VMware Deliverable Release Notes

Service Pack for ProLiant 2018.06.0 Release Notes for VMware vSphere 6.5

This is a subset of information from the Service Pack for ProLiant Component Release Notes that only includes information for VMware deliverables

Information for hotfixes for this SPP are available at: http://h17007.www1.hpe.com/us/en/enterprise/servers/products/service_pack/spp/index.aspx?version=2018.06.0

Driver - Network

Top

HPE Emulex 10/20 GbE Driver for VMware vSphere 6.5
Version: 2018.06.04 **(Optional)**
Filename: cp034443.compsig; cp034443.zip
Driver Name and Version:
elxnet:12.0.1115.0-1OEM.650.0.0.4598673

Important Note!

This component is intended to be used by HPE applications. It is a zip file that contains the same driver deliverable available from the vmware.com and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CP0xxxxx.xml file.

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters for VMware vSphere 6.5*, version 2018.06.01 or later, for use with this driver.

Fixes

This product addresses an error handling issue seen during driver initialization.

Supported Devices and Features

This driver supports the following network adapters:

- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-T Adapter
- HP Ethernet 10Gb 2-port 557SFP+ Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Emulex 10/20GbE iSCSI Driver for VMware vSphere 6.5
Version: 2018.06.04 **(Optional)**
Filename: cp034441.compsig; cp034441.zip
Driver Name and Version:
elxiscsi:12.0.1108.0-1OEM.650.0.0.4598673|elx-esx-libelxima.so:12.0.1108.0-03

Important Note!

This component is intended to be used by HPE applications. It is a zip file that contains the same driver deliverable available from the vmware.com and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CP0xxxxx.xml file.

HPE recommends the firmware provided in *HPE Firmware Flash for Emulex Converged Network Adapters for VMware vSphere 6.5*, version 2018.06.01 or later, for use with this driver.

Fixes

This product is updated to maintain compatibility with firmware version 12.0.1086.x.

Supported Devices and Features

These drivers support the following network adapters:

- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-T Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Intel i40en Driver for VMware vSphere 6.5
Version: 2018.06.04 **(Optional)**
Filename: cp034524.compsig; cp034524.zip
Driver Name and Version:
i40en:1.5.8-1OEM.650.0.0.4598673

Important Note!

This component is intended to be used by HPE applications. It is a zip file that contains the same driver deliverable available from the vmware.com and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CP0xxxxx.xml file.

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for VMware*, version 3.7.8 or later, for use with this driver.

Fixes

This product addresses an issue where system management IP is lost after a firmware update on an HPE Ethernet 10Gb 2-port 562SFP+ Adapter or an HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 1Gb 2-port 368FLR-MMT Adapter
- HPE Ethernet 1Gb 2-port 368i Adapter
- HPE Ethernet 1Gb 4-port 369i Adapter
- HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- HPE Ethernet 10Gb 2-port 562SFP+ Adapter
- HPE Ethernet 10Gb 2-port 568i Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter

HPE Intel igbn Driver for VMware vSphere 6.5
Version: 2018.02.12 **(Optional)**
Filename: cp030155.compsig; cp030155.zip
Driver Name and Version:
igbn:1.4.1-1OEM.600.0.0.2768847

Important Note!

This component is intended to be used by HPE applications. It is a zip file that contains the same driver deliverable available from the vmware.com and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CP0xxxxx.xml file.

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for VMware*, version 3.6.13 or later, for use with this driver.

Enhancements

Initial release.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter

- HP Ethernet 1Gb 4-port 366i Adapter
- HPE Ethernet 1Gb 4-port 366i Communication Board
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 4-port 366T Adapter

HPE Intel ixgben Driver for VMware vSphere 6.5
Version: 2018.02.12 **(Optional)**
Filename: cp030156.compsig; cp030156.zip
Driver Name and Version:
ixgben:1.6.5-1OEM.600.0.0.2768847

Important Note!

This component is intended to be used by HPE applications. It is a zip file that contains the same driver deliverable available from the vmware.com and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CP0xxxxx.xml file.

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for VMware*, version 3.6.13 or later, for use with this driver.

Enhancements

Initial release.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HPE Ethernet 10Gb 2-port 562FLR-T Adapter
- HPE Ethernet 10Gb 2-port 562T Adapter

HPE QLogic FastLinQ 10/25/50 GbE Multifunction Driver for VMware vSphere 6.5
Version: 2018.06.04 **(Optional)**
Filename: cp033820.compsig; cp033820.zip
Driver Name and Version:
qedentv:3.9.17.1-1OEM.650.0.0.4598673|qedrntv:3.9.17.0-1OEM.650.0.0.4598673

Important Note!

This component is intended to be used by HPE applications. It is a zip file that contains the same driver deliverable available from the vmware.com and the HPE vibsdepot.hp.com webpages, plus an HPE specific CP0xxxxx.xml file.

HPE recommends the firmware provided in *HPE QLogic FastLinQ Online Firmware Upgrade Utility for VMware*, version 4.6.24 or later, for use with this driver.

Fixes

This product resolves an issue where the system hangs during reboot.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T Adapter
- HPE Ethernet 4x25Gb 1-port 620QSFP28 Adapter
- HPE Ethernet 10/25Gb 2-port 621SFP28 Adapter
- HPE Ethernet 10/25Gb 2-port 622FLR-SFP28 Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic NX2 10/20 GbE Multifunction Driver for VMware vSphere 6.5
Version: 2018.06.04 **(Optional)**
Filename: cp033991.compsig; cp033991.zip
Driver Name and Version:
qcnic:1.0.10.2-1OEM.650.0.0.4598673|qfle3i:1.0.13.0-1OEM.650.0.0.4598673|qfle3:1.0.60.3-1OEM.650.0.0.4598673|qfle3f:1.0.45.3-

1OEM.650.0.0.4598673

Important Note!

This component is intended to be used by HPE applications. It is a zip file that contains the same driver deliverable available from the vmware.com and the HPE vibsdepot.hp.com webpages, plus an HPE specific CP0xxxxx.xml file.

HPE recommends the firmware provided in *HPE QLogic NX2 Online Firmware Upgrade Utility for VMware*, version 1.21.15 or later, for use with this driver.

Fixes

- This product resolves an issue where the system hangs during reboot.
- This product addresses an issue where the FCoE link status is incorrect.
- This product resolves an Uncorrectable Machine Check Exception seen on shutdown.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP Ethernet 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 536FLB Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Dual Port Converged Network Adapter
- HPE Synergy 10Gb 2-port 2820C Converged Network Adapter
- HPE Synergy 3820C 10/20Gb Converged Network Adapter

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net-mst kernel module driver component for VMware 6.5
Version: 2018.01.22 **(Recommended)**
Filename: cp034695.compsig; cp034695.zip
Driver Name and Version:
nmst:4.9.0.38-1OEM.650.0.0.4598673

Important Note!

This component is intended to be used by HP applications. It is a zip that contains the same driver deliverable available from the HP vibsdepot.hp.com webpage, plus an HP specific CPXXXX.xml file.

Prerequisites

NA

Fixes

NMST version 4.9.0.38

Enhancements

NMST Version 4.9.0.38

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nmlx4_en driver component for VMware 6.5
Version: 2018.03.13 **(Recommended)**
Filename: cp035375.zip; cp035375_part1.compsig; cp035375_part2.compsig; cp035375_part3.compsig
Driver Name and Version:
nmlx4-core:3.16.11.6-1OEM.650.0.0.4598673
nmlx4-en:3.16.11.6-1OEM.650.0.0.4598673
nmlx4-rdma:3.16.11.6-1OEM.650.0.0.4598673

Important Note!

Known Issues:

- PFC related priority counters are always set to 0, even if the PFC mode is enabled.
- The command "esxcli network sriovnic vf stats" is not supported.

- ConnectX-3 Pro 10G adapter cards incorrectly report support for 40G speed when running the "esxcli network nic get" command.
- When the port is DOWN, the management interface "port type" field indicates one of the port types supported by the device, in the following order: TP, FIBER, DA, NONE. If the port supports several cable types, the first type in the list mentioned above will be printed.
- Managment interface port type field reports SFP-to-RJ45 cable as FIBER.
- Management interface auto negotiation field is equivalent to "esxcli network nic get -n vmnicX" field "Pause Autonegotiate".

Enhancements

Changes and New Features in driver version 3.16.11.6 included in this Smart Component:

- Updated Management Interface APIs.
- Added support for the following features:
  - VXLAN hardware offload. VXLAN hardware offload enables the traditional offloads to be performed on the encapsulated traffic. With ConnectX®-3 Pro, data center operators can decouple the overlay network layer from the physical NIC performance, thus achieving native performance in the new network architecture.
  - Packet Capture Utility: This utility duplicates all traffic, including RDMA, in its raw Ethernet form (before stripping) to a dedicated "sniffing" QP, and then passes it to an ESX drop capture point.
  - Large Send Offload (TCP Segmentation Offload)
  - Wake-On-LAN (only on supported hardware)
  - Receive Side Scaling (RSS) Queues
  - Multiple Tx/Rx rings
  - NetQueue support
  - Fixed Pass-Through
  - MSI-X

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nmlx5_en driver component for VMware ESXi 6.5
Version: 2018.01.22 **(Recommended)**
Filename: cp034604.zip; cp034604_part1.compsig; cp034604_part2.compsig
Driver Name and Version:
nmlx5-core:4.16.12.12-1OEM.650.0.0.4598673
nmlx5-rdma:4.16.12.12-1OEM.650.0.0.4598673

Important Note!

Known Issues in version 4.16.12.12:

- The maximum value of RSS must be lower than the number of CPU cores.
- The hardware can offload only up to 256 Bytes of headers.
- The "esxcli network sriovnic vf stats" command is not supported.
- Traffic cannot be sent between PV and SR-IOV VF connected to different ports on the same HCA.
- Setting the "Allow Guest MTU Change" option in vSphere Client is currently not functional. Although guest MTU changes in SR-IOV are allowed, they do not affect the port's MTU and the guest's MTU remains the same as the PF MTU.
- VST mode in ConnectX-5 SR-IOV is currently not functional.
- Geneve options length support is limited to 56 Bytes. Received packets with options length bigger than 56 Bytes are dropped.
- Interaction with ConnectX-4/ConnectX-4 Lx older firmware versions might result in the following internal firmware errors:
- Device health compromised
- synd 0x1: firmware internal error
- extSync 0x94ee
- Operations on vmnics in passthrough mode are not supported.
- The 'esxcli mellanox uplink link info -u <vmnic_name>' command reports the 'Auto negotiation' capability always as 'true'.
- Multicast and IPv6 traffic might be unstable over SR-IOV.
- Reboot is required after any SR-IOV configuration change.
- Firmware VF configuration must be N+1 (while N is the required VF number). For example: If your configuration requires 10 VFs, the firmware must be set to support 16 VFs (ESXi Limitation).
- Wake-on-LAN does not notify when invalid parameters are provided.
- Nested ESXi might not function properly.
- Device RSS fails to hash traffic to sufficient RX rings with Broadcast traffic.
- In stress condition ‘Watchdog’ may appear leading to link going up and down.
- VMs can get Call Trace upon MTU change during heavy traffic.
- Reloading the driver when the SR-IOV VFs are ON, will result in Purple Screen of Death (PSOD).
- VGT traffic over VXLAN interfaces is currently not supported.
- VMs with SR-IOV cannot be powered on when running low on available vectors.
- Occasionally, untagged traffic can pass between VMs with SR-IOV enabled when portgroup is configured for VLAN trunk range.

