VMware Deliverable Release Notes

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

Gen11 SPP 2023.10.00.00 Release Notes for VMware ESXi 7.0

BIOS - System ROM	**Top**

ROM Flash Firmware Package - HPE ProLiant DL110 Gen11 (U62) Servers
Version: 1.46_09-26-2023 **(Recommended)**
Filename: U62_1.46_09_26_2023.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL110 Gen11 System ROM - U62

Release Version:

1.46_09-26-2023

Last Recommended or Critical Revision:

This is the initial version of the firmware.

Previous Revision:

This is the initial version of the firmware.

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Problems Fixed:

None

Known Issues:

None

Enhancements

Important Notes:

None

Firmware Dependencies:

None

Enhancements/New Features:

This is the initial version of the firmware.

Known Issues:

None

ROM Flash Firmware Package - HPE ProLiant DL320/ML110 Gen11 (U63) Servers
Version: 1.46_09-26-2023 **(Recommended)**
Filename: U63_1.46_09_26_2023.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL320 Gen11/ML110 Gen11 Servers System ROM - U63

Release Version:

1.46_09-26-2023

Last Recommended or Critical Revision:

1.46_09-26-2023

Previous Revision:

1.44_07-31-2023

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where the MegaRAID controller status is displayed as "unknown" on the iLO web page.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the MegaRAID controller status is displayed as "unknown" on the iLO web page.

Known Issues:

None

ROM Flash Firmware Package - HPE Alletra 4110/Alletra 4120 Storage Server/ProLiant DL380a Gen11 (U58) Servers
Version: 1.46_09-26-2023 **(Recommended)**
Filename: U58_1.46_09_26_2023.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE Alletra 4110/Alletra 4120/ProLiant DL380a Gen11 System ROM - U58

Release Version:

1.46_09-26-2023

Last Recommended or Critical Revision:

1.46_09-26-2023

Previous Revision:

1.44_07-31-2023

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where the MegaRAID controller status is displayed as "unknown" on the iLO web page.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the MegaRAID controller status is displayed as "unknown" on the iLO web page.

Known Issues:

None

ROM Flash Firmware Package - HPE ProLiant DL560 Gen11 (U59) Servers
Version: 1.46_09-26-2023 **(Recommended)**
Filename: U59_1.46_09_26_2023.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE DL560 Gen11 System ROM - U59

Release Version:

1.46_09-26-2023

Last Recommended or Critical Revision:

1.46_09-26-2023

Previous Revision:

1.44_07-31-2023

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where the MegaRAID controller status is displayed as "unknown" on the iLO web page.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the MegaRAID controller status is displayed as "unknown" on the iLO web page.

Known Issues:

None

ROM Flash Firmware Package - HPE ProLiant ML350/DL360/DL380 Gen11 (U54) Servers
Version: 1.46_09-26-2023 **(Recommended)**
Filename: U54_1.46_09_26_2023.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE DL380 Gen11/ML350 Gen11/DL360 Gen11 System ROM - U54

Release Version:

1.46_09-26-2023

Last Recommended or Critical Revision:

1.46_09-26-2023

Previous Revision:

1.44_07-31-2023

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Addressed an issue where the MegaRAID controller status is displayed as "unknown" on the iLO web page.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Addressed an issue where the MegaRAID controller status is displayed as "unknown" on the iLO web page.

Known Issues:

None

ROM Flash Universal Firmware Package - HPE ProLiant DL325/DL345 Gen11 (A56) Servers
Version: 1.42_08-16-2023 **(Recommended)**
Filename: A56_1.42_08_16_2023.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL325 Gen11/DL345 Gen11 System ROM - A56

Release Version:

1.42_08-16-2023

Last Recommended or Critical Revision:

1.42_08-16-2023

Previous Revision:

1.40_07-12-2023

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Address an issue that can result in a Red Screen of Death (RSOD) and hang during system boot or a hang during system boot without an RSOD. This issue can occur on systems utilizing the v1.32 or v1.40 System ROM revision and iLO Firmware revision v1.50. The v1.32 System ROM added a boot-time reduction capability (which also required iLO Firmware revision v1.50) which resulted in the boot-time RSOD and/or hang. This capability has been removed in this revision of the System ROM.

Addressed an issue where one-time boot did not work properly after setting one-time boot device from iLO web or via Redfish.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Address an issue that can result in a Red Screen of Death (RSOD) and hang during system boot or a hang during system boot without an RSOD. This issue can occur on systems utilizing the v1.32 or v1.40 System ROM revision and iLO Firmware revision v1.50. The v1.32 System ROM added a boot-time reduction capability (which also required iLO Firmware revision v1.50) which resulted in the boot-time RSOD and/or hang. This capability has been removed in this revision of the System ROM.

Addressed an issue where one-time boot did not work properly after setting one-time boot device from iLO web or via Redfish.

Known Issues:

None

ROM Flash Universal Firmware Package - HPE ProLiant DL365/DL385 Gen11 (A55) Servers
Version: 1.42_08-16-2023 **(Recommended)**
Filename: A55_1.42_08_16_2023.fwpkg

Important Note!

Important Notes:

None

Deliverable Name:

HPE ProLiant DL385 Gen11/DL365 Gen11 System ROM - A55

Release Version:

1.42_08-16-2023

Last Recommended or Critical Revision:

1.42_08-16-2023

Previous Revision:

1.40_07-12-2023

Firmware Dependencies:

None

Enhancements/New Features:

None

Problems Fixed:

Address an issue that can result in a Red Screen of Death (RSOD) and hang during system boot or a hang during system boot without an RSOD. This issue can occur on systems utilizing the v1.32 or v1.40 System ROM revision and iLO Firmware revision v1.50. The v1.32 System ROM added a boot-time reduction capability (which also required iLO Firmware revision v1.50) which resulted in the boot-time RSOD and/or hang. This capability has been removed in this revision of the System ROM.

Addressed an issue where one-time boot did not work properly after setting one-time boot device from iLO web or via Redfish.

Known Issues:

None

Fixes

Important Notes:

None

Firmware Dependencies:

None

Problems Fixed:

Address an issue that can result in a Red Screen of Death (RSOD) and hang during system boot or a hang during system boot without an RSOD. This issue can occur on systems utilizing the v1.32 or v1.40 System ROM revision and iLO Firmware revision v1.50. The v1.32 System ROM added a boot-time reduction capability (which also required iLO Firmware revision v1.50) which resulted in the boot-time RSOD and/or hang. This capability has been removed in this revision of the System ROM.

Addressed an issue where one-time boot did not work properly after setting one-time boot device from iLO web or via Redfish.

Known Issues:

None

Driver - Lights-Out Management
HPE iLO Native Driver for ESXi 7.0
Version: 10.8.1 **(Recommended)**
Filename: ilo-driver_700.10.8.1.6-1OEM.700.1.0.15843807_22315884.zip

Enhancements

- Added support for vSphere 8.0U2.

HPE Broadcom NetXtreme-E Drivers for VMware vSphere 7.0
Version: 2023.09.00 **(Recommended)**
Filename: cp057074.compsig; cp057074.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 CP0xxxxx.xml file.
- HPE recommends the *HPE Broadcom NetXtreme-E Firmware Version,* 226.1.107000 or later, for use with this driver.

Fixes

- This product corrects an issue PSOD seen with iperf traffic, when rx-ring size less than 256 bytes.
- This product corrects an issue Packet drops in ENS mode for tunnel traffic due to checksum issues.
- This product corrects an issue VXLAN tunnel port configuration failure during driver reload
- This product corrects an issue BFD (Bidirectional Forwarding Detection) control failures in NSX environment.
- This product corrects an issue ENS driver invokes driver APIs with spinlock, causing system crash.
- This product corrects an issue No VLAN strip issue, when VSAN configs is invoking VLAN stripping enable followed by disable before the driver sends first time config to firmware.

Enhancements

This product enhances driver logging as more generic and appropriate.

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 Ethernet 10Gb 2-port SFP+ BCM57412 OCP3 Adapter
- HPE Ethernet 10Gb 2-port SFP+ BCM57412 Adapter
- HPE Ethernet 10Gb 2-port BaseT BCM57416 OCP3 Adapter
- HPE Ethernet 10Gb 2-port BaseT BCM57416 Adapter
- HPE Ethernet 10/25Gb 2-port SFP28 BCM57414 OCP3 Adapter
- HPE Ethernet 10/25Gb 2-port SFP28 BCM57414 Adapter
- Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE
- Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE

HPE Intel igbn Driver for VMware vSphere 7.0
Version: 2023.09.00 **(Recommended)**
Filename: cp056780.compsig; cp056780.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 CP0xxxxx.xml file.

HPE recommends the firmware provided in *HPE Intel Online Firmware Upgrade Utility for VMware*, version 3.21.0 or later, for use with this driver.

Fixes

This product fix an issue that TCP traffic on VMs might be interrupted if PF undergoes a reset.

