

## VMware Deliverable Release Notes

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

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

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

[OS Support Tool for HPE Synergy](#)

Information on HPE Synergy Software Releases is available at:

[HPE Synergy Software Releases - Overview](#)

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## Gen11 SPP 2026.05.00.00 Release Notes for VMware ESXi 9.0 and 9.1

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### Driver - Network

HPE Broadcom NetXtreme-E Drivers for VMware vSphere 9.1

Version: 2026.03.00 (**Recommended**)

Filename: cp070844.compsig; cp070844.zip

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### Important Note!

- o 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.
- o HPE recommends the *HPE Broadcom NetXtreme-E Firmware Version*, 235.1.160000 or later, for use with this driver.

### Enhancements

Initial version

### Supported Devices and Features

This product supports the following network adapters:

- o HPE Ethernet 10Gb 2-port 535FLR-T Adapter
- o HPE Ethernet 10Gb 2-port 535T Adapter
- o HPE Ethernet 10Gb 2-port 537SFP+ Adapter
- o HPE Ethernet 10Gb 2-port 537SFP+ FLR Adapter
- o HPE Ethernet 10/25Gb 2-port 631FLR-SFP28 Adapter
- o HPE Ethernet 10/25Gb 2-port 631SFP28 Adapter
- o HPE Ethernet 10Gb 2-port SFP+ BCM57412 OCP3 Adapter
- o HPE Ethernet 10Gb 2-port SFP+ BCM57412 Adapter
- o HPE Ethernet 10Gb 2-port BaseT BCM57416 OCP3 Adapter
- o HPE Ethernet 10Gb 2-port BaseT BCM57416 Adapter
- o HPE Ethernet 10/25Gb 2-port SFP28 BCM57414 OCP3 Adapter
- o HPE Ethernet 10/25Gb 2-port SFP28 BCM57414 Adapter
- o Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE
- o Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE
- o Broadcom BCM57608 Ethernet 100Gb 2-port QSFP112 Adapter for HPE
- o Broadcom BCM57608 Ethernet 100Gb 2-port QSFP112 OCP3 Adapter for HPE

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HPE Intel igbn Driver for VMware vSphere 9.1

Version: 2026.03.00 (**Recommended**)

Filename: cp070846.compsig; cp070846.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 3.26.1 or later, for use with this driver.

### Enhancements

Initial version

### Supported Devices and Features

These drivers support the following network adapters:

- o HPE Ethernet 1Gb 2-port 361T Adapter
- o HPE Ethernet 1Gb 2-port 361i Adapter
- o HPE Ethernet 1Gb 2-port 363i Adapter
- o HPE Ethernet 1Gb 4-port 366FLR Adapter
- o HPE Ethernet 1Gb 4-port 366T Adapter
- o HPE Ethernet 1Gb 4-port 366i Adapter
- o HPE Ethernet 1Gb 4-port 366i Communication Board
- o Intel I350-T4 Ethernet 1Gb 4-port BASE-T Adapter for HPE
- o Intel I350-T4 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE
- o Intel(R) I350 Gigabit Network Connection

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Intel icen Driver for VMware vSphere 9.1

### **Important Note!**

- o 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.
- o HPE recommends the firmware provided in *Intel Firmware Package For E810 Ethernet Adapter*, version 4.91 or later, for use with these drivers.

### **Enhancements**

Initial version

### **Supported Devices and Features**

This product supports the following network adapters:

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

### **Driver - Storage Controller**

HPE MR932i-p Controller Driver (64-bit) for vSphere 9.1

Version: 2026.04.01 (**Recommended**)

Filename: cp071202.compsig; cp071202.zip

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### **Important Note!**

- o Actual Version is 8.16.1.0.0.0

### **Fixes**

- o Fix an issue that incomplete LOG DATA event information caused application crashes
- o Fix a rare issue that page fault exception is observed while running heavy IOs along with controller reset
- o Fix an issue that sense data is not observed by application for the IOCTL IOs which are failed with check condition

### **Enhancements**

- o Report firmware package version to upper layer

### **Firmware - Network**

Broadcom NX1 Online Firmware Upgrade Utility for VMware

Version: 1.43.0 (B) (**Recommended**)

Filename: CP070621.compsig; CP070621.zip

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### **Important Note!**

This software package contains combo image v20.35.41 with the following firmware versions:

NIC	Boot Code Version	PXE Version	NCSI Version	UEFI Version
BCM 5719 1GbE 4p BASE-T Adptr	1.64	21.6.4	1.5.65	21.6.92
BCM 5719 1GbE 4p BASE-T OCP3 Adptr	1.64	21.6.4	1.5.65	21.6.92
BCM 5719 1GbE 4p BASE-T LOM Adptr	1.64	21.6.4	1.5.65	21.6.92
BCM 5720 1GbE 2p BASE-T LOM Adptr	1.43	21.6.4	1.5.65	21.6.92

### **Prerequisites**

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

### **Fixes**

- o This product fixes the issue where unique serial number in VPD (Vital Product Data) will be altered to a dummy serial number.
- o This product fixes the issue where Failing to Obtain iLO shared NIC DHCP IP and MCTP EID Missing during Reboot.
- o This product fixes the issue where PCI Temperature sensor might be missing intermittently causing Increase in Fan Speed

### **Enhancements**

Added ESXi 9.1 Supported Environment

### **Supported Devices and Features**

This product supports the following network adapters:

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

HPE Broadcom NetXtreme-E Online Firmware Upgrade Utility for VMware  
 Version: 226.1.107.0 (C) **(Recommended)**  
 Filename: CP070641.compsig; CP070641.zip

**Important Note!**

HPE recommends *HPE Broadcom NetXtreme-E Drivers for VMware*, versions 2023.09.00 or later, for use with this firmware.

This software package contains NVM Image version 226.1.107000 with the following firmware versions:

NIC	Bootcode Version	NCSI Version	MBA Version	UEFI Version	RoCE Version
HPE Ethernet 10/25Gb 2-port SFP28 BCM57414 OCP3 Adapter	226.0.145.0	226.0.145.0	226.0.135.0	226.0.135.0	226.0.145.0
HPE Ethernet 10/25Gb 2-port SFP28 BCM57414 Adapter					
HPE Ethernet 10Gb 2-port BaseT BCM57416 OCP3 Adapter					
HPE Ethernet 10Gb 2-port BaseT BCM57416 Adapter					
HPE Ethernet 10Gb 2-port SFP+ BCM57412 OCP3 Adapter					
HPE Ethernet 10Gb 2-port SFP+ BCM57412 Adapter					
HPE Ethernet 10/25Gb 4-port SFP28 BCM57504 Adapter					
HPE Ethernet 10/25Gb 4-port SFP28 BCM57504 OCP3 Adapter					

**Prerequisites**

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

**Fixes**

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

**Enhancements**

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

**Supported Devices and Features**

This product supports the following network adapters:

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

Intel Online Firmware Upgrade Utility for VMware  
 Version: 3.29.0 **(Recommended)**  
 Filename: CP070391.compsig; CP070391.zip

**Important Note!**

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

NIC	EEPROM/NVM Version	OROM Version	Single NVM Version	FW Version
HPE Ethernet 10Gb 2-port SFP+ OCP3 X710-DA2 Adapter	800100D3	1.3909.0	N/A	9.56
HPE Ethernet 10Gb 2-port SFP+ X710-DA2 Adapter	800100DE	1.3909.0	N/A	9.56
Intel I350-T4 Ethernet 1Gb 4-port BASE-T Adapter	8000123F	1.3909.0	N/A	N/A
Intel I350-T4 Ethernet 1Gb 4-port BASE-T OCP3 Adapter	80001234	1.3909.0	N/A	N/A
Intel(R) I350 Gigabit Network Connection (2-port)	8000119C	1.3909.0	N/A	N/A
Intel(R) I350 Gigabit Network Connection (4-port)	8000E897	1.3909.0	N/A	N/A

The combo image v1.3909.0 includes: Boot Agent: 1GbE - v1.5.90, 10GbE - v2.4.59, 40GbE - v1.1.45 & UEFI Drivers: 1GbE - v9.9.03, 10GbE - v8.3.05, 40GbE - v5.0.33

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

### **Prerequisites**

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

### **Fixes**

- o This product fixed an HII defect where the "functionless default" overwrote modification information for the same flag field.
- o This product fixed an issue where BIOS failed to preserve greyed-out options, preventing unintended writes.

### **Enhancements**

Added ESXi 9.1 Supported Environment

### **Supported Devices and Features**

This package supports the following network adapters:

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

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NVIDIA 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: 20.43.8004 (**Recommended**)

Filename: 20\_43\_8004-MCX653105A-HDA\_HPE\_Ax.pldm.fwpgk; 20\_43\_8004-MCX653105A-HDA\_HPE\_Ax.pldm.json

### **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/connectx6firmwarev20438004/known-issues>

### **Prerequisites**

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

### **Fixes**

**No new fixes have been included in version 20.43.8004.**

### **Enhancements**

**New features and changes included in version 20.43.8004:**

- o To align with updated Microsoft UEFI Secure Boot requirements and the upcoming end-of-life of the 2011 Certificate Authority (CA), a transition to the 2023 CA has been done. To ensure successful loading of the Expansion ROM (ExpROM) during the UEFI Secure Boot process, system BIOS and operating system trust stores must be updated to include the 2023 CA.