Fixes

The following issues have been fixed in version 4.16.12.12:

- Encapsulated traffic (VXLAN/Geneve) directed to NetQ RSS queue was not distributed through all queues’ channels, thus did

not utilize the RSS feature.

Enhancements

New features and changes in version 4.16.12.12:

- Added support for Packet Capture Utility: This utility duplicates all traffic, including RDMA, in its raw Ethernet form (before stripping) to a dedicated "sniffing" QP, and then passes it to an ESX drop capture point.
- Changed the type of the SR-IOV max_vfs module parameter from a single integer value to an array of unsigned integers.

VMware ESX 6.5 MST Drivers Offline Bundle for Mellanox Adapters
Version: 4.9.0.38 **(Recommended)**
Filename: MLNX-NMST-ESX-6.5.0-4.9.0.38.zip

Prerequisites

NA

Enhancements

VM65 nmst 4.9.0.38

Driver - Storage Controller Top

HPE Dynamic Smart Array B140i Controller Driver for VMware vSphere 6.5 (Driver Component).
Version: 2017.09.25 **(Recommended)**
Filename: cp032630.zip
Driver Name and Version:
scsi-hpdsa:5.5.0.60-1OEM.550.0.0.1331820

Important Note!

This component is intended to be used by HPE applications. It is a zip that contains the same driver deliverable available from the vmware.com and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CPXXXX.xml file.

Fixes

Fixes an issue with the physical memory above 1TB where the driver could potentially create excessive error messages in vmkernel.log.

HPE Dynamic Smart Array Controller Driver for VMware vSphere 6.5 (Bundle file).
Version: 5.5.0.60-1 **(Recommended)**
Filename: hpdsa-5.5.0.60.zip

Fixes

Fixes an issue with the physical memory above 1TB where the driver could potentially create excessive error messages in vmkernel.log.

HPE H2xx SAS/SATA Host Bus Adapter (64-bit) Driver for vSphere 6.5
Version: 15.10.07.00-1 (A) **(Optional)**
Filename: mpt2sas-15.10.07.00-esxi5.5-4778920.zip

Fixes

Change implemented in version 15.10.07.00-1(A):

- Updated to support Service Pack for ProLiant version 2017.07.0.
  Note: If driver version 15.10.07.00-1 was previously installed, then it is not necessary to upgrade to version 15.10.07.00-1(A).

Issues resolved in version 15.10.07.00-1:

- Fixes minor installation issue with the driver on VMware vSphere 6.5.

Supported Devices and Features

NOTE: HPE H221 Host Bus Adapter does not support connection to D2600, D2700, and D6000 Disk Enclosures with Gen9 servers.

HPE H2xx SAS/SATA Host Bus Adapter (64-bit) Driver for vSphere 6.5 (Driver Component).
Version: 2017.01.20 (A) **(Optional)**
Filename: cp032277.zip
Driver Name and Version:
scsi-mpt2sas:15.10.07.00-1OEM.550.0.0.1331820

Important Note!

This component is intended to be used by HPE applications. It is a zip that contains the same driver deliverable available from the vmware.com and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CPXXXX.xml file.

Fixes

Change implemented in version 2017.01.20(A):

- Updated to support Service Pack for ProLiant version 2017.07.0.
  Note: If component version 2017.01.20 was previously installed, then it is not necessary to upgrade to version 2017.01.20(A).

Issues resolved in version 2017.01.20:

- Fixes minor installation issue with the driver on VMware vSphere 6.5.

Supported Devices and Features

NOTE: HPE H221 Host Bus Adapter does not support connection to D2600, D2700, and D6000 Disk Enclosures with Gen9 servers.

HPE ProLiant Smart Array Controller Driver for VMware vSphere 6.5 (Bundle file)
Version: 2.0.30-1 **(Recommended)**
Filename: VMW-ESX-6.5.0-nhpsa-2.0.30-7870290.zip

Enhancements

- Added a module parameter to enable VMware VSAN mode

HPE ProLiant Smart Array Controller Driver for VMware vSphere 6.5 (Driver Component).
Version: 2018.06.04 **(Recommended)**
Filename: cp034542.compsig; cp034542.zip
Driver Name and Version:
nhpsa:2.0.30-1OEM.650.0.0.4598673

Important Note!

This component is intended to be used by HPE applications. It is a zip that contains the same driver deliverable available from the vmware.com and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CPXXXX.xml file.

Enhancements

- Added a module parameter to enable VMware VSAN mode

Firmware (Entitlement Required) - Storage Controller Top

HPE D3600/D3700/D3610/D3710 12Gb SAS Disk Enclosure ROM Flash Component for VMware (ESXi)
Version: 4.04 (A) **(Recommended)**
Filename: CP034653.compsig; CP034653.md5; CP034653.zip

Important Note!

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted. In single domain configuration, if user hosts an OS in D3000(or any storage box) and flash the SEPs, it will hang/crash everytime as SmartComponent will reset the SEPs after flash/codeload.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to /var/cpq/D3000.log and flash summary is logged to /var/cpq/Component.log.

Prerequisites

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to /var/cpq/D3000.log and flash summary is logged to /var/cpq/Component.log.

Fixes

The following fix was incorporated in this version:

- Fixed NVRAM CRC error

Please refer to the Release Notes for the complete listing of fixes, enhancements, known issues and work-arounds corresponding to this firmware.

Supported Devices and Features

The D3600 / D3700 / D3610 / D3710 Enclosure can be attached to any of the following HPE Storage Controllers and Host Bus Adapters :

- HP Smart Array P841 Controller
- HP Smart Array P441 Controller
- HP Smart HBA H241
- HP Smart Array P741m Controller

HPE D6020 12Gb SAS Disk Enclosure ROM Flash Component for VMware (ESXi)
Version: 2.72 **(Recommended)**
Filename: CP035198.compsig; CP035198.md5; CP035198.zip

Important Note!

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted. In single domain configuration, if user hosts an OS in D6020(or any storage box) and flash the SEPs, it will hang/crash everytime as SmartComponent will reset the SEPs after flash/codeload.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to /var/cpq/D6020.log and flash summary is logged to /var/cpq/Component.log.

Prerequisites

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

NOTE: All firmware flash progress messages are logged to /var/cpq/D6020.log and flash summary is logged to /var/cpq/Component.log.

Fixes

The following fixes was incorporated in this version:

- Sensors presence reporting for single domain mode
- When an IOM is pulled the surviving IOM reports False critical temperatures
- Configure phy zone group to 0 (zero) for all phys in the initstring

Please refer to the Release Notes for the complete listing of fixes, enhancements, known issues and work-arounds corresponding to this firmware.

Supported Devices and Features

The D6020 Enclosure can be attached to any of the following HPE Storage Controllers and Host Bus Adapters :

- HP Smart Array P841 Controller
- HP Smart Array P441 Controller
- HP Smart HBA H241
- HP Smart Array P741m Controller

Firmware - Network Top

HPE Broadcom NX1 Online Firmware Upgrade Utility for VMware
Version: 1.21.3 **(Optional)**
Filename: CP034765.compsig; CP034765.zip

Important Note!

HPE recommends *HP Broadcom tg3 Ethernet Drivers for VMware*, versions 2015.10.01 or later, for use with this firmware.

This software package contains combo image v20.12.41 with the following firmware versions:

NIC	Boot Code Version	PXE Version	NCSI Version	UEFI Version	CCM Version
HP Ethernet 1Gb 2-port 330i Adapter (22BD)	2.10	20.6.50	1.4.22	20.12.2	212.0.92.0
HP Ethernet 1Gb 4-port 331i Adapter (22BE) HP Ethernet 1Gb 4-port 331FLR Adapter HP Ethernet 1Gb 4-port 331T Adapter	1.46	20.6.50	1.4.22	20.12.2	212.0.92.0
HP Ethernet 1Gb 2-port 332i Adapter (2133)	1.39	20.6.50	1.4.22	n/a	212.0.92.0
HP Ethernet 1Gb 2-port 332i Adapter (22E8) HP Ethernet 1Gb 2-port 332T Adapter	1.39	20.6.50	1.4.22	20.12.2	212.0.92.0

Prerequisites

This product requires the appropriate driver for your device and operating system be installed before firmware is updated.

Fixes

This product addresses an issue where the NIC Serial Number for the HPE Ethernet 1Gb 4-port 331FLR Adapter is not displayed in AHS.

The firmware in this product addresses an issue where the "Reboot Required" icon is not highlighted after a NIC firmware update (via System Utilities->Embedded Application->Firmware Update) completes.

Supported Devices and Features

This product supports the following network adapters:

- HP Ethernet 1Gb 2-port 330i Adapter (22BD)
- HP Ethernet 1Gb 4-port 331i Adapter (22BE)
- HPE Ethernet 1Gb 4-port 331FLR Adapter
- HPE Ethernet 1Gb 4-port 331T Adapter
- HP Ethernet 1Gb 2-port 332i Adapter (2133)
- HP Ethernet 1Gb 2-port 332i Adapter (22E8)
- HPE Ethernet 1Gb 2-port 332T Adapter

HPE Firmware Flash for Emulex Converged Network Adapters for VMware vSphere 6.5
Version: 2018.06.01 **(Recommended)**
Filename: CP034213.compsig; CP034213.zip

Important Note!

Release Notes:

HPE StoreFabric Emulex Adapter Release Notes

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to http://www.hpe.com/support/manuals
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Prerequisites

Please consult SPOCK for a list of supported configurations available at the following link:

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

Fixes

Fixed the following:

- Add a check for zero capacity LUNs (Logical Units) and avoid creating device path for them.
- HP StoreFabric CN1200E Dual Port Converged Network Adapter FCoE function only show "Slot 3 Port 3:CN1200E Function 2-FCoE"

Enhancements

We have separate components to update fibre channel and converged network adapters. This is a Converge Network Adapter update component.

Updated CNA (XE100 series) firmware

Firmware

Contains:

CNA (XE100 series) firmware 12.0.1110.11

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-T Adapter
- HP Ethernet 10Gb 2-port 557SFP+ Adapter
- HPE StoreFabric CN1200E-T Adapter

HPE Intel Online Firmware Upgrade Utility for VMware
Version: 3.7.8 **(Optional)**
Filename: CP034064.compsig; CP034064.zip

Important Note!