Supported Devices and Features

These drivers support the following network adapters:

- HPE Ethernet 1Gb 2-port 361T Adapter
- HPE Ethernet 1Gb 2-port 361i Adapter

- HPE Ethernet 1Gb 2-port 363i Adapter
  - HPE Ethernet 1Gb 4-port 366FLR Adapter
  - HPE Ethernet 1Gb 4-port 366T Adapter
  - HPE Ethernet 1Gb 4-port 366i Adapter
  - HPE Ethernet 1Gb 4-port 366i Communication Board
  - Intel I350-T4 Ethernet 1Gb 4-port BASE-T Adapter for HPE
  - Intel I350-T4 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE
  - Intel(R) I350 Gigabit Network Connection

Intel icen Driver for VMware vSphere 7.0
Version: 2023.09.00 **(Recommended)**
Filename: cp056779.compsig; cp056779.zip

<u>Important Note!</u>

- 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 *Intel Firmware Package For E810 Ethernet Adapter*, version 4.20 or later, for use with this driver.

<u>Fixes</u>

This product fix an issue that TCP traffic on VMs might be interrupted if PF undergoes a reset.

<u>Enhancements</u>

This product fix an issue that TCP traffic on VMs might be interrupted if PF undergoes a reset.

<u>Supported Devices and Features</u>

This product supports the following network adapters:

- Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE
- Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 OCP3 Adapter for HPE
- Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE
- Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE
- Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE
- Intel E810-2CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE
- Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE

Mellanox ConnectX-4, ConnectX-5 and ConnectX-6 "nmlx5_en" Driver Component for VMware ESXi 7.0 Update 3
Version: 2022.11.09 (A) **(Recommended)**
Filename: cp056896.compsig; cp056896.zip

<u>Important Note!</u>

Important: Version 4.22.73.1004 supports VMware ESXi 7.0 Update 3 only.

Known Issues with driver version 4.22.73.1004:

- A mismatch between the uplink and the VF MTU values may result in CQE with error.
  Workaround:: Align the uplink and the VF MTU values.
- 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.
- RDMA is not supported in the Hypervisor with ENS (Enhanced Network Stack) model 2.
- 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.
- ECN (Explicit congestion notification) statistic counters accumulatorsPeriod and ecnMarkedRocePackets display wrong values and cannot be cleared.
- ECN tunable parameter initialAlphaValue for the Reaction Point protocol cannot be modified.
- Card's speed remains zero after port goes down and reboot is performed.
- RoCE traffic may fail after vMotion when using namespace.
- Legacy SR-IOV is not supported with Model 1.
- When in ENS mode, changing the scheduler to HCLK, may cause traffic loss.
- The 'esxcli mellanox uplink link info -u <vmnic_name>' command reports the 'Auto negotiation' capability always as 'true'.
- SMP MADs (ibnetdiscover, sminfo, iblinkinfo, smpdump, ibqueryerr, ibdiagnet and smpquery) are not supported on the VFs.
- 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 driver version 4.22.73.1004:

- Fixed an issue that caused a ParaVirtual VM to lose traffic after resuming from the suspend mode when SR-IOV was enabled in the system.
- Cleaned steering rule from FDB when VF is being quiesced.
- Fixed an issue that caused the driver to configure the incorrect SL value for RoCE with RDMACM.

Enhancements

New features and changes in driver version 4.22.73.1004:

- Firmware CR dump will now be collected automatically into ZDUMP PSOD or on livedump for debuggability purposes.
- Enabled the driver to read the temperature from private statistics.

  To see the temperature, run:# *nsxdp-cli ens uplink stats get -n vmnic1 | grep -i asicSensorTemperature*

- Added support for Hardware Accelerated GENEVE and VXLAN encapsulation and decapsulation for RoCE traffic.
- Hardware accelerated flows can now be mirrored using the standard packet capture tools.
- Added the ability to offload NSX Distributed Firewall rules by using in-hardware tracking of packet flows.
- RSS support for ENS Model 1 improves performance using fewer CPU cores. This capability can be enabled using the "netq_rss_ens" module parameter.

Supported Devices and Features

HPE Part Number	Device Name	PSID
P24837-B21	HPE Ethernet 10/25Gb 2-port 642SFP28 Adapter	HPE0000000054
P11338-B21	HPE Ethernet 10Gb 2-port 548SFP+ Adapter	HP_1200111023
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
817749-B21	HPE Ethernet 10/25Gb 2-port FLR-SFP28 MCX4121A-ACFT Adapter	HP_2690110034
817753-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX4121A-ACUT Adapter	HP_2420110034
P21927-B21	HPE Ethernet 100Gb 2-port QSFP28 MCX516A-CCHT Adapter	MT_0000000417
P10112-B21	Mellanox MCX562A-ACAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	MT_0000000241
P13188-B21	Mellanox MCX512F-ACHT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	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 QSFP28 MCX515A-CCAT Adapter	HPE0000000014
P25960-B21	Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE	MT_0000000437
P06154-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe3 x16 MCX653105A-HDAT Adapter	HPE0000000034
P06250-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe3 x16 MCX653105A-ECAT Adapter	HPE0000000035
P06251-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe3 x16 MCX653106A-ECAT Adapter	HPE0000000036
P23664-B21	HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 MCX653105A-HDAT Adapter	MT_0000000451
P23665-B21	HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter	MT_0000000452
P23666-B21	HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe4 x16 MCX653106A-ECAT 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
P42041-B21	Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	MT_0000000551
P42044-B21	Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	MT_0000000575

HPE MR416i-p, MR416i-o, MR216i-o, MR408i-o, MR216i-p Gen10 Plus and Gen11 controller (64-bit) Driver for vSphere 7.0
Version: 2023.05.01 (B) **(Recommended)**
Filename: cp057854.compsig; cp057854.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 vmware.com and the HPE vibsdepot.hpe.com webpages, plus an HPE specific CPXXXX.xml file.

Enhancements

Support HPE DL20 and ML30 Gen11 servers.

HPE ProLiant Gen10 Smart Array and Gen10 Plus and Gen11 Smart RAID Controller Driver for VMware vSphere 7.0 (Driver Component).
Version: 2023.10.01 **(Recommended)**
Filename: cp055672.compsig; cp055672.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 vmware.com, plus an HPE specific CPXXXX.xml file.

Fixes

- Fixed an issue when PSOD occurs while attempting to access memory which had already been released.
- Fixed an issue where PSOD is observed during array creation and deletion.
- Fixed an issue where datastore creation using logical drive from VMware client GUI is too slow.
- Fixed an issue where the Hotswapped HBA drives are detected after 20 minutes or when a manual rescan is done.

Broadcom Firmware Package for BCM5741x adapters
Version: 226.1.107.0 **(Recommended)**
Filename: bcm226.1.107.0.pup.fwpkg

Important Note!

For Firmware installation, there is no OS and drivers dependency.
For Firmware compatibility during production, HPE recommends the drivers for use with the firmware Package product as below,

- Broadcom NetXtreme-E Driver for Microsoft Windows Server, version 226.0.108.0 or later
- HPE Broadcom NetXtreme-E Drivers for Linux, version 1.10.2-226.0.139.0 or later
- HPE Broadcom NetXtreme-E Drivers for VMware, version 2023.09.00 or later

Fixes

- This product addressed device lost symptom after continuously ungraceful restart on BCM57414 OCP3 adapter.
- This product addressed some RDE pattern format for some LLDP properties.
- This product addressed the NC-SI passthrough with BMC when device is under idle mode.
- This product addressed new mechanism for loading factory default.

Enhancements

- This product enhanced the device self-diagnostic matrix and MAC verification.
- This product enhanced the link-speed calculation for internal variable.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port SFP+ BCM57412 Adapter
- HPE Ethernet 10Gb 2-port SFP+ BCM57412 OCP3 Adapter
- HPE Ethernet 10Gb 2-port BaseT BCM57416 Adapter
- HPE Ethernet 10Gb 2-port BaseT BCM57416 OCP3 Adapter
- HPE Ethernet 10/25Gb 2-port SFP28 BCM57414 Adapter
- HPE Ethernet 10/25Gb 2-port SFP28 BCM57414 OCP3 Adapter

Broadcom Firmware Package for BCM5750x adapters
Version: 226.1.107.0 **(Recommended)**
Filename: bcm226.1.107.0_Thor.pup.fwpkg

Important Note!

For Firmware installation, there is no OS and drivers dependency.
For Firmware compatibility during production, HPE recommends the drivers for use with the firmware Package product as below,

- Broadcom NetXtreme-E Driver for Microsoft Windows Server, version 226.0.108.0 or later
- HPE Broadcom NetXtreme-E Drivers for Linux, version 1.10.2-226.0.139.0 or later
- HPE Broadcom NetXtreme-E Drivers for VMware, version 2023.09.00 or later

Fixes

- This product addressed some RDE pattern format for some LLDP properties.
- This product addressed the NC-SI passthrough with BMC when device is under idle mode.
- This product addressed new mechanism for loading factory default.

Enhancements

- This product enhanced the device self-diagnostic matrix and MAC verification.
- This product enhanced the link-speed calculation for internal variable.