**Note:** When performing a firmware update of ConnectX and BlueField devices the new certificate is required for Secure Boot. To continue supporting Secure Boot, systems must be updated to recognize the "Microsoft Option ROM UEFI CA 2023".

### **Supported Devices and Features**

This software package contains the following firmware versions:

<b>NVIDIA VPI 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)	20.43.8004	MT_0000000451

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NVIDIA 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: 20.43.8004 (**Recommended**)

**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/connectx6firmwarev20438004its/known-issues>

**Prerequisites**

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

**Fixes**

**No new fixes have been included in version 20.43.8004.**

**Enhancements**

**New features and changes included in version 20.43.8004:**

- o To align with updated Microsoft UEFI Secure Boot requirements and the upcoming end-of-life of the 2011 Certificate Authority (CA), a transition to the 2023 CA has been done. To ensure successful loading of the Expansion ROM (ExpROM) during the UEFI Secure Boot process, system BIOS and operating system trust stores must be updated to include the 2023 CA.

**Note:** When performing a firmware update of ConnectX and BlueField devices the new certificate is required for Secure Boot. To continue supporting Secure Boot, systems must be updated to recognize the "Microsoft Option ROM UEFI CA 2023".

**Supported Devices and Features**

This software package contains the following firmware versions:

NVIDIA VPI Adapter	Firmware Version	PSID
HPE InfiniBand HDR/Ethernet 200Gb 1-port QSFP56 PCIe4 x16 OCP3 MCX653435A-HDAI Adapter (P31323-B21 and P31323-H21)	20.43.8004	MT_0000000592

NVIDIA 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: 20.43.8004 (**Recommended**)

Filename: 20\_43\_8004-MCX653106A-HDA\_HPE\_Ax.pldm.fwpkg; 20\_43\_8004-MCX653106A-HDA\_HPE\_Ax.pldm.json

**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/connectx6firmwarev20438004/known-issues>

**Prerequisites**

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

**Fixes**

**No new fixes have been included in version 20.43.8004.**

**Enhancements**

**New features and changes included in version 20.43.8004:**

- o To align with updated Microsoft UEFI Secure Boot requirements and the upcoming end-of-life of the 2011 Certificate Authority (CA), a transition to the 2023 CA has been done. To ensure successful loading of the Expansion ROM (ExpROM) during the UEFI Secure Boot process, system BIOS and operating system trust stores must be updated to include the 2023 CA.

**Note:** When performing a firmware update of ConnectX and BlueField devices the new certificate is required for Secure Boot. To continue supporting Secure Boot, systems must be updated to recognize the "Microsoft Option ROM UEFI CA 2023".

**Supported Devices and Features**

This software package contains the following firmware versions:

NVIDIA VPI Adapter	Firmware Version	PSID
HPE InfiniBand HDR/Ethernet 200Gb 2-port QSFP56 PCIe4 x16 MCX653106A-HDAT Adapter(P31324-B21 and P31324-H21)	20.43.8004	MT_0000000594

NVIDIA 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: 20.43.8004 **(Recommended)**

Filename: 20\_43\_8004-MCX653436A-HDA\_HPE\_Ax.pldm.fwpkg; 20\_43\_8004-MCX653436A-HDA\_HPE\_Ax.pldm.json

**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:

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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/connectx6firmwarev20438004/known-issues>

### **Prerequisites**

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### **Fixes**

**No new fixes have been included in version 20.43.8004.**

### **Enhancements**

**New features and changes included in version 20.43.8004:**

- o To align with updated Microsoft UEFI Secure Boot requirements and the upcoming end-of-life of the 2011 Certificate Authority (CA), a transition to the 2023 CA has been done. To ensure successful loading of the Expansion ROM (ExpROM) during the UEFI Secure Boot process, system BIOS and operating system trust stores must be updated to include the 2023 CA.

**Note:** When performing a firmware update of ConnectX and BlueField devices the new certificate is required for Secure Boot. To continue supporting Secure Boot, systems must be updated to recognize the "Microsoft Option ROM UEFI CA 2023".

### **Supported Devices and Features**

This software package contains the following firmware versions:

<b>NVIDIA VPI 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)	20.43.8004	MT_0000000593

NVIDIA Firmware Package (FWPKG) for HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter : HPE part numbers P23665-B21 and P23665-H21

Version: 20.43.8004 (**Recommended**)

Filename: 20\_43\_8004-MCX653105A-ECA\_HPE\_Ax.pldm.fwpkg; 20\_43\_8004-MCX653105A-ECA\_HPE\_Ax.pldm.json

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### **Prerequisites**

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### **Fixes**

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### **Enhancements**

**New features and changes included in version 20.43.8004:**

- o To align with updated Microsoft UEFI Secure Boot requirements and the upcoming end-of-life of the 2011 Certificate Authority (CA), a transition to the 2023 CA has been done. To ensure successful loading of the Expansion ROM (ExpROM) during the UEFI Secure Boot process, system BIOS and operating system trust stores must be updated to include the 2023 CA.

**Note:** When performing a firmware update of ConnectX and BlueField devices the new certificate is required for Secure Boot. To continue supporting Secure Boot, systems must be updated to recognize the "Microsoft Option ROM UEFI CA 2023".

### **Supported Devices and Features**

This software package contains the following firmware versions:

<b>NVIDIA VPI 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)	20.43.8004	MT_0000000452

NVIDIA 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: 20.43.8004 **(Recommended)**

Filename: 20\_43\_8004-MCX653106A-ECA\_HPE\_Ax.pldm.fwpgk; 20\_43\_8004-MCX653106A-ECA\_HPE\_Ax.pldm.json

**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.**

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

<b>Port #2 - Ethernet</b>				
<b>Port #1 - InfiniBand</b>	<b>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/connectx6firmwarev20438004/known-issues>

**Prerequisites**

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

**Fixes**

**No new fixes have been included in version 20.43.8004.**

**Enhancements**

**New features and changes included in version 20.43.8004:**

- o To align with updated Microsoft UEFI Secure Boot requirements and the upcoming end-of-life of the 2011 Certificate Authority (CA), a transition to the 2023 CA has been done. To ensure successful loading of the Expansion ROM (ExpROM) during the UEFI Secure Boot process, system BIOS and operating system trust stores must be updated to include the 2023 CA.

**Note:** When performing a firmware update of ConnectX and BlueField devices the new certificate is required for Secure Boot. To continue supporting Secure Boot, systems must be updated to recognize the "Microsoft Option ROM UEFI CA 2023".

**Supported Devices and Features**

This software package contains the following firmware versions:

NVIDIA VPI Adapter	Firmware Version	PSID
HPE InfiniBand HDR100/Ethernet 100Gb 2-port QSFP56 PCIe4 x16 MCX653106A-ECAT Adapter (P23666-B21 and P23666-H21)	20.43.8004	MT_0000000453

NVIDIA Firmware Package (FWPKG) for HPE InfiniBand NDR/Ethernet 400Gb 1-port OSFP PCIe5 x16 MCX75310AAS-NEAT Adapter : HPE part numbers P45641-B23 and P45641-H23  
Version: 28.48.1000 (**Recommended**)  
Filename: 28\_48\_1000-MCX75310AAS-NEAT\_HPE2\_Ax.pldm.fwpkg; 28\_48\_1000-MCX75310AAS-NEAT\_HPE2\_Ax.pldm.json

### 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.
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A list of known issues with this release is available at: <https://docs.nvidia.com/networking/display/connectx7firmwarev28481000/known-issues>

### Fixes

The following issues have been fixed in version 28.48.1000:

- o An interoperability issue where, when ConnectX-7 communicates with ConnectX-8 using the probe-based algorithm, bandwidth could become extremely low due to probe packets being dropped.
- o The DPA kernel used unsafe ICM access during process creation/modification, which would cause the DPA kernel to hang during FLR.
- o User Debugger "query caps" returned only the number of capabilities, not the capability bitmap.
- o Race condition in standby/boot power sequencing. In certain timing windows, port power-down would be delayed such that the power-up flow detected the port still transitioning to power-down, causing the sequence to fail and leaving the port stuck in a powered-down state.
- o mixlink reported 0 values for SNR (media and host) due to incorrect local port mapping in firmware and an incorrect page number used by MFT.
- o Due to an SMBus release race condition, the I2C bus would become stuck.
- o Fuse values were not aligned with the updated values burned across different ConnectX-7 setups.
- o Issue in the steering definers used for LAG with IPv6 traffic.
- o A spurious CNP was sent in response to an out-of-sequence packet.
- o The root complex sent MCTP-over-PCI messages before a BDF was assigned, causing responses to be sent with BDF 0. The fix ensures that MCTP messages routed by ID are ignored until a valid BDF is assigned.
- o The steering tables were not updated after enabling partial Spectrum-X capabilities (BTH.AR) via LLLPD.
- o When decapsulation on a packet occurred, the FCS indication was not calculated correctly.
- o In IB system, RTT\_response\_sl feature did not work with Sniffer tools (e.g., Wireshark/Tcpdump/).

