

Brocade 4Gb SAN Switch for HP c-Class BladeSystem installation instructions



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Third edition June 2007
Printed in China
www.hp.com



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Overview

Read these instructions to install the Brocade 4Gb SAN Switch in HP c-Class BladeSystem enclosures.

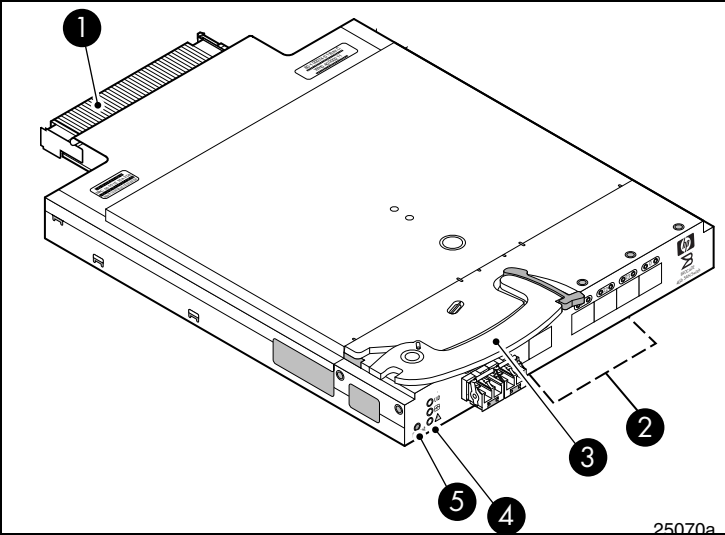
NOTE: The Brocade 4Gb SAN Switch refers to those Brocade Fibre Channel (FC) switch modules compatible with the HP c-Class BladeSystem only.

Kit contents

The Brocade 4Gb SAN Switch kit contains:

- Brocade 4Gb SAN Switch for HP c-Class BladeSystem installation instructions
- Small bag containing black, plastic SFP dust covers that must be inserted in ports where Small Form-factor Pluggable (SFP) optical transceivers are not installed.
- One Brocade 4Gb SAN Switch with two or four Small Form-factor Pluggable (SFP) optical transceivers installed. Models include:
 - Brocade 4/12 SAN Switch for HP c-Class BladeSystem with twelve active ports (ships with two Short Wavelength (SWL) 4Gb SFPs installed, as shown in Figure 1)
 - Brocade 4/24 SAN Switch for HP c-Class BladeSystem with sixteen internal and eight external active ports (ships with four 4Gb SFPs installed)
 - Brocade 4/24 SAN Switch Power Pack for HP c-Class BladeSystem with sixteen internal and eight external active ports (ships with four 4Gb SFPs installed)

Figure 1 Brocade 4Gb SAN Switch with two SFPs installed



| Item | Description |
|------|--|
| 1 | Midplane connector |
| 2 | Eight external FC ports |
| 3 | Installation handle |
| 4 | Unit ID (UID), Health LED, and Status LEDs |
| 5 | Reset button |

Additional information

See the *HP BladeSystem enclosure setup and installation guide* provided with your enclosure for more information on the association between the server mezzanine bays and the enclosure interconnect bays.

For example, where you install the mezzanine card will determine where you need to install interconnect modules like the Brocade 4Gb SAN Switch.

Also access additional component information:

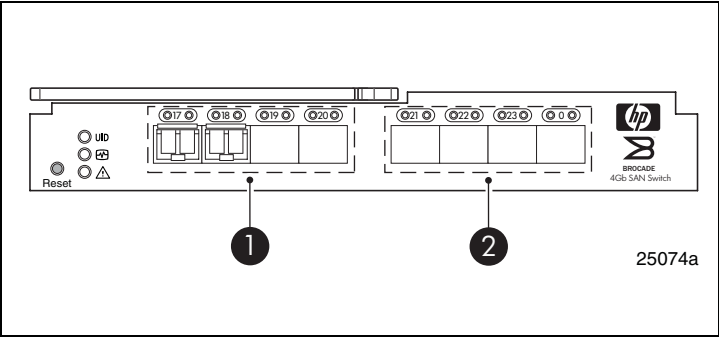
<http://www.hp.com/go/bladesystem/interconnects>

<http://www.hp.com/go/bladesystem/documentation>

4Gb SAN Switch connection identification

Figure 2 shows the external ports for the Brocade 4Gb SAN Switch.