HPE recommends at least one of the following drivers, as appropriate for your device, for use with this firmware:

- *HPE Intel igbn Drivers for VMware*, versions 2018.06.04
- *HPE Intel ixgben Drivers for VMware*, versions 2018.06.04
- *HPE Intel i40en Drivers for VMware*, versions 2018.06.04

This software package contains the following firmware versions for the below listed supported nework adapters:

NIC	EEPROM / NVM Version	OROM Version	Single NVM Version
HP Ethernet 1Gb 2-port 361i Adapter	80000CD5	1.1904.0	N/A

HP Ethernet 1Gb 2-port 361T Adapter	80000F91	1.1904.0	N/A
HP Ethernet 1Gb 2-port 363i Adapter	80000D00	1.1904.0	N/A
HP Ethernet 1Gb 1-port 364i Adapter	80000BEE	1.1904.0	N/A
HP Ethernet 1Gb 4-port 366i Adapter	80000E24	1.1904.0	N/A
HPE Ethernet 1Gb 4-port 366i Communication Board	80000EBF	1.1904.0	N/A
HP Ethernet 1Gb 4-port 366FLR Adapter	80000F44	1.1904.0	N/A
HP Ethernet 1Gb 4-port 366M Adapter	80000DA9	1.1904.0	N/A
HP Ethernet 1Gb 4-port 366T Adapter	80000E81	1.1904.0	N/A
HPE Ethernet 1Gb 2-port 368i Adapter	80001111	1.1904.0	N/A
HPE Ethernet 1Gb 2-port 368FLR-MMT Adapter	80001110	1.1904.0	N/A
HPE Ethernet 1Gb 4-port 369i Adapter	80001112	1.1904.0	N/A
HP Ethernet 10Gb 2-port 560FLB Adapter	800008F0	1.1904.0	N/A
HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter	80000838	1.1904.0	N/A
HP Ethernet 10Gb 2-port 560M Adapter	8000083D	1.1904.0	N/A
HPE Ethernet 10Gb 2-port 560SFP+ Adapter	80000835	1.1904.0	N/A
HP Ethernet 10Gb 2-port 561FLR-T Adapter	800005B6	1.1904.0	N/A
HP Ethernet 10Gb 2-port 561T Adapter	80000636	1.1904.0	N/A
HPE Ethernet 10Gb 2-port 568i Adapter	80001113	1.1904.0	N/A
HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter	80001110	1.1904.0	N/A
HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter	80001110	1.1904.0	N/A
HPE Ethernet 10Gb 2-port 563i Adapter	800035C0	1.1375.0	N/A
HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter	800038C9	1.1904.0	10.3.5
HPE Ethernet 10Gb 2-port 562FLR-T Adapter	80000BF1	1.1904.0	10.3.5
HPE Ethernet 10Gb 2-port 562SFP+ Adapter	800038C8	1.1904.0	10.3.5
HPE Ethernet 10Gb 2-port 562T Adapter	80000BF0	1.1904.0	10.3.5

The combo image v1.1904.0 includes: Boot Agent: 1GbE - v1.5.85, 10GbE - v2.4.16, 40GbE - v1.0.66 & UEFI Drivers: 1GbE - v8.3.10, 10GbE - v6.7.10, 40GbE - v3.0.11

The combo image v1.1375.0 includes: Boot Agent: 1GbE - v1.5.72, 10GbE - v2.3.46, 40GbE - v1.0.21 & UEFI Drivers: 1GbE - v6.9.13, 10GbE - v5.0.20, 40GbE - v1.5.14.

Single NVM Version is new firmware format which represent an unified version in place of the previously used EEPROM/NVM Version or OROM version.

Prerequisites

This product requires the appropriate driver for your device and operating system be installed before firmware is updated.

Fixes

This product addresses a NIC VLAN ID issue seen in the NIC Human Interface Infrastructure (HII) menu when operating in UEFI mode.
This product addresses a teaming issue where the HPE Ethernet 10Gb 2-port 561T Adapter still shows connected on the switch after the NIC has been disabled.
This product addresses a link issue and a PXE issue seen with the HPE Ethernet 10Gb 2-port 560FLB Adapter.
This product addresses a WOL issue seen with the HPE Ethernet 1Gb 4-port 366T Adapter.

Supported Devices and Features

This package supports the following network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP Ethernet 1Gb 2-port 363i Adapter
- HP Ethernet 1Gb 1-port 364i Adapter

- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366i Adapter
- HPE Ethernet 1Gb 4-port 366i Communication Board
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 4-port 366T Adapter
- HPE Ethernet 1Gb 2-port 368i Adapter
- HPE Ethernet 1Gb 2-port 368FLR-MMT Adapter
- HPE Ethernet 1Gb 4-port 369i Adapter
- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- HPE Ethernet 10Gb 2-port 562SFP+ Adapter
- HPE Ethernet 10Gb 2-port 563i Adapter
- HPE Ethernet 10Gb 2-port 568i Adapter
- HPE Ethernet 10Gb 2-port 562T Adapter
- HPE Ethernet 10Gb 2-port 562FLR-T Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter

HPE QLogic FastLinQ Online Firmware Upgrade Utility for VMware
Version: 4.6.24 **(Optional)**
Filename: CP033812.compsig; CP033812.zip

Important Note!

HPE recommends *HPE QLogic FastLinQ 10/25/50GbE Multifunction Drivers for VMware*, versions 2018.06.04 or later, for use with this firmware.

This software package contains the following firmware versions:

NIC	Boot Code (MFW) Version	UEFI Version	PXE Version	Combo Image Version
HPE Ethernet 4x25Gb 1-port 620QSFP28 Adapter	8.35.3.0	4.1.4.25	2.0.17	8.35.09
HPE Synergy 6810C 25/50Gb Ethernet Adapter				
HPE Ethernet 10Gb 2-port 521T Adapter	8.35.3.0	4.1.4.25	2.0.17	8.35.09
HPE Ethernet 10/25Gb 2-port 621SFP28 Adapter				
HPE Ethernet 10/25Gb 2-port 622FLR-SFP28 Converged Network Adapter				

Prerequisites

This product requires the appropriate driver for your device and operating system be installed before firmware is updated.

Fixes

- This product corrects an issue where booting to Preboot eXecution Environment (PXE) may not work after applying the OneView server profile when the System ROM is set to 'Legacy BIOS Mode'.
- This product addresses an issue where the FCoE boot parameters cannot be configured in the adapter's configuration menu (under 'System Utilities'->'System Configuration' menu) when OneView profile with connections set to 'manually managed' is applied to the system.
- This product corrects an issue where certain settings/changes (CHAP, boot mode etc) in the OneView server profile are not reflected in the adapters' configuration menu (under 'System Utilities'->'System Configuration' menu) after applying the OneView server profile.
- This product corrects an issue where the virtual World Wide Port Name(WWPN)/World Wide Node Name(WWNN) are not programmed properly when applying the OneView server profile.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T Adapter

- HPE Ethernet 4x25Gb 1-port 620QSFP28 Adapter
- HPE Ethernet 10/25Gb 2-port 621SFP28 Adapter
- HPE Ethernet 10/25Gb 2-port 622FLR-SFP28 Converged Network Adapter
- HPE Synergy 6810C 25/50Gb Ethernet Adapter

HPE QLogic NX2 Online Firmware Upgrade Utility for VMware
Version: 1.21.15 **(Optional)**
Filename: CP034082.compsig; CP034082.zip

Important Note!

HPE recommends *HPE QLogic NX2 10/20GbE Multifunction Drivers for VMware*, versions 2018.06.04 or later, for use with this firmware.

This software package contains combo image v7.17.19 with the following firmware versions:

NIC	Boot Code Version	PXE Version	UEFI Version	iSCSI Version	FCoE Version	CCM Version	L2 Version
HP Ethernet 10Gb 2-port 530SFP+ Adapter HP Ethernet 10Gb 2-port 530T Adapter	7.15.24	7.14.13	8.2.9	n/a	n/a	7.14.4	7.12.25
HP Ethernet 10Gb 2-port 533FLR-T Adapter HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter HP FlexFabric 10Gb 2-port 534M Adapter HP FlexFabric 10Gb 2-port 536FLB Adapter HPE FlexFabric 10Gb 4-port 536FLR-T Adapter HP FlexFabric 20Gb 2-port 630FLB Adapter HP FlexFabric 20Gb 2-port 630M Adapter HP StoreFabric CN1100R Dual Port Converged Network Adapter HPE StoreFabric CN1100R-T Converged Network Adapter HPE Synergy 3820C 10/20Gb Converged Network Adapter HPE Synergy 2820C 10Gb Converged Network Adapter	7.15.24	7.14.13	8.2.9	7.14.0	7.14.3	7.14.4	7.12.25

Prerequisites

This product requires the appropriate driver for your device and operating system be installed before firmware is updated.

Fixes

This product corrects an issue where users may see an error message when they attempt to restore the adapter's configuration settings to defaults by pressing F7 under the ‘System Utilities->System Configuration’ menu.

Supported Devices and Features

This product supports the following network adapters:

- HP Ethernet 10Gb 2-port 530SFP+ Adapter
- HP Ethernet 10Gb 2-port 530T Adapter
- HP Ethernet 10Gb 2-port 533FLR-T Adapter
- HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HP FlexFabric 10Gb 2-port 534M Adapter
- HP FlexFabric 10Gb 2-port 536FLB Adapter
- HPE FlexFabric 10Gb 4-port 536FLR-T Adapter
- HP FlexFabric 20Gb 2-port 630FLB Adapter
- HP FlexFabric 20Gb 2-port 630M Adapter
- HP StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Converged Network Adapter
- HPE Synergy 2820C 10Gb Converged Network Adapter
- HPE Synergy 3820C 10/20Gb Converged Network Adapter

Online Firmware Upgrade Utility (ESXi 6.5) for HPE Mellanox Ethernet only adapters

Version: 1.0.3 **(Recommended)**
Filename: CP034530.compsig; CP034530.zip

Important Note!

