

This document does not apply to HPE Superdome servers. For information on HPE Superdome , see the following links:

[HPE Integrity Superdome X](#)
[HPE Superdome Flex](#)

Information on HPE Synergy supported VMware ESXi OS releases, HPE ESXi Custom Images and HPE Synergy Custom SPPs is available at:

[VMware OS Support Tool for HPE Synergy](#)

Information on HPE Synergy Software Releases is available at:

[HPE Synergy Software Releases - Overview](#)

Gen9 Service Pack for ProLiant v2021.10.0 Release Notes for VMware ESXi 7.0

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HPE iLO Native Driver for ESXi 7.0

Version: 10.7.5 **(Recommended)**

Filename: ilo-driver_700.10.7.5.2-1OEM.700.1.0.15843807_17856914.zip

Fixes

- Fixed driver unload function to allow controller to function properly on reload and when Quickboot is enabled.

Driver - Network

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HPE Blade Intel ixgben Driver for VMware vSphere 7.0

Version: 2020.06.01 **(Optional)**

Filename: cp041435.compsig; cp041435.zip

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 CPOxxxxx.xml file.

HPE recommends the firmware provided in *HPE Blade Intel Online Firmware Upgrade Utility for VMware*, version 1.1.2 or later, for use with this driver.

Enhancements

Initial release.

Supported Devices and Features

These drivers support the following network adapters:

- HPE Ethernet 10Gb 2-port 560FLB Adapter
- HPE Ethernet 10Gb 2-port 560M Adapter

HPE Blade QLogic NX2 10/20 GbE Multifunction Driver for VMware vSphere 7.0

Version: 2021.09.01 **(Optional)**

Filename: cp047630.compsig; cp047630.zip

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 CPOxxxxx.xml file.

HPE recommends the firmware provided in *HPE Blade QLogic NX2 Online Firmware Upgrade Utility for VMware*, version 1.5.2 or later, for use with this driver.

Fixes

This product addresses a PSOD seen while collecting data dump.

This product addresses a PSOD seen during uplink reset with failure conditions.

This product addresses a PSOD seen during device state changes without IDLE state.

This product addresses a PSOD seen during scheduling fabric login.

This product addresses a PSOD issue to enhance immediately flush in work queue and unload/quiesce mechanisms.

Enhancements

This product now supports VMware ESXi 7.0 U3.

This product enhances PLOGI for the HPE XP7 Storage Array.

Supported Devices and Features

These drivers support the following network adapters:

- HPE FlexFabric 10Gb 2-port 534M Adapter
- HPE FlexFabric 10Gb 2-port 536FLB Adapter
- HPE FlexFabric 20Gb 2-port 630FLB Adapter
- HPE FlexFabric 20Gb 2-port 630M Adapter

HPE Broadcom NetXtreme-E Drivers for VMware vSphere 7.0

Version: 2021.04.05 **(Optional)**

Filename: cp045075.compsig; cp045075.zip

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 CPOxxxxx.xml file.
- HPE recommends the *HPE Broadcom NetXtreme-E Firmware Version*, 218.0.166000 or later, for use with this driver.

Fixes

This product corrects an issue which Purple Screen Of Death (PSOD) while running Virtual SAN (vSAN) over Remote Direct Memory Access (RDMA) traffic due to invalid Completion Queue Element (CQEs)

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 535FLR-T Adapter
- HPE Ethernet 10Gb 2-port 535T Adapter
- HPE Ethernet 10Gb 2-port 537SFP+ Adapter
- HPE Ethernet 10Gb 2-port 537SFP+ FLR Adapter
- HPE Ethernet 10/25Gb 2-port 631FLR-SFP28 Adapter
- HPE Ethernet 10/25Gb 2-port 631SFP28 Adapter

HPE Intel i40en Driver for VMware vSphere 7.0

Version: 2020.05.29 (B) **(Recommended)**

Filename: cp049458.compsig; cp049458.zip

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 CPOxxxxx.xml file.

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for VMware*, version 3.12.50 or later, for use with this driver.

Enhancements

This product supports the following new server:

- HPE ProLiant DL20 Gen10 Plus Server
- HPE ProLiant ML30 Gen10 Plus Server

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 7.0

Version: 2021.09.04 **(Recommended)**

Filename: cp047111.compsig; cp047111.zip

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 CPOxxxxx.xml file.

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for VMware*, version 3.15.0 or later, for use with this driver.

Enhancements

This product supports the following new server:

- HPE ProLiant DL20 Gen10 Plus Server
- HPE ProLiant ML30 Gen10 Plus Server

Supported Devices and Features

These drivers support the following network adapters:

- HPE Ethernet 1Gb 2-port 361i Adapter
- HPE Ethernet 1Gb 2-port 361T Adapter
- HPE Ethernet 1Gb 2-port 363i Adapter
- HPE Ethernet 1Gb 4-port 366FLR Adapter
- HPE Ethernet 1Gb 4-port 366i Adapter
- HPE Ethernet 1Gb 4-port 366i Communication Board
- HPE Ethernet 1Gb 4-port 366T Adapter

HPE Intel ixgben Driver for VMware vSphere 7.0

Version: 2021.04.05 **(Optional)**

Filename: cp045248.compsig; cp045248.zip

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 CPOxxxxx.xml file.

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for VMware*, version 3.14.0 or later, for use with this driver.

Fixes

This product corrects the maximum supported number of virtual functions.