Figure 2 External ports



| Item | Description |
|------|-----------------------------------|
| 1 | Left bank – ports 17, 18, 19, 20 |
| 2 | Right bank – ports 21, 22, 23, 24 |

NOTE: Refer to the *HP BladeSystem enclosure setup and installation guide* provided with your enclosure for specific information on BladeSystem enclosure internal port mapping.

Install the 4Gb SAN Switch

Install the Brocade 4Gb SAN Switch into the enclosure.

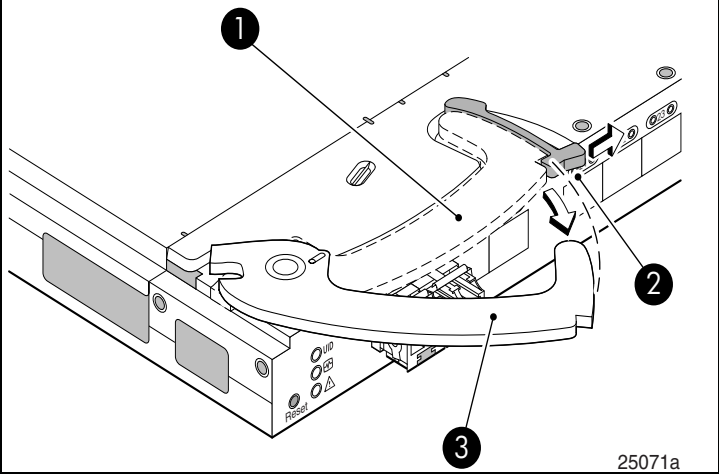
1. For help identifying your specific enclosure setup and available connections, obtain the *HP BladeSystem enclosure setup and installation guide* provided with your enclosure, or access from:
<http://www.hp.com/go/bladesystem/documentation>
2. Locate the appropriate interconnect bay in the rear of the enclosure per the *HP BladeSystem enclosure setup and installation guide*.

NOTE: Populate all enclosure interconnect bays with either a switch, Pass-Thru or one of the blank panels provided.

CAUTION: Properly ground yourself before handling the switch.

3. Press the handle latch to release the installation handle. See Figure 3.

Figure 3 Releasing the installation handle

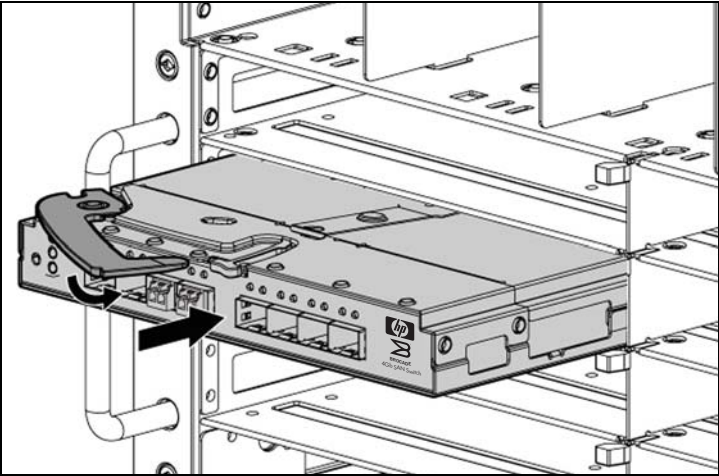


| Item | Description |
|------|---|
| 1 | Installation handle in latched position |
| 2 | Handle latch |
| 3 | Installation handle (released) |

NOTE: The Brocade 4Gb SAN Switch is a hot-pluggable device. The enclosure power may be on or off during install.

