

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 Patch Bundle 2023.04.00.05 Release Notes for VMware ESXi 7.0

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### BIOS (Login Required) - System ROM

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ROM Flash Firmware Package - HPE ProLiant DL110 Gen11 (U62) Servers

Version: 1.44\_07-31-2023 (**Recommended**)

Filename: U62\_1.44\_07\_31\_2023.fwpkg

### **Important Note!**

#### **Important Notes:**

None

#### **Deliverable Name:**

HPE DL110 Gen11 System ROM - U62

#### **Release Version:**

1.44\_07-31-2023

#### **Last Recommended or Critical Revision:**

1.44\_07-31-2023

#### **Previous Revision:**

1.40\_06-29-2023

#### **Firmware Dependencies:**

None

#### **Enhancements/New Features:**

Set the value of the Snoop Response Hold Off for IOAT Stack setting to 7 when the vRAN Workload Profile has been selected. This aligns with Intels performance tuning recommendation.

#### **Problems Fixed:**

Address an issue with 4th Generation Intel Xeon Processors that can result in an unexpected reset with a machine check error logged to the Integrated Management Log (IML). This issue is not unique to HPE systems. The following is Intels description of the issue: Under a complex microarchitectural conditions, a hold time violation in the uncore may affect the traffic flowing from the Intel Ultra Path Interconnect (UPI) back to a Caching Home Agent (CHA) causing a CHA Table of Requests (TOR) timeout (TO) machine check exception (MCE) to occur. Due to this erratum, the system may hang. This version of the System ROM will update internal code in all installed processors when the system boots. This code internal to the processors will not be downgraded if the System ROM is downgraded. It is not supported to have processors installed with different versions of this internal code.

Addressed an issue where the speed of Kioxia EDSFF drive might be downgraded from PCIe Generation 5 to Generation 4.

#### **Known Issues:**

None

### **Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

Address an issue with 4th Generation Intel Xeon Processors that can result in an unexpected reset with a machine check error logged to the Integrated Management Log (IML). This issue is not unique to HPE systems. The following is Intel's description of the issue: Under a complex microarchitectural conditions, a hold time violation in the uncore may affect the traffic flowing from the Intel Ultra Path Interconnect (UPI) back to a Caching Home Agent (CHA) causing a CHA Table of Requests (TOR) timeout (TO) machine check exception (MCE) to occur. Due to this erratum, the system may hang. This version of the System ROM will update internal code in all installed processors when the system boots. This code internal to the processors will not be downgraded if the System ROM is downgraded. It is not supported to have processors installed with different versions of this internal code.

Addressed an issue where the speed of Kioxia EDSFF drive might be downgraded from PCIe Generation 5 to Generation 4.

**Known Issues:**

None

**Enhancements**

Set the value of the Snoop Response Hold Off for IOAT Stack setting to 7 when the vRAN Workload Profile has been selected. This aligns with Intel's performance tuning recommendation.

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ROM Flash Firmware Package - HPE ProLiant DL320/ML110 Gen11 (U63) Servers

Version: 1.44\_07-31-2023 **(Critical)**

Filename: U63\_1.44\_07\_31\_2023.fwpkg

**Important Note!****Important Notes:**

None

**Deliverable Name:**

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

**Release Version:**

1.44\_07-31-2023

**Last Recommended or Critical Revision:**

1.44\_07-31-2023

**Previous Revision:**

1.40\_06-29-2023

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Set the value of the Snoop Response Hold Off for IOAT Stack setting to 7 when the vRAN Workload Profile has been selected. This aligns with Intel's performance tuning recommendation.

**Problems Fixed:**

Address an issue with certain 4<sup>th</sup> Generation Intel Xeon Processors that can result in an unexpected reset with a machine check error logged to the Integrated Management Log (IML). This issue is not unique to HPE systems. The following is Intel's description of the issue: "Under complex microarchitectural conditions, the processor may experience a Caching Home Agent Table of Requests (TOR) timeout machine check exception." This version of the System ROM will update internal processor firmware during boot. This internal processor firmware cannot be downgraded even if the System ROM is downgraded. Using processors with different versions of internal processor firmware is not supported.

Addressed an issue where the speed of Kioxia EDSFF drive might be downgraded from PCIe Generation 5 to Generation 4.

