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

Gen11 SPP 2026.03.00.00 Release Notes for VMware ESXi 8.0

BIOS - System ROM Top

ROM Flash Firmware Package - HPE ProLiant DL110 Gen11 (U62) Servers
Version: 2.80_01-29-2026 **(Recommended)**
Filename: U62_2.80_01_29_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:

2.80_01-29-2026

Last Recommended or Critical Revision:

2.80_01-29-2026

Previous Revision:

2.72_11-27-2025

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced multi-language translation support for RBSU menus and options across Chinese, Japanese, and other supported languages.

Improved boot time reporting to Redfish BootProgress property.

Problems Fixed:

Addressed an issue where system could run into high CPU utilization and unresponsiveness when processing specific corrected error events.

Addressed an issue where root ports were improperly configuring 10-bit TLP tags in PCIe devices that only support 8-bit tags, causing completion timeouts and device communication failures.

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 system could run into high CPU utilization and unresponsiveness when processing specific corrected error events.

Addressed an issue where root ports were improperly configuring 10-bit TLP tags in PCIe devices that only support 8-bit tags, causing completion timeouts and device communication failures.

Known Issues:

None

Enhancements

Enhanced multi-language translation support for RBSU menus and options across Chinese, Japanese, and other supported languages.

Improved boot time reporting to Redfish BootProgress property.

ROM Flash Firmware Package - HPE ProLiant DL320/ML110 Gen11 (U63) Servers
Version: 2.80_01-29-2026 **(Recommended)**
Filename: U63_2.80_01_29_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:

2.80_01-29-2026

Last Recommended or Critical Revision:

2.80_01-29-2026

Previous Revision:

2.72_11-27-2025

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced multi-language translation support for RBSU menus and options across Chinese, Japanese, and other supported languages.

Improved boot time reporting to Redfish BootProgress property.

Problems Fixed:

Addressed an issue where system could run into high CPU utilization and unresponsiveness when processing specific corrected error events.

Addressed an issue where root ports were improperly configuring 10-bit TLP tags in PCIe devices that only support 8-bit tags, causing completion timeouts and device communication failures.

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 system could run into high CPU utilization and unresponsiveness when processing specific corrected error events.

Addressed an issue where root ports were improperly configuring 10-bit TLP tags in PCIe devices that only support 8-bit tags, causing completion timeouts and device communication failures.

Known Issues:

None

Enhancements

Enhanced multi-language translation support for RBSU menus and options across Chinese, Japanese, and other supported languages.

Improved boot time reporting to Redfish BootProgress property.

ROM Flash Firmware Package - HPE Alletra 4110/Alletra 4120/ProLiant DL380a Gen11 (U58) Servers
Version: 2.80_01-29-2026 **(Recommended)**
Filename: U58_2.80_01_29_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:

2.80_01-29-2026

Last Recommended or Critical Revision:

2.80_01-29-2026

Previous Revision:

2.72_11-27-2025

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced multi-language translation support for RBSU menus and options across Chinese, Japanese, and other supported languages.

Improved boot time reporting to Redfish BootProgress property.

Problems Fixed:

Addressed an issue where system could run into high CPU utilization and unresponsiveness when processing specific corrected error events.

Addressed an issue where root ports were improperly configuring 10-bit TLP tags in PCIe devices that only support 8-bit tags, causing completion timeouts and device communication failures.

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 system could run into high CPU utilization and unresponsiveness when processing specific corrected error events.

Addressed an issue where root ports were improperly configuring 10-bit TLP tags in PCIe devices that only support 8-bit tags, causing completion timeouts and device communication failures.

Known Issues:

None

Enhancements

Enhanced multi-language translation support for RBSU menus and options across Chinese, Japanese, and other supported languages.

Improved boot time reporting to Redfish BootProgress property.

ROM Flash Firmware Package - HPE ProLiant DL20 Gen11/ML30 Gen11/MicroServer Gen11 (U65) Servers
Version: 2.40_02-06-2026 **(Recommended)**
Filename: U65_2.40_02_06_2026.fwpkg

Important Note!

Important Notes:

This version of the System ROM contains updates aligned with the Intel IPU2026.1 BKC update.

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:

2.40_02-06-2026

Last Recommended or Critical Revision:

2.40_02-06-2026

Previous Revision:

2.30_08-07-2025

Firmware Dependencies:

None

Enhancements/New Features:

Enabled PXE boot capability for certain USB NICs, which will appear in the One Time Boot Menu.

Updated Intel Reference Code with IPU 2026.1, including updated microcode for Intel Xeon E-2400 series processors for improved system stability and performance.

Enhanced multi-language translation support for RBSU menus and options across Chinese, Japanese, and other supported languages.

Improved boot time reporting to Redfish BootProgress property for better visibility into system startup performance.

Problems Fixed:

Addressed an issue where systems configured with Secure Boot may experience a Red Screen of Death upon removal of Microsoft Windows Production PCA certificates from the Secure Boot database.

Addressed an issue where OS Running state was incorrectly reported via Redfish BootProgress; this is now properly reported by AMS instead of BIOS.

Addressed an issue where the negotiated link width was displayed incorrectly when bifurcating a PCIe slot.

Addressed an issue where iLO Remote Console could become stuck when warning messages appeared in RBSU.

Addressed an issue where HTML5 Virtual Floppy or Virtual Folder functionality was not working properly.

Addressed an issue with RBSU DST calculations to prevent a Time Zone setting reset condition.

Known Issues:

None

Fixes

Important Notes:

This version of the System ROM contains updates aligned with the Intel IPU2026.1 BKC update.

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 systems configured with Secure Boot may experience a Red Screen of Death upon removal of Microsoft Windows Production PCA certificates from the Secure Boot database.

Addressed an issue where OS Running state was incorrectly reported via Redfish BootProgress; this is now properly reported by AMS instead of BIOS.

Addressed an issue where the negotiated link width was displayed incorrectly when bifurcating a PCIe slot.

Addressed an issue where iLO Remote Console could become stuck when warning messages appeared in RBSU.

Addressed an issue where HTML5 Virtual Floppy or Virtual Folder functionality was not working properly.

Addressed an issue with RBSU DST calculations to prevent a Time Zone setting reset condition.

Known Issues:

None

Enhancements

Enabled PXE boot capability for certain USB NICs, which will appear in the One Time Boot Menu.

Updated Intel Reference Code with IPU 2026.1, including updated microcode for Intel Xeon E-2400 series processors for improved system stability and performance.

Enhanced multi-language translation support for RBSU menus and options across Chinese, Japanese, and other supported languages.

Improved boot time reporting to Redfish BootProgress property for better visibility into system startup performance.

ROM Flash Firmware Package - HPE ProLiant DL560 Gen11 (U59) Servers
Version: 2.80_01-29-2026 **(Recommended)**
Filename: U59_2.80_01_29_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:

2.80_01-29-2026

Last Recommended or Critical Revision:

2.80_01-29-2026

Previous Revision:

2.72_11-27-2025

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced multi-language translation support for RBSU menus and options across Chinese, Japanese, and other supported languages.

Improved boot time reporting to Redfish BootProgress property.

Problems Fixed:

Addressed an issue where system could run into high CPU utilization and unresponsiveness when processing specific corrected error events.

Addressed an issue where root ports were improperly configuring 10-bit TLP tags in PCIe devices that only support 8-bit tags, causing completion timeouts and device communication failures.

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 system could run into high CPU utilization and unresponsiveness when processing specific corrected error events.

Addressed an issue where root ports were improperly configuring 10-bit TLP tags in PCIe devices that only support 8-bit tags, causing completion timeouts and device communication failures.

Known Issues:

None

Enhancements

Enhanced multi-language translation support for RBSU menus and options across Chinese, Japanese, and other supported languages.

Improved boot time reporting to Redfish BootProgress property.

ROM Flash Firmware Package - HPE ProLiant ML350/DL360/DL380 Gen11 (U54) Servers
Version: 2.80_01-29-2026 **(Recommended)**
Filename: U54_2.80_01_29_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 DL380 Gen11/ML350 Gen11/DL360 Gen11 System ROM - U54

Release Version:

2.80_01-29-2026

Last Recommended or Critical Revision:

2.80_01-29-2026

Previous Revision:

2.72_11-27-2025

Firmware Dependencies:

None

Enhancements/New Features:

Enhanced multi-language translation support for RBSU menus and options across Chinese, Japanese, and other supported languages.

Improved boot time reporting to Redfish BootProgress property.

Problems Fixed:

Addressed an issue where system could run into high CPU utilization and unresponsiveness when processing specific corrected error events.

Addressed an issue where root ports were improperly configuring 10-bit TLP tags in PCIe devices that only support 8-bit tags, causing completion timeouts and device communication failures.

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 system could run into high CPU utilization and unresponsiveness when processing specific corrected error events.

Addressed an issue where root ports were improperly configuring 10-bit TLP tags in PCIe devices that only support 8-bit tags, causing completion timeouts and device communication failures.

Known Issues:

None

Enhancements

Enhanced multi-language translation support for RBSU menus and options across Chinese, Japanese, and other supported languages.

Improved boot time reporting to Redfish BootProgress property.

ROM Flash Universal Firmware Package - HPE ProLiant DL145 Gen11 (A58) Servers
Version: 1.80_02-06-2026 **(Recommended)**
Filename: A58_1.80_02_06_2026.fwpkg

Important Note!

Important Notes:

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 GenoaPI 1.0.0.H Patch 1 for AMD 4th Generation EPYC processors. This patch provides improvements for memory training stability with specific DIMM configurations.

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 - A58

Release Version:

1.80_02-06-2026

Last Recommended or Critical Revision:

1.74_10-31-2025

Previous Revision:

1.74_10-31-2025

Firmware Dependencies:

None

Enhancements/New Features:

Enabled PXE boot capability for certain USB NICs, which will appear in the One Time Boot Menu.

Enhanced multi-language translation support for RBSU menus and options across Chinese, Japanese, and other supported languages.

Problems Fixed:

Addressed an issue where systems configured with Secure Boot may experience a Red Screen of Death upon removal of Microsoft Windows Production PCA certificates from the Secure Boot database.

Addressed an issue where OS Running state was incorrectly reported via Redfish BootProgress; this is now properly reported by AMS instead of BIOS.

Addressed an issue where the system might detect memory Uncorrectable Error\Uncorrectable Machine Check while system runtime with AMD 4th Generation EPYC processors.

Addressed an issue where the system might hang at memory initialization or showing memory initialization fail in IML when booting the system with AMD 4th Generation EPYC processors.

Known Issues:

None

Fixes

Important Notes:

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 GenoaPI 1.0.0.H Patch 1 for AMD 4th Generation EPYC processors. This patch provides improvements for memory training stability with specific DIMM

configurations.

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 configured with Secure Boot may experience a Red Screen of Death upon removal of Microsoft Windows Production PCA certificates from the Secure Boot database.

Addressed an issue where OS Running state was incorrectly reported via Redfish BootProgress; this is now properly reported by AMS instead of BIOS.

Addressed an issue where the system might detect memory Uncorrectable Error\Uncorrectable Machine Check while system runtime with AMD 4th Generation EPYC processors.

Addressed an issue where the system might hang at memory initialization or showing memory initialization fail in IML when booting the system with AMD 4th Generation EPYC processors.

Known Issues:

None

Enhancements

Enabled PXE boot capability for certain USB NICs, which will appear in the One Time Boot Menu.

Enhanced multi-language translation support for RBSU menus and options across Chinese, Japanese, and other supported languages.

ROM Flash Universal Firmware Package - HPE ProLiant DL325/DL345 Gen11 (A56) Servers
Version: 3.00_02-06-2026 **(Critical)**
Filename: A56_3.00_02_06_2026.fwpkg

Important Note!

Important Notes:

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 GenoaPI 1.0.0.H Patch 1 for AMD 4th Generation EPYC processors. This patch provides improvements for memory training stability with specific DIMM configurations. This revision of the System ROM includes AMD reference code TurinPI 1.0.0.9 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:

3.00_02-06-2026

Last Recommended or Critical Revision:

3.00_02-06-2026

Previous Revision:

2.90_01-09-2026

Firmware Dependencies:

None

Enhancements/New Features:

Enabled PXE boot capability for certain USB NICs, which will appear in the One Time Boot Menu.

Added PCIe prefetchable MMIO support and its default setting is Disabled . When enabled, the system will allocate both prefetchable and non-prefetchable MMIO resources for PCIe devices. This feature can also be controlled via Redfish at: /redfish/v1/systems/1/bios/oem/hpe/service/settings/PciPrefetchableMMIO

Note: With the prefetchable MMIO option enabled, downgrading to previous BIOS versions may cause the system to hang or reboot continuously. Users must disable the prefetchable MMIO option before downgrading. If the system becomes unstable after a downgrade, restore Manufacturing Defaults to recover.

Problems Fixed:

Addressed an issue where systems configured with Secure Boot may experience a Red Screen of Death upon removal of Microsoft Windows Production PCA certificates from the Secure Boot database.

Addressed an issue where the system might detect memory Uncorrectable Error\Uncorrectable Machine Check while system runtime with AMD 4th Generation EPYC processors.

Addressed an issue where the system might hang at memory initialization or showing memory initialization fail in IML when booting the system with AMD 4th Generation EPYC processors.

Known Issues:

None

Fixes

Important Notes:

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 GenoaPI 1.0.0.H Patch 1 for AMD 4th Generation EPYC processors. This patch provides improvements for memory training stability with specific DIMM configurations. This revision of the System ROM includes AMD reference code TurinPI 1.0.0.9 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 systems configured with Secure Boot may experience a Red Screen of Death upon removal of Microsoft Windows Production PCA certificates from the Secure Boot database.

Addressed an issue where the system might detect memory Uncorrectable Error\Uncorrectable Machine Check while system runtime with AMD 4th Generation EPYC processors.

Addressed an issue where the system might hang at memory initialization or showing memory initialization fail in IML when booting the system with AMD 4th Generation EPYC processors.

Known Issues:

None

Enhancements

Enabled PXE boot capability for certain USB NICs, which will appear in the One Time Boot Menu.

Added PCIe prefetchable MMIO support and its default setting is Disabled . When enabled, the system will allocate both prefetchable and non-prefetchable MMIO resources for PCIe devices. This feature can also be controlled via Redfish at: /redfish/v1/systems/1/bios/oem/hpe/service/settings/PciPrefetchableMMIO

Note: With the prefetchable MMIO option enabled, downgrading to previous BIOS versions may cause the system to hang or reboot continuously. Users must disable the prefetchable MMIO option before downgrading. If the system becomes unstable after a downgrade, restore Manufacturing Defaults to recover.

ROM Flash Universal Firmware Package - HPE ProLiant DL365/DL385 Gen11 (A55) Servers
Version: 3.00_02-06-2026 **(Critical)**
Filename: A55_3.00_02_06_2026.fwpkg

Important Note!

Important Notes:

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 GenoaPI 1.0.0.H Patch 1 for AMD 4th Generation EPYC processors. This patch provides improvements for memory training stability with specific DIMM configurations. This revision of the System ROM includes AMD reference code TurinPI 1.0.0.9 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 System ROM - A55

Release Version:

3.00_02-06-2026

Last Recommended or Critical Revision:

3.00_02-06-2026

Previous Revision:

2.90_01-09-2026

Firmware Dependencies:

None

Enhancements/New Features:

Enabled PXE boot capability for certain USB NICs, which will appear in the One Time Boot Menu.