### Enhancements

New features and changes included in version 28.48.1000:

- o Improved the ADP-RETX algorithm to avoid re-arming without performing a retransmission.
- o The DOCA PCC NP application now enables the NIC to insert the RTT response transmit timestamp in hardware, reducing software-induced jitter and improving the accuracy and consistency of RTT measurements.
- o The system-wide limit for DPA processes has been reduced to 30. This total includes both user processes across all GVMIs and internal ProgCC processes. The max\_dpa\_processes value reported to the user is calculated as: max\_dpa\_processes=30-number\_of\_progcc\_processes
- o Added MAD (Management Datagram) access to the new Adaptive Retransmission Histogram registers. Users can configure the histogram by issuing VSP MAD GET/SET operations to ADP\_RETX\_HISTOGRAM\_CONFIG (0xC01D), and retrieve histogram data via VSP MAD GET to ADP\_RETX\_HISTOGRAM\_READ (0xC01E) (using the required VSP MAD header values and TLV format). This enables configuring and collecting adaptive retransmission timeout statistics through the MAD interface.
- o Host rate limiting has been extended to support bandwidth values above 255 Gbps. To remove the previous cap, a new max\_bw\_value\_msb field was added to est\_global, providing additional MSB bits to represent higher bandwidth values. With this enhancement, firmware and host tooling can correctly configure and report rate limits beyond 255 Gbps on high-speed links.
- o PLDM now supports the PDR Repository Change event type, enabling notification to the BMC when PDRs change. With this flow, the BMC can detect cable insertion/removal events.
- o Added support for running save and load operations in parallel, enabling multiple contexts (e.g., multiple VFs) to be checkpointed and restored concurrently instead of serially. This reduces overall migration time and improves scalability in environments that need to migrate or recover many VFs at once.
- o Extended packet modify-header operations to support set and copy actions on the NVGRE VSID (Virtual Subnet Identifier) . A new field, TUNNEL\_HDR\_DW\_2 (0x84), enables dynamic VSID modification, adding header rewrite support for NVGRE tunnel traffic in addition to existing filtering capabilities.
- o Added a new output field, migration\_state, to QUERY\_VHCA\_MIGRATION\_STATE. Software uses this field to make live-migration flow decisions, specifically to signal when it is not a good time to transition into the stop-copy stage.
- o To align with updated Microsoft UEFI Secure Boot requirements and the upcoming end-of-life of the 2011 Certificate Authority (CA), a transition to the 2023 CA has been done. To ensure successful loading of the Expansion ROM (ExpROM) during the UEFI Secure Boot process, system BIOS and operating system trust stores must be updated to include the 2023 CA.  
**Note:** When performing a firmware update of ConnectX and BlueField devices the new certificate is required for Secure Boot. To continue supporting Secure Boot, systems must be updated to recognize the "Microsoft Option ROM UEFI CA 2023".

### Supported Devices and Features

HPE Part Number	NVIDIA VPI Adapter	PSID
P45641-B23	HPE InfiniBand NDR/Ethernet 400Gb 1-port OSFP PCIe5 x16 MCX75310AAS-NEAT Adapter (P45641-B23 and P45641-H23)	MT_0000001120

NVIDIA Firmware Package (FWPKG) for HPE InfiniBand NDR/Ethernet 400Gb 1-port OSFP PCIe5 x16 MCX75310AAS-NEAT Generic Adapter : HPE part number P45641-H24  
Version: 28.48.1000 (**Recommended**)

**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/connectx7firmwarev28481000/known-issues>

**Fixes**

**The following issues have been fixed in version 28.48.1000:**

- o An interoperability issue where, when ConnectX-7 communicates with ConnectX-8 using the probe-based algorithm, bandwidth could become extremely low due to probe packets being dropped.
- o The DPA kernel used unsafe ICM access during process creation/modification, which would cause the DPA kernel to hang during FLR.
- o User Debugger "query caps" returned only the number of capabilities, not the capability bitmap.
- o Race condition in standby/boot power sequencing. In certain timing windows, port power-down would be delayed such that the power-up flow detected the port still transitioning to power-down, causing the sequence to fail and leaving the port stuck in a powered-down state.
- o mlxlink reported 0 values for SNR (media and host) due to incorrect local port mapping in firmware and an incorrect page number used by MFT.
- o Due to an SMBus release race condition, the I2C bus would become stuck.
- o Fuse values were not aligned with the updated values burned across different ConnectX-7 setups.
- o Issue in the steering definers used for LAG with IPv6 traffic.
- o A spurious CNP was sent in response to an out-of-sequence packet.
- o The root complex sent MCTP-over-PCI messages before a BDF was assigned, causing responses to be sent with BDF 0. The fix ensures that MCTP messages routed by ID are ignored until a valid BDF is assigned.
- o The steering tables were not updated after enabling partial Spectrum-X capabilities (BTH.AR) via LLPD.
- o When decapsulation on a packet occurred, the FCS indication was not calculated correctly.
- o In IB system, RTT\_response\_sl feature did not work with Sniffer tools (e.g., Wireshark/Tcpdump/).

**Enhancements**

**New features and changes included in version 28.48.1000:**

- o Improved the ADP-RETX algorithm to avoid re-arming without performing a retransmission.
- o The DOCA PCC NP application now enables the NIC to insert the RTT response transmit timestamp in hardware, reducing software-induced jitter and improving the accuracy and consistency of RTT measurements.
- o The system-wide limit for DPA processes has been reduced to 30. This total includes both user processes across all GVMI and internal ProgCC processes. The max\_dpa\_processes value reported to the user is calculated as: max\_dpa\_processes=30-number\_of\_progcc\_processes
- o Added MAD (Management Datagram) access to the new Adaptive Retransmission Histogram registers. Users can configure the histogram by issuing VSP MAD GET/SET operations to ADP\_RETX\_HISTOGRAM\_CONFIG (0xC01D), and retrieve histogram data via VSP MAD GET to ADP\_RETX\_HISTOGRAM\_READ (0xC01E) (using the required VSP MAD header values and TLV format). This enables configuring and collecting adaptive retransmission timeout statistics through the MAD interface.
- o Host rate limiting has been extended to support bandwidth values above 255 Gbps. To remove the previous cap, a new max\_bw\_value\_msb field was added to est\_global, providing additional MSB bits to represent higher bandwidth values. With this enhancement, firmware and host tooling can correctly configure and report rate limits beyond 255 Gbps on high-speed links.
- o PLDM now supports the PDR Repository Change event type, enabling notification to the BMC when PDRs change. With this flow, the BMC can detect cable insertion/removal events.
- o Added support for running save and load operations in parallel, enabling multiple contexts (e.g., multiple VFs) to be checkpointed and restored concurrently instead of serially. This reduces overall migration time and improves scalability in environments that need to migrate or recover many VFs at once.
- o Extended packet modify-header operations to support set and copy actions on the NVGRE VSID (Virtual Subnet Identifier) . A new field, TUNNEL\_HDR\_DW\_2 (0x84), enables dynamic VSID modification, adding header rewrite support for NVGRE tunnel traffic in addition to existing filtering capabilities.
- o Added a new output field, migration\_state, to QUERY\_VHCA\_MIGRATION\_STATE. Software uses this field to make live-migration flow decisions, specifically to signal when it is not a good time to transition into the stop-copy stage.
- o To align with updated Microsoft UEFI Secure Boot requirements and the upcoming end-of-life of the 2011 Certificate Authority (CA), a transition to the 2023 CA has been done. To ensure successful loading of the Expansion ROM (ExpROM) during the UEFI Secure Boot process, system BIOS and operating system trust stores must be updated to include the 2023 CA.  
**Note:** When performing a firmware update of ConnectX and BlueField devices the new certificate is required for Secure Boot. To continue supporting Secure Boot, systems must be updated to recognize the "Microsoft Option ROM UEFI CA 2023".

