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

Gen10 Patch Bundle 2 Supplement version 2022.09.01.02 Release Notes for VMware ESXi 7.0

Driver - Network   **Top**

HPE Broadcom NetXtreme-E Drivers for VMware vSphere 7.0
Version: 2022.12.00 **(Recommended)**
Filename: cp053755.compsig; cp053755.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,* 218.0.303000 or later, for use with this driver.

Enhancements

This product enhancement driver logging which in generic ,appropriate and correct format.

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

Intel icen Driver for VMware vSphere 7.0
Version: 2022.11.00 **(Optional)**
Filename: cp054436.compsig; cp054436.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 *Intel Firmware Package For E810 Ethernet Adapter*, version 3.20 or later, for use with this driver.

Enhancements

- This product enhances to Collect of FW debug data in different scenarios
- This product now supports HPE ProLiant Gen11 servers

Supported Devices and Features

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 2 and Update 3
Version: 2021.04.21 (D) **(Recommended)**
Filename: cp054406.compsig; cp054406.zip

Important Note!

Important: Version 4.21.71.1 supports VMware ESXi 7.0 Update 2 and Update 3 only.

Known Issues with driver version 4.21.71.101:

- 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 4.21.71.101:

- 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

The following changes have been made in sub-version 2021.04.21(D):

- Product rebuilt to have the new SHA 384 signature.
- Removed support for the following servers:
  - Blade servers BLxxxx Gen9/Gen10 series.
- Included support for Gen11 Servers.

New features and changes in driver version 4.21.71.101:

- Added support for the following features:

  - vSan over RDMA.
  - Receive Side Scaling (RSS) for ENS model 0.
  - ENS FPO Model 1 with Rx path flow lookup offloaded (ConnectX5 onwards)
  - ENS FPO Model 1 with Tx path partial action execution offloaded (ConnectX5 onwards)
  - ENS FPO Model 2 with SR-IOV as passthrough technology (ConnectX5 onwards)
  - 200GbE link speed.
  - ConnectX-6 Lx devices.
  - 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 no

supported. Default to Model 1.
- Scaled support for up to 10K connections over RDMA networks.
- Updated the kernel parameter "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
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

Driver - Storage Controller
HPE MR416i-a, MR416i-p, MR216i-a, MR216i-p Gen10 Plus controller (64-bit) Driver for vSphere 7.0 (Driver Component)
Version: 2022.11.01 **(Recommended)**
Filename: cp051735.compsig; cp051735.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

New version with 7.722.02.00.

HPE MR416i-a, MR416i-p, MR216i-a, MR216i-p, MR416i-o controller (64-bit) Driver for vSphere 7.0
Version: 7.722.02.00 **(Recommended)**
Filename: Broadcom-lsi-mr3_7.722.02.00-1OEM.700.1.0.15843807_20225841.zip

Enhancements

.

HPE ProLiant Gen10 Smart Array, Gen10 Plus and Gen11 Smart RAID Controller Driver for VMware vSphere 7.0 (Driver Component).
Version: 2023.03.01 **(Recommended)**
Filename: cp054659.compsig; cp054659.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.

Enhancements

For 2023 Web Feb

Firmware - Network	**Top**

Broadcom Firmware Package for BCM5741x adapters
Version: 223.1.96.0 **(Recommended)**
Filename: bcm223.1.96.0.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 223.0.157.0 or later
- HPE Broadcom NetXtreme-E Drivers for Linux, version 1.10.2-223.0.162.0 or later
- HPE Broadcom NetXtreme-E Drivers for VMware, version 2022.12.00 or later

Fixes

- This product addresses an issue the additional firmware installation command checkpoint.
- This product addresses an issue the reporting of thermal threshold to BMC.

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: 223.1.96.0 **(Recommended)**
Filename: bcm223.1.96.0_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 223.0.157.0 or later
- HPE Broadcom NetXtreme-E Drivers for Linux, version 1.10.2-223.0.162.0 or later
- HPE Broadcom NetXtreme-E Drivers for VMware, version 2022.12.00 or later

Fixes

- This product addresses an issue the additional firmware installation command checkpoint.
- This product addresses an issue the reporting of thermal threshold to BMC.

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: 1.32.0 **(Recommended)**
Filename: CP053057.compsig; CP053057.zip

Important Note!

This software package contains combo image v20.23.41 with the following firmware versions:

NIC	Boot Code Version	PXE Version	NCSI Version	UEFI Version	CCM Version
BCM 5719 1GbE 4p BASE-T Adptr	1.46	21.6.2	1.5.38	21.6.40	223.0.148.0
BCM 5719 1GbE 4p BASE-T OCP3 Adptr	1.46	21.6.2	1.5.38	21.6.40	223.0.148.0
BCM 5720 1GbE 2p BASE-T LOM Adptr	1.42	21.6.2	1.5.38	21.6.40	223.0.148.0

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 the adjustment of firmware read-write commands on corresponding OS.

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

Mellanox Firmware Package (FWPKG) - Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE
Version: 26.34.1002 **(Recommended)**
Filename: 26_34_1002-MCX631102AS-ADA_Ax.pldm.fwpkg

Important Note!

Disclaimer: Certain software including drivers and documents may be available from NVIDIA. If you select a URL that directs you to http://www.nvidia.com/, you are then leaving HPE.com. Please follow the instructions on http://www.nvidia.com/ to download NVIDIA software or documentation. When downloading the NVIDIA software or documentation, you may be subject to NVIDIA terms and conditions, including licensing terms, if any, provided on its website or otherwise. HPE is not responsible for your use of any 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/ConnectX6LxFirmwarev26331048/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 26.34.1002:

- An issue where set_flow_table_entry failed when aso_flow_meter action was used.
- A race condition occured between the duplicate read and QP commands (2RST, 2ERR and Destroy) in the signature that caused the command to hang.

- An issue where vPort counters had wrong values.
- An issue where firmware update failed or timed out when multiple adapters of the same type were present on a system. This was fixed by adding "Command Unsupported" response code in cases when running the MCTP control command "Get Vendor Defined Messages Supported", and there were no supported VDMs.

Enhancements

New Features and Changes in Version 26.34.1002:

- Added LLDPEnable, LLDPTransmit and LLDPReceive properties to the RDE Port schema implementation.
- Added support for PPCC register with bulk operations, MAD for algorithm configuration and tunable parameters.
- Added support for programmable counters for PCC via PPCC register and MAD.
- Added Programmable Congestion Control (PCC) support. Note: User programmability is currently not supported.
- Added 50 Usec delay during PML1 exit to avoid any PCIe replay timer timeout.
- Enabled Multi-Host RX Rate-limiter configuration via the QEEC mlxreg and the max_shaper_rate field.

