Netra™ CP2300 cPSB Board Software Installation Guide

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Contents

Installing the Netra CP2300 cPSB Board Software

The following procedures describe how to install the Solaris™ 8 2/02 operating environment onto the Netra™ CP2300 cPSB board using the *Operating Environment Installation DVD for Use with Solaris™ 8 2/02 Operating Environment; Only for Netra™ CP2300, Netra™ CT 820* (708-0042-11) DVD which is referred to as the Netra CP2300 Installation DVD in this manual. Future supported Solaris operating environment versions require different installation instructions and might require an installation DVD.

This document contains the following sections:

- "Preparing for the Solaris Operating Environment Installation" on page 2
- "About the Installation DVD" on page 4
- "Installing the Solaris Operating Environment on an IDE Disk Drive" on page 5
- "Preparing Network Installations of the Solaris Operating Environment" on page 13
- "Installing Diskless Clients" on page 17

For the latest software installation instructions, download the most current version of the Netra CP2300 board documentation from this web site:

`http://www.sun.com/products-n-solutions/hardware/docs/CPU_Boards`

Note – Before installing the Solaris operating environment, you *must* download the latest version of the *Netra CP2300 cPSB Board Release Notes* (817-1741). The release notes document contains the latest information about software patches and other Netra CP2300 cPSB board issues.

Preparing for the Solaris Operating Environment Installation

Before installing the Solaris operating environment, see TABLE 1 for a list of the installation requirements.

TABLE 1   Solaris Operating Environment Installation Requirements

Required for Installation	Information
Latest versions of the Netra CP2300 board documentation	The specific instructions required for installing the Netra CP2300 software might have changed since the publishing of this manual. Download and view the latest versions of this manual and the *Netra CP2300 cPSB Board Release Notes* (817-1741) from the following web site: `http://sun.com/products-n-solutions/hardware/docs/CPU_Boards/`
Installation DVD	To install the Solaris 8 2/02 operating environment, you need the *Operating Environment Installation DVD for Use with Solaris™ 8 2/02 Operating Environment; Only for Netra™ CP2300, Netra™ CT 820* (708-0042-11) DVD hereafter referred to as the Netra CP2300 Installation DVD in this manual. **Note –** For future compatible versions of the Solaris operating environment, you might need an installation DVD. Refer to the latest version of the Netra CP2300 documentation for more information.
Solaris 8 2/02 Media Kit	You need a copy of the Solaris 8 2/02 Media Kit, along with the *Netra CP2300 Installation DVD* to install the Solaris operating environment. **Note –** You must use the Solaris 8 2/02 Media Kit with the Netra CP2300 Installation DVD. You cannot install other Solaris operating environment versions, either earlier or later, with this installation DVD.
Latest Netra CP2300 software patches	As part of the installation, you must download latest Netra CP2300 software patches. For a list of these patches, information on where you can download them, and instructions on how to apply the patches, refer to the latest version of the *Netra CP2300 cPSB Board Release Notes* (817-1741).
Latest firmware	You might need to update the Netra CP2300 board firmware prior to installing the Solaris operating environment. For information about the latest firmware, refer to the latest version of the *Netra CP2300 cPSB Board Release Notes* (817-1741). For instructions on installing the firmware, refer to the *Netra CP2300 cPSB Board Installation and Technical Reference Manual* (816-7186).
Correct IDE cable	If you are connecting a DVD-ROM drive or an IDE disk drive to the Netra CP2300 transition card's EIDE connector, you *must* use high performance Ultra ATA-100, or faster, IDE cables. Do not use ATA-66 or slower IDE cables.