Added PCIe prefetchable MMIO support and its default setting is Disabled . When enabled, the system will allocate both prefetchable and non-prefetchable MMIO resources for PCIe devices. This feature can also be controlled via Redfish at: /redfish/v1/systems/1/bios/oem/hpe/service/settings/PciPrefetchableMMIO

Note: With the prefetchable MMIO option enabled, downgrading to previous BIOS versions may cause the system to hang or reboot continuously. Users must disable the prefetchable MMIO option before downgrading. If the system becomes unstable after a downgrade, restore Manufacturing Defaults to recover.

Problems Fixed:

Addressed an issue where systems configured with Secure Boot may experience a Red Screen of Death upon removal of Microsoft Windows Production PCA certificates from the Secure Boot database.

Addressed an issue where the system might detect memory Uncorrectable Error\Uncorrectable Machine Check while system runtime with AMD 4th Generation EPYC processors.

Addressed an issue where the system might hang at memory initialization or showing memory initialization fail in IML when booting the system with AMD 4th Generation EPYC processors.

Known Issues:

None

Fixes

Important Notes:

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 GenoaPI 1.0.0.H Patch 1 for AMD 4th Generation EPYC processors. This patch provides improvements for memory training stability with specific DIMM

configurations. This revision of the System ROM includes AMD reference code TurinPI 1.0.0.9 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 systems configured with Secure Boot may experience a Red Screen of Death upon removal of Microsoft Windows Production PCA certificates from the Secure Boot database.

Addressed an issue where the system might detect memory Uncorrectable Error\Uncorrectable Machine Check while system runtime with AMD 4th Generation EPYC processors.

Addressed an issue where the system might hang at memory initialization or showing memory initialization fail in IML when booting the system with AMD 4th Generation EPYC processors.

Known Issues:

None

Enhancements

Enabled PXE boot capability for certain USB NICs, which will appear in the One Time Boot Menu.

Added PCIe prefetchable MMIO support and its default setting is Disabled . When enabled, the system will allocate both prefetchable and non-prefetchable MMIO resources for PCIe devices. This feature can also be controlled via Redfish at: /redfish/v1/systems/1/bios/oem/hpe/service/settings/PciPrefetchableMMIO

Note: With the prefetchable MMIO option enabled, downgrading to previous BIOS versions may cause the system to hang or reboot continuously. Users must disable the prefetchable MMIO option before downgrading. If the system becomes unstable after a downgrade, restore Manufacturing Defaults to recover.

Driver - Lights-Out Management Top

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

Fixes

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

Driver - Network Top

HPE Broadcom NetXtreme-E Drivers for VMware vSphere 8.0
Version: 2025.11.00 **(Recommended)**
Filename: cp068542.compsig; cp068542.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,* 235.1.160000 or later, for use with this driver.

Fixes

This product fixes issue where the RoCE driver updated the RoCE priority from the Queue Pair and Address Handle context by suppressing that value and not propagating it to the L2 driver.

Enhancements

This product enhances the completion queue design to support two completion queues for each Notification Queue

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
- Broadcom BCM57608 Ethernet 100Gb 2-port QSFP112 Adapter for HPE
- Broadcom BCM57608 Ethernet 100Gb 2-port QSFP112 OCP3 Adapter for HPE

HPE Intel igbn Driver for VMware vSphere 8.0
Version: 2025.05.00 **(Recommended)**

Filename: cp066052.compsig; cp066052.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

This product enhanced the compatibility with firmware.

Supported Devices and Features

These drivers support the following network adapters:

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

Intel icen Driver for VMware vSphere 8.0
Version: 2026.03.00 **(Recommended)**
Filename: cp068814.compsig; cp068814.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 4.71 or later, for use with these drivers.

Fixes

- This product fixed RDMA configuration cleanup during transitions between Native and ENS modes, as well as state changes.
- This product removed warning messages during driver unload by improving cleanup of TX scheduler configuration.
- This product fixed VLAN list cleanup during VF reset, ensuring VLAN properties can be configured correctly by the OS.

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

Driver - Storage Controller Top

HPE MR416i-p, MR216i-p, MR416i-a, MR216i-a Gen10 plus Controllers and MR416i-p, MR416i-o, MR216i-o, MR408i-o, MR216i-p, MR408i-p Gen11 Controllers Driver (64-bit) for vSphere 8.0
Version: 2026.03.01 **(Recommended)**
Filename: cp068884.compsig; cp068884.zip

Important Note!

- Actual Version is 7.736.02.00

Fixes

- Fix an issue that driver unload will fail if there is any management command is outstanding

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HPE ProLiant Gen10 Smart Array and Gen10 Plus and Gen11 Smart RAID Controller Driver for VMware vSphere 8.0 (Driver Component).
Version: 2026.01.01 **(Recommended)**
Filename: cp069364.compsig; cp069364.zip

Important Note!

- Actual ESXi8.0 driver version is 80.4880.0.109
- Actual ESXi9.0 driver version is 90.4880.0.109
- HPE Service Pack for ProLiant (SPP) provides a fully qualified recipe for specific firmware and drivers released within the same cycle, making it the primary recommended choice.
- It is strongly recommended to use controller firmware version 8.00 for SR SAS/SATA controllers and firmware version 03.01.44.040 for SR tri-mode controllers, along with Windows 2022/2025 driver version 1016.30.0.1014, Linux driver version 2.1.38-022, and VMware ESXi driver version 80.4880.0.109/90.4880.0.109, as this combination has been fully qualified.
- For Windows 2016 driver, please use 1010.84.0.1012 in below link: XXXX
- For Windows 2019 driver, please use 1016.10.0.1004 in below link: https://www.hpe.com/global/swpublishing/MTX-29e86213c3ab4e94b0b54906f7

Fixes

- Fixed an issue that device is inappropriately reported as invalid and is removed during reset.

Firmware - Network Top

Broadcom Firmware Package for BCM57412 adapter
Version: 235.1.164.14 **(Recommended)**
Filename: BCM235.1.164.14_BCM957412A4121HC.fwpkg; BCM235.1.164.14_BCM957412A4121HC.json

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 235.1.122.0 or later
- HPE Broadcom NetXtreme-E Drivers for Linux, version 1.10.3-235.1.154.0 or later
- HPE Broadcom NetXtreme-E Drivers for VMware, version 2025.11.00 or later

Fixes

- This product fixes the issue where the firmware version details failed to update and the card showed as not operational after upgrading BCM5741x adapters
- This product fixes the issue where failed to detect a 10GBASE-LR SFP+ causing incorrect defaults and a link failure.
- This product fixes the issue where the adapter is unable to establish link after rebooting when using the "HPE 10GBASE-T SFP+ 30m RJ45 Transceiver" HPE PN 813874-B21 with vendor PN SP7053-HPE.
- This product fixed the issue where PCIe Negotiated Link Width is displaying as x4 instead of x8.
- This product fixed the issue where NICs with LR cables and transceivers showing SR mode.

Enhancements

This product enhancement enables a self-shutdown feature to prevent overheating when certain monitoring features are disabled.
It applies only to newer hardware that originally shipped with firmware version 223.1.135.7 or higher and is not enabled on earlier revisions.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port SFP+ BCM57412 Adapter

Broadcom Firmware Package for BCM57412 OCP3 adapter
Version: 235.1.164.14 **(Recommended)**
Filename: BCM235.1.164.14_BCM957412N4120HC.fwpkg; BCM235.1.164.14_BCM957412N4120HC.json

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 235.1.122.0 or later
- HPE Broadcom NetXtreme-E Drivers for Linux, version 1.10.3-235.1.154.0 or later
- HPE Broadcom NetXtreme-E Drivers for VMware, version 2025.11.00 or later

Fixes

- This product fixes the issue where the firmware version details failed to update and the card showed as not operational after upgrading BCM5741x adapters
- This product fixes the issue where failed to detect a 10GBASE-LR SFP+ causing incorrect defaults and a link failure.
- This product fixes the issue where iLO BMC shared IP on OCP NIC, link flap occurred during OS reboot.
- This product fixes the issue where the adapter is unable to establish link after rebooting when using the "HPE 10GBASE-T SFP+ 30m RJ45 Transceiver" HPE PN 813874-B21 with vendor PN SP7053-HPE.
- This product fixed the issue where the System cannot power on and IML log shows Critical Temperature Threshold Exceeded.
- This product fixed the issue where PCIe Negotiated Link Width is displaying as x4 instead of x8.
- This product fixed the issue where NICs with LR cables and transceivers showing SR mode.

Enhancements

This product enhancement enables a self-shutdown feature to prevent overheating when certain monitoring features are disabled.
It applies only to newer hardware that originally shipped with firmware version 223.1.135.7 or higher and is not enabled on earlier revisions.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port SFP+ BCM57412 OCP3 Adapter

Broadcom Firmware Package for BCM57414 adapter
Version: 235.1.164.14 **(Recommended)**
Filename: BCM235.1.164.14_BCM957414A4142HC.fwpkg; BCM235.1.164.14_BCM957414A4142HC.json

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 235.1.122.0 or later
- HPE Broadcom NetXtreme-E Drivers for Linux, version 1.10.3-235.1.154.0 or later
- HPE Broadcom NetXtreme-E Drivers for VMware, version 2025.11.00 or later

Fixes

- This product fixes the issue where the firmware version details failed to update and the card showed as not operational after upgrading BCM5741x adapters
- This product fixes the issue where failed to detect a 10GBASE-LR SFP+ causing incorrect defaults and a link failure.
- This product fixes the issue where the adapter is unable to establish link after rebooting when using the "HPE 10GBASE-T SFP+ 30m RJ45 Transceiver" HPE PN 813874-B21 with vendor PN SP7053-HPE.
- This product fixed the issue where NICs with LR cables and transceivers showing SR mode.

Enhancements

This product enhancement enables a self-shutdown feature to prevent overheating when certain monitoring features are disabled.
It applies only to newer hardware that originally shipped with firmware version 223.1.135.7 or higher and is not enabled on earlier revisions.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10/25Gb 2-port SFP28 BCM57414 Adapter

Broadcom Firmware Package for BCM57414 OCP3 adapter
Version: 235.1.164.14 **(Recommended)**
Filename: BCM235.1.164.14_BCM957414N4140HC.fwpkg; BCM235.1.164.14_BCM957414N4140HC.json

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 235.1.122.0 or later
- HPE Broadcom NetXtreme-E Drivers for Linux, version 1.10.3-235.1.154.0 or later
- HPE Broadcom NetXtreme-E Drivers for VMware, version 2025.11.00 or later

Fixes

- This product fixes the issue where the firmware version details failed to update and the card showed as not operational after upgrading BCM5741x adapters
- This product fixes the issue where failed to detect a 10GBASE-LR SFP+ causing incorrect defaults and a link failure.
- This product fixes the issue where iLO BMC shared IP on OCP NIC, link flap occurred during OS reboot.
- This product fixes the issue where the adapter is unable to establish link after rebooting when using the "HPE 10GBASE-T SFP+ 30m RJ45 Transceiver" HPE PN 813874-B21 with vendor PN SP7053-HPE.
- This product fixed the issue where the System cannot power on and IML log shows Critical Temperature Threshold Exceeded.
- This product fixed the issue where NICs with LR cables and transceivers showing SR mode.

Enhancements

This product enhancement enables a self-shutdown feature to prevent overheating when certain monitoring features are disabled.
It applies only to newer hardware that originally shipped with firmware version 223.1.135.7 or higher and is not enabled on earlier revisions.

Supported Devices and Features

This product supports the following network adapter:

- HPE Ethernet 10/25Gb 2-port SFP28 BCM57414 OCP3 Adapter

Broadcom Firmware Package for BCM57416 adapter
Version: 235.1.164.14 **(Recommended)**
Filename: BCM235.1.164.14_BCM957416A4162HC.fwpkg; BCM235.1.164.14_BCM957416A4162HC.json

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 235.1.122.0 or later
- HPE Broadcom NetXtreme-E Drivers for Linux, version 1.10.3-235.1.154.0 or later
- HPE Broadcom NetXtreme-E Drivers for VMware, version 2025.11.00 or later

Fixes

- This product fixes the issue where the firmware version details failed to update and the card showed as not operational after upgrading BCM5741x adapters
- This product fixes the issue where failed to detect a 10GBASE-LR SFP+ causing incorrect defaults and a link failure.
- This product fixes the issue where the adapter is unable to establish link after rebooting when using the "HPE 10GBASE-T SFP+ 30m RJ45 Transceiver" HPE PN 813874-B21 with vendor PN SP7053-HPE.
- This product fixes the issue where the Firmeare update failed on 4 MB flash cards.

Enhancements

This product enhancement enables a self-shutdown feature to prevent overheating when certain monitoring features are disabled.
It applies only to newer hardware that originally shipped with firmware version 223.1.135.7 or higher and is not enabled on earlier revisions.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port BaseT BCM57416 Adapter

Broadcom Firmware Package for BCM57416 OCP3 adapter
Version: 235.1.164.14 **(Recommended)**
Filename: BCM235.1.164.14_BCM957416N4160HC.fwpkg; BCM235.1.164.14_BCM957416N4160HC.json

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 235.1.122.0 or later
- HPE Broadcom NetXtreme-E Drivers for Linux, version 1.10.3-235.1.154.0 or later
- HPE Broadcom NetXtreme-E Drivers for VMware, version 2025.11.00 or later

Fixes

- This product fixes the issue where the firmware version details failed to update and the card showed as not operational after upgrading BCM5741x adapters
- This product fixes the issue where failed to detect a 10GBASE-LR SFP+ causing incorrect defaults and a link failure.
- This product fixes the issue where iLO BMC shared IP on OCP NIC, link flap occurred during OS reboot.
- This product fixes the issue where the adapter is unable to establish link after rebooting when using the “HPE 10GBASE-T SFP+ 30m RJ45 Transceiver” HPE PN 813874-B21 with vendor PN SP7053-HPE.
- This product fixed the issue where the System cannot power on and IML log shows Critical Temperature Threshold Exceeded.
- This product fixes the issue where the Firmeare update failed on BCM57416 4 MB flash cards .

Enhancements

This product enhancement enables a self-shutdown feature to prevent overheating when certain monitoring features are disabled.
It applies only to newer hardware that originally shipped with firmware version 223.1.135.7 or higher and is not enabled on earlier revisions.

Supported Devices and Features

This product supports the following network adapters:

- HPE Ethernet 10Gb 2-port BaseT BCM57416 OCP3 Adapter

Broadcom Firmware Package for BCM57504 Ethernet 10/25Gb 4-port SFP28 Adapter
Version: 235.1.164.14 **(Recommended)**
Filename: BCM235.1.164.14_BCM957504-P425H.fwpkg; BCM235.1.164.14_BCM957504-P425H.json

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 235.1.122.0 or later
- HPE Broadcom NetXtreme-E Drivers for Linux, version 1.10.3-235.1.164.0 or later
- HPE Broadcom NetXtreme-E Drivers for VMware, version 2025.11.00 or later

Fixes

- This product fixes the issue where, in breakout mode, a cable remove or insert failed to bring the link up because the module did not exit the DPDeactivated (Data Path Deactivated) state in time.
- This product fixes the issue where the adapter is unable to establish link after rebooting when using the “HPE 10GBASE-T SFP+ 30m RJ45 Transceiver” HPE PN 813874-B21 with vendor PN SP7053-HPE.