4. Align the Brocade 4Gb SAN Switch with the appropriate interconnect bay according to your enclosure's specific configuration. Push firmly into the interconnect bay (see Figure 4).

Figure 4 Installing the Brocade 4Gb SAN Switch into an interconnect bay



5. Press the installation handle into the latch to lock the Brocade 4Gb SAN Switch in place.

Verify configuration

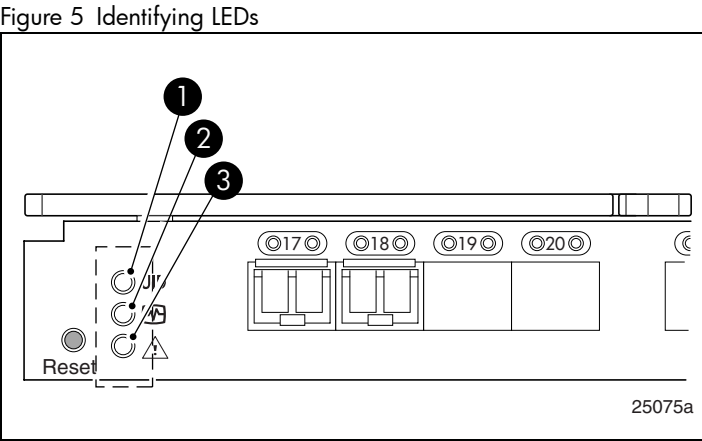
The HP Onboard Administrator is the enclosure management module used to support and manage the HP c-Class BladeSystem and all managed devices used in the enclosure.

Once the switch is installed in the interconnect bay, the OA verifies that the switch type matches the mezzanine cards present on the servers. If there is no mismatch, the OA powers up the switch.

If the switch does not power up, check the enclosure and switch status using the OA web interface. Refer to *HP BladeSystem Onboard Administrator user guide*.

Check LEDs

Locate LEDs as shown in Figure 5. Check LEDs per the indicators described in the following table.



| Item | Description | Indicators |
|------|-------------------|--------------------|
| 1 | UID LED | Off |
| 2 | Health ID LED | Steady green light |
| 3 | Module Status LED | Steady green light |

Set the switch Ethernet IP address

NOTE: The switch supports DHCP beginning with v5.2.1b firmware. For switch rev C or greater (see case label), DHCP is enabled by default, simplifying multiple switch installations.

To enable or disable this feature, login with these default credentials and issue the ipaddrset command :

```
username: admin
password: password
```

To set the Ethernet IP address:

1. Verify that the enclosure is powered on.
2. Verify that the switch is installed.
3. Choose one of the following methods to set the Ethernet IP address:
 - Using Enclosure Bay IP Addressing (EBIPA)
 - Using External DHCP
 - Setting the IP address manually

Using Enclosure Bay IP Addressing (EBIPA)

To set the Ethernet IP address using EBIPA:

1. Connect to the active OA via a web browser.
2. Enable EBIPA for the corresponding interconnect bay.
3. Click the **Apply** button to restart the switch.
4. Verify the IP address using a telnet or ssh login to the switch, or by selecting the switch in the **OA GUI Rack Overview** window.

NOTE: Refer to the *HP BladeSystem Onboard Administrator User Guide* for additional information on EBIPA.

Using External DHCP

To set the Ethernet IP address using external DHCP:

1. Connect to the active OA via a web browser.
2. Document the DHCP-assigned address by selecting the switch from the **GUI Rack Overview** window.
3. Verify the IP address using a telnet or ssh login to the switch, or by selecting the switch in the **OA GUI Rack Overview** window.