**Known Issues:**

None

## **Fixes**

### **Important Notes:**

None

### **Firmware Dependencies:**

None

### **Problems Fixed:**

Address an issue with certain 4<sup>th</sup> Generation Intel Xeon Processors that can result in an unexpected reset with a machine check error logged to the Integrated Management Log (IML). This issue is not unique to HPE systems. The following is Intel's description of the issue: "Under complex microarchitectural conditions, the processor may experience a Caching Home Agent Table of Requests (TOR) timeout machine check exception." This version of the System ROM will update internal processor firmware during boot. This internal processor firmware cannot be downgraded even if the System ROM is downgraded. Using processors with different versions of internal processor firmware is not supported.

Addressed an issue where the speed of Kioxia EDSFF drive might be downgraded from PCIe Generation 5 to Generation 4.

### **Known Issues:**

None

## **Enhancements**

Set the value of the Snoop Response Hold Off for IOAT Stack setting to 7 when the vRAN Workload Profile has been selected. This aligns with Intels performance tuning recommendation.

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ROM Flash Firmware Package - HPE Alletra 4110/Alletra 4120/ProLiant DL380a Gen11 (U58) Servers

Version: 1.44\_07-31-2023 **(Critical)**

Filename: U58\_1.44\_07\_31\_2023.fwpkg

## **Important Note!**

### **Important Notes:**

None

### **Deliverable Name:**

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

### **Release Version:**

1.44\_07-31-2023

### **Last Recommended or Critical Revision:**

1.44\_07-31-2023

### **Previous Revision:**

1.40\_06-29-2023

### **Firmware Dependencies:**

None

### **Enhancements/New Features:**

Set the value of the Snoop Response Hold Off for IOAT Stack setting to 7 when the vRAN Workload Profile has been selected. This aligns with Intels performance tuning recommendation.

### **Problems Fixed:**

Address an issue with certain 4<sup>th</sup> Generation Intel Xeon Processors that can result in an unexpected reset with a machine check error logged to the Integrated Management Log (IML). This issue is not unique to HPE systems. The following is Intel's description of the issue: "Under complex microarchitectural conditions, the processor may experience a Caching Home Agent Table of Requests (TOR) timeout machine check exception." This version of the System ROM will update internal processor firmware during boot. This internal processor firmware cannot be downgraded even if the System ROM is downgraded. Using processors with different versions of internal processor firmware is not supported.

Addressed an issue where the speed of Kioxia EDSFF drive might be downgraded from PCIe Generation 5 to Generation 4.

### **Known Issues:**

None

## **Fixes**

### **Important Notes:**

None

### **Firmware Dependencies:**

None

### **Problems Fixed:**

Address an issue with certain 4<sup>th</sup> Generation Intel Xeon Processors that can result in an unexpected reset with a machine check error logged to the Integrated Management Log (IML). This issue is not unique to HPE systems. The following is Intel's description of the issue: "Under complex microarchitectural conditions, the processor may experience a Caching Home Agent Table of Requests (TOR) timeout machine check exception." This version of the System ROM will update internal processor firmware during boot. This internal processor firmware cannot be downgraded even if the System ROM is downgraded. Using processors with different versions of internal processor firmware is not supported.

Addressed an issue where the speed of Kioxia EDSFF drive might be downgraded from PCIe Generation 5 to Generation 4.

### **Known Issues:**

None

## **Enhancements**

Set the value of the Snoop Response Hold Off for IOAT Stack setting to 7 when the vRAN Workload Profile has been selected. This aligns with Intels performance tuning recommendation.

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ROM Flash Firmware Package - HPE ProLiant DL560 Gen11 (U59) Servers

Version: 1.44\_07-31-2023 **(Critical)**

Filename: U59\_1.44\_07\_31\_2023.fwpkg

## **Important Note!**

### **Important Notes:**

None

### **Deliverable Name:**

HPE ProLiant DL560 Gen11 System ROM - U59

### **Release Version:**

1.44\_07-31-2023

### **Last Recommended or Critical Revision:**

1.44\_07-31-2023

### **Previous Revision:**

1.40\_06-29-2023

### **Firmware Dependencies:**

None

### **Enhancements/New Features:**

Set the value of the Snoop Response Hold Off for IOAT Stack setting to 7 when the vRAN Workload Profile has been selected. This aligns with Intels performance tuning recommendation.