**Supported Devices and Features**

HPE Part Number	NVIDIA VPI Adapter	PSID
P45641-H24	HPE InfiniBand NDR/Ethernet 400Gb 1-port OSFP PCIe5 x16 MCX75310AAS-NEAT Generic Adapter (P45641-H24)	MT_0000000838

NVIDIA Firmware Package (FWPKG) for HPE InfiniBand NDR/Ethernet 400Gb 1-port QSFP112 PCIe5 x16 MCX715105AS-WEAT Adapter : HPE part number S5R60A  
 Version: 28.48.1000 (Recommended)  
 Filename: 28\_48\_1000-MCX715105AS-WEAT\_Ax.pldm.fwpkg; 28\_48\_1000-MCX715105AS-WEAT\_Ax.pldm.json

**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.
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A list of known issues with this release is available at: <https://docs.nvidia.com/networking/display/connectx7firmwarev28481000/known-issues>

## Fixes

The following issues have been fixed in version 28.48.1000:

- o An interoperability issue where, when ConnectX-7 communicates with ConnectX-8 using the probe-based algorithm, bandwidth could become extremely low due to probe packets being dropped.
- o The DPA kernel used unsafe ICM access during process creation/modification, which would cause the DPA kernel to hang during FLR.
- o User Debugger "query caps" returned only the number of capabilities, not the capability bitmap.
- o Race condition in standby/boot power sequencing. In certain timing windows, port power-down would be delayed such that the power-up flow detected the port still transitioning to power-down, causing the sequence to fail and leaving the port stuck in a powered-down state.
- o mixlink reported 0 values for SNR (media and host) due to incorrect local port mapping in firmware and an incorrect page number used by MFT.
- o Due to an SMBus release race condition, the I2C bus would become stuck.
- o Fuse values were not aligned with the updated values burned across different ConnectX-7 setups.
- o Issue in the steering definers used for LAG with IPv6 traffic.
- o A spurious CNP was sent in response to an out-of-sequence packet.
- o The root complex sent MCTP-over-PCI messages before a BDF was assigned, causing responses to be sent with BDF 0. The fix ensures that MCTP messages routed by ID are ignored until a valid BDF is assigned.
- o The steering tables were not updated after enabling partial Spectrum-X capabilities (BTH.AR) via LLPD.
- o When decapsulation on a packet occurred, the FCS indication was not calculated correctly.
- o In IB system, RTT\_response\_sl feature did not work with Sniffer tools (e.g., Wireshark/Tcpdump/).

## Enhancements

New features and changes included in version 28.48.1000:

- o Improved the ADP-RETX algorithm to avoid re-arming without performing a retransmission.
- o The DOCA PCC NP application now enables the NIC to insert the RTT response transmit timestamp in hardware, reducing software-induced jitter and improving the accuracy and consistency of RTT measurements.
- o The system-wide limit for DPA processes has been reduced to 30. This total includes both user processes across all GVMs and internal ProgCC processes. The max\_dpa\_processes value reported to the user is calculated as: max\_dpa\_processes=30-number\_of\_progcc\_processes
- o Added MAD (Management Datagram) access to the new Adaptive Retransmission Histogram registers. Users can configure the histogram by issuing VSP MAD GET/SET operations to ADP\_RETX\_HISTOGRAM\_CONFIG (0xC01D), and retrieve histogram data via VSP MAD GET to ADP\_RETX\_HISTOGRAM\_READ (0xC01E) (using the required VSP MAD header values and TLV format). This enables configuring and collecting adaptive retransmission timeout statistics through the MAD interface.
- o Host rate limiting has been extended to support bandwidth values above 255 Gbps. To remove the previous cap, a new max\_bw\_value\_msb field was added to est\_global, providing additional MSB bits to represent higher bandwidth values. With this enhancement, firmware and host tooling can correctly configure and report rate limits beyond 255 Gbps on high-speed links.
- o PLDM now supports the PDR Repository Change event type, enabling notification to the BMC when PDRs change. With this flow, the BMC can detect cable insertion/removal events.
- o Added support for running save and load operations in parallel, enabling multiple contexts (e.g., multiple VFs) to be checkpointed and restored concurrently instead of serially. This reduces overall migration time and improves scalability in environments that need to migrate or recover many VFs at once.
- o Extended packet modify-header operations to support set and copy actions on the NVGRE VSID (Virtual Subnet Identifier). A new field, TUNNEL\_HDR\_DW\_2 (0x84), enables dynamic VSID modification, adding header rewrite support for NVGRE tunnel traffic in addition to existing filtering capabilities.
- o Added a new output field, migration\_state, to QUERY\_VHCA\_MIGRATION\_STATE. Software uses this field to make live-migration flow decisions, specifically to signal when it is not a good time to transition into the stop-copy stage.
- o To align with updated Microsoft UEFI Secure Boot requirements and the upcoming end-of-life of the 2011 Certificate Authority (CA), a transition to the 2023 CA has been done. To ensure successful loading of the Expansion ROM (ExpROM) during the UEFI Secure Boot process, system BIOS and operating system trust stores must be updated to include the 2023 CA.  
**Note:** When performing a firmware update of ConnectX and BlueField devices the new certificate is required for Secure Boot. To continue supporting Secure Boot, systems must be updated to recognize the "Microsoft Option ROM UEFI CA 2023".

## Supported Devices and Features

HPE Part Number	NVIDIA VPI Adapter	PSID
S5R60A	HPE InfiniBand NDR/Ethernet 400Gb 1-port QSFP112 PCIe5 x16 MCX715105AS-WEAT Adapter (S5R60A)	MT_0000001244

NVIDIA Firmware Package (FWPKG) for HPE InfiniBand NDR200/Ethernet 200Gb 1-port OSFP PCIe5 x16 MCX75310AAS-HEAT Adapter : HPE part numbers P45642-B22 and P45642-H22

Version: 28.48.1000 (Recommended)

Filename: 28\_48\_1000-MCX75310AAS-HEAT\_HPE2\_Ax.pldm.fwpkg; 28\_48\_1000-MCX75310AAS-HEAT\_HPE2\_Ax.pldm.json

## 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:

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A list of known issues with this release is available at: <https://docs.nvidia.com/networking/display/connectx7firmwarev28481000/known-issues>

## Prerequisites

FWPKG will work only if the iLO5 firmware version is 2.30 or higher.

## Fixes

The following issues have been fixed in version 28.48.1000:

- o An interoperability issue where, when ConnectX-7 communicates with ConnectX-8 using the probe-based algorithm, bandwidth could become extremely low due to probe packets being dropped.
- o The DPA kernel used unsafe ICM access during process creation/modification, which would cause the DPA kernel to hang during FLR.
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- o The steering tables were not updated after enabling partial Spectrum-X capabilities (BTH.AR) via LLPD.
- o When decapsulation on a packet occurred, the FCS indication was not calculated correctly.
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## Enhancements

New features and changes included in version 28.48.1000:

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- o Added a new output field, migration\_state, to QUERY\_VHCA\_MIGRATION\_STATE. Software uses this field to make live-migration flow decisions, specifically to signal when it is not a good time to transition into the stop-copy stage.
- o To align with updated Microsoft UEFI Secure Boot requirements and the upcoming end-of-life of the 2011 Certificate Authority (CA), a transition to the 2023 CA has been done. To ensure successful loading of the Expansion ROM (ExpROM) during the UEFI Secure Boot process, system BIOS and operating system trust stores must be updated to include the 2023 CA.  
**Note:** When performing a firmware update of ConnectX and BlueField devices the new certificate is required for Secure Boot. To continue supporting Secure Boot, systems must be updated to recognize the "Microsoft Option ROM UEFI CA 2023".

## Supported Devices and Features

HPE Part Number	NVIDIA VPI Adapter	PSID
P45642-B22	HPE InfiniBand NDR200/Ethernet 200Gb 1-port OSFP PCIe5 x16 MCX75310AAS-HEAT Adapter (P45642-B22 and P45642-H22)	MT_0000001119

NVIDIA Firmware Package (FWPKG) for HPE InfiniBand NDR200/Ethernet 200Gb 1-port OSFP PCIe5 x16 MCX75310AAS-HEAT Generic Adapter : HPE part number P45642-H23  
Version: 28.48.1000 (Recommended)  
Filename: 28\_48\_1000-MCX75310AAS-HEA\_Ax.pldm.fwpkg; 28\_48\_1000-MCX75310AAS-HEA\_Ax.pldm.json

## 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/connectx7firmwarev28481000/known-issues>

**Prerequisites**

FWPKG will work only if the iLO5 firmware version is 2.30 or higher.

**Fixes**

**The following issues have been fixed in version 28.48.1000:**

- o An interoperability issue where, when ConnectX-7 communicates with ConnectX-8 using the probe-based algorithm, bandwidth could become extremely low due to probe packets being dropped.
- o The DPA kernel used unsafe ICM access during process creation/modification, which would cause the DPA kernel to hang during FLR.
- o User Debugger "query caps" returned only the number of capabilities, not the capability bitmap.
- o Race condition in standby/boot power sequencing. In certain timing windows, port power-down would be delayed such that the power-up flow detected the port still transitioning to power-down, causing the sequence to fail and leaving the port stuck in a powered-down state.
- o mlxlink reported 0 values for SNR (media and host) due to incorrect local port mapping in firmware and an incorrect page number used by MFT.
- o Due to an SMBus release race condition, the I2C bus would become stuck.
- o Fuse values were not aligned with the updated values burned across different ConnectX-7 setups.
- o Issue in the steering definers used for LAG with IPv6 traffic.
- o A spurious CNP was sent in response to an out-of-sequence packet.
- o The root complex sent MCTP-over-PCI messages before a BDF was assigned, causing responses to be sent with BDF 0. The fix ensures that MCTP messages routed by ID are ignored until a valid BDF is assigned.
- o The steering tables were not updated after enabling partial Spectrum-X capabilities (BTH.AR) via LLLPD.
- o When decapsulation on a packet occurred, the FCS indication was not calculated correctly.
- o In IB system, RTT\_response\_sl feature did not work with Sniffer tools (e.g., Wireshark/Tcpdump/).

