



Sun StorageTek™ Enterprise PCI-X 4 Gb FC Single and Dual Port Host Bus Adapters Release Notes

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Sun StorageTek Enterprise PCI-X 4 Gb FC Single and Dual Port Host Bus Adapters Release Notes

This document contains the latest supplementary information for the Sun StorageTek™ Enterprise PCI-X 4 Gb Fibre Channel (FC) Single and Dual Port Host Bus Adapter (HBA) (SG-XPCI1FC-QF4, SG-XPCI2FC-QF4). Use it with the latest version of the *Sun StorageTek Enterprise PCI-X 4Gb Fibre Channel Single and Dual Port HBA Installation Guide* (part number 819-3899-10 or later).

It contains the following sections:

- [“Features in This Release” on page iii](#)
- [“Solaris 8, 9, and 10 Operating Systems” on page iv](#)
- [“Red Hat Enterprise Linux and SuSE Linux Enterprise Server Systems” on page ix](#)
- [“Windows 2000 and Windows Server 2003 Systems” on page xi](#)

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Features in This Release

This HBA consists of a single-slot PCI-X bus expansion board that connects to one or two FC optical media busses. Each channel of the host adapter can act as either an initiator or target. The two channels operate independently; each supports a separate FC bus operating at 4.25 Gbits/sec. Each channel is also backward-compatible with 2.125 Gbits/sec and 1.0625 Gbits/sec FC busses.

One or two Small-Form Factor (SFF) LC-duplex connectors are used to connect to the external FC busses. The FC bus operates in short-wave, multi-mode. One ISP2422 processor is used to support the two independent FC busses.

Supported Operating Systems

You can use the Sun StorageTek Enterprise PCI-X 4Gb FC Single and Dual Port HBA with the following operating systems (OSs):

- Solaris 8, 9, and 10 OS

To use the adapter with these OSs, you must use the Sun driver as described in [“Solaris 8, 9, and 10 Operating Systems” on page iv](#).

- Red Hat Enterprise Linux and SuSE Linux Enterprise Server OSs

To use the adapter with these OSs, you must use the QLogic driver as described in [“Red Hat Enterprise Linux and SuSE Linux Enterprise Server Systems” on page ix](#).

- Windows 2000 and Windows Server 2003

To use the adapter with this OS, you must use the QLogic driver as described in [“Windows 2000 and Windows Server 2003 Systems” on page xi](#).

Solaris 8, 9, and 10 Operating Systems

This section contains the following information about using the Sun StorageTek Enterprise PCI-X 4Gb FC Single and Dual Port HBA with the Solaris OS:

- [“System Requirements” on page vi](#)

Software Component Patches and Packages

After you have completed the hardware installation and powered on the system, follow the instructions in this section to install the HBA driver with the Solaris 8, 9, and 10 Operating System (OS) (SPARC and X64/x86 Platform Edition).

▼ Installing the Solaris Recommended Patch Cluster for Solaris 8, 9 and 10 OSs

To download the Solaris recommended patch cluster, follow these steps:

1. **To Download the Solaris Patch Cluster, go to the SunSolve site at:**

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

2. **Click on Patches and Updates**

3. Click on Recommended and Security Patches.

4. Select and download one of the following:

- Solaris 10 (97.8M)
- Solaris 10 X86 (81.1M)
- Solaris 9 (177.0M)
- Solaris 8 (157.1M)

Install this patch cluster before installing the SAN packages and patches or qlc driver patch.

Installing the HBA Driver Patches and Packages

The following qlc driver patches and packages are needed to support the HBA:

TABLE 1

Operating Sytstem	Patch Number	Location	Patch or Package Name
Solaris 10 03/05 SPARC	119130-13 or higher	SunSolve Online: http://sunsolve.sun.com	qlc driver
Solaris 10 03/05 x86	119131-13 or higher	SunSolve Online: http://sunsolve.sun.com	qlc driver
Solaris 8 02/04 and Solaris 9 04/04 SPARC	SAN4.4.8 or higher	http://www.sun.com/storage/san	SAN 4.4.8

Diagnostic Support

The following SunVTS patches are needed to perform the diagnostic test for the HBA:

TABLE 2

Operating Sytstem	Patch Number	Location	Patch or Package Name
Solaris 10 03/05 SPARC	120965-01 or higher	SunSolve Online: http://sunsolve.sun.com	SunVTS 6.0PS3 qlctest
Solaris 10 03/05 x86	120966-01 or higher	SunSolve Online: http://sunsolve.sun.com	SunVTS 6.0PS3 qlctest
Solaris 8 02/04 Solaris 9 04/04 SPARC	120967-01 or higher	SunSolve Online: http://sunsolve.sun.com	SunVTS 5.1PS10 qlctest

System Requirements

The following hardware and software are qualified with the Solaris 8, 9, and 10 OS.

Minimum OS Levels

- Solaris 8 SPARC OS update 4/01 with Solaris 8 recommended patch cluster and SAN 4.4.8 patches
- Solaris 9 SPARC OS with Solaris 9 recommended patch cluster and SAN 4.4.8 patches
- Solaris 10 SPARC or x64 OS with the Solaris 10 recommended patch cluster

Host Platform Support

- Sun Blade 1000, 1500, 2000 and 2500 workstations
- Sun Fire V210, V240 and V250 servers
- Sun Fire V440 server
- Sun Fire V480, V490, V880 and V890 servers
- Sun Fire V1280 and E2900 servers
- Sun Fire 4800, 4810 and E4900 servers
- Sun Fire 6800 and E6900 servers
- Sun Fire 12K and E20K servers
- Sun Fire 15K and E25K servers
- Sun Fire 280R server
- Netra 20, 240, 440, 1280, 1400/1405 and servers
- Sun Fire T2000 server
- Sun Fire V20z and V40z servers
- Sun Fire X4100, X4200 and X4200 M2 servers

Storage System Support

- Sun StorEdge™ 3510 and 3511 FC Arrays
- Sun StorEdge™ 6020, 6120, and 6320 Arrays
- Sun StorEdge™ 6130 Array
- Sun StorEdge 6920 system
- Sun StorEdge L25, L100 tape libraries
- Sun StorEdge L500 tape library
- Sun StorEdge L180, L700 tape libraries
- Sun StorEdge L5500, L8500 tape libraries

Fibre Channel Switch Support

FC switch support is shown in [TABLE 3](#).

TABLE 3 Fibre Channel Switch Support

Switch
QLogic SANbox 5200 2 Gb switch
Sun StorEdge Network 2 Gb switch
Sun StorEdge Network 2 Gb Brocade SilkWorm 3200 and 3800 switches
Sun StorEdge Network 2 Gb Brocade SilkWorm 3250 and 3850 switches
Sun StorEdge Network 2 Gb Brocade SilkWorm 3900 switch
Sun StorEdge Network 2 Gb Brocade SilkWorm 12000 and 24000 Core Fabric switches
Sun StorEdge Network 4 Gb Brocade SilkWorm 4100 switch
Sun StorEdge Network 4 Gb Brocade SilkWorm 48000 and 200E
Sun StorEdge Network 2 Gb McDATA Sphereon 4300 switch
Sun StorEdge Network 2 Gb McDATA Sphereon 4500 switch
Sun StorEdge Network 2 Gb McDATA Intrepid 6064 director
Sun StorEdge Network 2 Gb McDATA Intrepid 6140 director

Known Issues and Bugs

The following bugs are under investigation at the time of the release:

- **Bug 6306254 -- SunVTS qlctest fails with qlctest.get_port_info.FATAL message**
Workaround: On a dual-port HBA, run qlctest on only one port at a time.
- **Bug 6331949 --SunVTS qlctest internal loopback test failing**
Workaround: Insert a loopback plug or cable.
- **Bug 6344143 -- SunVTS qlctest: Fails on Online Selftest**
Workaround: Disable 'Online Selftest' in qlctest 'Test Parameter Options' menu.
- **Bug 6353136 -- SunVTS qlctest opens exclusive path to adapter port prohibiting multiple test instances to run**
Workaround: On a dual-port HBA, run qlctest on only one port at a time.