### **Problems Fixed:**

Address an issue with certain 4<sup>th</sup> Generation Intel Xeon Processors that can result in an unexpected reset with a machine check error logged to the Integrated Management Log (IML). This issue is not unique to HPE systems. The following is Intel's description of the issue: "Under complex microarchitectural conditions, the processor may experience a Caching Home Agent Table of Requests (TOR) timeout machine check exception." This version of the System ROM will update internal processor firmware during boot. This internal processor firmware cannot be downgraded even if the System ROM is downgraded. Using processors with different versions of internal processor firmware is not supported.

Addressed an issue where the speed of Kioxia EDSFF drive might be downgraded from PCIe Generation 5 to Generation 4.

**Known Issues:**

None

**Fixes****Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

Address an issue with certain 4<sup>th</sup> Generation Intel Xeon Processors that can result in an unexpected reset with a machine check error logged to the Integrated Management Log (IML). This issue is not unique to HPE systems. The following is Intel's description of the issue: "Under complex microarchitectural conditions, the processor may experience a Caching Home Agent Table of Requests (TOR) timeout machine check exception." This version of the System ROM will update internal processor firmware during boot. This internal processor firmware cannot be downgraded even if the System ROM is downgraded. Using processors with different versions of internal processor firmware is not supported.

Addressed an issue where the speed of Kioxia EDSFF drive might be downgraded from PCIe Generation 5 to Generation 4.

**Known Issues:**

None

**Enhancements**

Set the value of the Snoop Response Hold Off for IOAT Stack setting to 7 when the vRAN Workload Profile has been selected. This aligns with Intel's performance tuning recommendation.

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ROM Flash Firmware Package - HPE ProLiant ML350/DL360/DL380 Gen11 (U54) Servers

Version: 1.44\_07-31-2023 **(Critical)**

Filename: U54\_1.44\_07\_31\_2023.fwpkg

**Important Note!****Important Notes:**

None

**Deliverable Name:**

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

**Release Version:**

1.44\_07-31-2023

**Last Recommended or Critical Revision:**

1.44\_07-31-2023

**Previous Revision:**

1.40\_06-29-2023

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Set the value of the Snoop Response Hold Off for IOAT Stack setting to 7 when the vRAN Workload Profile has been selected. This aligns with Intel's performance tuning recommendation.

**Problems Fixed:**

Address an issue with certain 4<sup>th</sup> Generation Intel Xeon Processors that can result in an unexpected reset with a machine check error logged to the Integrated Management Log (IML). This issue is not unique to HPE systems. The following is Intel's description of the issue: "Under complex microarchitectural conditions, the processor may experience a Caching Home Agent Table of Requests (TOR) timeout machine check exception." This version of the System ROM will update internal processor firmware during boot. This internal processor firmware cannot be downgraded even if the System ROM is downgraded. Using processors with different versions of internal processor firmware is not supported.

Addressed an issue where the speed of Kioxia EDSFF drive might be downgraded from PCIe Generation 5 to Generation 4.

**Known Issues:**

None

**Fixes**

**Important Notes:**

None

**Firmware Dependencies:**

None

**Problems Fixed:**

Address an issue with certain 4<sup>th</sup> Generation Intel Xeon Processors that can result in an unexpected reset with a machine check error logged to the Integrated Management Log (IML). This issue is not unique to HPE systems. The following is Intel's description of the issue: "Under complex microarchitectural conditions, the processor may experience a Caching Home Agent Table of Requests (TOR) timeout machine check exception." This version of the System ROM will update internal processor firmware during boot. This internal processor firmware cannot be downgraded even if the System ROM is downgraded. Using processors with different versions of internal processor firmware is not supported.

Addressed an issue where the speed of Kioxia EDSFF drive might be downgraded from PCIe Generation 5 to Generation 4.

**Known Issues:**

None

**Enhancements**

Set the value of the Snoop Response Hold Off for IOAT Stack setting to 7 when the vRAN Workload Profile has been selected. This aligns with Intel's performance tuning recommendation.