**Enhancements**

**New features and changes included in version 28.48.1000:**

- o Improved the ADP-RETX algorithm to avoid re-arming without performing a retransmission.
- o The DOCA PCC NP application now enables the NIC to insert the RTT response transmit timestamp in hardware, reducing software-induced jitter and improving the accuracy and consistency of RTT measurements.
- o The system-wide limit for DPA processes has been reduced to 30. This total includes both user processes across all GVMIs and internal ProgCC processes. The max\_dpa\_processes value reported to the user is calculated as: max\_dpa\_processes=30-number\_of\_progcc\_processes
- o Added MAD (Management Datagram) access to the new Adaptive Retransmission Histogram registers. Users can configure the histogram by issuing VSP MAD GET/SET operations to ADP\_RETX\_HISTOGRAM\_CONFIG (0xC01D), and retrieve histogram data via VSP MAD GET to ADP\_RETX\_HISTOGRAM\_READ (0xC01E) (using the required VSP MAD header values and TLV format). This enables configuring and collecting adaptive retransmission timeout statistics through the MAD interface.
- o Host rate limiting has been extended to support bandwidth values above 255 Gbps. To remove the previous cap, a new max\_bw\_value\_msb field was added to est\_global, providing additional MSB bits to represent higher bandwidth values. With this enhancement, firmware and host tooling can correctly configure and report rate limits beyond 255 Gbps on high-speed links.
- o PLDM now supports the PDR Repository Change event type, enabling notification to the BMC when PDRs change. With this flow, the BMC can detect cable insertion/removal events.
- o Added support for running save and load operations in parallel, enabling multiple contexts (e.g., multiple VFs) to be checkpointed and restored concurrently instead of serially. This reduces overall migration time and improves scalability in environments that need to migrate or recover many VFs at once.
- o Extended packet modify-header operations to support set and copy actions on the NVGRE VSID (Virtual Subnet Identifier) . A new field, TUNNEL\_HDR\_DW\_2 (0x84), enables dynamic VSID modification, adding header rewrite support for NVGRE tunnel traffic in addition to existing filtering capabilities.
- o Added a new output field, migration\_state, to QUERY\_VHCA\_MIGRATION\_STATE. Software uses this field to make live-migration flow decisions, specifically to signal when it is not a good time to transition into the stop-copy stage.
- o To align with updated Microsoft UEFI Secure Boot requirements and the upcoming end-of-life of the 2011 Certificate Authority (CA), a transition to the 2023 CA has been done. To ensure successful loading of the Expansion ROM (ExpROM) during the UEFI Secure Boot process, system BIOS and operating system trust stores must be updated to include the 2023 CA.  
**Note:** When performing a firmware update of ConnectX and BlueField devices the new certificate is required for Secure Boot. To continue supporting Secure Boot, systems must be updated to recognize the "Microsoft Option ROM UEFI CA 2023".

**Supported Devices and Features**

HPE Part Number	NVIDIA VPI Adapter	PSID
P45642-H23	HPE InfiniBand NDR200/Ethernet 200Gb 1-port OSFP PCIe5 x16 MCX75310AAS-HEAT Generic Adapter (P45642-H23)	MT_0000000844

NVIDIA Firmware Package (FWPKG) for HPE InfiniBand NDR200/Ethernet 200GbE 2-port QSFP112 PCIe5 x16 MCX755106AC-HEAT Adapter : HPE part numbers P65333-B21 and P65333-H21

Version: 28.48.1000 (Recommended)

Filename: 28\_48\_1000-MCX755106AC-HEAT\_HPE\_Ax.pldm.fwpkg; 28\_48\_1000-MCX755106AC-HEAT\_HPE\_Ax.pldm.json

**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.

**Fixes**

**The following issues have been fixed in version 28.48.1000:**

- o An interoperability issue where, when ConnectX-7 communicates with ConnectX-8 using the probe-based algorithm, bandwidth could become extremely low due to probe packets being dropped.
- o The DPA kernel used unsafe ICM access during process creation/modification, which would cause the DPA kernel to hang during FLR.
- o User Debugger "query caps" returned only the number of capabilities, not the capability bitmap.
- o Race condition in standby/boot power sequencing. In certain timing windows, port power-down would be delayed such that the power-up flow detected the port still transitioning to power-down, causing the sequence to fail and leaving the port stuck in a powered-down state.
- o mlxlink reported 0 values for SNR (media and host) due to incorrect local port mapping in firmware and an incorrect page number used by MFT.
- o Due to an SMBus release race condition, the I2C bus would become stuck.
- o Fuse values were not aligned with the updated values burned across different ConnectX-7 setups.
- o Issue in the steering definers used for LAG with IPv6 traffic.
- o A spurious CNP was sent in response to an out-of-sequence packet.
- o The root complex sent MCTP-over-PCI messages before a BDF was assigned, causing responses to be sent with BDF 0. The fix ensures that MCTP messages routed by ID are ignored until a valid BDF is assigned.
- o The steering tables were not updated after enabling partial Spectrum-X capabilities (BTH.AR) via LLPD.
- o When decapsulation on a packet occurred, the FCS indication was not calculated correctly.
- o In IB system, RTT\_response\_sl feature did not work with Sniffer tools (e.g., Wireshark/Tcpdump/).

**Enhancements**

**New features and changes included in version 28.48.1000:**

- o Improved the ADP-RETX algorithm to avoid re-arming without performing a retransmission.
- o The DOCA PCC NP application now enables the NIC to insert the RTT response transmit timestamp in hardware, reducing software-induced jitter and improving the accuracy and consistency of RTT measurements.
- o The system-wide limit for DPA processes has been reduced to 30. This total includes both user processes across all GVMIs and internal ProgCC processes. The max\_dpa\_processes value reported to the user is calculated as: max\_dpa\_processes=30-number\_of\_progcc\_processes
- o Added MAD (Management Datagram) access to the new Adaptive Retransmission Histogram registers. Users can configure the histogram by issuing VSP MAD GET/SET operations to ADP\_RETX\_HISTOGRAM\_CONFIG (0xC01D), and retrieve histogram data via VSP MAD GET to ADP\_RETX\_HISTOGRAM\_READ (0xC01E) (using the required VSP MAD header values and TLV format). This enables configuring and collecting adaptive retransmission timeout statistics through the MAD interface.
- o Host rate limiting has been extended to support bandwidth values above 255 Gbps. To remove the previous cap, a new max\_bw\_value\_msb field was added to est\_global, providing additional MSB bits to represent higher bandwidth values. With this enhancement, firmware and host tooling can correctly configure and report rate limits beyond 255 Gbps on high-speed links.
- o PLDM now supports the PDR Repository Change event type, enabling notification to the BMC when PDRs change. With this flow, the BMC can detect cable insertion/removal events.
- o Added support for running save and load operations in parallel, enabling multiple contexts (e.g., multiple VFs) to be checkpointed and restored concurrently instead of serially. This reduces overall migration time and improves scalability in environments that need to migrate or recover many VFs at once.
- o Extended packet modify-header operations to support set and copy actions on the NVGRE VSID (Virtual Subnet Identifier) . A new field, TUNNEL\_HDR\_DW\_2 (0x84), enables dynamic VSID modification, adding header rewrite support for NVGRE tunnel traffic in addition to existing filtering capabilities.
- o Added a new output field, migration\_state, to QUERY\_VHCA\_MIGRATION\_STATE. Software uses this field to make live-migration flow decisions, specifically to signal when it is not a good time to transition into the stop-copy stage.
- o To align with updated Microsoft UEFI Secure Boot requirements and the upcoming end-of-life of the 2011 Certificate Authority (CA), a transition to the 2023 CA has been done. To ensure successful loading of the Expansion ROM (ExpROM) during the UEFI Secure Boot process, system BIOS and operating system trust stores must be updated to include the 2023 CA.  
**Note:** When performing a firmware update of ConnectX and BlueField devices the new certificate is required for Secure Boot. To continue supporting Secure Boot, systems must be updated to recognize the "Microsoft Option ROM UEFI CA 2023".

**Supported Devices and Features**

HPE Part Number	NVIDIA VPI Adapter	PSID
P65333-B21	HPE InfiniBand NDR200/Ethernet 200GbE 2-port QSFP112 PCIe5 x16 MCX755106AC-HEAT Adapter (P65333-B21 and P65333-H21)	MT_0000001108

**Firmware - Storage Controller**

[Top](#)

Controller Firmware Flash for ESXi8.0 and 9.0 - HPE MR216i-o Gen11 Tri Mode Controller  
 Version: 52.26.3.5487 (C) **(Recommended)**  
 Filename: CP070863.compsig; CP070863.zip

**Enhancements**

- o ESXi9.1 support.

Controller Firmware Flash for ESXi8.0 and 9.0 - HPE MR216i-p Gen11 Tri Mode Controller  
 Version: 52.26.3.5487 (C) **(Recommended)**  
 Filename: CP070864.compsig; CP070864.zip

**Enhancements**

- o ESXi9.1 support.