Supported Devices and Features

This product supports the following network adapters:

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

Broadcom Firmware Package for BCM57504 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter
Version: 235.1.164.14 **(Recommended)**
Filename: BCM235.1.164.14_BCM957504-N425H.fwpkg; BCM235.1.164.14_BCM957504-N425H.json

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 235.1.122.0 or later
- HPE Broadcom NetXtreme-E Drivers for Linux, version 1.10.3-235.1.164.0 or later
- HPE Broadcom NetXtreme-E Drivers for VMware, version 2025.11.00 or later

Fixes

- This product fixes the issue where, in breakout mode, a cable remove or insert failed to bring the link up because the module did not exit the DPDeactivated (Data Path Deactivated) state in time.
- This product fixes the issue where the adapter is unable to establish link after rebooting when using the “HPE 10GBASE-T SFP+ 30m RJ45 Transceiver” HPE PN 813874-B21 with vendor PN SP7053-HPE.

Supported Devices and Features

This product supports the following network adapters:

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

Broadcom Firmware Package for BCM57608 100GbE 2p Adapter
Version: 235.1.164.14 **(Recommended)**
Filename: BCM235.1.164.14_BCM957608-P2100HQF00.fwpkg; BCM235.1.164.14_BCM957608-P2100HQF00.json

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 235.1.122.0 or later
- HPE Broadcom NetXtreme-E Drivers for Linux, version 1.10.3-235.1.154.0 or later
- HPE Broadcom NetXtreme-E Drivers for VMware, version 2025.11.00 or later

Fixes

- This product fixes the issue where RDE "Location" property is missing under "NetworkAdapter" schema.

Supported Devices and Features

This product supports the following network adapters:

- Broadcom BCM57608 Ethernet 100Gb 2-port QSFP112 Adapter for HPE

Broadcom Firmware Package for BCM57608 100GbE 2p OCP3 Adapter
Version: 235.1.164.14 **(Recommended)**
Filename: BCM235.1.164.14_BCM957608-N2100HQI00.fwpkg; BCM235.1.164.14_BCM957608-N2100HQI00.json

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 235.1.122.0 or later
- HPE Broadcom NetXtreme-E Drivers for Linux, version 1.10.3-235.1.154.0 or later
- HPE Broadcom NetXtreme-E Drivers for VMware, version 2025.11.00 or later

Fixes

- This product fixes the issue where OS installation failed with shared nic BCM 957508-N2 100Gb/s OCP.
- This product fixes the issue where RDE "Location" property is missing under "NetworkAdapter" schema.

Supported Devices and Features

This product supports the following network adapters:

- Broadcom BCM57608 Ethernet 100Gb 2-port QSFP112 OCP3 Adapter for HPE

Broadcom NX1 Online Firmware Upgrade Utility for VMware
Version: 1.43.0 (B) **(Recommended)**
Filename: CP070621.compsig; CP070621.zip

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

- This product fixes the issue where unique serial number in VPD (Vital Product Data) will be altered to a dummy serial number.
- This product fixes the issue where Failing to Obtain iLO shared NIC DHCP IP and MCTP EID Missing during Reboot.
- 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:

- 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

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

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

Intel 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
- This product addresses an issue where UMCE is seen

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 E810-2CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter
Version: 4.91 **(Recommended)**
Filename: HPE_E810_2CQDA2_O_SEC_4p91_PLDMoMCTP_800214AE.fwpkg; HPE_E810_2CQDA2_O_SEC_4p91_PLDMoMCTP_800214AE.json

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 1.18.71.0 or later
- Intel ice Drivers for Linux, version 2.4.5-1 or later
- Intel icen Driver for VMware, version 2026.03.00 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 fixed an issue where the Shared NIC IP was not assigned for OCP Slot B network adapters on Gen12 ProLiant servers.

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
- This product addresses an issue where UMCE is seen

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 Adapter
Version: 4.91 **(Recommended)**
Filename: HPE_E810_CQDA2_4p91_PLDMoMCTP_800214AF.fwpkg; HPE_E810_CQDA2_4p91_PLDMoMCTP_800214AF.json

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 1.18.71.0 or later

- Intel ice Drivers for Linux, version 2.4.5-1 or later
- Intel icen Driver for VMware, version 2026.03.00 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 fixed an issue where the Shared NIC IP was not assigned for OCP Slot B network adapters on Gen12 ProLiant servers.

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 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
- This product addresses an issue where UMCE is seen

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-CQDA2 Ethernet 100Gb 2-port QSFP28 OCP3 Adapter
Version: 4.91 **(Recommended)**
Filename: HPE_E810_CQDA2_OCP_4p91_NCSIwPLDMoMCTP_800214AD.fwpkg; HPE_E810_CQDA2_OCP_4p91_NCSIwPLDMoMCTP_800214AD.json

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 1.18.71.0 or later
- Intel ice Drivers for Linux, version 2.4.5-1 or later
- Intel icen Driver for VMware, version 2026.03.00 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 fixed an issue where the Shared NIC IP was not assigned for OCP Slot B network adapters on Gen12 ProLiant servers.

Supported Devices and Features

This product supports the following network adapters:

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

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

Important Note!

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

- Intel icea Driver for Microsoft Windows Server, version 1.12.164.0 or later

- Intel ice Drivers for Linux, version 1.11.14-1 or later
- Intel icen Driver for VMware, version 2023.09.00 or later

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

Fixes

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

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 Adapter
Version: 4.91 **(Recommended)**
Filename: HPE_E810_XXVDA2_SD_4p91_PLDMoMCTP_800214AB.fwpkg; HPE_E810_XXVDA2_SD_4p91_PLDMoMCTP_800214AB.json

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 1.18.71.0 or later
- Intel ice Drivers for Linux, version 2.4.5-1 or later
- Intel icen Driver for VMware, version 2026.03.00 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 fixed an issue where the Shared NIC IP was not assigned for OCP Slot B network adapters on Gen12 ProLiant servers.

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
- This product addresses an issue where UMCE is seen

Enhancements

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

Supported Devices and Features

This product supports the following network adapters:

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

Intel Firmware Package For E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter
Version: 4.91 **(Recommended)**
Filename: HPE_E810_XXVDA2_SD_OCP_4p91_NCSIwPLDMoMCTP_800214B2.fwpkg; HPE_E810_XXVDA2_SD_OCP_4p91_NCSIwPLDMoMCTP_800214B2.json

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 1.18.71.0 or later
- Intel ice Drivers for Linux, version 2.4.5-1 or later
- Intel icen Driver for VMware, version 2026.03.00 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 fixed an issue where the Shared NIC IP was not assigned for OCP Slot B network adapters on Gen12 ProLiant servers.

Supported Devices and Features

This product supports the following network adapters:

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

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

Important Note!

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

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

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

Fixes

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

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 Adapter
Version: 4.91 **(Recommended)**
Filename: HPE_E810_XXVDA4_FH_4p91_PLDMoMCTP_800214B3.fwpkg; HPE_E810_XXVDA4_FH_4p91_PLDMoMCTP_800214B3.json

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 1.18.71.0 or later
- Intel ice Drivers for Linux, version 2.4.5-1 or later
- Intel icen Driver for VMware, version 2026.03.00 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 fixed an issue where the Shared NIC IP was not assigned for OCP Slot B network adapters on Gen12 ProLiant servers.

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
- This product addresses an issue where UMCE is seen

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 Firmware Package For E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter
Version: 4.91 **(Recommended)**
Filename: HPE_E810_XXV4_OCP_4p91_NCSIwPLDMoMCTP_800214AC.fwpkg; HPE_E810_XXV4_OCP_4p91_NCSIwPLDMoMCTP_800214AC.json

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 1.18.71.0 or later
- Intel ice Drivers for Linux, version 2.4.5-1 or later
- Intel icen Driver for VMware, version 2026.03.00 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 fixed an issue where the Shared NIC IP was not assigned for OCP Slot B network adapters on Gen12 ProLiant servers.

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 Firmware Package For E810-XXVDA4 Low Profile Ethernet 10/25Gb 4-port SFP28 Adapter (P63673-B21)
Version: 4.90 **(Recommended)**
Filename: E810_XXVDA4_LP_O_SEC_FW_1p7p9p1_NVM_4p90_PLDMoMCTP_0.03_80020EF9.fwpkg;
E810_XXVDA4_LP_O_SEC_FW_1p7p9p1_NVM_4p90_PLDMoMCTP_0.03_80020EF9.json

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 1.18.71.0 or later
- Intel ice Drivers for Linux, version 2.3.10-1 or later
- Intel icen Driver for VMware, version 2025.11.00 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 fixed Link Speed selection under NIC Configuration in HPE RBSU menu.

Enhancements

This product adds Automatic Link on Startup option under the NIC Configuration in HPE RBSU menu.

Supported Devices and Features

This product supports the following network adapters:

- Intel E810-XXVDA4 Low Profile Ethernet 10/25Gb 4-port SFP28 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

- This product fixed an HII defect where the "functionless default" overwrote modification information for the same flag field.
- 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:

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

Mellanox Firmware Package(FWPKG) for HPE NVIDIA Ethernet 100Gb 2-port NVMe-oF Offload Adapter for HPE
Version: 22.45.1020 **(Recommended)**
Filename: 22_45_1020-R8M41-63001_Ax_header.pldm.fwpkg

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.

Enhancements

Upgraded to version 22.45.1020

Supported Devices and Features

HPE Part Number	Mellanox Ethernet Only Adapters	PSID
P46603-B21	NVIDIA Ethernet 100Gb 2-port NVMe-oF Offload Adapter for HPE	HPE0000000062

Mellanox Firmware Package(FWPKG) for NVIDIA Ethernet 10/25Gb 2-port SFP28 NVMe-oF Crypto Adapter for HPE
Version: 26.45.1020 **(Recommended)**
Filename: 26_45_1020-S2A69-63001_Ax_header.pldm.fwpkg

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.

Enhancements

Upgraded to version 26.45.1020

Supported Devices and Features

HPE SKU Part Number	Mellanox Ethernet Only Adapters	PSID
S2A69A	NVIDIA Ethernet 10/25Gb 2-port SFP28 NVMe-oF Crypto Adapter for HPE	HPE0000000077

NVIDIA Firmware Package (FWPKG) - Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE
Version: 26.46.3048 **(Recommended)**
Filename: 26_46_3048-MCX631102AS-ADA_Ax.pldm.fwpkg; 26_46_3048-MCX631102AS-ADA_Ax.pldm.json

Important Note!

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A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/connectx6lxfirmwarev26463048/known+issues

Prerequisites

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

Fixes

The following issues have been fixed in version 26.46.3048:

- Configuring a small MTU led to fragmentation of packets critical for the PXE boot process. As a result, the PXE boot filters mistakenly discarded these packets, causing the PXE boot to fail.

Enhancements

New features and changes included in version 26.46.3048:

- Added support for RSS with crypto offload enabling the NIC to parallelize packet processing across CPU cores while performing encryption/decryption in hardware. Additionally, introduced a new l4_type_ext parameter with values: 0 (None), 1 (TCP), 2 (UDP), 3 (ICMP).
- Added an extra validation for the payload_len field in incoming NC-SI messages. Previously, invalid packets might have been accepted; now, such packets are silently dropped.
- This release contains important reliability improvements and security hardening enhancements. HPE recommends upgrading your devices firmware to this release to improve the devices' firmware security and reliability.

Supported Devices and Features

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

NVIDIA Firmware Package (FWPKG) - Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE
Version: 26.46.3048 **(Recommended)**
Filename: 26_46_3048-MCX631432AS-ADA_Ax.pldm.fwpkg; 26_46_3048-MCX631432AS-ADA_Ax.pldm.json

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/connectx6lxfirmwarev26463048/known+issues

Prerequisites

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

Fixes

The following issues have been fixed in version 26.46.3048:

- Configuring a small MTU led to fragmentation of packets critical for the PXE boot process. As a result, the PXE boot filters mistakenly discarded these packets, causing the PXE boot to fail.

Enhancements

New features and changes included in version 26.46.3048:

- Added support for RSS with crypto offload enabling the NIC to parallelize packet processing across CPU cores while performing encryption/decryption in hardware. Additionally, introduced a new l4_type_ext parameter with values: 0 (None), 1 (TCP), 2 (UDP), 3 (ICMP).
- Added an extra validation for the payload_len field in incoming NC-SI messages. Previously, invalid packets might have been accepted; now, such packets are silently dropped.
- This release contains important reliability improvements and security hardening enhancements. HPE recommends upgrading your devices firmware to this release to improve the devices' firmware security and reliability.

Supported Devices and Features

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

NVIDIA Firmware Package (FWPKG) for HPE Ethernet 100Gb 1-port QSFP28 PCIe3 x16 MCX515A-CCAT Adapter : HPE part numbers P31246-B21 and P31246-H21
Version: 16.35.8002 **(Recommended)**
Filename: 16_35_8002-MCX515A-CCA_HPE_Ax.pldm.fwpkg; 16_35_8002-MCX515A-CCA_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/connectx5firmwarev16358002lts/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 16.35.8002:

- Firmware failed to scan the correct CQs for the PF after the FW entered into the CQ recovery mode., resulting in CQs for the PF not being recovered.

Enhancements

New features and changes included in version 16.35.8002:

- Enhanced performance of firmware exception path handling to better support increased numbers of configured SR-IOV instances.
- This release contains important reliability improvements and security hardening enhancements. HPE recommends upgrading your devices firmware to this release to improve the devices' firmware security and reliability.

Supported Devices and Features

This software package contains the following firmware versions:

NVIDIA Ethernet Only Adapters	Firmware Version	PSID
HPE Ethernet 100Gb 1-port QSFP28 PCIe3 x16 MCX515A-CCAT Adapter(P31246-B21 and P31246-H21)	16.35.8002	MT_0000000591

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: 20.43.8002 **(Recommended)**
Filename: 20_43_8002-MCX653105A-HDA_HPE_Ax.pldm.fwpkg; 20_43_8002-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/connectx6firmwarev20438002lts/known+issues

Prerequisites

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

Fixes

The following issues have been fixed in version 20.43.8002:

- Enabling DIM led to high IRQ/s in certain scenarios.

Enhancements

New features and changes included in version 20.43.8002:

- This release contains important reliability improvements and security hardening enhancements. HPE recommends upgrading your devices firmware to this release to improve the devices' firmware security and reliability.

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 MCX653105A-HDAT Adapter (P23664-B21 and P23664-H21)	20.43.8002	MT_0000000451

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: 20.43.8002 **(Recommended)**
Filename: 20_43_8002-MCX653435A-HDA_HPE_Ax.pldm.fwpkg; 20_43_8002-MCX653435A-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/connectx6firmwarev20438002lts/known+issues

Prerequisites

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

Fixes

The following issues have been fixed in version 20.43.8002:

- Enabling DIM led to high IRQ/s in certain scenarios.

Enhancements

New features and changes included in version 20.43.8002:

- This release contains important reliability improvements and security hardening enhancements. HPE recommends upgrading your devices firmware to this release to improve the devices' firmware security and reliability.