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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

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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

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## Driver - Lights-Out Management [Top](#)

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.

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## Driver - Network [Top](#)

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

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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

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Intel icen Driver for VMware vSphere 7.0  
Version: 2023.09.00 (**Recommended**)  
Filename: cp056779.compsig; cp056779.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 4.20 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.

### **Enhancements**

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

### **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

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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**)

**Important Note!**

**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: `# nsxudp-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_00000000417
P10112-B21	Mellanox MCX562A-ACAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	MT_00000000241
P13188-B21	Mellanox MCX512F-ACHT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	MT_00000000416
P11341-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4621A-ACAB OCP3 Adapter	MT_00000000238
P21930-B21	HPE Ethernet 10Gb 2-port SFP+ MCX4121A-XCHT Adapter	MT_00000000414

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

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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 **(Recommended)**

Filename: cp055711.compsig; cp055711.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 vibstdepot.hpe.com webpages, plus an HPE specific CPXXXX.xml file.

### Enhancements

New release.

### Firmware - Network

[Top](#)

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: 1.35.50 **(Recommended)**

Filename: CP058144.compsig; CP058144.zip

### **Important Note!**

This software package contains combo image v20.26.42 with the following firmware versions:

<b>NIC</b>	<b>Boot Code Version</b>	<b>PXE Version</b>	<b>NCSI Version</b>	<b>UEFI Version</b>
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	1.46	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 the FAN behavior with installed BCM 5719 1Gb 4p BASE-T OCP Adptr.

## **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,

- 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 E810-2CQDA2 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,

- 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 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 ica 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 ica 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

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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:

<b>NIC</b>	<b>EEPROM/NVM Version</b>	<b>OROM Version</b>	<b>NVM Version</b>
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

**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/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

**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**

<b>HPE Part Number</b>	<b>Mellanox Ethernet Only Adapters</b>	<b>PSID</b>
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.

**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/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:

- o Packet loss that occurred when restarting the transmit.
- o 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).
- o A memory leakage that occurred when closing connected QPs (Type RC/UC/XRC/DC).
- o 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:

- o Enabled ACS for single port cards.
- o 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_000000591

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: 20.37.1700 (**Recommended**)  
Filename: 20\_37\_1700-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/ConnectX6Firmwarev20371014/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**

No fixes in this version.

## **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 20.37.1700:**

- 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.
- Updated the link maintenance flow to avoid high uncorrectable error rate.

## **Supported Devices and Features**

This software package contains the following firmware versions:

<b>Mellanox InfiniBand Adapter</b>	<b>Firmware Version</b>	<b>PSID</b>
HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 MCX653105A-HDAT Adapter (P23664-B21 and P23664-H21)	20.37.1700	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: 20.37.1700 (**Recommended**)

Filename: 20\_37\_1700-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/ConnectX6Firmwarev20371014/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**

No fixes in this version.

## **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 20.37.1700:**

- 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.
- Updated the link maintenance flow to avoid high uncorrectable error rate.

**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)	20.37.1700	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: 20.37.1700 **(Recommended)**

Filename: 20\_37\_1700-MCX653106A-HDA\_HPE\_Ax.pldm.fwpgk

**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/ConnectX6Firmwarev20371014/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

No fixes in this version.

### 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 20.37.1700:

- 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.
- Updated the link maintenance flow to avoid high uncorrectable error rate.

### 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)	20.37.1700	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: 20.37.1700 **(Recommended)**

Filename: 20\_37\_1700-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

<b>1GbE</b>	supported	not supported	not supported	supported
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<b>Port #2 - Ethernet</b>				
<b>Port #1 - InfiniBand</b>	<b>200GbE/50GbE</b>	<b>100GbE/25GbE</b>	<b>40GbE/10GbE</b>	<b>1GbE</b>
<b>HDR / HDR100</b>	supported	supported	not supported	supported
<b>EDR</b>	supported	supported	not supported	supported
<b>FDR</b>	not supported	not supported	not supported	not supported
<b>QDR/SDR</b>	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/ConnectX6Firmwarev20371014/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**

No fixes in this version.

### **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 20.37.1700:**

- 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.
- Updated the link maintenance flow to avoid high uncorrectable error rate.