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: 26.34.1002 **(Recommended)**
Filename: 26_34_1002-MCX631432AS-ADA_Ax.pldm.fwpkg

Important Note!

Disclaimer: Certain software including drivers and documents may be available from NVIDIA. If you select a URL that directs you to http://www.nvidia.com/, you are then leaving HPE.com. Please follow the instructions on http://www.nvidia.com/ to download NVIDIA software or documentation. When downloading the NVIDIA software or documentation, you may be subject to NVIDIA terms and conditions, including licensing terms, if any, provided on its website or otherwise. HPE is not responsible for your use of any 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/ConnectX6LxFirmwarev26331048/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 26.34.1002:

- An issue where set_flow_table_entry failed when aso_flow_meter action was used.
- A race condition occured between the duplicate read and QP commands (2RST, 2ERR and Destroy) in the signature that caused the command to hang.
- An issue where vPort counters had wrong values.
- An issue where firmware update failed or timed out when multiple adapters of the same type were present on a system. This was fixed by adding "Command Unsupported" response code in cases when running the MCTP control command "Get Vendor Defined Messages Supported", and there were no supported VDMs.

Enhancements

New Features and Changes in Version 26.34.1002:

- Added LLDPEnable, LLDPTransmit and LLDPReceive properties to the RDE Port schema implementation.
- Added support for PPCC register with bulk operations, MAD for algorithm configuration and tunable parameters.
- Added support for programmable counters for PCC via PPCC register and MAD.
- Added Programmable Congestion Control (PCC) support. Note: User programmability is currently not supported.
- Added 50 Usec delay during PML1 exit to avoid any PCIe replay timer timeout.
- Enabled Multi-Host RX Rate-limiter configuration via the QEEC mlxreg and the max_shaper_rate field.

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: 16.34.1002 **(Recommended)**
Filename: 16_34_1002-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.

Disclaimer: Certain software including drivers and documents may be available from NVIDIA. If you select a URL that directs you to http://www.nvidia.com/, you are then leaving HPE.com. Please follow the instructions on http://www.nvidia.com/ to download NVIDIA software or documentation. When downloading the NVIDIA software or documentation, you may be subject to NVIDIA terms and conditions, including licensing terms, if any, provided on its website or otherwise. HPE is not responsible for your use of any 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/ConnectX5Firmwarev16341002/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 16.34.1002:

- "set_flow_table_entry" failed when aso_flow_meter action was used.
- A race condition occured between the duplicate read and QP commands (2RST, 2ERR and Destroy) in the signature that caused the command to hang.
- When all traffic applications sharing the same combination of <function, priority, side> were rate limited (for example by congestion control), this limit was enforced on other applications with different combinations of <function, priority, side> under the same VL. For example, requestor flows (RDMA-write) were limited to rate X, however, this rate was also enforced on a QP sending RDMAread responses. This firmware version prevents rate limit enforcement on traffic applications which should not be limited.
- Firmware update failed or timed out when multiple adapters of the same type were present on a system. This was fixed by adding "Command Unsupported" response code in cases when running the MCTP control command "Get Vendor Defined Messages Supported", and there were no supported VDMs.

Enhancements

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

New features and changes included in version 16.34.1002:

- Added LLDPEnable, LLDPTransmit and LLDPReceive properties to the RDE Port schema implementation.

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)	16.34.1002	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: 20.34.1002 **(Recommended)**
Filename: 20_34_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.

Disclaimer: Certain software including drivers and documents may be available from NVIDIA. If you select a URL that directs you to http://www.nvidia.com/, you are then leaving HPE.com. Please follow the instructions on http://www.nvidia.com/ to download NVIDIA software or documentation. When downloading the NVIDIA software or documentation, you may be subject to NVIDIA terms and conditions, including licensing terms, if any, provided on its website or otherwise. HPE is not responsible for your use of any 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/ConnectX6Firmwarev20341002/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 20.34.1002:

- "set_flow_table_entry" failed when aso_flow_meter action was used.
- A race condition occured between the duplicate read and QP commands (2RST, 2ERR and Destroy) in the signature that caused the command to get into an unresponsive state.
- Firmware update failed or timed out when multiple adapters of the same type were present on a system. This was fixed by adding "Command Unsupported" response code in cases when running the MCTP control command "Get Vendor Defined Messages Supported", and there were no supported VDMs.

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 20.34.1002:

- Added LLDPEnable, LLDPTransmit and LLDPReceive properties to the RDE Port schema implementation.
- Added Queue Counters Allocation capability which allows privileged users to allocate queue counters. With this new feature, the get_max_qp_cnt_cur_cap() returns a valid value when the UID is with UCTX_CAP_INTERNAL_DEVICE_RESOURCES, otherwise it returns 0.
- Added support for InfiniBand MAD packets capturing in RX RDMA Steering table.
- Added 50 Usec delay during PML1 exit to avoid any PCIe replay timer timeout.

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)	20.34.1002	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: 20.34.1002 **(Recommended)**
Filename: 20_34_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.

Disclaimer: Certain software including drivers and documents may be available from NVIDIA. If you select a URL that directs you to http://www.nvidia.com/, you are then leaving HPE.com. Please follow the instructions on http://www.nvidia.com/ to download NVIDIA software or documentation. When downloading the NVIDIA software or documentation, you may be subject to NVIDIA terms and conditions, including licensing terms, if any, provided on its website or otherwise. HPE is not responsible for your use of any 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/ConnectX6Firmwarev20341002/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 20.34.1002:

- "set_flow_table_entry" failed when aso_flow_meter action was used.
- A race condition occured between the duplicate read and QP commands (2RST, 2ERR and Destroy) in the signature that caused the command to get into an unresponsive state.
- Firmware update failed or timed out when multiple adapters of the same type were present on a system. This was fixed by adding "Command Unsupported" response code in cases when running the MCTP control command "Get Vendor Defined Messages Supported", and there were no supported VDMs.

