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HPE Brocade Fibre Channel Host Bus Adapters Release Notes

Abstract

This document contains information for the HPE-branded Brocade Fibre Channel host bus adapters (HBAs) for ProLiant servers using Windows, Linux, and VMware operating systems. The information in this document supplements and/or supersedes all other documentation pertaining to the use of HPE-branded Brocade Fibre Channel HBAs.

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Product models

The following HBAs are supported on ProLiant servers using Windows, Linux, and VMware:

- 804 8-Gb FC HBA for HPE BladeSystem c-Class mezzanine card (product number 590647-B21)
- 81B PCIe 8-Gb FC single port HBA (product number AP769A/AP769B)
- 82B PCIe 8-Gb FC dual port HBA (product number AP770A/AP770B)
- 41B PCIe 4-Gb FC single port HBA (product number AP767A/AP767B)
- 42B PCIe 4-Gb FC dual port HBA (product number AP768A/AP768B)

NOTE: The Restriction of Hazardous Substances Directive (RoHS) is a European Union directive that restricts the use of certain hazardous materials in the manufacture of electronic and electrical equipment. The AP7xxB models listed in this document are functionally equivalent to, and interchangeable with the AP7xxA models.

User documentation

Documentation, including installation manuals and user guides for Branded Brocade HBAs and Brocade release notes is available on the following websites:

- HPE PCIe 8-Gb HBA and 8-Gb FC HBA for BladeSystem c-Class:
<http://www.hpe.com/info/8gbPCIHBA-manuals>
- PCIe 4-Gb HBA:
<http://www.hpe.com/info/4gbPCIHBA-manuals>

Devices supported

This section lists where you can obtain the latest information about devices supported with Branded Brocade Fibre Channel HBAs and mezzanine cards for Windows, Linux, and VMware.

- For the latest information about supported servers, see the website:
<http://www.hpe.com>
- For the latest information on supported switch products and storage array support, see the SPOCK website:
<http://www.hpe.com/storage/spock>

You must sign up for an HP Passport to enable access.

Operating systems

For the latest information about supported HBAs and mezzanine cards listed by operating systems, see the SPOCK website:

<http://www.hpe.com/storage/spock>

You must sign up for an HP Passport to enable access. From the web page, click **HBA Software Support Matrix**, and then select your operating system.

NOTE: For important information about performing kernel upgrades on SLES 11 SP1, see “Workarounds” (page 6).

Installation and upgrade notes

PSP or SPP for Windows

Installing ProLiant Support Pack (PSP) or Service Pack for ProLiant (SPP) after the Brocade driver is installed (including the Driver Update Disk) might result in an unintentional downgrade of the Brocade driver. You can avoid this as follows:

When the PSP/SPP installer displays a list of drivers to install, clear the check box for the **Brocade STORport Fibre Channel Host Bus Adapter Driver for Microsoft Windows Server**.

Brocade HCM

Installing the Brocade HCM and driver can take more than 30 minutes in large SAN configurations. This is expected behavior.

Important notes and workarounds

This section contains information that you should consider before you use Branded Brocade Fibre Channel HBAs and mezzanine cards for ProLiant servers.

Documentation correction

There is an error in the upgrading BIOS instructions in the HPE Brocade host bus adapters installation guide published in March 2012. The offline upgrade procedure, step 13 uses the command `upload` where it should use the `update` command. The correct text is:

Use one of the following commands to update the HBA boot code:

- To update HBA boot code in all adapters in the server, enter the BCU command:

```
# bcu boot --update image_file -a
```

- To update HBA boot code in a single adapter, enter the BCU command:

```
# bcu boot --update adapter_id image_file
```

where:

adapter_id is the ID of the adapter (HBA) to update.

image_file is the name of the firmware image file.

`-a` indicates that the boot code should be updated in all installed Brocade HBAs on the host.

NOTE: Do not provide the adapter ID if the `-a` option is specified.

Examples:

Upgrade HBA boot code for HBA 1:

```
#bcu boot --update 1 bfa_boot_fw
```

Upgrade HBA boot code for all HBAs:

```
#bcu boot --update bfa_boot_fw -a
```

Recommendations and considerations

For optimal performance, Hewlett Packard Enterprise recommends the following:

- Use zoning by HBA, as described in the HPE SAN design reference guide, available at <http://www.hpe.com/info/sdgmanuals>.
- For information and best practices for configuring SANs, see the SAN design reference guide, available at <http://www.hpe.com/info/sdgmanuals>.

