Netra™ ct Server Product Notes

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This document gives late-breaking information for the Netra™ ct server.

Late-Breaking News

For late-breaking news on the Netra ct server, go to:

```
http://www.sun.com/netra
```

Netra ct Server Product Line Name

The Netra ct 800 servers and the Netra ct 400 servers are part of the Netra ct server product line, also known as the Netra ct 1600 server product line.

Notes on the Solaris Operating Environment Installation

If you are installing the Solaris operating environment onto a Netra ct 800 server or a Netra ct 400 server, make the following selections when you begin installing software from the Supplement CD:

1. In the Software Installation window, you will be asked if you want to go through a Default Installation or a Custom Installation. Choose the *Custom Installation* option in this window.

2. In the Custom Installation window, make the following changes to the pre-set custom software installation choices:

   - Select *No Install* for the *SunFDDI PCI* software package.
   - Select *No Install* for the *SunFDDI SBus* software package.
   - Select *Custom Install* for the *Netra ct Platform* software package.

   Leave the remaining pre-set selections as they are in the Custom Installation window.

Patches Available for Netra ct Servers

This document assumes the Solaris 8 1/01 operating environment is installed on your Netra ct server. You should install the following patches on your Netra ct server, where the dash levels are the *same* or *higher* than those shown in TABLE 1:

TABLE 1   Solaris 8 1/01 Operating Environment Patches

Patch Number	Description
109815-04	scsb driver fix; hot swap/I^2C fix
109584-19	Various alarm card fixes
109585-09	Environment monitoring daemon (`envmond`)
109586-04	Element management
110790-03	OpenBoot™ PROM (OBP) update

To determine if you have the latest version of the patch installed already, enter the following command:

```
% showrev -p | grep 'patch_id'
```

where *patch_id* is the patch number given in TABLE 1, without the dash level. For example, to see if the latest version of patch 109586 is installed, enter the following command:

```
% showrev -p | grep '109586'
```

- If you see no output after entering the command, then that patch has not been installed yet. Go to http://sunsolve.sun.com to download the patch (note that you will automatically get the latest version of the patch from the sunsolve web site). Refer to the patch README files for any patch-specific information. Reboot the server after installing the patch.

- If you see output similar to the following after entering the command:

```
% Patch: 109586-01 Obsoletes:  Requires:  Incompatibles:  Packages:
```

then the patch has been installed already.

  - If the dash level is the *same* or *higher* than that shown in TABLE 1, then you have the correct version of the patch installed on your server.

  - If the dash level is the *lower* than that shown in TABLE 1, then you must install the latest version of the patch onto your server. Go to http://sunsolve.sun.com to download the patch (note that you will automatically get the latest version of the patch from the sunsolve web site). Refer to the patch README files for any patch-specific information. Reboot the server after installing the patch.

Removing and Replacing a DVD or DAT Drive (Netra ct 800 Server Only)

The instructions for removing and replacing a DVD or DAT drive in the *Netra ct Server Service Manual* (806-3296) are incomplete. Following are the complete instructions for removing and replacing a DVD or DAT drive in a Netra ct 800 server:

▼ Removing a DVD or DAT Drive

1. **Log in to the server and kill the Volume Manager daemon.**

   As root, enter:

   ```
   # /etc/init.d/volmgt stop
   ```

2. **If you are removing a DAT drive, enter the following command to rebuild the device tree:**

   ```
   # devfsadm -i st
   ```

   This command is not necessary if you are removing a DVD drive.

3. **Get the attachment-point ID for the removeable media drive installed in your server.**

   As root, enter:

   ```
   # cfgadm -a c0
   ```

■ If you have a *DVD* drive installed in your server, you should get feedback similar to the following:

```
Ap_Id                          Type        Receptacle  Occupant     Condition
c0                             scsi-bus    connected   configured   unknown
c0::dsk/c0t0d0                 disk        connected   configured   unknown
c0::dsk/c0t1d0                 disk        connected   configured   unknown
c0::dsk/c0t6d0                 CD-ROM      connected   configured   unknown
c0::rmt/0                      unavailable connected   unconfigured unknown
```

In the sample feedback above, the attachment-point ID for the DVD drive is `c0::dsk/c0t6d0`, shown as `CD-ROM` under the Type column.

■ If you have a *DAT* drive installed in your server, you should get feedback similar to the following:

```
Ap_Id                          Type        Receptacle  Occupant     Condition
c0                             scsi-bus    connected   configured   unknown
c0::dsk/c0t0d0                 disk        connected   configured   unknown
c0::dsk/c0t1d0                 disk        connected   configured   unknown
c0::dsk/c0t6d0                 unavailable connected   unconfigured unknown
c0::rmt/0                      tape        connected   configured   unknown
```

In the sample feedback above, the attachment-point ID for the DAT drive is `c0::rmt/0`, shown as `tape` under the Type column.