Known Issues for FW version 2.42.5000 :

- Enabling/disabling cq_timestamp using mlxconfig is not supported.
- In a card with 2 separate LEDs scheme (a Phy LED and a logic LED) only the Phy LED will lit. Meaning, the orange LES will not be active while the ETH link is in an idle mode.
- In SR-IOV setup, using mlxconfig when the PF is passed through to a VM requires a reboot of the Hypervisor.
- Downgrade to previous GA requires server reboot.Downgrading from v2.30.8000 or later to an earlier version than 2.30.8000 requires server reboot. Reboot the server.
- On ConnectX-3 Ethernet adapter cards, there is a mismatch between the GUID value returned by firmware management tools and that returned by fabric/driver utilities that read the GUID via device firmware (e.g., using ibstat). Mlxburn/flint return 0xffff as GUID while the utilities return a value derived from the MAC address. For all driver/firmware/software purposes, the lattervalue should be used.
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed
- RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.
- In advanced steering mode, side band management connectivity may be lost when having more than 8 QP per mcg.
- When SR-IOV is disabled in the system BIOS, a PCI issue is noticed in Ubuntu v12.04.3 with Linux kernel v3.8 which affects NICs of several manufacturers including Mellanox's, preventing them from operating.
- MFT tools might leave the flash semaphore locked if the tool operation is forced stopped. The locked semaphore prevents the firmware from accessing the flash and causes firmware hang.
- Cable Info MAD reports a wrong cable info when usingthe MC2210411-SR4 module
- Gen2 failure at temperature sweep up to 10C/min (for MT27518A1-FDIR-BV only).
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1-FDIR-BV
- Bloom filter is currently not supported.
- Firmware downgrade message When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3
- RM#DMFS should not be enabled when working with InfiniBand on MLNX_OFED-2.0.3
- RM#VPD read-only fields are writable.
- Increasing SymbolErrorCounter When working in VPI mode with port1 FDR and port2 40G, error counters misbehave and increase rapidly
- Setting the device to 128Byte CQ/EQ stride will cause misbehavior of sideband management resulting in communication loss.
- CQ and EQ cannot be configured to different stride sizes.
- ConnectX-3 Pro VF device ID is presented the same as ConnectX-3 VF device ID due to driver limitations.
- RSOD while running PXE (legacy) on G9 servers. This occurs only when PXE boot fails and BIOS boots from HDD. Currently it is pending BIOS fix.
- Changing port protocol from ETH to IB on port with NCSI/IPMI enabled while the port is connected to ETH switch is not supported.
- RDP over IPv6 is currently not functional.
- Sniffer QP cannot be removed from the regular rule after adding the QP with insertion scheme equals to “push to that rule”
- Since only a single Boot Entry Vector (BEV) per PCI Physical Function is supported, disabling the first port causes the second port to disappear as well.
- The NIC does not notify the driver of a link-down incident when a cable is unplugged from a NIC port with 56GbE port link.
- 56GbE link is not raised when using 100GbE optic cables.
- When working with MLNX_OFED v3.3-1.0.0.0, server reboot could get stuck due to a kernel panic in mlx-4_en_get_drvinfo() that is called from asynchronous event handler.
- 832298:When running ibdump, loopback traffic is mirroring into the kernel driver.
- AHS reports wrong MTU size
- RM#846523: MAC address that are set from the OS using ifconfig are not reflected in the OCBB buffer.

Known Issues for FW version 14.22.1414 :

- Setting a negative temperature with the hook results in a wrong sensor state report when running the PLDM sensor reading command.
- Health counter increases every 50ms instead of 10ms.
- mlxconfig tool presents all possible expansion ROM images instead of presenting only the existing images.
- An ethernet multicas loopback packet is not counted (even if it is not local loopback packets)when running the nic_receive_steering_discard command.
- When a dual-port VHCA sends RoCE packets on its non-native port, and the packet arrives to its affiliated vport FDB, a mismatch might happen on the rules that match the packet source vport.

Known Issues for FW version 12.22.1414 :

- Setting a negative temperature with the hook results in a wrong sensor state report when running the PLDM sensor reading command.
- On rare occasions, retransmissions/packet loss under signature can cause error reporting and terminate the connection.
- Health counter increases every 50ms instead of 10ms.
- mlxconfig tool presents all possible expansion ROM images, instead of presenting only the existing images.
- An Ethernet multicast loopback packet is not counted (even if it is not a local loopback packet) when running the nic_receive_steering_discard command.
- When a dual-port VHCA sends a RoCE packet on its non-native port. and the packet arrives to its affiliated vport FDB, a mismatch might happen on the rules that match the packet source vport.
- During DC CNAK stress tests, DC CNAK timeout (CNAK drops) might occur.

Known Issues for FW version 16.22.1414 :

- Setting a negative temperature with the hook results in a wrong sensor state report when running the PLDM sensor reading command.
- Health counter increases every 50ms instead of 10ms.

Prerequisites

HPE Synergy 6410C 25/50Gb Ethernet Adapter (868779-B21) must first be upgraded to prerequisite firmware version 12.21.2808 before updating to 12.22.0148 or 12.22.0194.
12.22.0194 is the first secure firmware for HPE Synergy 6410C 25/50Gb Ethernet Adapter (868779-B21). Once this device is upgraded to firmware 12.22.0194, downgrade is not allowed.

Fixes

Fixes submitted in version 2.42.5000 :

- The PortRcvPkts counter was prevented from being cleared after resetting it..
- System Time Out on the configuration cycle of the VFs when more than 10 Virtual Functions performed FLR and the completion Time Out value was configured to a range of less than 16 msec.
- The server hung and resulted in NMI (Non-maskable interrupt) when run-ning “mlxfwtop –d mt4103_pci_cr0” while restarting the driver in parallel (from a differ-ent thread). In this case, the downstream bridge over the device reported completion timeout error.
- In flow_steering, BMC could not receive a ping over IPV6 after running bmc_reboot.
- While closing the HCA (Host Channel Adapters), RX packet caused bad access to resources that did not exist, and consequently caused the QPCGW or the irisc to get stuck.
- The master SMLID and the LID was either 0 or 0xFFFF when the port was neither active nor armed.
- ibdump could not capture all MADs packets.
- Link could not go up after reboot.
- A rare issue caused the PCIe configuration cycle that arrived during the time of sw_reset to generate 2 completions.
- NC-SI (Network Controller Sideband Interface) did not work when adding the disable_stat-ic_steering_ini field in the ini file, due to memory allocation issue for this field in the scratchpad.

Fixes submitted in version 14.22.1414 :

- A temperature normalization function calculation issue. Now the cable gain that is not pure integer is taken into account was fixed.
- An issue related to the parser of object 0x8 in ASN that caused different structure in response was fixed.
- Added the option to avoid unintentionally powering off the backplane port cage upon reboot when in standby mode.
- An issue that caused the driver to return a wrong logical OR of the 2 physical ports, when querying the vport state when the LAG was enabled wre fixed.
- Increased the Full Wire Speed (FWS) threshold value to improve EDR link results.
- An issue that resulted in “Destroy LAG” command failure if a VFs received an FLR while its affinity QPs were open.
- When RoCE Dual Port mode is enabled, tcpdump is not functional on the 2nd port.

Enhancements

Firmware for the following devices are updated to 2.42.5000:

779799-B21 (HP Ethernet 10G 2-port 546FLR-SFP+ Adapter)
779793-B21 (HP Ethernet 10G 2-port 546SFP+ Adapter)

New features and changes in version 2.42.5000:

- Added support for the following features:
  - TLV: CX3_GLOBAL_CONF to enable/disable timestamp on incoming packets through mlxconfig configuration.
  - User MAC configuration.
  - Automatically collecting mstdump before driver reset.
  - to detect DEAD_IRISC (plastic) from TPT (iron) and raise an assert.
- Enhanced the debug ability for command timeout cases.
- Added a new field to "set port" command which notifies the firmware what is the user_mtu size.

Firmware for the following devices are updated to 14.22.1414 :

817749-B21 (HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter)
817753-B21 (HPE Ethernet 25Gb 2-port 640SFP28 Adapter)

New features and changes in version 14.22.1414:

- Transition from 4MB to 7M Firmware Image Banks.
- **Software Reset Flow:** Software detection of a fatal error, automatic creations of an mstdump file for future debug by the software, and resetting of the device.
- **Steering Discard Packet Counters:** The following counters were added to count the discard packets (per vport)
  - nic_receive_steering_discard
  - receive_discard_vport_down

        - transmit_discard_vport_down
    - **Virtual Functions (VF):** Increased the number of VFs that can work with full VMQoS (8 TC) per PFs as follow
        - in dual port devices to 20 VFs
        - in single port devices to 58 VFs
    - Increased the Pause Frame Duration and the XOFF Resend Time to the maximum value defined by the specification.
    - **PCI Relax Ordering:** mlxconfig configuration can now enable or disable forced PCI relaxed ordering in mkey_context.
    - **vport Mirroring:** Packets are mirrored based on certain mirroring policy. The policy is set using the “set FTE command” that supports forward action in the ACL tables (ingress/egress).
    - **Resiliency: Special Error Event:** Added support for 10GBaseT modules connected to a QSFP cage.
    - Accelerated QP’s creation time.
    - SR-IOV default routing mode is now LID based. The configuration change is available via mlxconfig tool.
    - Added PXE and UEFI to additional ConnectX-4 Lx adapter cards. ConnectX-4 Lx now holds PXE, x86-UEFI and Arm-UEFI.

Firmware for the following device is updated to 12.22.1414 :

868779-B21 (HPE Synergy 6410C 25/50Gb Ethernet Adapter)

New features and changes in version 12.22.1414:

- Transition from 4MB to 7M Firmware Image Banks.
- **Software Reset Flow:** Software detection of a fatal error, automatic creations of an mstdump file for future debug by the software, and resetting of the device.
- **Steering Discard Packet Counters:** The following counters were added to count the discard packets (per vport)
    - nic_receive_steering_discard
    - receive_discard_vport_down
    - transmit_discard_vport_down
- **Virtual Functions (VF):** Increased the number of VFs that can work with full VMQoS (8 TC) per PFs as follow
    - in dual port devices to 20 VFs
    - in single port devices to 58 VFs
- Increased the Pause Frame Duration and the XOFF Resend Time to the maximum value defined by the specification.
- **PCI Relax Ordering:** mlxconfig configuration can now enable or disable forced PCI relaxed ordering in mkey_context.
- **vport Mirroring:** Packets are mirrored based on certain mirroring policy. The policy is set using the “set FTE command” that supports forward action in the ACL tables (ingress/egress).
- **Resiliency: Special Error Event:** Added support for 10GBaseT modules connected to a QSFP cage.
- Accelerated QP’s creation time.
- SR-IOV default routing mode is now LID based. The configuration change is available via mlxconfig tool.
- Added PXE and UEFI to additional ConnectX-4 Lx adapter cards. ConnectX-4 Lx now holds PXE, x86-UEFI and Arm-UEFI.

Firmware for the following device is updated to 16.22.1414 :

874253-B21 (HPE Ethernet 100Gb 1-port 842QSFP28 Adapter)

New features and changes in version 16.22.1414:

- Transition from 4MB to 7M Firmware Image Banks.
- **Software Reset Flow:** Software detection of a fatal error, automatic creations of an mstdump file for future debug by the software, and resetting of the device.
- **Steering Discard Packet Counters:** The following counters were added to count the discard packets (per vport)
    - nic_receive_steering_discard
    - receive_discard_vport_down
    - transmit_discard_vport_down
- Increased the Pause Frame Duration and the XOFF Resend Time to the maximum value defined by the specification.
- **PCI Relax Ordering:** mlxconfig configuration can now enable or disable forced PCI relaxed ordering in mkey_context.
- Added support for Push/Pop VLAN, new FLOW TABLE ENTRY actions. These new actions are used by the driver to implement Q-in-Q functionality.
- Packet Pacing in ConnectX-5 adapter cards.
- **vport Mirroring:** Packets are mirrored based on certain mirroring policy. The policy is set using the “set FTE command” that supports forward action in the ACL tables (ingress/egress).
- **Resiliency: Special Error Event:** Added support for 10GBaseT modules connected to a QSFP cage.
- Accelerated QP’s creation time.
- SR-IOV default routing mode is now LID based. The configuration change is available via mlxconfig tool.
- Added PXE and UEFI to additional ConnectX-4 Lx adapter cards. ConnectX-4 Lx now holds PXE, x86-UEFI and Arm-UEFI.

