgrade firmware from R3 and R3HW1 releases.

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**Note** – To access and use the automated firmware upgrade tool, you must upgrade the ShMM firmware to R3U1 before running the automated upgrade tool.

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The following firmware are *not* upgraded by the `autofwupgrade` tool and must be upgraded manually. (For upgrade instructions, refer to README files included in the release download package.)

- NIC and BIOS firmware
- ATCA switch card firmware
- ShMM firmware

Although this tool does not currently support downgrading automatically to back out of an upgrade, future releases might support downgrading back to R3U1.

For detailed instructions on how to use the firmware upgrade tool and how to roll back an upgrade, refer to the README included with the R3U1 package.



## Upgrading Systems and Boards

To display current version information, preview required upgrades, and to perform an upgrade of the Netra CT 900 system and installed boards, invoke the `autofwupgrade` command from the ShMM. The command syntax is as follows.

```
autofwupgrade [-h] [ [-vp] -f <FTP-server-IP-address>:<release-  
archive-root-dir>[:<user-name>:<password>] [-s <board-slot-  
number>] [-t board-type] ]
```

---

**Tip** – We recommend that you use the `-p` option to preview the required updates before performing the upgrade.

---

## Upgrading Boards Only

For users who do not have access to the ShMM or who want manual control of the FW upgrade process, use upgrade tools such as `upgradefw` and others instead of the ShMM `autofwupgrade`. Refer to the README for instructions.

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## Maximum Serial Cable Length

Serial cable length must not exceed 10 meters (approximately 32 feet).

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## Connecting Ethernet Cables

By default, when a Netra CP3010 rear transition module (RTM) is installed, the Ethernet cables are connected only to the Ethernet ports on the RTM.

Plug the Ethernet cables into the Ethernet ports on the RTM instead of the front panel Ethernet ports on the CP3010.

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# Solaris Operating System Versions

The Netra CP3010 supports the Solaris™ 10 1/06 OS and subsequent compatible versions, and the Solaris 9 9/05 OS and subsequent compatible versions, with supported Netra patches. The Solaris OS software can be downloaded from the Sun download center at:

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

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

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

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## Firmware Versions

The Netra CP3010 board firmware should be at the versions listed in the README.

### ▼ To Display Firmware Versions

Use one of the following methods:

- From the OpenBoot PROM, enter the user commands as shown in the following example.

```
{1}ok .version
Release 4.22.13 created 2007/06/15 16:48
OBP 4.22.13 2007/06/15 16:48 Netra CP3060
OBDIAG 4.x.0 2007/06/15 17:00
POST 4.22.10 2007/06/15 17:12
XBUS CPLD Version 1
{1} ok dev /ipmc
{1} ok .properties
firmware-version                H8 Firmware Version 1.0.0
```

- From the ShMM prompt, enter the command as shown in the following example.

```
# clia ipmc <ipmb_addr_of_node>
IPM Sentry Shelf Manager Command Line Interpreter
IPM Sentry Shelf Manager ver. 3.1.1
IPM Sentry is a trademark of Pigeon Point Systems.
Copyright (c) 2002-2007 Pigeon Point Systems
Build date/time: June 15 2007 16:39:37
All rights reserved
#
```

---

## Upgrading the Software and Firmware

This release contains 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 boards and systems with known issues.

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**Note** – R3U1 includes changes from previous releases.

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### Upgrading to R3U1

A single bundled software and firmware package is available to apply the applicable portions to your chassis and boards. To download the release package and upgrade your Netra CP3060 boards and Netra CT 900 servers, refer to the Netra CP3010 board README files and *Netra CT 900 Server Product Notes*.

Be sure to follow the upgrade sequence documented in the README files.

### Applying Patches

This section provides information on the Netra patches that you must download from the SunSolve<sup>SM</sup> web site for the Netra CP3010 board and instructions on how to apply these patches. If the Solaris OS was pre-installed on your system, these patches might already be installed; verify that they are present.