Supported Devices and Features

These drivers support the following network adapters:

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

HPE QLogic FastLinQ 10/25/50 GbE Multifunction Driver for VMware vSphere 7.0

Version: 2021.09.04 **(Recommended)**

Filename: cp047113.compsig; cp047113.zip

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 Firmware Package for Arrowhead adapters*, version 8.55.27 or later, for use with these drivers.

Fixes

This product corrects an issue Vmkernel logs are flooding while running the traffic.

Enhancements

This product enhances reliability via adding support for communication between firmware and drivers.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 521T Adapter
- HPE Ethernet 10Gb 2-port 524SFP+ Adapter
- HPE Ethernet 10/25Gb 2-port 621SFP28 Adapter
- HPE Ethernet 10/25Gb 2-port 622FLR-SFP28 Converged Network Adapter
- HPE StoreFabric CN1200R-T Converged Network Adapter
- HPE StoreFabric CN1300R Converged Network Adapter

HPE QLogic NX2 10/20 GbE Multifunction Driver for VMware vSphere 7.0

Version: 2021.09.04 **(Recommended)**

Filename: cp047117.compsig; cp047117.zip

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 1.29.0 or later, for use with this driver.

Enhancements

- This products enhances the mechanism that collation of data log.
- This product now supports ESXi 7.0 U3.

Supported Devices and Features

These drivers support the following network adapters:

- HPE Ethernet 10Gb 2-port 530T Adapter
- HPE Ethernet 10Gb 2-port 530SFP+ Adapter
- HPE FlexFabric 10Gb 2-port 533FLR-T Adapter
- HPE FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 4-port 536FLR-T Adapter
- HPE StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R 10GBASE-T Dual Port Converged Network Adapter

net-mst kernel module driver component for VMware ESXi 7.0

Version: 2020.11.11 (A) **(Recommended)**

Filename: cp048360.compsig; cp048360.zip

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 HPE vibsdepot.hp.com webpage, plus an HPE specific CPXXXX.xml file.

Prerequisites

NA

Fixes

NMST version 4.14.3.3

Supported Devices and Features

HPE Part Number	Device Name	PSID
764282-B21	HPE InfiniBand QDR/Ethernet 10Gb 2-port 544+M Adapter	HP_1350110023
764283-B21	HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+M Adapter	HP_1360110017
764284-B21	HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter	HP_1370110017
P24837-B21	HPE Ethernet 10/25Gb 2-port 642SFP28 Adapter	HPE0000000054
P11338-B21	HPE Ethernet 10Gb 2-port 548SFP+ Adapter	HP_1200111023
764285-B21	HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter	HP_1380110017
764286-B21	HPE InfiniBand QDR/Ethernet 10Gb 2-port 544+FLR-QSFP Adapter	HP_1390110023
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
868779-B21	HPE Synergy 6410C 25/50Gb Ethernet Adapter	HPE0000000006
779793-B21	HPE Ethernet 10Gb 2-port 546SFP+ Adapter	HP_1200111023
779799-B21	HPE 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
P21927-B21	HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter	MT_0000000417
P10112-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX562A-ACAI OCP3 Adapter	MT_0000000241
P13188-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACHT Adapter	MT_0000000416
P11341-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4621A-ACAB OCP3 Adapter	MT_0000000238
P21930-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter	MT_0000000414
874253-B21	HPE Ethernet 100Gb 1-port 842QSFP28 Adapter	HPE0000000014
P25960-B21	HPE Ethernet 100Gb 2-Port QSFP56 MCX623106AS-CDAT Adapter	MT_0000000437
P06154-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port 940QSFP56 x16 Adapter	HPE0000000034
P06250-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port 940QSFP56 x16 Adapter	HPE0000000035
P06251-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port 940QSFP56 x16 Adapter	HPE0000000036
P23664-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port MCX653105A-HDAT QSFP56 x16 Adapter	MT_0000000451
P23665-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port MCX653105A-ECAT QSFP56 x16 Adapter	MT_0000000452
P23666-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port MCX653106A-ECAT QSFP56 x16 Adapter	MT_0000000453
P10180-B21	Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE	MT_0000000435
P31246-B21	HPE Ethernet 100Gb 1-port QSFP28 PCIe3 x16 MCX515A-CCAT Adapter	MT_0000000591
P31323-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 OCP3 MCX653435A-HDAI Adapter	MT_0000000592
P31348-B21	HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 OCP3 MCX653436A-HDAI Adapter	MT_0000000593
P31324-B21	HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter	MT_0000000594

nmlx4_en Driver Component for VMware 7.0
Version: 2020.11.11 (A) (**Recommended**)
Filename: cp047457.compsig; cp047457.zip

Important Note!

Known Issues:

- 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.
- When the port is UP, the management interface port type field (nmlx_en_MgmtIFPortType) indicates which one of all possible

supported types is currently connected.

- o Management interface port type field reports SFP-to-RJ45 cable as FIBER.
- o Management interface auto negotiation field is equivalent to "esxcli network nic get -n vmnicX" field "Pause Autonegotiate".

For further information on the release notes for ESXi 6.5 Driver Version 3.19.70.1 follow the below link:

https://www.mellanox.com/page/products_dyn?product_family=29&mtag=vmware_driver

Fixes

No fixes are included in version 3.19.70.1:

Enhancements

Changes and New Features in version 3.19.70.1:

- o Resolved an issue that caused the network adapter traffic to stop.
- o Fixed an internal multicast loopback issue that broke LACP(Link Aggregation Control Protocol) bonding protocol.