Setting the IP address manually

To set the IP address manually:

1. If switch IP address is known, log into the switch with telnet or ssh
Or
2. Log into the active OA via telnet, ssh, or serial null modem cable.
 - a. Use the `connect interconnect` command (documented in the OA User Guide) to connect to the switch bay and log into the switch.
3. Apply a static IP address to the switch using the `ipaddrset` command. Refer to the *Brocade 4Gb SAN Switch for HP c-Class BladeSystem user guide* for specific procedures. Access from the Brocade 4Gb SAN Switch product web page:

<http://www.hp.com/go/storageworks/4gbswitchforc-classbla desystem>

4. Verify the IP address as described above.

Firmware update

To achieve best performance, HP recommends running the latest firmware release. Obtain the most current Fabric OS firmware, configuration files and MIB files that support this switch from the following HP web site:

<http://www.hp.com/go/storageworks/4gbswitchforc-classbla desystem>

To download firmware from the web to another computer (like an FTP server):

NOTE: Web retrieval procedures may be subject to change.

1. Go to the **Support** section, located on the far right side of the web page. Click **Software & drivers**.
2. Locate the **Tasks for Brocade 4Gb SAN Switch for HP c-Class BladeSystem** section.
3. Click **Download drivers and software**.
 - a. Select the applicable switch model.

- b. Go to the Select Operating System section. Click **Cross operating system (BIOS, Firmware, Diagnostics, etc.)**
 - c. Scroll down to the firmware section of the web page and locate the Firmware table.
 - d. Locate the latest firmware.
 - e. Click **Download button>>** in the last column and follow the prompts in the File Download dialog box.
4. To download the code from an FTP server to the switch, connect an Ethernet cable from the FTP server to the iLO RJ45 on the active OA.
 5. Telnet to the switch and issue `firmwaredownload` at the command line.

Configure the Brocade 4Gb SAN Switch

Set Brocade 4Gb SAN Switch parameters via the following management tools:

- Command Line Interface (CLI)
- Advanced Web Tools Graphical User Interface (GUI)

Refer to the *Brocade 4Gb SAN Switch for HP c-Class BladeSystem user guide* for specific procedures. Access from the Brocade 4Gb SAN Switch product web page:

<http://www.hp.com/go/storageworks/4gbswitchforc-classbla desystem>

Related documentation

The most current documentation for interconnects and other HP BladeSystem c-Class components is available at the following web site:

<http://www.hp.com/go/ bladesystem/documentation>

In addition, refer to the *HP StorageWorks SAN Design reference guide* for HP Storage Area Network (SAN) configuration guidelines:

<http://h18000.www1.hp.com/products/storageworks/san/d ocumentation.html>

Access future product updates

HP strongly recommends that customers sign up online using the Subscriber's choice web site:

<http://www.hp.com/go/e-updates>

Subscribing to this service provides you with e-mail updates on the latest product enhancements, newest versions of drivers, and firmware documentation updates as well as instant access to numerous other product resources.

Quick specs

The following table lists Brocade 4Gb SAN Switch technical specifications.

| Specification | Description |
|------------------------------------|---|
| Height | 29.3 mm (1.15 in) |
| Depth | 280 mm (11.02 in) |
| Width | 208 mm (8.19 in) |
| Weight | 1.27 kg (2.8 lb) |
| Temperature range during operation | 10° to 35°C (50° to 95°F) |
| Air flow | Normal: provided by enclosure |
| Media types | Hot-pluggable, industry-standard SFPs; Short-wave Laser (SWL), up to 500 m (1,640 ft.) |
| Configurable port types | F_Port, FL_Port, and E_Port |
| System architecture | Non-blocking shared memory switch |
| Modes of operation | FC Class 2, Class 3 Class F |
| Port-to-port latency | Less than 2 microseconds with no contention (destination port is free) |
| Power | 35 Watts; Provided by the HP BladeSystem enclosure. No other power requirement or provision exists. |

Waste Electrical and Electronic Equipment (WEEE) Recycling Notice

Disposal of waste equipment by users in private households in the European Union



This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.