Supported Devices and Features

This product supports the following network adapters:

- Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE
- Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE

Broadcom NX1 Online Firmware Upgrade Utility for VMware
Version: 1.35.70 **(Recommended)**
Filename: CP058510.compsig; CP058510.zip

Important Note!

This software package contains combo image v20.26.44 with the following firmware versions:

NIC	Boot Code Version	PXE Version	NCSI Version	UEFI Version
BCM 5719 1GbE 4p BASE-T Adptr	1.46	21.6.2	1.5.49	21.6.58
BCM 5719 1GbE 4p BASE-T OCP3 Adptr	1.46	21.6.2	1.5.49	21.6.58
BCM 5719 1GbE 4p BASE-T LOM Adptr	1.48	21.6.2	1.5.49	21.6.58
BCM 5720 1GbE 2p BASE-T LOM Adptr	1.42	21.6.2	1.5.49	21.6.58

Prerequisites

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

Fixes

This product addresses an issue where network loses IP Address Randomly during AC/DC cycle and idling.

Supported Devices and Features

This product supports the following network adapters:

- Broadcom BCM5720 Ethernet 1Gb 2-port BASE-T LOM Adapter for HPE
- Broadcom BCM5719 Ethernet 1Gb 4-port Base-T Adapter for HPE
- Broadcom BCM5719 Ethernet 1Gb 4-port Base-T OCP3 Adapter for HPE
- Broadcom BCM5719 Ethernet 1Gb 4-port Base-T LOM Adapter for HPE

Intel Firmware Package For E810-2CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter
Version: 4.20 **(Recommended)**
Filename: HPE_E810_2CQDA2_O_SEC_4p20_PLDMoMCTP_80017784.fwpkg

Important Note!

For Firmware installation, there is no OS and drivers dependency.
For Firmware compatibility during production, HPE recommends the drivers for use with the firmware Package product as below,

- o   Intel icea Driver for Microsoft Windows Server, version 1.12.164.0 or later
- o   Intel ice Drivers for Linux, version 1.11.14-1 or later
- o   Intel icen Driver for VMware, version 2023.09.00 or later

This FW version does not support Port.Reset RDE metrics. This product will be enhance to improve the functions in the future release

Fixes

This product addresses an issue where InterfaceEnabled property is read only and it can't patch this property

Enhancements

This product now supports ResetToDefault property(RDE Port Schema).

Supported Devices and Features

This product supports the following network adapters:

- o   Intel E810-2CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE

Intel Firmware Package For E810-CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter
Version: 4.20 **(Recommended)**
Filename: HPE_E810_CQDA2_4p20_PLDMoMCTP_80017785.fwpkg

Important Note!

For Firmware installation, there is no OS and drivers dependency.
For Firmware compatibility during production, HPE recommends the drivers for use with the firmware Package product as below,

- o   Intel icea Driver for Microsoft Windows Server, version 1.12.164.0 or later
- o   Intel ice Drivers for Linux, version 1.11.14-1 or later
- o   Intel icen Driver for VMware, version 2023.09.00 or later

This FW version does not support Port.Reset RDE metrics. This product will be enhance to improve the functions in the future release

Fixes

This product addresses an issue where InterfaceEnabled property is read only and it can't patch this property

Enhancements

This product now supports ResetToDefault property(RDE Port Schema).

Supported Devices and Features

This product supports the following network adapters:

- o   Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE

Intel Firmware Package For E810-CQDA2 Ethernet 100Gb 2-port QSFP28 OCP3 Adapter
Version: 4.20 **(Recommended)**
Filename: HPE_E810_CQDA2_OCP_4p20_NCSIwPLDMoMCTP_80017783.fwpkg

Important Note!

For Firmware installation, there is no OS and drivers dependency.
For Firmware compatibility during production, HPE recommends the drivers for use with the firmware Package product as below,

- ○ Intel icea Driver for Microsoft Windows Server, version 1.12.164.0 or later
- ○ Intel ice Drivers for Linux, version 1.11.14-1 or later
- ○ Intel icen Driver for VMware, version 2023.09.00 or later

This FW version does not support Port.Reset RDE metrics. This product will be enhance to improve the functions in the future release

Fixes

This product addresses an issue where InterfaceEnabled property is read only and it can't patch this property

Enhancements

This product now supports ResetToDefault property(RDE Port Schema).

Supported Devices and Features

This product supports the following network adapters:

- ○ Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 OCP3 Adapter for HPE

Intel Firmware Package For E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 Adapter
Version: 4.20 **(Recommended)**
Filename: HPE_E810_XXVDA2_SD_4p20_PLDMoMCTP_8001778C.fwpkg

Important Note!

For Firmware installation, there is no OS and drivers dependency.
For Firmware compatibility during production, HPE recommends the drivers for use with the firmware Package product as below,

- ○ Intel icea Driver for Microsoft Windows Server, version 1.12.164.0 or later
- ○ Intel ice Drivers for Linux, version 1.11.14-1 or later
- ○ Intel icen Driver for VMware, version 2023.09.00 or later

This FW version does not support Port.Reset RDE metrics. This product will be enhance to improve the functions in the future release

Fixes

This product addresses an issue where InterfaceEnabled property is read only and it can't patch this property

Enhancements

This product now supports ResetToDefault property(RDE Port Schema).

Supported Devices and Features

This product supports the following network adapters:

- ○ Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE

Intel Firmware Package For E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter
Version: 4.20 **(Recommended)**
Filename: HPE_E810_XXVDA2_SD_OCP_4p20_NCSIwPLDMoMCTP_80017787.fwpkg

Important Note!

For Firmware installation, there is no OS and drivers dependency.
For Firmware compatibility during production, HPE recommends the drivers for use with the firmware Package product as below,

- ○ Intel icea Driver for Microsoft Windows Server, version 1.12.164.0 or later
- ○ Intel ice Drivers for Linux, version 1.11.14-1 or later

- Intel icen Driver for VMware, version 2023.09.00 or later

This FW version does not support Port.Reset RDE metrics. This product will be enhance to improve the functions in the future release

Fixes

This product addresses an issue where InterfaceEnabled property is read only and it can't patch this property

Enhancements

This product now supports ResetToDefault property(RDE Port Schema).

Supported Devices and Features

This product supports the following network adapters:

- Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE

Intel Firmware Package For E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 Adapter
Version: 4.20 **(Recommended)**
Filename: HPE_E810_XXVDA4_FH_4p20_PLDMoMCTP_80017789.fwpkg

Important Note!

For Firmware installation, there is no OS and drivers dependency.
For Firmware compatibility during production, HPE recommends the drivers for use with the firmware Package product as below,

- Intel icea Driver for Microsoft Windows Server, version 1.12.164.0 or later
- Intel ice Drivers for Linux, version 1.11.14-1 or later
- Intel icen Driver for VMware, version 2023.09.00 or later

This FW version does not support Port.Reset RDE metrics. This product will be enhance to improve the functions in the future release

Fixes

This product addresses an issue where InterfaceEnabled property is read only and it can't patch this property

Enhancements

This product now supports ResetToDefault property(RDE Port Schema).

Supported Devices and Features

This product supports the following network adapters:

- Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE

Intel Firmware Package For E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter
Version: 4.20 **(Recommended)**
Filename: HPE_E810_XXV4_OCP_4p20_NCSIwPLDMoMCTP_80017788.fwpkg

Important Note!

For Firmware installation, there is no OS and drivers dependency.
For Firmware compatibility during production, HPE recommends the drivers for use with the firmware Package product as below,

- Intel icea Driver for Microsoft Windows Server, version 1.12.164.0 or later
- Intel ice Drivers for Linux, version 1.11.14-1 or later
- Intel icen Driver for VMware, version 2023.09.00 or later

This FW version does not support Port.Reset RDE metrics. This product will be enhance to improve the functions in the future release

Fixes

This product addresses an issue where InterfaceEnabled property is read only and it can't patch this property

Enhancements

This product now supports ResetToDefault property(RDE Port Schema).

Supported Devices and Features

This product supports the following network adapters:

- Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE

Intel Online Firmware Upgrade Utility for VMware
Version: 3.21.0 **(Recommended)**
Filename: CP056800.compsig; CP056800.zip

Important Note!

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

NIC	EEPROM/NVM Version	OROM Version	NVM Version
HPE Ethernet 10Gb 2-port SFP+ OCP3 X710-DA2 Adapter	8000DD4F	1.3353.0	9.20
HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter	8000DD5C	1.3353.0	9.20
Intel I350-T4 Ethernet 1Gb 4-port BASE-T Adapter	80001099	1.3353.0	N/A
Intel I350-T4 Ethernet 1Gb 4-port BASE-T OCP3 Adapter	80001199	1.3353.0	N/A
Intel(R) I350 Gigabit Network Connection (2-port)	8000119C	1.3353.0	N/A
Intel(R) I350 Gigabit Network Connection (4-port)	8000119D	1.3353.0	N/A

The combo image v1.3353.0 includes: Boot Agent: 1GbE - v1.5.89, 10GbE - v2.4.45, 40GbE - v1.1.42 & UEFI Drivers: 1GbE - v9.8.24, 10GbE - v8.2.06, 40GbE - v4.9.49

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 8.0.