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 20.34.1002:

- Added LLDPEnable, LLDPTransmit and LLDPReceive properties to the RDE Port schema implementation.
- Added Queue Counters Allocation capability which allows privileged users to allocate queue counters. With this new feature, the get_max_qp_cnt_cur_cap() returns a valid value when the UID is with UCTX_CAP_INTERNAL_DEVICE_RESOURCES, otherwise it returns 0.
- Added support for InfiniBand MAD packets capturing in RX RDMA Steering table.
- Added 50 Usec delay during PML1 exit to avoid any PCIe replay timer timeout.

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)	20.34.1002	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: 20.34.1002 **(Recommended)**
Filename: 20_34_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

Disclaimer: Certain software including drivers and documents may be available from NVIDIA. If you select a URL that directs you to http://www.nvidia.com/, you are then leaving HPE.com. Please follow the instructions on http://www.nvidia.com/ to download NVIDIA software or documentation. When downloading the NVIDIA software or documentation, you may be subject to NVIDIA terms and conditions, including licensing terms, if any, provided on its website or otherwise. HPE is not responsible for your use of any 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/ConnectX6Firmwarev20341002/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 20.34.1002:

- "set_flow_table_entry" failed when aso_flow_meter action was used.
- A race condition occured between the duplicate read and QP commands (2RST, 2ERR and Destroy) in the signature that caused the command to get into an unresponsive state.
- Firmware update failed or timed out when multiple adapters of the same type were present on a system. This was fixed by adding "Command Unsupported" response code in cases when running the MCTP control command "Get Vendor Defined Messages Supported", and there were no supported VDMs.

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 20.34.1002:

- Added LLDPEnable, LLDPTransmit and LLDPReceive properties to the RDE Port schema implementation.
- Added Queue Counters Allocation capability which allows privileged users to allocate queue counters. With this new feature, the get_max_qp_cnt_cur_cap() returns a valid value when the UID is with UCTX_CAP_INTERNAL_DEVICE_RESOURCES, otherwise it returns 0.
- Added support for InfiniBand MAD packets capturing in RX RDMA Steering table.
- Added 50 Usec delay during PML1 exit to avoid any PCIe replay timer timeout.

<u>**Supported Devices and Features**</u>

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)	20.34.1002	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: 20.34.1002 **(Recommended)**
Filename: 20_34_1002-MCX653436A-HDA_HPE_Ax.pldm.fwpkg

<u>**Important Note!**</u>

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

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/ConnectX6Firmwarev20341002/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 20.34.1002:

- "set_flow_table_entry" failed when aso_flow_meter action was used.
- A race condition occured between the duplicate read and QP commands (2RST, 2ERR and Destroy) in the signature that caused the command to get into an unresponsive state.
- Firmware update failed or timed out when multiple adapters of the same type were present on a system. This was fixed by adding "Command Unsupported" response code in cases when running the MCTP control command "Get Vendor Defined Messages Supported", and there were no supported VDMs.

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 20.34.1002:

- Added LLDPEnable, LLDPTransmit and LLDPReceive properties to the RDE Port schema implementation.
- Added Queue Counters Allocation capability which allows privileged users to allocate queue counters. With this new feature, the get_max_qp_cnt_cur_cap() returns a valid value when the UID is with UCTX_CAP_INTERNAL_DEVICE_RESOURCES, otherwise it returns 0.
- Added support for InfiniBand MAD packets capturing in RX RDMA Steering table.
- Added 50 Usec delay during PML1 exit to avoid any PCIe replay timer timeout.

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)	20.34.1002	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: 20.34.1002 **(Recommended)**
Filename: 20_34_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.

Disclaimer: Certain software including drivers and documents may be available from NVIDIA. If you select a URL that directs you to http://www.nvidia.com/, you are then leaving HPE.com. Please follow the instructions on http://www.nvidia.com/ to download NVIDIA software or documentation. When downloading the NVIDIA software or documentation, you may be subject to NVIDIA terms and conditions, including licensing terms, if any, provided on its website or otherwise. HPE is not responsible for your use of any 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:

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 20.34.1002:

- "set_flow_table_entry" failed when aso_flow_meter action was used.
- A race condition occured between the duplicate read and QP commands (2RST, 2ERR and Destroy) in the signature that caused the command to get into an unresponsive state.
- Firmware update failed or timed out when multiple adapters of the same type were present on a system. This was fixed by adding "Command Unsupported" response code in cases when running the MCTP control command "Get Vendor Defined Messages Supported", and there were no supported VDMs.

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 20.34.1002:

- Added LLDPEnable, LLDPTransmit and LLDPReceive properties to the RDE Port schema implementation.
- Added Queue Counters Allocation capability which allows privileged users to allocate queue counters. With this new feature, the get_max_qp_cnt_cur_cap() returns a valid value when the UID is with UCTX_CAP_INTERNAL_DEVICE_RESOURCES, otherwise it returns 0.
- Added support for InfiniBand MAD packets capturing in RX RDMA Steering table.
- Added 50 Usec delay during PML1 exit to avoid any PCIe replay timer timeout.

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)	20.34.1002	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: 20.34.1002 **(Recommended)**
Filename: 20_34_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 supported	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

Disclaimer: Certain software including drivers and documents may be available from NVIDIA. If you select a URL that directs you to http://www.nvidia.com/, you are then leaving HPE.com. Please follow the instructions on http://www.nvidia.com/ to download NVIDIA software or documentation. When downloading the NVIDIA software or documentation, you may be subject to NVIDIA terms and conditions, including licensing terms, if any, provided on its website or otherwise. HPE is not responsible for your use of any 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/ConnectX6Firmwarev20341002/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 20.34.1002:

- "set_flow_table_entry" failed when aso_flow_meter action was used.
- A race condition occured between the duplicate read and QP commands (2RST, 2ERR and Destroy) in the signature that caused the command to get into an unresponsive state.
- Firmware update failed or timed out when multiple adapters of the same type were present on a system. This was fixed by adding "Command Unsupported" response code in cases when running the MCTP control command "Get Vendor Defined Messages Supported", and there were no supported VDMs.

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 20.34.1002:

- Added LLDPEnable, LLDPTransmit and LLDPReceive properties to the RDE Port schema implementation.
- Added Queue Counters Allocation capability which allows privileged users to allocate queue counters. With this new feature, the get_max_qp_cnt_cur_cap() returns a valid value when the UID is with UCTX_CAP_INTERNAL_DEVICE_RESOURCES, otherwise it returns 0.
- Added support for InfiniBand MAD packets capturing in RX RDMA Steering table.
- Added 50 Usec delay during PML1 exit to avoid any PCIe replay timer timeout.

