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Enterprise

HPE Emulex Adapters Release Notes

Abstract

This document contains supplemental information for the Emulex Fibre Channel Host Bus Adapters (HBAs) and Converged Network Adapters (CNAs) for ProLiant and Integrity servers.

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New Features

This release supports the following adapters:

- HPE StoreFabric SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

Product models

This section lists the HBAs and CNAs that are supported on ProLiant and Integrity servers. Although CNAs have FCoE, NIC, and iSCSI functionality, this document addresses FCoE functionality only.

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.

Table 1: Supported CNAs and server LOMs

Model
CNA
HPE StoreFabric CN1200E-T 10GBASE-T Converged Network Adapter (N3U51A)
HPE FlexFabric 10Gb 2-port 556FLR-T Adapter (ALOM) (794525-B21)
HPE CN1100E Dual Port Converged Network Adapter (BK835A)
HPE CN1000E Dual Port Converged Network Adapter (AW520A/AW520B)
HPE FlexFabric 10Gb 2-port 554M Adapter (647590-B21)
HPE CN1200E Dual Port Converged Network Adapter (E7Y06A)
HPE FlexFabric 20Gb 2-port 650M Adapter (700767-B21)
Server LOM
HPE Flexfabric 556FLR-T Dual Port 10GbaseT Adapter (ALOM) (794525-B21)
Embedded NC553i Dual Port FlexFabric 10-Gb Converged Network Adapter
HPE FlexFabric 10Gb 2-port 554FLB Adapter (647586-B21)
HPE FlexFabric 10Gb 2-port 554FLR-SFP+ Adapter (629142-B21)

Table Continued

Model
HPE FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter (727060-B21)
HPE FlexFabric 20Gb 2-port 650FLB Adapter (700763-B21)

Table 2: Supported HBAs and mezzanine cards

Model
32-Gb HBAs and mezzanine cards
HPE StoreFabric SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter (Q0L11A)
HPE StoreFabric SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter (Q0L12A)
16-Gb HBAs and mezzanine cards
HPE StoreFabric SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter (Q0L13A)
HPE StoreFabric SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter (Q0L14A)
HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter (777454-B21)
HPE SN1000E 16Gb Fibre Channel Host Bus Adapter—single port (QR558A)
HPE SN1000E 16Gb Fibre Channel Host Bus Adapter—dual port (QR559A)
HPE SN1100E 16Gb Fibre Channel Host Bus Adapter—single port (CR838A)
HPE SN1100E 16Gb Fibre Channel Host Bus Adapter—dual port (CR839A)
HPE SN1100E 16Gb Fibre Channel Host Bus Adapter—quad port (P9D99A)
HPE LPe1605 16Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class (718203-B21) ¹
8-Gb HBAs and mezzanine cards
HPE LPe1205A 8Gb FC HBA for BladeSystem c-Class (659818-B21) ¹
Emulex LPe1205 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem (456972-B21) ²
HPE StoreFabric 84E 4-port 8Gb Fibre Channel Host Bus Adapter (E7Y63A)
HPE 81E 8Gb 1-port PCIe Fibre Channel Host Bus Adapter (AJ762A/AJ762B)
HPE 82E 8Gb 2-port PCIe Fibre Channel Host Bus Adapter (AJ763A/AJ763B)
HPE PCIe 1-port 8-Gb Fibre Channel HBA (AH402A)
HPE PCIe 2-port 8-Gb Fibre Channel HBA (AH403A)

¹ The HPE LPe1205A and LPe1605 mezzanine cards are supported in Gen8/Gen9 blade servers only.

Model

² The LPe1205 is supported on most G7 and earlier ProLiant blade servers with the exception of BL465G6 and BL495G6.

Table Continued

Additional resources

Hewlett Packard Enterprise maintains the SPOCK website as the primary source of detailed information about Hewlett Packard Enterprise storage product configurations, including operating system, software, and firmware version support. For the latest information about storage array support, see the SPOCK website at <http://www.hpe.com/storage/spock>. It is essential to sign up for HP Passport to enable access.

Some HBA/CNA download kits include a `readme.txt` file that may contain additional information about installing firmware and drivers, plus enhancements and fixes in the current release. Information in the `readme.txt` file supersedes this and other HPE Emulex documents.