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**Note** – Refer to the *System Administration Guide: Basic Administration* documentation for the Solaris OS that you are using for more information on managing and applying patches.

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There are two types of patches to download:

- *Regular patches* are available on the main SunSolve web site, <http://www.sun.com/sunsolve>. If you specify the base Patch ID number (the first six digits) in the Search SunSolve window, you see the most recent version of the patch.
- *Point patches* are available on the point patch SunSolve web site, <http://www.sun.com/sunsolve/point>. If you specify the base patch ID number (the first six digits) in the SunSolve point patch web page, you can download the most recent version. Always install point patches *after* you have installed the regular patches.

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**Note** – Whenever patches are updated, the revision number increases (117530-02, 117530-03, and so on). To find the latest version of a patch, perform the search without the revision number. For example, if this document asks you to download patch 117530-03, search for “117530” to find the most recent version of the patch.

---

Before you start downloading, identify or create a directory on your system for receiving the downloaded patches. This directory will be referred to as the *patch-download-dir* in the following procedures.

There are two procedures for downloading and installing patches for the Netra CP3010 board.

- If you are applying patches to a boot device (if you installed Solaris onto a PMC disk, external hard drive, Compact Flash, or other bootable device), go to [“Applying Netra Patches to a Boot Device”](#) on page 9.
- If you are applying patches to a network installation image for diskless clients, go to [“Applying Netra Patches to a Solaris 10 OS Boot Server for Diskless Clients”](#) on page 11 or [“Applying Netra Patches to a Solaris 9 OS Boot Server for Diskless Clients”](#) on page 13.

## Applying Netra Patches to a Boot Device

Following are the instructions for downloading and installing the patches on a boot device.

### ▼ To Apply Patches to a Boot Device

1. Go to SunSolve web site and accept the onscreen agreement.
2. Locate and download the Solaris 10 OS patches listed in [TABLE 2](#) or the Solaris 9 OS patches listed in [TABLE 3](#).

**TABLE 2** Netra Patches Required for the Solaris 10 OS

Patch ID	Patch Location	Description
119578-15	<a href="http://www.sun.com/sunsolve/">http://www.sun.com/sunsolve/</a>	FMA Patch
118822-27	<a href="http://www.sun.com/sunsolve/">http://www.sun.com/sunsolve/</a>	kernel Patch
121556-01	<a href="http://www.sun.com/sunsolve/">http://www.sun.com/sunsolve/</a>	platform patch
121557-01	<a href="http://www.sun.com/sunsolve/">http://www.sun.com/sunsolve/</a>	usr/platform patch
121558-01	<a href="http://www.sun.com/sunsolve/">http://www.sun.com/sunsolve/</a>	platform patch
121559-01	<a href="http://www.sun.com/sunsolve/">http://www.sun.com/sunsolve/</a>	libprtdiag_psr patch
120277-05	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>	uflash driver point patch
120278-03	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>	uflash_if.h point patch
120736-06	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>	fwupdate h8update point patch
120921-01	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>	fru point patch
120924-04	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>	bge point patch
124036-01	<a href="http://www.sun.com/sunsolve/">http://www.sun.com/sunsolve/</a>	NetraCP3010.flash

**TABLE 3** Netra Patches Required for the Solaris 9 OS

Patch ID	Patch Location	Description
118655-03	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>	platmod point patch
119510-02	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>	picl point patch
119834-03	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>	usr/platform point patch
120306-02	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>	libprtdiag_psr.so.1 point patch
120308-05	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>	uflash drvier point patch
120309-03	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>	uflash_if.h point patch
120764-02	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>	fwupdate h8update point patch
120922-01	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>	fru point patch
122288-01	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>	bge point patch
124036-01	<a href="http://www.sun.com/sunsolve/">http://www.sun.com/sunsolve/</a>	NetraCP3010.flash

3. Use the `unzip` command on the patches that you downloaded to extract the contents of the downloaded zip files.

Refer to the `unzip(1)` man page for additional information.

