HP StorageWorks

QLogic host bus adapters for Integrity Linux and Windows systems release notes

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Description

These release notes contain driver, Extensible Firmware Interface (EFI), and supplemental information for the QLogic host bus adapters (HBAs) for Itanium® Linux® and Microsoft® Windows® operating systems. See "Product models" for a list of supported HBAs.

Update recommendation

Routine

Product models

- HP PCI-e single-port 4Gb FC adapter, product number AE311A
- HP PCI-e dual-port 4Gb FC adapter, product number AD300A
- HP PCI-X dual-port 4Gb FC adapter, product number AB379A
- HP StorageWorks FC1143 PCI-X 4Gb host bus adapter, product number AB429A
- HP StorageWorks Q2300 PCI-X HBA, product number A7538A (Linux only)
- HP StorageWorks A6826A PCI-X HBA, product number A6826A (Linux only)

Devices supported

The QLogic HBAs for Itanium Linux and Windows are supported on HP servers that:

- Support the Linux operating systems described in "Operating systems" on page 4. For supported Linux servers, see http://h10018.www1.hp.com/wwsolutions/linux/products/servers/itanium.html.
- Support the Windows operating systems described in "Operating systems" on page 4. For supported Windows servers, see http://h10018.www1.hp.com/wwsolutions/windows/index.html.
- Supported B-Series, C-Series, and M-Series switch products. See the HP support website for the latest firmware information for switches: http://welcome.hp.com/country/us/en/support.html. Or, see the *HP StorageWorks SAN design reference guide*, available on the website http://h18006.www1.hp.com/products/storageworks/san/documentation.html.
- Support the following storage arrays:
  - Modular Smart Array 1000
  - Modular Smart Array 1500
  - Enterprise Virtual Array 3000/5000 GL
  - Enterprise Virtual Array 4000/6000/8000 XL
  - XP12000, XP1024/128

  For the latest supported array firmware, see the HP storage array website http://h18006.www1.hp.com/storage/arraysystems.html.

Operating systems

This section describes the supported operating systems for the HBAs.

Linux

Table 1 lists the supported Linux operating systems.

Table 1 Linux operating systems

HBAs	Linux operating systems
4Gb HBAs: HP PCI-e dual-port 4Gb FC adapter, product number AD300A HP PCI-e single-port 4Gb FC adapter, product number AE311A HP PCI-X dual-port 4Gb FC adapter, product number AB379A HP StorageWorks FC1143 PCI-X 4Gb host bus adapter, product number AB429A	RHEL 4, Updates 3 and 4 SLES 9, SP3[1] SLES 10
2Gb HBAs: HP StorageWorks Q2300 PCI-X HBA, product number A7538A HP StorageWorks A6826A PCI-X HBA, product number A6826A	RHEL 3, Updates 7 and 8 RHEL 4, Updates 3 and 4 SLES 9, SP3 SLES 10

[1]Supported only on the RX7620 and RX8620

Table 2 lists supported Linux drivers, EFI, firmware, BIOS, and utilities for the HBAs.

Table 2 Linux system requirements

HBAs	Feature	Requirement
4Gb HBAs HP PCI-e dual-port 4Gb FC adapter, product number AD300A HP PCI-e single-port 4Gb FC adapter, product number AE311A HP PCI-X dual-port 4Gb FC adapter, product number AB379A HP StorageWorks FC1143 PCI-X 4Gb host bus adapter, product number AB429A	Linux driver	2.6 kernel: 7.07.05.02, 8.01.06.01
	EFI (contained in the Multiboot image)	EFI driver: 1.05 EFI utility: 2.09
	Firmware	Loaded by the driver
	BIOS	N/A
	Multiboot image	1.41
	Utility	SANsurfer utility 5.0.0b14 [1]
2Gb HBAs HP StorageWorks Q2300 PCI-X HBA, product number A7538A HP StorageWorks A6826A PCI-X HBA, product number A6826A	Linux drivers	2.4 kernel: 7.07.05.02 and 7.07.05.01_hp1 2.6 kernel: 8.01.06.01 and 8.01.06
	EFI	EFI driver: 1.49 EFI utility: 2.07
	Firmware	Loaded by the driver
	BIOS	N/A
	Utility	SANsurfer utility: 5.0.0b14[1]

[1]See "Restrictions" on page 6 for SANsurfer restrictions.

Windows

Table 3 lists the supported Windows operating systems.