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)	20.34.1002	MT_0000000453

Mellanox Firmware Package (FWPKG) for Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE
Version: 22.34.1002 **(Recommended)**
Filename: 22_34_1002-MCX623105AS-VDA_Ax.pldm.fwpkg

Important Note!

Disclaimer: Certain software including drivers and documents may be available from NVIDIA. If you select a URL that directs you to http://www.nvidia.com/, you are then leaving HPE.com. Please follow the instructions on http://www.nvidia.com/ to download NVIDIA software or documentation. When downloading the NVIDIA software or documentation, you may be subject to NVIDIA terms and conditions, including licensing terms, if any, provided on its website or otherwise. HPE is not responsible for your use of any 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/ConnectX6DxFirmwarev22341002/Known+Issues

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 22.34.1002:

- An issue that caused the destroy_match_definer object command to fail after dumping it using resource_dump.
- An issue where set_flow_table_entry failed when aso_flow_meter action was used.
- An issue where firmware update failed or timed out when multiple adapters of the same type were present on a system. This was fixed by adding "Command Unsupported" response code in cases when running the MCTP control command "Get Vendor Defined Messages Supported", and there were no supported VDMs.

Enhancements

New features and changes included in version 22.34.1002:

- Added LLDPEnable, LLDPTransmit and LLDPReceive properties to the RDE Port schema implementation.
- Added a 22 nanosecond of propagation delay to the cable delay of the PPS signal when using PPS out.
- Added support for PPCC register with bulk operations, MAD for algorithm configuration and tunable parameters.
- Added support for programmable counters for PCC via PPCC register and MAD.
- Added support for RX multi-host rate limit using an enabler script.
- A new capability that allows privileged users to allocate queue counters. In this new feature the get_max_qp_cnt_cur_cap() returns a valid value when the UID is with UCTX_CAP_INTERNAL_DEVICE_RESOURCES, otherwise it returns 0.
- Enabled Multi-Host RX Rate-limiter configuration via the QEEC mlxreg and the max_shaper_rate field.
- Added a new NVconfig parameter "MULTI_PCI_RESOURCE_SHARE" to support modes that allow choosing the utilization of the card's resources on each host in Socket-Direct / Multi host setup.
- Added 50 Usec delay during PML1 exit to avoid any PCIe replay timer timeout.

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: 22.34.1002 **(Recommended)**
Filename: 22_34_1002-MCX623106AS-CDA_Ax.pldm.fwpkg

Important Note!

Disclaimer: Certain software including drivers and documents may be available from NVIDIA. If you select a URL that directs you to http://www.nvidia.com/, you are then leaving HPE.com. Please follow the instructions on http://www.nvidia.com/ to download NVIDIA software or documentation. When downloading the NVIDIA software or documentation, you may be subject to NVIDIA terms and conditions, including licensing terms, if any, provided on its website or otherwise. HPE is not responsible for your use of any 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/ConnectX6DxFirmwarev22341002/Known+Issues

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 22.34.1002:

- An issue that caused the destroy_match_definer object command to fail after dumping it using resource_dump.
- An issue where set_flow_table_entry failed when aso_flow_meter action was used.
- An issue where firmware update failed or timed out when multiple adapters of the same type were present on a system. This was fixed by adding "Command Unsupported" response code in cases when running the MCTP control command "Get Vendor Defined Messages Supported", and there were no supported VDMs.

Enhancements

New features and changes included in version 22.34.1002:

- Added LLDPEnable, LLDPTransmit and LLDPReceive properties to the RDE Port schema implementation.
- Added a 22 nanosecond of propagation delay to the cable delay of the PPS signal when using PPS out.
- Added support for PPCC register with bulk operations, MAD for algorithm configuration and tunable parameters.
- Added support for programmable counters for PCC via PPCC register and MAD.
- Added support for RX multi-host rate limit using an enabler script.
- A new capability that allows privileged users to allocate queue counters. In this new feature the get_max_qp_cnt_cur_cap() returns a valid value when the UID is with UCTX_CAP_INTERNAL_DEVICE_RESOURCES, otherwise it returns 0.
- Enabled Multi-Host RX Rate-limiter configuration via the QEEC mlxreg and the max_shaper_rate field.
- Added a new NVconfig parameter "MULTI_PCI_RESOURCE_SHARE" to support modes that allow choosing the utilization of the card's resources on each host in Socket-Direct / Multi host setup.
- Added 50 Usec delay during PML1 exit to avoid any PCIe replay timer timeout.

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 - Storage Controller	

Firmware Package - HPE Gen10 Plus Boot Controller NS204i-p, NS204i-d, NS204i-t, NS204i-r
Version: 1.2.14.1004 **(Recommended)**
Filename: HPE_NS204i_Gen10P_1.2.14.1004.fwpkg

Important Note!

This firmware version is to be used on NS204i controllers.

Use iLO to flash HPE_NS204i_Gen10P_PLDM_xxxx.fwpkg above 1.0.14.1055.; continuously HPE offers PLDM Type5 FW flash through .fwpkg file only.

Please find the minimum version required (1.0.14.1055) in below links:

- a. Windows https://support.hpe.com/hpesc/public/swd/detail?swItemId=MTX-1b2c98e9d2594b9db679e89bbe#tab-history
- b. Linux https://support.hpe.com/hpesc/public/swd/detail?swItemId=MTX-207ea7e739f048049a66d61008#tab-history
- c. VMware https://support.hpe.com/hpesc/public/swd/detail?swItemId=MTX_141038fe565b457ca9fe4d28de#tab-history

Enhancements

1. Thermal warning threshold modification;

2. IML optimization;

3. Error handling improvement when receive unsupported commands.

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 and P816i-a SR Gen10
Version: 5.61 **(Recommended)**
Filename: HPE_SR_Gen10_5.61_A.fwpkg

Prerequisites

- The pre-requisite is to upgrade FW to 5.00 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 update via iLO without any OS dependency.

- iLO 5 version 2.65 or later is required.

Enhancements

For 2023 March MSB

Firmware Package - HPE MR216i-a Gen10 Plus Tri Mode Controller
Version: 52.22.3-4650 **(Recommended)**
Filename: HPE_MR216i-a_Gen10_52.22.3-4650.fwpkg

Important Note!

This firmware version to be used on HPE MR216i-a Gen10 Plus Controller.