Supported Devices and Features

This package supports the following network adapters:

- Intel(R) I350 Gigabit Network Connection (2-port)
- Intel(R) I350 Gigabit Network Connection (4-port)
- HPE Ethernet 1Gb 4-port BaseT I350-T4 Adapter
- HPE Ethernet 1Gb 4-port BaseT I350-T4 OCP3 Adapter
- HPE Ethernet 10Gb 2-port SFP+ X710-DA2 OCP3 Adapter
- HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter

Mellanox Firmware Package (FWPKG) - Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE
Version: 26.37.1700 **(Recommended)**
Filename: 26_37_1700-MCX631102AS-ADA_Ax.pldm.fwpkg

Important Note!

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software or documents that you download from http://www.nvidia.com/, except that HPE may provide a limited warranty for NVIDIA software in accordance with the terms and conditions of your purchase of the HPE product or solution.

A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/ConnectX6LxFirmwarev26371014/Known+Issues

Note: The firmware version xx.37.1014 is generic firmware distributed by NVIDIA and is not published by HPE. HPE does not recommend customers to use the version xx.37.1014, however the list of 'Known issues' remain the same between the versions xx.37.1700 and xx.37.1014.

Prerequisites

FWPKG will work only if the firmware version flashed on the adapter is 20.27.1016 or later and iLO5 firmware version must be 2.30 or higher.

Fixes

The following issues have been fixed in version 26.37.1700:

- An issue that prevented the adapter card from handling WoL packets when the host powered up directly into the standby mode.
- CNP received, handled, and ignored counters in the hardware counters could not work after moving to Programmable Congestion Control mode.

Enhancements

New features and changes included in version 26.37.1700:

- Modified the RDE behavior to return an error if the chassis ID subtype is AgentId, or Port ID subtype is ChassisComp.
- Enabled VF LAG hash mode. The LAG_RESOURCE_ALLOCATION mlxconfig field is now modifiable.
- A new capability enables the VM to track and limit its Vport's activity. This is done using the new q_counters counter which enables aggregation of other Vport's from PF GVMI.
- Added a flow rule that enables offloading of multicast traffic by broadcasting it to multi-Flow-Table in FDB.
- Enables a smooth and statically switch between PCC algorithms. In addition, the user can now switch between PCC algorithms while running traffic.
- Added support for 32 actions in the header modify pattern using bulk allocation.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P42044-B21	Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	MT_0000000575

Mellanox Firmware Package (FWPKG) - Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE
Version: 26.37.1700 **(Recommended)**
Filename: 26_37_1700-MCX631432AS-ADA_Ax.pldm.fwpkg

Important Note!

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A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/ConnectX6LxFirmwarev26371014/Known+Issues

Note: The firmware version xx.37.1014 is generic firmware distributed by NVIDIA and is not published by HPE. HPE does not recommend customers to use the version xx.37.1014, however the list of 'Known issues' remain the same between the versions xx.37.1700 and xx.37.1014.

Prerequisites

FWPKG will work only if the firmware version flashed on the adapter is 20.27.1016 or later and iLO5 firmware version must be 2.30

or higher.

Fixes

The following issues have been fixed in version 26.37.1700:

- An issue that prevented the adapter card from handling WoL packets when the host powered up directly into the standby mode.
- CNP received, handled, and ignored counters in the hardware counters could not work after moving to Programmable Congestion Control mode.

Enhancements

New features and changes included in version 26.37.1700:

- Modified the RDE behavior to return an error if the chassis ID subtype is AgentId, or Port ID subtype is ChassisComp.
- Enabled VF LAG hash mode. The LAG_RESOURCE_ALLOCATION mlxconfig field is now modifiable.
- A new capability enables the VM to track and limit its Vport's activity. This is done using the new q_counters counter which enables aggregation of other Vport's from PF GVMI.
- Added a flow rule that enables offloading of multicast traffic by broadcasting it to multi-Flow-Table in FDB.
- Enables a smooth and statically switch between PCC algorithms. In addition, the user can now switch between PCC algorithms while running traffic.
- Added support for 32 actions in the header modify pattern using bulk allocation.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P42041-B21	Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	MT_0000000551

Mellanox Firmware Package (FWPKG) for HPE Ethernet 100Gb 1-port QSFP28 PCIe3 x16 MCX515A-CCAT Adapter : HPE part numbers P31246-B21 and P31246-H21
Version: 16.35.3006 **(Recommended)**
Filename: 16_35_3006-MCX515A-CCA_HPE_Ax.pldm.fwpkg

Important Note!

For PLDM enabled VPI (Virtual Protocol Interconnect) adapters supporting both InfiniBand mode and Ethernet modes, every firmware version is made available in two different formats at HPE.com:

1. HPE signed PLDM Firmware Package (.FWPKG filename extension) updatable via iLO.
2. Firmware binary (.bin filename extension) updatable via mstflint utility from the Operating System.

Choose the appropriate firmware file format based on your preference and what suits your environment.

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A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/ConnectX5Firmwarev16353006LTS/Known+Issues

Prerequisites

FWPKG will work only if the firmware version flashed on the adapter is 16.27.1016 or later and iLO5 firmware version must be 2.30 or higher.

Fixes

The following issues have been fixed in version 16.35.3006:

- Packet loss that occurred when restarting the transmit.
- An issue that prevented RoCE malformed packets (UDP packet with dest_port equal to RoCE well known udp_dport (0x4791)) from being counted on the vport_counter when the function disables RoCE (through MODIFY_NIC_VPORT_CONTEXT command).
- A memory leakage that occurred when closing connected QPs (Type RC/UC/XRC/DC).
- Added a missing VLAN strip.

Enhancements

Important : Security Hardening Enhancements - This release contains important reliability improvements and security hardening enhancements. HPE recommends upgrading your device firmware to this version to improve the firmware security and reliability of your device.

New features and changes included in version 16.35.3006:

- Enabled ACS for single port cards.
- Added vPort counters after creating the LAG demux table to count kernel packets reaching all the PFs participating in the LAG.

Supported Devices and Features

This software package contains the following firmware versions:

Mellanox Ethernet Only Adapters	Firmware Version	PSID
HPE Ethernet 100Gb 1-port QSFP28 PCIe3 x16 MCX515A-CCAT Adapter(P31246-B21 and P31246-H21)	16.35.3006	MT_0000000591

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 MCX653105A-HDAT Adapter : HPE part numbers P23664-B21 and P23664-H21
Version: 20.38.1002 **(Recommended)**
Filename: 20_38_1002-MCX653105A-HDA_HPE_Ax.pldm.fwpkg

Important Note!

For PLDM enabled VPI (Virtual Protocol Interconnect) adapters supporting both InfiniBand mode and Ethernet modes, every firmware version is made available in two different formats at HPE.com:

1. HPE signed PLDM Firmware Package (.FWPKG filename extension) updatable via iLO.
2. Firmware binary (.bin filename extension) updatable via mstflint utility from the Operating System.

Choose the appropriate firmware file format based on your preference and what suits your environment.

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A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/ConnectX6Firmwarev20381002/Known+Issues

Prerequisites

FWPKG will work only if the firmware version flashed on the adapter is 20.27.1016 or later and iLO5 firmware version must be 2.30 or higher.

Fixes

The following issues have been fixed in version 20.38.1002:

- A link failure that occurred due to a wrong 'is_inphi_cable' indication.
- Fixed a firmware assert that occurred when tried to verify if the module supported "swap".

Enhancements

Security Hardening Enhancements: This release contains important reliability improvements and security hardening enhancements. HPE recommends upgrading your device's firmware to this release to improve the firmware security and reliability of your device.

New features and changes included in version 20.38.1002:

- Improved token calculation.
- Added support for forwarding INT packets to the user application for monitoring purposes by matching the BTH acknowledge request bit (bth_a).
- Non-privileged users are now blocked by default from setting controlled/ privileged QKEYs (QKEY with MSB set).

Supported Devices and Features

This software package contains the following firmware versions:

Mellanox InfiniBand Adapter	Firmware Version	PSID
HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 MCX653105A-HDAT Adapter (P23664-B21 and P23664-H21)	20.38.1002	MT_0000000451

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 OCP3 MCX653435A-HDAI Adapter : HPE part numbers P31323-B21 and P31323-H21
Version: 20.38.1002 **(Recommended)**
Filename: 20_38_1002-MCX653435A-HDA_HPE_Ax.pldm.fwpkg

Important Note!

For PLDM enabled VPI (Virtual Protocol Interconnect) adapters supporting both InfiniBand mode and Ethernet modes, every firmware version is made available in two different formats at HPE.com:

1. HPE signed PLDM Firmware Package (.FWPKG filename extension) updatable via iLO.
2. Firmware binary (.bin filename extension) updatable via mstflint utility from the Operating System.

Choose the appropriate firmware file format based on your preference and what suits your environment.