Supported Devices and Features

HPE Part Number	InfiniBand Card Type	PSID
779793-B21	HP Ethernet 10Gb 2-port 546SFP+ Adapter	HP_1200111023
779799-B21	HP Ethernet 10Gb 2-port 546FLR-SFP+ Adapter	HP_2240110004
817749-B21	HPE Ethernet 25Gb 2-port 640FLR-SFP28 Adapter	HP_2690110034
817753-B21	HPE Ethernet 25Gb 2-port 640SFP28 Adapter	HP_2420110034
868779-B21	HPE Synergy 6410C 25/50Gb Ethernet Adapter	HPE0000000006

874253-B21	HPE Ethernet 100Gb 1-port 842QSFP28 Adapter	HPE0000000014

Online Firmware Upgrade Utility (ESXi 6.5) for HPE Mellanox VPI (Ethernet and Infiniband mode) ConnectX4 and ConnectX5 devices on VMware ESXi 6.5
Version: 1.0.3 **(Recommended)**
Filename: CP034539.compsig; CP034539.zip

Important Note!

Known Issues in firmware version 12.22.4030 and 16.22.4030:

- The maximum “read” size of MTRC_STDB is limited by 272 Bytes.
- Using vl_arb_high or vl_arb_low simultaneously might cause unexpected behavior in QoS functionality.

Prerequisites

Due to significant firmware changes, the devices mentioned in the table below must be upgraded to the prerequisite version first, then programmed to version 16.22.0194 and onwards.
16.22.0194 is the first secure firmware for HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter (879482-B21). Once this device is upgraded to firmware 16.22.0194, downgrade is not allowed.

InfiniBand Card Type	Prerequisite firmware version
HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter (872726-B21)	16.21.2808
HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter (879482-B21)	16.21.2800

Fixes

Fixes in firmware version 12.22.4030 and 16.22.4030:

- In rare cases, where the width of the receiver's electrical eye is narrow, the link might raise with BER lower than 10^-12.
- LRO timeout configuration is now taken from the TLV configuration instead of the static defined values.
- Added a filter to ignore module temperature reads below -40C and above 125C.
- Closed the vport as part of the fast teardown flow, to prevent Ack to be sent without been scatter to memory.
- A rare scenario where the PERST# de-assertion arrived at a specific critical time period was handled.
- Temperature normalization function calculation issue. Now the cable gain that is not pure integer is taken into account.
- The parser of object 0x8 in ASN that caused different structure in response.
- An issue that caused MSIX interrupt lost while the HCA performed an FLR was handled.
- An issue that caused a race condition between the firmware boot process and the MSIX access from the PCIe, which resulted in lost writes into the MSIX vector was fixed.

Enhancements

Firmware for the following devices are updated to 12.22.4030:

825110-B21 (HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter)
825111-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter)

New features and changes in version 12.22.4030:

- **AS Notify:** AS Notify enables IBM’s Power CPU architecture to boost performance by allowing the hardware to issue light weight “interrupts” to replace the traditional MSI interrupts.
- **Dump Me Now (DMN):** Dump Me Now (DMN) generated dumps and traces from various components that are crucial for offline debugging. Once an issue is discovered, the dumps can provide useful information about the NIC's state at the time of the failure
- Added support for DSCP mapping on QP RTS2RTS.
- **Port Enable:** When set, the device supports emulating link down for all the associated functions using “ICMD_SET_VIRTUAL_PARAMETERS - Set Device Virtual Parameters”.
- **mlxfwreset:** Reduced and accelerated the mlxfwreset loading time of the firmware update flow.
- **Virtual Functions (VF):** Increased the number of VFs that can work with full VMQoS (8 TC) per PFs as follow:
  - in dual port devices to 20 VFs
  - in single port devices to 64 VFs
- Extended the retry counter (extended_retry_count) to up to 255 instead of 7.

Firmware for the following devices are updated to 16.22.4030:

879482-B21 (HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter)
872726-B21 (HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter)

New features and changes in version 16.22.4030:

- **AS Notify:** AS Notify enables IBM's Power CPU architecture to boost performance by allowing the hardware to issue light weight "interrupts" to replace the traditional MSI interrupts.
- **Dump Me Now (DMN):** Dump Me Now (DMN) generated dumps and traces from various components that are crucial for offline debugging. Once an issue is discovered, the dumps can provide useful information about the NIC's state at the time of the failure
- Added support for DSCP mapping on QP RTS2RTS.
- **Port Enable:** When set, the device supports emulating link down for all the associated functions using "ICMD_SET_VIRTUAL_PARAMETERS - Set Device Virtual Parameters".
- **mlxfwreset:** Reduced and accelerated the mlxfwreset loading time of the firmware update flow.
- **Virtual Functions (VF):** Increased the number of VFs that can work with full VMQoS (8 TC) per PFs as follow:
  - in dual port devices to 20 VFs
  - in single port devices to 64 VFs
- Extended the retry counter (extended_retry_count) to up to 255 instead of 7.
- Added support for striding RQ in InfiniBand.
- **QoS "Rate Limit":** Added support to limit the transmission rate of individual InfiniBand port Service Levels. This capability is configurable through a new vendor-specific MAD (QosConfigSL).

Supported Devices and Features

HPE Part Number	Device Name	PSID
825110-B21	HPE InfiniBand EDR/Ethernet 100Gb 1-port 840QSFP28 Adapter	HP_2180110032
825111-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 840QSFP28 Adapter	HP_2190110032
872726-B21	HPE InfiniBand EDR/Ethernet 100Gb 2-port 841QSFP28 Adapter	HPE0000000009
879482-B21	HPE InfiniBand FDR/Ethernet 40/50Gb 2-port 547FLR-QSFP Adapter	HPE0000000022

Online Firmware Upgrade Utility (ESXi 6.5) for HPE Mellanox VPI (Ethernet and Infiniband mode) devices on VMware ESXi 6.5
Version: 1.0.1 **(Recommended)**
Filename: CP033387.compsig; CP033387.zip

Important Note!

Known Issues in firmware 2.40.5030, 2.40.5072, 2.42.5000, 2.42.5004:

- Downgrading from v2.30.8000 or later to an earlier version than 2.30.8000 requires server reboot.
  Workaround: Reboot the server.
- On ConnectX-3 Ethernet adapter cards, there is a mismatch between the GUID value returned by firmware management cards tools and that returned by fabric/driver utilities that read the GUID via device firmware (e.g., using ibstat). Mlxburn/flint return 0xffff as GUID while the utilities return a value derived from the MAC address. For all driver/firmware/software purposes, the latter value should be used.
  Workaround: Use the GUID value returned by the fabric/driver utilities (not 0xffff).
- SBR should be asserted for a minimum of 50 milliseconds for the ConnectX®-3 adapters.
- On Pilot1 SL230, PCIe link occasionally does not come up at Gen3 speed.
- RH6.3 Inbox driver causes kernel panic when SR-IOV is enabled on VPI cards due to driver compatibility issue.
- In advanced steering mode, side band management connectivity may be lost when having more than 8 QP per mcg.
- When SR-IOV is disabled in the system BIOS, a PCI issue is noticed in Ubuntu v12.04.3 with Linux kernel v3.8 which affects NICs of several manufacturers including Mellanox's, preventing them from operating.
  Workaround: Enable SR-IOV in the BIOS.
- MFT tools might leave the flash semaphore locked if the tool operation is forced stopped. The locked semaphore prevents the firmware from accessing the flash and causes firmware hang..
  Workaround: Clear the semaphore using MFT command: flint -clear_semaphore
- Cable Info MAD reports a wrong cable info when using the MC2210411-SR4 module.
- Gen2 failure at temperature sweep up to 10C/min (for MT27518A1-FDIR-BV only).
- PCIe Gen2 link unstable at temperature sweep of 10C/min for MT27518A1-FDIR-BV.
- Bloom filter is currently not supported.
- When downgrading from firmware v2.11.0000 and using MFT 3.0.0-3, Release the following message is displayed due to the mlxconfig tool:
  DMFS steering mode with IB in Linux You are trying to override configurable FW by non-configurable FW. If you continue, old FW con-figurations will be cleared, do youwant to continue ? (y/n) [n] : y
  You are trying to restore default configuration, do you want to continue ? (y/n) [n] :y
- DMFS should not be enabled when working with InfiniBand on MLNX_OFED-2.0.3.
  Workaround: Upgrade to MLNX_OFED-2.1-x.x.x. or later.
- VPD read-only fields are writable.
  Workaround: Do not write to read- only fields if you wish to preserve them.
- When working in VPI mode with port1 FDR and port2 40G, error counters misbehave and increase rapidly.
- Setting the device to 128Byte CQ/EQ stride will cause misbehavior of sideband management resulting in communication loss.
- CQ and EQ cannot be configured to different stride sizes.
- ConnectX-3 Pro VF device ID is presented the same as.ConnectX-3 VF device ID due to driver limitations.
  Workaround: Use the physical function device ID to identify the device.
- Changing port protocol from ETH to IB on port with NCSI/IPMI enabled while the port is connected to ETH switch is not supported.

Workaround:
  - Unplug the cable from the switch
  - Restart driver
  - Change the protocol via the appropriate tools.
- RDP over IPv6 is currently not functional.
  Workaround: Set the default RoCE mode in the software to RoCE v2 (also when not using RoCE).
- Sniffer QP cannot be removed from the regular rule after adding the QP with insertion scheme equals to “push to that rule”.
- Since only a single Boot Entry Vector (BEV) per PCI Physical Function is supported, disabling the first port causes the second port to disappear as well.
- The NIC does not notify the driver of a link-down incident when a cable is unplugged from a NIC port with 56GbE port link.
- 56GbE link is not raised when using 100GbE optic cables.
- When working with MLNX_OFED v3.3-1.0.0.0, server reboot could get stuck due to a kernel panic in mlx4_en_get_drvinfo() that is called from asynchronous event handler.
- When running ibdump, loopback traffic is mirroring into the kernel driver.