Supported Devices and Features

HPE Part Number	Device Name	PSID
764282-B21	HPE InfiniBand QDR/Ethernet 10Gb 2-port 544+M Adapter	HP_1350110023
764283-B21	HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+M Adapter	HP_1360110017
764284-B21	HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter	HP_1370110017
764285-B21	HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter	HP_1380110017
764286-B21	HPE InfiniBand QDR/Ethernet 10Gb 2-port 544+FLR-QSFP Adapter	HP_1390110023
779793-B21	HPE Ethernet 10Gb 2-port 546SFP+ Adapter	HP_1200111023
779799-B21	HPE Ethernet 10Gb 2-port 546FLR-SFP+ Adapter	HP_2240110004

nmlx5_en Driver Component for VMware 7.0 U2

Version: 2021.04.21 (**Recommended**)

Filename: cp047641.compsig; cp047641.zip

Important Note!

Important: The version 4.21.71.1 supports ESXi 7.0 U2.

Known Issues in version 4.21.71.101:

- o A mismatch between the uplink and the VF MTU values may result in COE with error.
Workaround: : Align the uplink and the VF MTU values.
- o Enabling sriov_mc_isolation module parameter may result in vmknic and emulated NICs multicast and IPv6 traffic loss.
Workaround: Unset or set the module parameter to 0.
- o RDMA is not supported in the Hypervisor with ENS (Enhanced Network Stack) model 2.
- o 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.
- o ECN (Explicit congestion notification) statistic counters accumulatorsPeriod and ecnMarkedRocePackets display wrong values and cannot be cleared.
- o ECN tunable parameter initialAlphaValue for the Reaction Point protocol cannot be modified.
- o Card's speed remains zero after port goes down and reboot is performed.
- o RoCE traffic may fail after vMotion when using namespace.
- o Legacy SR-IOV is not supported with Model 1.
- o When in ENS mode, changing the scheduler to HCLK, may cause traffic loss.
- o The 'esxcli mellanox uplink link info -u ' command reports the 'Auto negotiation' capability always as 'true'.
- o SMP MADs (ibnetdiscover, sminfo, iblinkinfo, smpdump, ibqueryerr, ibdiagnet and smpquery) are not supported on the VFs.
- o Although the max_vfs module parameter range is "0-128", due to firmware limitations, the following are the supported VFs per single port devices:
 - ConnectX-4 / ConnectX-5: up to 127

Fixes

Fixes included in version 4.21.71.101:

- o Fixed a compatibility issue with VMware Update Manager as it wouldn't accept a bundle with metadata xml with old versioning scheme. The metadata xml now contains the new versioning scheme.

Enhancements

Changes and New Features are included in smart component version 2021.04.21:

- o Added support for the following features:
 - vSan over RDMA.
 - Receive Side Scaling (RSS) for ENS model 0.
 - 200GbE link speed.
 - ConnectX-6 Lx devices.
 - Scaled support for up to 10K connections over RDMA networks
 - Data Center Bridging Capability Exchange (DCBX) protocol with hardware offload.
 - sriov_mc_isolation module parameter to isolate multicast traffic to SR-IOV interfaces. Default value is OFF.
 - ens_fallback_model to set the default fallback mode when the option to query ENS model from the OS is not supported. Default to Model 1.

New features and changes in version 4.21.71.101:

- o SR-IOV InfiniBand is at GA level.
- o Updated the supported_num_ports default value to 1 to lower memory constraints.
Note: The user must set a value corresponding to the amount of ports installed in the system.

Supported Devices and Features

HPE Part Number	Device Name	PSID
764282-B21	HPE InfiniBand QDR/Ethernet 10Gb 2-port 544+M Adapter	HP_1350110023
764283-B21	HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+M Adapter	HP_1360110017
764284-B21	HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter	HP_1370110017
P24837-B21	HPE Ethernet 10/25Gb 2-port 642SFP28 Adapter	HPE0000000054
P11338-B21	HPE Ethernet 10Gb 2-port 548SFP+ Adapter	HP_1200111023
764285-B21	HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter	HP_1380110017
764286-B21	HPE InfiniBand QDR/Ethernet 10Gb 2-port 544+FLR-QSFP Adapter	HP_1390110023
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
868779-B21	HPE Synergy 6410C 25/50Gb Ethernet Adapter	HPE0000000006
779793-B21	HPE Ethernet 10Gb 2-port 546SFP+ Adapter	HP_1200111023
779799-B21	HPE 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
P21927-B21	HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter	MT_0000000417
P10112-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX562A-ACAI OCP3 Adapter	MT_0000000241
P13188-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACHT Adapter	MT_0000000416
P11341-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4621A-ACAB OCP3 Adapter	MT_0000000238
P21930-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter	MT_0000000414
874253-B21	HPE Ethernet 100Gb 1-port 842QSFP28 Adapter	HPE0000000014
P25960-B21	HPE Ethernet 100Gb 2-Port QSFP56 MCX623106AS-CDAT Adapter	MT_0000000437
P06154-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port 940QSFP56 x16 Adapter	HPE0000000034
P06250-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port 940QSFP56 x16 Adapter	HPE0000000035
P06251-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port 940QSFP56 x16 Adapter	HPE0000000036
P23664-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port MCX653105A-HDAT QSFP56 x16 Adapter	MT_0000000451
P23665-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port MCX653105A-ECAT QSFP56 x16 Adapter	MT_0000000452
P23666-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port MCX653106A-ECAT QSFP56 x16 Adapter	MT_0000000453
P10180-B21	Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE	MT_0000000435
P31246-B21	HPE Ethernet 100Gb 1-port QSFP28 PCIe3 x16 MCX515A-CCAT Adapter	MT_0000000591
P31323-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 OCP3 MCX653435A-HDAI Adapter	MT_0000000592
P31348-B21	HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 OCP3 MCX653436A-HDAI Adapter	MT_0000000593
P31324-B21	HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter	MT_0000000594