Adapter installation instructions

For information on installing CNAs, see Emulex converged network adapter installation guide. For information on installing HBAs, see Emulex fibre channel host bus adapter and driver installation guide. To download either of these guides:

Procedure

1. Go to <http://www.hpe.com/support/hpesc>.
2. Using the Hewlett Packard Enterprise model number as a guide, enter the adapter model number in the **Search products** box, and then click **>>**.

ⓘ **IMPORTANT:**

If both CNAs and Fibre Channel HBAs are installed in a Linux system, use the `lpfc` driver for both types of cards. If both CNAs and Fibre Channel HBAs are installed in a Windows system, install the FCoE CNA driver and the Fibre Channel HBA driver.

Important notes and workarounds

This section describes restrictions, notes, and issue workarounds for Emulex CNA/HBA adapters.

HPE LPe1205A BIOS speed

The LPe1205A BIOS does not auto-negotiate to the highest possible speed when the adapter is installed in a BL465 Gen8 server. When searching for targets, the Boot BIOS negotiates to the next-highest speed (4 Gb for 8 Gb connections or 2 Gb for 4 Gb connections). When the operating system driver comes online, the link re-negotiates to the expected speed.

SN1000E 16 Gb HBA support

The SN1000E 16 Gb HBA does not support 2 Mb transfer sizes.

Running FCoE on CNAs

When a CNA is configured for FCoE, you must enable the network boot on all NIC ports in order to detect LUNs. Use the server RBSU Embedded NICs menu to enable the network boot. In a blade environment, if FCoE is configured with Virtual Connect (VC), VC enables network boot in the RBSU automatically.

HPE Fibre Channel Enablement Kit and OneCommand Manager Application interoperability

The HPE Fibre Channel Enablement Kit and OneCommand Manager both install API libraries and can be used individually. For those configurations using both kits, Hewlett Packard Enterprise recommends to install the Enablement Kit before installing OneCommand Manager. When uninstalling, Hewlett Packard Enterprise recommends to remove OneCommand Manager before removing the Enablement Kit.

C-series Converged Network Switch requirement

When using a C-series Converged Network Switch (HPE Nexus 5000) with the Virtual Connect FlexFabric 10-Gb/24-port module, NPIV must be enabled on the C-series switch.

FLOGI failure during device discovery

Specific configurations (such as direct attach storage using FC-AL) of Emulex driver during boot, or whenever device discovery occurs, can post the following message:

```
FLOGI failure status:x3/x18 TMO:x0
```

The order of the device discovery function, where it is fabric first, then loop, causes this message to appear. This message can be ignored if the driver successfully connects to FC-AL device.

ReiserFS limitation

ReiserFS file systems can exhibit unexpected behavior under heavy loads. Hewlett Packard Enterprise recommends to use either the `xf`s or `ext3` file system. For up-to-date recommendations, see the Novell website:

<http://support.novell.com/>

High availability recommendation

Hewlett Packard Enterprise recommends to use the `ext3` file system in high availability (HA) environments. For information on how to use other Linux file systems in an HA environment, see SLES 11 administration guide, available at the Novell website <http://www.novell.com/documentation/sles11> and the *Red Hat Deployment Guide*, available at the Red Hat website <http://www.redhat.com>.

For information on the differences between `ext2` and `ext3`, see the operating system documentation.

LUN discovery

Because the order in which a switch reports Fibre Channel ports to a name server can vary, the order in which LUNs are discovered can vary between system boots.

Hewlett Packard Enterprise recommends to use the `udev` utility to ensure that the name of a device does not change between system boots. For more information, see the `udev` website:

<http://www.kernel.org/pub/linux/utils/kernel/hotplug/udev.html>

XP LUNs

XP LUNs presented to Linux hosts must start with LUN 0.

Dynamic LUN addition and removal

Dynamic LUN addition and removal are supported. However, the ability to dynamically add a new LUN (or a LUN that has been previously removed) using the LUN number of a previously removed LUN is not supported. Dynamic target addition, which is defined as adding a new Fibre Channel target (such as adding a new storage array) to a SAN, is also not supported. The ability to present the new target to a Fibre Channel

HBA, and then prompt the operating system to do an online scan (such as using the `hp_rescan` utility that comes with `fibretutils`) is not supported with the Emulex failover driver (MultiPulse). If adding a new Fibre Channel target to a host server, rebooting that server is necessary.

Configuring Virtual Fibre Channel in Windows 2012 and 2016 Hyper-V

When configuring Virtual Fibre Channel in Microsoft Windows 2012 and 2016 Hyper-V, all ports on the Converged Network Adapter must have NPIV enabled.

Documentation feedback

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