Release Notes for Sun™ GigaSwift Ethernet Adapter

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Release Notes for Sun GigaSwift Ethernet Adapter

This book contains both new information and corrections to errors in the *Sun GigaSwift Ethernet Adapter Installation and User's Guide.*

New information is presented in the first sections. The errors are shown in headings that correspond with the titles of the chapters where the errors occur in the *Sun GigaSwift Ethernet Adapter Installation and User's Guide.*

Note – For information on how to get the latest patches and patch revisions, visit the SunSolve website at `http://sunsolve.sun.com`.

New Information

The following sections contain new information that was not available at the time the *Sun GigaSwift Ethernet Adapter Installation and User's Guide* was printed.

Hardware Requirements

Enterprise 3000, 4000, 5000, and 6000 series systems using the Sun GigaSwift Ethernet adapter require a shielded twisted pair Ethernet cable.

Caution – Installing the Sun GigaSwift Ethernet adapter on the Enterprise 3000, 4000, 5000, and 6000 series systems is prohibited if option (X)1080A Sun Enterprise Systems Interface card is already installed on the 2632A PCI I/O board for these platforms. Install the Sun GigaSwift Ethernet adapter on the next available 2632A PCI I/O card.

Using the `infinit_burst` Parameter

Because only UltraSPARC™ III machines support the `infinit_burst` parameter it is turned off by default. If you are using an UltraSPARC III machine, you can enable this parameter. To discover if your machine is an UltraSPARC III, run the following command:

```
% modinfo | grep pcisch
```

If you get the following response:

```
22 101e1663   d5c1 109   1  pcisch (PCI Bus nexus driver 1.194)
```

Then the machine is an UltraSPARC III, and you can safely enable the `infinit_burst` parameter.

Troubleshooting

TABLE 1 describes the problems you may encounter in using the GigaSwift Ethernet adapter as well as a solution for them:

TABLE 1 Troubleshooting the GigaSwift Ethernet Adapter

Problem	Description	Solution
`prtdiag` does not recognize the NIC in slot 0.	If a PCI I/O board of an UltraSPARC III system is filled with network adapters with an internal bridge (for example, GigaSwift Ethernet or Quad FastEthernet), `prtdiag` displays the card on slot 0. Although the card in slot 1 is not recognized by `prtdiag`, the card is fully operational and appears in the `/etc/path_to_inst` file.	Use `prtconf -pv` instead of `prtdiag`
VLAN appears to accept VID 0 as end user input.	`ce000000`, `ce00000`, or `ce0000` configured as VID `0` is actually the regular `ce0` interface not VID `0` of the `ce0` interface. VID `0` is not supported as an end user device.	This is normal behavior.
`net-install`, diskless-boot hangs in 10/100 HDX mode; `nfs` mount and RPC time out.	In 10/100 HDX mode, a system connected directly to a hub hangs after the `root` file system is mounted when performing `netinstall` or diskless boot. The problem does not occur when the system connects directly to a 10/100 HDX switch.	• Use 10/100 FDX for netinstall or diskless booting. • Connect the system to a 10/100 HDX switch.
System panics in Solaris 7 11/99 environment when CPR attempts to suspend a non-suspendable thread	The GigaSwift Ethernet driver uses certain not suspendable kernel threads. When CPR attempts to suspend the driver, the system panics. Currently, CPR is supported only in Sun desktop systems (for example, Ultra 10 and Ultra 60).	• Turn off CPR. • A CPR fix is incorporated in Solaris 8.
`Inetboot` may require several retries to complete with OBP 4.x	Systems with OBP 4.x (for example, Sun Blade 1000) may automatically retry several times before completing. The message below is displayed for each retry: Retrying ... Check TFTP server and network setup	Ignore these console messages until booting is complete

LED Displays

A total of nine LEDs are displayed on the front panel of the Sun GigaSwift Ethernet. They are labeled on the front panel as shown in TABLE 2.

The nine LEDs consist of a single purple LED and two packs of four green LEDs. Note that all LEDs are sourced by the gigabit PHY except the last two LEDs. TXM and RXM are sourced by the Sun GigaSwift Ethernet MAC ASIC. These LEDs are equivalent to TX and RX of the PHY except that they indicate the state of the MAC instead and can be used for diagnostic purposes to isolate a PHY or a MAC failure on the board.

TABLE 2 Front Panel Display LEDs

Label	Meaning if On/Active	Color	Source
Link quality	Gigabit link quality good	Purple	PHY
10000X	Gigabit link is up	Green	PHY
100X	100BT link is up	Green	PHY
10X	10BT link is up	Green	PHY
FDX	Full Duplex Mode	Green	PHY
TX	PHY Transmitting data	Green	PHY
RX	PHY Receiving data	Green	PHY
TXM	MAC transmitting data	Green	MAC
RXM	MAC receiving data	Green	MAC

Corrections to the User's Guide

The following sections contains corrections to errors in the *Sun GigaSwift Ethernet Adapter Installation and User's Guide*. The section titles correspond to the chapter titles in the book to help you locate the erroneous information.