TABLE 1   Solaris Operating Environment Installation Requirements *(Continued)*

Required for Installation	Information
Correct DIP switch setting	You must set the Netra CP2300 board DIP switches correctly before installing the hardware and software. The DIP switch settings differ depending on whether you use a PMC disk drive or if you plan to connect an external IDE disk drive to the Netra CP2300 transition card's EIDE connector. Refer to the *Netra CP2300 cPSB Board Installation and Technical Reference Manual* (816-7186) for the proper settings.
DVD-ROM drive	In order to install the Netra CP2300 software, you must have a DVD-ROM drive accessible to either the network install server or the Netra CP2300 board. **Note –** If you connect a DVD-ROM drive and a disk drive to the Netra CP2300 transition card's EIDE connector, ensure that you set the disk drive as the *master* device and the DVD-ROM drive as the *slave* device. Refer to your drive documentation for information about configuring the IDE drive settings.
Solaris installation documentation	For more specific details about installing the Solaris operating environment, refer to the *Solaris 8 Installation Guide* (806-0955) and the *Solaris 8 Advanced Installation Guide* (806-0957), which shipped in your Solaris Media Kit and can be viewed on the Solaris documentation web site: `http://docs.sun.com/`
Answers to Solaris installation questions	During the Solaris operating environment installation, you are prompted to answer the following questions: • Network connectivity • DHCP • Host name • IP address • Net mask (255.255.255.0 is the default) • IPv6 • Default router • Kerberos • Time zone • Name service (NIS+, NIS, DNS, LDAP or None) • Domain name • Name server • Date and time • Root password **Note –** Refer to the Solaris installation documentation for more information about these questions.
Disable the `watchdog-enable?` OpenBoot™ PROM parameter	By default, the Netra CP2300 cPSB board's OpenBoot PROM `watchdog-enable?` parameter is disabled. Ensure that this parameter is *disabled* before installing the Solaris operating environment. Refer to the *Netra CP2300 cPSB Board Installation and Technical Reference Manual* (816-7186) for more information.

About the Installation DVD

The Netra CP2300 Installation DVD must only be used when installing the Solaris 8 2/02 operating environment on Netra CP2300 boards. By using the Netra CP2300 Installation DVD and the Solaris Media Kit, you install the Solaris operating environment as well as the packages and patches needed to support the Netra CP2300 cPSB board.

Caution – Do not use the Netra CP2300 Installation DVD to install the Solaris software on any platform other than the Netra CP2300 cPSB board.

For future supported Solaris operating environment versions, you might need to use an installation DVD to install the software. For more information, contact your field application engineer or refer to the latest versions of the Netra CP2300 cPSB board documentation, which can be downloaded from the following web site:

`http://www.sun.com/products-n-solutions/hardware/docs/CPU_Boards`

Caution – You must use the Netra CP2300 Installation DVD to begin the Solaris operating environment installation on Netra CP2300 cPSB boards. Do *not* start the installation using the Solaris DVD or any of the CDs that shipped with the Solaris 8 2/02 Media Kit.

Note – You must use the Solaris 8 2/02 Media Kit with this Netra CP2300 Installation DVD. You cannot install other Solaris operating environment versions, either earlier or later, with the Netra CP2300 Installation DVD.

For more specific details about installing the Solaris operating environment, refer to the *Solaris 8 Installation Guide* (806-0955) and the *Solaris 8 Advanced Installation Guide* (806-0957). These shipped in your Solaris Media Kit and can be viewed on the Solaris documentation web site:

`http://docs.sun.com/`

Note – Your Netra CP2300 board must have the latest version of the OpenBoot PROM before you can successfully install the Solaris 8 2/02 operating environment using the Netra CP2300 Installation DVD. Refer to the *Netra CP2300 cPSB Board Installation and Technical Reference Manual* (816-7186) for information about upgrading the Netra CP2300 cPSB board firmware.

Installing the Solaris Operating Environment on an IDE Disk Drive

The following procedures describe how to install the Solaris operating environment on either a PMC disk or an IDE drive attached to the Netra CP2300 transition card's EIDE connector.

Note – The procedures described in this document should only be used with the Solaris 8 2/02 operating environment. Do not use any other release of the Solaris operating environment.

Before installing the Solaris operating environment on an IDE drive:

- Use the proper UATA-100 cables to connect the DVD-ROM and disk drives (see "Preparing for the Solaris Operating Environment Installation" on page 2 for more information).

- Set the DIP switches correctly (refer to the *Netra CP2300 cPSB Board Installation and Technical Reference Manual* (816-7186) for more information).

- Set the DVD-ROM IDE drive as *slave* and the IDE disk drive as *master* if they are both connected on the same IDE controller. (For example, if they are both connected to the Netra CP2300 transition card's EIDE connector.)

- Have a copy of the Solaris 8 2/02 Solaris Media Kit and the Netra CP2300 Installation DVD.

- Prepare answers to the Solaris installation questions (see "Preparing for the Solaris Operating Environment Installation" on page 2 for more information).

See "Preparing for the Solaris Operating Environment Installation" on page 2 for additional requirements.

Caution – This procedure overwrites existing contents on the hard drive(s). Back up all vital data and software before beginning the Solaris installation.

▼ To Install the Solaris Operating Environment on an IDE Disk Drive

1. **Place the Netra CP2300 Installation DVD in a DVD-ROM drive accessible to the Netra CP2300 board.**

2. **Halt the system in one of the following ways:**

- **For new installs:**

  Power on and wait for the OpenBoot PROM bringup. At the ok prompt, skip to Step 3.