### **Supported Devices and Features**

This software package contains the following firmware versions:

<b>Mellanox InfiniBand Adapter</b>	<b>Firmware Version</b>	<b>PSID</b>
HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 OCP3 MCX653436A-HDAI Adapter (P31348-B21 and P31348-H21)	20.37.1700	MT_0000000593

### **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/ConnectX6Firmwarev20371014/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**

No fixes in this version.

### **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 20.37.1700:**

- 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.
- Updated the link maintenance flow to avoid high uncorrectable error rate.

### **Supported Devices and Features**

This software package contains the following firmware versions:

<b>Mellanox InfiniBand Adapter</b>	<b>Firmware Version</b>	<b>PSID</b>
HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter (P23665-B21 and P23665-H21)	20.37.1700	MT_0000000452

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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: 20.37.1700 (**Recommended**)  
Filename: 20\_37\_1700-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

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A list of known issues with this release is available at: <https://docs.nvidia.com/networking/display/ConnectX6Firmwarev20371014/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**

No fixes in this version.

**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 20.37.1700:**

- 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.
- Updated the link maintenance flow to avoid high uncorrectable error rate.

## 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)	20.37.1700	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!

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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 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**

<b>HPE Part Number</b>	<b>Mellanox Ethernet Only Adapters</b>	<b>PSID</b>
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 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**

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

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## **Firmware - Storage Controller**

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Firmware Package - HPE Gen11 Boot Controller NS204i-u and HPE Gen10 Plus Boot Controller NS204i-p, NS204i-t, NS204i-r

Version: 1.2.14.1010 (**Recommended**)

Filename: HPE\_NS204i\_Gen11\_1.2.14.1010\_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 and Gen10 Plus servers

### **Enhancements**

Enable Redfish Write for Drive.SecureErase and Storage.ResetToDefault. Users are able to reset the controller through PLDM.

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Firmware Package - HPE MR216i-o Gen11 Tri Mode Controller

Version: 52.24.3-4948 (**Recommended**)

Filename: HPE\_MR216i-o\_Gen11\_52.24.3-4948\_A.fwpkg

### **Important Note!**

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

### **Fixes**

- Fix a00127934en\_us: HPE ProLiant Gen10 Plus Servers - Unable to Switch From LKM to EKM With MR Controllers When Boot Time Password is Set
- Fix an issue that Sanitize Block Erase on NVMe drive along with shutdown sequence may cause assertion in firmware.
- Fix an issue that GET Volume query from REST client may fail when multiple Volumes are configured on the controller
- Fix an issue that firmware throws error when setting WCE (Disk Write Cache) = 0 for JBOD drive.
- Fix an issue that HDD sensor shows temperature on 14-HD Max when there is no drive installed.
- Fix an issue that HII page may hang while there is pinned cache then do drives initialization and View Server Profile.
- Fix a rare issue that controller may not getting discovered when there is power loss during cache restoration from a previous power loss.
- Fix an issue that controller may hang and Online Controller Reset is triggered after running "storcli /cx set debug reset all" and then "storcli /cx get snapdump".

- Fix an issue that enable security on logical drive may enable security on other unrelated drives which were configured as Dedicated Spare drive for other secured logical drive before.
- Fix an issue that drive running sanitize overwrite may become Unconfigured Bad Unsupported after a cold boot
- Fix a rare issue that firmware may hit assertion failure when a drive causes IO issue and fails.
- Fix an issue that IML 1906 may be incorrectly logged when doing config clear and reboot.
- Fix an issue that NVMe drives may move to Unconfigured Bad state from Unconfigured Good during driver unload-reload.
- Fix an issue that SPDM GET\_MEASUREMENTS command signature verification is failing at iLO

## **Enhancements**

- DMTF PLDM Redfish Device Enablement enhancements
  - Support Volume Creation and Deletion by the following Redfish requests
    - POST VolumeCollection
    - DELETE Volume
    - GET Volume Capabilities
  - Added support for the following Redfish ACTION requests:
    - POST Storage.ResetToDefaults
    - POST Volume.Initialize
    - POST Drive.SecureErase
  - Added support for Redfish PATCH requests for the following properties:
    - PATCH Volume.DedicatedSpareDrives
    - PATCH Volume.DisplayName
    - PATCH Volume.ReadCachePolicy
    - PATCH Volume.WriteCachePolicy
    - PATCH Drive.HotspareType
    - PATCH Drive.LocationIndicatorActive
    - PATCH Drive.WriteCacheEnabled
- Support DMTF PLDM firmware update for drive