Known Issues in firmware version 2.42.5000, 2.42.5004:

- Enabling/disabling cq_timestamp using mlxconfig is not supported.
- In a card with 2 separate LEDs scheme (a Phy LED and a logic LED) only the Phy LED will lit. Meaning, the orange LED will not be active while the ETH link is in an idle mode.
- In SR-IOV (Single Root I/O Virtualization) setup, using mlxconfig when the PF (Physical Function) is passed through to a VM (Virtual Machine) requires a reboot of the Hypervisor.
- Adapter card MCX349A-XCCN may experience longer linkup times of a few seconds with specific switches.
- Adapter card MCX349A-XCCN does not respond to ethtool “identify” command (ethtool -p/--identify).
- MAC address that are set from the OS using ifconfig are not reflected in the OCBB buffer.

Known Issues in firmware version 2.40.5072:

- Ambient sensor does not report via Platform Level Data Model (PLDM) in GEN10 connectX3.

Known Issues in firmware version 2.42.5000:

- MTUSB communication via I2C header on primary I2C bus is supported only in live-fish mode.

Known Issues in firmware version 2.42.5004:

- Cisco bi-directional transceiver is not supported in HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter.

Fixes

Fixes in version 2.40.5030 and 2.40.5072:

- Race between the firmware and the hardware during driver start which blocked outbound completions.
- The firmware did not send link_down event to the driver when running the close_port command.

Fixes in version 2.42.5000:

- PortRcvPkts counter was prevented from being cleared after resetting it.
- The system Timed Out on the configuration cycle of the Virtual Functions (VFs) when more than 10 Virtual Functions performed FLR and the completion Time Out value was configured to a range of less than 16 msec.
- The server hangs and results in NMI when running “mlxfwtop –d mt4103_pci_cr0” while restarting the driver in parallel (from a different thread). In this case, the downstream bridge over the device reported completion timeout error.
- In flow_steering, BMC could not receive a ping over IPV6 after running bmc_reboot.
- While closing the HCA, the RX packet caused bad access to resources that did not exist, and consequently caused the QPCGW or the irisc to get stuck.
- The master SMLID and the LID was either 0 or 0xFFFF when the port was neither active nor armed.
- ibdump could not capture all MADs packets.
- link did not go up after reboot.
- Fixed a rare issue that cause the PCIe configuration cycle that arrived during the time of sw_reset to generate 2 completions.
- Network Controller Sideband Interface (NC-SI) did not work when adding the disable_static_steering_ini field in the ini file, due to memory allocation issue for this field in the scratchpad.

Fixes in version 2.42.5004:

- In UEFI (Unified Extensible Firmware Interface) HII (Human Interface Infrastructure) menu, when using HPE Gen10 devices, both ports appear as port 1.
- In UEFI (Unified Extensible Firmware Interface) boot menu, when using HPE Gen10 devices, the device name appears with an unneeded port number.

Enhancements

Firmware for the following devices are updated to 2.40.5030:
764286-B21
778509-B21

Firmware for the following devices are updated to 2.40.5072:
764285-B21

Firmware for the following devices are updated to 2.42.5004:
764283-B21
764284-B21

Firmware for the following devices are updated to 2.42.5000:
764282-B21

New features in firmware version 2.40.5030:

- Added support for the following features.
  - Temperature thresholds high/low default for MAD sensing and NCSI/IPMI OEM commands.
  - A new field is added to "set port" command which notifies the firmware what is the user_mtu size.
  - A protection mechanism which ensures the firmware drops packets which are received in internal Queue Pairs (QPs) and disables the WQE producer fetching.

New features in firmware version 2.40.5072:

- Platform Level Data Model (PLDM) support.

New features in firmware version 2.42.5000:

- Added support for the following features.
  - new TLV: CX3_GLOBAL_CONF to enable/disable timestamp on incoming packets through mlxconfig configuration.
  - User MAC configuration.
  - Automatically collecting mstdump before driver reset.
  - A mechanism to detect DEAD_IRISC (plastic) from TPT (iron) and raise an assert.
  - A new field is added to "set port" command which notifies the firmware what is the user_mtu size.
- Improved the debug ability for command timeout cases

Supported Devices and Features

Supported Devices:

HP Part Number	Device Name	PSID
764282-B21	HP InfiniBand QDR/Ethernet 10Gb 2-port 544+M Adapter	HP_1350110023
764283-B21	HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+M Adapter	HP_1360110017
764284-B21	HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter	HP_1370110017
764285-B21	HP InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter	HP_1380110017
764286-B21	HP InfiniBand QDR/Ethernet 10Gb 2-port 544+FLR-QSFP Adapter	HP_1390110023

Firmware - Storage Controller Top
Online ROM Flash Component for Linux (x64) - HPE Apollo 2000 System - SAS Expander
Version: 1.00 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-smartarray-3bf7ece88e-1.00-2.1.x86_64.rpm

Important Note!

- Customers who already installed firmware version 1.00 do not need to update to 1.00 (B).

Enhancements

- Improved integration with Smart Update Manager.

  Note: Upgrading to version 1.00(B) is not necessary if the Apollo 2000 SAS Expander was previously updated to version 1.00.

Online ROM Flash Component for Linux (x64) - HPE Smart Array P824i-p MR Gen10
Version: 24.23.0-0019 **(Optional)**
Filename: CP033970.md5; CP033970.scexe; deb/firmware-cafee9b6e4_24.23.0.0019-1.1_amd64.deb; rpm/RPMS/x86_64/firmware-cafee9b6e4-24.23.0_0019-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-cafee9b6e4-24.23.0_0019-1.1.x86_64.rpm

Enhancements

- Initial Release

Online ROM Flash Component for Linux (x64) – HPE Apollo 2000 Gen10 Backplane Expander Firmware
Version: 1.00 **(Optional)**
Filename: rpm/RPMS/x86_64/firmware-smartarray-9f082dffb4-1.00-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-smartarray-9f082dffb4-1.00-1.1.x86_64.rpm

Enhancements

Initial Release

Online ROM Flash Component for Linux (x64) – HPE Apollo 4200 Gen9 Backplane Expander Firmware
Version: 1.50 (B) **(Optional)**
Filename: rpm/RPMS/x86_64/firmware-smartarray-f18fdefd0b-1.50-2.1.x86_64.rpm

Important Note!

- Power cycle / cold reboot is required if firmware is upgraded from version 1.03 or earlier.

Enhancements

- Enhanced debug capabilities

Online ROM Flash Component for Linux (x64) – HPE SAS Expander Firmware for HPE D2500sb Storage Blade
Version: 2.00 **(Optional)**
Filename: rpm/RPMS/x86_64/firmware-smartarray-1d0696d939-2.00-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-smartarray-1d0696d939-2.00-1.1.x86_64.rpm

Enhancements

Initial Release

Online ROM Flash component for VMware ESXi - HPE Dual 8GB microSD USB
Version: 1.3.2.215 **(Recommended)**
Filename: CP034825.compsig; CP034825.zip

Fixes

- To show corresponding HPE Dual 8GB Micron SD part number in Agentless Management Service version 11.2.0 or later.

Online ROM Flash Component for VMware ESXi - HPE Express Bay Enablement Switch Card
Version: 1.78 **(Optional)**
Filename: CP033861.zip

Important Note!

- Power cycle / cold reboot is required after installation for updates to take effect.

Prerequisites

- The HP ProLiant iLO firmware version must be v2.20 or later. If the HP ProLiant iLO firmware is older than v2.20 you will receive the following error message:

  Check dependency failed.

  Current version: iLOx x.xx

  Minimum version required: iLO4 2.20

  The software will not be installed on this system because the required hardware is not present in the system or the software/firmware doesn't apply to this system

Fixes

Corrected the temperature status of Seagate NVMe hard drives.

Online ROM Flash Component for VMware ESXi - Smart Array H240ar, H240nr, H240, H241, H244br, P240nr, P244br, P246br, P440ar, P440, P441, P542D, P741m, P840, P840ar, and P841
Version: 6.60 **(Recommended)**
Filename: CP035732.compsig; CP035732.zip

Fixes

- Issue where the QueryAsynchronousEvent could potentially provide incorrect response data
- Issue where the Cache could potentially get disable after several reboots

Enhancements

- Added support for larger SmartCache capacity size

Online ROM Flash Component for VMware ESXi - Smart Array P220i, P222, P420i, P420, P421, P721m, and P822
Version: 8.32 **(Recommended)**
Filename: CP033366.compsig; CP033366.zip

Fixes

System can potentially stop responding with no lockup code due to livelock condition where the RAID Stack thread is polling a queue for a completion to be returned by the base code firmware

Enhancements

Improved accuracy of drive temperature reporting feature

Online ROM Flash Component for VMware ESXi - Smart Array P230i, P430, P431, P731m, P830i, and P830
Version: 4.54 (B) **(Recommended)**
Filename: CP036098.compsig; CP036098.zip

Fixes

- DDR cache could be randomly disabled after several boots
- A hot-inserted replacement drive might show as a predictive failure if the original drive was identified as a predictive failure.
- Controller cache module might be marked as permanently disabled if the Smart Storage Battery is removed or failed while the system is online, even if SSA was previously used to enable write caching without a backup power source.
- Controller can become unresponsive due to a SmartCache pending flush operation when a read-ahead and a read-fill are performed in sequent.
- System might stop responding if a parity error is found during surface scan of a RAID6 volume. (POST Lockup 0x13)
- System fans might go to 100% if connected drives were spun down
- Issue where a controller crash dump may not be collected after a controller failure

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Online ROM Flash Component for VMware ESXi – HPE 12Gb/s SAS Expander Firmware for HPE Smart Array Controllers and HPE HBA Controllers
Version: 4.02 **(Optional)**
Filename: CP033904.compsig; CP033904.zip

Important Note!

- Power cycle / cold reboot is required if firmware is upgraded from version 1.31 or earlier.

Fixes

- Changed the Enclosure's Target and LUN address to the appropriate unique values. Previously these addresses would conflict with the SATA drive in bay #1 which interfered with software defined storage solutions such as Storage Spaces Direct.

Online ROM Flash Component for VMware ESXi – HPE Apollo 2000 System - SAS Expander
Version: 1.00 (B) **(Recommended)**
Filename: CP031314.compsig; CP031314.zip

Important Note!

- **Customers who already installed firmware version 1.00 do not need to update to 1.00 (B).**

Enhancements

- Added support for the VMware vSphere 2016 OS.
- Improved integration with Smart Update Manager.
  Note: Upgrading to version 1.00(B) is not necessary if the Apollo 2000 SAS Expander was previously updated to version 1.00.

Online ROM Flash Component for VMware ESXi – HPE Apollo 4200 Gen9 Backplane Expander Firmware
Version: 1.50 (B) **(Optional)**
Filename: CP036095.zip

Important Note!

- Power cycle / cold reboot is required if firmware is upgraded from version 1.03 or earlier.

Enhancements

- Enhanced debug capabilities

Online ROM Flash Component for VMware ESXi – HPE Apollo 45xx Gen9 Backplane Expander Firmware
Version: 2.08 **(Optional)**
Filename: CP031316.zip

Important Note!