Fixes

- DMTF PLDM Redfish Device Enablement fixes
    - Fix an issue that Redfish Drive Revision is not updated after firmware update (DCSG01225086)
    - Fix an issue that Redfish Volume Operations.Rebuilding showed PercentageComplete progress as "-1" anytime progress was at 0% (DCSG01251914)
    - Fix an issue that Redfish Volume DurableName returns an incorrect NAA value (DCSG01255834)
    - Fix an issue that Redfish Storage Status.HealthRollup is not moving to "Critical" state when the Drive Status.Health changed to "Critical" (DCSG01282225)
    - Fix an issue that VolumeDegraded alert was not generated when importing a degraded volume on the controller (DCSG01285249)
    - Fix an issue that ControllerOK alert was logged even though no ControllerFailure alert was corrected (DCSG01285259)
- Fix an issue that assersion failure may occurs if pulling drive during reconstruction (DCSG01054517)
- Fix a rare issue that SATA drive may not be detected during hot plug (DCSG00975159)
- Fix an issue that assertion failure may occur on reboot when copyback operation is running (DCSG01310309)
- Fix an issue that firmware may not respond to host interface after returning success to stop BGI / CC of an offline VD (DCSG01185811)
- Fix wrong consistency state of single-drive RAID 0 after setting physical drive offline then online (DCSG01141800)
- Fix an issue that Linux kdump cannot be generated when device order is enabled. (DCSG01170243)
- Fix an issue that configuration is not exposed by controller on windows OS when device order is enabled (DCSG01184008)
- Fix an issue that firmware logging CDB failure sense event is logged twice for each failure (DCSG01149411)
- Fix an issue that SNTL Generic command Status successful completion with no SenseKey is sending wrong SCSI status to application (DCSG01146888)
- Fix an issue that Data Miscompare observed with sliced RAID 5 Logical Drives during write(cache) policy change (DCSG01161554)
- Fix an rare issue that controller cache might be lost during Cache Offload Loop (DCSG01108247)
- Fix an issue that Cryptographic Erase fails on an UG Bad SED drive, but return success (DCSG01106797)
- Fix an issue that firmware hang observed during controller boot. (DCSG01142137)
- Fix an issue that IML event 0x1906 might be incorrectly logged when clear JBOD config and do firmware update (DCSG01285247)
- Cache flush parameters is not applicable for MR216 controllers. Fix to not allow user modification. (DCSG01315513)
- Fix a rare case that secured configured drives may change to unconfigured after reboot (DCSG01249672)
- Fix an issue that controller may not detect Energy Pack in low voltage status. (DCSG01299799)
- Fix an issue that firmware may crash after reconstruction completes and IO running (DCSG01292231)
- Fix an issue that Foreign import error message in HII is not correct when max limit for Logical Drives and JBODs have reached on the controller (DCSG01082455)
- Fix an issue that Foreign config option is not enabled/not showing for foreign UG Bad drive (DCSG01107298)
- Fix an issue that SAS Storage Link speed in HII is not proper when no drives are connected (DCSG01184839)
- Fix an issue that IO Timeout and drive may become unavailable/offline while running Unmap, SATA Passthrough and Read/Write IO to a SATA drive at the same time (DCSG00654439)
- Fix PCI controller discovery issue when "Microsoft Secured Core" or "AMD DMA Remapping" options enabled in RBSU (DCSG01044366)
- Fix a00126259en_us: HPE Gen10 Plus Tri Mode Controllers - Predictive Failed LED Is Not Illuminated Until the Drive Is Operational (DCSG01257527)

- Fix a00125739en_us: HPE ProLiant Gen10 Plus - SAS-4 Drive Speed on the MR216i/MR416i Controller Is Not Displayed Correctly and Is Not Supported in the MRSA and BIOS/Platform Configuration (RBSU)

Enhancements

- Support for DMTF PLDM firmware update for UBM backplane (DCSG01132100)
- Support UBM backplanes in Redfish Firmware Inventory and Chassis Devices (DCSG01221115)
- Support for updating newer on-board PSoC devices (DCSG01203313)
- Add SATL support for ATA Passthrough command field T_LENGTH (value 11b) (DCSG01035026)
- Support Sanitize Overwrite and Sanitize Block operations on UG drives (DCSG00966714)
- DMTF PLDM Redfish Device Enablement enhancements
  - Update to 2021.4 schema bundle (DCSG01107680)
  - Add controller P/N and SKU details in redfish controller schema (DCSG01218243)
  - Support online controller firmware update and activation through DMTF PLDM firmware update

---

Firmware Package - HPE MR216i-p Gen10 Plus Tri Mode Controller with Gen10 and Gen10 Plus servers
Version: 52.22.3-4650 (B) **(Recommended)**
Filename: HPE_MR216i-p_Gen10_52.22.3-4650_B.fwpkg

Important Note!

This firmware version to be used on HPE MR216i-p Gen10 Plus Controller.