4. **Deactivate the removeable media drive.**

As root, enter:

```
# cfgadm -c unconfigure ap_id
```

where *ap_id* is the attachment-point ID for the removeable media drive that you want to remove. For example, to deactivate the DVD drive using the feedback given above, as root, enter:

```
# cfgadm -c unconfigure c0::dsk/c0t6d0
```

Note that the attachment-point ID would be different for the DAT drive.

If you have `envmond` running, you should get the following feedback:

```
scsi.so:Removable Media Module (RMM) is Ok to Remove.
```

5. **Verify that the removeable media drive has been deactivated.**

   As root, enter:

   ```
   # cfgadm -a c0
   ```

   You should get feedback similar to the following:

   ```
   Ap_Id                          Type         Receptacle  Occupant      Condition
   c0                             scsi-bus     connected    configured    unknown
   c0::dsk/c0t0d0                 disk         connected    configured    unknown
   c0::dsk/c0t1d0                 disk         connected    configured    unknown
   c0::dsk/c0t6d0                 unavailable  connected    unconfigured unknown
   c0::rmt/0                      unavailable  connected    unconfigured unknown
   ```

   The entry under the Type column for the drive you removed should be
   `unavailable`, and the entry under the Occupant column should be
   `unconfigured`.

   You can also use the removeable media module (RMM) LEDs on the system status
   panel to verify that the removeable media drive has been deactivated. The Okay to
   Remove LED (⏏⧄) on the system status panel for the removeable media module
   should go ON, indicating that you can remove the removeable media drive from the
   slot.

6. **Go to the server and attach the antistatic wrist strap to your wrist.**

7. **Using a No. 2 Phillips screwdriver, loosen the captive screw that holds the
   removeable media module in place.**

8. **Pull the module from the system as shown in** FIGURE 1 **and place it on the
   electrostatic discharge mat.**

FIGURE 1   Removing the Removeable Media Module from a Netra ct 800 Server

If you have envmond running, you should get the following feedback on the console:

```
scsi.so:Removable Media Module (RMM) Removed.
```

▼ Installing a DVD or DAT Drive

1. Go to the server and attach the antistatic wrist strap to your wrist.

2. **Insert the removeable media module into the server.**

   The Okay to Remove LED (⏏▢) and the Power LED (⏻) on the system status panel for the removeable media module should go ON.

   If you have `envmond` running, you should get the following feedback:

```
scsi.so:Removable Media Module (RMM) Installed.
scsi.so:Removable Media Module (RMM) is Ok to Remove.
```

3. **Using a No. 2 Phillips screwdriver, tighten the captive screw on the removeable media module to secure it to the server.**

4. **Remove the antistatic wrist strap.**

5. **Log in to the server and, as root, activate the replacement removeable media drive:**

```
# cfgadm -c configure c0
```

6. **If you installed a DAT drive into your server, enter the following command to rebuild the device tree:**

```
# devfsadm -i st
```

   This command is not necessary if you installed a DVD drive into your server.