VMware ESXi 7.0 MST Drivers Offline Bundle for Mellanox Adapters

Version: 4.14.3.3 **(Recommended)**

Filename: Mellanox-NATIVE-NMST_4.14.3.3-1OEM.700.1.0.15525992_16211416.zip

Prerequisites

NA

Enhancements

VM70 nmst 4.14.3.3

Firmware - Network

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HPE Blade Intel Online Firmware Upgrade Utility for VMware

Version: 1.2.3 **(Optional)**

Filename: CP045076.compsig; CP045076.zip

Important Note!

HPE recommends the *HPE Blade Intel ixgben Driver for VMware*, version 2020.12.09 or later, for use with this firmware.

Prerequisites

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

Enhancements

This product now supports VMware vSphere 7.0 U1.

This product now supports VMware vSphere 6.7 U3.

This product now supports VMware vSphere 6.5 U3.

Supported Devices and Features

This package supports the following network adapters:

- HPE Ethernet 10Gb 2-port 560FLB Adapter
- HPE Ethernet 10Gb 2-port 560M Adapter

HPE Blade QLogic NX2 Online Firmware Upgrade Utility for VMware

Version: 1.5.2 **(Optional)**

Filename: CP047647.compsig; CP047647.zip

Important Note!

HPE recommends *HPE Blade QLogic NX2 10/20 GbE Multifunction Driver for VMware*, version 2021.09.01 or later, for use with this firmware.

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 Maximum Transmission Unit (MTU) value of iSCSI function port is displayed as 0 bytes in AHS log.

Enhancements

This product now supports VMware ESXi 7.0 U3.

Supported Devices and Features

This product supports the following network adapters:

- HPE FlexFabric 10Gb 2-port 534M Adapter

- HPE FlexFabric 10Gb 2-port 536FLB Adapter
- HPE FlexFabric 20Gb 2-port 630FLB Adapter
- HPE FlexFabric 20Gb 2-port 630M Adapter

HPE Broadcom NetXtreme-E Firmware Package for BCM5741x adapters
 Version: 218.0.166000 (**Recommended**)
 Filename: bcm218.0.166000.Optimized.pup.fwpkg

Fixes

- This product addresses a modification on help string of Family Firmware Version.
- This product addresses an enhancement on LLDP functional option naming under RBSU and the interactivity of DCB protocol option.
- This product addresses an issue about lack of MAC address while querying via RedFish.
- This product addresses an issue about failing to recognize the adapter firmware version under Microsoft Windows(R).
- This product addresses an issue for receiving PCIe errors while installing SUSE Linux Enterprise Server.
- This product addresses an issue for packets missing when UDP multicast application is started/stopped.
- This product addresses an issue for HPE Ethernet 10/25Gb 2-port 631FLR-SFP28 Adapter not linking up during POST.

Enhancements

Initial version

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 537SFP+ Adapter
- HPE Ethernet 10Gb 2-port 537SFP+ FLR Adapter
- HPE Ethernet 10Gb 2-port 535T Adapter
- HPE Ethernet 10Gb 2-port 535FLR-T Adapter
- HPE Ethernet 10/25Gb 2-port 631SFP28 Adapter
- HPE Ethernet 10/25Gb 2-port 631FLR-SFP28 Adapter

HPE Broadcom NX1 Online Firmware Upgrade Utility for VMware
 Version: 1.28.6 (**Optional**)
 Filename: CP045013.compsig; CP045013.zip

Important Note!

This software package contains combo image v20.18.31 with the following firmware versions:

NIC	Boot Code Version	PXE Version	NCSI Version	UEFI Version	CCM Version
HPE Ethernet 1Gb 2-port 330i Adapter (22BD)	2.10	21.6.0	1.5.27	21.6.12	218.0.10.0
HPE Ethernet 1Gb 4-port 331i Adapter (22BE) HPE Ethernet 1Gb 4-port 331FLR Adapter HPE Ethernet 1Gb 4-port 331T Adapter	1.46	21.6.0	1.5.27	21.6.12	218.0.10.0
HPE Ethernet 1Gb 2-port 332i Adapter (22E8) HPE Ethernet 1Gb 2-port 332T Adapter	1.40	21.6.0	1.5.27	21.6.12	218.0.10.0

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 about lack of information under AHS log.
- This product addresses an RSOD issue which appeared intermittently during POST after having a warm reboot.
- This product addresses a modification on help string of Family Firmware Version.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 1Gb 2-port 330i Adapter (22BD)
- HPE Ethernet 1Gb 4-port 331i Adapter (22BE)
- HPE Ethernet 1Gb 4-port 331FLR Adapter

- o HPE Ethernet 1Gb 4-port 331T Adapter
- o HPE Ethernet 1Gb 2-port 332i Adapter (22E8)
- o HPE Ethernet 1Gb 2-port 332T Adapter

HPE Intel Online Firmware Upgrade Utility for VMware
Version: 3.15.5 (**Recommended**)
Filename: CP047025.compsig; CP047025.zip

Important Note!