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A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/ConnectX6Firmwarev20381002/Known+Issues

Prerequisites

FWPKG will work only if the firmware version flashed on the adapter is 20.27.1016 or later and iLO5 firmware version must be 2.30 or higher.

Fixes

The following issues have been fixed in version 20.38.1002:

- A link failure that occurred due to a wrong 'is_inphi_cable' indication.
- Fixed a firmware assert that occurred when tried to verify if the module supported "swap".

Enhancements

Security Hardening Enhancements: This release contains important reliability improvements and security hardening enhancements. HPE recommends upgrading your device's firmware to this release to improve the firmware security and reliability of your device.

New features and changes included in version 20.38.1002:

- Improved token calculation.
- Added support for forwarding INT packets to the user application for monitoring purposes by matching the BTH acknowledge request bit (bth_a).
- Non-privileged users are now blocked by default from setting controlled/ privileged QKEYs (QKEY with MSB set).

Supported Devices and Features

This software package contains the following firmware versions:

Mellanox InfiniBand Adapter	Firmware Version	PSID
HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 OCP3 MCX653435A-HDAI Adapter (P31323-B21 and P31323-H21)	20.38.1002	MT_0000000592

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter : HPE part numbers P31324-B21 and P31324-H21
Version: 20.38.1002 **(Recommended)**
Filename: 20_38_1002-MCX653106A-HDA_HPE_Ax.pldm.fwpkg

Important Note!

For PLDM enabled VPI (Virtual Protocol Interconnect) adapters supporting both InfiniBand mode and Ethernet modes, every firmware version is made available in two different formats at HPE.com:

1. HPE signed PLDM Firmware Package (.FWPKG filename extension) updatable via iLO.
2. Firmware binary (.bin filename extension) updatable via mstflint utility from the Operating System.

Choose the appropriate firmware file format based on your preference and what suits your environment.

ConnectX-6 VPI supports having one port as InfiniBand and the other port as Ethernet according to the following matrix of combinations.

Port #2 - InfiniBand				
Port #1 – Ethernet	HDR/HDR100	EDR	FDR	QDR
200GbE/50GbE	supported	not supported	not supported	supported
100GbE/25GbE	supported	not supported	not supported	supported
40GbE/10GbE	supported	not supported	not supported	supported
1GbE	supported	not supported	not supported	supported

Port #2 - Ethernet				
Port #1 - InfiniBand	200GbE/50GbE	100GbE/25GbE	40GbE/10GbE	1GbE
HDR / HDR100	supported	supported	not supported	supported
EDR	supported	supported	not supported	supported
FDR	not supported	not supported	not supported	not supported
QDR/SDR	supported	supported	not supported	supported

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A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/ConnectX6Firmwarev20381002/Known+Issues

Prerequisites

FWPKG will work only if the firmware version flashed on the adapter is 20.27.1016 or later and iLO5 firmware version must be 2.30 or higher.

Fixes

The following issues have been fixed in version 20.38.1002:

- A link failure that occurred due to a wrong 'is_inphi_cable' indication.
- Fixed a firmware assert that occurred when tried to verify if the module supported "swap".

Enhancements

Security Hardening Enhancements: This release contains important reliability improvements and security hardening enhancements. HPE recommends upgrading your device's firmware to this release to improve the firmware security and reliability of your device.

New features and changes included in version 20.38.1002:

- Improved token calculation.
- Added support for forwarding INT packets to the user application for monitoring purposes by matching the BTH acknowledge request bit (bth_a).
- Non-privileged users are now blocked by default from setting controlled/ privileged QKEYs (QKEY with MSB set).

Supported Devices and Features

This software package contains the following firmware versions:

Mellanox InfiniBand Adapter	Firmware Version	PSID
HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter(P31324-B21 and P31324-H21)	20.38.1002	MT_0000000594

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 OCP3 MCX653436A-HDAI Adapter : HPE part numbers P31348-B21 and P31348-H21
Version: 20.38.1002 **(Recommended)**
Filename: 20_38_1002-MCX653436A-HDA_HPE_Ax.pldm.fwpkg

Important Note!

For PLDM enabled VPI (Virtual Protocol Interconnect) adapters supporting both InfiniBand mode and Ethernet modes, every firmware version is made available in two different formats at HPE.com:

1. HPE signed PLDM Firmware Package (.FWPKG filename extension) updatable via iLO.
2. Firmware binary (.bin filename extension) updatable via mstflint utility from the Operating System.

Choose the appropriate firmware file format based on your preference and what suits your environment.

ConnectX-6 VPI supports having one port as InfiniBand and the other port as Ethernet according to the following matrix of combinations.

Port #2 - InfiniBand				
Port #1 – Ethernet	HDR/HDR100	EDR	FDR	QDR
200GbE/50GbE	supported	not supported	not supported	supported
100GbE/25GbE	supported	not supported	not supported	supported
40GbE/10GbE	supported	not supported	not supported	supported
1GbE	supported	not supported	not supported	supported

Port #2 - Ethernet				
Port #1 - InfiniBand	200GbE/50GbE	100GbE/25GbE	40GbE/10GbE	1GbE
HDR / HDR100	supported	supported	not supported	supported
EDR	supported	supported	not supported	supported
FDR	not supported	not supported	not supported	not supported
QDR/SDR	supported	supported	not supported	supported

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A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/ConnectX6Firmwarev20381002/Known+Issues

Prerequisites

FWPKG will work only if the firmware version flashed on the adapter is 20.27.1016 or later and iLO5 firmware version must be 2.30 or higher.

Fixes

The following issues have been fixed in version 20.38.1002:

- A link failure that occurred due to a wrong 'is_inphi_cable' indication.
- Fixed a firmware assert that occurred when tried to verify if the module supported "swap".

Enhancements

Security Hardening Enhancements: This release contains important reliability improvements and security hardening enhancements. HPE recommends upgrading your device's firmware to this release to improve the firmware security and reliability of your device.

New features and changes included in version 20.38.1002:

- Improved token calculation.
- Added support for forwarding INT packets to the user application for monitoring purposes by matching the BTH acknowledge request bit (bth_a).
- Non-privileged users are now blocked by default from setting controlled/ privileged QKEYs (QKEY with MSB set).

Supported Devices and Features

This software package contains the following firmware versions:

Mellanox InfiniBand Adapter	Firmware Version	PSID
HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 OCP3 MCX653436A-HDAI Adapter (P31348-B21 and P31348-H21)	20.38.1002	MT_0000000593

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter : HPE part numbers P23665-B21 and P23665-H21
Version: 20.38.1002 **(Recommended)**
Filename: 20_38_1002-MCX653105A-ECA_HPE_Ax.pldm.fwpkg

Important Note!

For PLDM enabled VPI (Virtual Protocol Interconnect) adapters supporting both InfiniBand mode and Ethernet modes, every firmware version is made available in two different formats at HPE.com:

1. HPE signed PLDM Firmware Package (.FWPKG filename extension) updatable via iLO.
2. Firmware binary (.bin filename extension) updatable via mstflint utility from the Operating System.

Choose the appropriate firmware file format based on your preference and what suits your environment.

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A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/ConnectX6Firmwarev20381002/Known+Issues

Prerequisites

FWPKG will work only if the firmware version flashed on the adapter is 20.27.1016 or later and iLO5 firmware version must be 2.30 or higher.

Fixes

The following issues have been fixed in version 20.38.1002:

- A link failure that occurred due to a wrong 'is_inphi_cable' indication.
- Fixed a firmware assert that occurred when tried to verify if the module supported "swap".

Enhancements

Security Hardening Enhancements: This release contains important reliability improvements and security hardening enhancements. HPE recommends upgrading your device's firmware to this release to improve the firmware security and reliability of your device.

New features and changes included in version 20.38.1002:

- Improved token calculation.
- Added support for forwarding INT packets to the user application for monitoring purposes by matching the BTH acknowledge request bit (bth_a).
- Non-privileged users are now blocked by default from setting controlled/ privileged QKEYs (QKEY with MSB set).

Supported Devices and Features

This software package contains the following firmware versions:

Mellanox InifiniBand Adapter	Firmware Version	PSID
HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter (P23665-B21 and P23665-H21)	20.38.1002	MT_0000000452

Mellanox Firmware Package (FWPKG) for HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe4 x16 MCX653106A-ECAT Adapter : HPE part numbers P23666-B21 and P23666-H21
Version: 20.38.1002 **(Recommended)**
Filename: 20_38_1002-MCX653106A-ECA_HPE_Ax.pldm.fwpkg

Important Note!

For PLDM enabled VPI (Virtual Protocol Interconnect) adapters supporting both InfiniBand mode and Ethernet modes, every firmware version is made available in two different formats at HPE.com:

1. HPE signed PLDM Firmware Package (.FWPKG filename extension) updatable via iLO.
2. Firmware binary (.bin filename extension) updatable via mstflint utility from the Operating System.

Choose the appropriate firmware file format based on your preference and what suits your environment.

ConnectX-6 VPI supports having one port as InfiniBand and the other port as Ethernet according to the following matrix of combinations.