- **For systems running the Solaris operating environment:**

  When upgrading the Solaris software, the system should be halted gracefully in order to leave existing file systems in a consistent state.

  An orderly shutdown can be performed by becoming superuser (also known as root) and using the halt, init 0, or shutdown commands. See the halt(1M), init(1M), and shutdown(1M) man pages for details.

  You should now be at the OpenBoot PROM ok prompt.

3. **To boot the Netra CP2300 Installation DVD, use the** boot **command and the complete device path to the DVD-ROM device at the** ok **prompt.**

   If you do not know the complete DVD-ROM device path, use the OpenBoot PROM probe-ide-all and devalias commands to find the DVD-ROM device path.

   CODE EXAMPLE 1 shows example probe-ide-all command output. The probe-ide-all command lists the internal and external IDE devices connected to the Netra CP2300 board's IDE interface. In this example, the probe-ide-all command shows that the DVD-ROM drive is connected to the IDE interface as the primary slave device. Note that if you have a PMC disk installed on the Netra CP2300 board, you might see different output from that shown in CODE EXAMPLE 1.

   CODE EXAMPLE 1 OpenBoot PROM probe-ide-list Command Output

```
ok probe-ide-all
/pci@1f,0/pci@1,1/ide@d
  Device 0  ( Primary Master )
         ATA Model: ST340016A

  Device 1  ( Primary Slave )
         Removable ATAPI Model: LITEON  DVD-ROM LTD163

  Device 2  ( Secondary Master )
         Not Present

  Device 3  ( Secondary Slave )
         Not Present
```

Note – If you connect an DVD-ROM drive and an external disk drive to the Netra CP2300 transition card's EIDE connector, you *must* set the disk drive as the master device and the DVD-ROM drive as the slave device.

CODE EXAMPLE 2 shows example devalias cdrom command output.

CODE EXAMPLE 2 OpenBoot PROM devalias Command Output

```
ok devalias cdrom
cdrom                    /pci@1f,0/pci@1,1/ide@d/cdrom@0,0:f
```

The devalias cdrom command output lists the full path to the DVD-ROM drive's cdrom device. However, this output is misleading since the probe-ide-all command list the DVD-ROM as a "Primary Slave" device.

The preceding code examples show the full path to the IDE interface to be:

/pci@1f,0/pci@1,1/ide@d/cdrom@0,0:f

The cdrom@x,0:f is the device name and depends on whether the drive was connected as a master or a slave IDE device. For example:

- cdrom@0,0:f (for a Master device)
- cdrom@1,0:f (for a Slave device)

In the preceding examples, the DVD-ROM drive is connected as a slave device, so the full device path to the DVD-ROM drive is:

/pci@1f,0/pci@1,1/ide@d/cdrom@1,0:f

To boot the Netra CP2300 Installation DVD in this example, you would type:

```
ok boot /pci@1f,0/pci@1,1/ide@d/cdrom@1,0:f
```

The Netra CP2300 Installation DVD boots and the Solaris mini-os (mini-root) will be loaded into the system memory.

4. **After a few minutes, you are asked to select the language you want to use while running the installer. Type the appropriate number for your choice of language.**

5. **Answer the installation questions when prompted.**

The Netra CP2300 Installation DVD loads an installation mini-os software (mini-root) temporarily on one of the disk partitions (usually the swap partition). Near the start of the installation process, you are asked to select the disk where the mini-root software will be loaded.

⚠ **Caution –** The installer overwrites the existing contents on the hard disk. Before beginning Solaris installation, back up all needed data and software.

The time that it takes for the mini-root to load depends on what you answered in the menus and on the speed of your system. When the mini-root installation is complete, the system automatically boots from the mini-root.

6. **Respond to the questions in the Web Start Solaris command-line interface.**

   You might be asked to supply the following system information:

   - Network connectivity (standalone)
   - DHCP
   - Host name
   - IP address
   - Net mask (255.255.255.0 is the default)
   - IPv6
   - Default router
   - Kerberos
   - Time zone
   - Name service (NIS+, NIS, DNS, LDAP or None)
   - Domain name
   - Name server
   - Date and time
   - Root password

   Note – Refer to the Solaris 8 2/02 installation documentation for more information about answering these questions. You can find these installation documents on the `http://docs.sun.com` web site.