- Please un-plug and re-plug the power cord to the server for firmware upgrade from version 1.03 or earlier to take effect.

Enhancements

- Enhanced debug capabilities.
- Added support for the VMware vSphere 2016 OS.
- Improved integration with Smart Update Manager.

Supplemental Update / Online ROM Flash Component for Linux (x64) - HPE Apollo 45xx Gen10 Backplane Expander Firmware
Version: 1.56 **(Optional)**
Filename: rpm/RPMS/x86_64/firmware-smartarray-815b1ae26d-1.56-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-smartarray-815b1ae26d-1.56-1.1.x86_64.rpm

Enhancements

- Supports Drive Zoning

Supplemental Update / Online ROM Flash Component for Linux (x64) - HPE Smart Array P408i-p, P408e-p, P408i-a, P408i-c, E208i-p, E208e-p, E208i-c, E208i-a, P408e-m, P204i-c, P204i-b, P816i-a and P416ie-m SR Gen10
Version: 1.34 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-smartarray-f7c07bdbbd-1.34-2.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-smartarray-f7c07bdbbd-1.34-2.1.x86_64.rpm

Important Note!

Note: If version 1.34 was previously installed, then it is not necessary to upgrade to version 1.34 (B).

Enhancements

- Added support for the HPE Smart Array P408e-m Controller.

Supplemental Update / Online ROM Flash Component for Linux (x64) - Smart Array H240ar, H240nr, H240, H241, H244br, P240nr, P244br, P246br, P440ar, P440, P441, P542D, P741m, P840, P840ar, and P841
Version: 6.60 **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-smartarray-ea3138d8e8-6.60-1.1.x86_64.rpm

Important Note!

- In order to be detected properly, some controllers may need a newer version of the Smart Array driver installed prior to upgrading the controller firmware. If not installed, the component will fail with return code 3.
- When booting a system running Red Hat Enterprise Linux 7.1 Operating System, the HP Smart Array controllers might not be recognized. This issue is due to changes in the OS where the sg driver is no longer loaded during system boot. The work around for this issue is to manually issue a "**modprobe sg**" command which should load the sg driver. After the sg driver is loaded, the /dev/sg* devices should be present and the sg driver can be used to access SCSI devices.

Fixes

- Issue where the QueryAsynchronousEvent could potentially provide incorrect response data
- Issue where the Cache could potentially get disable after several reboots

Enhancements

- Added support for larger SmartCache capacity size

Supplemental Update / Online ROM Flash Component for Linux (x64) - Smart Array P230i, P430, P431, P731m, P830i, and P830
Version: 4.54 (B) **(Recommended)**
Filename: rpm/RPMS/x86_64/firmware-smartarray-112204add8-4.54-2.1.x86_64.rpm

Important Note!

- When booting a system running Red Hat Enterprise Linux 7.1 Operating System, the HP Smart Array controllers might not be recognized. This issue is due to changes in the OS where the sg driver is no longer loaded during system boot. The work around for this issue is to manually issue a "**modprobe sg**" command which should load the sg driver. After the sg driver is loaded, the /dev/sg* devices should be present and the sg driver can be used to access SCSI devices.

Fixes

- DDR cache could be randomly disabled after several boots
- A hot-inserted replacement drive might show as a predictive failure if the original drive was identified as a predictive failure.
- Controller cache module might be marked as permanently disabled if the Smart Storage Battery is removed or failed while the system is online, even if SSA was previously used to enable write caching without a backup power source.
- Controller can become unresponsive due to a SmartCache pending flush operation when a read-ahead and a read-fill are performed in sequent.
- System might stop responding if a parity error is found during surface scan of a RAID6 volume. (POST Lockup 0x13)
- System fans might go to 100% if connected drives were spun down
- Issue where a controller crash dump may not be collected after a controller failure

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Supplemental Update / Online ROM Flash Component for Linux (x64) – HPE 12Gb/s SAS Expander Firmware for HPE Smart Array Controllers and HPE HBA Controllers
Version: 4.02 **(Optional)**
Filename: rpm/RPMS/x86_64/firmware-smartarray-2de15b6882-4.02-1.1.x86_64.compsig; rpm/RPMS/x86_64/firmware-smartarray-2de15b6882-4.02-1.1.x86_64.rpm

Important Note!

- Power cycle / cold reboot is required if firmware is upgraded from version 1.31 or earlier.

Fixes

- Changed the Enclosure's Target and LUN address to the appropriate unique values. Previously these addresses would conflict with the SATA drive in bay #1 which interfered with software defined storage solutions such as Storage Spaces Direct.

Supplemental Update / Online ROM Flash Component for Linux (x64) – HPE Apollo 45xx Gen9 Backplane Expander Firmware
Version: 2.08 **(Optional)**
Filename: rpm/RPMS/x86_64/firmware-smartarray-7bdfcd246b-2.08-1.1.x86_64.rpm

Important Note!

- Please un-plug and re-plug the power cord to the server for firmware upgrade from version 1.03 or earlier to take effect.

Enhancements

- Enhanced debug capabilities.
- Improved integration with Smart Update Manager.

Supplemental Update / Online ROM Flash Component for Linux (x64) – HPE Express Bay Enablement Switch Card
Version: 1.78 **(Optional)**
Filename: firmware-smartarray-94189dca85-1.78-1.1.x86_64.rpm

Important Note!

- Power cycle / cold reboot is required after installation for updates to take effect.

Prerequisites

- Previous releases of HPE Express Bay Enablement Switch Card firmware Smart Component documented dependency on iLO 3/4 Channel Interface Driver. This driver is now included with the following Linux OSes:

  Red Hat Enterprise Linux 7 Server

  Red Hat Enterprise Linux 6 Server (x86-64)

  SUSE Linux Enterprise Server 12

- The HP ProLiant iLO firmware version must be v2.20 or later. If the HP ProLiant iLO firmware is older than v2.20 you will receive the following error message:

  Check dependency failed.

  Current version: iLOx x.xx

  Minimum version required: iLO4 2.20

  The software will not be installed on this system because the required hardware is not present in the system or the software/firmware doesn't apply to this system.

Fixes

- Corrected the temperature status of Seagate NVMe hard drives.

Firmware - Storage Fibre Channel Top

HPE Firmware Flash for Emulex Fibre Channel Host Bus Adapters for VMware vSphere 6.5
Version: 2018.06.01 **(Recommended)**
Filename: CP034217.compsig; CP034217.zip

Important Note!

Release Notes:

HPE StoreFabric Emulex Adapter Release Notes

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to http://www.hpe.com/support/manuals
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and

applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Prerequisites

Please consult SPOCK for a list of supported configurations available at the following link:

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

Enhancements

We have separate components to update fibre channel and converged network adapters. This is a fibre channel update component.

Added support to the following:

8G Standup and Mezzanine:

BIOS:

- Fabric assigned Boot Target/Logical Unit (LUN) to Fabric Assgined World Wide Name(FAWWN)

Updated 16/32 Gb HBA/Mezz universal boot
Updated 16Gb HBA/Mezz universal boot
Updated 8Gb HBA/Mezz universal boot

Contains:

16/32 Gb HBA/Mezz universal boot 11.4.334.10
16 Gb HBA/Mezz universal boot 11.4.334.11

8 Gb standup/mezz firmware 2.10X6

8 Gb standup/mezz universal boot image 11.40a13 (11.4.305.0 BIOS, 11.4.344.0 UEFI)

Supported Devices and Features

This component is supported on following Emulex Fibre Channel Host Bus adapters:

8Gb FC:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA

HPE Firmware Flash for QLogic Fibre Channel Host Bus Adapters for VMware vSphere 6.5
Version: 2018.06.01 **(Recommended)**
Filename: CP034229.compsig; CP034229.zip

Important Note!

HPE StoreFabric QLogic Adapter Release Notes

Prerequisites

Please consult SPOCK for a list of supported configurations available at the following link:

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

The HPE supplied Qlogic driver must be installed prior to this firmware component being identified by SUM for deployment. The OOB driver is available on the Service Pack for ProLiant (SPP) which is available at http://www.hpe.com/servers/spp/download/

Fixes

Fixed the following

8Gb Standup & 8Gb Mezzanine

UEFI

- Firmware Management Protocol now supports flashing older Multiboot versions.
- Firmware Management Protocol SetImage no longer displays dots on the screen.
- The following HII (Human Interface Infrastructure) fields now require a reboot after value change:
  Legacy BIOS (Basic Input Output System) Selectable Boot

16Gb Standup & 16Gb Mezzanine

Firmware

- Bring up up-link in 32G or 16G optical environment (FEC (Forward Error Correction) only) when connected with remote device that is not setting the SN bit to zero and TC bit to 1 at the same time during the speed negotiation phase and delays transmitting NOS during LQT phase.
- Dropped FCP_CMD frame by a virtual port (VP index greater than 0) logged into the fabric via Fabric Login (FLOGI) while the primary adapter port (VP0) was disabled via Global VP (Virtual Port) Options bit 2 of Initialize Multi-ID Firmware MBC (0048h).

UEFI

- Firmware Management Protocol now supports flashing older Multiboot versions.
- Firmware Management Protocol SetImage no longer displays dots on the screen.
- The following HII (Human Interface Infrastructure) fields now require a reboot after value change:
  Fabric Assigned WWPN (World Wide Port Name), Fabric Assigned Boot Logical Unit (LUN), Legacy BIOS (Basic Input Output System) Selectable Boot.

16Gb/32Gb Standup

Firmware

- Bring up up-link in 32G or 16G optical environment (FEC (Forward Error Correction) only) when connected with remote device that is not setting the SN bit to zero and TC bit to 1 at the same time during the speed negotiation phase and delays transmitting NOS during LQT phase.

UEFI

- Firmware Management Protocol now supports flashing older Multiboot versions.
- Firmware Management Protocol SetImage no longer displays dots on the screen.
- The following HII (Human Interface Infrastructure) fields now require a reboot after value change:
  FC (Fibre Channel) Tape, Fabric Assigned WWPN (World Wide Port Name), Fabric Assigned Boot LUN (Logical Unit), Legacy BIOS (Basic Input Output System) Selectable Boot.
- Changed Legacy BIOS (Basic Input Output System) Selectable Boot HII (Human Interface Infrastructure) default to Enabled.

Enhancements

Added support for the following:

16Gb Standup & 16Gb Mezzanine

- Power Loss calculation in D_port (Destination port) operation.

16Gb/32Gb Standup

- Power Loss calculation in D_port (Destination port) operation.
- Support maximum training timeout for 32Gbps data rate per FC-FS-4 (Fibre Channel Framing and Signaling) specification.

Updated the Firmware/BIOS/UEFI packages for 8 Gb, 16 Gb and 32 Gb products.

