Netra™ X1 Server Product Notes

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Introduction

These Product Notes provide information that became available after the *Netra X1 Server User's Guide* went to print.

The document contains the following sections:

Note – If you want to reinstall Solaris onto the Netra X1 Server, you must install Solaris 8 (10/00), and you must install it from a network install server. For instructions telling you how to do this, see "Re-installing Solaris 8 (10/00) From the Network" on page 8.

Known Issues

The following sections cover some known issues with the early releases of the Netra X1 server.

Ethernet Link Activity LED

There is an issue with the Davicom Fast Ethernet chip on some systems that can cause the Ethernet activity/link light to flicker when no network cables are connected to the system. You can correct this by installing the following patch from SunSolve:

- 110693-0x: Netra X1 dmfe ethernet driver, link light

Sending Break During Boot Process Can Result In Failure To See Disk On Reset

If a break is sent to the system console while the system is booting, there is a small chance of a subsequent failure to detect the boot disk. The prom may report:

```
Boot device: disk  File and args:
Bad checksum in disk label
Can’t open disk label package
Evaluating: boot

Can’t open boot device
```

To recover, power the system off for 1 minute and then power it back on.

No Auto Power-On When Power is Removed and Restored Within 10 Seconds

If you disconnect the server from its power source while it is powered on, and then reconnect it within 10 seconds of the disconnection, the server automatically attempts to power on. However, it does not reinitialize successfully and hangs after giving the following console output:

```
LOMlite starting up.

CPU type: H8/3437S, mode 3
Ram-test: 2048 bytes OK
Initialising i2c bus: OK
Searching for EEPROMs: 50(cfg)
I2c eeprom @50: OK
i2c bus speed code 01... OK
Probing for lm80s: none
Probing for lm75s: 48
Initialising lm75 @48: OK
System functions: PSUs fans breakers rails gpio temps host CLI ebus
clock
Unexpected reset

LOMlite console
lom>
LOM event: +0h0m0s LOM FAULT: unexpected reset
lom>
LOM event: +0h0m0s host power on
```

If your system hangs when you have disconnected power and then restored it within 10 seconds of the disconnection, do either of the following:

- Type a carriage return, and then type the LOM escape sequence (a hash character, followed by a dot: #.). Then, at the LOM prompt, type `poweroff`. Finally, at the next LOM prompt, type `poweron`. The system will power on.
- Hold the rocker switch in the OFF position until the console reports the time-stamped `host power off` LOM event, then put the rocker switch into the ON position. The system will then power on.

If you have the NVRAM `diag-switch?` parameter set to `true` (by default, it is set to `false` and the console output is as shown above), the system will provide additional, Open Boot PROM output during the boot process. In this case, if you restore power within 10 seconds of removing it, the system hangs after reporting the following message:

```
Probing/pci@1f,0 Device a usb
```

To restore power, use either of the two methods described above.

Note – Any interruption and subsequent restoration of mains power within 10 seconds could cause this fault to occur.

LOM `power_on_delay` Variable Does Not Function Correctly

Assigning a value to the `power_on_delay` variable can cause the server to fail to power up from the `lom` prompt. Assigning a value that is a multiple of both 16 and 20 will result in the server not powering up at all.

Benign Error Message on Initial Boot Following an Installation or Reconfiguration Reboot

The first time the system is booted after an installation or reconfiguration reboot using `boot -r`, the following error message will be displayed:

```
WARNING: ds1287_attach: Failed to add interrupt.
```

This is a benign message which you can safely ignore. You can correct the problem by installing patch 111092-01: Netra X1, time of day driver.

Safety and Compliance Information

- There is an alteration to the *Netra X1 Safety and Compliance Guide* to correct the maximum ambient operating temperature figure.
- Some information contained in the guide relates to equipment operating from a DC power source only, and this information can be disregarded in relation to the Netra X1 server.

The following sections contain more details.

Ambient Operating Temperatures

The first caution in the 'Placement of a Sun Product' section refers to a maximum ambient operating temperature of 55 degrees Celsius. This temperature should be 40 degrees Celsius (104 degrees Fahrenheit), as shown in the correct text below.

Caution – If the system is installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may exceed the room ambient. Ensure that rack environment ambient temperature does not exceed 40 degrees Celsius (104 degrees Fahrenheit).