Fixes

- DMTF PLDM Redfish Device Enablement fixes
  - Fix an issue that Redfish Drive Revision is not updated after firmware update (DCSG01225086)
  - Fix an issue that Redfish Volume Operations.Rebuilding showed PercentageComplete progress as "-1" anytime progress was at 0% (DCSG01251914)
  - Fix an issue that Redfish Volume DurableName returns an incorrect NAA value (DCSG01255834)
  - Fix an issue that Redfish Storage Status.HealthRollup is not moving to "Critical" state when the Drive Status.Health changed to "Critical" (DCSG01282225)
  - Fix an issue that VolumeDegraded alert was not generated when importing a degraded volume on the controller (DCSG01285249)
  - Fix an issue that ControllerOK alert was logged even though no ControllerFailure alert was corrected (DCSG01285259)
- Fix an issue that assersion failure may occurs if pulling drive during reconstruction (DCSG01054517)
- Fix a rare issue that SATA drive may not be detected during hot plug (DCSG00975159)
- Fix an issue that assertion failure may occur on reboot when copyback operation is running (DCSG01310309)
- Fix an issue that firmware may not respond to host interface after returning success to stop BGI / CC of an offline VD (DCSG01185811)
- Fix wrong consistency state of single-drive RAID 0 after setting physical drive offline then online (DCSG01141800)
- Fix an issue that Linux kdump cannot be generated when device order is enabled. (DCSG01170243)
- Fix an issue that configuration is not exposed by controller on windows OS when device order is enabled (DCSG01184008)
- Fix an issue that firmware logging CDB failure sense event is logged twice for each failure (DCSG01149411)
- Fix an issue that SNTL Generic command Status successful completion with no SenseKey is sending wrong SCSI status to application (DCSG01146888)
- Fix an issue that Data Miscompare observed with sliced RAID 5 Logical Drives during write(cache) policy change (DCSG01161554)
- Fix an rare issue that controller cache might be lost during Cache Offload Loop (DCSG01108247)
- Fix an issue that Cryptographic Erase fails on an UG Bad SED drive, but return success (DCSG01106797)
- Fix an issue that firmware hang observed during controller boot. (DCSG01142137)
- Fix an issue that IML event 0x1906 might be incorrectly logged when clear JBOD config and do firmware update (DCSG01285247)
- Cache flush parameters is not applicable for MR216 controllers. Fix to not allow user modification. (DCSG01315513)
- Fix a rare case that secured configured drives may change to unconfigured after reboot (DCSG01249672)
- Fix an issue that controller may not detect Energy Pack in low voltage status. (DCSG01299799)
- Fix an issue that firmware may crash after reconstruction completes and IO running (DCSG01292231)
- Fix an issue that Foreign import error message in HII is not correct when max limit for Logical Drives and JBODs have reached on the controller (DCSG01082455)
- Fix an issue that Foreign config option is not enabled/not showing for foreign UG Bad drive (DCSG01107298)
- Fix an issue that SAS Storage Link speed in HII is not proper when no drives are connected (DCSG01184839)
- Fix an issue that IO Timeout and drive may become unavailable/offline while running Unmap, SATA Passthrough and Read/Write IO to a SATA drive at the same time (DCSG00654439)
- Fix PCI controller discovery issue when "Microsoft Secured Core" or "AMD DMA Remapping" options enabled in RBSU (DCSG01044366)
- Fix a00126259en_us: HPE Gen10 Plus Tri Mode Controllers - Predictive Failed LED Is Not Illuminated Until the Drive Is Operational (DCSG01257527)
- Fix a00125739en_us: HPE ProLiant Gen10 Plus - SAS-4 Drive Speed on the MR216i/MR416i Controller Is Not Displayed Correctly and Is Not Supported in the MRSA and BIOS/Platform Configuration (RBSU)

Enhancements

- Support for DMTF PLDM firmware update for UBM backplane (DCSG01132100)
- Support UBM backplanes in Redfish Firmware Inventory and Chassis Devices (DCSG01221115)
- Support for updating newer on-board PSoC devices (DCSG01203313)
- Add SATL support for ATA Passthrough command field T_LENGTH (value 11b) (DCSG01035026)
- Support Sanitize Overwrite and Sanitize Block operations on UG drives (DCSG00966714)
- DMTF PLDM Redfish Device Enablement enhancements
    - Update to 2021.4 schema bundle (DCSG01107680)
    - Add controller P/N and SKU details in redfish controller schema (DCSG01218243)
    - Support online controller firmware update and activation through DMTF PLDM firmware update

---

Firmware Package - HPE MR416i-a Gen10 Plus Tri Mode Controller
Version: 52.22.3-4650 **(Recommended)**
Filename: HPE_MR416i-a_Gen10_52.22.3-4650.fwpkg

Important Note!

This firmware version to be used on HPE MR416i-a Gen10 Plus Controller.

Fixes

- DMTF PLDM Redfish Device Enablement fixes
    - Fix an issue that Redfish Drive Revision is not updated after firmware update (DCSG01225086)
    - Fix an issue that Redfish Volume Operations.Rebuilding showed PercentageComplete progress as "-1" anytime progress was at 0% (DCSG01251914)
    - Fix an issue that Redfish Volume DurableName returns an incorrect NAA value (DCSG01255834)
    - Fix an issue that Redfish Storage Status.HealthRollup is not moving to "Critical" state when the Drive Status.Health changed to "Critical" (DCSG01282225)
    - Fix an issue that VolumeDegraded alert was not generated when importing a degraded volume on the controller (DCSG01285249)
    - Fix an issue that ControllerOK alert was logged even though no ControllerFailure alert was corrected (DCSG01285259)
- Fix an issue that assersion failure may occurs if pulling drive during reconstruction (DCSG01054517)
- Fix a rare issue that SATA drive may not be detected during hot plug (DCSG00975159)
- Fix an issue that assertion failure may occur on reboot when copyback operation is running (DCSG01310309)
- Fix an issue that firmware may not respond to host interface after returning success to stop BGI / CC of an offline VD (DCSG01185811)
- Fix wrong consistency state of single-drive RAID 0 after setting physical drive offline then online (DCSG01141800)
- Fix an issue that Linux kdump cannot be generated when device order is enabled. (DCSG01170243)
- Fix an issue that configuration is not exposed by controller on windows OS when device order is enabled (DCSG01184008)
- Fix an issue that firmware logging CDB failure sense event is logged twice for each failure (DCSG01149411)
- Fix an issue that SNTL Generic command Status successful completion with no SenseKey is sending wrong SCSI status to application (DCSG01146888)
- Fix an issue that Data Miscompare observed with sliced RAID 5 Logical Drives during write(cache) policy change (DCSG01161554)
- Fix an rare issue that controller cache might be lost during Cache Offload Loop (DCSG01108247)
- Fix an issue that Cryptographic Erase fails on an UG Bad SED drive, but return success (DCSG01106797)
- Fix an issue that firmware hang observed during controller boot. (DCSG01142137)
- Fix an issue that IML event 0x1906 might be incorrectly logged when clear JBOD config and do firmware update (DCSG01285247)
- Cache flush parameters is not applicable for MR216 controllers. Fix to not allow user modification. (DCSG01315513)
- Fix a rare case that secured configured drives may change to unconfigured after reboot (DCSG01249672)
- Fix an issue that controller may not detect Energy Pack in low voltage status. (DCSG01299799)
- Fix an issue that firmware may crash after reconstruction completes and IO running (DCSG01292231)
- Fix an issue that Foreign import error message in HII is not correct when max limit for Logical Drives and JBODs have reached on the controller (DCSG01082455)
- Fix an issue that Foreign config option is not enabled/not showing for foreign UG Bad drive (DCSG01107298)
- Fix an issue that SAS Storage Link speed in HII is not proper when no drives are connected (DCSG01184839)
- Fix an issue that IO Timeout and drive may become unavailable/offline while running Unmap, SATA Passthrough and Read/Write IO to a SATA drive at the same time (DCSG00654439)
- Fix PCI controller discovery issue when "Microsoft Secured Core" or "AMD DMA Remapping" options enabled in RBSU (DCSG01044366)
- Fix a00126259en_us: HPE Gen10 Plus Tri Mode Controllers - Predictive Failed LED Is Not Illuminated Until the Drive Is Operational (DCSG01257527)
- Fix a00125739en_us: HPE ProLiant Gen10 Plus - SAS-4 Drive Speed on the MR216i/MR416i Controller Is Not Displayed Correctly and Is Not Supported in the MRSA and BIOS/Platform Configuration (RBSU)