Product compatibility

Consider the following:

- Hewlett Packard Enterprise requires that the HBA BIOS be disabled on HBAs that are not part of BFS.
- Branded Brocade HBAs have the default BIOS option set to `Auto Discovery`. If you do not want to use this feature, change the BIOS option to `Flash`. For more information, see the [brocade adapters installation and reference manual, Configuring boot over SAN section](#).

NOTE: Hewlett Packard Enterprise recommends that you not use the `Boot first LUN` option.

- Do not load BIOS versions 3.0.3.0 or 3.0.3.4 on a server configured for direct connect to the P2000 G3 MSA.
- If you have an MSA2000/2300 configured with LUN 0 as a data LUN, you must reboot to discover LUN 0.
- Heterogeneous vendor Fibre Channel HBAs are not supported on the same server.
- BFS is not supported with the DL165 G7.

Windows

- Windows requires the following hotfixes:
 - Windows 2003 R2 SP2 with QFE932755 – x86 and x64
 - Windows 2008 and Microsoft native MPIO DSM with QFE976748 – x86 and x64
- Hewlett Packard Enterprise recommends that you install the following hotfixes:
 - Windows 2003 R2 SP2 with QFE943545 - x86 and x64
 - Windows 2008 with QFE968675 - x86 and x64 (unless you have already installed QFE976748)
- Hewlett Packard Enterprise recommends that you set the MSA2x00 path timeout value for Windows to 60 using the Host Connectivity Manager as follows:
 1. Right-click the HBA.
 2. From the menu, select **Port Configuration**→**Basic**.
 3. Ensure that the **MPIO mode enable** box is not selected.
 4. Change the path timeout value to **60**.
- Capturing a complete kernel and memory dump on Windows systems can fail if the memory size is greater than the allocated dump size. For more information, see the Microsoft KB article, available at <http://support.microsoft.com/kb/254649>.

Linux

- In multipathing configurations for Linux servers, Hewlett Packard Enterprise recommends that you set the timeout value to 14 seconds for driver version 2.x.x.x or later as follows:

```
# bcu fcpim --pathtov port_ID 14
```
- ReiserFS file systems can exhibit unexpected behavior under heavy loads. For up-to-date recommendations, see the Novell Support website <http://support.novell.com/>.
- HPE ProLiant servers can require use of an external USB CD/DVD to load the driver update disk for BFS installations.
- Hewlett Packard Enterprise does not support the use of `.ext2` file system on any Linux operating system.

- The Brocade SLES 11 in-box driver is not supported with all Branded Brocade HBAs and mezzanine cards. To avoid any inconvenience, be sure to use the latest drivers and DUD kits posted on the Hewlett Packard Enterprise website.
- Linux does not support BFS on an MSA2000 G1.
- Before installing, upgrading, or removing Brocade drivers on Linux systems, back up the RAMDISK.
- If a `WARNING: No module bfa found for kernel` message is displayed during the installation of a kernel errata on any version of Red Hat Enterprise Linux, you can ignore the warning. The previously installed bfa driver automatically binds with the new kernel.
- If you are running an RHEL operating system, Hewlett Packard Enterprise recommends that you disable BIOS Remote Console. This can be done by accessing the `Advanced/Remote Access Configuration/BIOS Remote Console = Disabled` parameter in the server RBSU.

Workarounds

- The PXE boot option might not appear on some servers when Brocade HBA BIOS is configured to BFS. If a PXE boot is required, you can reboot the server and press the **x** key to skip the HBA BIOS.

Alternatively, you can use the following workaround:

1. Press **F9** to enter the System BIOS setup.
2. Select **Advance Options**.
3. Select **Option ROM Loading Sequence**.
4. Select **Load Embedded Device First**.
5. Save and exit.

Linux

- In a system running RHEL 6.2 with Active-State Power Management enabled, heartbeats to the Brocade storage adapter can fail under heavy load, and an `IOC heartbeat failure` error message appears in `/var/log/messages` file. This issue can be resolved by setting `pcie_aspm=off` in the `/boot/grub/menu.lst` file.
- Use one of the following methods to update Errata kernel on SLES 11 SP1:
 - Enter the `rpm -ivh filename` command.
There are no additional steps required.
 - Use the `rpm -Uvh` command or YaST as follows:
 1. Upgrade the kernel by entering the `rpm -Uvh` command or use `yast`.
 2. Run the Brocade Adapter Software Installer (BASI) to install the driver.
 3. Ensure the boot order in `/boot/grub/menu.lst` is set to boot from the newly installed kernel.
 4. Reboot the server.
- If the `lspci` output does not display information correctly for the Branded Brocade mezzanine card, update the PCI-IDs using the `update-pciids` command. For more information, see the OS documentation.

Effective date

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Documentation feedback

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