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)	20.43.8002	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: 20.43.8002 **(Recommended)**
Filename: 20_43_8002-MCX653106A-HDA_HPE_Ax.pldm.fwpkg; 20_43_8002-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/connectx6firmwarev20438002lts/known+issues

Prerequisites

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

Fixes

The following issues have been fixed in version 20.43.8002:

- Enabling DIM led to high IRQ/s in certain scenarios.

Enhancements

New features and changes included in version 20.43.8002:

- This release contains important reliability improvements and security hardening enhancements. HPE recommends upgrading your devices firmware to this release to improve the devices' firmware security and reliability.

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)	20.43.8002	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: 20.43.8002 **(Recommended)**
Filename: 20_43_8002-MCX653436A-HDA_HPE_Ax.pldm.fwpkg; 20_43_8002-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:

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/connectx6firmwarev20438002lts/known+issues

Prerequisites

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

Fixes

The following issues have been fixed in version 20.43.8002:

- Enabling DIM led to high IRQ/s in certain scenarios.

Enhancements

New features and changes included in version 20.43.8002:

- This release contains important reliability improvements and security hardening enhancements. HPE recommends upgrading your devices firmware to this release to improve the devices' firmware security and reliability.

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 OCP3 MCX653436A-HDAI Adapter (P31348-B21 and P31348-H21)	20.43.8002	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: 20.43.8002 **(Recommended)**
Filename: 20_43_8002-MCX653105A-ECA_HPE_Ax.pldm.fwpkg; 20_43_8002-MCX653105A-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.

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A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/connectx6firmwarev20438002lts/known+issues

Prerequisites

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

Fixes

The following issues have been fixed in version 20.43.8002:

- Enabling DIM led to high IRQ/s in certain scenarios.

Enhancements

New features and changes included in version 20.43.8002:

- This release contains important reliability improvements and security hardening enhancements. HPE recommends upgrading your devices firmware to this release to improve the devices' firmware security and reliability.

Supported Devices and Features

This software package contains the following firmware versions:

NVIDIA VPI Adapter	Firmware Version	PSID
HPE InfiniBand HDR100/Ethernet 100Gb 1-port QSFP56 PCIe4 x16 MCX653105A-ECAT Adapter (P23665-B21 and P23665-H21)	20.43.8002	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: 20.43.8002 **(Recommended)**
Filename: 20_43_8002-MCX653106A-ECA_HPE_Ax.pldm.fwpkg; 20_43_8002-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.

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/connectx6firmwarev20438002lts/known+issues

Prerequisites

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

Fixes

The following issues have been fixed in version 20.43.8002:

- Enabling DIM led to high IRQ/s in certain scenarios.

Enhancements

New features and changes included in version 20.43.8002:

- This release contains important reliability improvements and security hardening enhancements. HPE recommends upgrading your devices firmware to this release to improve the devices' firmware security and reliability.

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)	20.43.8002	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: 28.47.1026 **(Recommended)**
Filename: 28_47_1026-MCX75310AAS-NEAT_HPE2_Ax.pldm.fwpkg; 28_47_1026-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.
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/connectx7firmwarev28471026/known-issues

Fixes

The following issues have been fixed in version 28.47.1026:

- The ZTR_RTTCC algorithm parameters AI and HAI did not support a sufficient range.
- Coalescing regular SX events with SX RTT events under ZTR_RTTCC would keep improper event fields, which would impact congestion control behavior.
- Issue in the ZTR_RTTCC algorithm where probe-abortion handling would behave improperly under high-stress network conditions, affecting proper congestion control and stable traffic performance.
- An assertion failure that would occur with the E-Switch uplink in specific configurations where the e-switch was disabled and Path Migration was active or GVMIs were using SRQ loopback in SQs. The issue occurred because the firmware attempted to perform cleanup operations when the uplink configuration lacked sufficient capacity. Now, when the E-Switch is disabled and no actions are available in the uplink STE, the firmware connects to the uplink STE instead of copying it.
- MCTP SMBus configuration issue which affected proper initialization and reliable communication between firmware components using the SMBus transport.
- During failover or restart, the SM sending a PortInfo MAD to the HCA firmware triggered reinitialization of port buffers, momentarily halting ingress traffic and causing packet drops. The firmware now avoids reconfiguring port buffers when the new configuration matches the current one.
- Under the ZTR_RTTCC algorithm, a flow that reached its minimum rate due to heavy congestion would not recover its rate once the congestion cleared.
- Destroying or modifying a DPA partition from a non-owner VHCA was incorrectly allowed, such actions are now properly disallowed.
- PTP was not supported when the port speed was configured to 1G.

Enhancements

New features and changes included in version 28.47.1026:

- Added Scaling Factor "read" field. To obtain correct values in mlxlink, MFT version 4.33.0 or later is required.
- Added a recovery mechanism for I²C failures. In case of an I²C communication failure, the system now automatically attempts to recover and reinitialize the I/O expander to maintain continuous operation.
- Added support for multiple lossless buffer configurations in PFC. The firmware now automatically calculates buffer sizes and maps priorities to their respective buffers.
- Access control was added to ensure that only the VHCA instance that created a DPA partition is permitted to modify or delete it.
- DPA TIMER functionality has been exposed through the MTCTR access register, allowing direct access by applications.
- A new DPA Manifest mechanism was introduced to define and manage application permissions.
- Enabled seamless metadata propagation across layers, allowing flow steering rules and packet processing logic to share contextual information such as flow identifiers, source context, or policy tags. It improves coordination between NIC and E-Switch pipelines, enabling more flexible traffic handling and advanced offload capabilities.
- Added support for parallel suspend operations across multiple VFs.
- Added the ability to enable or disable ECN in the upstream by allowing the MODIFY_CONG_STATUS and QUERY_CONG_STATUS commands in mlx5_fwctl.
- Firmware now allows the ADP-RETX timeout profile to be configured even when there are open QPs.
- Added support for using the real-time clock to fill the request and response timestamps in hardware-generated RTT packets. To enable this feature, set REAL_TIME_CLOCK_ENABLE in mlxconfig and configure ROCE_CC_RTT_TIMESTAMP_FORMAT to 0x02 (REAL_TIME).

- The SPDM (Security Protocol and Data Model) measurements reporting mechanism has been updated to comply with version 1.2.0 of the SPDM specification. For further information refer to https://docs.nvidia.com/networking/display/dpunicattestation/connectx-7+measurements
- Added support for warm boot when UPT VMs are active, allowing the system to reboot without requiring a full shutdown of running VMs.

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 NDR200/Ethernet 200Gb 1-port OSFP PCIe5 x16 MCX75310AAS-HEAT Adapter : HPE part numbers P45642-B22 and P45642-H22
Version: 28.47.1026 **(Recommended)**
Filename: 28_47_1026-MCX75310AAS-HEAT_HPE2_Ax.pldm.fwpkg; 28_47_1026-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:

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/connectx7firmwarev28471026/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 28.47.1026:

- The ZTR_RTTCC algorithm parameters AI and HAI did not support a sufficient range.
- Coalescing regular SX events with SX RTT events under ZTR_RTTCC would keep improper event fields, which would impact congestion control behavior.
- Issue in the ZTR_RTTCC algorithm where probe-abortion handling would behave improperly under high-stress network conditions, affecting proper congestion control and stable traffic performance.
- An assertion failure that would occur with the E-Switch uplink in specific configurations where the e-switch was disabled and Path Migration was active or GVMIs were using SRQ loopback in SQs. The issue occurred because the firmware attempted to perform cleanup operations when the uplink configuration lacked sufficient capacity. Now, when the E-Switch is disabled and no actions are available in the uplink STE, the firmware connects to the uplink STE instead of copying it.
- MCTP SMBus configuration issue which affected proper initialization and reliable communication between firmware components using the SMBus transport.
- During failover or restart, the SM sending a PortInfo MAD to the HCA firmware triggered reinitialization of port buffers, momentarily halting ingress traffic and causing packet drops. The firmware now avoids reconfiguring port buffers when the new configuration matches the current one.
- Under the ZTR_RTTCC algorithm, a flow that reached its minimum rate due to heavy congestion would not recover its rate once the congestion cleared.
- Destroying or modifying a DPA partition from a non-owner VHCA was incorrectly allowed, such actions are now properly disallowed.
- PTP was not supported when the port speed was configured to 1G.

Enhancements

New features and changes included in version 28.47.1026:

- Added Scaling Factor "read" field. To obtain correct values in mlxlink, MFT version 4.33.0 or later is required.
- Added a recovery mechanism for I²C failures. In case of an I²C communication failure, the system now automatically attempts to recover and reinitialize the I/O expander to maintain continuous operation.
- Added support for multiple lossless buffer configurations in PFC. The firmware now automatically calculates buffer sizes and maps priorities to their respective buffers.
- Access control was added to ensure that only the VHCA instance that created a DPA partition is permitted to modify or delete it.
- DPA TIMER functionality has been exposed through the MTCTR access register, allowing direct access by applications.
- A new DPA Manifest mechanism was introduced to define and manage application permissions.
- Enabled seamless metadata propagation across layers, allowing flow steering rules and packet processing logic to share contextual information such as flow identifiers, source context, or policy tags. It improves coordination between NIC and E-Switch pipelines, enabling more flexible traffic handling and advanced offload capabilities.
- Added support for parallel suspend operations across multiple VFs.
- Added the ability to enable or disable ECN in the upstream by allowing the MODIFY_CONG_STATUS and QUERY_CONG_STATUS commands in mlx5_fwctl.
- Firmware now allows the ADP-RETX timeout profile to be configured even when there are open QPs.
- Added support for using the real-time clock to fill the request and response timestamps in hardware-generated RTT packets. To enable this feature, set REAL_TIME_CLOCK_ENABLE in mlxconfig and configure ROCE_CC_RTT_TIMESTAMP_FORMAT to 0x02 (REAL_TIME).
- The SPDM (Security Protocol and Data Model) measurements reporting mechanism has been updated to comply with version 1.2.0 of the SPDM specification. For further information refer to https://docs.nvidia.com/networking/display/dpunicattestation/connectx-7+measurements
- Added support for warm boot when UPT VMs are active, allowing the system to reboot without requiring a full shutdown of running VMs.

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: 28.47.1026 **(Recommended)**
Filename: 28_47_1026-MCX75310AAS-HEA_Ax.pldm.fwpkg; 28_47_1026-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.

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A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/connectx7firmwarev28471026/known-issues

Prerequisites

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

Fixes

Initial version.

Enhancements

Initial version.

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: 28.47.1026 **(Recommended)**
Filename: 28_47_1026-MCX755106AC-HEAT_HPE_Ax.pldm.fwpkg; 28_47_1026-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.
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A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/connectx7firmwarev28471026/known-issues

Fixes

The following issues have been fixed in version 28.47.1026:

- The ZTR_RTTCC algorithm parameters AI and HAI did not support a sufficient range.
- Coalescing regular SX events with SX RTT events under ZTR_RTTCC would keep improper event fields, which would impact congestion control behavior.
- Issue in the ZTR_RTTCC algorithm where probe-abortion handling would behave improperly under high-stress network conditions, affecting proper congestion control and stable traffic performance.
- An assertion failure that would occur with the E-Switch uplink in specific configurations where the e-switch was disabled and Path Migration was active or GVMIs were using SRQ loopback in SQs. The issue occurred because the firmware attempted to perform cleanup operations when the uplink configuration lacked sufficient capacity. Now, when the E-Switch is disabled and no actions are available in the uplink STE, the firmware connects to the uplink STE instead of copying it.
- MCTP SMBus configuration issue which affected proper initialization and reliable communication between firmware components using the SMBus transport.
- During failover or restart, the SM sending a PortInfo MAD to the HCA firmware triggered reinitialization of port buffers, momentarily halting ingress traffic and causing packet drops. The firmware now avoids reconfiguring port buffers when the new configuration matches the current one.
- Under the ZTR_RTTCC algorithm, a flow that reached its minimum rate due to heavy congestion would not recover its rate once the congestion cleared.
- Destroying or modifying a DPA partition from a non-owner VHCA was incorrectly allowed, such actions are now properly disallowed.
- PTP was not supported when the port speed was configured to 1G.

Enhancements

New features and changes included in version 28.47.1026:

- Added Scaling Factor "read" field. To obtain correct values in mlxlink, MFT version 4.33.0 or later is required.
- Added a recovery mechanism for I²C failures. In case of an I²C communication failure, the system now automatically attempts to recover and reinitialize the I/O expander to maintain continuous operation.
- Added support for multiple lossless buffer configurations in PFC. The firmware now automatically calculates buffer sizes and maps priorities to their respective buffers.
- Access control was added to ensure that only the VHCA instance that created a DPA partition is permitted to modify or delete it.
- DPA TIMER functionality has been exposed through the MTCTR access register, allowing direct access by applications.
- A new DPA Manifest mechanism was introduced to define and manage application permissions.
- Enabled seamless metadata propagation across layers, allowing flow steering rules and packet processing logic to share contextual information such as flow identifiers, source context, or policy tags. It improves coordination between NIC and E-Switch pipelines, enabling more flexible traffic handling and advanced offload capabilities.
- Added support for parallel suspend operations across multiple VFs.
- Added the ability to enable or disable ECN in the upstream by allowing the MODIFY_CONG_STATUS and QUERY_CONG_STATUS commands in mlx5_fwctl.
- Firmware now allows the ADP-RETX timeout profile to be configured even when there are open QPs.
- Added support for using the real-time clock to fill the request and response timestamps in hardware-generated RTT packets. To enable this feature, set REAL_TIME_CLOCK_ENABLE in mlxconfig and configure ROCE_CC_RTT_TIMESTAMP_FORMAT to 0x02 (REAL_TIME).
- The SPDM (Security Protocol and Data Model) measurements reporting mechanism has been updated to comply with version 1.2.0 of the SPDM specification. For further information refer to https://docs.nvidia.com/networking/display/dpunicattestation/connectx-7+measurements
- Added support for warm boot when UPT VMs are active, allowing the system to reboot without requiring a full shutdown of running VMs.

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

NVIDIA Firmware Package (FWPKG) for HPE InfiniBand XDR/Ethernet 2x400GbE 1-port OSFP PCIe6 x16 HHHL CX8 Crypto Adapter : HPE part number P79114-H21
Version: 40.47.1026 **(Recommended)**
Filename: 40_47_1026-900-9X81E-00EX-ST0_Ax.pldm.fwpkg; 40_47_1026-900-9X81E-00EX-ST0_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/connectx8firmwarev40471026/known-issues

Fixes

The following issues have been fixed in version 40.47.1026:

- The ZTR_RTTCC algorithm parameters AI and HAI did not support a sufficient range.
- Coalescing regular SX events with SX RTT events under ZTR_RTTCC would keep improper event fields, which would impact congestion control behavior.
- Issue in the ZTR_RTTCC algorithm where probe-abortion handling would behave improperly under high-stress network conditions, affecting proper congestion control and stable traffic performance.
- An assertion failure that would occur with the E-Switch uplink in specific configurations where the e-switch was disabled and Path Migration was active or GVMIs were using SRQ loopback in SQs. The issue occurred because the firmware attempted to perform cleanup operations when the uplink configuration lacked sufficient capacity. Now, when the E-Switch is disabled and no actions are available in the uplink STE, the firmware connects to the uplink STE instead of copying it.
- The ConnectX-8 downstream port failed to send a NACK when rejecting an L1 entry request from the upstream port.
- Invoking the resourcedump tool with segment type DPA_PROCESS_LST returned invalid data when the parameter n1 == 1 and no processes existed on the current vhca_id. The fix adds a proper check, and the resourcedump tool now reports the correct error in this scenario.
- During failover or restart, the SM sending a PortInfo MAD to the HCA firmware triggered reinitialization of port buffers, momentarily halting ingress traffic and causing packet drops. The firmware now avoids reconfiguring port buffers when the new configuration matches the current one.
- MFRL operations would fail due to a timeout.
- Under the ZTR_RTTCC algorithm, a flow that reached its minimum rate due to heavy congestion would not recover its rate once the congestion cleared.
- A missing interrupt from the module IO (Expander) would prevent the module from being raised.
- Reading debug registers would cause link BER (Bit Error Rate) degradation over time.
- Ports connected via 4 or 8 lanes and configured for 200G_2x (using only 2 lanes) would fail to link when using a mix of new firmware (with “Non Tx-Squelch” support) and older firmware versions.