Installing the Adapter

Table 2-1 on page 6 is incorrect. The `SUNWced` and `SUNWcedx` packages should have a `.u` extension as shown in the following updated table:

TABLE 2-1 Files and Directories on the CD-ROM

File or Directory	Contents
`Copyright`	U.S. copyright file
`FR_Copyright`	French copyright file
`Docs/`	Contains PDF copy of the user manual
`GigaSwiftEthernet/ Solaris_`*OS-VER*`/ Packages/`	Contains the Sun GigaSwift Ethernet software packages applicable to your version (*OS-VER)* of the Solaris software • SUNWcea—32-bit adb macros • SUNWceax—64-bit adb macros • SUNWced.u—32-bit adapter driver • SUNWcedx.u—64-bit adapter driver • SUNWcedu—adapter driver headers • SUNWcem—man pages (optional) The optional VLAN packages for Solaris 8 only • SUNWvld—VLAN utility routines • SUNWvldx—VLAN utility routines (64-bit) • SUNWvldu—VLAN utility headers

The menu of packages shown in Step 3 on page 7 should also show the SUNWced and SUNWcedx packages with the .u extension, as follows:

```
The following packages are available:
  1  SUNWcea        Sun GigaSwift Ethernet Adapter Driver 32 bit adb Macros
                    (sparc) 1.0,REV=2001.05.04
  2  SUNWceax       Sun GigaSwift Ethernet Adapter Driver 64 bit adb Macros
                    (sparc) 1.0,REV=2001.05.04
  3  SUNWced.u      Sun GigaSwift Ethernet Adapter (32-bit Driver)
                    (sparc.sun4u) 1.0,REV=2001.05.04
  4  SUNWcedu       Sun GigaSwift Ethernet Adapter Driver Headers
                    (sparc) 1.0,REV=2001.05.04
  5  SUNWcedx.u     Sun GigaSwift Ethernet Adapter (64-bit Driver)
                    (sparc.sun4u) 1.0,REV=2001.05.04
  6  SUNWcem        Sun GigaSwift Ethernet Adapter Driver Man Pages
                    (sparc) 1.0,REV=2001.05.04
  7  SUNWvld        Sun Ethernet Vlan Utility Routines
                    (sparc) 1.0,REV=2001.05.04
  8  SUNWvldu       Sun Ethernet Vlan Utility Headers
                    (sparc) 1.0,REV=2001.05.04
  9  SUNWvldx       Sun Ethernet Vlan Utility Routines (64-bit)
                    (sparc) 1.0,REV=2001.05.04

Select package(s) you wish to process (or 'all' to process
all packages). (default: all) [?,??,q]:
```

Step 3 on page 13 is incorrect. It should read as follows:

1. **Set the Sun GigaSwift Ethernet device to be your default boot device, type:**

```
ok setenv boot-device /pci@1f,2000/pci@1/network@4
```

Note that the correct command has a space rather than = between boot-device and /pci@1f,2000/pci@1/network@4.

Configuring Driver Parameters

The path to the ce.conf file is incorrect in the last paragraph in "Setting ce Driver Parameters" on page 33. The paragraph should read as follows:

To set parameters so they remain in effect after you reboot the system, create a /platform/sun4u/kernel/drv/ce.conf file and add parameter values to this file when you need to set a particular parameter for a device in the system.

The path to the `ce.conf` file is also incorrect in the first paragraph of “Setting Parameters Using the `ce.conf` File.” The paragraph should read as follows:

You can also specify the driver parameter properties on a per-device basis by creating a `ce.conf` file in the `/platform/sun4u/kernel/drv` directory. Use a `ce.conf` file when you need to set a particular parameter for a device in the system. The parameters you set are read and write parameters that are listed in “ Driver Parameter Values and Definitions” on page 26.

Network Configuration

In “Setting Up a Diskless Client System on a GigaSwift Ethernet Network” on page 19, the first paragraph should read as follows:

Before you can boot and operate a diskless client system across a gigabit Ethernet network, you must first install the GigaSwift Ethernet software packages into the root directory of the diskless client located on the root server. You can find the GigaSwift Ethernet software packages on the *Sun GigaSwift Ethernet Driver 1.0* CD. Refer to the *Solaris Advanced Installation Guide* and the *System Administration Guide* for more information about installing and administering diskless client systems.

In the section “To Set Up a Diskless Client on a GigaSwift Ethernet Network, on page 20, the `SUNWced` package in Step 3 should show the `.u` extension, as follows:

3. **Use the** `pkgadd -R` **command to install the three GigaSwift Ethernet software packages to the diskless client’s root directory on the server.**

   You will need to install the `SUNWced.u`, `SUNWcedm`, and `SUNWcedu` software packages to the client’s root directory.

```
# cd /cdrom/cdrom0/GigaSwiftEthernet/Packages
# pkgadd -R /export/root/client_name -d . SUNWced.u SUNWcem SUNWcedu
# cd /
```

Diagnostic Software and Troubleshooting Issues

In “Running the Ethernet FCode Self-Test Diagnostic” on page 54, the first paragraph should read as follows:

To run the Ethernet diagnostics, you must first bring the system to a stop at the OpenBoot prompt after issuing a `reset-all` at the OBP `ok` prompt. If you do not reset the system, the diagnostic tests might cause the system to hang.

Step 5 on page 55 should read as follows:

5. Type the following to run the self-test using the `test` command:

```
ok test device-path
```

The following tests are run when the `test` command is executed:

- `ce` register test (happens only when `diag-switch?` is true)
- internal loopback test
- link up / down test