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

NIC	EEPROM/NVM Version	OROM Version	Single NVM Version
HPE Ethernet 1Gb 2-port 361i Adapter	8000106F	1.2836.0	N/A
HPE Ethernet 1Gb 2-port 361T Adapter	80001147	1.2836.0	N/A
HPE Ethernet 1Gb 2-port 363i Adapter	80000D00	1.2836.0	N/A
HPE Ethernet 1Gb 4-port 366i Communication Board	80000EBF	1.2836.0	N/A
HPE Ethernet 1Gb 4-port 366i Adapter	8000105E	1.2836.0	N/A
HPE Ethernet 1Gb 4-port 366FLR Adapter	80001148	1.2836.0	N/A
HPE Ethernet 1Gb 4-port 366T Adapter	80001146	1.2836.0	N/A
HPE Ethernet 1Gb 2-port 368i Adapter	800027FA	1.2836.0	N/A
HPE Ethernet 1Gb 2-port 368FLR-MMT Adapter	800027F8	1.2836.0	N/A
HPE Ethernet 1Gb 4-port 369i Adapter	800027FB	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 560FLR-SFP+ Adapter	80000838	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 560SFP+ Adapter	80000835	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 561T Adapter	80000636	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 561FLR-T Adapter	800005B6	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 568i Adapter	800027FC	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter	800027F8	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter	800027F8	1.2836.0	N/A
HPE Ethernet 10Gb 2-port 563i Adapter	800035C0	1.1375.0	N/A
HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter	80009655	1.2836.0	10.54.7
HPE Ethernet 10Gb 2-port 562FLR-T Adapter	8000137D	1.2836.0	10.54.4
HPE Ethernet 10Gb 2-port 562SFP+ Adapter	800095AA	1.2836.0	10.54.7
HPE Ethernet 10Gb 2-port 562T Adapter	8000137C	1.2836.0	10.54.4

The combo image v1.2836.0 includes: Boot Agent: 1GbE - v1.5.88, 10GbE - v2.4.44, 40GbE - v1.1.18 & UEFI Drivers: 1GbE - v9.4.06, 10GbE - v7.8.13, 40GbE - v4.4.12

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.

Enhancements

This product now supports VMware ESXi 7.0 u3

Supported Devices and Features

This package supports the following network adapters:

- HPE Ethernet 1Gb 2-port 361i Adapter
- HPE Ethernet 1Gb 2-port 361T Adapter
- HPE Ethernet 1Gb 2-port 363i Adapter
- HPE Ethernet 1Gb 2-port 368FLR-MMT Adapter
- HPE Ethernet 1Gb 2-port 368i Adapter
- HPE Ethernet 1Gb 4-port 366FLR Adapter
- HPE Ethernet 1Gb 4-port 366i Adapter
- HPE Ethernet 1Gb 4-port 366i Communication Board
- HPE Ethernet 1Gb 4-port 366T Adapter
- HPE Ethernet 1Gb 4-port 369i Adapter
- HPE Ethernet 10Gb 2-port 560FLR-SFP+ Adapter
- HPE Ethernet 10Gb 2-port 560SFP+ Adapter
- HPE Ethernet 10Gb 2-port 561FLR-T Adapter
- HPE Ethernet 10Gb 2-port 561T Adapter
- HPE Ethernet 10Gb 2-port 562FLR-SFP+ Adapter
- HPE Ethernet 10Gb 2-port 562FLR-T Adapter
- HPE Ethernet 10Gb 2-port 562SFP+ Adapter
- HPE Ethernet 10Gb 2-port 562T Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMSFP+ Adapter
- HPE Ethernet 10Gb 2-port 568FLR-MMT Adapter
- HPE Ethernet 10Gb 2-port 568i Adapter

HPE QLogic NX2 Online Firmware Upgrade Utility for VMware

Version: 1.29.3 (**Recommended**)

Filename: CP046935.compsig; CP046935.zip

Important Note!

HPE recommends HPE QLogic NX2 10/20GbE Multifunction Drivers for VMware, versions 2021.09.04 or later, for use with this firmware.

This software package contains combo image v7.18.82 with the following firmware versions:

NIC	Boot Code Version	PXE Version	UEFI Version	iSCSI Version	FCoE Version	CCM Version	L2 Version
HPE Ethernet 10Gb 2-port 530SFP+ Adapter HPE Ethernet 10Gb 2-port 530T Adapter	7.16.03	7.14.13	8.9.0	n/a	n/a	7.14.4	7.12.25
HPE Ethernet 10Gb 2-port 533FLR-T Adapter HPE FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter HPE FlexFabric 10Gb 4-port 536FLR-T Adapter HPE StoreFabric CN1100R Dual Port Converged Network Adapter HPE StoreFabric CN1100R-T Converged Network Adapter	7.16.03	7.14.13	8.9.0	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.

Enhancements

- This products enhances the mechanism that memory usage when more than one adapters
- This product now supports VMware ESXi 7.0 u3

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port 530SFP+ Adapter
- HPE Ethernet 10Gb 2-port 530T Adapter
- HPE Ethernet 10Gb 2-port 533FLR-T Adapter
- HPE FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter
- HPE FlexFabric 10Gb 4-port 536FLR-T Adapter
- HPE StoreFabric CN1100R Dual Port Converged Network Adapter
- HPE StoreFabric CN1100R-T Converged Network Adapter

Online Firmware Upgrade Utility (ESXi 7.0) for HPE Mellanox Ethernet only adapters

Version: 1.0.2 (**Recommended**)

Filename: CP046592.compsig; CP046592.zip

Important Note!

The Firmware Upgrade Utility has been split into 2 packages for Mellanox Ethernet Only NIC adapters, one supporting Synergy platforms and the other supporting ProLiant and Apollo platforms. This package supports Mellanox Ethernet Only NIC adapters on ProLiant and Apollo servers.