The following Caution is incorrect in relation to the Netra X1 server and should be disregarded:

Caution – Netra X1 units are designed to work with DC power. Units designed to work with DC power are shipped with a connector to be used with a customer supplied 48V power cord for the customer to connect to the DC power source. Always connect DC powered units to a DC power source only.

DC Source Site Requirements

The Netra X1 is an AC-only product. Disregard the paragraphs in the *Netra X1 Safety and Compliance Guide* which refer to DC source site requirements.

Changes to the User's Guide

*T*here are some corrections to the Operating Power Statistics table on page 8 of the *Netra X1 Server User's Guide*. The changes are to the BTU rating, the maximum operating current and the maximum volt-ampere rating. The correct figures are given in the table below.

Operating Power Statistics

TABLE 0-1 Operating Power Statistics

Maximum operating current	1.3A @ 100 VAC
Typical operating current	See "Calculating Power Consumption" on page 9 of the *Netra X1 Server User's Guide.*
Maximum in-rush current (cold start)	40A peak at 115V 25˚C
Maximum in-rush current (warm start, or upon a restart 20 to 200 msecs after power has been removed*)	100A peak at 115V 25˚C
Operating input voltage range	90 to 264 Vrms
Voltage frequency range	47 to 63 Hz
Power factor	0.9 to 0.995
Maximum volt-ampere rating	130 VA
BTU rating	153.54 BTU**

* The in-rush current decays to the normal operating current in less than 200 msecs.

** This BTU assumes a system fully loaded with hardware option modules (see "Calculating Heat Dissipation" on page 9 of the *Netra X1 Server User's Guide.*

Restarting the LOM Watchdog Monitor

In the ‘Enabling the LOMlite2 Watchdog Process From Your Own Script or Command’ section on page 65 of the *Netra X1 Server User’s Guide*, the `piocntl` command is referred to. This is incorrect. The correct command to use is `priocntl`.

The correct default `priocntl` command is

```
priocntl -e -c RT lom -W on,40000,10000
```

Checking How Long the Server Has Been Running

On page 41 of the *Netra X1 Server User’s Guide*, the `date` and `showdate` commands are described. The manual tells you that these commands return the length of time that has passed since the last *system reset*. In fact, the commands return how long it is since the last *time sync* with the host. The correct text is as below:

- **To find out how long it is since the last time sync with the host, type:**

```
lom> date
```

or:

```
lom> showdate
```

Making Serial Connections to the Server

In the *Netra X1 Server User’s Guide*, the “Contents of the Ship Kit” section on page 3 refers to part number 530-2961-01 for the serial cables. The correct part number is 530-2093-01. The “Connecting the Cables to the Server” section on page 16 should contain the following information:

Note – The Netra X1 server is supplied with shielded serial cables. Use only these cables when making serial connections to the server.

Precautions for Using the System Configuration Card

The Netra X1 Server contains a memory card (located on the back panel) called the system configuration card. This card contains the system's MAC address, serial number, and other configuration settings. It is designed to be removable so that, if you ever need to replace an entire server, you can transfer the host ID and configuration data onto the new server. This makes the replacement of the server transparent to your network.

Caution – Never remove the system configuration card when the server is booting or running Solaris. Power the server off or down to standby mode before removing or inserting the system configuration card.

Caution – Do not handle the system configuration card unless you need to transfer it to another system. If you need to handle it for this reason, avoid contact with the gold terminals on the underside of the card.

For information about transferring the system configuration card from one server to another, refer to the *Netra X1 Server User's Guide* (part number: 806-5980-10).

Re-installing Solaris 8 (10/00) From the Network

Note – The Netra X1 Server supports Solaris 8 (10/00). It does not currently support any other updates of Solaris 8.

The Netra X1 server comes pre-installed with Solaris 8 (10/00), including all the patches it needs to function correctly. Because the Netra X1 server does not contain a CD-ROM drive, if you need to re-install the Solaris 8 operating environment, you must do so from a network install server.

The procedures for installing Solaris 8 (10/00) onto the Netra X1 Server from a network install server are described in the *Solaris 8 Advanced Installation Guide* (806-0957-10) supplied with the Solaris 8 (10/00) CDs. However, there are some software updates that are specific to the Netra X1 Server, and you must install these onto the system you are using as the network install server. This section tells you how to do this.