Port #2 - InfiniBand				
Port #1 – Ethernet	HDR/HDR100	EDR	FDR	QDR
50GbE	supported	not supported	not supported	supported
100GbE/25GbE	supported	not supported	not supported	supported
40GbE/10GbE	supported	not supported	not supported	supported
1GbE	supported	not supportted	not supported	supported

Port #2 - Ethernet				
Port #1 - InfiniBand	50GbE	100GbE/25GbE	40GbE/10GbE	1GbE
HDR / HDR100	supported	supported	not supported	supported
EDR	supported	supported	not supported	supported
FDR	not supported	not supported	not supported	not supported
QDR/SDR	supported	supported	not supported	supported

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A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/ConnectX6Firmwarev20381002/Known+Issues

Prerequisites

FWPKG will work only if the firmware version flashed on the adapter is 20.27.1016 or later and iLO5 firmware version must be 2.30 or higher.

Fixes

The following issues have been fixed in version 20.38.1002:

- A link failure that occurred due to a wrong 'is_inphi_cable' indication.
- Fixed a firmware assert that occurred when tried to verify if the module supported "swap".

Enhancements

Security Hardening Enhancements: This release contains important reliability improvements and security hardening enhancements. HPE recommends upgrading your device's firmware to this release to improve the firmware security and reliability of your device.

New features and changes included in version 20.38.1002:

- Improved token calculation.
- Added support for forwarding INT packets to the user application for monitoring purposes by matching the BTH acknowledge request bit (bth_a).
- Non-privileged users are now blocked by default from setting controlled/ privileged QKEYs (QKEY with MSB set).

Supported Devices and Features

This software package contains the following firmware versions:

Mellanox InfiniBand Adapter	Firmware Version	PSID
HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe4 x16 MCX653106A-ECAT Adapter (P23666-B21 and P23666-H21)	20.38.1002	MT_0000000453

Mellanox Firmware Package (FWPKG) for Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE
Version: 22.37.1700 **(Recommended)**
Filename: 22_37_1700-MCX623105AS-VDA_Ax.pldm.fwpkg

Important Note!

A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/ConnectX6DxFirmwarev22371014/Known+Issues

Note: The firmware version xx.37.1014 is generic firmware distributed by NVIDIA and is not published by HPE. HPE does not recommend customers to use the version xx.37.1014, however the list of 'Known issues' remain the same between the versions xx.37.1700 and xx.37.1014.

Prerequisites

FWPKG will work only if the firmware version flashed on the adapter is 22.27.1016 or later and iLO5 firmware version must be 2.30 or higher.

Fixes

The following issues have been fixed in version 22.37.1700:

- No ping in NODNIC VF when VLAN stripping was enabled.
- vDPA application initialization failed due to virtual queue creation failure. The failure came with the "0x8f7a: ring address translate failed" assert which indicates incorrect permission supplied by QEMU for virtual ring memory.
- CNP received, handled, and ignored counters in the hardware counters could not work after moving to Programmable Congestion Control mode.

Enhancements

New features and changes included in version 22.37.1700:

- Added a safety mechanism to prevent the link from to getting stuck when receiving bad tuning results. In this case, the linkup flow is restarted and the mechanism retries to raise the link.
- Improved rate limit token re-distribution algorithm.
- Improved non-consumed bandwidth re-distribution.
- Added mergeable buffer support (VIRTIO_NET_F_MRG_RXBUF in virtio spec) for VDPA kernel mode to improve performance in case of large MTU such as 9K. The feature is disabled by default and must be manually enabled while creating or modifying the virtio device.

     Note: For best performance, it is NOT recommended to enable the feature if the VDPA MTU is set to the default value (1500).

- A new capability that enables the VM to track and limit its Vport's activity. This is done using the new q_counters counter which enables aggregation of other Vport's from PF GVMI.
- Added a flow rule that enables offloading of multicast traffic by broadcasting it to multi-Flow-Table in FDB.
- Enables a smooth and statically switch between PCC algorithms. In addition, the user can now switch between PCC algorithms while running traffic.
- Added support for running PCC firmware trace without saving and sending the DB strings to the tool with the following changes:
    - Added new string section to the user PCC image creation tool
    - Added the new PCC DB strings to MTRC access registers output
    - On the tool's part: added support to reading the string.db using the MTRC access registers
- Added support for 32 actions in the header modify pattern using bulk allocation.
- The software can explicitly set the SL of an RTT response packet, instead of it being taken from the RTT request packet's SL. The RTT response packet SL may be set/queried via the CONGESTION_CONTROL_HCA_NP_PARAMETER MAD.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P10180-B21	Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE	MT_0000000435

Mellanox Firmware Package (FWPKG) for Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE
Version: 22.37.1700 **(Recommended)**
Filename: 22_37_1700-MCX623106AS-CDA_Ax.pldm.fwpkg

Important Note!

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A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/ConnectX6DxFirmwarev22371014/Known+Issues

Note: The firmware version xx.37.1014 is generic firmware distributed by NVIDIA and is not published by HPE. HPE does not recommend customers to use the version xx.37.1014, however the list of 'Known issues' remain the same between the versions xx.37.1700 and xx.37.1014.

Prerequisites

FWPKG will work only if the firmware version flashed on the adapter is 22.27.1016 or later and iLO5 firmware version must be 2.30 or higher.

Fixes

The following issues have been fixed in version 22.37.1700:

- No ping in NODNIC VF when VLAN stripping was enabled.
- vDPA application initialization failed due to virtual queue creation failure. The failure came with the "0x8f7a: ring address translate failed" assert which indicates incorrect permission supplied by QEMU for virtual ring memory.
- CNP received, handled, and ignored counters in the hardware counters could not work after moving to Programmable Congestion Control mode.

Enhancements

New features and changes included in version 22.37.1700:

- Added a safety mechanism to prevent the link from to getting stuck when receiving bad tuning results. In this case, the linkup flow is restarted and the mechanism retries to raise the link.
- Improved rate limit token re-distribution algorithm.
- Improved non-consumed bandwidth re-distribution.
- Added mergeable buffer support (VIRTIO_NET_F_MRG_RXBUF in virtio spec) for VDPA kernel mode to improve performance in case of large MTU such as 9K. The feature is disabled by default and must be manually enabled while creating or modifying the virtio device.

  Note: For best performance, it is NOT recommended to enable the feature if the VDPA MTU is set to the default value (1500).

- A new capability that enables the VM to track and limit its Vport's activity. This is done using the new q_counters counter which enables aggregation of other Vport's from PF GVMI.
- Added a flow rule that enables offloading of multicast traffic by broadcasting it to multi-Flow-Table in FDB.
- Enables a smooth and statically switch between PCC algorithms. In addition, the user can now switch between PCC algorithms while running traffic.
- Added support for running PCC firmware trace without saving and sending the DB strings to the tool with the following changes:
    - Added new string section to the user PCC image creation tool
    - Added the new PCC DB strings to MTRC access registers output
    - On the tool's part: added support to reading the string.db using the MTRC access registers
- Added support for 32 actions in the header modify pattern using bulk allocation.
- The software can explicitly set the SL of an RTT response packet, instead of it being taken from the RTT request packet's SL. The RTT response packet SL may be set/queried via the CONGESTION_CONTROL_HCA_NP_PARAMETER MAD.

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P25960-B21	Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE	MT_0000000437

Firmware Package - HPE Smart Array P408i-p, P408e-p, P408i-a, P408i-c, E208i-p, E208e-p, E208i-c, E208i-a, P408e-m, P204i-c, P416ie-m and P816i-a SR Gen10 controllers
Version: 6.22 **(Recommended)**
Filename: HPE_SR_Gen10_6.22_A.fwpkg

Prerequisites

The pre-requisite is to upgrade FW to 5.61 to enable the PLDM FW update functionality for adapter through Windows/Linux/ESXi smart components, after that you are able to use FWPKG file to directly flash to 6.22 or future released FW versions via iLO without any OS dependency.