---

Firmware Package - HPE MR216i-p Gen11 Tri Mode Controller  
 Version: 52.24.3-4948 **(Recommended)**  
 Filename: HPE\_MR216i-p\_Gen11\_52.24.3-4948\_A.fwpkg

## **Important Note!**

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

## **Fixes**

- Fix a00127934en\_us: HPE ProLiant Gen10 Plus Servers - Unable to Switch From LKM to EKM With MR Controllers When Boot Time Password is Set
- Fix an issue that Sanitize Block Erase on NVMe drive along with shutdown sequence may cause assertion in firmware.
- Fix an issue that GET Volume query from REST client may fail when multiple Volumes are configured on the controller
- Fix an issue that firmware throws error when setting WCE (Disk Write Cache) = 0 for JBOD drive.
- Fix an issue that HDD sensor shows temperature on 14-HD Max when there is no drive installed.
- Fix an issue that HII page may hang while there is pinned cache then do drives initialization and View Server Profile.
- Fix a rare issue that controller may not getting discovered when there is power loss during cache restoration from a previous power loss.
- Fix an issue that controller may hang and Online Controller Reset is triggered after running "storcli /cx set debug reset all" and then "storcli /cx get snapdump".
- Fix an issue that enable security on logical drive may enable security on other unrelated drives which were configured as Dedicated Spare drive for other secured logical drive before.
- Fix an issue that drive running sanitize overwrite may become Unconfigured Bad Unsupported after a cold boot
- Fix a rare issue that firmware may hit assertion failure when a drive causes IO issue and fails.
- Fix an issue that IML 1906 may be incorrectly logged when doing config clear and reboot.
- Fix an issue that NVMe drives may move to Unconfigured Bad state from Unconfigured Good during driver unload-reload.
- Fix an issue that SPDM GET\_MEASUREMENTS command signature verification is failing at iLO

## **Enhancements**

- DMTF PLDM Redfish Device Enablement enhancements
  - Support Volume Creation and Deletion by the following Redfish requests
    - POST VolumeCollection
    - DELETE Volume
    - GET Volume Capabilities
  - Added support for the following Redfish ACTION requests:
    - POST Storage.ResetToDefaults
    - POST Volume.Initialize
    - POST Drive.SecureErase
  - Added support for Redfish PATCH requests for the following properties:

- PATCH Volume.DedicatedSpareDrives
- PATCH Volume.DisplayName
- PATCH Volume.ReadCachePolicy
- PATCH Volume.WriteCachePolicy
- PATCH Drive.HotspareType
- PATCH Drive.LocationIndicatorActive
- PATCH Drive.WriteCacheEnabled
- Support DMTF PLDM firmware update for drive

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Firmware Package - HPE MR408i-o Gen11 Tri Mode Controller  
Version: 52.24.3-4948 **(Recommended)**  
Filename: HPE\_MR408i-o\_Gen11\_52.24.3-4948\_A.fwpkg

### **Important Note!**

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

### **Fixes**

- Fix a00127934en\_us: HPE ProLiant Gen10 Plus Servers - Unable to Switch From LKM to EKM With MR Controllers When Boot Time Password is Set
- Fix an issue that Sanitize Block Erase on NVMe drive along with shutdown sequence may cause assertion in firmware.
- Fix an issue that GET Volume query from REST client may fail when multiple Volumes are configured on the controller
- Fix an issue that firmware throws error when setting WCE (Disk Write Cache) = 0 for JBOD drive.
- Fix an issue that HDD sensor shows temperature on 14-HD Max when there is no drive installed.
- Fix an issue that HII page may hang while there is pinned cache then do drives initialization and View Server Profile.
- Fix a rare issue that controller may not getting discovered when there is power loss during cache restoration from a previous power loss.
- Fix an issue that controller may hang and Online Controller Reset is triggered after running "storcli /cx set debug reset all" and then "storcli /cx get snapdump".
- Fix an issue that enable security on logical drive may enable security on other unrelated drives which were configured as Dedicated Spare drive for other secured logical drive before.
- Fix an issue that drive running sanitize overwrite may become Unconfigured Bad Unsupported after a cold boot
- Fix a rare issue that firmware may hit assertion failure when a drive causes IO issue and fails.
- Fix an issue that IML 1906 may be incorrectly logged when doing config clear and reboot.
- Fix an issue that NVMe drives may move to Unconfigured Bad state from Unconfigured Good during driver unload-reload.
- Fix an issue that SPDM GET\_MEASUREMENTS command signature verification is failing at iLO