4. Review the patch README files for specific Install Instructions and follow those instructions.
5. To install a patch, become superuser and type the `patchadd` and the full path to the patch:

```
# patchadd /patch-download-dir/patch-id
```

6. Perform a `patchadd` for each of the patches in the order listed in [Step 2](#).



**Caution** – You *must* install the patches using the `patchadd` command in the order listed. Some of the patches require software that was added through previous patches, so installing the patches out of order could result in error messages and corrupted software.

Refer to the `patchadd(1M)` man page for instructions on using the command.

# Applying Netra Patches to a Solaris 10 OS Boot Server for Diskless Clients

Following are the instructions for downloading and installing the Netra patches for a Solaris 10 OS diskless client boot server. These patches are required for the diskless client boot server installation process documented in the *Netra CP3010 Board User's Guide* (819-1187).

---

**Note** – Refer to the Solaris 10 OS *System Administration Guide: Basic Administration* documentation for more information on managing diskless services.

---

## ▼ To Apply Patches to Solaris 10 OS Diskless Clients

1. If you have not already done so, go to SunSolve web site and download the patches listed in TABLE 4.

**TABLE 4** Patches Required for a Solaris 10 Diskless Service

Patch ID	Patch Location
119578-15	<a href="http://www.sun.com/sunsolve">http://www.sun.com/sunsolve</a>
118822-27	<a href="http://www.sun.com/sunsolve">http://www.sun.com/sunsolve</a>
121556-01	<a href="http://www.sun.com/sunsolve">http://www.sun.com/sunsolve</a>
121557-01	<a href="http://www.sun.com/sunsolve">http://www.sun.com/sunsolve</a>
121558-01	<a href="http://www.sun.com/sunsolve">http://www.sun.com/sunsolve</a>
121559-01	<a href="http://www.sun.com/sunsolve">http://www.sun.com/sunsolve</a>
120277-05	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>
120278-03	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>
120736-06	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>
120921-01	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>
120924-04	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>
124036-01	<a href="http://www.sun.com/sunsolve/">http://www.sun.com/sunsolve/</a>

2. Move the patch zip files into the *patch-download-dir* directory.

Where *patch-download-dir* is the path to the directory where the Solaris 10 OS patches are stored. The *patch-download-dir* directory might already contain patches that were copied during the OS installation.

3. Use the `unzip` command on all of the patches that you downloaded to extract the contents of the downloaded zip files.

Refer to the `unzip(1)` man page for instructions on using the command.

4. Change directories to the `/usr/sadm/bin` directory.

```
# cd /usr/sadm/bin
```

5. Install the required patches to the diskless service.

Use the `smosservice patch` command to install the patches to the installation image.

Install the software patches on the server *in the order shown*, where `root-password` is the root password of the server and `patch-download-dir` is the path to the directory where the Solaris 10 OS patches are stored.

---

**Note** – Note that you must add an additional `-U` option when you install the last patch.

---

```
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/119578-15 -m
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/118822-27 -m
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/121556-01 -m
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/121557-01 -m
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/121558-01 -m
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/121559-01 -m
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/120277-05 -m
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/120278-03 -m
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/120736-06 -m
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/120921-01 -m
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/120924-04 -m
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/124036-01 -m -U
```

6. Refer to the instructions in the *Netra CP3010 Board User's Guide* (819-1187) to complete the installation procedures for diskless clients.



# Applying Netra Patches to a Solaris 9 OS Boot Server for Diskless Clients

Following are the instructions for downloading and installing the Netra patches for a Solaris 9 OS diskless client boot server. These patches are required for the diskless client boot server installation process documented in the *Netra CP3010 Board User's Guide* (819-1187).

---

**Note** – Refer to the Solaris 9 OS *System Administration Guide: Basic Administration* documentation for more information on managing diskless services.