  Note: Please make sure on both sides, switch (local device) and Switch/NIC (peer device) you:

  - Deploy the new firmware release versions as a matched bundle on both Switch and NIC devices.
  - Configure the port to use 2 lanes (instead of 4 or 8 lanes) while keeping the 200G_2x speed setting.
- Issue in Arch diagnostic data counters where the pcie_link_outbound_data_bytes counter was incorrectly returning only zero values.
- Multiple long-running process registers would cause aborted access and timeouts, the internal state is now properly handled.
- Enabling the CCMAD custom header on one PCC probe slot caused other slots to malfunction when multiple slots were configured.

  Note: If using firmware versions older than the 40.47.10xx GA release, disable the CCMAD custom header when multiple probe slots are enabled.

- A CQE error with vendor_syndrome RDE_MAL_WQE (0xd6) could cause traffic disruption on the affected QP.

Enhancements

New features and changes included in version 40.47.1026:

- Added Scaling Factor "read" field. To obtain correct values in mlxlink, MFT version 4.33.0 or later is required.
- Lane Margin is a signal integrity diagnostic feature that measures the electrical “eye margin” of high-speed serial lanes, the physical data paths that carry bits over interfaces like PCIe, SerDes, or Ethernet links.

- Added a new NVLOG TLV type to support PCIe logger functionality. This enhancement enables logging and debugging of PCIe-related events through the NVLOG infrastructure, improving traceability and issue analysis.
- This enhancement enables seamless metadata propagation across layers, allowing flow steering rules and packet processing logic to share contextual information such as flow identifiers, source context, or policy tags. It improves coordination between NIC and E-Switch pipelines, enabling more flexible traffic handling and advanced offload capabilities.
- Access control was added to ensure that only the VHCA instance that created a DPA partition is permitted to modify or delete it.
- A new DPA Manifest mechanism was introduced to define and manage application permissions.
- DPA TIMER functionality has been exposed through the MTCTR access register, allowing direct access by applications.
- Added support for parallel suspend operations across multiple VFs.
- Added support for using the real-time clock to fill the request and response timestamps in hardware-generated RTT packets. To enable this feature, set REAL_TIME_CLOCK_ENABLE in mlxconfig and configure ROCE_CC_RTT_TIMESTAMP_FORMAT to 0x02 (REAL_TIME).
- Enables customers to specify the corresponding GNS values that will be forwarded to the DOCA PCC NP feature. When multiple slots are configured with IFA2, the GNS settings in pcc_config and pcc_np_config must be identical across all slots using IFA2.
- When a GGA QP encounters a memory access (address translation) issue in one VM or Function, it no longer enters an error state. Instead, the QP now recovers from the error, sends an error CQE to the software, and continues serving other VMs and Functions. Unlike RDMA QPs, the error CQE may redundantly reference a valid mkey, therefore, the software should reconstruct all mkeys that received error CQE notifications.
- Added the ability to enable or disable ECN in the upstream by allowing the MODIFY_CONG_STATUS and QUERY_CONG_STATUS commands in mlx5_fwctl.
- Enabled 50G per-lane link speed and improved LED behavior for clearer network status indication. Traffic LED now blinks when traffic is active and reflects accurate link status.
- Added a new API to write PSP Master Key. This API allows writing a new PSP Master Key, which will be used to generate new SPI/key pairs. The previous key remains valid for decryption until the key rotation process is completed.
- Firmware now allows the ADP-RETX timeout profile to be configured even when there are open QPs.
- PCI logs are now reported via the existing NC-SI OEM command Get Log Info (Command = 0x0, Parameter = 0x2F).
- Added support for Adaptive Hotplug System (AHS) alongside the existing NHP solution, enhancing hotplug flexibility and system adaptability.
- The ASO object pointer size has been increased from 24 bits to 32 bits, eliminating the previous limitation of ~16 million ASO objects per GVMI and enabling significantly greater scalability for future expansions.
- Added an NV configuration option to allow disabling XDR. Note: Disabling SDR or enabling configurations not supported by the INI file remains unsupported.
- Added support for MVCAP (Multi-Version Capability) functionality enabling improved compatibility and version management across multiple components.

Supported Devices and Features

HPE Part Number	NVIDIA VPI Adapter	PSID
P79114-H21	HPE InfiniBand XDR/Ethernet 2x400GbE 1-port OSFP PCIe6 x16 HHHL CX8 Crypto Adapter (P79114-H21)	MT_0000001167

NVIDIA Firmware Package (FWPKG) for HPE InfiniBand XDR400/Ethernet 400GbE 2-port QSFP112 PCIe6 x16 HHHL CX8 Crypto Adapter : HPE part number P79115-H21
Version: 40.47.1026 **(Recommended)**
Filename: 40_47_1026-900-9X81Q-00CN-ST0_Ax.pldm.fwpkg; 40_47_1026-900-9X81Q-00CN-ST0_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/connectx8firmwarev40471026/known-issues

Fixes

The following issues have been fixed in version 40.47.1026:

- The ZTR_RTTCC algorithm parameters AI and HAI did not support a sufficient range.
- Coalescing regular SX events with SX RTT events under ZTR_RTTCC would keep improper event fields, which would impact congestion control behavior.
- Issue in the ZTR_RTTCC algorithm where probe-abortion handling would behave improperly under high-stress network conditions, affecting proper congestion control and stable traffic performance.
- An assertion failure that would occur with the E-Switch uplink in specific configurations where the e-switch was disabled and Path Migration was active or GVMIs were using SRQ loopback in SQs. The issue occurred because the firmware attempted to perform cleanup operations when the uplink configuration lacked sufficient capacity. Now, when the E-Switch is disabled and no actions are available in the uplink STE, the firmware connects to the uplink STE instead of copying it.
- The ConnectX-8 downstream port failed to send a NACK when rejecting an L1 entry request from the upstream port.
- Invoking the resourcedump tool with segment type DPA_PROCESS_LST returned invalid data when the parameter n1 == 1 and no processes existed on the current vhca_id. The fix adds a proper check, and the resourcedump tool now reports the correct error in this scenario.
- During failover or restart, the SM sending a PortInfo MAD to the HCA firmware triggered reinitialization of port buffers, momentarily halting ingress traffic and causing packet drops. The firmware now avoids reconfiguring port buffers when the new configuration matches the current one.
- MFRL operations would fail due to a timeout.
- Under the ZTR_RTTCC algorithm, a flow that reached its minimum rate due to heavy congestion would not recover its rate once the congestion cleared.
- A missing interrupt from the module IO (Expander) would prevent the module from being raised.
- Reading debug registers would cause link BER (Bit Error Rate) degradation over time.
- Ports connected via 4 or 8 lanes and configured for 200G_2x (using only 2 lanes) would fail to link when using a mix of new firmware (with “Non Tx-Squelch” support) and older firmware versions.

  Note: Please make sure on both sides, switch (local device) and Switch/NIC (peer device) you:

  - Deploy the new firmware release versions as a matched bundle on both Switch and NIC devices.
  - Configure the port to use 2 lanes (instead of 4 or 8 lanes) while keeping the 200G_2x speed setting.
- Issue in Arch diagnostic data counters where the pcie_link_outbound_data_bytes counter was incorrectly returning only zero values.
- Multiple long-running process registers would cause aborted access and timeouts, the internal state is now properly handled.
- Enabling the CCMAD custom header on one PCC probe slot caused other slots to malfunction when multiple slots were configured.

  Note: If using firmware versions older than the 40.47.10xx GA release, disable the CCMAD custom header when multiple probe slots are enabled.

- A CQE error with vendor_syndrome RDE_MAL_WQE (0xd6) could cause traffic disruption on the affected QP.

Enhancements

New features and changes included in version 40.47.1026:

- Added Scaling Factor "read" field. To obtain correct values in mlxlink, MFT version 4.33.0 or later is required.
- Lane Margin is a signal integrity diagnostic feature that measures the electrical "eye margin" of high-speed serial lanes, the physical data paths that carry bits over interfaces like PCIe, SerDes, or Ethernet links.
- Added a new NVLOG TLV type to support PCIe logger functionality. This enhancement enables logging and debugging of PCIe-related events through the NVLOG infrastructure, improving traceability and issue analysis.
- This enhancement enables seamless metadata propagation across layers, allowing flow steering rules and packet processing logic to share contextual information such as flow identifiers, source context, or policy tags. It improves coordination between NIC and E-Switch pipelines, enabling more flexible traffic handling and advanced offload capabilities.
- Access control was added to ensure that only the VHCA instance that created a DPA partition is permitted to modify or delete it.
- A new DPA Manifest mechanism was introduced to define and manage application permissions.
- DPA TIMER functionality has been exposed through the MTCTR access register, allowing direct access by applications.
- Added support for parallel suspend operations across multiple VFs.
- Added support for using the real-time clock to fill the request and response timestamps in hardware-generated RTT packets. To enable this feature, set REAL_TIME_CLOCK_ENABLE in mlxconfig and configure ROCE_CC_RTT_TIMESTAMP_FORMAT to 0x02 (REAL_TIME).
- Enables customers to specify the corresponding GNS values that will be forwarded to the DOCA PCC NP feature. When multiple slots are configured with IFA2, the GNS settings in pcc_config and pcc_np_config must be identical across all slots using IFA2.
- When a GGA QP encounters a memory access (address translation) issue in one VM or Function, it no longer enters an error state. Instead, the QP now recovers from the error, sends an error CQE to the software, and continues serving other VMs and Functions. Unlike RDMA QPs, the error CQE may redundantly reference a valid mkey, therefore, the software should reconstruct all mkeys that received error CQE notifications.
- Added the ability to enable or disable ECN in the upstream by allowing the MODIFY_CONG_STATUS and QUERY_CONG_STATUS commands in mlx5_fwctl.
- Enabled 50G per-lane link speed and improved LED behavior for clearer network status indication. Traffic LED now blinks when traffic is active and reflects accurate link status.
- Added a new API to write PSP Master Key. This API allows writing a new PSP Master Key, which will be used to generate new SPI/key pairs. The previous key remains valid for decryption until the key rotation process is completed.
- Firmware now allows the ADP-RETX timeout profile to be configured even when there are open QPs.
- PCI logs are now reported via the existing NC-SI OEM command Get Log Info (Command = 0x0, Parameter = 0x2F).
- Added support for Adaptive Hotplug System (AHS) alongside the existing NHP solution, enhancing hotplug flexibility and system adaptability.
- The ASO object pointer size has been increased from 24 bits to 32 bits, eliminating the previous limitation of ~16 million ASO objects per GVMI and enabling significantly greater scalability for future expansions.
- Added an NV configuration option to allow disabling XDR. Note: Disabling SDR or enabling configurations not supported by the INI file remains unsupported.
- Added support for MVCAP (Multi-Version Capability) functionality enabling improved compatibility and version management across multiple components.

Supported Devices and Features

HPE Part Number	NVIDIA VPI Adapter	PSID
P79115-H21	HPE InfiniBand XDR400/Ethernet 400GbE 2-port QSFP112 PCIe6 x16 HHHL CX8 Crypto Adapter (P79115-H21)	MT_0000001222

NVIDIA Firmware Package (FWPKG) for Mellanox MCX562A-ACAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE
Version: 16.35.8002 **(Recommended)**
Filename: 16_35_8002-MCX562A-ACA_Ax_Bx.pldm.fwpkg; 16_35_8002-MCX562A-ACA_Ax_Bx.pldm.json

Important Note!

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A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/connectx5firmwarev16358002lts/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 16.35.8002:

- Firmware failed to scan the correct CQs for the PF after the FW entered into the CQ recovery mode., resulting in CQs for the PF not being recovered.

Enhancements

New features and changes included in version 16.35.8002:

- Enhanced performance of firmware exception path handling to better support increased numbers of configured SR-IOV instances.
- This release contains important reliability improvements and security hardening enhancements. HPE recommends upgrading your devices firmware to this release to improve the devices' firmware security and reliability.

Supported Devices and Features

HPE Part Number	NVIDIA Ethernet Only Adapters	PSID
P10112-B21	Mellanox MCX562A-ACAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	MT_0000000241

NVIDIA Firmware Package (FWPKG) for Mellanox MCX623105AS-VDAT Ethernet 200Gb 1-port QSFP56 Adapter for HPE
Version: 22.46.3048 **(Recommended)**
Filename: 22_46_3048-MCX623105AS-VDA_Ax.pldm.fwpkg; 22_46_3048-MCX623105AS-VDA_Ax.pldm.json

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A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/connectx6dxfirmwarev22463048/known+issues

Prerequisites

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

Fixes

The following issues have been fixed in version 22.46.3048:

- Configuring a small MTU led to fragmentation of packets critical for the PXE boot process. As a result, the PXE boot filters mistakenly discarded these packets, causing the PXE boot to fail.

Enhancements

New features and changes included in version 22.46.3048:

- Added support for RSS with crypto offload enabling the NIC to parallelize packet processing across CPU cores while performing encryption/decryption in hardware. Additionally, introduced a new l4_type_ext parameter with values: 0 (None), 1 (TCP), 2 (UDP), 3 (ICMP).
- Added an extra validation for the payload_len field in incoming NC-SI messages. Previously, invalid packets might have been accepted; now, such packets are silently dropped.
- This release contains important reliability improvements and security hardening enhancements. HPE recommends upgrading your devices firmware to this release to improve the devices' firmware security and reliability.

Supported Devices and Features

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

NVIDIA Firmware Package (FWPKG) for Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE
Version: 22.46.3048 **(Recommended)**
Filename: 22_46_3048-MCX623106AS-CDA_Ax.pldm.fwpkg; 22_46_3048-MCX623106AS-CDA_Ax.pldm.json

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A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/connectx6dxfirmwarev22463048/known+issues

Prerequisites

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

Fixes

The following issues have been fixed in version 22.46.3048:

- Configuring a small MTU led to fragmentation of packets critical for the PXE boot process. As a result, the PXE boot filters mistakenly discarded these packets, causing the PXE boot to fail.