   ---

7. **Review the Confirm Information screen to make sure that all the installation information is correct.**

   When making changes by way of a dumb terminal interface use the arrow buttons to select your choice. Press the Return key to place a mark in your chosen field. Press the F2 key or ESC-2 keys to confirm your choices.

   The Solaris Web Start installation program begins.

8. **Respond to the questions displayed in the Web Start installation program.**

   Set the following preferences before continuing with the installation:

   - Reboot automatically (AutoBoot) after the software installation
   - Eject the CD/DVD (AutoEject) after the software installation
   - Solaris Installation Media (select CD/DVD)

   The Netra CP2300 Installation DVD ejects from the DVD-ROM drive.

9. **When prompted, insert the Solaris 8 2/02 DVD or the Solaris 8 2/02 Software 1 of 2 CD into your drive, and select OK.**

   Note – The Solaris 8 2/02 DVD might be easier to use since you do not need to eject the CD 1 of 2 and insert CD 2 of 2 during the operating environment installation. These discs are included with the standard Solaris 8 2/02 Media Kit. However, there is a lower-cost Solaris 8 2/02 Media Kit that does not contain a DVD.

   ---

10. **Respond to the questions presented by the Web Start installation program.**

The questions might cover the following areas:

- Upgrade or initial installation (select initial)
- Default or custom installation (select custom)

⚠ **Caution –** You *must* select the custom installation option or the Netra CP2300 software installation will fail.

- Language and locale of the software to be installed (The language you choose here can be different from the choice you might have made earlier in Step 4.)

11. **Select the correct products to install.**

After you have selected the language and locale of the software, the following screen appears, with these options set by default:

```
Select the products you would like to install.

 [X]  0  Solaris 8 Documentation European    167.1 MB
 [X]  1  Solaris 8 Documentation Asian    0.0 MB
 [ ]  2  Solaris 8 Software 2 of 2    0.0 MB
 [-]  3  Multilingual Computer Systems Supplement CD    249.3 MB
 [ ]  4  Netra Supplement    0.0 MB
```

a. **Deselect item** 3, `Multilingual Computer Systems Supplement CD`, **by entering** 3 **once to select it, then entering** 3 **again to deselect the option.**

Note – Selecting the item 0 and 1 products is optional and not required for this installation.

After you have deselected item 3, `Multilingual Computer Systems Supplement CD`, you should see the following screen:

```
Select the products you would like to install.

 [X]  0  Solaris 8 Documentation European    167.1 MB
 [X]  1  Solaris 8 Documentation Asian    0.0 MB
 [ ]  2  Solaris 8 Software 2 of 2    0.0 MB
 [ ]  3  Multilingual Computer Systems Supplement CD    249.3 MB
 [ ]  4  Netra Supplement    0.0 MB
```

b. Enter 4 **to select the** Netra Supplement **option.**

The following screen appears:

```
Select which product components to install with the system.
Components marked with an [X] will be installed.

[ ]  4     Netra Supplement    0.0 MB
[ ]  4.0   Netra ct Platform 3.0   18.9 MB
```

c. Select 4.0 **(**Netra ct Platform 3.0**).**

d. Select n **to complete the product installation portion of the software installation.**

12. **Make the appropriate choices in the remaining screens.**

 ■ Choose to install additional CDs from the Media Kit (select Products screen), if necessary.

 ■ Choose to install additional software from another product CD or DVD, a Kiosk download, or over the net.

 ■ Select the 64-bit support selection.

Caution – You must select to install the 64-bit support. The Solaris 64-bit kernel is the only one supported on Netra CP2300 cPSB boards. Do *not* choose to install the 32-bit kernel only.

13. **When asked to select among the available Solaris software groups, you must select** 1 **(**Entire Group Plus OEM**):**

```
Available Solaris Software groups:
1. Entire Group Plus OEM (1048.9 MB)
2. Entire Group (1015.7 MB)
3. Developer Group (977.6 MB)
4. End User Group (629.0 MB)
5. Core Group (221.7 MB)

    Select the number corresponding to the desired Solaris software group [2]: 1

The Entire Solaris Software Group Plus OEM Support consists of the Entire
Solaris Software Group plus additional hardware drivers, including drivers for
hardware not present at the time of installation.
```

14. **After selecting the** `Entire Group Plus OEM` **group, select** `1` **to install the default packages.**

```
1. Default Packages
2. Custom Packages

   Default Packages or Custom Packages [1] 1
```

15. **Continue responding to the Web Start installation questions.**
    - Select the disk you want to install the disk selection
    - Select whether you want to preserve existing data
    - Preserve or modify the disk partition table