7. **Verify that the removeable media drive has been activated.**

   As root, enter:

```
# cfgadm -a c0
```

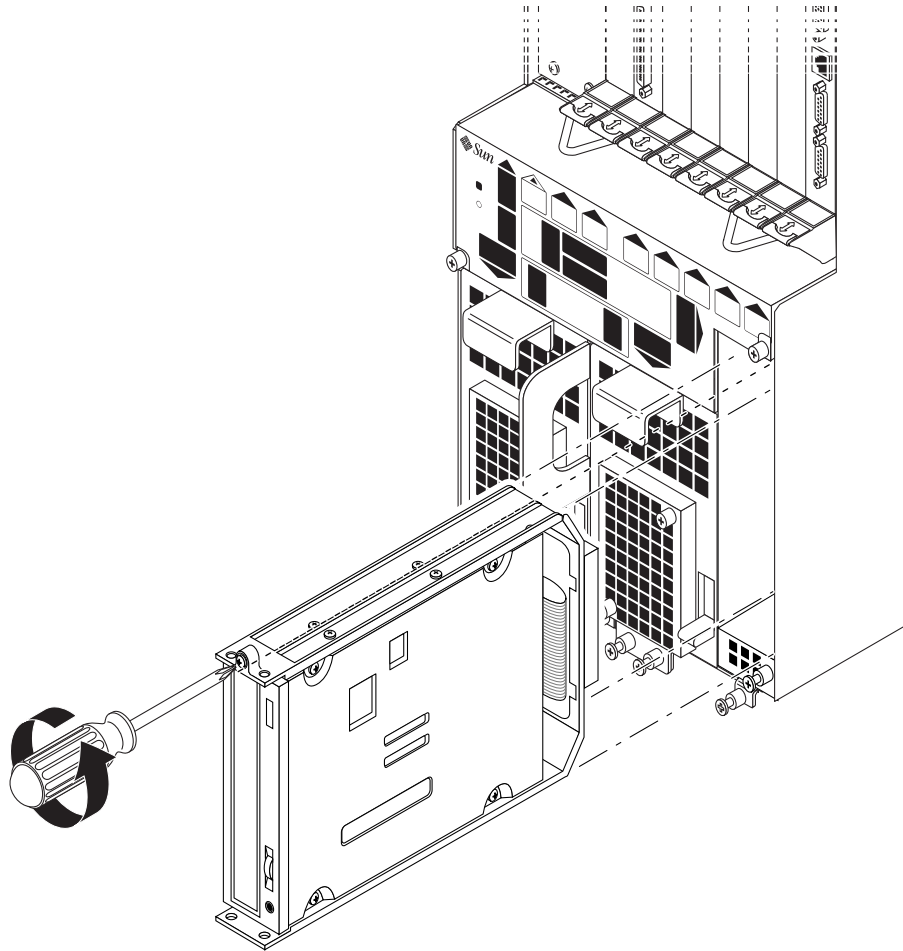   - If you installed a *DVD* drive in your server, you should get feedback similar to the following:

```
Ap_Id                           Type          Receptacle   Occupant       Condition
c0                              scsi-bus      connected    configured     unknown
c0::dsk/c0t0d0                  disk          connected    configured     unknown
c0::dsk/c0t1d0                  disk          connected    configured     unknown
c0::dsk/c0t6d0                  CD-ROM        connected    configured     unknown
c0::rmt/0                       unavailable   connected    unconfigured   unknown
```

Locate the line with the attachment point `c0::dsk/c0t6d0` listed in the Ap_Id column. Verify that the following entries appear for the DVD drive that you just installed:

```
c0::dsk/c0t6d0              CD-ROM      connected   configured   unknown
```

- If you see `CD-ROM` in the Type column and `configured` in the Occupant column, then the DVD drive was activated. Go to Step **8**.

- If you see *unavailable* instead of `CD-ROM` in the Type column and *unconfigured* instead of `configured` in the Occupant column, then the DVD drive was not activated. Enter the following command to activate the DVD drive:

```
# cfgadm -c configure c0::dsk/c0t6d0
```

Enter the `cfgadm -a c0` command a second time to verify that the DVD drive was activated. You can also use the removeable media module (RMM) LEDs on the system status panel to verify that the removeable media drive has been activated. The Okay to Remove LED (↩▢) on the system status panel for the removeable media drive should go OFF, indicating that the removeable media drive has been activated. Go to Step **8**.

- If you installed a *DAT* drive in your server, you should get feedback similar to the following:

```
Ap_Id                       Type         Receptacle   Occupant      Condition
c0                          scsi-bus     connected    configured    unknown
c0::dsk/c0t0d0              disk         connected    configured    unknown
c0::dsk/c0t1d0              disk         connected    configured    unknown
c0::dsk/c0t6d0              unavailable  connected    unconfigured  unknown
c0::rmt/0                   tape         connected    configured    unknown
```

Locate the line with the attachment point `c0::rmt/0` listed in the Ap_Id column. Verify that the following entries appear for the DAT drive that you just installed:

```
c0::rmt/0                   tape         connected    configured    unknown
```

- If you see `tape` in the Type column and `configured` in the Occupant column, then the DAT drive was activated. Go to Step **8**.

- If you see *unavailable* instead of `tape` in the Type column and *unconfigured* instead of `configured` in the Occupant column, then the DAT drive was not activated. Enter the following command to activate the DAT drive:

```
# cfgadm -c configure c0::rmt/0
```

Enter the `cfgadm -a c0` command a second time to verify that the DAT drive was activated.

You can also use the removeable media module (RMM) LEDs on the system status panel to verify that the removeable media drive has been activated. The Okay to Remove LED (↵▯) on the system status panel for the removeable media drive should go OFF, indicating that the removeable media drive has been activated.

8. **Start the Volume Manager daemon.**

As root, enter:

```
# /etc/init.d/volmgt start
```

Rebuilding the Device Tree after Reboots for a Netra ct 800 Server

If you have a Netra ct 800 server with a *DAT* drive installed, the `cfgadm` utility will lose the entry for the DAT drive whenever you reboot your Netra ct 800 server; however, the DAT drive will still be accessible through the standard DAT software utilities. You must rebuild the device tree after every server reboot to rebuild the entry in the `cfgadm` utility.