- 8 Gb HBA/Mezz
  - Package 3.77.08
  - Firmware 8.07.00
  - UEFI 6.64
  - BIOS 3.56

- 16 Gb HBA/Mezz

        - Package 6.01.59
        - Firmware 8.07.16
        - UEFI 6.63
        - BIOS 3.43

    - 16/32 Gb
        - Package 01.70.85
        - Firmware 8.07.18
        - UEFI 6.47
        - BIOS 3.54

Supported Devices and Features

This firmware supports the following HPE adapters:

8Gb FC:

- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric 84Q 4P 8Gb Fibre Channel HBA
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

16Gb FC:

- HP QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

32Gb FC:

- HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter

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Software - Management Top

Management Bundle Smart Component for ESXi 6.5
Version: 2018.06.01 **(Recommended)**
Filename: cp034610.compsig; cp034610.zip
Driver Name and Version:
amsd:650.11.3.0-10.4240417
cru:650.6.5.10.4-1OEM.650.0.0.4240417
fc-enablement:650.3.3.0.10-4240417
ilo:650.10.3.0.2-1OEM.650.0.0.4240417
smx-provider:650.03.14.00.3-4240417

Fixes

WBEM Providers

- Fixed issue with Smart Array Provider reporting change of battery status frequently

Agentless Management Service

- Fixed to remove heartbeat trap (cpqHo2GenericTrap) delivery at OS boot when periodic test trap feature is disabled
- Fixed memory leak partly caused by AMS running in the OS init resource group
- Fixed reporting of the embedded SATA controller to resolve missing drives in the iLO Storage Tab display

Enhancements

WBEM Providers

- Added support for Smart Array Controller model P408i-sb

Agentless Management Service

- Added reporting of OS Logical Disk Volume Configuration and Utilization to iLO's Active Health System Log

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Software - Network Top

HPE Intel esx-provider for VMware

Version: 2018.06.04 **(Optional)**
Filename: cp034087.compsig; cp034087.zip
Driver Name and Version:
intelcim-provider:0.6-4.3

Enhancements

This product now supports vmkliux and native driver architectures.

Supported Devices and Features

These drivers support the following network adapters:

- HP Ethernet 1Gb 2-port 361i Adapter
- HP Ethernet 1Gb 2-port 361T Adapter
- HP Ethernet 1Gb 4-port 366FLR Adapter
- HP Ethernet 1Gb 4-port 366M Adapter
- HP Ethernet 1Gb 4-port 366T Adapter
- HP Ethernet 10Gb 2-port 560FLB Adapter
- HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 560M Adapter
- HP Ethernet 10Gb 2-port 560SFP+ Adapter
- HP Ethernet 10Gb 2-port 561FLR-T Adapter
- HP Ethernet 10Gb 2-port 561T Adapter
- HP Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- HP Ethernet 10Gb 2-port 562SFP+ Adapter

Software - Storage Fibre Channel Top

Emulex Fibre Channel driver component for VMware vSphere 6.5
Version: 2018.06.01 **(Recommended)**
Filename: cp034223.compsig; cp034223.zip
Driver Name and Version:
lpfc:11.4.329.0-1OEM.650.0.0.4598673

Important Note!

This component is intended to be used by HPE applications. It is a zip that contains the same driver deliverable available from the vmware.com and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CPXXXX.xml file.

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to http://www.hpe.com/support/manuals
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Prerequisites

Please consult SPOCK for a list of supported configurations available at the following link:

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to http://www.hpe.com/support/manuals
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This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Fixes

Fixed the following:

- unexpected behavior with incomplete path reporting that would cause an unexpectedly high number of dropped frames reported by the target and driver
- driver abort request to properly abort ELS (Extended Link Services) command

Enhancements

Updated to driver version 11.4.329.0

Supported Devices and Features

This component is supported on following Emulex Fibre Channel Host Bus adapters:

8Gb FC:

- HP 81E 8Gb Single Port PCIe Fibre Channel Host Bus Adapter
- HP 82E 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HP LPe1205A 8Gb Fibre Channel Host Bus Adapter for BladeSystem c-Class
- HP StoreFabric 84E 4-Port Fibre Channel Host Bus Adapter

LPe16000 (16Gb) FC:

- HP SN1000E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1000E 16Gb Single Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HP SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1100E 4P 16Gb Fibre Channel Host Bus Adapter
- HP Fibre Channel 16Gb LPe1605 Mezz
- HPE Synergy 3530C 16Gb Fibre Channel Host Bus Adapter

LPe31000/32000 (16Gb/32Gb) FC:

- HPE StoreFabric SN1200E 16Gb 2P FC HBA
- HPE StoreFabric SN1200E 16Gb 1P FC HBA
- HPE StoreFabric SN1600E 32Gb 2p FC HBA
- HPE StoreFabric SN1600E 32Gb 1p FC HBA

Emulex(BRCM) Fibre Channel over Ethernet driver for VMware vSphere 6.5
Version: 2018.06.01 **(Recommended)**
Filename: cp034210.compsig; cp034210.zip
Driver Name and Version:
brcmfcoe:12.0.1115.0-1OEM.650.0.0.4598673

Important Note!

This component is intended to be used by HPE applications. It is a zip that contains the same driver deliverable available from the vmware.com and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CPXXXX.xml file.

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to http://www.hpe.com/support/manuals
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Prerequisites

Please consult SPOCK for a list of supported configurations available at the following link:

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

Beginning with software release 11.2, Fibre Channel (LightPulse) adapters and Converged Network adapters (OneConnect) have independent software kits.

It is highly recommended that you review the Broadcom Software Kit Migration User Guide for more detailed information regarding this change.

To obtain the guide:

1. Go to http://www.hpe.com/support/manuals
2. Using the HPE model number as your guide, enter the adapter model number in the Search products box, and then click >>.

This document provides special instructions and considerations for using the driver kits for FC and CNA adapters.

Special cases include those in which pre-11.2 (original) drivers and applications are replaced by the new 11.2 drivers and applications, and cases in which inbox drivers are replaced by the new 11.2 out-of-box (OOB) drivers.

Enhancements

Updated to Driver version 12.0.1115.0

Supported Devices and Features

This component is supported on following Emulex Converged Network Adapters:

XE100 Series:

- HP StoreFabric CN1200E Dual Port Converged Network Adapter
- HP FlexFabric 20Gb 2-port 650FLB Adapter
- HP FlexFabric 20Gb 2-port 650M Adapter
- HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 556FLR-T Adapter
- HPE StoreFabric CN1200E-T Adapter

QLogic Fibre Channel driver component for VMware vSphere 6.5
Version: 2018.06.01 **(Recommended)**
Filename: cp034227.compsig; cp034227.zip
Driver Name and Version:
qlnativefc:2.1.73.0-1OEM.600.0.0.2768847

Important Note!

This component is intended to be used by HPE applications. It is a zip that contains the same driver deliverable available from the vmware.com and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CPXXXX.xml file.

Prerequisites

Please consult SPOCK for a list of supported configurations available at the following link:

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

Fixes

This driver verson resolves the following:

- Driver is selecting to run LB (Loopback) rather than echo for F_Port
- If the SNS (Storage Name Service) fabric login appears incomplete, it would not be retried.
- If switch domain controller continuously tries to login, there exists a window where driver database and firmware database can go out of sync causing fabric discovery incomplete, and the login retry count is exhausted.
- The driver does not report minimum speeds correctly for 16G and 32G adapters.
- Echo ELS (Extended Link Services) test using QCC (QLogic Converge Console) CLI (Command Line Interface) was incomplete with invalid WWPN (World Wide Port Name) status.
- Re-login is being triggered too fast.
- Inquiry response snooping does not take into account the possibility of multiple scatter gather elements.
- Target devices are temporarily not accessible when the link toggle occurs on one of the target device paths.
- Driver would not send the full RDP (Read Diagnostic Parameter) response with a switch port that was not in the logged in state.
- Driver was advertising 1G speed support for 8G adapters.
- FDMI (Fabric Device Management Interface) info showing incorrect supported speeds for 16G mezzanine adapters in FDMI (Fabric Device Management Interface).

Enhancements

Driver version 2.1.73.0

Added support for the following:

- IOCB (I/O Control Block) based fabric priority per logged in FC (Fibre Channel) port.
- Enable Priority Tagging VM-ID (Virtual Machine Identification Data) support
- Update ISP25XX FW (Firmware) to version 8.07.00
- End-to-End QoS (Quality of Service) fabric priority support

Supported Devices and Features

This driver supports the following HPE adapters:

8Gb FC:

- HP 81Q PCIe Fibre Channel Host Bus Adapter
- HP 82Q 8Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE StoreFabric 84Q 4P 8Gb Fibre Channel HBA
- HP QMH2572 8Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem

16Gb FC:

- HP QMH2672 16Gb Fibre Channel Host Bus Adapter for c-Class BladeSystem
- HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter
- HP StoreFabric SN1100Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter
- HPE Synergy 3830C 16G Fibre Channel Host Bus Adapter

32Gb FC:

- HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter

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Software - System Management Top

HPE ESXi Offline Bundle for VMware vSphere 6.5
Version: 3.3.0 **(Recommended)**
Filename: esxi6.5uX-mgmt-bundle-3.3.0-10.zip

Fixes

WBEM Providers

- Fixed issue with Smart Array Provider reporting change of battery status frequently

Agentless Management Service

- Fixed to remove heartbeat trap (cpqHo2GenericTrap) delivery at OS boot when periodic test trap feature is disabled
- Fixed memory leak partly caused by AMS running in the OS init resource group
- Fixed reporting of the embedded SATA controller to resolve missing drives in the iLO Storage Tab display

Enhancements

WBEM Providers

- Added support for Smart Array Controller model P408i-sb

Agentless Management Service

- Added reporting of OS Logical Disk Volume Configuration and Utilization to iLO's Active Health System Log

Supported Devices and Features

VMware vSphere version support:

- VMware vSphere 6.5 U1
- VMware vSphere 6.5 U2

HPE ESXi Utilities Offline Bundle for VMware vSphere 6.5

Version: 3.3.0 **(Recommended)**
Filename: esxi6.5-util-bundle-3.3.0-8.zip

Important Note!

Refer to the HPE VMware Utilities Guide for VMware vSphere 6.5 for June 2018 which is located at www.hpe.com/info/vmware/proliant-docs.

Enhancements

Updated the Smart Storage Administrator CLI (SSACLI)

HPE Smart Storage Administrator (HPE SSA) CLI for VMware 6.5
Version: 3.30.14.0 **(Recommended)**
Filename: ssacli-3.30.14.0-6.5.0.vib

Important Note!

It is recommended to update to this 3.30.13.0 version of HPE Smart Storage Administrator if you update your system BIOS using the 2018.06 version of SPP. Any array created with the BIOS configuration utility from the 2018.06 version of SPP will not be accessible with an older version of HPE Smart Storage Administrator.

Enhancements

- Added the ability to enable or disable Drive Write Cache for configured and unconfigured drives

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Updated June 26 2018

Hewlett Packard Enterprise