    Note – You might need to repartition the disk to allocate at least 10 Gbytes of space for the Solaris operating environment and the Netra CP2300 cPSB board software.
    ---

16. **When prompted, verify that the software listed by the Web Start installation program is correct, and type** `y` **to install the software.**

```
  Enter 'y' to accept these values and start the installation, or 'n' to
  return to the beginning and make changes (y/n): y
```

17. **Wait for the Solaris 8 2/02 DVD or Solaris 8 2/02 Software 1 of 2 CD to complete the installation.**

    This could take an hour or more, depending on the software you chose to install and the speed of your system. If you are using the Solaris CDs for the installation, you might be prompted to insert the Solaris 8 2/02 Software 2 of 2 CD and continue the installation.

18. **When the installation completes, select** `Done` **at the Installation details screen.**

    The installation program automatically installs the required Netra CP2300 board software packages and patches.

```
Launching installer. Please wait...

Installing Additional Software
|-1%--------------25%--------------50%--------------75%--------------100%|
```

19. **After the Netra CP2300 board software is installed, select** `Done` **to continue the Solaris installation.**

The system reboots. If you chose to eject the DVD or CD at the end of the installation, the DVD or CD is ejected and the Web Start application starts.

After you have completed the software installation from the Solaris CDs or DVD, you see the following screen:

```
Please specify the media from which you will install Netra Supplement.

Alternatively, choose the selection for "Skip" to skip this disc and go on to
the next one.

Media:

1. CD/DVD
2. Network File System
3. Skip

   Media [1]:
```

20. **Place the Netra CP2300 Installation DVD in the DVD-ROM drive again, and select** `1` **(**`CD/DVD`**) to install the remaining supplemental software from that DVD.**

21. **When the last CD has finished installing the remaining supplemental Netra CP2300 software, select to reboot the system.**

The system automatically installs the patches from the DVD and boots using the Solaris release that you just installed.

22. **Download and install additional patches.**

Refer to the *Netra CP2300 cPSB Board Release Notes* (817-1741) for the latest information on the patches available for the Netra CP2300 cPSB board. The document can be downloaded from the following web site:

`http://www.sun.com/products-n-solutions/hardware/docs/CPU_Boards`

Follow the instructions in the "Applying Patches to a Boot Disk" section of the *Netra CP2300 cPSB Board Release Notes* (817-1741) to download and install the patches.

Note – You *must* install the patches listed in the most recent version of the *Netra CP2300 cPSB Board Release Notes* (817-1741) document. The "Applying Patches to a Boot Disk" section in the release notes lists the latest ID numbers of the required patches for IDE disk installations. Since the release of this installation document, new patches might have been added and existing patches might have been revised.

---

23. **After the patches are installed, reboot the CP23000 cPSB board.**

Preparing Network Installations of the Solaris Operating Environment

The following procedures describe how to create a network installation server. Before creating a patched network installation server, see "Preparing for the Solaris Operating Environment Installation" on page 2 for installation requirements.

Note – If you are planning to use the network installation server as a boot server for diskless clients, make sure that you have allocated enough space for the diskless server and clients. As a general rule, you need roughly 1.7 GBytes of space for the diskless server and around 300 MBytes for each diskless client in the directory where the diskless clients will be installed (by convention, this directory is in the server's `/export` directory.)

Note – The following procedures assume that your system mounts the CD media using the Solaris Volume Manager software. If you have disabled the Volume Manager software, you need to mount the media using the `mount`(1M) command. Refer to the Solaris documentation for more information.

▼ To Create a Network Installation Image Using the Solaris 8 2/02 DVD

Creating a network installation image using the Solaris 8 2/02 *DVD* is not supported at this time; you must use the Solaris *CDs* to create a network installation image instead. Go to "To Create a Network Installation Image Using the Solaris 8 2/02 CDs" on page 13 for those instructions.

▼ To Create a Network Installation Image Using the Solaris 8 2/02 CDs

1. **Become superuser.**

2. **Insert the Solaris 8 2/02 Software 1 of 2 CD in a CD-ROM or DVD-ROM drive accessible to the installation server.**

3. **Change directories to the** `Tools` **directory on the Solaris 8 2/02 CD 1 of 2.**

```
# cd /cdrom/sol_8_202_sparc/s0/Solaris_8/Tools/
```

4. **Run the** `setup_install_server` **script to create an install image on the server:**

```
# ./setup_install_server image_directory
```

Where *image_directory* is the directory on the server where you want to create the Solaris 8 2/02 installation image.