Note – The instructions in these Product Notes were written subsequently to the instructions in the *Netra X1 Server User's Guide* (806-5980-10). They supersede the note in Chapter 6 of the user guide which states that, if you are reinstalling Solaris, you must reinstall the LOM software from the Solaris supplementary CD. Note that, when you follow the instructions in these Product Notes, you do not need to reinstall the LOM software from the Solaris supplementary CD. The LOM software for the Netra X1 Server is included amongst the software updates that you will download from the Sun download service when you follow the instructions below.

▼ Downloading the Netra X1 Software Updates on to the Network Install Server

1. **At the system you are going to use as the network install server, make a directory called** `/var/tmp/netra-x1` **by typing:**

```
# mkdir -m 755 /var/tmp/netra-x1
```

2. **Use a web browser to go to** `http://www.sun.com/netra` **and, in the Downloads section on this web page, click on "Netra X1 Software Drivers".**

   (If you have not used the download service before, you will be invited to register before proceeding.)

3. **When prompted, log into the download service. Then, to perform the download, click "Download Netra X1 Driver Software" and save the packages to the following directory:**

   `/var/tmp/netra-x1`

   The file you are downloading is called `mis.netra-x1.259-3836-02.zip`. (The last two digits in the name of this file represent the file's version number at the time of writing. Because this file is likely to be updated, the final two digits in the name of the file you download may be higher than -02. This indicates that you are downloading the most recent version of the software updates for the Netra X1 Server.) The file contains the dmfe Ethernet and Lights Out Management (LOM) packages that are specific to the Netra X1 platform. It also contains the patches listed in Table 1.

4. **At the Solaris prompt on the system you are going to use as the network install server, unzip the files you have downloaded. To do this, type:**

```
# cd /var/tmp/netra-x1
# unzip mis.netra-x1.259-3836-02.zip
```

Note – The software updates you have downloaded include important patches for Solaris and the Netra X1 Server. This means that you do not need to download these patches separately. However, you can download and find information about the latest software patches for both the Netra X1 Server and the Solaris Operating Environment at `http://www.sunsolve.com`. The patches included in the software updates are listed in Table 1.

TABLE 1 Patches Included in the Netra X1 Server Software Updates

Patch Number	Patch Title
110383-01 or later	SunOS 5.8: libnvpair patch
108528-06 or later	SunOS 5.8: kernel update patch
108664-06 or later	SunOS 5.8: Support for Network Service
109793-06 or later	SunOS 5.8: su driver patc
108974-09 or later	SunOS 5.8: dada, uata, dad, sd and scsi patch
110208-08 or later	Netra Lights Out Management 2.0 patch
110693-01 or later	Netra X1 dmfe ethernet driver, Link light
111092-01 or later	Netra X1 time of day driver

▼ Setting up the Network Install Server

1. **Follow the instructions in Chapter 9 (“Preparing to Install the Solaris Software Over the Network”) of the** *Solaris 8 Advanced Installation Guide* **(806-0957-10) supplied with the Solaris 8 (10/00) CDs. Follow Step 1 through Step 21 (do not perform Step 22 yet).**

Note – In steps 4 and 9 (on pages 216 and 217 respectively of the *Solaris 8 Advanced Installation Guide*), the correct path name to use is:
`/cdrom/cdrom0/s0/Solaris_8/Tools`

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2. **Change to the directory in which you placed** `mis.netra-x1.259-3836-02.zip` **by typing**:

```
# cd /var/tmp/netra-x1
```

3. **Add the patches and packages automatically to the network install server image by typing**:

```
# ./modify_install_server -d install_dir_path
```

   where *install_dir_path* is the path to the install image on your install server.

4. **Continue setting up the network install server by going to Step 22 on page 219 of the** *Solaris 8 Advanced Installation Guide* **(806-0957-10).**

   Complete the instructions for setting up an install server and setting up systems to be installed.

▼ Installing the New Image From the Network Install Server

When you have finished setting up the install server, you are ready to install the new image on to the client (in this case, the Netra X1 Server).

- **If you are performing a custom jumpstart installation (as described in Chapter 10 of the** *Solaris 8 Advanced Installation Guide***) then, at the Netra X1 Server you are installing the new image onto, type**:

```
ok boot net - install
```

- **If you are performing an interactive installation (as described in Chapter 5 of the** *Solaris 8 Advanced Installation Guide***) then, at the Netra X1 Server you are installing the new image onto, type**:

```
ok boot net
```