- **Bug 6377140 --SunVTS qlctest mailbox test causes data compare failures in loopback tests**

Workaround: Disable 'Mailbox Loopback Test' in qlctest 'Test Parameter Options' menu.

Red Hat Enterprise Linux and SuSE Linux Enterprise Server Systems

The Linux Drivers required to run the Sun StorageTek Enterprise PCI-X 4 Gb FC Single and Dual Port HBAs with the Linux OS are available for download at the Sun designated page at:

http://www.qlogic.com/support/sun_page.html

Drivers that support the Linux 2.4 and 2.6 kernels are provided. The Linux 2.4 kernel is used in Red Hat Enterprise Linux (RHEL) 3 and SuSE Linux Enterprise Server (SLES) 8. The Linux 2.6 kernel is used in RHEL 4 and SLES 9. Consult the Sun hardware platform documentation to verify which Linux releases are supported.

The necessary utilities to perform diagnostics and HBA management are packaged in the Application Kit and are available for download at this Web page. The SANsurfer utility performs simple diagnostics, firmware maintenance, general HBA management and configuration functions.

This section contains the following information about using the StorageTek Enterprise PCI-X 4 Gb FC Single and Dual Port HBAs in Red Hat Enterprise Linux and in SuSE Linux Enterprise operating systems:

- [“System Requirements” on page x](#)
- [“Known Issues and Bugs” on page xi](#)

System Requirements

The following hardware and software are qualified with the Red Hat Enterprise Linux and with the SuSE Linux Enterprise server systems:

Minimum OS Levels

- Red Hat Enterprise Linux (RHEL) 3
- Red Hat Enterprise Linux (RHEL) 4
- SuSE Linux Enterprise Server (SLES) 8
- SuSE Linux Enterprise Server (SLES) 9

Host Platform Support

- Sun Fire V20z and V40z servers
- Sun Fire X4100, X4200, and X4200 M2 servers

Storage System Support

The storage systems supported for the RHEL and SLES operating systems are the same as those listed for [“Solaris 8, 9, and 10 Operating Systems”](#) on page iv.

Fibre Channel Switch Support

FC switch support is shown in [TABLE 3](#). In other words, it is exactly the same for Red Hat Enterprise Linux and SuSE Linux Enterprise Server Systems as it is for the Solaris 8, 9, and 10 OS.

Known Issues and Bugs

The following bugs are under investigation at the time of the release:

- **Bug 6330692** — A system lock up problem occurs when running RHEL3 on a Sun Fire server directly connected to an L100 tape library with three SDLT600 drives.

If the serial port is connected, 10 to 15 seconds after starting a mt test script, the system panics and then reboots. If not, the system hangs and needs to be power-cycled.

Workaround: It is recommended that you not access tape using this HBA on Linux 2.4 kernels.

Windows 2000 and Windows Server 2003 Systems

The host adapter device driver for running the Windows 2000 and Windows Server 2003 OS is available for download at the QLogic website:

http://www.qlogic.com/support/sun_page.html.

This section contains the following information about using the StorageTek Enterprise PCI-X 4 Gb FC Single and Dual Port HBAs in Windows 2000 and Windows Server 2003 operating systems:

- [“System Requirements” on page xi](#)
- [“Known Issues and Bugs” on page xii](#)

System Requirements

The following hardware and software are qualified with the Windows 2000 and Windows Server 2003 OS:

Host Platform Support

- Sun Fire V20z and V40z servers
- Sun Fire X4100, X4200, and X4200 M2 servers

Storage Systems Support

The storage systems supported for the Windows 2000 and the Windows \Server 2003 operating systems are the same as those listed for “Solaris 8, 9, and 10 Operating Systems” on page iv.

Fibre Channel Switch Support

The FC switches supported for the Windows 2000 and Windows Server 2003 operating systems are the same as those listed for the Solaris 10 OS in TABLE 3.

Known Issues and Bugs

There are no known HBA issues or bugs for the Windows 2000 and Windows Server 2003 operating systems at this time.

Service Contact Information

If you need help installing or using this product in the United States, call 1-800-USA-4SUN, or go to:

<http://www.sun.com/service/contacting/index.html>