Please find the minimum smart component version required (5.61) in below links:

- Windows: https://www.hpe.com/global/swpublishing/MTX-97c64253fda44882a5f5675fe5
- Linux: https://www.hpe.com/global/swpublishing/MTX-e6ae9fd78cce4b588fa6531d0f
- VMware: https://www.hpe.com/global/swpublishing/MTX-148e96beafef429dbff0756130

Fixes

- Fixed issues related to spare drive functionality.
- Fixed issues pertaining to Self-Encrypting Drive (SED) functionality.
- Fixed an issue where SATA commands became unresponsive or stuck.
- Fixed an issue where Redfish events of battery and WriteCache do not meet requirements.
- Fixed an issue where firmware incorrectly reported unrecoverable media errors.
- Fixed an issue where the surface scan progress status is displayed as "In progress" even after disabling the surface scan on the controller.
- Fixed an issue related to the failure of the clear controller configuration command.
- Fixed an issue of power surge when too many SATA drives are spinning up simultaneously.
- Fixed an issue where MCTP over PCIe VDM is disabled while disabling VDM notification.
- Fixed an issue where PLDM event consumer was missing events from the previous boot.
- Fixed an issue where the completion date of the consistency check was incorrectly recorded.
- Fixed an issue where firmware was processing additional unlock adapter password request even if the controller was already unlocked.
- Fixed issues where logical drives were lost after a controller reset to factory defaults, especially when the 'preserve logical drive' option was enabled, and after an abrupt reboot where the controller reset to factory defaults, causing RAID loss.
- Fixed migrating a SmartCache when destination controller has existing logical drive.
- Fixed inaccuracies in SES enclosure behavior during hot-adding and hot-removing procedures.
- Fixed issues where logical drives were lost after a controller reset to factory defaults, especially when the 'preserve logical drive' option was enabled, and after an abrupt reboot where the controller reset to factory defaults, causing RAID loss.
- Fixed a controller lock-up problem triggered by a Loss of Sync (LOS) during sequential write traffic.
- Fixed an issue causing system freezes during boot after enabling Secured-Core (DMAr) in RBSU.
- Fixed an issue where the BatteryMissing event was not being sent when the battery was removed prior to boot.
- Fixed an issue where a DriveOffline Redfish alert is not sent when a Drive resource initiated a sanitize operation.
- Fixed an issue where the controller's attempt to update an unflashable UBM resulted in an error report.
- Fixed an issue where an unflashable SMP PSOC (System Management Processor Programmable System-on-Chip) device was incorrectly appearing in the Type 5 downstream devices.
- Enable Self-Encrypting Drive (SED) RKM (Recovery Key Management) support in the UEFI configuration.
- Fixed an issue where driver health error messages were not displayed when the system language was changed to a non-English language.
- Fixed an issue of incorrectly reporting the WriteCachePolicy for a Volume resource as "ProtectedWriteBack" when the cache was temporarily disabled.
- Correct Redfish properties when backup power source is removed.
- Fixed an issue where the controller failed to report storage information in the absence of physical drives.
- Fixed an issue where an unexpected 'BatteryCharging' event was reported when no battery was present.

Enhancements

- Added support for improving secure erase time for disks supporting the WRITE SAME command.
- Added support for Remote Key Management of Managed SED.
- Added support to ensure Remote/Local Key Management of Managed SED can be sanitized.
- Added support for re-enabling failed logical drive by rebuilding selected drives.
- Added support for cascaded expander to uniquely identify the attached enclosure and physical devices.
- Added support for a redundant copy of controller settings data.
- Introduce an HII option labeled 'Configure Controller UEFI Driver Health Reporting' within the 'Configure Controller Settings' menu to provide the capability to enable or disable the reporting of configuration errors and driver health.
- Introduce an HII option labeled 'Controller Password State' within the CBE (Controller-Based Encryption) settings, enabling

the actions to unset, temporarily suspend, and resume the controller password.
- Updated the Redfish resource to align with the DMTF 2022.2 schema bundle, including the incorporation of Redfish annotations.
- Adjusted the severity for Redfish Volume Status.Health state and DriveOffline alert for Foreign SED.
- Create Redfish Volumes with a RAIDType set to 'None' for HBA (Host Bus Adapter) drives.

Firmware Package - HPE Gen11 Boot Controller NS204i-u, NS204i-d and HPE Gen10 Plus Boot Controller NS204i-p, NS204i-d, NS204i-t, NS204i-r
Version: 1.2.14.1012 **(Recommended)**
Filename: HPE_NS204i_Gen11_1.2.14.1012_A.fwpkg

Important Note!

Current firmware has to be 1.0.14.1063 or later in order to enable PLDM firmware update functionality for the controller. Please find the smart component versions of 1.0.14.1063 in below link:

- Windows: https://www.hpe.com/global/swpublishing/MTX-be195b2891724ec8bb72c8bb2
- Linux: https://www.hpe.com/global/swpublishing/MTX-269e14d0e2524277bf699f433
- Vmware: https://www.hpe.com/global/swpublishing/MTX-1ffaca997cf248cd9f832a04c6

Prerequisites

- iLO 6 version 1.10 or later is required for Gen11 servers.
- iLO 5 version 2.81 or later is required for Gen10/Gen10 Plus servers

Fixes

- Resolved duplicated Volume UniqueID.
- Resolved NS204i firmware update failure along with SPS firmware update

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Firmware Package - HPE MR216i-o Gen11 Tri Mode Controller
Version: 52.24.3-4948 (B) **(Recommended)**
Filename: HPE_MR216i-o_Gen11_52.24.3-4948_B.fwpkg

Important Note!

This firmware version to be used on HPE MR216i-o Gen11 Controller.

Enhancements

Support HPE ML30 and DL20 Gen11 server.

Firmware Package - HPE MR216i-p Gen11 Tri Mode Controller
Version: 52.24.3-4948 (B) **(Recommended)**
Filename: HPE_MR216i-p_Gen11_52.24.3-4948_B.fwpkg

Important Note!

This firmware version to be used on HPE MR216i-p **Gen11 Controller.**

Enhancements

Support HPE ML30 and DL20 Gen11 server.

Firmware Package - HPE MR408i-o Gen11 Tri Mode Controller
Version: 52.24.3-4948 (B) **(Recommended)**
Filename: HPE_MR408i-o_Gen11_52.24.3-4948_B.fwpkg

Important Note!

This firmware version to be used on HPE MR408i-o Gen11 Controller.

Enhancements

Support HPE ML30 and DL20 Gen11 server.

Firmware Package - HPE MR416i-o Gen11 Tri Mode Controller
Version: 52.24.3-4948 (B) **(Recommended)**
Filename: HPE_MR416i-o_Gen11_52.24.3-4948_B.fwpkg

Important Note!

This firmware version to be used on HPE MR416i-o Gen11 Controller.

Enhancements

Support HPE ML30 and DL20 Gen11 server.

Firmware Package - HPE MR416i-p Gen11 Tri Mode Controller
Version: 52.24.3-4948 (B) **(Recommended)**
Filename: HPE_MR416i-p_Gen11_52.24.3-4948_B.fwpkg

Important Note!

This firmware version to be used on HPE MR416i-p Gen11 Controller.

Enhancements

Support HPE ML30 and DL20 Gen11 server.

Firmware Package - HPE SR932i-p Gen10 Plus /SR416i-a Gen10 Plus/SR932i-p Gen11/SR416ie-m Gen11 Controllers
Version: 03.01.23.072 **(Recommended)**
Filename: HPE_SR416_SR932_Gen10P_Gen11_03.01.23.072_A.fwpkg

Fixes

- Fixed issues related to spare drive functionality.
- Fixed issues pertaining to Self-Encrypting Drive (SED) functionality.
- Fixed an issue where rebuild was being reiterated continuously and not progressing.
- Fixed controller detection issues during system boot, including rare cases that could lead to PSOD or RSOD errors.
- Fixed an issue where the SR932i-p Gen11 controller was not assigned an EID.
- Fixed an issue where rebuild was being reiterated continuously and not progressing.
- Fixed an issue where Redfish events of battery and WriteCache do not meet requirements.
- Fixed an issue where firmware incorrectly reported unrecoverable media errors.
- Fixed an issue where the surface scan progress status is displayed as "In progress" even after disabling the surface scan on the controller.
- Fixed an issue where rebuild was being reiterated continuously and not progressing.
- Fixed an issue related to the failure of the clear controller configuration command.
- Fixed an issue where an Uncorrectable error PSOD observed after power on.
- Fixed an issue where the Unique ID of different SATA disks is the same in Windows.
- Fixed an issue of power surge when too many SATA drives are spinning up simultaneously.
- Fixed issues where logical drives were lost after a controller reset to factory defaults, especially when the 'preserve logical drive' option was enabled, and after an abrupt reboot where the controller reset to factory defaults, causing RAID loss.
- Fixed migrating a SmartCache when destination controller has existing logical drive.
- Fixed inaccuracies in SES enclosure behavior during hot-adding and hot-removing procedures.
- Fixed an issue where the controller was providing incorrect mode page information regarding the Write Cache attribute of NVMe drives.
- Fixed an issue causing system freezes during boot after enabling Secured-Core (DMAr) in RBSU.
- Fixed an issue where the BatteryMissing event was not being sent when the battery was removed prior to boot.
- Fixed an issue where a DriveOffline Redfish alert is not sent when a Drive resource initiated a sanitize operation.
- Fixed an issue where the controller's attempt to update an unflashable UBM resulted in an error report.
- Fixed an issue where an unflashable SMP PSOC (System Management Processor Programmable System-on-Chip) device was incorrectly appearing in the Type 5 downstream devices.
- Fixed an issue where driver health error messages were not displayed when the system language was changed to a non-English language.
- Fixed an issue of incorrectly reporting the WriteCachePolicy for a Volume resource as "ProtectedWriteBack" when the cache was temporarily disabled.

- Correct Redfish properties when backup power source is removed.
- Fixed an issue where the controller failed to report storage information in the absence of physical drives.
- Fixed an issue where an unexpected 'BatteryCharging' event was reported when no battery was present.