Controller Firmware Flash for ESXi8.0 and 9.0 - HPE MR408i-o Gen11 Tri Mode Controller  
 Version: 52.26.3.5487 (C) **(Recommended)**  
 Filename: CP070865.compsig; CP070865.zip

**Enhancements**

- o ESXi9.1 support.

Controller Firmware Flash for ESXi8.0 and 9.0 - HPE MR416i-o Gen11 Tri Mode Controller  
Version: 52.26.3.5487 (C) **(Recommended)**  
Filename: CP070866.compsig; CP070866.zip

**Enhancements**

- o ESXi9.1 support.

Controller Firmware Flash for ESXi8.0 and 9.0 - HPE MR416i-p Gen11 Tri Mode Controller  
Version: 52.26.3.5487 (C) **(Recommended)**  
Filename: CP070867.compsig; CP070867.zip

**Enhancements**

- o ESXi9.1 support.

Online Firmware Flash for ESXi - HPE Gen11 Boot Controller NS204i-u, NS204i-d and HPE Gen10 Plus Boot Controller NS204i-p, NS204i-d  
Version: 1.2.14.1018 (D) **(Recommended)**  
Filename: CP070870.compsig; CP070870.zip

**Enhancements**

- o ESXi9.1 support.

Online ROM Flash Component for VMware ESXi - HPE Smart Array P816i-a,P416ie-m,P408i-p, P408e-p, P408i-a,P408i-c,P204i-c,E208i-p, E208e-p, E208i-a, P208i-c SR Gen10  
Version: 5.61 (F) **(Recommended)**  
Filename: CP070871.compsig; CP070871.zip

**Important Note!**

- o FWPKG support for PLDM firmware upgrades was introduced. As a transition point, both OS-dependent, offline smart components and OS-independent FWPKG for PLDM firmware package updates were made available. From firmware versions later than 5.61, OS-dependent smart and offline components can only be used on DL325 and DL385 Gen10 with AMD EPYC 7xx2 Series Processors servers due to limitations associated with the PLDM Firmware Package Upgrade. Ref customer advisory [a00119198en-us](#). For servers other than DL325 and DL385 Gen10 with AMD EPYC 7xx2 Series Processors, please use OS-independent FWPKG for PLDM firmware package updates after firmware version 5.61.

**Enhancements**

- o ESXi9.1 support.

**Firmware - Storage Fibre Channel**

[Top](#)

HPE Firmware Flash for QLogic 32Gb and 64Gb Fibre Channel Host Bus Adapters  
Version: 02.11.13 **(Recommended)**  
Filename: mh021113.upd\_header.pldm.fwpkg

**Important Note!**

Release Notes:  
[HPE QLogic Adapters Release Notes](#)

This Firmware package contains following firmware versions:

Adapter	Speed	MBI	Firmware	UEFI
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.11.12	09.15.15	7.39
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.11.12	09.15.15	7.39
HPE SN1700Q 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	02.11.12	09.15.15	7.39
HPE SN1700Q 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	02.11.12	09.15.15	7.39

Fixed the following :

**Fixes**

Fixed the following :

**Enhancements**

This Firmware package contains following firmware versions:

Adapter	Speed	MBI	Firmware	UEFI
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.11.13	09.15.19	7.39
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.11.13	09.15.19	7.39
HPE SN1700Q 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	02.11.13	09.15.19	7.39

## Supported Devices and Features

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

### 32Gb Fibre Channel Host Bus Adapter:

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

### 64Gb Fibre Channel Host Bus Adapter:

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

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## Software - Management [Top](#)

HPE iLO Driver Bundle Smart Component for ESXi 8.0 and ESXi 9.0

Version: 2026.03.00 (**Recommended**)

Filename: cp070019.compsig; cp070019.zip

### Enhancements

Added support for vSphere 9.1 OS

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Smart Storage Administrator (SSA) CLI Smart Component for ESXi 9.1 for Gen10/Gen10 Plus/Gen11 Controllers

Version: 2026.03.01 (**Recommended**)

Filename: cp070854.compsig; cp070854.zip

### Important Note!

- o Actual ESXi9.0 ssacli version is 6.60.11.0
- o **Due to VMware upgrade constraints, the SSA CLI package version (6.60.11) differs from the internal version (6.60.9). This is expected behavior.**

### Enhancements

Initial version

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

HPE MegaRAID Storage Administrator StorCLI for VMware9.1 (For Gen10P and Gen11 Controllers)

Version: 2026.03.01 (**Recommended**)

Filename: cp070800.compsig; cp070800.zip

### Important Note!

- o Actual ESXi Version is 0007.3604.0000.0000

### Fixes

- o Fix an issue that storcli show /cx/ex/sx poh (power on hour) command report error on NVMe drives
- o Fix an issue that PSOC update is not allowing when the part number is beyond 65535

### Enhancements

- o Return error when enabling encryption with 256 characters for keyid in Drive Security command
- o Display the controller serial number as "NA" when not programmed

---

HPE MegaRAID Storage Administrator StorCLI for VMware9.1 (for MR932i-p Controller)

Version: 2026.04.01 (**Recommended**)

Filename: cp070799.compsig; cp070799.zip

### Important Note!

- o **Actual ESXi Version is 008.00aa.0000.00bb, even though the file name indicates 008.00aa.03bb-1OEM.900.0.xxxxxxxx.**

### Fixes

- o Fix an issue that RIAD 60 volume with preserved cache is reporting incorrect volume size in show preservedcache command
- o Fix an issue that volume info is showing "SCSI Status: failure" when background operations on the volume are going
- o Fix an issue that storcli2 fails to set firstdeviceid to default value 65535
- o Fix an issue that add map command returns incorrect error message
- o Fix an issue that improper output while setting Consistency Check execfrequency for weeks/days
- o Fix a rare issue that storcli2 may crash on querying the controller
- o Fix an issue that multiple error messages may show when show POH (Power On Hours) on drives
- o Fix an issue that volume is shown as virtual drive in show aso command
- o Fix an issue that default strip size listed as 65KB instead of 64KB
- o Fix an issue that incorrect message is shown while setting invalid FirstdeviceID
- o Fix an issue that one event is missing when the requested number of events is less than the current available events count

### Enhancements

- o Update property "Security QR Enabled" as per latest MPI changes to "Security QR Secured" in show securebootinfo command
- o Migrate to Openssl 3.5.1
- o Updated CLI to display the PQC Algorithm details
- o Implement the Enhanced string in CLI prereview configuration for the non-importable foreign reason
- o Add Online Capacity Expansion limitation: No Foreign Config Import Allowed Until Completion
- o Provide method for removal of a volume from the exclusion list from patrol read
- o Add the NVMe drive smart info with the property "Self-test status" if operation is ongoing
- o Displaying missing Controller properties in storcli2. Added below CLI commands:
  - o /cx show dmhi
  - o /cx show ssddefaults
  - o /cx show nvmedefaults

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

HPE QLogic Fibre Channel driver component for VMware vSphere 9.1  
Version: 2026.04.01 **(Recommended)**  
Filename: cp070516.compsig; cp070516.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 only supported on VMware ESXi 9.1

### **Prerequisites**

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

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

### **Enhancements**

Driver version 91.5.5.86.0

This driver is only supported on VMware ESXi 9.1

### **Supported Devices and Features**

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

#### **32Gb Fibre Channel Host Bus Adapter:**

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

#### **64Gb Fibre Channel Host Bus Adapter:**

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

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## Software - System Management [Top](#)

HPE Agentless Management Bundle for ESXi for Gen11 and Gen12 Servers  
Version: 802.12.6.0 **(Recommended)**  
Filename: amsdvComponent\_802.12.6.0.3-1.zip

### **Fixes**

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

### **Enhancements**

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

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HPE Agentless Management Bundle Smart Component on ESXi for Gen11 and Gen12 Servers  
Version: 2026.05.01 **(Recommended)**  
Filename: cp071377.compsig; cp071377.zip

### **Prerequisites**

#### **For HPE servers with iLO 7:**

Ensure that the iLO Virtual NIC(VNIC) feature is enabled. Please refer to the HPE iLO User Guide for VNIC configuration procedure

### **Fixes**

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

### **Enhancements**

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

Integrated Smart Update Tools for VMware ESXi 8.0 and ESXi 9.0  
Version: 800.6.7.0 (**Recommended**)  
Filename: sutComponent\_800.6.7.0.26-0-signed\_component.zip

### **Important Note!**

Integrated Smart Update Tools for ESXi 8.0 and ESXi 9.0 which 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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## **BIOS - System ROM**

[Top](#)

ROM Flash Firmware Package - HPE ProLiant DL110 Gen11 (U62) Servers  
Version: 2.84\_04-02-2026 (**Optional**)  
Filename: U62\_2.84\_04\_02\_2026.fwpkg

### **Important Note!**

#### **Important Notes:**

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.215.0 (2.80\_12\_04\_2025).

Details about reported security vulnerabilities and their mitigation can be found at the following link [Security Bulletin Library | HPE Support](#).