Prerequisites

Use iLO5 firmware version 2.30 or higher with ConnectX4/ConnectX5 firmware version 14.28.1002/16.28.1002 respectively. Thermal sensor reporting on the adapter will not be functional with older versions of iLO5 firmware.

Fixes

Fixes included in firmware version 2.42.5044 :

- An issue that prevented the firmware from detecting a link_down event thus preventing the IB bond interface from going to a failover mode.

The following issues have been fixed in version 14.31.1200:

- TX PRBS was not changed even after reconfiguring it, all PRBS mode were enabled in test mode.
- A fatal error occurred and eventually resulted in the HCA to get into an unresponsive state when a packet was larger than a strided receive WQE that was being scattered.
- The resource number size (a 64 bit number) was overwritten with a 32 bit number and erased the high bits when de-allocating the resource number.

Additional Fixes included in version 14.31.1200:

- Fixed the rate select mechanism in QSFP modules.
- Fixed classification issues for "Passive" cables to be more robust.
- Initialized the rate table in the static configuration so it will be configured at the link-not-up scenarios.

The following issues have been fixed in version 16.31.1014:

- TX PRBS was not changed even after reconfiguring it, all PRBS mode were enabled in test mode.
- An assert that was caused when trying to open 1024 functions on the device and the maximum number of functions was 1023.
- Occasional performance issues related to RC QPs using E2E-credits (not connected to SRQ and doing send/receive traffic) when the ROCE_ACCL tx_window was enabled.
- A fatal error occurred and eventually resulted in the HCA to get into an unresponsive state when a packet was larger than a strided receive WQE that was being scattered.
- A rare issue that caused RX pipe to hang.
- The resource number size (a 64 bit number) was overwritten with a 32 bit number and erased the high bits when de-allocating the resource number.
- CRT_DCR with index larger than 1 << 21 occasionally collided with the CRT_SW_RESERVED address.
- An issue that caused the TX queue to get into an unresponsive state when the VF rate limiter was set.

Additional Fixes included in version 16.31.1014:

- Disabled the CNP counter "rp_cnp_ignored " (triggered by OOS (out-of-sequence)) when all ports are IB.
- Fixed the TMP421 sensor temperature reporting.
- Fixed the rate select mechanism in QSFP modules.
- Fixed classification issues for "Passive" cables to be more robust.
- Initialized the rate table in the static configuration so it will be configured at the link-not-up scenarios.

Enhancements

Firmware for the following devices are updated to 2.42.5044 :

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

779793-B21 (HPE Ethernet 10G 2-port 546SFP+ Adapter)

Firmware for the following devices are updated to 14.31.1200:

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

Firmware for the following devices are updated to 14.31.1200:

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

Firmware for the following device is updated to 16.31.1014:

New features and changes in version 14.31.1200:

- NVconfig per Port for a Specific Finisar Module: Added a new NVconfig per Port for a specific Finisar module. This new NVconfig sets the port to work in AN mode and sets the module to No DME. This change does not affect the speed logic, only the FEC logic (FEC override).
Note: If the port does not go up, switch to Force mode.

New features and changes in version 16.31.1014:

- NIC scheduling feature support has been disabled for non-privileged functions.
- Implemented a new NC-SI command `get_debug_info` to get `mstdump` via the NC-SI protocol to debug a device if the PCI link fails for any given reason.
- Added support for Enabling/Disabling NIC and RDMA (port/partition) via the UEFI HII system settings.
Note: Values set in this option only take effect when in Ethernet mode.
- Increased the maximum number of MSIX per VF to 127.
- Asymmetrical MSIX Configuration: This feature allows the device to be configured with a different number of MSIX vectors per physical PCI functions.
To use this feature, please follow these steps:
 - Clear `NUM_PF_MSIX_VALID` to disable global symmetrical MSIX configuration.
 - Set `PF_NUM_PF_MSIX_VALID` to enable asymmetrical per Physical Function MSIX configuration.
 - Configure `PF_NUM_PF_MSIX` per physical PCI function.
- Support for RDMA partitioning and RDMA counters in IB mode.
- A new bit ("data_in_order") was added to query the QP and allow a process/library to detect when the AR is enabled.
- A new flex parser to support GENEVE hardware offload and ICMP.
- When the non-page-supplier-FLR function is initiated, the firmware triggers a page event to the page supplier to indicate that all pages should be returned for the FLR function.
Pages are returned by the driver to the kernel without issuing the `MANAGE_PAGES` commands to the firmware.
- Enabled UID 0 to create resources with UMEM (User Memory).
- Receiving and sending native IB packets from/to the software (including all headers) via raw IBL2 QPs.
- RX RDMA NIC flow table on an IB port. Now the software can steer native IB packets to raw IB receive queues according to the DLID and the DQPN.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
779793-B21	HPE Ethernet 10Gb 2-port 546SFP+ Adapter	HP_1200111023
779799-B21	HPE 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
874253-B21	HPE Ethernet 100Gb 1-port 842QSFP28 Adapter	HPE0000000014

Online Firmware Upgrade Utility (ESXi 7.0) for HPE Mellanox VPI (Ethernet and Infiniband mode) devices on VMware ESXi 7.0
Version: 1.0.1 **(Recommended)**
Filename: CP045904.compsig; CP045904.zip

Important Note!**Known Issues in firmware 2.42.5000, 2.42.5056, 2.42.5700:**

- When using the Quad Small Form-factor Pluggable (QSFP) module RTX320-581, and performing a driver restart for the firmware upgrade/downgrade to take effect, the link does not come up.
Workaround: Reboot the server.
- 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 setup, using `mlxconfig` when the Packet Filter (PF) is passed through to a VM requires a reboot of the Hypervisor.
- 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 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: Please 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.
- RHEL6.3 Inbox driver causes kernel panic when SRIOV is enabled on VPI cards due to driver compatibility issue.
- **Workaround:** Set the "`do_-sense=false`" parameter in the `[IB_TAB] i`.