Enhancements

- Added support for improving secure erase time for disks supporting the WRITE SAME command.
- Added support for switching persistent event log policy without clearing the existing event logs.
- Added support for Remote Key Management of Managed SED.
- Added support for 256 bytes Key Management Service (KMS) key identifier.
- Added support for reporting surface scan metrics for host management tools.
- Added support to allow re-enabling logical drive with rebuild option.
- Introduce an HII option labeled 'Configure Controller UEFI Driver Health Reporting' within the 'Configure Controller Settings' menu to provide the capability to enable or disable the reporting of configuration errors and driver health.
- Introduce an HII option labeled 'Controller Password State' within the CBE (Controller-Based Encryption) settings, enabling the actions to unset, temporarily suspend, and resume the controller password.
- Updated the Redfish resource to align with the DMTF 2022.2 schema bundle, including the incorporation of Redfish annotations.
- Adjusted the severity for Redfish Volume Status.Health state and DriveOffline alert for Foreign SED.
- Create Redfish Volumes with a RAIDType set to 'None' for HBA (Host Bus Adapter) drives.

HPE D3600/D3700/D3610/D3710 12Gb SAS Disk Enclosure ROM Flash Component for VMware (ESXi)
Version: 5.04 (G) **(Recommended)**
Filename: CP056656.compsig; CP056656.md5; CP056656.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

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The following fixes were incorporated in this version:

- The Enabled-ClusterS2D command now completes successfully when executed on a SATA drive within a D3610 disk enclosure for a NonStop solution.

- The smart carrier, which is the drive case for SAS drives, now authenticates in the D3610/D3710 drive enclosure.

- 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 D3600B/D3700B/D3610B/D3710B 12Gb SAS Disk Enclosure ROM Flash Component for VMware (ESXi)
Version: 6.0 (A) **(Recommended)**
Filename: CP056657.compsig; CP056657.md5; CP056657.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 fixes were incorporated in this version:

- Code optimization to save memory repo.

- TLB exception seen while doing esp reset when expander reset was in progress.

- Added the psoc 8.93 binary in peripheral images, updated the reveille version numbers.

- Added whole new Delta PS-pmbus code , Updated the ESP version number.

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 D3600B / D3700B / D3610B / D3710B 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

Online ROM Flash Component for VMware ESXi - HPE Smart Array P408i-p, P408e-p, P408i-a, E208i-p, E208e-p, E208i-a, P816i-a SR Gen10
Version: 5.61 (D) **(Recommended)**
Filename: CP057475.compsig; CP057475.zip

Enhancements

Support Gen10, Gen10 Plus and Gen11 servers

Firmware - Storage Fibre Channel

HPE Firmware Flash for Emulex 32Gb and 64Gb Fibre Channel Host Bus Adapters
Version: 14.2.589.5 **(Recommended)**
Filename: P14.2.589.5_header.pldm.fwpkg

Important Note!

This component is supported only on Gen11 ProLiant servers.

Release notes:

[Broadcom Release notes](#)

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.2.589.5	14.2.589.5	14.2.579.0	14.2.566.0
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.2.589.5	14.2.589.5	14.2.579.0	14.2.566.0
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	14.2.589.5	14.2.589.5	14.2.579.0	14.2.566.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	14.2.589.5	14.2.589.5	14.2.579.0	14.2.566.0

Added support for:

RedHat Enterprise Linux 8.8

RedHat Enterprise Linux 9.2

SuSE Linux Enterprise Server 15 SP5

Enhancements

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.2.589.5	14.2.589.5	14.2.579.0	14.2.566.0
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.2.589.5	14.2.589.5	14.2.579.0	14.2.566.0
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	14.2.589.5	14.2.589.5	14.2.579.0	14.2.566.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	14.2.589.5	14.2.589.5	14.2.579.0	14.2.566.0

Added support for:

RedHat Enterprise Linux 8.8

RedHat Enterprise Linux 9.2

SuSE Linux Enterprise Server 15 SP5

Supported Devices and Features

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

32Gb Fibre Channel Host Bus Adapter:

- HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter

64Gb Fibre Channel Host Bus Adapter:

- HPE SN1700E 64Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1700E 64Gb Single port Fibre Channel Host Bus Adapter

HPE Firmware Flash for QLogic Fibre Channel Host Bus Adapters for VMware vSphere 7.0
Version: 2023.09.01 **(Recommended)**
Filename: CP056155.compsig; CP056155.zip

Important Note!

This component is supported only on Gen11 ProLiant servers.

Release Notes:
HPE QLogic Adapters Release Notes

This Firmware package contains following firmware versions:

Adapter	Speed	MBI	Firmware	UEFI	Boot Bios
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.08.05	09.12.01	7.34	0.0
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.08.05	09.12.01	7.34	0.0
HPE SN1700Q 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	02.08.05	09.12.01	7.34	0.0
HPE SN1700Q 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	02.08.05	09.12.01	7.34	0.0

Fixed the following behavior:

Temperature Misreading: the adapter was reading incorrect reading of the temperature on the HPE SN1610Q 32Gb Fibre Channel Host Bus adapter's Small Form-factor Pluggable. The symptom would result in a temperature spike and potentially reset the system

Enhancements:

Non-disruptive firmware upgrades: non-disruptive firmware updates is enabled and will not require a server reboot to apply.

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 behavior:

Temperature Misreading: the adapter was reading incorrect reading of the temperature on the HPE SN1610Q 32Gb Fibre Channel Host Bus adapter's Small Form-factor Pluggable. The symptom would result in a temperature spike and potentially reset the system

Enhancements

This Firmware package contains following firmware versions:

Adapter	Speed	MBI	Firmware	UEFI	Boot Bios
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.08.05	09.12.01	7.34	0.0
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.08.05	09.12.01	7.34	0.0
HPE SN1700Q 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	02.08.05	09.12.01	7.34	0.0
HPE SN1700Q 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	02.08.05	09.12.01	7.34	0.0

Non-disruptive firmware upgrades: non-disruptive firmware updates is enabled and will not require a server reboot to apply.

Supported Devices and Features

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

32Gb Fibre Channel Host Bus Adapter:

- HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter

64Gb Fibre Channel Host Bus Adapter:

- HPE SN1700Q 64Gb Dual Port Fibre Channel Host Bus Adapter

This component is supported only on Gen11 ProLiant servers.

Release Notes:
HPE QLogic Adapters Release Notes

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.

This Driver is supported on VMware 7.0U3 only

Prerequisites

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

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

Enhancements

Driver version 5.3.81.2_1

This Driver is supported on VMware 7.0U3 only

Supported Devices and Features

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

32Gb Fibre Channel Host Bus Adapter:

- HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter

64Gb Fibre Channel Host Bus Adapter:

- HPE SN1700Q 64Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1700Q 64Gb Single Port Fibre Channel Host Bus Adapter

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HPE Storage Emulex Fibre Channel driver component for VMware vSphere 7.0
Version: 2023.06.01 **(Recommended)**
Filename: cp054944.compsig; cp054944.zip

Important Note!

This component is supported only on Gen11 ProLiant servers.

Release notes:

Broadcom Release notes

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.

Updated to Driver version 14.2.567.0

Prerequisites

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

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

Enhancements

Updated to Driver version 14.2.567.0

Supported Devices and Features

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

32Gb FC Adapter:

- HPE SN1610E 32Gb Dual port Fibre Channel Host Bus Adapter
- HPE SN1610E 32Gb Single port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

- HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter

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Software - System Management

HPE Agentless Management Bundle for ESXi on Gen11
Version: 701.11.5.0 **(Recommended)**
Filename: amsdvComponent_701.11.5.0.2-1_22267107.zip

Fixes

- Fixed incorrect slot type is displayed on Gen11 SR416ie-m and SR932i-p storage controllers.

HPE Fiber Channel and Storage Enablement Component for ESXi 7.0
Version: 3.9.0 **(Recommended)**
Filename: fc-enablement-component_700.3.9.0.4-1_20266032.zip

Enhancements

- Supports VMware ESXi 7.0 U2 and ESXi 7.0 U3

HPE Upgrade Smart Component for VMware vSphere 7.x
Version: 2023.09.01 **(Recommended)**
Filename: cp058504.compsig; cp058504.zip

Fixes

- Update the component version to resolve host incompatibility with vLCM Image after updating with predefined baseline.
- Fix OS upgrade failure due to unreplaced Gen9 AMS CLI component.

Integrated Smart Update Tools for VMware ESXi 7.0
Version: 701.4.5.0 **(Recommended)**
Filename: sutComponent_701.4.5.0.9-0-signed_component-22275818.zip

Important Note!

Integrated Smart Update Tools for ESXi 7.0 provides support for firmware and driver updates via iLO Repository

Fixes

See the [iSUT Release Notes](#) for information about the issues resolved in this release

Enhancements

See the [iSUT Release Notes](#) for information about the enhancements in this release.

Get connected

hpe.com/info/getconnected

Current HPE driver, support, and security alerts delivered directly to your desktop

Updated November 07 2023