5. **Change directories to the root directory.**

```
# cd /
```

6. **Eject the Solaris 8 2/02 Software 1 of 2 CD.**

```
# eject cdrom
```

7. **Insert the Solaris 8 Software 2 of 2 CD in a CD-ROM or DVD-ROM drive accessible to the installation server.**

8. **Change directories to the** `Tools` **directory on the Solaris 8 2/02 CD 2 of 2.**

```
# cd /cdrom/sol_8_202_sparc_2/Solaris_8/Tools/
```

9. **Run the** `add_to_install_server` **script to add the Solaris 8 Software 2 of 2 CD software to the install image.**

```
# ./add_to_install_server image_directory
```

Where *image_directory* is the Solaris 8 2/02 install image directory.

10. **Change directories to the root directory of the CD.**

```
# cd /
```

11. **Eject the Solaris 8 2/02 Software 2 of 2 CD.**

```
# eject cdrom
```

12. **Insert the Netra CP2300 Installation DVD into a DVD-ROM drive accessible to the installation server.**

13. **Change directories to the** `/cdrom/multi_icd_sol_8_202_sparc_cs/s0` **directory.**

```
# cd /cdrom/multi_icd_sol_8_202_sparc_cs/s0
```

14. **Run the following script to patch the install image:**

```
# ./modify_install_server.cp2300 -d image_directory
```

Where *image_directory* is the Solaris 8 2/02 installation image directory.

15. **Prepare a space for the additional system-specific packages.**

    You manually apply these system-specific packages later on in this procedure.

    a. **Create a directory to hold the additional system-specific packages:**

```
# mkdir package_directory
```

    Where *package_directory* is the name of the directory that you are creating to hold these additional system-specific packages.

    b. **Enter in the following commands to copy the system-specific packages to the directory you just created:**

```
# cd /cdrom/multi_icd_sol_8_202_sparc_cs/s0/Netra_Supplement/Netra_ct_Platform_3.0/Product
# tar cvf -  ./* | ( cd package_directory ; tar xvf - )
# echo "share -F nfs -o ro,anon=0 package_directory" >> /etc/dfs/dfstab
```

    Where *package_directory* is the name of the directory that you created to hold these additional system-specific packages.

16. **Continue to perform the standard Solaris network installation procedure.**

17. **Once you have completed the standard Solaris network installation procedure, login as superuser on diskfull node on which you just installed Solaris.**

18. **Manually apply the following packages:**

```
# pkgadd -d /net/install_server/package_directory SUNW2jdrt SUNWctmgx SUNWctac
```

Where *install_server* is the name of the installation server and *package_directory* is the name of the directory that you created to hold these additional system-specific packages.

19. **Download and install additional patches.**

Refer to the *Netra CP2300 cPSB Board Release Notes* (817-1741) for the latest information on the patches available for the Netra CP2300 cPSB board. The document can be downloaded from the following web site:

```
http://www.sun.com/products-n-solutions/hardware/docs/CPU_Boards
```

Follow the instructions in the "Applying Patches to a Boot Disk" section of the *Netra CP2300 cPSB Board Release Notes* (817-1741) to download and install the patches.

Note – You must install the patches listed in the most recent version of the *Netra CP2300 cPSB Board Release Notes* (817-1741) document. The "Applying Patches to a Boot Disk" section in the release notes lists the latest ID numbers of the required patches needed for IDE disk installations. Since the release of this installation document, new patches might have been added and existing patches might have been revised.

---

20. **After the patches are installed, reboot the CP23000 cPSB board.**

Note – If you are installing diskless clients, follow the procedures in "Installing Diskless Clients" on page 17 to set up the boot server and to add diskless clients.

An alternative approach for steps Step 15, Step 17, and Step 18 would be to use a post-installation script on the installation server to automatically add these packages. For more information, see the "Preparing to Install Solaris Software Over the Network" chapter in the *Solaris Advanced Installation Guide*, which is included in the Solaris Media Kit and can be viewed on the Solaris documentation web site:

```
http://docs.sun.com
```

Installing Diskless Clients

The following procedures describes how to create a boot server for diskless clients and how to add new diskless clients to the patched boot server. For additional instructions on installing diskless clients, refer to the Solaris 8 2/02 documentation, which you can find on the `http://docs.sun.com` web site.

Note – You must have a root (i.e.; superuser) password on your diskless server to perform the following tasks.

