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Compaq StorageWorks

64-bit PCI to Fibre Channel Host Bus Adapter Windows 2000 and Windows NT 4.0 Release Notes

These release notes contain the most recent supplemental information for the Compaq StorageWorks 64-bit PCI to Fibre Channel Host Bus Adapter (HBA).

Be sure to read these notes before installing the HBA module into your server. This information is periodically updated and available on the World Wide Web at: http://www.compaq.com/products/storageworks/adapters.html.

Introduction

The 64-Bit PCI to Fibre Channel Host Bus Adapter is a high-performance PCI option module that connects to devices attached through either a hub-based optical Fibre Channel arbitrated loop or a switch based optical Fibre Channel fabric. The HBA supports only short wave multi-mode connections. These release notes include all known issues or restrictions for using the HBA within a system configuration. This document is organized into sections as follows:

- Parts List for the adapter (Table 1)
- Supported systems
- Supported Storage and Interconnect Devices
- Configuration Information
- Restrictions
- Registry Settings

Table 1
Parts List

Part Number Digital Classic	Description
DS-KGPSA-CB 176479-B21	64-Bit PCI to Fibre Channel Host Bus Adapter
AA-RKPEF-TE)	Release notes for the DS-KGPSA-CB (176479-B21) -*this document*
AA-RKPDB-TE	*Compaq StorageWorks 64-Bit PCI to Fibre Channel Adapter User Guide*
AK-RKPHD-CA	Windows NT 4.0. mini-port driver kit and readme files
AA-RNXMD-CA	Windows 2000 mini-port driver kit and readme files
AA-RNXLB-CA	64-Bit PCI to Fibre Channel Host Bus Adapter BIOS Enable Utility and readme files for Windows NT 4.0 and Windows 2000.
AK-RNXKD-CA (Disk 1 of 2) AK-RNXND-CA (Disk 2 of 2)	Driver update utility for Windows 2000 and Windows NT 4.0
3R-Q411A-AA	Compaq Directory
AV-RKU9C-TE	Software License
3R-Q409A-AA	Warranty Terms and Conditions

Supported Systems

The Compaq StorageWorks 64-Bit PCI to Fibre Channel Host Bus Adapter (HBA) is supported on the Proliant family of servers, a maximum of 4 adapters per server.

The HBA is also supported in other x86 platforms. See the Restrictions section in these release notes for known device restrictions. For other supported servers, refer to the Compaq Computer Storage Works web site at: http://www.compaq.com/products

Supported Storage and Interconnecting Devices

Table 2 describes the associated components and their revisions that are qualified with the HBA.

Table 2
Supported Storage and Interconnect Devices

COMPONENT	FW/Driver Version	P/N and Comments
DS-KGPSA-CY	Firmware ddb382a1-160a4.awc	Resides on the HBA
Windows NT 4.0 mini-port driver	4-4.53a7	
Windows 2000 mini-port driver for Advanced Server	5-4.53a7	For Data Center installations the mini-port driver is on the Data Center Platform Kit.

continued

Table 2
Supported Storage and Interconnect Devices *continued*

COMPONENT	FW/Driver Version	P/N and Comments
8-Port Switch	1.6D	DS-DSGGA-AA 380591-B21
16-Port Switch		DS-DSGGA-AB 380578-B21
SAN Switch 8	2.1.9m	DS-DSGGB-AA 158222-B21
SAN Switch 16		DS-DSGGB-AB 158223-B21
SAN Switch 8-EL	2.1.9m	DS-DSGGC-AA 176219-B21
SAN Switch 16-EL		DS-DSGGC-AB 212776-B21
RA8000/ESA12000	ACS 8.6	Windows NT 4.0 and Advanced Server Platform Kit, 380551-001Windows NT 4.0 and Advanced Server Platform Kit, 380551-001
MA8000/EMA12000	ACS 8.6	
MA6000	ACS 8.6	Windows NT 4.0 and Advanced Server Platform Kit, 192214-B21
FW Upgrade Utility X386DNLD.exe	8.7a8	This utility is also used to enable the HBA BIOS.

continued

Table 2
Supported Storage and Interconnect Devices *continued*

COMPONENT	FW/Driver Version	P/N and Comments
12-Port Hub	N/A	DS-HDGGB-AA 295573-B22
7-Port Hub	N/A	DS-SWXHB-X7 234453-xxx
SWL GBIC	N/A	30-56040-01
Optical Cables (connection from HBA to Hub or Switch)	N/A	BNGBX-xx (02,05,15,30,50) 234457-B2x (xx = length in meters)

Configuration Information

- Supports mixed HBAs (KGPSA-BC/380574-001 and DS-KGPSA-CB/176479-B21) in the same host
- Maximum number of cascaded (serial) switches is 8
- Maximum number of hops is 7
- Maximum cable length between switches is 500m for SWL, 10K LWL, 100K VLD
- Supports a mix of SAN switches in the same configuration

Restrictions

64-Bit PCI to Fibre Channel Host Bus Adapter Restrictions

Adapter restrictions include:

- The minimum Revision of Windows NT 4.0 mini-port driver code is 4-4.53a7.
- The minimum Revision of Windows 2000 mini-port driver code is 5-4.53a7.
- The minimum Revision of HBA firmware for is ddb381a1-160a4.awc.
- The minimum Revision of the HBA hardware is FC1020016-02 Rev D.
- Maximum length of the OPTICAL cable from the HBA to a hub or switch is 500 meters short wave multi mode 50/125 micron Fibre Channel Cable.

Windows 2000 and Windows NT Restrictions

Restrictions include:

- The HBA is not supported on Alpha Windows NT 4.0 platforms.
- The minimum Windows NT 4.0 revision that supports the HBA adapter is Revision 4.0 with Service Pack 6.0 installed.
- The minimum Windows 2000 Advanced Server revision that supports the HBA is Build 2195 with Service Pack 2 installed.
- The HBA supports boot functionality for both Hub and Switch Topologies. Refer to your platform kit for configuration information and application notes specific to your configuration. For additional information, consult: http://www.compaq.com

- HBAs KGPSA-BC/380574-001 and DS-KGPSA-CB/176479-B21 are not supported in the same Secure Path pair of HBAs. A Secure Path pair of HBAs is defined as two HBAs that have access to the same storage devices through completely independent paths.
- Hot plug functionality is supported on this HBA. For updates, please consult the application notes at: http://www.compaq.com

Registry Settings

Table 3 contains the Windows NT 4.0 and Windows 2000 registry settings, from the OEMSetup.ini file that is shipped with the HBA kit. Additional registry settings are required as a function of the configuration the HBA is installed into. The additional registry parameter settings are automatically added, when the Fibre Channel Setup Kit is installed and also when your specific application (Secure Path, DRM, EVM; etc) is installed. Consult your Fibre Channel Setup Kit for this information.

Table 3
Registry Parameters

Parameter	Setting	Comment
Number of Requests	Dec. Value = 50	
Maximum SG List	Dec. Value = 33	
RetryIOtimeOut	1	
RetryInterval	52	
EnableDPC	1	
QueueTarget	1	
ElsRetryCount	6	
NodeTimeout	60	Standard for transparent failover mode
Topology	0	Default value for Arbitrated Loop Configurations
ScanDown	1	Valid for Arbitrated Loop Configurations

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