Enhancements

Support for DMTF PLDM firmware update for UBM backplane (DCSG01132100)
- Support UBM backplanes in Redfish Firmware Inventory and Chassis Devices (DCSG01221115)
- Support for updating newer on-board PSoC devices (DCSG01203313)
- Add SATL support for ATA Passthrough command field T_LENGTH (value 11b) (DCSG01035026)
- Support Sanitize Overwrite and Sanitize Block operations on UG drives (DCSG00966714)
- DMTF PLDM Redfish Device Enablement enhancements
  - Update to 2021.4 schema bundle (DCSG01107680)
  - Add controller P/N and SKU details in redfish controller schema (DCSG01218243)
  - Support online controller firmware update and activation through DMTF PLDM firmware update

---

Firmware Package - HPE MR416i-p Gen10 Plus Tri Mode Controller with Gen10 and Gen10 Plus servers
Version: 52.22.3-4650 (B) **(Recommended)**
Filename: HPE_MR416i-p_Gen10_52.22.3-4650_B.fwpkg

Important Note!

This firmware version to be used on HPE MR416i-p Gen10 Plus Controller.

Fixes

- DMTF PLDM Redfish Device Enablement fixes
  - Fix an issue that Redfish Drive Revision is not updated after firmware update (DCSG01225086)
  - Fix an issue that Redfish Volume Operations.Rebuilding showed PercentageComplete progress as "-1" anytime progress was at 0% (DCSG01251914)
  - Fix an issue that Redfish Volume DurableName returns an incorrect NAA value (DCSG01255834)
  - Fix an issue that Redfish Storage Status.HealthRollup is not moving to "Critical" state when the Drive Status.Health changed to "Critical" (DCSG01282225)
  - Fix an issue that VolumeDegraded alert was not generated when importing a degraded volume on the controller (DCSG01285249)
  - Fix an issue that ControllerOK alert was logged even though no ControllerFailure alert was corrected (DCSG01285259)
- Fix an issue that assersion failure may occurs if pulling drive during reconstruction (DCSG01054517)
- Fix a rare issue that SATA drive may not be detected during hot plug (DCSG00975159)
- Fix an issue that assertion failure may occur on reboot when copyback operation is running (DCSG01310309)
- Fix an issue that firmware may not respond to host interface after returning success to stop BGI / CC of an offline VD (DCSG01185811)
- Fix wrong consistency state of single-drive RAID 0 after setting physical drive offline then online (DCSG01141800)
- Fix an issue that Linux kdump cannot be generated when device order is enabled. (DCSG01170243)
- Fix an issue that configuration is not exposed by controller on windows OS when device order is enabled (DCSG01184008)
- Fix an issue that firmware logging CDB failure sense event is logged twice for each failure (DCSG01149411)
- Fix an issue that SNTL Generic command Status successful completion with no SenseKey is sending wrong SCSI status to application (DCSG01146888)
- Fix an issue that Data Miscompare observed with sliced RAID 5 Logical Drives during write(cache) policy change (DCSG01161554)
- Fix an rare issue that controller cache might be lost during Cache Offload Loop (DCSG01108247)
- Fix an issue that Cryptographic Erase fails on an UG Bad SED drive, but return success (DCSG01106797)
- Fix an issue that firmware hang observed during controller boot. (DCSG01142137)
- Fix an issue that IML event 0x1906 might be incorrectly logged when clear JBOD config and do firmware update (DCSG01285247)
- Cache flush parameters is not applicable for MR216 controllers. Fix to not allow user modification. (DCSG01315513)
- Fix a rare case that secured configured drives may change to unconfigured after reboot (DCSG01249672)
- Fix an issue that controller may not detect Energy Pack in low voltage status. (DCSG01299799)
- Fix an issue that firmware may crash after reconstruction completes and IO running (DCSG01292231)
- Fix an issue that Foreign import error message in HII is not correct when max limit for Logical Drives and JBODs have reached on the controller (DCSG01082455)
- Fix an issue that Foreign config option is not enabled/not showing for foreign UG Bad drive (DCSG01107298)
- Fix an issue that SAS Storage Link speed in HII is not proper when no drives are connected (DCSG01184839)
- Fix an issue that IO Timeout and drive may become unavailable/offline while running Unmap, SATA Passthrough and Read/Write IO to a SATA drive at the same time (DCSG00654439)
- Fix PCI controller discovery issue when "Microsoft Secured Core" or "AMD DMA Remapping" options enabled in RBSU (DCSG01044366)
- Fix a00126259en_us: HPE Gen10 Plus Tri Mode Controllers - Predictive Failed LED Is Not Illuminated Until the Drive Is Operational (DCSG01257527)
- Fix a00125739en_us: HPE ProLiant Gen10 Plus - SAS-4 Drive Speed on the MR216i/MR416i Controller Is Not Displayed Correctly and Is Not Supported in the MRSA and BIOS/Platform Configuration (RBSU)

Enhancements

- Support for DMTF PLDM firmware update for UBM backplane (DCSG01132100)
- Support UBM backplanes in Redfish Firmware Inventory and Chassis Devices (DCSG01221115)
- Support for updating newer on-board PSoC devices (DCSG01203313)

- Add SATL support for ATA Passthrough command field T_LENGTH (value 11b) (DCSG01035026)
- Support Sanitize Overwrite and Sanitize Block operations on UG drives (DCSG00966714)
- DMTF PLDM Redfish Device Enablement enhancements
    - Update to 2021.4 schema bundle (DCSG01107680)
    - Add controller P/N and SKU details in redfish controller schema (DCSG01218243)
    - Support online controller firmware update and activation through DMTF PLDM firmware update

---

Firmware Package - HPE SR932i-p Gen10 Plus /SR416i-a Gen10 Plus Controllers
Version: 03.01.17.056 **(Recommended)**
Filename: HPE_SR416_SR932_Gen10P_03.01.17.056_A.fwpkg

Enhancements

For 2023 March MSB SPP

Firmware - Storage Fibre Channel	

HPE Firmware Flash for Emulex 16/32Gb Fibre Channel Host Bus Adapters
Version: 14.0.499.29 **(Recommended)**
Filename: B14.0.499.29_header.pldm.fwpkg

Important Note!