▼ To Create a Boot Server for Diskless Clients

Note – This procedure sets up a boot server by starting the operating environment services required for diskless clients. Once you have set up the boot server, see "To Add a Diskless Client" on page 21 for instructions on adding diskless clients to the boot server.

---

1. **Prepare a patched network installation server using the Netra CP2300 Installation DVD and the Solaris 8 2/02 Media Kit software.**

   Follow the procedures in "Preparing Network Installations of the Solaris Operating Environment" on page 13 to create a patched network installation server.

Note – When setting up the boot server for diskless clients, make sure that you have allocated enough space for the diskless clients. You need roughly 1.7 GBytes of space for the diskless server and around 300 MBytes for each diskless client in the directory where the diskless clients will be installed (by convention, this directory is in the server's `/export` directory.)

---

2. **Verify that the IP addresses for all other network interfaces on the boot server have corresponding hostnames in the hosts database.**

3. **Log into the network server as superuser and change directories to the** `/usr/sadm/bin` **directory.**

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

4. **Use the** `smosservice` **command to add boot services to the installation server.**

Note – The following command is a single long entry. Do not press the Return key until you have typed the entire text string shown in the following command.

```
# ./smosservice add -u root -p root_password -- -x mediapath=image_directory
-x platform=sparc.sun4u.Solaris_8 -x cluster=SUNWCXall -x locale=locale
```

Where:

- *root_password* is the root password for the installation server
- *image_directory* is the path to the directory where the Solaris 8 install image is stored
- *locale* is the locale that you want to use

Refer to the `smosservice`(1M) man page for more information and options.

For example, if the following entries were used for each variable, the command would appear as follows.

- *root_password* = `root_password`
- *image_directory* = `/export/install`
- *locale* = `en_US`

```
# ./smosservice add -u root -p root_password -- -x mediapath=/export/install
-x platform=sparc.sun4u.Solaris_8 -x cluster=SUNWCXall -x locale=en_US
```

5. **Place the Netra CP2300 Installation DVD in the DVD-ROM drive again.**

6. **Create a usr admin file with the following contents for the** `SUNWctac` **package:**
   - `mail=`
   - `instance=unique`
   - `partial=nocheck`
   - `runlevel=nocheck`
   - `idepend=nocheck`
   - `rdepend=nocheck`
   - `space=nocheck`
   - `setuid=nocheck`
   - `conflict=nocheck`
   - `action=nocheck`
   - `basedir=/usr_sparc.all`

7. **Enter the following command to add the** SUNWctac **package to the** usr **area of the boot service.**

Note – The following command is a single long entry. Do not press the Return key until you have typed the entire text string shown in the following command.

```
# /usr/sbin/pkgadd -S -M -R /export/Solaris_8
-d /cdrom/multi_icd_sol_8_202_sparc_cs/s0/Netra_Supplement/Netra_ct_Platform_3.0/Product
-a path_to_usr_admin_file -n SUNWctac
```

Where *path_to_usr_admin_file* is the path to the usr admin file that you created in Step 6.

8. **Create a root admin file with the following contents for the** SUNWctmgx **and** SUNW2jdrt **packages:**
   - mail=
   - instance=unique
   - partial=nocheck
   - runlevel=nocheck
   - idepend=nocheck
   - rdepend=nocheck
   - space=nocheck
   - setuid=nocheck
   - conflict=nocheck
   - action=nocheck
   - basedir=/opt

9. **Enter the following command to add the** SUNW2jdrt **package to the clone area.**

Note – The following command is a single long entry. Do not press the Return key until you have typed the entire text string shown in the following command.

```
# /usr/sbin/pkgadd -S -n -R /export/root/clone/Solaris_8/sun4u -a path_to_root_admin_file
-d /cdrom/multi_icd_sol_8_202_sparc_cs/s0/Netra_Supplement/Netra_ct_Platform_3.0/Product
SUNW2jdrt
```

Where *path_to_root_admin_file* is the path to the root admin file that you created in Step 8. Answer yes to all questions after entering this command.

Note – You might see several error messages after entering this command. These error messages are extraneous and should be ignored.

10. **Enter the following command to add the** SUNWctmgx **package to the clone area.**

Note – The following command is a single long entry. Do not press the Return key until you have typed the entire text string shown in the following command.

```
# /usr/sbin/pkgadd -S -n -R /export/root/clone/Solaris_8/sun4u -a path_to_root_admin_file -d
/cdrom/multi_icd_sol_8_202_sparc_cs/s0/Netra_Supplement/Netra_ct_Platform_3.0/Product
SUNWctmgx
```

Where *path_to_root_admin_file* is the path to the root admin file that you created in Step 8. Answer yes to all questions after entering this command.