---

## ▼ To Apply Patches to Solaris 9 OS Diskless Clients

1. If you have not already done so, go to the SunSolve web site and download the patches listed in TABLE 4.

**TABLE 5** Patches Required for a Solaris 9 OS Diskless Service

Patch ID	Patch Location
118655-03	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>
119510-02	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>
119834-03	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>
120306-02	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>
120308-05	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>
120309-03	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>
120764-02	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>
120922-01	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>
122288-01	<a href="http://www.sun.com/sunsolve/point">http://www.sun.com/sunsolve/point</a>
124036-01	<a href="http://www.sun.com/sunsolve/">http://www.sun.com/sunsolve/</a>

2. Move the patch zip files into the *patch-download-dir* directory.

Where *patch-download-dir* is the path to the directory where the Solaris 9 OS patches are stored. The *patch-download-dir* directory might already contain patches that were copied during the OS installation.

3. Use the `unzip` command on all of the patches that you downloaded to extract the contents of the downloaded zip files.

Refer to the `unzip(1)` man page for instructions on using the command.

#### 4. Change directories to the `/usr/sadm/bin` directory.

```
# cd /usr/sadm/bin
```

#### 5. Install the required patches to the diskless service.

Use the `smosservice patch` command to install the patches to the installation image.

Install the software patches on the server *in the order shown*, where `root-password` is the root password of the server and `patch-download-dir` is the path to the directory where the Solaris 9 OS patches are stored.

---

**Note** – Note that you must add an additional `-U` option when you install the last patch.

---

```
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/118655-03 -m
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/119510-02 -m
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/119834-03 -m
# ./patchadd -S Solaris_9 patch-download-dir/119834-03
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/120306-02 -m
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/120308-05 -m
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/120309-03 -m
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/120764-02 -m
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/120922-01 -m
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/122288-01 -m
# ./smosservice patch -u root -p root-password -- -a patch-download-dir/124036-01 -m -U
```

#### 6. Refer to the instructions in the *Netra CP3010 Board User's Guide (819-1187)* to complete the installation procedures for diskless clients.

### ▼ To Update the Memory Map and Main Flash Code Schemes

1. On each board that has a prior release of firmware, upgrade the H8 firmware provided in release 2.0.3 using the following command with a name such as `transistional_3010_h8_fw.img`.

---

**Note** – If your boards do not have a prior release of firmware, upgrade the software as described in “[Applying Patches](#)” on page 7.

---

```
./h8pgrade -n <shMM IP>, <board IPMB addr> <transitional_h8_fw.img>
```

Replace the variables with your ShMM IP address, the board's IPMB address, and your image file name.

2. After the command in [Step 1](#) is successful, enter the following command to trigger the transition to the new schemes.

```
./h8update -T -n <shMM IP>, <board IPMB addr>
```

3. Look at the Amber LED on the board to confirm that it is blinking.

If the Amber LED is blinking, then the command was successful.

4. Upgrade to the new H8 firmware release by typing the following command:

```
./h8update -n <shMM IP>, <board IPMB addr> <newfwimage.img>
```

In place of *newfwimage.img*, type the actual filename provided in the README.

The one-time update to the schemes is now completed. For future updates, use the procedures for upgrading the main flash and the boot codes.

5. If you encounter any problems, address the issue and retry [Step 4](#).
6. After the upgrade has completed successfully, perform either of the following steps:
  - If you have physical access to the system, hot-swap the board.
  - Or, run Deactivate/Activate or Activate/Deactivate/Activate sequence (whichever sequence the board accepts) on the board from the ShMM CLI.
7. Check the board status and new version number from the ShMM CLI by issuing the `board -v Slot number` command.

The board state should be M4 and the version number should be the new version.

---

## Removing and Installing Boards

To remove and replace a board safely, manually shut down Solaris from the Solaris prompt. For detailed instructions, refer to the Solaris Operating System documentation and the *Netra CP3010 Installation and Technical Reference Manual*.

```
ok shutdown -g0 -i5
```

When the shutdown is completed, the board is powered off.

---

## Configuring Network Interfaces for Ethernet Ports

The following are the recommended network interfaces for the Ethernet ports on the Netra CP3010 board and the rear transition card:

- Ethernet port A should be "RJ-45, net2"
- Ethernet port B should be "RJ-45, net3"