- 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.
- Mellanox Firmware Tools (MFT) 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, the following message is displayed due to the mlxconfig tool: You are trying to override configurable FW by non-configurable FW. If you continue, old FW configurations will be cleared, do you want 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
- 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.
- Virtual Product Data (VPD) read-only fields are writable.
Workaround: Do not write to read-only fields if you wish to preserve them.
- When working in Virtual Path Identifier (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.
- 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: 1. Unplug the cable from the switch 2. Restart driver 3. Change the protocol via the appropriate tools.
- 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).
- Remote Desktop Protocol (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.
- MAC address that are set from the OS using ifconfig are not reflected in the OCBB buffer.
- The adapter card cannot raise a 10G link vs. a 40GE capable switch port in C7000 enclosure. It can raise a 1G Link and only if the switch port allows it.
- MTUSB communication via I2C header on primary I2C bus is supported only in live-fish mode.

Fixes

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 "mixfwtop -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 2.42.5056:

- Fixed an issue that resulted in reading from invalid I/O address on handover from UEFI boot to OS boot, when a port was configured as InfiniBand on a VPI adapter device.

Enhancements

Firmware for the following devices are updated to 2.42.5000:

764282-B21
764286-B21

Firmware for the following devices are updated to 2.42.5056:

764283-B21
764284-B21

Firmware for the following device is updated to 2.42.5700:

764285-B21

New features in firmware version 2.42.5000:

- o 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.
- o Improved the debug ability for command timeout cases.

New features and changes in firmware version 2.42.5700.

- o Modified the mlx_cmd_get_mlx_link_status command return value to return "Link Type = Ethernet" in Ethernet adapter cards.

Supported Devices and Features

Supported Devices:

HPE Part Number	Device Name	PSID
764282-B21	HPE InfiniBand QDR/Ethernet 10Gb 2-port 544+M Adapter	HPE_1350110023
764283-B21	HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+M Adapter	HPE_1360110017
764284-B21	HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+QSFP Adapter	HPE_1370110017
764285-B21	HPE InfiniBand FDR/Ethernet 10Gb/40Gb 2-port 544+FLR-QSFP Adapter	HPE_1380110017
764286-B21	HPE InfiniBand QDR/Ethernet 10Gb 2-port 544+FLR-QSFP Adapter	HPE_1390110023

Firmware - Storage Controller

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HPE D3600/D3700/D3610/D3710 12Gb SAS Disk Enclosure ROM Flash Component for VMware (ESXi)

Version: 5.04 (C) **(Recommended)**

Filename: CP048696.compsig; CP048696.md5; CP048696.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/code load.

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 fixes were incorporated in this version:

- o The Enabled-ClusterS2D command now completes successfully when executed on a SATA drive within a D3610 disk enclosure for a NonStop solution.
- o The smart carrier, which is the drive case for SAS drives, now authenticates in the D3610/D3710 drive enclosure.
- o Added new 7-segment error codes E0 and E1 to report issues with Fan modules A and B, respectively. These new codes only

apply to the D3610/D3710 and only display when running firmware 5.04.

- If the storage enclosure processor within the I/O module fails, a hard reset (power down and then power up) is executed to ensure the processor comes back online.

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 :

- Smart Array P841 Controller
- Smart Array P441 Controller
- Smart HBA H241
- Smart Array P741m Controller
- Smart Array P408e-p Controller
- Smart Array E208e-p Controller
- Smart Array P408e-m Controller

HPE D6020 12Gb SAS Disk Enclosure ROM Flash Component for VMware (ESXi)

Version: 2.74 (J) **(Recommended)**

Filename: CP048699.compsig; CP048699.md5; CP048699.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 were incorporated in this version:

- Temperature sensors logic inside gSEP model and SES database
- When an IOM is pulled the surviving IOM reports false critical temperatures

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 :

- Smart Array P841 Controller
- Smart Array P441 Controller
- Smart HBA H241
- Smart Array P741m Controller
- Smart Array P408e-p Controller
- Smart Array E208e-p Controller
- Smart Array P408e-m Controller

Version: 5.10 (**Recommended**)
Filename: CP049281.compsig; CP049281.zip

Important Note!

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

Fixes

- Valid flag is always set to true initially so that CRC check can be performed on initstring partition and test if it is really valid.
- Move Smart Carrier Authentication to later in the boot process and move the Exception Dumper task to earlier in the process in order to support Winbond alternative Flash

Online ROM Flash Component for VMware ESXi - HPE Apollo 2000 System - SAS Expander
Version: 1.52 (B) (**Recommended**)
Filename: CP045347.compsig; CP045347.zip

Enhancements

Added support for ESXi 7.0

Online ROM Flash Component for VMware ESXi - HPE Express Bay Enablement Switch Card
Version: 1.78 (C) (**Recommended**)
Filename: CP044313.compsig; CP044313.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