### **Enhancements**

- DMTF PLDM Redfish Device Enablement enhancements
  - Support Volume Creation and Deletion by the following Redfish requests
    - POST VolumeCollection
    - DELETE Volume
    - GET Volume Capabilities
  - Added support for the following Redfish ACTION requests:
    - POST Storage.ResetToDefaults
    - POST Volume.Initialize
    - POST Drive.SecureErase
  - Added support for Redfish PATCH requests for the following properties:
    - PATCH Volume.DedicatedSpareDrives
    - PATCH Volume.DisplayName
    - PATCH Volume.ReadCachePolicy
    - PATCH Volume.WriteCachePolicy
    - PATCH Drive.HotspareType
    - PATCH Drive.LocationIndicatorActive
    - PATCH Drive.WriteCacheEnabled
- Support DMTF PLDM firmware update for drive

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Firmware Package - HPE MR416i-o Gen11 Tri Mode Controller  
Version: 52.24.3-4948 **(Recommended)**  
Filename: HPE\_MR416i-o\_Gen11\_52.24.3-4948\_A.fwpkg

### **Important Note!**

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

## **Fixes**

- Fix a00127934en\_us: HPE ProLiant Gen10 Plus Servers - Unable to Switch From LKM to EKM With MR Controllers When Boot Time Password is Set
- Fix an issue that Sanitize Block Erase on NVMe drive along with shutdown sequence may cause assertion in firmware.
- Fix an issue that GET Volume query from REST client may fail when multiple Volumes are configured on the controller
- Fix an issue that firmware throws error when setting WCE (Disk Write Cache) = 0 for JBOD drive.
- Fix an issue that HDD sensor shows temperature on 14-HD Max when there is no drive installed.
- Fix an issue that HII page may hang while there is pinned cache then do drives initialization and View Server Profile.
- Fix a rare issue that controller may not getting discovered when there is power loss during cache restoration from a previous power loss.
- Fix an issue that controller may hang and Online Controller Reset is triggered after running "storcli /cx set debug reset all" and then "storcli /cx get snapdump".
- Fix an issue that enable security on logical drive may enable security on other unrelated drives which were configured as Dedicated Spare drive for other secured logical drive before.
- Fix an issue that drive running sanitize overwrite may become Unconfigured Bad Unsupported after a cold boot
- Fix a rare issue that firmware may hit assertion failure when a drive causes IO issue and fails.
- Fix an issue that IML 1906 may be incorrectly logged when doing config clear and reboot.
- Fix an issue that NVMe drives may move to Unconfigured Bad state from Unconfigured Good during driver unload-reload.
- Fix an issue that SPDM GET\_MEASUREMENTS command signature verification is failing at iLO

## **Enhancements**

- DMTF PLDM Redfish Device Enablement enhancements
  - Support Volume Creation and Deletion by the following Redfish requests
    - POST VolumeCollection
    - DELETE Volume
    - GET Volume Capabilities
  - Added support for the following Redfish ACTION requests:
    - POST Storage.ResetToDefaults
    - POST Volume.Initialize
    - POST Drive.SecureErase
  - Added support for Redfish PATCH requests for the following properties:
    - PATCH Volume.DedicatedSpareDrives
    - PATCH Volume.DisplayName
    - PATCH Volume.ReadCachePolicy
    - PATCH Volume.WriteCachePolicy
    - PATCH Drive.HotspareType
    - PATCH Drive.LocationIndicatorActive
    - PATCH Drive.WriteCacheEnabled
- Support DMTF PLDM firmware update for drive