#### **Deliverable Name:**

HPE ProLiant DL110 Gen11 System ROM - U62

#### **Release Version:**

2.84\_04-02-2026

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

2.82\_03-05\_2026

#### **Previous Revision:**

2.82\_03-05\_2026

#### **Firmware Dependencies:**

None

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

Updated HPE branding logo to reflect the new HPE corporate identity.

Extended Asset Tag support to 64 bytes on with new iLO firmware.

#### **Problems Fixed:**

Addressed an issue where systems with HBM installed might experience a Red Screen of Death (RSOD) during system boot.

#### **Known Issues:**

None

### **Fixes**

#### **Important Notes:**

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.215.0 (2.80\_12\_04\_2025).

Details about reported security vulnerabilities and their mitigation can be found at the following link [Security Bulletin Library | HPE Support](#).

#### **Firmware Dependencies:**

None

#### **Problems Fixed:**

Addressed an issue where systems with HBM installed might experience a Red Screen of Death (RSOD) during system boot.

#### **Known Issues:**

None

### **Enhancements**

Updated HPE branding logo to reflect the new HPE corporate identity.

Extended Asset Tag support to 64 bytes on with new iLO firmware.

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ROM Flash Firmware Package - HPE ProLiant DL320/ML110 Gen11 (U63) Servers  
Version: 2.84\_04-02-2026 **(Optional)**  
Filename: U63\_2.84\_04\_02\_2026.fwpkg

### **Important Note!**

#### **Important Notes:**

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.215.0 (2.80\_12\_04\_2025).

Details about reported security vulnerabilities and their mitigation can be found at the following link [Security Bulletin Library | HPE Support](#).

#### **Deliverable Name:**

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

#### **Release Version:**

2.84\_04-02-2026

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

2.82\_03-05\_2026

#### **Previous Revision:**

2.82\_03-05\_2026

#### **Firmware Dependencies:**

None

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

Updated HPE branding logo to reflect the new HPE corporate identity.

Extended Asset Tag support to 64 bytes on with new iLO firmware.

#### **Problems Fixed:**

Addressed an issue where systems with HBM installed might experience a Red Screen of Death (RSOD) during system boot.

#### **Known Issues:**

None

### **Fixes**

#### **Important Notes:**

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.215.0 (2.80\_12\_04\_2025).

Details about reported security vulnerabilities and their mitigation can be found at the following link [Security Bulletin Library | HPE Support](#).

#### **Firmware Dependencies:**

None

#### **Problems Fixed:**

Addressed an issue where systems with HBM installed might experience a Red Screen of Death (RSOD) during system boot.

#### **Known Issues:**

None

### **Enhancements**

Updated HPE branding logo to reflect the new HPE corporate identity.

Extended Asset Tag support to 64 bytes on with new iLO firmware.

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ROM Flash Firmware Package - HPE Alletra 4110/Alletra 4120/ProLiant DL380a Gen11 (U58) Servers  
Version: 2.84\_04-02-2026 **(Optional)**  
Filename: U58\_2.84\_04\_02\_2026.fwpkg

### **Important Note!**

#### **Important Notes:**

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.215.0 (2.80\_12\_04\_2025).

Details about reported security vulnerabilities and their mitigation can be found at the following link [Security Bulletin Library | HPE Support](#).

#### **Deliverable Name:**

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

#### **Release Version:**

2.84\_04-02-2026

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

2.82\_03-05\_2026

**Previous Revision:**

2.82\_03-05\_2026

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Updated HPE branding logo to reflect the new HPE corporate identity.

Extended Asset Tag support to 64 bytes on with new iLO firmware.

**Problems Fixed:**

Addressed an issue where systems with HBM installed might experience a Red Screen of Death (RSOD) during system boot.

**Known Issues:**

None

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

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.215.0 (2.80\_12\_04\_2025).

Details about reported security vulnerabilities and their mitigation can be found at the following link [Security Bulletin Library | HPE Support](#).

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue where systems with HBM installed might experience a Red Screen of Death (RSOD) during system boot.

**Known Issues:**

None

**Enhancements**

Updated HPE branding logo to reflect the new HPE corporate identity.

Extended Asset Tag support to 64 bytes on with new iLO firmware.

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ROM Flash Firmware Package - HPE ProLiant DL20 Gen11/ML30 Gen11/MicroServer Gen11 (U65) Servers

Version: 2.42\_03-05-2026 (**Recommended**)

Filename: U65\_2.42\_03\_05\_2026.fwpkg

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

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.03.04.069.0 (2.40\_01\_12\_2026).

Details about reported security vulnerabilities and their mitigation can be found at the following link [Security Bulletin Library | HPE Support](#).

**Deliverable Name:**

HPE System ROM - U65

**Release Version:**

2.42\_03-05-2026

**Last Recommended or Critical Revision:**

2.40\_02-06-2026

**Previous Revision:**

2.40\_02-06-2026

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Improved PXE boot stability with certain chipset adapters and eliminating system reboot loops during PXE operations.

This revision of the System ROM includes the mitigation for CVE-2026-22796 security vulnerability.

**Problems Fixed:**

Addressed an issue where the system using SED devices could encounter a "Device Encryption Error" in Enterprise Secure Key Manager (ESKM) configurations.

**Known Issues:**

None

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

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.03.04.069.0 (2.40\_01\_12\_2026).

Details about reported security vulnerabilities and their mitigation can be found at the following link [Security Bulletin Library | HPE Support](#).

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue where the system using SED devices could encounter a "Device Encryption Error" in Enterprise Secure Key Manager (ESKM) configurations.

**Known Issues:**

None

**Enhancements**

Improved PXE boot stability with certain chipset adapters and eliminating system reboot loops during PXE operations.

This revision of the System ROM includes the mitigation for CVE-2026-22796 security vulnerability.

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

Version: 2.84\_04-02-2026 (**Optional**)

Filename: U59\_2.84\_04\_02\_2026.fwpkg

**Important Note!**

**Important Notes:**

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.215.0 (2.80\_12\_04\_2025).

Details about reported security vulnerabilities and their mitigation can be found at the following link [Security Bulletin Library | HPE Support](#).

**Deliverable Name:**

HPE ProLiant DL560 Gen11 System ROM - U59

**Release Version:**

2.84\_04-02-2026

**Last Recommended or Critical Revision:**

2.82\_03-05\_2026

**Previous Revision:**

2.82\_03-05\_2026

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Updated HPE branding logo to reflect the new HPE corporate identity.

Extended Asset Tag support to 64 bytes on with new iLO firmware.

**Problems Fixed:**

Addressed an issue where systems with HBM installed might experience a Red Screen of Death (RSOD) during system boot.

**Known Issues:**

None

**Fixes**

**Important Notes:**

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.215.0 (2.80\_12\_04\_2025).

Details about reported security vulnerabilities and their mitigation can be found at the following link [Security Bulletin Library | HPE Support](#).

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue where systems with HBM installed might experience a Red Screen of Death (RSOD) during system boot.

**Known Issues:**

None

**Enhancements**

Updated HPE branding logo to reflect the new HPE corporate identity.

Extended Asset Tag support to 64 bytes on with new iLO firmware.

### **Important Note!**

#### **Important Notes:**

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.215.0 (2.80\_12\_04\_2025).

Details about reported security vulnerabilities and their mitigation can be found at the following link [Security Bulletin Library | HPE Support](#).

#### **Deliverable Name:**

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

#### **Release Version:**

2.84\_04-02-2026

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

2.82\_03-05\_2026

#### **Previous Revision:**

2.82\_03-05\_2026

#### **Firmware Dependencies:**

None

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

Updated HPE branding logo to reflect the new HPE corporate identity.

Extended Asset Tag support to 64 bytes on with new iLO firmware.

#### **Problems Fixed:**

Addressed an issue where systems with HBM installed might experience a Red Screen of Death (RSOD) during system boot.

#### **Known Issues:**

None

### **Fixes**

#### **Important Notes:**

This version of the System ROM should be paired with Server Platform Services (SPS) Firmware 06.01.04.215.0 (2.80\_12\_04\_2025).

Details about reported security vulnerabilities and their mitigation can be found at the following link [Security Bulletin Library | HPE Support](#).

#### **Firmware Dependencies:**

None

#### **Problems Fixed:**

Addressed an issue where systems with HBM installed might experience a Red Screen of Death (RSOD) during system boot.

#### **Known Issues:**

None

### **Enhancements**

Updated HPE branding logo to reflect the new HPE corporate identity.

Extended Asset Tag support to 64 bytes on with new iLO firmware.

### **Important Note!**

#### **Important Notes:**

This is the initial version to support AMD 5th Generation EPYC™ 8005 Series processors.

This revision of the System ROM includes AMD reference code GenoAPI 1.0.0.H for AMD 4th Generation EPYC processors. This revision of the System ROM includes AMD reference code TurinPI 1.0.0.A for AMD 5th Generation EPYC processors.

Details about reported security vulnerabilities and their mitigation can be found at the following link [Security Bulletin Library | HPE Support](#).