Enhancements

New features and changes included in version 22.46.3048:

- Added support for RSS with crypto offload enabling the NIC to parallelize packet processing across CPU cores while performing encryption/decryption in hardware. Additionally, introduced a new l4_type_ext parameter with values: 0 (None), 1 (TCP), 2 (UDP), 3 (ICMP).
- Added an extra validation for the payload_len field in incoming NC-SI messages. Previously, invalid packets might have been accepted; now, such packets are silently dropped.
- This release contains important reliability improvements and security hardening enhancements. HPE recommends upgrading your devices firmware to this release to improve the devices' firmware security and reliability.

Supported Devices and Features

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

NVIDIA Firmware Package(FWPKG) for HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACHT Adapter
Version: 16.35.8002 **(Recommended)**
Filename: 16_35_8002-MCX512F-ACH_Ax_Bx.pldm.fwpkg; 16_35_8002-MCX512F-ACH_Ax_Bx.pldm.json

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A list of known issues with this release is available at: https://docs.nvidia.com/networking/display/connectx5firmwarev16358002lts/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 16.35.8002:

- Firmware failed to scan the correct CQs for the PF after the FW entered into the CQ recovery mode., resulting in CQs for the PF not being recovered.

Enhancements

New features and changes included in version 16.35.8002:

- Enhanced performance of firmware exception path handling to better support increased numbers of configured SR-IOV instances.
- This release contains important reliability improvements and security hardening enhancements. HPE recommends upgrading your devices firmware to this release to improve the devices' firmware security and reliability.

Supported Devices and Features

HPE Part Number	NVIDIA Ethernet Only Adapters	PSID
P13188-B21	HPE Ethernet 10/25Gb 2-port SFP28 MCX512F-ACHT Adapter	MT_0000000416

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

- 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

- 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

- 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

- 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

- ESXi9.1 support.

Firmware Package - HPE Expander Backplane Firmware for HPE Alletra 4140 servers
Version: 1.59 (B) **(Recommended)**
Filename: HPE_Alletra4140_BP_EXP_Gen11_1.59_B.fwpkg

Important Note!

1.24 is a initial version.

Enhancements

- Extend the installation time.

Firmware Package - HPE Smart Array P408i-p, P408e-p, P408i-a, P408i-c, E208i-p, E208e-p, E208i-c, E208i-a, P204i-c, P416ie-m and P816i-a SR Gen10 and SR308i-o,SR308i-p Gen11 controllers
Version: 8.00 **(Recommended)**
Filename: HPE_SR_Gen10_8.00_A.fwpkg

Important Note!

- HPE Service Pack for ProLiant (SPP) provides a fully qualified recipe for specific firmware and drivers released within the same cycle, making it the primary recommended choice.
- It is strongly recommended to use controller firmware version 8.00 for SR SAS/SATA controllers and firmware version 03.01.44.040 for SR tri-mode controllers, along with Windows 2022/2025 driver version 1016.30.0.1014, Linux driver version 2.1.38-022, and VMware ESXi driver version 80.4880.0.109/90.4880.0.109, as this combination has been fully qualified.
- **For Windows 2016 driver, please use 1010.84.0.1012 in below link:**

  https://www.hpe.com/global/swpublishing/MTX-c523e081ab344bc4b4bc9d5686

- **For Windows 2019 driver, please use 1016.10.0.1004 in below link:**

  https://www.hpe.com/global/swpublishing/MTX-29e86213c3ab4e94b0b54906f7

Fixes

- Fixed an issue that prevented drive rebuilds from restarting after unexpected power loss when media exchange was accepted in auto-replace spare configurations.
- Fixed an issue that caused auto-replace spare activation during the LOOSE_CABLE state, which could swap data drives prematurely and lead to volume failure and potential data integrity issues.
- Fixed an issue where IOPS could drop on large-capacity HDDs during Consistency Check under 4K random write workloads in RAID 1 configurations.
- Fixed an issue no-battery write cache (NBWC) can be enabled by the user in the event of a battery failure, unless the cache module itself is experiencing an error.
- Fixed an issue where ATA passthrough IDENTIFY DEVICE (0xEC) commands issued from BMC could time out due to incorrect transfer length handling.
- Fixed an issue where SSD array creation with non-deterministic drive ordering could incorrectly disable Acceralted IO on some drives, leading to performance degradation.
- Fixed an issue where the fault LED did not illuminate for a hot-removed data drive during RAID rebuild with auto replace spare enabled.
- Fixed an issue where the system could become unresponsive with lockup code as 0x1E00 when multiple out-of-band management requests were sent concurrently for the same session.
- Fixed an issue where failed or missing drives were not correctly indicated when listing drives in the HII disk utilities menu.
- Fixed an issue where PLDM Type 6 volume creation could fail on certain controllers that do not support volume caching or the IOPerfModeEnabled feature. Volume creation and update requests that explicitly disable these features (for example, setting cache policies to Off or IOPerfModeEnabled to false) are now handled correctly and will no longer be rejected.
- Fixed an issue where RDE READ could incorrectly report a split mirror backup volume as Enabled instead of StandbyOffline when the original primary volume was created via RDE CREATE. Volume usage identification was corrected to ensure accurate status reporting.
- Fixed an issue where DriveMetrics.PowerOnHours could be incorrectly reported as zero for SSDs on certain platforms. Power-on hours reporting was updated by drive type, NVMe drives reporting with DriveMetrics.NVMeSMART.PowerOnHours, SAS and SATA HDDs reporting a null value.

Enhancements

- Logical drive information menu: Enhanced to display the association between failed data drives and active spares upon drive failure.
- "Added support for the standardized Operation property in PLDM Operations arrays, providing schema-defined operation enums as below:

  – Drive Resource — Rebuild/Sanitize/Encrypt

  – Volume Resource — Initialize/Rebuild/Encrypt/ChangeRAIDLayout/ChangeStripSize/Resize.

  The legacy OperationName property remains available and is now marked as deprecated."

- Added support for StorageController status conditions ResetRecommended and ResetRequired. When configuration changes require a system reboot to take effect, the controller reports the status through both Status.Conditions and Redfish event messages.
- Enhanced RDE error messaging to provide clearer error descriptions for Volume DELETE and SED-enabled CREATE operations, returning detailed messages directly in the response payload instead of generic ExtendedInfo references.

Firmware Package - HPE Gen12 Boot Controller NS204i-u, HPE Gen11 Boot Controller NS204i-u, NS204i-d and HPE Gen10 Plus Boot Controller NS204i-p, NS204i-d, NS204i-t, NS204i-r
Version: 1.2.14.1026 **(Recommended)**
Filename: HPE_NS204i_1.2.14.1026_A.fwpkg; HPE_NS204i_1.2.14.1026_A.json

Important Note!

1.2.14.1018 is the minimum firmware requirement for AMD Turin DL365/385 and Intel Gen12 platforms. Downgrading NS204i firmware to version lower than 1018 will lead to MCTP failure.

- https://www.hpe.com/global/swpublishing/MTX-c75706b8a59d4d8aabc4e4cc30

For Gen10 plus server users, the NS204i firmware has to be 1.2.14.1018 or later in order to enable PLDM firmware update functionality for the controller. Please find the smart component versions of 1.2.14.1018 in below link:

- Windows: https://www.hpe.com/global/swpublishing/MTX-84a4e0bb354f48eaad65cf9451
- Linux: https://www.hpe.com/global/swpublishing/MTX-b6448d485ca64fd7a5d0d5f75e
- VMware: https://www.hpe.com/global/swpublishing/MTX-ad49b1acb0d4455c86460c727a

Prerequisites

- iLO 6 version 1.10 or later is required for Gen11 and Gen12 servers.
- iLO 5 version 2.81 or later is required for Gen10/Gen10 Plus servers

Fixes

To mitigate the symptom - After an HPE NS204i device firmware update to version 1.2.14.1022 or later, the Drive Messages may appear for HPE Gen11 or Gen12 Server Systems with NVMe SSDs Attached to HPE NS204i Devices.

Firmware Package - HPE MR216i-o Gen11 Tri Mode Controller
Version: 52.36.3-6584 **(Recommended)**
Filename: HPE_MR216i-o_Gen11_52.36.3-6584_A.fwpkg; HPE_MR216i-o_Gen11_52.36.3-6584_A.json

Important Note!

- This firmware version to be used on HPE MR216i-o Gen11 Controller.
- The minimum iLO versions required to support 52.36.3-6584 are iLO 7 1.20, iLO 6 1.74, and iLO 5 3.18.

Prerequisites

iLO6 version should be at least 1.53 is required for **chassis&Fabric support.**

Fixes

- Fix an issue that Backup Exec doesn’t work with LTO drives in Linux systems
- Fix a rare issue that controller VM fails to bootup after a host reboot on Linux hypervisor
- Fix an issue that poor performance is observed during small-range writes
- Fix an issue that storcli show /cx/ex/sx poh (power on hour) command report error on NVMe drives
- Fix a rare issue that PL fault 0x4318 is observed during the IPMI power-cycle test
- Fix a rare issue that cache restore failure observed after firmware update followed by a server UMCE (unrecoverable machine check error)
- Fix an issue that firmware may assert when NVME drives take long time for Task Management
- Fix a rare issue that PL fault 0x6054 observed during patrol read in progress
- Fix a rare issue that firmware may assert during firmware update with IOs and task managements on JBOD drives.
- Fix an issue that foreign drive is shown in HotspareType@Redfish.AllowableValues
- Fix an issue that SATA LFF drives list the "DriveFormFactor" as "2_5" under the Storage tab and in Redfish
- Fix an issue that Server health shows Warning when a degraded volume is present
- Fix a rare issue that GET operation on Redfish Drive URI occasionally return 404 Not Found
- Fix an issue that rebuild does not start on an SED drive when inserted in the missing slot of a R1 drive
- Fix an issue that NVME drive undergoing sanitize is not detected after server reboot
- Fix a rare issue that Redfish Chassis properties are not properly displayed for UBM10 backplane
- Fix an issue that PCIConfiglink page events may come continuously in snapdump log
- Fix a rare issue that firmware may assert when user starts crypto erase and removed the drive
- Fix an issue that the sanitize percentage does not progress when monitoring drive's sanitize state
- Fix a rare issue that PLDM Fault 0x5: Command abort failed observed when doing backplane firmware update
- Fix a rare firmware crash that may occur during concurrent Virtual Machine clone operations and JBOD creation
- Fix an issue that firmware may assert if drive goes through shield recovery and is subsequently removed
- Fix a rare issue that firmware may assert while running IO's and Task Management

Enhancements

- Add additional escape sequences for special characters when encoding BEJString to comply with the DMTF specification. iLO 7 1.20, iLO6 1.74 and iLO5 3.18 are required to support this change.
- DMTF PLDM Redfish Device Enablement enhancements
  - Add support for Redfish Conditions (GET)
    - Each resource contains a conditions table that lists the appropriate MessageId and MessageSeverity. Redfish messages impact the Redfish resource Status object. Any outstanding message will appear in the Redfish Status[Conditions] array. The highest Status[Conditions][Severity]

sets the overall Status[Health] of the resource. When the Status[Conditions] array is empty the Status[Health] shall be OK.
        - Port Conditions do not display any condition other than OK
        - In scenarios where ControllerPreviousError condition happens, the same is listed under StorageController.Status. Usually after iLO acknowledges ControllerPreviousError event, FW clears the condition from the StorageController.Status.Conditions[] list.
    - Redfish Metrics GET Support for DriveMetrics, EnvironmentMetrics and VolumeMetrics
        - DriveMetrics: BadBlockCount, ReadIOKiBytes, WriteIOKiBytes, PowerOnHours, NVMeSMART (MVMeSMART attributes are supported for NVMe drive only)
        - EnvironmentMetrics for Drive Resource: TemperatureCelsius.Reading
        - VolumeMetrics: ConsistencyCheckCount, ConsistencyCheckErrorCount, RebuildErrorCount
        - Each counter can hold a value up to 65535. Once the counter reaches the maximum value the value is not reset.
        - Metrics are cleared when user performs Controller NVRAM clear or Redfish ResetToDefaults.ResetAll.
- Add support for Redfish Parallel Resource PDR. The feature reduce iLO resource required to support controller related Metrics.
- Add support for UBM11 backplane
- Enhanced the UBM backplane firmware update process to eliminate the risk of firmware corruption when transferred data becomes corrupted
- Refine the message on HII prereview configuration for the foreign import
- Removed the Sanitize Secure Erase option from MRSA for SED drives, as SEDs support only Cryptographic Erase
- Return error when enabling encryption with 256 characters in the "EncryptionKeyIdentifier" property through Redfish

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Firmware Package - HPE MR216i-p Gen11 Tri Mode Controller
Version: 52.36.3-6584 **(Recommended)**
Filename: HPE_MR216i-p_Gen11_52.36.3-6584_A.fwpkg; HPE_MR216i-p_Gen11_52.36.3-6584_A.json

Important Note!

- This firmware version to be used on HPE MR216i-p Gen11 Controller.
- The minimum iLO versions required to support 52.36.3-6584 are iLO 7 1.20, iLO 6 1.74, and iLO 5 3.18.

Prerequisites

iLO6 version should be at least 1.53 is required for **chassis&Fabric support.**

Fixes

- Fix an issue that Backup Exec doesn’t work with LTO drives in Linux systems
- Fix a rare issue that controller VM fails to bootup after a host reboot on Linux hypervisor
- Fix an issue that poor performance is observed during small-range writes
- Fix an issue that storcli show /cx/ex/sx poh (power on hour) command report error on NVMe drives
- Fix a rare issue that PL fault 0x4318 is observed during the IPMI power-cycle test
- Fix a rare issue that cache restore failure observed after firmware update followed by a server UMCE (unrecoverable machine check error)
- Fix an issue that firmware may assert when NVME drives take long time for Task Management
- Fix a rare issue that PL fault 0x6054 observed during patrol read in progress
- Fix a rare issue that firmware may assert during firmware update with IOs and task managements on JBOD drives.
- Fix an issue that foreign drive is shown in HotspareType@Redfish.AllowableValues
- Fix an issue that SATA LFF drives list the "DriveFormFactor" as "2_5" under the Storage tab and in Redfish
- Fix an issue that Server health shows Warning when a degraded volume is present
- Fix a rare issue that GET operation on Redfish Drive URI occasionally return 404 Not Found
- Fix an issue that rebuild does not start on an SED drive when inserted in the missing slot of a R1 drive
- Fix an issue that NVME drive undergoing sanitize is not detected after server reboot
- Fix a rare issue that Redfish Chassis properties are not properly displayed for UBM10 backplane
- Fix an issue that PCIConfiglink page events may come continuously in snapdump log
- Fix a rare issue that firmware may assert when user starts crypto erase and removed the drive
- Fix an issue that the sanitize percentage does not progress when monitoring drive's sanitize state
- Fix a rare issue that PLDM Fault 0x5: Command abort failed observed when doing backplane firmware update
- Fix a rare firmware crash that may occur during concurrent Virtual Machine clone operations and JBOD creation
- Fix an issue that firmware may assert if drive goes through shield recovery and is subsequently removed
- Fix a rare issue that firmware may assert while running IO's and Task Management

Enhancements

- Add additional escape sequences for special characters when encoding BEJString to comply with the DMTF specification. iLO 7 1.20, iLO6 1.74 and iLO5 3.18 are required to support this change.
- DMTF PLDM Redfish Device Enablement enhancements
    - Add support for Redfish Conditions (GET)

        - Each resource contains a conditions table that lists the appropriate MessageId and MessageSeverity. Redfish messages impact the Redfish resource Status object. Any outstanding message will appear in the Redfish Status[Conditions] array. The highest Status[Conditions][Severity] sets the overall Status[Health] of the resource. When the Status[Conditions] array is empty the Status[Health] shall be OK.
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        - In scenarios where ControllerPreviousError condition happens, the same is listed under StorageController.Status. Usually after iLO acknowledges ControllerPreviousError event, FW clears the condition from the StorageController.Status.Conditions[] list.
    - Redfish Metrics GET Support for DriveMetrics, EnvironmentMetrics and VolumeMetrics
        - DriveMetrics: BadBlockCount, ReadIOKiBytes, WriteIOKiBytes, PowerOnHours, NVMeSMART (MVMeSMART attributes are supported for NVMe drive only)
        - EnvironmentMetrics for Drive Resource: TemperatureCelsius.Reading
        - VolumeMetrics: ConsistencyCheckCount, ConsistencyCheckErrorCount, RebuildErrorCount
        - Each counter can hold a value up to 65535. Once the counter reaches the maximum value the value is not reset.
        - Metrics are cleared when user performs Controller NVRAM clear or Redfish ResetToDefaults.ResetAll.
- Add support for Redfish Parallel Resource PDR. The feature reduce iLO resource required to support controller related Metrics.
- Add support for UBM11 backplane
- Enhanced the UBM backplane firmware update process to eliminate the risk of firmware corruption when transferred data becomes corrupted
- Refine the message on HII prereview configuration for the foreign import
- Removed the Sanitize Secure Erase option from MRSA for SED drives, as SEDs support only Cryptographic Erase
- Return error when enabling encryption with 256 characters in the "EncryptionKeyIdentifier" property through Redfish

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Firmware Package - HPE MR408i-o Gen11 Tri Mode Controller
Version: 52.36.3-6584 **(Recommended)**
Filename: HPE_MR408i-o_Gen11_52.36.3-6584_A.fwpkg; HPE_MR408i-o_Gen11_52.36.3-6584_A.json

Important Note!