Table 3 Windows operating systems

HBAs	Windows operating systems
4Gb HBAs: HP PCI-e dual-port 4Gb FC adapter, product number AD300A HP PCI-e single-port 4Gb FC adapter, product number AE311A HP PCI-X dual-port 4Gb FC adapter, product number AB379A HP StorageWorks FC1143 PCI-X 4Gb host bus adapter, product number AB429A	Standard and Enterprise editions of Windows Server 2003 SP1 for Itanium-based systems[1]

[1]If you are using the Storport miniport driver with Windows Server 2003, with or without SP1, you need Microsoft hot fix QFE-916048. This hot fix contains updates for Microsoft's `storport.sys` driver. To obtain the QFE, see the website http://support.microsoft.com/kb/916048.

Table 4 lists supported Windows drivers, EFI, firmware, BIOS, and utilities for the HBAs.

Table 4 Windows system requirements

HBAs	Feature	Requirement
4Gb HBAs: HP PCI-e dual-port 4Gb FC adapter, product number AD300A HP PCI-e single-port 4Gb FC adapter, product number AE311A HP PCI-X dual-port 4Gb FC adapter, product number AB379A HP StorageWorks FC1143 PCI-X 4Gb host bus adapter, product number AB429A	EFI (contained in the Multiboot image)	EFI driver: 1.05 EFI utility: 2.09
	Windows driver	Storport miniport 9.1.0.18
	Firmware	Loaded by the driver.
	BIOS	N/A
	Multiboot image	1.41
	Utility	SANsurfer 2.0.30.b78[1]

[1]See "Restrictions" on page 6 for SANsurfer restrictions.

Languages

American English

Prerequisites

Before you perform HBA updates, you must:

- Ensure that the system is running one of the operating system versions in "Operating systems" on page 4.
- See the HP server PCI slot specifications to determine if your server is compatible with these HBAs.
- If you are installing the Linux operating system for the first time, load the operating system and then download and install the supported Linux HBA driver from the HP website http://welcome.hp.com/country/us/en/support.html.

Important information

Restrictions

The following restrictions apply:

- When presenting XP LUNs to a Linux host, the LUNs must start with a LUN 0.

SANSurfer limitations

- Refresh button functionality is not currently suported. If LUNS are added, you can either reload the application or disconnect, then reconnect.
- As a safety mechanism, the SANsurfer application does not retain any updates when the user abruptly quits using the **Close/Exit** button. Users must click on the **Save** button for any changes or edits made to the HBA.

Invalid Linux error messages

- When booting Integrity servers with HP PCI-X dual-port 4Gb FC adapter, (product number AB379A), you may see the following message:

  ```
  unknown symbol in library
  ```

  Ignore the message.

- When running the `scsi_info` command on older XP arrays (such as the XP1024/128), you may see output similar to that shown in the following example. Ignore the error, and note that the XP array's WWN is not all zeros.

  The XP array returns INQUIRY data that differs slightly from that returned by EVA or MSA arrays.

  ```
  [root@coco /]# scsi_info /dev/sdal SCSI_ID="4,0,8,0":
  VENDOR="HP":MODEL="OPEN-

  E":FW_REV="5005":WWN="0000000000000000":LUN="5235303020303030-
  3130353930203030"

  [root@coco /]# scsi_info /dev/sdam

  SCSI_ID="4,0,8,1":VENDOR="HP":MODEL="OPEN-

  E":FW_REV="5005":WWN="0000000000000000":LUN="5235303020303030-
  3130353930203030"

  [root@coco /]# scsi_info /dev/sdan

  SCSI_ID="4,0,9,0":VENDOR="HP":MODEL="OPEN-
  3":FW_REV="2114":WWN="03000000002018e9":LUN="5234353120303030-
  3330313033203030"

  [root@coco /]# scsi_info /dev/sdao SCSI_ID="4,0,9,1":VEN-
  DOR="HP":MODEL="OPEN-

  3":FW_REV="2114":WWN="0b00000000600000":LUN="5234353120303030-
  3330313033203030"
  ```

Compatibility and interoperability

- The HBAs support the servers and switches described in "Devices supported" on page 3, and support the operating systems described in "Operating systems" on page 4.
- HP recommends that you implement zoning with HBAs, as described in *HP StorageWorks SAN design reference guide*, available on the website http://h18006.www1.hp.com/products/storageworks/san/documentation.html

Determining the current version

This section describes how to determine the HBA driver and firmware versions.

Using SANsurfer

To determine version information on Windows or Linux systems:

1. Open SANsurfer.
2. Click an HBA in the left pane to select it.
3. Click the **Information** tab in the right pane to view the HBA's version information.

Using the Linux more command

To determine version information on Linux systems enter the following `more` command:

`more /proc/scsi/qla2xxx/*`

Effective date

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