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Firmware Package - HPE MR416i-p Gen11 Tri Mode Controller  
Version: 52.24.3-4948 (**Recommended**)  
Filename: HPE\_MR416i-p\_Gen11\_52.24.3-4948\_A.fwpkg

## **Important Note!**

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

## **Fixes**

- Fix a00127934en\_us: HPE ProLiant Gen10 Plus Servers - Unable to Switch From LKM to EKM With MR Controllers When Boot Time Password is Set
- Fix an issue that Sanitize Block Erase on NVMe drive along with shutdown sequence may cause assertion in firmware.
- Fix an issue that GET Volume query from REST client may fail when multiple Volumes are configured on the controller
- Fix an issue that firmware throws error when setting WCE (Disk Write Cache) = 0 for JBOD drive.
- Fix an issue that HDD sensor shows temperature on 14-HD Max when there is no drive installed.
- Fix an issue that HII page may hang while there is pinned cache then do drives initialization and View Server Profile.
- Fix a rare issue that controller may not getting discovered when there is power loss during cache restoration from a previous power loss.
- Fix an issue that controller may hang and Online Controller Reset is triggered after running "storcli /cx set debug reset all" and then "storcli /cx get snapdump".
- Fix an issue that enable security on logical drive may enable security on other unrelated drives which were configured as Dedicated Spare drive for other secured logical drive before.
- Fix an issue that drive running sanitize overwrite may become Unconfigured Bad Unsupported after a cold boot
- Fix a rare issue that firmware may hit assertion failure when a drive causes IO issue and fails.
- Fix an issue that IML 1906 may be incorrectly logged when doing config clear and reboot.
- Fix an issue that NVMe drives may move to Unconfigured Bad state from Unconfigured Good during driver unload-reload.

Fix an issue that SPDM GET\_MEASUREMENTS command signature verification is failing at iLO

## Enhancements

- DMTF PLDM Redfish Device Enablement enhancements
  - Support Volume Creation and Deletion by the following Redfish requests
    - POST VolumeCollection
    - DELETE Volume
    - GET Volume Capabilities
  - Added support for the following Redfish ACTION requests:
    - POST Storage.ResetToDefaults
    - POST Volume.Initialize
    - POST Drive.SecureErase
  - Added support for Redfish PATCH requests for the following properties:
    - PATCH Volume.DedicatedSpareDrives
    - PATCH Volume.DisplayName
    - PATCH Volume.ReadCachePolicy
    - PATCH Volume.WriteCachePolicy
    - PATCH Drive.HotspareType
    - PATCH Drive.LocationIndicatorActive
    - PATCH Drive.WriteCacheEnabled
- Support DMTF PLDM firmware update for drive

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## Firmware - Storage Fibre Channel

[Top](#)

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

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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:

<b>Adapter</b>	<b>Speed</b>	<b>MBI</b>	<b>Firmware</b>	<b>UEFI</b>	<b>Boot Bios</b>
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
- HPE SN1700Q 64Gb Single Port Fibre Channel Host Bus Adapter

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## Software - Management [Top](#)

HPE Agentless Management Bundle Smart Component on ESXi for Gen11 Servers

Version: 2023.09.01 **(Recommended)**

Filename: cp057940.compsig; cp057940.zip

### Fixes

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

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HPE iLO Driver Bundle Smart Component for ESXi 7.0

Version: 2023.09.00 **(Recommended)**

Filename: cp058423.compsig; cp058423.zip

### Enhancements

- Added support for vSphere 8.0U2.

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## Software - Storage Controller [Top](#)

HPE MegaRAID Storage Administrator StorCLI for VMware7.0 (For Gen10 Plus and Gen11 Controllers)

Version: 2023.05.01 **(Recommended)**

Filename: cp055715.compsig; cp055715.zip

### Enhancements

New release.

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## Software - Storage Fibre Channel [Top](#)

HPE QLogic Fibre Channel driver component for VMware vSphere 7.0

Version: 2023.06.01 **(Recommended)**

Filename: cp054984.compsig; cp054984.zip

### Important Note!

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 vibspot.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)**

[Top](#)

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.

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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.

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Get connected

[hpe.com/info/getconnected](https://hpe.com/info/getconnected)

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Updated September 14 2023