- This firmware version to be used on HPE MR408i-o Gen11 Controller.
- The minimum iLO versions required to support 52.36.3-6584 are iLO 7 1.20, iLO 6 1.74, and iLO 5 3.18.

Prerequisites

iLO6 version should be at least 1.53 is required for **chassis&Fabric support.**

Fixes

- Fix an issue that Backup Exec doesn’t work with LTO drives in Linux systems
- Fix a rare issue that controller VM fails to bootup after a host reboot on Linux hypervisor
- Fix an issue that poor performance is observed during small-range writes
- Fix an issue that storcli show /cx/ex/sx poh (power on hour) command report error on NVMe drives
- Fix a rare issue that PL fault 0x4318 is observed during the IPMI power-cycle test
- Fix a rare issue that cache restore failure observed after firmware update followed by a server UMCE (unrecoverable machine check error)
- Fix an issue that firmware may assert when NVME drives take long time for Task Management
- Fix a rare issue that PL fault 0x6054 observed during patrol read in progress
- Fix a rare issue that firmware may assert during firmware update with IOs and task managements on JBOD drives.
- Fix an issue that foreign drive is shown in HotspareType@Redfish.AllowableValues
- Fix an issue that SATA LFF drives list the "DriveFormFactor" as "2_5" under the Storage tab and in Redfish
- Fix an issue that Server health shows Warning when a degraded volume is present
- Fix a rare issue that GET operation on Redfish Drive URI occasionally return 404 Not Found
- Fix an issue that rebuild does not start on an SED drive when inserted in the missing slot of a R1 drive
- Fix an issue that NVME drive undergoing sanitize is not detected after server reboot
- Fix a rare issue that Redfish Chassis properties are not properly displayed for UBM10 backplane
- Fix an issue that PCIConfiglink page events may come continuously in snapdump log
- Fix a rare issue that firmware may assert when user starts crypto erase and removed the drive
- Fix an issue that the sanitize percentage does not progress when monitoring drive's sanitize state
- Fix a rare issue that PLDM Fault 0x5: Command abort failed observed when doing backplane firmware update
- Fix a rare firmware crash that may occur during concurrent Virtual Machine clone operations and JBOD creation
- Fix an issue that firmware may assert if drive goes through shield recovery and is subsequently removed
- Fix a rare issue that firmware may assert while running IO's and Task Management

Enhancements

- Add additional escape sequences for special characters when encoding BEJString to comply with the DMTF specification. iLO 7 1.20, iLO6 1.74 and iLO5 3.18 are required to support this change.
- DMTF PLDM Redfish Device Enablement enhancements

        - Add support for Redfish Conditions (GET)
            - Each resource contains a conditions table that lists the appropriate MessageId and MessageSeverity. Redfish messages impact the Redfish resource Status object. Any outstanding message will appear in the Redfish Status[Conditions] array. The highest Status[Conditions][Severity] sets the overall Status[Health] of the resource. When the Status[Conditions] array is empty the Status[Health] shall be OK.
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        - Redfish Metrics GET Support for DriveMetrics, EnvironmentMetrics and VolumeMetrics
            - DriveMetrics: BadBlockCount, ReadIOKiBytes, WriteIOKiBytes, PowerOnHours, NVMeSMART (MVMeSMART attributes are supported for NVMe drive only)
            - EnvironmentMetrics for Drive Resource: TemperatureCelsius.Reading
            - VolumeMetrics: ConsistencyCheckCount, ConsistencyCheckErrorCount, RebuildErrorCount
            - Each counter can hold a value up to 65535. Once the counter reaches the maximum value the value is not reset.
            - Metrics are cleared when user performs Controller NVRAM clear or Redfish ResetToDefaults.ResetAll.
    - Add support for Redfish Parallel Resource PDR. The feature reduce iLO resource required to support controller related Metrics.
    - Add support for UBM11 backplane
    - Enhanced the UBM backplane firmware update process to eliminate the risk of firmware corruption when transferred data becomes corrupted
    - Refine the message on HII prereview configuration for the foreign import
    - Removed the Sanitize Secure Erase option from MRSA for SED drives, as SEDs support only Cryptographic Erase
    - Return error when enabling encryption with 256 characters in the "EncryptionKeyIdentifier" property through Redfish

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Firmware Package - HPE MR408i-p Gen11 Tri Mode Controller
Version: 52.36.3-6584 **(Recommended)**
Filename: HPE_MR408i-p_Gen11_52.36.3-6584_A.fwpkg; HPE_MR408i-p_Gen11_52.36.3-6584_A.json

Important Note!

- This firmware version to be used on HPE MR408i-p Gen11 Controller.
- The minimum iLO versions required to support 52.36.3-6584 are iLO 7 1.20, iLO 6 1.74, and iLO 5 3.18.

Prerequisites

iLO6 version should be at least 1.53 is required for **chassis&Fabric support.**

Fixes

- Fix an issue that Backup Exec doesn’t work with LTO drives in Linux systems
- Fix a rare issue that controller VM fails to bootup after a host reboot on Linux hypervisor
- Fix an issue that poor performance is observed during small-range writes
- Fix an issue that storcli show /cx/ex/sx poh (power on hour) command report error on NVMe drives
- Fix a rare issue that PL fault 0x4318 is observed during the IPMI power-cycle test
- Fix a rare issue that cache restore failure observed after firmware update followed by a server UMCE (unrecoverable machine check error)
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- Fix a rare issue that PL fault 0x6054 observed during patrol read in progress
- Fix a rare issue that firmware may assert during firmware update with IOs and task managements on JBOD drives.
- Fix an issue that foreign drive is shown in HotspareType@Redfish.AllowableValues
- Fix an issue that SATA LFF drives list the "DriveFormFactor" as "2_5" under the Storage tab and in Redfish
- Fix an issue that Server health shows Warning when a degraded volume is present
- Fix a rare issue that GET operation on Redfish Drive URI occasionally return 404 Not Found
- Fix an issue that rebuild does not start on an SED drive when inserted in the missing slot of a R1 drive
- Fix an issue that NVME drive undergoing sanitize is not detected after server reboot
- Fix a rare issue that Redfish Chassis properties are not properly displayed for UBM10 backplane
- Fix an issue that PCIConfiglink page events may come continuously in snapdump log
- Fix a rare issue that firmware may assert when user starts crypto erase and removed the drive
- Fix an issue that the sanitize percentage does not progress when monitoring drive's sanitize state
- Fix a rare issue that PLDM Fault 0x5: Command abort failed observed when doing backplane firmware update
- Fix a rare firmware crash that may occur during concurrent Virtual Machine clone operations and JBOD creation
- Fix an issue that firmware may assert if drive goes through shield recovery and is subsequently removed
- Fix a rare issue that firmware may assert while running IO's and Task Management

Enhancements

- Add additional escape sequences for special characters when encoding BEJString to comply with the DMTF specification. iLO 7 1.20, iLO6 1.74 and iLO5 3.18 are required to support this change.

- DMTF PLDM Redfish Device Enablement enhancements
  - Add support for Redfish Conditions (GET)
    - Each resource contains a conditions table that lists the appropriate MessageId and MessageSeverity. Redfish messages impact the Redfish resource Status object. Any outstanding message will appear in the Redfish Status[Conditions] array. The highest Status[Conditions][Severity] sets the overall Status[Health] of the resource. When the Status[Conditions] array is empty the Status[Health] shall be OK.
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  - Redfish Metrics GET Support for DriveMetrics, EnvironmentMetrics and VolumeMetrics
    - DriveMetrics: BadBlockCount, ReadIOKiBytes, WriteIOKiBytes, PowerOnHours, NVMeSMART (MVMeSMART attributes are supported for NVMe drive only)
    - EnvironmentMetrics for Drive Resource: TemperatureCelsius.Reading
    - VolumeMetrics: ConsistencyCheckCount, ConsistencyCheckErrorCount, RebuildErrorCount
    - Each counter can hold a value up to 65535. Once the counter reaches the maximum value the value is not reset.
    - Metrics are cleared when user performs Controller NVRAM clear or Redfish ResetToDefaults.ResetAll.
- Add support for Redfish Parallel Resource PDR. The feature reduce iLO resource required to support controller related Metrics.
- Add support for UBM11 backplane
- Enhanced the UBM backplane firmware update process to eliminate the risk of firmware corruption when transferred data becomes corrupted
- Refine the message on HII prereview configuration for the foreign import
- Removed the Sanitize Secure Erase option from MRSA for SED drives, as SEDs support only Cryptographic Erase
- Return error when enabling encryption with 256 characters in the "EncryptionKeyIdentifier" property through Redfish

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Firmware Package - HPE MR416i-o Gen11 Tri Mode Controller
Version: 52.36.3-6584 **(Recommended)**
Filename: HPE_MR416i-o_Gen11_52.36.3-6584_A.fwpkg; HPE_MR416i-o_Gen11_52.36.3-6584_A.json

Important Note!

- This firmware version to be used on HPE MR416i-o Gen11 Controller.
- The minimum iLO versions required to support 52.36.3-6584 are iLO 7 1.20, iLO 6 1.74, and iLO 5 3.18.

Prerequisites

iLO6 version should be at least 1.53 is required for **chassis&Fabric support.**

Fixes

- Fix an issue that Backup Exec doesn’t work with LTO drives in Linux systems
- Fix a rare issue that controller VM fails to bootup after a host reboot on Linux hypervisor
- Fix an issue that poor performance is observed during small-range writes
- Fix an issue that storcli show /cx/ex/sx poh (power on hour) command report error on NVMe drives
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- Fix an issue that the sanitize percentage does not progress when monitoring drive's sanitize state
- Fix a rare issue that PLDM Fault 0x5: Command abort failed observed when doing backplane firmware update
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Enhancements

- Add additional escape sequences for special characters when encoding BEJString to comply with the DMTF specification. iLO 7 1.20, iLO6 1.74 and iLO5 3.18 are required to support this change.
- DMTF PLDM Redfish Device Enablement enhancements
  - Add support for Redfish Conditions (GET)
    - Each resource contains a conditions table that lists the appropriate MessageId and MessageSeverity. Redfish messages impact the Redfish resource Status object. Any outstanding message will appear in the Redfish Status[Conditions] array. The highest Status[Conditions][Severity] sets the overall Status[Health] of the resource. When the Status[Conditions] array is empty the Status[Health] shall be OK.
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    - DriveMetrics: BadBlockCount, ReadIOKiBytes, WriteIOKiBytes, PowerOnHours, NVMeSMART (MVMeSMART attributes are supported for NVMe drive only)
    - EnvironmentMetrics for Drive Resource: TemperatureCelsius.Reading
    - VolumeMetrics: ConsistencyCheckCount, ConsistencyCheckErrorCount, RebuildErrorCount
    - Each counter can hold a value up to 65535. Once the counter reaches the maximum value the value is not reset.
    - Metrics are cleared when user performs Controller NVRAM clear or Redfish ResetToDefaults.ResetAll.
- Add support for Redfish Parallel Resource PDR. The feature reduce iLO resource required to support controller related Metrics.
- Add support for UBM11 backplane
- Enhanced the UBM backplane firmware update process to eliminate the risk of firmware corruption when transferred data becomes corrupted
- Refine the message on HII prereview configuration for the foreign import
- Removed the Sanitize Secure Erase option from MRSA for SED drives, as SEDs support only Cryptographic Erase
- Return error when enabling encryption with 256 characters in the "EncryptionKeyIdentifier" property through Redfish

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Firmware Package - HPE MR416i-p Gen11 Tri Mode Controller
Version: 52.36.3-6584 **(Recommended)**
Filename: HPE_MR416i-p_Gen11_52.36.3-6584_A.fwpkg; HPE_MR416i-p_Gen11_52.36.3-6584_A.json

Important Note!

- This firmware version to be used on HPE MR416i-p Gen11 Controller.
- The minimum iLO versions required to support 52.36.3-6584 are iLO 7 1.20, iLO 6 1.74, and iLO 5 3.18.