Enhancements

Added support for the ESXi OS 7.0 changes

Online ROM Flash Component for VMware ESXi - Smart Array and Smart HBA H240ar, H240nr, H240, H241, H244br, P240nr, P244br, P246br, P440ar, P440, P441, P542D, P741m, P840, P840ar, and P841
Version: 7.20 (**Recommended**)
Filename: CP042887.compsig; CP042887.zip

Fixes

- Fixed an issue where a drive reporting HW failure causes the controller to appear as hung for 15 minutes
- Fixed a controller OxAB lockup due to a SATA event buffer leak
- Fixed a controller hang and lockup caused by a dropped IO following overrun response
- Fixed an issue where an attached JBOD with a redundant fan module removed results in overall status of the JBOD reported as failed in iLO

Online ROM Flash Component for VMware ESXi - Smart Array P220i, P222, P420i, P420, P421, P721m, and P822
Version: 8.32 (E) (**Recommended**)
Filename: CP045344.compsig; CP045344.zip

Enhancements

Added support for ESXi 7.0

Online ROM Flash Component for VMware ESXi - Smart Array P230i, P430, P431, P731m, P830i, and P830

Version: 5.02 (B) **(Recommended)**

Filename: CP045345.compsig; CP045345.zip

Enhancements

Added support for the ESXi OS7.0

Software - Management

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HPE Agentless Management Bundle Smart Component for Gen9 on ESXi 7.0

Version: 2021.10.01 **(Recommended)**

Filename: cp047519.compsig; cp047519.zip

Fixes

Agentless Management Service

- Applied fixes to net-snmp open source code for CVE-2018-18065, CVE-2018-18066, CVE-2015-5621
-

HPE CRU Driver Bundle Smart Component for ESXi 7.0

Version: 2020.04.01 (A) **(Recommended)**

Filename: cp044598.compsig; cp044598.zip

Enhancements

Add new supported servers

HPE Fiber Channel and Storage Enablement Bundle Smart Component for ESXi 7.0

Version: 2021.10.01 **(Recommended)**

Filename: cp047521.compsig; cp047521.zip

Enhancements

Supports VMware ESXi 7.0 U2 and ESXi 7.0 U3

HPE iLO Driver Bundle Smart Component for ESXi 7.0

Version: 2021.09.01 **(Recommended)**

Filename: cp047518.compsig; cp047518.zip

Fixes

- Fixed driver unload function to allow controller to function properly on reload and when Quickboot is enabled.
-

HPE SMX Provider Bundle Smart Component for ESXi 7.0

Version: 2020.04.01 (B) **(Recommended)**

Filename: cp044960.compsig; cp044960.zip

Enhancements

Updated supported server list.

Smart Storage Administrator (SSA) CLI Smart Component for ESXi 7.0

Version: 2021.04.01 **(Recommended)**

Filename: cp047031.compsig; cp047031.zip

Enhancements

Adding support to the HPE SR Gen10 Plus Controllers.

Smart Storage Administrator (SSA) CLI Smart Component for ESXi 7.0

Version: 2021.09.01 **(Recommended)**

Filename: cp047066.compsig; cp047066.zip

Fixes

- Fixed an issue where the "Turn off" LED operation momentarily turns on all Identify LED.
- Fixed an issue where an NVME drive was failed after flashing drive firmware.
- Fixed an issue where an operation failure message was observed while deleting a volume with status "Not Available".
- Fixed an issue that SSAScripting reported incorrect size for some drives greater than 1TB. This did not affect SSACLI.

Enhancements

- Added initial passive SED support.
- Added new "unchanged" Drive Write Cache (DWC) policy to the applications.
- Added support for discovering and reporting failed drives that are not part of a RAID volume.

Software - System Management

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HPE Agentless Management Bundle for ESXi 7.0 on Gen9

Version: 701.11.8.0 (**Recommended**)

Filename: amshelprComponent_701.11.8.0.12-1_18567695.zip

Fixes

Agentless Management Service

- Applied fixes to net-snmp open source code for CVE-2018-18065, CVE-2018-18066, CVE-2015-5621

HPE Fiber Channel and Storage Enablement Component for ESXi 7.0

Version: 3.8.0 (**Recommended**)

Filename: fc-enablement-component_700.3.8.0.6-1_18506758.zip

Enhancements

Supports VMware ESXi 7.0 U2 and ESXi 7.0 U3

Smart Storage Administrator (SSA) CLI for VMware 7.0

Version: 5.10.45.0 (**Recommended**)

Filename: ssacli-component_5.10.45.0-7.0.0_17605318.zip

Enhancements

Adding support to the HPE SR Gen10 Plus Controllers.

Smart Storage Administrator (SSA) CLI for VMware 7.0

Version: 5.10.45.1 (**Recommended**)

Filename: hpeffacli-component_5.10.45.1-7.0.0_17771110.zip

Enhancements

Adding support to the HPE SR Gen10 Plus Controllers.

Smart Storage Administrator (SSA) CLI for VMware 7.0

Version: 5.20.8.0 (**Recommended**)

Filename: ssacli-component_5.20.8.0-7.0.0_18528106.zip

Fixes

- Fixed an issue where the "Turn off" LED operation momentarily turns on all Identify LED.
- Fixed an issue where an NVME drive was failed after flashing drive firmware.
- Fixed an issue where an operation failure message was observed while deleting a volume with status "Not Available".
- Fixed an issue that SSAScripting reported incorrect size for some drives greater than 1TB. This did not affect SSACLI.

Enhancements

- Added initial passive SED support.
- Added new "unchanged" Drive Write Cache (DWC) policy to the applications.

Added support for discovering and reporting failed drives that are not part of a RAID volume.

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Updated October 26 2021