Note – You might see several error messages after entering this command. These error messages are extraneous and should be ignored.

11. **Enter the following commands to copy the** SUNW2jdrt **package to the template area:**

```
# mkdir /export/root/templates/Solaris_8/SUNW2jdrt_4.1_all
# cd /cdrom/multi_icd_sol_8_202_sparc_cs/s0/Netra_Supplement/Netra_ct_Platform_3.0/Product
# tar cvf - ./SUNW2jdrt | ( cd /export/root/templates/Solaris_8/SUNW2jdrt_4.1_all ; tar xvf - )
```

12. **Enter the following commands to copy the** SUNWctmgx **package to the template area.**

Note – The command beginning with tar cvf is a single long entry. Do not press the Return key until you have typed the entire text string shown.

```
# mkdir /export/root/templates/Solaris_8/SUNWctmgx_1.0,REV=2000.11.22.10.47_sparc.all
# cd /cdrom/multi_icd_sol_8_202_sparc_cs/s0/Netra_Supplement/Netra_ct_Platform_3.0/Product
# tar cvf - ./SUNWctmgx | ( cd
/export/root/templates/Solaris_8/SUNWctmgx_1.0,REV=2000.11.22.10.47_sparc.all ; tar xvf - )
```

13. **Download and install additional patches.**

    Refer to the *Netra CP2300 cPSB Board Release Notes* (817-1741) for the latest information on the patches available for the Netra CP2300 cPSB. The document can be downloaded from the following web site:

    `http://www.sun.com/products-n-solutions/hardware/docs/CPU_Boards/Netra_CP2300`

    Follow the instructions in the "Applying Patches to a Diskless Service" section of the *Netra CP2300 cPSB Board Release Notes* (817-1741) to download and install the patches.

14. **After the patches are installed, follow the procedure in "To Add a Diskless Client" on page 21.**

▼ To Add a Diskless Client

1. **Prepare a patched boot server for the diskless clients.**

   Follow the steps in "To Create a Boot Server for Diskless Clients" on page 17 to create a boot server for the diskless clients.

2. **Log into the patched boot server as superuser.**

3. **Collect the following information for the diskless client you are adding:**
   - the client's IP address
   - the client's ethernet address
   - the client's host name

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

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

5. **Set up the diskless clients.**

   For each diskless client, type the following command as superuser (root):

   ```
   # ./smdiskless add -- -i ip_address -e ethernet_address -n host_name -x os=
   sparc.sun4u.Solaris_8 -x root=/export/root/host_name -x swap=
   /export/swap/host_name -x swapsize=swap_size -x tz=time_zone -x locale=locale -x ns=
   name_service -x nameserver=name_server
   ```

   Where:
   - *ip_address* is the client's IP address
   - *ethernet_address* is the client's Ethernet address
   - *host_name* is the client's host name

- *swap_size* is the size of the swap space that you will be using. The default is 24, however your swap space should be the same amount as your memory
- *time_zone* is the client's time zone
- *locale* is the client's locale
- *name_service* is the client's nameservice
- *name_server* is the nameserver's hostname

Refer to the `smdiskless(1m)` man page for more information and options.

For example, if the following entries were used for each variable, the command would appear as follows.

- *ip_address* = `129.144.214.999`
- *ethernet_address* = `8:0:20:22:b3:aa`
- *host_name* = `client_host`
- *swap_size* = `128`
- *time_zone* = `US/Pacific`
- *locale* = `en_US`
- *name_service* = `NIS`
- *name_server* = `nameserver_host`

```
# ./smdiskless add -- -i 129.144.214.999 -e 8:0:20:22:b3:aa -n client_host -x
os=sparc.sun4u.Solaris_8 -x root=/export/root/client_host -x swap=
/export/swap/client_host -x swapsize=999 -x tz=US/Pacific -x locale=en_US -x
ns=NIS -x nameserver=nameserver_host
```

You have to type your superuser password again after typing this command. The installation process should take roughly 5 minutes per client and about 15-30 minutes for the operating environment service to install; however, no progress is displayed on screen while the process is running. Do not cancel or kill the process until the process has successfully completed.

You should see messages similar to the following after a few moments, confirming that the command went through successfully the second time:

```
Login to client_host as user root was successful.
Download of com.sun.admin.osservermgr.cli.OsServerMgrCli from client_host was
successful.
```

6. **Boot the diskless client.**