Prerequisites

iLO6 version should be at least 1.53 is required for **chassis&Fabric support.**

Fixes

- Fix an issue that Backup Exec doesn’t work with LTO drives in Linux systems
- Fix a rare issue that controller VM fails to bootup after a host reboot on Linux hypervisor
- Fix an issue that poor performance is observed during small-range writes
- Fix an issue that storcli show /cx/ex/sx poh (power on hour) command report error on NVMe drives
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- Fix a rare issue that PLDM Fault 0x5: Command abort failed observed when doing backplane firmware update
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- DMTF PLDM Redfish Device Enablement enhancements
  - Add support for Redfish Conditions (GET)
    - Each resource contains a conditions table that lists the appropriate MessageId and MessageSeverity. Redfish messages impact the Redfish resource Status object. Any outstanding message will appear in the Redfish Status[Conditions] array. The highest Status[Conditions][Severity] sets the overall Status[Health] of the resource. When the Status[Conditions] array is empty the Status[Health] shall be OK.
    - Port Conditions do not display any condition other than OK
    - In scenarios where ControllerPreviousError condition happens, the same is listed under StorageController.Status. Usually after iLO acknowledges ControllerPreviousError event, FW clears the condition from the StorageController.Status.Conditions[] list.
  - Redfish Metrics GET Support for DriveMetrics, EnvironmentMetrics and VolumeMetrics
    - DriveMetrics: BadBlockCount, ReadIOKiBytes, WriteIOKiBytes, PowerOnHours, NVMeSMART (MVMeSMART attributes are supported for NVMe drive only)
    - EnvironmentMetrics for Drive Resource: TemperatureCelsius.Reading
    - VolumeMetrics: ConsistencyCheckCount, ConsistencyCheckErrorCount, RebuildErrorCount
    - Each counter can hold a value up to 65535. Once the counter reaches the maximum value the value is not reset.
    - Metrics are cleared when user performs Controller NVRAM clear or Redfish ResetToDefaults.ResetAll.
- Add support for Redfish Parallel Resource PDR. The feature reduce iLO resource required to support controller related Metrics.
- Add support for UBM11 backplane
- Enhanced the UBM backplane firmware update process to eliminate the risk of firmware corruption when transferred data becomes corrupted
- Refine the message on HII prereview configuration for the foreign import
- Removed the Sanitize Secure Erase option from MRSA for SED drives, as SEDs support only Cryptographic Erase
- Return error when enabling encryption with 256 characters in the "EncryptionKeyIdentifier" property through Redfish

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Firmware Package - HPE SR932i-p Gen10 Plus /SR416i-a Gen10 Plus/SR932i-p Gen11/SR416ie-m Gen11 Controllers
Version: 03.01.44.040 **(Recommended)**
Filename: HPE_SR416_SR932_Gen10P_Gen11_03.01.44.040_A.fwpkg

Important Note!

- HPE Service Pack for ProLiant (SPP) provides a fully qualified recipe for specific firmware and drivers released within the same cycle, making it the primary recommended choice.
- It is strongly recommended to use controller firmware version 8.00 for SR SAS/SATA controllers and firmware version 03.01.44.040 for SR tri-mode controllers, along with Windows 2022/2025 driver version 1016.30.0.1014, Linux driver version 2.1.38-022, and VMware ESXi driver version 80.4880.0.109/90.4880.0.109, as this combination has been fully qualified.
- **For Windows 2016 driver, please use 1010.84.0.1012 in below link:**

  https://www.hpe.com/global/swpublishing/MTX-c523e081ab344bc4b4bc9d5686

- **For Windows 2019 driver, please use 1016.10.0.1004 in below link:**

  https://www.hpe.com/global/swpublishing/MTX-29e86213c3ab4e94b0b54906f7

Fixes

- Fixed an issue that prevented drive rebuilds from restarting after unexpected power loss when media exchange was accepted in auto-replace spare configurations.
- Fixed an issue that caused auto-replace spare activation during the LOOSE_CABLE state, which could swap data drives prematurely and lead to volume failure and potential data integrity issues.
- Fixed an issue where suspending the controller password could fail due to an incorrect status update.
- Fixed an issue where missing spares were not correctly identified for NVMe logical drives, which could prevent automatic rebuild
- Fixed an issue that could cause inconsistent data behavior immediately after driver initialization under specific I/O conditions.
- Fixed an issue where valid NVMe pass-through commands could fail due to incorrect transfer size validation.
- Fixed an issue where IOPS could drop on large-capacity HDDs during Consistency Check under 4K random write workloads in RAID 1 configurations.
- Fixed an issue no-battery write cache (NBWC) can be enabled by the user in the event of a battery failure, unless the cache module itself is experiencing an error.
- Fixed an issue where ATA passthrough IDENTIFY DEVICE (0xEC) commands issued from BMC could time out due to incorrect transfer length handling.
- Fixed an issue where SSD array creation with non-deterministic drive ordering could incorrectly disable Accelerated IO on some drives, leading to performance degradation.
- Fixed an issue where the fault LED did not illuminate for a hot-removed data drive during RAID rebuild with auto replace spare enabled.
- Fixed an issue where controller settings stored in NVRAM could revert to factory defaults after a host power cycle.
- Fixed an issue where NVMe I/O command responses could fail to be returned to the host when using high PCIe address ranges.
- Fixed an issue where failed or missing drives were not correctly indicated when listing drives in the HII disk utilities menu.
- Fixed an issue where PLDM Type 6 volume creation could fail on certain controllers that do not support volume caching or the IOPerfModeEnabled feature. Volume creation and update requests that explicitly disable these features (for example, setting cache policies to Off or IOPerfModeEnabled to false) are now handled correctly and will no longer be rejected.
- Fixed an issue where RDE READ could incorrectly report a split mirror backup volume as Enabled instead of StandbyOffline when the original primary volume was created via RDE CREATE. Volume usage identification was corrected to ensure accurate status reporting.
- Fixed an issue where DriveMetrics.PowerOnHours could be incorrectly reported as zero for SSDs on certain platforms. Power-on hours reporting was updated by drive type, NVMe drives reporting with DriveMetrics.NVMeSMART.PowerOnHours, SAS and SATA HDDs reporting a null value.

Enhancements

- Improved SATA drive identification by using the drive-reported WWN from IDENTIFY DEVICE after the PQI driver is loaded.
- Updated NVMe drive startup handling to allow up to 60 seconds for drives to become ready after shutdown or power events.
- Updated the open source mbedTLS library to version 3.6.4.
- Added support for Write Buffer 16 to enable larger NVMe firmware downloads.

- HII disk utilities menu: Added NVMe drive Maximum Data Transfer Size (MDTS) visibility and updated default stripe size help text to consider MDTS limits, improving guidance for selecting compatible stripe settings.
- Logical drive information menu: Enhanced to display the association between failed data drives and active spares upon drive failure.
- "Added support for the standardized Operation property in PLDM Operations arrays, providing schema-defined operation enums as below:

  – Drive Resource — Rebuild/Sanitize/Encrypt

  – Volume Resource — Initialize/Rebuild/Encrypt/ChangeRAIDLayout/ChangeStripSize/Resize.

  The legacy OperationName property remains available and is now marked as deprecated."

- Added support for StorageController status conditions ResetRecommended and ResetRequired. When configuration changes require a system reboot to take effect, the controller reports the status through both Status.Conditions and Redfish event messages.
- Enhanced RDE error messaging to provide clearer error descriptions for Volume DELETE and SED-enabled CREATE operations, returning detailed messages directly in the response payload instead of generic ExtendedInfo references.

HPE D3600/D3700/D3610/D3710 12Gb SAS Disk Enclosure ROM Flash Component
Version: 5.04 (H) **(Recommended)**
Filename: D3000.fwpkg

Important Note!

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

Prerequisites

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

Fixes

The following fixes were incorporated in this version:

- The Enabled-ClusterS2D command now completes successfully when executed on a SATA drive within a D3610 disk enclosure for a NonStop solution.
- The smart carrier, which is the drive case for SAS drives, now authenticates in the D3610/D3710 drive enclosure.
- Added new 7-segment error codes E0 and E1 to report issues with Fan modules A and B, respectively. These new codes only apply to the D3610/D3710 and only display when running firmware 5.04.
- If the storage enclosure processor within the I/O module fails, a hard reset (power down and then power up) is executed to ensure the processor comes back online.

Please refer to the Release Notes for the complete listing of fixes, enhancements, known issues and work-arounds corresponding to this firmware.

Supported Devices and Features

The D3600 / D3700 / D3610 / D3710 Enclosure can be attached to any of the following HPE Storage Controllers and Host Bus Adapters :

- HPE Smart Array SR P416ie-m Gen11 Controller
- HPE Smart Array E208e-p Controller

HPE D3610B/D3710B 12Gb SAS Disk Enclosure ROM Flash Component
Version: 6.00 (H) **(Recommended)**
Filename: D3000B.fwpkg

Important Note!

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

Prerequisites

IMPORTANT: Firmware updates must be performed during a system maintenance window, with all I/O to the system halted.

WARNING! Do not power cycle or restart during the firmware update as this can result in loss of capabilities for this unit. It typically takes several minutes for the firmware to load.

Fixes

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The following fixes were incorporated in this version:

- Code optimization to save memory repo.
- TLB exception seen while doing esp reset when expander reset was in progress.
- Added the psoc 8.93 binary in peripheral images, updated the reveille version numbers.
- Added whole new Delta PS-pmbus code , Updated the ESP version number.

Please refer to the Release Notes for the complete listing of fixes, enhancements, known issues and work-arounds corresponding to this firmware.

Supported Devices and Features

The D3610B / D3710B Enclosure can be attached to any of the following HPE Storage Controllers and Host Bus Adapters :

- HPE Smart Array SR P416ie-m Gen11 Controller
- HPE Smart Array E208e-p Controller

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

- 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!

- 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

- ESXi9.1 support.

Firmware - Storage Fibre Channel Top

HPE Firmware Flash for Emulex 32Gb and 64Gb Fibre Channel Host Bus Adapters
Version: 14.4.731.10 **(Recommended)**
Filename: P14.4.731.10.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	14.4.731.10	14.4.731.10	14.4.716.0	14.4.718.0
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.4.731.10	14.4.731.10	14.4.716.0	14.4.718.0
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	14.4.731.10	14.4.731.10	14.4.716.0	14.4.718.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	14.4.731.10	14.4.731.10	14.4.716.0	14.4.718.0

Added Following Enhancements:

[RedFish]:HPE specific SFP Data - Predicted days for non working stage

[Redfish]: API to read SFP Data

Fixed the following:

SPDM - Get Certificate response returns out of bound values

Prerequisites

The minimum version for adapter to support PLDM is 14.0.499.25

Fixes

Fixed the following:

SPDM - Get Certificate response returns out of bound values

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	14.4.731.10	14.4.731.10	14.4.716.0	14.4.718.0
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.4.731.10	14.4.731.10	14.4.716.0	14.4.718.0
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	14.4.731.10	14.4.731.10	14.4.716.0	14.4.718.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	14.4.731.10	14.4.731.10	14.4.716.0	14.4.718.0

Added Following Enhancements:

[RedFish]:HPE specific SFP Data - Predicted days for non working stage

[Redfish]: API to read SFP Data

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 Emulex 32Gb and 64Gb Fibre Channel Host Bus Adapters
Version: 14.4.731.12 **(Recommended)**
Filename: PP14.4.731.12_header.pldm.fwpkg

Important Note!

This component is supported only on Gen12 ProLiant and Gen11 AMD servers.

Release notes:

Broadcom Release notes

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE SN1620E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.4.731.12	14.4.731.12	14.4.716.0	14.4.718.0
HPE SN1720E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	14.4.731.12	14.4.731.12	14.4.716.0	14.4.718.0

Added Following Enhancements:

[RedFish]:HPE specific SFP Data - Predicted days for non working stage

[Redfish]: API to read SFP Data

Fixed the following:

SPDM - Get Certificate response returns out of bound values

Fixes

Fixed the following:

SPDM - Get Certificate response returns out of bound values

Enhancements

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE SN1620E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.4.731.12	14.4.731.12	14.4.716.0	14.4.718.0
HPE SN1720E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	14.4.731.12	14.4.731.12	14.4.716.0	14.4.718.0

Added Following Enhancements:

[RedFish]:HPE specific SFP Data - Predicted days for non working stage

[Redfish]: API to read SFP Data

Supported Devices and Features

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

32Gb FC Adapter:

- HPE SN1620E 32Gb Dual port Fibre Channel Host Bus Adapter

64Gb FC Adapter:

- HPE SN1720E 64Gb Dual port Fibre Channel Host Bus Adapter

HPE Firmware Flash for Emulex Fibre Channel Host Bus Adapters for VMware vSphere 8.0
Version: 2022.08.01 **(Recommended)**
Filename: CP050072.compsig; CP050072.zip

Important Note!

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.25	14.0.499.25	14.0.499.2	14.0.490.0
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.25	14.0.499.25	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.25	14.0.499.25	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.25	14.0.499.25	14.0.499.2	14.0.490.0

Prerequisites

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

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

Enhancements

This Firmware package contains following firmware versions:

Adapter	Speed	Universal Boot Image	Firmware	UEFI	Boot Bios
HPE SN1610E 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.25	14.0.499.25	14.0.499.2	14.0.490.0
HPE SN1610E 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	14.0.499.25	14.0.499.25	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.25	14.0.499.25	14.0.499.2	14.0.490.0
HPE SN1700E 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	14.0.499.25	14.0.499.25	14.0.499.2	14.0.490.0

Supported Devices and Features

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

32Gb 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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HPE Firmware Flash for QLogic 32Gb and 64Gb Fibre Channel Host Bus Adapters
Version: 02.11.11 **(Recommended)**
Filename: mh021111.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	02.11.11	09.15.15	7.39
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.11.11	09.15.15	7.39
HPE SN1700Q 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	02.11.11	09.15.15	7.39
HPE SN1700Q 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	02.11.11	09.15.15	7.39

Fixed the following :

SFP Parameters value decimal part is truncated

Fixes

Fixed the following :

SFP Parameters value decimal part is truncated

Enhancements

This Firmware package contains following firmware versions:

Adapter	Speed	MBI	Firmware	UEFI
HPE SN1610Q 32Gb Dual Port Fibre Channel Host Bus Adapter	32Gb	02.11.11	09.15.15	7.39
HPE SN1610Q 32Gb Single Port Fibre Channel Host Bus Adapter	32Gb	02.11.11	09.15.15	7.39
HPE SN1700Q 64Gb Dual Port Fibre Channel Host Bus Adapter	64Gb	02.11.11	09.15.15	7.39
HPE SN1700Q 64Gb Single Port Fibre Channel Host Bus Adapter	64Gb	02.11.11	09.15.15	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:

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

Smart Storage Administrator (SSA) CLI Smart Component for ESXi 8.0 for Gen10/Gen10 Plus/Gen11 Controllers
Version: 2026.03.01 **(Recommended)**
Filename: cp069350.compsig; cp069350.zip

Important Note!

- Actual ESXi8.0 ssacli version is 6.60.8.0

Enhancements

- Modified the SSACLI component version format to meet the new requirement from VMware ESXi for 9.1
- Added spare type decoding in Array Diagnostic Utility (ADU) reports to indicate whether a logical drive uses dedicated or auto-replace spares
- Modified the default strip size for NVMe drives based on the Maximum Data Transfer Size (MDTS), and tools will set the default strip size to the minimum supported MDTS value when creating or migrating a logical drive

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Software - Storage Fibre Channel Top

HPE QLogic Fibre Channel driver component for VMware vSphere 8.0
Version: 2026.04.01 **(Recommended)**
Filename: cp070502.compsig; cp070502.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 8.0u3.

Prerequisites

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

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

Enhancements

Driver version 5.4.86.0-1
This driver is only supported on VMware ESXi 8.0u3

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 - System Management Top

HPE Agentless Management Bundle for ESXi for Gen11 and Gen12 Servers
Version: 802.12.5.0 **(Recommended)**
Filename: amsdvComponent_802.12.5.0.13-1.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.

HPE Agentless Management Bundle Smart Component on ESXi for Gen11 and Gen12 Servers
Version: 2026.03.01 **(Recommended)**
Filename: cp070370.compsig; cp070370.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: 800.6.6.0 **(Recommended)**
Filename: sutComponent_800.6.6.0.8-0-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.

Get connected

hpe.com/info/getconnected

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

Trademark acknowledgments, if needed.

Update April 21 2026

Hewlett Packard Enterprise