NOTE: This is the first PLDM fwpkg component release and is not supported for upgrade from older versions.

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	16Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	16Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0

Enhancements

NOTE: This is the first PLDM fwpkg component release and is not supported for upgrade from older versions.

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	16Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	16Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter

---

HPE Firmware Flash for Emulex 32Gb and 64Gb Fibre Channel Host Bus Adapters

Version: 14.0.499.29 **(Recommended)**
Filename: P14.0.499.29_header.pldm.fwpkg

Important Note!

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	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0

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	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0

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 Emulex Fibre Channel Host Bus Adapters for VMware vSphere 7.0
Version: 2023.03.01 **(Recommended)**
Filename: CP054526.compsig; CP054526.zip

Important Note!

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	16Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	16Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0

HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0

Prerequisites

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

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

Enhancements

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	16Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	16Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.29	14.0.499.29	14.0.499.2	14.0.490.0

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus 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

---

HPE Firmware Flash for QLogic Fibre Channel Host Bus Adapters for VMware vSphere 7.0
Version: 2023.03.01 **(Recommended)**
Filename: CP054427.compsig; CP054427.zip

Important Note!

This Firmware package contains following firmware versions:

Adapter	Speed	MBI	Firmware	UEFI	Boot Bios
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	02.00.01	9.09.00	7.19	3.64
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	02.00.01	9.09.00	7.19	3.64
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.00.01	9.09.00	7.19	3.64
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.00.01	9.09.00	7.19	3.64
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.07.03	09.09.20	7.28	0.0
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.07.03	09.09.20	7.28	0.0

HPE SN1700Q 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	02.07.03	09.09.20	7.28	0.0
HPE SN1700Q 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	02.07.03	09.09.20	7.28	0.0

Prerequisites

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

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

Enhancements

This Firmware package contains following firmware versions:

Adapter	Speed	MBI	Firmware	UEFI	Boot Bios
HPE SN1100Q 16GB Dual Port PCIe Fibre Channel Host Bus Adapter	16Gb	02.00.01	9.09.00	7.19	3.64
HPE SN1100Q 16GB Single Port PCIe Fibre Channel Host Bus Adapter	16Gb	02.00.01	9.09.00	7.19	3.64
HPE SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.00.01	9.09.00	7.19	3.64
HPE SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.00.01	9.09.00	7.19	3.64
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.07.03	09.09.20	7.28	0.0
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.07.03	09.09.20	7.28	0.0
HPE SN1700Q 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	02.07.03	09.09.20	7.28	0.0
HPE SN1700Q 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	02.07.03	09.09.20	7.28	0.0

Supported Devices and Features

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

16Gb Fibre Channel Host Bus Adapter:

- HPE SN1100Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE SN1100Q 16Gb Single Port PCIe Fibre Channel Host Bus Adapter

32Gb Fibre Channel Host Bus Adapter:

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

---

Software - Management
HPE Agentless Management Bundle Smart Component on ESXi for Gen10 and Gen10 Plus Servers
Version: 2023.02.01 **(Recommended)**
Filename: cp054509.compsig; cp054509.zip

Fixes

Agentless Management Service

- Removed incorrect reporting of NS204i device in cpqSePCIeDisk MIB.
- Fixed incorrect speed of 100G network adapter reported in cpqNicIfPhysAdapterSpeedMbps OID.
- Fixed missing OS Logical Disk entries in the iLO AHS log.

Smart Storage Administrator (SSA) CLI Smart Component for ESXi 7.0 for Gen10/Gen10 Plus/Gen11 Controllers
Version: 2023.02.01 (B) **(Recommended)**
Filename: cp054790.compsig; cp054790.zip

Enhancements

for 2023 Web Feb usage.

| **Software - Storage Controller** | |

HPE MegaRAID Storage Administrator StorCLI for VMware7.0 (For Gen10 Plus Controllers)
Version: 2022.10.00 **(Recommended)**
Filename: cp050680.compsig; cp050680.zip

Enhancements

New version with 007.2207.0000.0000

| **Software - Storage Fibre Channel** | |

HPE QLogic Fibre Channel driver component for VMware vSphere 7.0
Version: 2023.03.01 **(Recommended)**
Filename: cp054425.compsig; cp054425.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.

Prerequisites

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

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

Enhancements

Driver version 5.3.1.0

Supported Devices and Features

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

16Gb Fibre Channel Host Bus Adapter:

- HPE SN1100Q 16Gb Dual Port PCIe Fibre Channel Host Bus Adapter
- HPE SN1100Q 16Gb Single Port PCIe Fibre Channel Host Bus Adapter

32Gb Fibre Channel Host Bus Adapter:

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

---

HPE Storage Emulex Fibre Channel driver component for VMware vSphere 7.0
Version: 2023.03.01 **(Recommended)**
Filename: cp054535.compsig; cp054535.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.

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 14.0.543.0

Supported Devices and Features

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

16Gb FC Adapter:

- HPE SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter

32Gb FC Adapter:

- HPE SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter
- HPE SN1600E 32Gb Single Port Fibre Channel Host Bus 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

---

Software - System Management
HPE Agentless Management Bundle for ESXi for HPE Gen10 and Gen10 Plus Servers
Version: 701.11.9.0 **(Recommended)**
Filename: amsdComponent_701.11.9.0.9-1_20793680.zip

Fixes

Agentless Management Service

- Removed incorrect reporting of NS204i device in cpqSePCIeDisk MIB.
- Fixed incorrect speed of 100G network adapter reported in cpqNicIfPhysAdapterSpeedMbps OID.
- Fixed missing OS Logical Disk entries in the iLO AHS log.

Smart Storage Administrator (SSA) CLI for VMware 7.0
Version: 6.15.11.0 **(Recommended)**
Filename: ssacli2-component_6.15.11.0-7.0.0_20754029.zip

Enhancements

Initial Build for Vmware

Get connected

hpe.com/info/getconnected

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

Trademark acknowledgments, if needed.

Updated February 21 2023

**Hewlett Packard
Enterprise**