#### **Deliverable Name:**

HPE DL145 Gen11 System ROM - A58

#### **Release Version:**

2.10\_04-02-2026

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

2.10\_04-02-2026

**Previous Revision:**

1.82\_03-05-2026

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Updated HPE branding logos across all boot screens (early POST, late POST, System Utility, and BGRT) to reflect the new HPE corporate identity.

Added multi-language support (Chinese and Japanese) for RBSU setup menus, Boot Configuration, NVMe-oF configuration, Secure Boot configuration, and Factory Options. Extended Asset Tag support from 32 bytes to 64 bytes in RBSU and SMBIOS Type 2/3 records.

**Problems Fixed:**

Addressed an issue where PCIe AER Uncorrectable Error might not be logged.

Addressed an issue where servers could halt during POST displaying an "SPDM component authentication failure" even when SPDM was configured as disabled.

Addressed a Red Screen of Death (RSOD) that could occur during PCIe error handling.

**Known Issues:**

None

**Fixes**

**Important Notes:**

This is the initial version to support AMD 5th Generation EPYC™ 8005 Series processors.

This revision of the System ROM includes AMD reference code GenoaPI 1.0.0.H for AMD 4th Generation EPYC processors. This revision of the System ROM includes AMD reference code TurinPI 1.0.0.A for AMD 5th Generation EPYC processors.

Details about reported security vulnerabilities and their mitigation can be found at the following link [Security Bulletin Library | HPE Support](#).

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue where PCIe AER Uncorrectable Error might not be logged.

Addressed an issue where servers could halt during POST displaying an "SPDM component authentication failure" even when SPDM was configured as disabled.

Addressed a Red Screen of Death (RSOD) that could occur during PCIe error handling.

**Known Issues:**

None

**Enhancements**

Updated HPE branding logos across all boot screens (early POST, late POST, System Utility, and BGRT) to reflect the new HPE corporate identity.

Added multi-language support (Chinese and Japanese) for RBSU setup menus, Boot Configuration, NVMe-oF configuration, Secure Boot configuration, and Factory Options. Extended Asset Tag support from 32 bytes to 64 bytes in RBSU and SMBIOS Type 2/3 records.

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ROM Flash Universal Firmware Package - HPE ProLiant DL325/DL345 Gen11 (A56) Servers

Version: 3.12\_04-02-2026 (**Recommended**)

Filename: A56\_3.12\_04\_02\_2026.fwpkg

**Important Note!**

**Important Notes:**

This revision of the System ROM includes AMD reference code GenoaPI 1.0.0.H Patch 1 for AMD 4th Generation EPYC processors. This revision of the System ROM includes AMD reference code TurinPI 1.0.0.A for AMD 5th Generation EPYC processors.

Details about reported security vulnerabilities and their mitigation can be found at the following link [Security Bulletin Library | HPE Support](#).

**Deliverable Name:**

HPE ProLiant DL325 Gen11/DL345 Gen11 System ROM - A56

**Release Version:**

3.12\_04-02-2026

**Last Recommended or Critical Revision:**

3.12\_04-02-2026

**Previous Revision:**

3.10\_03-05-2026

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Updated HPE branding logos across all boot screens (early POST, late POST, System Utility, and BGRT) to reflect the new HPE corporate identity.

Added multi-language support (Chinese and Japanese) for RBSU setup menus, Boot Configuration, NVMe-oF configuration, Secure Boot configuration, and Factory Options.

Extended Asset Tag support from 32 bytes to 64 bytes in RBSU and SMBIOS Type 2/3 records.

**Problems Fixed:**

Addressed an issue on DL385 Gen11 2P systems with an 8-socket-wide (8SW) GPU configuration where the system rebooted repeatedly after loading manufacturing defaults or enabling PCI Prefetchable MMIO.

Addressed an issue where PCIe AER Uncorrectable Error might not be logged.

Addressed an issue where servers could halt during POST displaying an "SPDM component authentication failure" even when SPDM was configured as disabled.

Addressed a Red Screen of Death (RSOD) that could occur during PCIe error handling.

**Known Issues:**

None

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

This revision of the System ROM includes AMD reference code GenoaPI 1.0.0.H Patch 1 for AMD 4th Generation EPYC processors. This revision of the System ROM includes AMD reference code TurinPI 1.0.0.A for AMD 5th Generation EPYC processors.

Details about reported security vulnerabilities and their mitigation can be found at the following link [Security Bulletin Library | HPE Support](#).

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue on DL385 Gen11 2P systems with an 8-socket-wide (8SW) GPU configuration where the system rebooted repeatedly after loading manufacturing defaults or enabling PCI Prefetchable MMIO.

Addressed an issue where PCIe AER Uncorrectable Error might not be logged.

Addressed an issue where servers could halt during POST displaying an "SPDM component authentication failure" even when SPDM was configured as disabled.

Addressed a Red Screen of Death (RSOD) that could occur during PCIe error handling.

**Known Issues:**

None

**Enhancements**

Updated HPE branding logos across all boot screens (early POST, late POST, System Utility, and BGRT) to reflect the new HPE corporate identity.

Added multi-language support (Chinese and Japanese) for RBSU setup menus, Boot Configuration, NVMe-oF configuration, Secure Boot configuration, and Factory Options.

Extended Asset Tag support from 32 bytes to 64 bytes in RBSU and SMBIOS Type 2/3 records.

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ROM Flash Universal Firmware Package - HPE ProLiant DL365/DL385 Gen11 (A55) Servers

Version: 3.12\_04-02-2026 (**Recommended**)

Filename: A55\_3.12\_04\_02\_2026.fwpkg

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

This revision of the System ROM includes AMD reference code GenoaPI 1.0.0.H Patch 1 for AMD 4th Generation EPYC processors. This revision of the System ROM includes AMD reference code TurinPI 1.0.0.A for AMD 5th Generation EPYC processors.

Details about reported security vulnerabilities and their mitigation can be found at the following link [Security Bulletin Library | HPE Support](#).

**Deliverable Name:**

HPE DL385 Gen11/DL365 Gen11 System ROM - A55

**Release Version:**

3.12\_04-02-2026

**Last Recommended or Critical Revision:**

3.12\_04-02-2026

**Previous Revision:**

3.10\_03-05-2026

**Firmware Dependencies:**

None

**Enhancements/New Features:**

Updated HPE branding logos across all boot screens (early POST, late POST, System Utility, and BGRT) to reflect the new HPE corporate identity.

Added multi-language support (Chinese and Japanese) for RBSU setup menus, Boot Configuration, NVMe-oF configuration, Secure Boot configuration, and Factory Options.

Extended Asset Tag support from 32 bytes to 64 bytes in RBSU and SMBIOS Type 2/3 records.

**Problems Fixed:**

Addressed an issue on DL385 Gen11 2P systems with an 8-socket-wide (8SW) GPU configuration where the system rebooted repeatedly after loading manufacturing defaults or enabling PCI Prefetchable MMIO.

Addressed an issue where PCIe AER Uncorrectable Error might not be logged.

Addressed an issue where servers could halt during POST displaying an "SPDM component authentication failure" even when SPDM was configured as disabled.

Addressed a Red Screen of Death (RSOD) that could occur during PCIe error handling.

**Known Issues:**

None

**Fixes**

**Important Notes:**

This revision of the System ROM includes AMD reference code GenoaPI 1.0.0.H Patch 1 for AMD 4th Generation EPYC processors. This revision of the System ROM includes AMD reference code TurinPI 1.0.0.A for AMD 5th Generation EPYC processors.

Details about reported security vulnerabilities and their mitigation can be found at the following link [Security Bulletin Library | HPE Support](#).

**Firmware Dependencies:**

None

**Problems Fixed:**

Addressed an issue on DL385 Gen11 2P systems with an 8-socket-wide (8SW) GPU configuration where the system rebooted repeatedly after loading manufacturing defaults or enabling PCI Prefetchable MMIO.

Addressed an issue where PCIe AER Uncorrectable Error might not be logged.

Addressed an issue where servers could halt during POST displaying an "SPDM component authentication failure" even when SPDM was configured as disabled.

Addressed a Red Screen of Death (RSOD) that could occur during PCIe error handling.

**Known Issues:**

None

**Enhancements**

Updated HPE branding logos across all boot screens (early POST, late POST, System Utility, and BGRT) to reflect the new HPE corporate identity.

Added multi-language support (Chinese and Japanese) for RBSU setup menus, Boot Configuration, NVMe-oF configuration, Secure Boot configuration, and Factory Options.

Extended Asset Tag support from 32 bytes to 64 bytes in RBSU and SMBIOS Type 2/3 records.

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**Driver - Lights-Out Management**

HPE iLO Native Driver for ESXi 8.0 and ESXi 9.0

Version: 10.9.1 (**Recommended**)

Filename: ilo-driver\_800.10.9.1.4-1OEM.800.1.0.20613240.zip

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**Fixes**

Implement MSI interrupt in the ilo driver to fix PSOD due to interrupt storm and to fix snmpwalk delays.

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Get connected

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

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