Enter the following command after every server reboot to rebuild the device tree for a Netra ct 800 server with a DAT drive installed:

```
# devfsadm -i st
```

This command is not necessary if you have a Netra ct 400 server or if you have a Netra ct 800 server with a *DVD* drive installed.

Setting the Fan Trays to Run at Maximum Speed Constantly

By default, the fan trays in the Netra ct servers are set so that their speeds will vary between 75% and 100%, depending on the temperature (refer to the section "Fan Tray and Fans" in the *Netra ct Server Product Overview* for more information). If you want to disable the fan speed control circuitry so that the fan trays operate at maximum speed constantly, regardless of the temperature, follow these instructions.

1. **Remove the system status panel and remove the fan trays from the Netra ct server.**

   Refer to the *Netra ct Server Service Manual* for those instructions.

2. **Locate the J0104 two-pin jumper at the rear of the fan tray.**

3. **Insert a jumper shunt over the J0104 two-pin jumper.**

   The jumper shunt should be a shunt designed to fit over two standard jumper pins that are 100 mil apart, measured from the center of each pin.

4. **Reinsert the fan trays and the system status panel on the Netra ct server.**

   Refer to the *Netra ct Server Service Manual* for those instructions.

Changes in RSC Variables

These changes affect certain RSC variables and their documentation in the *Sun Remote System Control (RSC) User's Guide for the Netra ct Server Alarm Card.*

- A new variable, `serial2_hw_flowcontrol`, controls whether RSC uses hardware flow control on the serial port. Valid values are `true` and `false`. The default is `false`. If set to `true`, and if the hardware supports hardware flow control, hardware flow control and modem control are enabled. If set to `false`, or if the hardware does not support hardware flow control, hardware flow control is disabled.

- A new variable, `serial2_inactivity`, controls whether RSC disconnects a session on serial port 2 after 10 minutes of inactivity. Valid values are `true` and `false`. The default is `false`. If set to `true`, RSC disconnects a session connected to serial port 2 after 10 minutes of inactivity. If set to `false`, RSC never disconnects a session on serial port 2 because of inactivity. For example, if the `serial2_inactivity` variable is set to `false`, and a cable is removed from serial port COM2, the session will not be disconnected.

- The variable `serial2_hw_handshake` has been removed from RSC.
- A new status code, `03 offline`, has been added to the messages that the `envmond` daemon can send to the alarm card, depending on how the alarm variables are set. Offline means that the power supply has been switched off.

Problems with DHCP and PPP

In the Configuring RSC Software section in the *Remote System Control (RSC) User's Guide for the Netra ct Server Alarm Card* manual, when you are running the RSC configuration script (`rsc-config`), at one point you will be asked to choose the RSC IP Mode, and you will be given `config` or `DHCP` as choices. Do not choose `DHCP`; DHCP is not supported at this time in the RSC software. Choose `config` instead at this point.

In addition, instructions are given in the same section for configuring PPP. Disregard these instructions; PPP is not supported on serial port COM 2 on the alarm card at this time.

Safety and Compliance Information

Class A Devices

Both the Netra ct 800 server and the Netra ct 400 server are FCC Class A devices.

Torque Specifications

Following are the torque specifications for the Netra ct server:

- If you are installing a card into the Netra ct server, tighten the screws to a torque of 0.28 N.m (2.5 in.-lb)
- If you are connecting a cable to a card installed in the Netra ct server, tighten the screws on the cable to a torque of 0.23 N.m (2 in.-lb)

Limited High Availability Hot Swap Features

The Netra ct server hardware supports basic and full hot swap. It also supports some features of high availability hot swap, such as the following high availability signals:

- HEALTHY#
- LOCAL_PCI_RESET#

Changing Configurations for External Peripherals

If you have an external peripheral connected to the Netra ct server and you want to make a change to the configuration of the external peripheral (for example, if you want to move the peripheral to a different controller, add or remove a peripheral to the SCSI chain, or add or remove a disk), there are several things you must keep in mind:

1. If you have more than one SCSI device in a SCSI chain, you must set the SCSI address for the SCSI device closest to the controller to the lowest address, raising the SCSI addresses for other SCSI devices in the chain so that the address for the SCSI device furthest from the controller has the highest address.

2. You can connect external SCSI devices to the SCSI port on either the CPU transition card or a network interface card. Keep in mind that if you connect external SCSI devices to the SCSI port on the CPU transition card, those external SCSI devices will be on the same SCSI chain as your boot drive, so any errors in SCSI termination or target address overlaps may panic your server. This is not an issue if you connect external SCSI devices to the SCSI port on a network interface card, which would be on a different SCSI chain than your boot drive.